

Part 4 of 4

Final Environmental Impact Report Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component



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Attachment 3
Revised Draft Environmental Impact Report
Technical Appendices

Volume III of III

Draft Environmental Impact Report Tenth Avenue Marine Terminal Redevelopment Plan and Demolition and Initial Rail Component



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DRAFT

**ENVIRONMENTAL IMPACT REPORT
TENTH AVENUE MARINE TERMINAL
REDEVELOPMENT PLAN AND
DEMOLITION AND INITIAL RAIL COMPONENT**

VOLUME III: APPENDICES J THROUGH K

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Appendix J

Hazards Studies

Supplemental Note to Appendix J-1: Soil Management Plan, 10th Avenue Marine Terminal, November 24, 2010

Pursuant to a meeting held on September 7, 2016 between the San Diego Unified Port District, San Diego Regional Water Quality Control Board (RWQCB), San Diego County Department of Environmental Health, and City of San Diego Development Services Department's Solid Waste Local Enforcement Agency (LEA), the LEA clarified that it is only responsible for burn ash on the project site. The LEA indicated that it does not regulate hydrocarbons or other industrial wastes not originating from any portion of the project site's past use as a municipal waste disposal. RWQCB staff explained that it has regulatory oversight of the soils planned for export from the project site facility planned for export in accordance with the RWQCB's Waste Discharge Requirement Waiver 10.



SOIL MANAGEMENT PLAN 10TH AVENUE MARINE TERMINAL

SAN DIEGO, CALIFORNIA

NOVEMBER 24, 2010

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Project No. 103S130504.02

**Soil Management Plan
10th Avenue Marine Terminal
San Diego, California**

November 24, 2010

Project No. 103S130504.02

**PREPARED FOR:
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REVIEW AND APPROVAL

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Date: November 23, 2010

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Date: November 23, 2010

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1. INTRODUCTION

The San Diego Unified Port District operates the 10th Avenue Marine Terminal (TAMT) in San Diego, California, as a 24-hour waterfront marine operations facility, primarily for staging cargo for transferring to and from ships (Figure 1). The purpose of this soil management plan is to provide environmental data, protocols, and guidance for soil excavation, reuse, and disposal associated with pending and future infrastructure improvement projects. This plan has been prepared for review by the City of San Diego Solid Waste Local Enforcement Agency (LEA), the lead oversight agency for these activities.

Infrastructure improvements typically occur in phases and involve demolition of existing structures and construction of new structures. Currently planned changes to the TAMT include demolition and removal of Warehouse C, Transit Shed 1, and the north half of Transit Shed 2. Existing two-story office space in the head houses adjoining the south and north ends of Transit Sheds 1 and 2 may also be demolished. The demolition encompasses a total area of approximately 16 acres (690,000 square feet). These structures are being demolished to install asphalt-concrete pavement (AC) to facilitate increased container cargo storage areas and staging areas for wind turbine masts that are off-loaded from ships en route to other destinations in the region (Figure 2). Planned improvements include construction of a new office building near the existing entrance on Crosby Road. Although this plan refers to specifics of the currently planned changes at Warehouse C and Transit Sheds 1 and 2, the plan is intended for future demolition and construction facility-wide at the TAMT.

The TAMT is at an average surface elevation of approximately 10 feet above the mean lower low water (MLLW) elevation and generally includes four large warehouses (Warehouse B, Warehouse C, Transit Shed 1, and Transit Shed 2), office buildings, a refrigerated container facility, seven aboveground storage tanks, and Port District maintenance buildings. The remainder of the site is paved with AC and Portland cement concrete (PCC). As-built record drawings indicate that the floors and loading platforms of Warehouse C and Transit Sheds 1 and 2 are paved with AC varying in thickness from 3 to 7 inches overlaying 9 inches of base material. The interior and exterior ramps leading up to the warehouse pads are 6-inch-thick PCC.

This plan is intended to provide guidance to pending and future construction contractors for handling potentially hazardous soil. This plan is based on the LEA-approved excavated soil management plan prepared as part of construction of the refrigerated container facility at the TAMT (Ninyo & Moore 2002a, 2002b). Excavation and soil handling work should comply with all applicable local, state, and federal regulations, and health and safety requirements, and in accordance with specific requirements of the County of San Diego Department of Environmental Health (DEH), the Regional Water Quality Control Board (RWQCB), the California Department of Resources Recycling and Recovery (CalRecycle), and the City of San Diego Development Services Department, which is the designated solid waste LEA. Other activities associated with soil excavation, such as confined space entry, should be in accordance with the Port District project-specific specifications and the applicable site-specific health and safety plan (HASP) and community health and safety plan. This soil management plan does not address risk to worker health and safety or to future occupants of the site from environmental contamination. However, it provides guidelines for preparation of a HASP, which addresses methods to reduce exposure (a component of risk).

Specifically, this plan provides:

- A map showing proposed sampling locations for pre-excavation characterization of soils associated with pending work (Figure 2).
- Excavated soil management protocol.
- Soil sampling objectives and soil sampling protocol
- Soil characterization methodology.
- Excavated soil classification methodology.
- Site-specific HASP general guidelines.
- Community health and safety plan general guidelines.

2. ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES

Soil samples will be collected using hand augers, Strataprobos, or similar equipment from demolition areas (Warehouse C and Transit Sheds 1 and 2) before excavation begins to allow finalization of plans for soil and waste handling, stockpiling, reuse, and disposal. The pre-excavation samples would include eight samples from Warehouse C, four samples from Transit Shed 1, and two samples from Transit Shed 2. Proposed locations for these samples are shown in Figure 2. Soil samples from each boring will be analyzed for total petroleum hydrocarbons (TPH)-extended range and for total concentrations of 17 of the California Code of Regulations (CCR) Title 22 metals. Additionally, selected soil samples will be analyzed for volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and dioxins and furans. Results for metals that exceed 10 times the soluble threshold limit concentration (STLC) will be tested for soluble metal concentrations either by the Title 22 waste extraction test (WET) method or by the synthetic precipitation leaching procedure (SPLP).

Based on historical assessments, results for soil samples at TAMT indicated the presence of elevated levels of TPH, copper, lead, zinc, mercury, and PAHs. Other potential constituents of concern (COCs) for the project site have been identified as described in Section 3 based on the results of the historical soil samples and knowledge of the site.

3. CONSTITUENTS OF CONCERN

The project area was constructed on fill material and reclaimed tidelands between 1953 and 1958. Historical activities in the area to the northeast include open burning of refuse from the early 1900s through the 1940s and storage of stockpiles of metal debris. To the southeast, historical activities include a sawmill and the creosote wood treatment facility of the Benson Lumber Company (Ninyo & Moore 1999). These activities indicate possible metal and PAH contamination in sediments underlying the fill material. Historical investigations have identified elevated concentrations of metals, including lead and copper, and debris such as asphalt and glass extending to the southeast that is likely associated with the former Eighth Avenue Tidelands Dump (Holguin, Fahan & Associates, Inc. 1997).

Based on available historical information and aerial photographs, a relatively large diesel fuel spill underlies the Bulk Loading Facility (BLF). Site investigations conducted in the early 1990s

(Leighton and Associates 1993; Levine-Fricke 1996) indicate the extent of the diesel fuel spill corresponds to the majority of the southern area of the marine terminal. A study in the late 1990s reviewed data from the late 1980s for the areas north, west, and south of Warehouse C and south of Transit Shed 2 and found diesel-related impacts in the area immediately east of Warehouse C (Ninyo & Moore 1999, Tetra Tech 2010). Based on these previous environmental site assessments, TPH, benzene, toluene, PAHs, semivolatile organic compounds (SVOCs), and copper, zinc, and lead may be present in soil beneath portions of the site. As such, soils excavated during demolition and grading at the site may require special handling considerations.

Excavated soil will be characterized based on geotechnical considerations for potential reuse at the site. Reuse options for soil will be limited to areas beneath pavement and other hardscaped areas. Soil that contains burn ash may not be used beneath enclosed structures intended for human occupancy unless further testing or a health risk analysis shows that there would be no significant risk to human health. Soil that does not meet reuse standards based on geotechnical characterization may require off-site disposal. Soil that requires off-site disposal will be characterized in accordance with the analytical testing requirements for the disposal facility by the sampling procedures outlined in Appendix A. Off-site disposal options include solid waste and a hazardous waste landfills, depending on the nature and extent of the contamination.

Soil found to be inert may be taken to a fill site selected by the contractor and approved by the Port District. It is the policy of the Port District not to approve transport of soil from the site to any residential development, school, day care facility, health care facility, or other sensitive receptor site, regardless of whether it is determined to be inert.

4. EXCAVATED SOIL MANAGEMENT

Disturbed soil at the site will be considered hazardous until characterized otherwise. Excavated and in situ soil will be sampled in accordance with the guidelines of the latest edition of the Department of Environmental Health DEH Site Assessment and Mitigation (SAM) Manual. Soil will be excavated and stockpiled and samples collected by or under the supervision of a competent person with appropriate training (as defined in Section 4.1). Based on the analytical results, one of the following determinations will be made with respect to the environmental characteristics of the soil:

- Soil is hazardous, not suitable for reuse, and should be disposed of as a hazardous waste.
- Soil is contaminated, not suitable for reuse, and should be disposed of as contaminated waste.
- Soil is contaminated but suitable for reuse
- Soil is uncontaminated and not suitable for reuse.
- Soil is uncontaminated and suitable for reuse.

The suitability of excavated soil for reuse will be based on a geotechnical evaluation. However, a geotechnical evaluation of excavated soil is beyond the scope of this soil management plan. In addition, some excavated soil may be in excess of fill requirements and so not needed for reuse.

Appropriate care should be used in handling soil contaminated by burn ash because burn-ash residues have the potential to affect public health and the environment. The primary pathways for public health and environmental impacts include migration of dust, surface erosion, and surface and groundwater contamination.

4.1 DEFINITIONS

The following definition of terms is provided in this soil management plan.

- **Competent person** is a person trained to make decisions in the field about segregation of excavated soil that is suspected of being hazardous from soil that is suspected of being nonhazardous into separate stockpiles before characterization. This person will be trained in the various field methods used to make judgments including, but not limited to, visual methods (staining and discoloration) and odor, and in the operation of organic vapor equipment.
- **Hazardous substance** is any substance that is either toxic, corrosive, an irritant, a strong sensitizer, flammable, combustible, radioactive, or that may cause personal injury or illness as a result of any customary or reasonably foreseeable handling or use.
- **Contaminated substance** is one that contains a substance, or substances, at concentrations that would require special training, handling, or the use of personal protective equipment; restrict the end use to protect human health or the environment; be subject to local, state, or federal regulatory requirements; or necessitate an environmentally related monetary surcharge for handling, transportation, or disposal.

4.2 ANTICIPATED EXTENT OF SOIL EXCAVATION

After the warehouses, offices, and other aboveground structures have been demolished, the disturbed areas will be graded and then paved to match the surrounding contours with approximately 1 percent cross slope. Grading the site will typically require that soil be exported off site because the new pavement subgrade is typically lower than the existing warehouse floor grades. Paving will consist of an engineered structural section of AC over aggregate base. Augmentation of existing soils by treatment with cement or lime will be considered to minimize excavation and exporting of soils. Soil excavation during demolition is anticipated to be limited to the area underlying and extending outward approximately 3 to 5 feet from the perimeter of each structure to be demolished.

Soil excavation during construction of a new office building near the existing entrance on Crosby Road will primarily be associated with preparation of the subsurface to meet paving requirements and with construction of utility trenches. Soil may be amended with cement to improve the engineering characteristics for use as a subpavement soil. However, the cement amendment is not being considered as an approach to mitigation of the leachability of metals in soils.

The contractor is responsible for all soil excavation, grading, and stockpiling associated with demolition of existing structures, site preparation, and construction. The contractor will also be responsible for obtaining underground utility and geophysical clearance before soil sampling or excavation.

4.3 SOIL SAMPLING PROCEDURES

Soil sampling of either in situ or ex situ stockpiled soil will be completed in accordance with the latest update of U.S. Environmental Protection Agency (EPA) SW-846 Manual, the guidelines of the SAM Manual, and the soil sampling protocol presented in Appendix A. The Port District will be responsible for selecting a firm or individual to collect the soil samples.

In situ soil samples will be collected beneath Warehouse C and Transit Sheds 1 and 2 after concrete flooring has been removed. By obtaining analytical results before excavation, it should be possible to segregate the soil based on its environmental characteristics as it is removed and stockpiled. In situ soil samples will be collected either using hand auger equipment, mechanized equipment such as a Strataprobe, or similar equipment as outlined in Appendix A. If soil is excavated and stockpiled before sampling, then the sampling protocol for stockpiled soil will be followed (Appendix A).

The number of samples collected will be selected based on the areal extent of soil to be excavated and the proposed depth of excavation. The following sampling requirements are based on the sampling protocol in the SAM Manual (Appendix A).

- Stockpiles less than 10 cubic yards: a minimum of two samples must be collected, one from each half of the stockpile. Sample points will be selected randomly within each half.
- Stockpiles from 10 to 20 cubic yards: a minimum of three samples must be collected, one from each third of the stockpile. Sample points will be selected randomly within each third.
- Stockpiles from 20 to 100 cubic yards: a minimum of four samples must be collected, one from each quarter of the stockpile. Sample points will be selected randomly within each quarter.
- Stockpiles from 100 to 500 cubic yards: a minimum of one sample for each 25 cubic yards must be collected (so, for example, a 130-cubic-yard stockpile would require six samples). Section the stockpile into 25 cubic yard portions and obtain a minimum of one sample from each 25-cubic-yard portion. Sample points will be selected randomly within each 25-cubic-yard portion of the stockpile.
- Stockpiles larger than 500 cubic yards: a determination based on statistical analysis will be made on the number of samples required.

4.4 EXCAVATION

Excavated soil will be considered hazardous unless characterized otherwise in accordance with Section 6, Soil Characterization. Existing surface pavement and underlying imported base are assumed to be unaffected by burn ash and will not be subject to testing requirements for soil. The excavation, handling, stockpiling, characterizing, loading, and hauling of soil, and other activities that have the potential for exposure to the excavated soil, will be in accordance with provisions in Port District project-specific specifications, the project HASP, the SAM Manual, and all applicable local, state, and federal statutes, regulations, and guidelines.

Soils will be excavated and handled in a manner that does not spread contaminated soil and cause contamination to other areas. Soil will be stockpiled as described in Section 4.8 and considered hazardous until characterized. After characterization, hazardous soil can be

segregated from nonhazardous soils using the criteria outlined in Section 6.1. Burned refuse and ash will be segregated from other materials and stockpiled separately. Subsequently, the stockpile segregation will be maintained.

Groundwater is not anticipated to be encountered during excavation. However, if encountered, groundwater and water that drains from excavated soils will be controlled in a manner consistent with the waste discharge requirements for the Storm Water Pollution Prevention Plan (SWPPP). Excavation will use equipment and methods that do not cause groundwater to splash outside the excavation. Water draining from excavated soils will not be allowed to flow into any existing drainage systems or onto the ground surface unless the surface is protected with a high-density polyethylene (HDPE) geomembrane. Groundwater removed from the excavations will be contained and collected for disposal. Surface water runoff will be handled according to the site-specific SWPPP, National Pollutant Discharge Elimination System (NPDES) requirements, and other pertinent statutes and regulations. The management and protection of groundwater and surface water are the responsibility of the contractor.

4.5 AIR MONITORING DURING EXCAVATION

Ambient air quality will be monitored during excavation and sampling according to the guidelines established in the HASP. The frequency of air monitoring intervals will depend on such factors as type of contaminants, weather conditions (such as wind direction and velocity), location and proximity of sensitive receptors, and excavating conditions (for example, excavation within an enclosed structure). An organic vapor analyzer (OVA) equipped with a photoionization detector (PID), flame ionization detector (FID), or equivalent device will be used to monitor concentrations of total VOCs in the breathing space at worker chest level. Work will stop if VOC concentrations exceed the limit established by the HASP.

4.6 RADIOLOGICAL MONITORING

If indicated from historical information, radiological monitoring will be considered during construction. A radiation pager or similar hand-held radiation monitoring device will be used to screen excavation areas according to the guidelines established in the HASP.

4.7 DUST CONTROL

Excavation will be carried out using methods to minimize airborne dust from construction operations. Positive means will be provided to prevent airborne dust from dispersing into the atmosphere. At a minimum, a water truck or other appropriate method will be used to apply water spray. If dust is visible, positive means will be applied immediately to prevent airborne dust. Care should be used to minimize the amount of water applied to soils that may contain elevated concentrations of contaminants. Surface runoff should be contained as described in Section 4.10.

4.8 SOIL STOCKPILING

Excavated soil will be considered hazardous until confirmed as nonhazardous by analytical testing. Asphalt and concrete pavement and underlying imported base are considered unaffected by burn material and are not subject to the characterization, testing, and stockpiling requirements for soil under this plan. Excavated soil that has not been tested will be stockpiled for

characterization at a location approved by the Port District and established and maintained by the contractor. Soil that has not been tested should be segregated and stockpiled separately from soil that has been determined to be nonhazardous. Burned refuse and ash will be segregated from other materials and stored in a separate stockpile area. The contractor will excavate, load, and transport excavated soil considered hazardous to a soil stockpile staging area. The contractor will manage the staging area and the stockpiles in accordance with this plan, the HASP, current SAM Manual guidelines, and the SWPPP. In general, stockpiled soil or other waste will be moistened to minimize dust emissions during stockpiling (however, no runoff will be permitted at any time).

4.9 POLLUTION CONTROL

Methods, means, and facilities will be provided by the contractor to prevent contamination of soil, water, and atmosphere from discharge of noxious compounds, toxic substances, and pollutants produced by construction operations. The contractor will comply with federal, state, and local agency requirements for environmental protection and pollution control.

4.10 SURFACE WATER, EROSION, AND SEDIMENT CONTROL

The contractor will prevent surface water from entering excavation areas and storm drains. The contractor will protect the site from puddling or running water. Water barriers will be provided as necessary to prevent eroded soil and water from entering earthwork areas. Temporary measures, such as drains, hay bales or soil berms, will be implemented to divert flows around and downstream of the earthwork areas. The contractor will comply with federal, state, and local agency requirements and the SWPPP.

The contractor will routinely inspect earthwork to detect evidence of erosion and sedimentation and will promptly apply corrective measures. The contractor will inspect control measures after each significant rainfall and promptly apply corrective measures. The temporary control measures will be to contractor's design, and contractor will be solely responsible for risks related to management of water, erosion, and sedimentation during construction.

4.11 WELL HEAD PROTECTION

The contractor will protect any wells within the proposed project to prevent sediment and water from entering the wells, and notify the Port District as to the presence and location of the wells. Similarly, soil that is stockpiled near any wells must be properly maintained as described in Sections 4.8 and 4.10 to prevent sediment and water from entering the wells. If any existing monitoring wells are located in an area that must be excavated during either demolition or construction, the Port District must be notified immediately and a determination will be made either to abandon the well under permit in accordance with SAM Manual guidelines or to create an alternative design solution.

5. ANALYTICAL TESTING PROGRAM

Analytical requirements may vary depending on field observations and OVA screening of the material to be analyzed. Soil samples will be collected according to the procedures outlined in

Section 4.3 and Appendix A and will be analyzed by a state-certified laboratory using EPA methods.

5.1 ANALYTICAL TESTING REQUIREMENTS

Analytical testing will be conducted for soils that are excavated or otherwise disturbed during grading, demolition, and construction in areas where soil that is to be transported off site has not been analytically characterized. Burned refuse and ash may be reused at the site; however, burned refuse and ash that is not intended for reuse and that requires off-site disposal will be segregated from other soils during excavation. Samples will be screened using a direct-reading organic vapor detector (such as an OVA) as described in Appendix A. If readings are greater than 50 parts per million (ppm) above background, then the sample will be submitted for analysis of VOCs. Table 1 presents a summary of the analytical testing program for site characterization of soil that is intended for reuse.

Table 1 – Analytical Testing Program for Soil Planned for Reuse

Constituent	Detection Limit	Analytical Test Method
TPH (TPH C ₆ -C ₄₄)	10.0 mg/kg	EPA test method 8015 modified extended C ₆ -C ₄₄ carbon chain identification (CCID)
TRPH (Waste Oil)	10.0 mg/kg	EPA 418.1
Title 22 Metals by SPLP	0.005 to 0.01 mg/L	EPA test method 6010B/7471A
Total Lead	5 µg/L	EPA 6010, 7420 or 7421
VOCs ¹	5.0 µg/kg	EPA test method 8260B
PAHs ²	0.4 mg/kg	EPA test method 8270C
PCBs	1 µg /kg	EPA test method 8082 or 8080
Dioxins and Furans ³	various	EPA test method 8290

Notes:

¹VOCs will be analyzed if OVA screening indicates concentrations greater than 50 ppm above background.

²PAHs will be analyzed from samples collected at depths of 5 feet below ground surface or greater.

³Additional test for burned refuse/ash.

µg/L micrograms per liter

mg/L milligrams per liter

µg/kg micrograms per kilogram

mg/kg milligrams per kilogram

Soil that meets the geotechnical requirements for reuse will be tested according to the following criteria:

- Test soil for TPH and Title 22 metals¹ by SPLP (with deionized water).
- Screen each soil sample with an OVA. Test for VOCs when samples show readings greater than 50 ppm above background.

¹ Antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc

In situ soil samples will be collected by hand auger or with a direct-push sampling rig. Stockpile samples will be collected in accordance with the stockpile sampling protocol discussed in Section 4.3. The analytical tests for site characterization are TPH, PAHs, Title 22 (total and SPLP), total lead, total vanadium, VOCs, PCBs, PCBs (SPLP), total organic carbon, oil and grease, and dioxins/furans. Soil that contains burn ash and does not meet the geotechnical requirements for reuse (and so requires off-site disposal) will be tested in accordance with the requirements of the disposal facility.

5.2 QUALITY CONTROL SAMPLES

The main functions of any sampling and analysis program are to obtain accurate, representative environmental samples and to provide defensible analytical data. For this project, field accuracy will be assessed by collecting and analyzing equipment rinsate blank QC samples. These QC samples will be used to evaluate the potential for target analytes to enter samples as a result of sampling processes. Equipment rinsate samples will be collected daily using certified purified water on decontaminated soil sampling equipment.

6. SOIL CHARACTERIZATION

Excavated soil will be characterized to assess its potential for reuse at the site. Characterization will be based on the results of analytical testing of soil samples by a state-certified laboratory using EPA methods. If soil meets the criteria for reuse as defined in Section 3, it may be reused at the site, provided that it also meets applicable geotechnical requirements (to be established by others). Soil that contains burned refuse or ash may also be reused if it meets the geotechnical requirements of the project and may be amended with cement to improve its engineering characteristics for use as a subpavement soil.

The intent of the general soil screening levels and reuse options presented below is to suggest concentrations and end uses that would be protective of the environment. Because of the proximal location of the site to the San Diego Bay, analytical results for soil reuse will be compared to EPA regional screening levels (formerly preliminary remediation goals) for soil, also known as soil screening levels (SSLs) (U.S. EPA 2010). The SSLs for soil were established for protection of groundwater and use a default dilution attenuation factor (DAF) of 20 to account for the natural processes that reduce contaminant concentrations at the surface. The SPLP result will be recalculated using a DAF of 20 for analytes that do not have an established SSL. SPLP metal results for reuse soil will be compared with both the SSLs and the concentrations established by the California Toxics Rule for California Enclosed Bays and Estuaries Plan for the protection of marine aquatic life (Marshack 2008).

Soil found to be inert may be taken off site to a fill site selected by the contractor and approved by the Port District. It is the policy of the Port District not to approve transport of soil from the site to any residential development, school, day care facility, health care facility, or other sensitive receptor site, regardless of its determination to be inert. Soil found not to be inert may be taken either to a solid waste or a hazardous waste landfill, as appropriate. Alternatively, contaminated soil from the site may be excavated, replaced on site, and capped by impervious material, in accordance with this soil management plan.

7. DISPOSAL OF HAZARDOUS SOIL

In accordance with the requirements of Port District project-specific specification, soil that is characterized as a hazardous waste and disposed of off site is the responsibility of the Port District. The contractor will assist in disposal operations by loading stockpiled soil into trucks provided by the Port District. The soil will be loaded in accordance with procedures outlined in the HASP and in a manner such that the soil for disposal does not spread outside the stockpile area.

Soil to be loaded into trucks for off-site disposal will be moistened with a water spray or mist for dust control in accordance with Section 4.7 Dust Control. If dust is visible, positive means will be applied immediately to prevent airborne dust. Care should be used to minimize the amount of water applied to soils that may contain elevated concentrations of contaminants.

Loaded truck beds must be covered with a tarp or similar covering device during transportation to the disposal facility. The truck will be decontaminated after the soil has been removed. The contractor will minimize excess water generated during truck decontamination to the extent possible and will be responsible for proper disposal of any contaminated water generated during truck cleanout.

8. HEALTH AND SAFETY PLAN REQUIREMENTS

Work is subject to a site-specific HASP per the requirements of 29 Code of Federal Regulations (CFR) 1910.120 and Title 8 CCR 5192, along with all applicable federal, state, and local regulations and statutes, and the Port District's policies as described in Port District project-specific specifications. The intent of the HASP, as required in the regulations and statutes listed, is to reduce exposure of workers and the public to chemical and physical hazards that could be encountered during project activities. The contractor is responsible for preparing the HASP and a community health and safety plan in accordance with all applicable federal, state, and local regulations and statutes and Port District project-specific specification. The following outlines the general requirements of the HASP:

- Contractor will prepare a project-specific HASP that meets the criteria set forth in 29 CFR 1910.120 and Title 8 CCR 5192. The HASP will apply to all on-site personnel and visitors. The HASP will be approved by a certified industrial hygienist (CIH) or other appropriately trained professional. A copy of the approved HASP will be provided to the Port District and its representatives for review at least 10 working days before field activities begin. Any proposed changes or modifications to the HASP will be approved by the CIH or other appropriately trained professional and submitted for review to the Port District at least 5 working days before they are incorporated into the HASP. The contractor will maintain a copy of the approved HASP at an accessible, on-site location for the duration of the contract.
- The HASP will evaluate the potential COCs that may be encountered on site, based on previous and current environmental assessment information and previous site usage. The HASP will also evaluate other potential hazards from project activities and site conditions. The HASP will identify the appropriate training of on-site personnel, personal protective

equipment (PPE), and engineering controls that may be required to implement the provisions of the HASP.

- The HASP will include provisions to monitor project activities and site conditions by a qualified site safety manager (SSM) designated by the contractor. The HASP will describe procedures for continuous and periodic monitoring during site activities and sampling of various media for COCs.
- The HASP will include a hazard communication and right to know program.
- The HASP will describe emergency action plans to respond to incidents and accidents that may occur on the project site. The HASP will include route maps to nearby hospitals and emergency procedures. The hospitals will have appropriate business hours and be capable of administering to the needs of the medical situations that may occur. The HASP will define the chain-of-command and notification procedures for project activities related to health and safety and for emergencies. The HASP will also include provisions for immediate medical care and first aid procedures.
- Material safety data sheets of the constituents of hazardous or contaminated substances that may be encountered on site will be included in the HASP.
- Staging and storing areas will be identified in the HASP.
- In the event of a conflict between the provisions of the HASP and the Port District project-specific specification, or applicable local, state, or federal safety and health laws, regulations and standards, the more stringent will apply.

8.1 HEALTH AND SAFETY TRAINING REQUIREMENTS

All project personnel involved in site activities who may reasonably be expected to come into contact with hazardous substances will have completed 40 hours of off-site hazardous waste health and safety training and have current certification in accordance with OSHA. Any person serving as the SSM will have completed training described above and 8-hour hazardous waste site supervisor course meeting the criteria in 29 CFR 1910.120.

The contractor performing the work will carry a specialty license for handling hazardous waste. The contractor will be responsible for providing a competent person, as required by the Occupational Safety and Health Administration, for tasks requiring this competency. Proof of training and current certifications will be included in the HASP.

8.2 HEALTH AND SAFETY MEETINGS

The contractor and all subcontractors, all on-site personnel, and others, as appropriate, will read and understand the HASP before construction begins. The contractor will ensure that all on-site personnel have the appropriate training, current certifications, PPE, and monitoring equipment required by the HASP. The contractor will be responsible for the health and safety of all on-site personnel, including medical monitoring, in accordance with the HASP.

The SSM will conduct daily on-site health and safety meetings according to the HASP. The daily meetings will include completion of a checklist, documenting conformance by on-site personnel with the HASP; implementation of administrative, engineering, and traffic controls;

environmental monitoring; conformance with decontamination and good housekeeping practices; conformance with protocol of entering and exiting the site; the incident log; and a review of associated responses to incidents.

The contractor will maintain a log documenting worker attendance at the daily meetings. The log will include written confirmation, signed and dated by the SSM and each attendee indicating that each attendee has read and understood the HASP and agrees to abide by its provisions. The contractor will maintain a copy of the log on site at all times and make the log available for review. When the contractor's work has been completed, the HASP site meetings log and checklists will be submitted to the Port District for review.

In the event of an incident or accident, the contractor will notify the Port District immediately. Reports and logs will be submitted to the Port District within 24 hours of the incident or accident.

8.3 MONITORING

Monitoring for the presence of contamination will be the contractor's responsibility and will be performed in all areas during project activities, unless otherwise directed by the Port District. The monitoring program will be consistent with the HASP and will follow the monitoring procedures and documentation requirements as stipulated in the HASP.

The contractor will maintain a daily log of monitoring results, including the date, time, location, type of instrument, instrument reading, and note of conditions or circumstances that may have influenced the readings. The instruments will be calibrated in accordance with manufacturer's specifications and the HASP. The contractor will include the calibration data in the daily monitoring logs. The contractor will maintain the daily monitoring log on site at all times and, with reasonable notice, make the log available for review by the Port District. When the contractor's work has been completed, the monitoring logs will be delivered to the Port District for review.

The SSM will be responsible for hazard recognition, accident prevention, and maintenance and supervision of the on-site safety program. The SSM will be on site at all times while work is ongoing.

8.4 COMMUNITY HEALTH AND SAFETY PLAN

The primary objectives of the community health and safety plan are to maintain a safe and healthy environment for the public and site workers; reduce hazards, accidents, off-site releases and community exposure caused by site activities; and provide an appropriate level of community awareness.

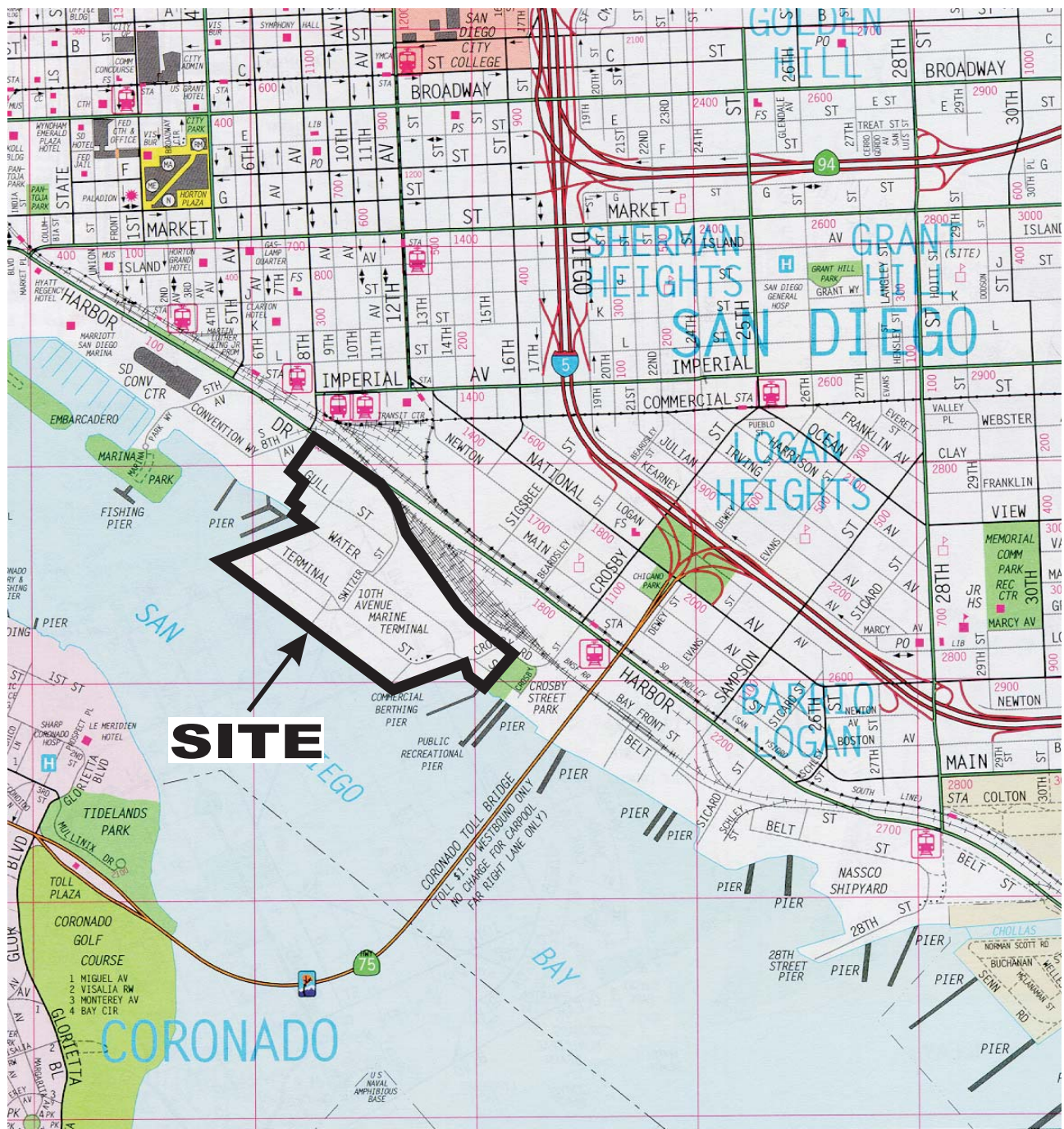
In accordance with generally accepted practices, procedures and controls will be implemented to reduce the potential for on-site activities to negatively affect the surrounding community. The contractor is responsible for preparing and implementing the community health and safety plan. Specific guidelines for preparing a community health and safety plan are included in Appendix B. The following items should be included in the community health and safety plan:

- Site Identification and Site Plan
- Off-site Risks
- Engineering Control Methods and Emergency Equipment
- Site Monitoring
- Site Safety Manager
- Emergency Planning
- Public Notification.

9.0 REFERENCES

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FIGURES



SITE

1900 0 1900 3800
Approximate Scale in Feet



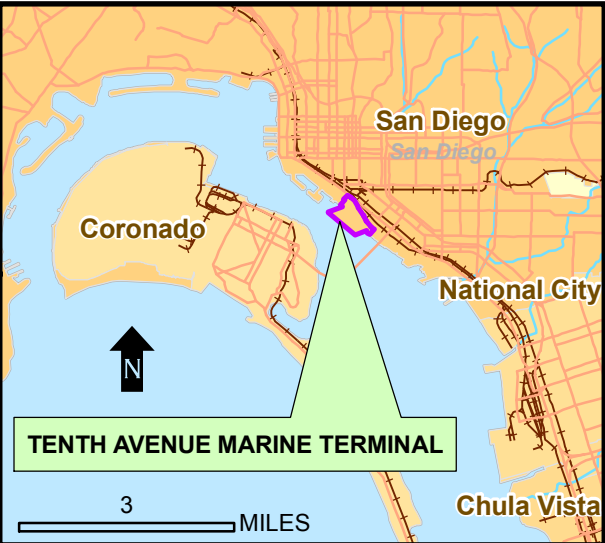
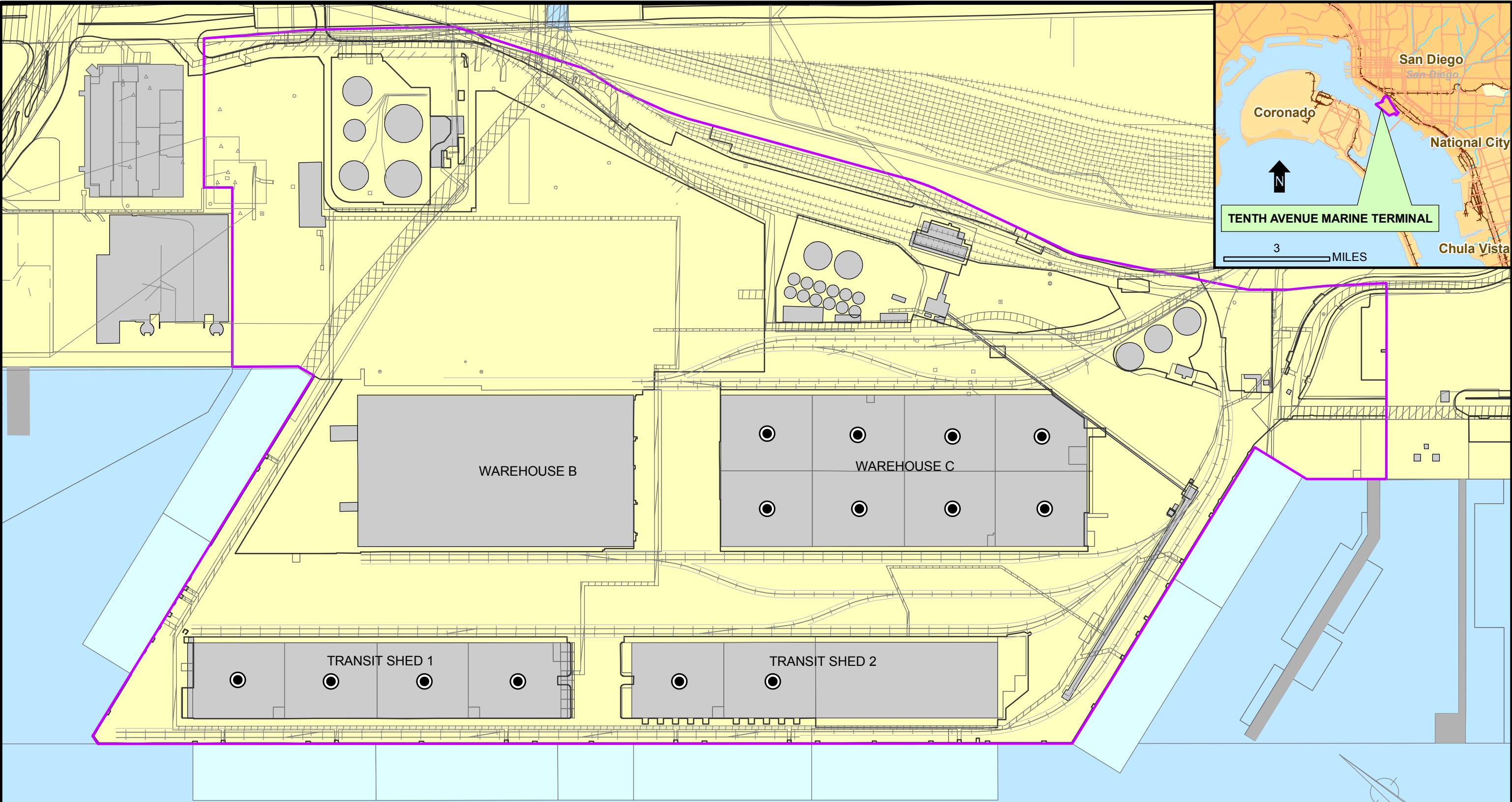
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2. HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

SITE LOCATION MAP

FIGURE 1





LEGEND

- Proposed Soil Sample Location
- Approximate Site Boundary
- Easements and Rights of Way
- Buildings



0 250 500 Feet

10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE 2
SITE PLAN



APPENDIX A

SOIL SAMPLING PROCEDURES

A.1. SOIL SAMPLING PROCEDURES

Soil may be sampled by hand auger, Strataprobe direct-push drive sampler, or with excavation equipment. Soil sampling will generally be performed in accordance with the current County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Manual (2009), the U.S. Environmental Protection Agency (EPA) SW-846 Manual (1986), and applicable federal, state, and local regulatory agency requirements.

Soil sample locations will be selected randomly at a frequency based on the guidelines established in the SAM Manual. Sampling activities will be supervised by a professional geologist, engineering geologist, hydrogeologist, or civil engineer certified by the State of California. A detailed log of the sampling activities and materials encountered will be maintained by the site geologist or hydrogeologist for in situ soil sampling.

A.1.1. HAND AUGER SOIL SAMPLING

Soil samples collected at shallow depths of approximately 0 to 5 feet below ground surface (bgs) may be collected with a stainless-steel hand auger. Field personnel will have appropriate training, experience and current 40-hour Occupational Safety and Health Administration (OSHA) hazardous waste operations (HAZWOPER) training. Sampling equipment will be decontaminated using the procedures outlined in Section A.1.5.

Soil samples collected with the hand auger will be tightly packed into laboratory-supplied glass jars with Teflon-lined screw-type lids. For the volatile fraction, a subsample will be taken in accordance with SW-846 EPA Method 5035, such as using an Encore device. Samples will be labeled with project name and number, location and depth, collection date and time, and other pertinent information, and immediately transferred to a cooler containing ice for delivery to a state-certified analytical laboratory. Proper chain-of-custody (COC) procedures (Section A.1.9) will be followed.

Soil cuttings generated from the hand-auger sampling activities will be placed back into the hand-auger borings. Surface restoration of soil borings will not be required during demolition.

A.1.2. DIRECT-PUSH SOIL SAMPLING

Soil samples collected at depths greater than 5 feet bgs, or in material that limits the depth to which hand augering is feasible, may be collected with a Strataprobe or similar direct-push soil sampling equipment. Strataprobe operations will be performed by a bonded contractor with the appropriate current certificates, experience, and training. The Strataprobe operators will have current 40-hour OSHA HAZWOPER training and will be guided by an appropriate, in-house,

APPENDIX A SOIL SAMPLING PROCEDURES

quality assurance/ quality control (QA/QC) program. Sampling equipment will be decontaminated using the procedures outlined in Section A.1.5.

Soil samples obtained using the Strataprobe or similar equipment will be collected using a 0.5-inch diameter barrel sampler lined with plastic sleeves and driven to the desired depths using the on-board hydraulic hammer. Soil samples will be retrieved, capped, labeled with project name and number, location and depth, collection date and time, and other pertinent information, and immediately transferred to a cooler containing ice for delivery to the state-certified analytical laboratory. For the volatile fraction, a subsample will be taken in accordance with EPA Method 5035. Proper chain-of-custody procedures (Section A.1.9) will be followed.

A.1.3. SOIL SCREENING

Soil samples will be screened using a direct-reading instrument such as an organic analyzer (OVA) to measure volatile organic compounds (VOCs) in soil in the field. A portion of the soil sample collected will be placed in a sealable re-closable bag, such as a Ziploc re-closable bag, agitated, and set aside to allow organic vapors, if present, to accumulate in the void space of the bag. A head-space measurement of total VOCs will be taken from this sample using an OVA and will be recorded on the field boring log or daily field record.

A.1.4. QUALITY CONTROL SAMPLES

Equipment rinse samples are quality control samples generally collected during sampling at a frequency of once per day of sampling, per team, per type of tool used. Water will be poured over or through the soil equipment into a sample container and sent to the laboratory for analysis. Analytically certified, organic-free water (or equivalent) will be used for organic parameters. Deionized or distilled water will be used for inorganic parameters. The equipment rinse will allow for verification that the decontamination procedures were appropriately performed. The sample containers will be labeled with the designation "ER" as part of the sample identification number.

A.1.5. DECONTAMINATION PROCEDURES

Sample collection equipment will be decontaminated before each sampling event. Decontamination procedures will include a non-phosphate detergent and water wash, followed by potable and de-ionized water rinses. Decontamination fluids will be placed in appropriately labeled Department of Transportation (DOT)-compliant containers (such as 55-gallon drums). The containers will remain on site and stored in a secure area while awaiting disposal.

A.1.6. STORAGE AND DISPOSAL OF CONTAMINATED MATERIALS

All stockpiled materials will be stored on site in a secure area pending analytical results and evaluation of disposal options. Disposal of contaminated materials will be the responsibility of the San Diego Unified Port District.

A.1.7. SAMPLE CONTAINERS, PRESERVATIVES, AND HOLDING TIMES

Samples will be collected into appropriate, pre-labeled sample containers with Teflon-lined lids or caps. For the volatile fraction, a subsample will be collected in accordance with EPA Method 5035, such as an Encore device. Samples will be stored in closed containers away from sunlight following the procedures discussed in Section A.1.9. If possible, samples will be delivered to the designated analytical laboratory the same day they are collected.

A.1.8. FIELD DOCUMENTATION

The field documentation serves as the primary record of field activities and will be maintained throughout this project. Entries will be chronological and in sufficient detail to allow the writer or a knowledgeable reviewer to reconstruct each day's events. All field descriptions and observations shall be entered onto a daily field form. The daily field form will be prepared by the field personnel and should include a chronological log of field activities performed, visitors to the site (if any), and other pertinent information. Information entered on the daily field form will generally include, but not be limited to, the following:

- Names of personnel present
- Sampler's name
- Sample field measurements
- Type of sample equipment and methods used
- Decontamination procedures
- Weather conditions, including approximate ambient temperature and any significant rainfall events
- Field observations of the sampling event, other notable occurrences and the time of occurrences.

Where soil sample locations will be predetermined, a site plan will be drawn showing the locations of in situ soil sample locations. In the case of stockpile sampling, a plot plan will be drawn indicating the sample locations and sample identification numbers.

A.1.9. SOIL SAMPLING DOCUMENTATION

Boring logs for in situ soil samples will be prepared by a field geologist. The boring logs, at a minimum, will include project information:

- Project number
- Drilling method
- Contractor's name
- Relatively undisturbed soil sample intervals
- Ground elevation and coordinates
- Drilling date
- Boring diameter

- Total depth drilled
- Abandonment method
- Types and quantities of backfill materials used
- Completion date.

The field geologist will prepare detailed soil or formation descriptions, which include:

- Major soil components and secondary components
- Appropriate Unified Soil Classification System (USCS) symbols, as applicable
- Color, consistency, texture, and moisture content
- OVA measurements
- Appropriate geologic name (as applicable).

Boring logs will also include:

- Depths of lithologic changes
- Water-bearing zone information
- Sample drive and percent recovery information, as applicable.

A.1.10. SAMPLE LABELING

Samples will be placed into appropriate containers provided by the analytical testing laboratory. Clear, waterproof tape will be placed over the label to secure labels to the containers and to ensure that the labels will remain legible. Spare containers and blank labels, tape, and indelible ink pens will be taken into the field. Some indelible ink pens contain VOCs and will be stored separately from sample containers. The label, written or typed in indelible ink, will contain the following information:

- Project name
- Unique sample identification number
- Date and time of collection
- Sampler's initials
- Sample preservative (if applicable)
- Analytical suite for the sample.

Sample identification numbers will be designated using unique sample location identification according to the following procedure:

- Location (such as "TS" for transit shed project, or "PV" for pavement)
- Matrix (such as "SP" for stockpile, "HA" or "SB" for soil boring, "TR" for trench)
- Individual sample (use numbering "01," "02," "03")
- Depth (such as "0.5" for depth in feet below ground surface)

An example of the first soil sample collected from a hand-auger boring from a depth of 0.5 foot at Transit Shed 2 would be designated "TS-HA01-0.5" using this system.

A.1.11. CHAIN-OF-CUSTODY

Sample custody procedures will be followed through sample collection, transfer, analysis, and disposal to ensure that the integrity of samples is maintained. Samples will be collected in general accordance with EPA's COC guidelines as described in EPA SW-846. Sample custody procedures for sample collection are described below.

Field personnel will log individual samples onto triplicate COC forms when a sample is collected. Information for each sample to be recorded on the COC includes sample identification number, matrix, date and time of collection, number and type of containers, analytical methods to be used on the sample, laboratory turn-around time, whether samples are filtered or unfiltered (if applicable), and preservatives added (if applicable). When the samples are relinquished, the sampler will sign, date and time the COC as the sample collector. The person accepting the samples will concurrently sign, date and time, the COC on receipt. Each party accepting and relinquishing the samples will sign in turn until and including the person accepting the samples at the laboratory. The COC will accompany the samples from the field to the laboratory. The sampler will retain one copy of the COC.

A.1.12. SAMPLE HANDLING, TRANSPORT, AND STORAGE

When they are collected, samples will be stored in insulated coolers containing ice or double-bagged ice cubes to cool samples to as close to 4°C as practicable. Fresh ice or fresh, double-bagged ice cubes will be placed in the coolers if necessary during the sampling and prior to transportation to maintain the temperature near 4°C.

Samples will be transported to the analytical laboratory by field personnel or by laboratory couriers. Samples will be transported in the coolers used during collection. Glass sample containers will be packaged to prevent breakage during transportation.

APPENDIX B

COMMUNITY HEALTH AND SAFETY PLAN GUIDELINES

GUIDELINES FOR PREPARING A COMMUNITY HEALTH AND SAFETY PLAN

These guidelines are adapted from the County of San Diego Department of Environmental Health (DEH), Site Assessment and Mitigation (SAM) Manual (County of San Diego DEH 2009), Section 4. DEH has the responsibility to promote a safe and healthy environment for the public in areas where soils and other materials contaminated with hazardous substances are excavated, removed, or handled. It is the legal responsibility of the contractor to conduct on-site activities so as not to create public health and safety hazards or nuisances. Precautions must be taken to prevent impacts to the surrounding community. The contractor is expected to comply with applicable fire, health and safety, building, and construction laws and regulations.

The primary objective of the community health and safety plan is to promote a safe and healthy environment for the public by:

- Minimizing community exposures to hazards from site activities and releases that may migrate off-site, and
- Assuring community awareness.

The community health and safety plan should be developed in close coordination with the Port District. All persons conducting on-site activities should be familiar with the content and responsibilities described in the plan. The community (or public) refers to anyone who is not a property owner or responsible party and is not conducting specific activities for the project.

The community health and safety plan must address the following topics.

B.1. SITE IDENTIFICATION AND LOCATION

Provide the site name, address, and assessor's parcel number (APN), and any regulatory agency case number, if applicable.

B.2. PLOT PLAN

Provide a detailed plot plan that identifies on-site and surrounding structures, topography, prevailing wind directions, surrounding land uses, nearby populations, and environments and receptors of special concern.

B.3. EVALUATION OF POTENTIAL PUBLIC EXPOSURE TO HAZARDS

Provide a description of the potential public health hazards and exposure pathways resulting from site activities, including vapors, dust, noise, fires, explosions, and physical hazards. Consider both immediate and long-term hazards.

B.4. MONITORING EQUIPMENT

Provide a description of site monitoring equipment and protocol to be used. Choose equipment that is capable of detecting the hazard of concern within an acceptable margin of error. In general, fugitive organic chemical vapors should be monitored with an Organic Vapor Analyzer

(OVA) or equivalent along the entire site perimeter at 15-minute intervals. At sites involving petroleum, a reading of 25 parts per million (ppm) or greater on an OVA or equivalent device at the down-wind perimeter of the site is the recommended level for taking corrective measures. The OVA, or equivalent device, must be calibrated in accordance with manufacturer specifications. Monitoring records must be maintained and made available for on-site review.

B.5 CONTROL METHODS

Provide a discussion of the administrative or engineering controls that will be implemented to prevent or minimize public exposure to hazards. Control methods are necessary to prohibit public access, prevent fugitive dust and vapors, and reduce noise.

B.5.1. Site Security

Describe the methods that will be used to exclude the public from, or limit public access to, the work area and the site in general.

B.5.2. Traffic Control

Describe the methods used to evaluate acceptable routes from trucks entering and exiting the facility and project area. Include methods to reduce or eliminate soil and dust from public rights-of-way. Use Port District best practices such as shaker boards and on-site washdown areas.

B.5.3. Vapors

Describe the methods that will be used to minimize public exposure to potential vapor emissions resulting from the proposed activities. Engineering and construction practices can typically reduce such emissions. Acceptable control methods include pumping out non-aqueous phase liquids (NAPL), covering off-gassing excavations or stockpiles, backfilling off-gassing excavations, using off-gassing stockpiles as backfill, misting excavations or stockpiles with water, covering excavations or stockpiles with foam or other vapor suppressing agents, locating stockpiles away from or downwind of public receptors, and stopping work.

B.5.4. Dust

Describe the methods that will be used to minimize potential public exposure to dust generated as a result of the proposed activities. Control methods include covering sources, misting sources with water, reducing the pace of site activities, and halting activities altogether.

B.5.5. Noise

List the hours when site activities will be performed or during which equipment will be operating. Every effort should be made to minimize noise. Noise standards are generally enforced from 7 p.m. to 7 a.m. weekdays, depending on the city and zoning. Noise standards may be even stricter during the weekend.

B.5.6. Open Excavations

Discuss management of any excavations that may result from the proposed activities. Open excavations present a clear risk to the community. It is important to have adequate site security. If not immediately backfilled, open excavations should be completely and securely fenced off to prevent public access. If the excavation is filled with waste liquid (petroleum or a combination of petroleum and water), the liquid must be pumped out before the excavation is backfilled.

B.5.7. Stockpiled Soil

Discuss the soil management procedures. Discuss the proposed disposition of the soil and the time when final disposition will occur. Stockpiled soil should be contained within berms and covered to prevent runoff and vapor and dust exposures. Stockpiled soil should be stored in a secured area of the site to prevent public access.

B.5.8. BMPs

Describe what controls will be implemented at the site to prevent or minimize the transport of pollutants to receiving waters. Also describe how the controls will be maintained during active or inactive phases of the proposed work.

B.6. SITE SAFETY MANAGER

Provide the name and telephone number of a site safety manager who will be available 24 hours a day and who will have the knowledge and authority necessary to shut down all on-site activities in the event of an emergency. In the event of a sudden release of a substance, the site safety manager must initiate the immediate cessation of all site activity contributing to the release. The site safety manager is also responsible for notifying the appropriate emergency response agencies as well as DEH.

B.7. EMERGENCY PLANNING

Provide a description of the methods and equipment that will be used to address possible community emergencies. The ponding of a flammable or combustible substance, and the build-up of explosive concentrations of vapors, are two examples of community emergencies that must be addressed.

B.8. PUBLIC NOTIFICATION

Provide a description of the Public Notification Program. The program should include preparation and distribution of notices to residences and businesses adjacent to, or in the vicinity of, potential impacts from the site or area where work is being performed. Notices must also be posted around the perimeter of the site. At a minimum, the notification should contain the following information:

1. List the name and 24-hour telephone number of the site safety manager. Also list the names and 24-hour phone numbers of the persons to contact regarding problems (odors, dust, and noise). A contractor representative is typically listed as the primary contact.

2. Provide a brief description of the proposed activities.
3. Provide the dates and times that the work will be conducted and an estimate of when the work will be completed.
4. Include any requisite Proposition 65 warnings. Proposition 65 (Section 25249.6 of the Health and Safety Code) requires that a warning be given to any individual who is exposed to a chemical known to cause cancer. Check the current Proposition 65 list for chemicals requiring these warnings.



HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL

San Diego, California

OCTOBER 14, 2010

Prepared for:

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Project No. 103S130504.03

Project No. 103S130504.03

**PREPARED FOR:
SAN DIEGO UNIFIED PORT DISTRICT**

REVIEW AND APPROVAL

Project Manager: _____ Date: _____
David M. Bloom

Program Manager: _____ Date: _____
Robert Manriquez

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APPENDIX

Appendix A – Historical Photographs

FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Historical Shoreline Map

Figure 4 – 1921 Historical Land Use Map

Figure 5 – 1950 Historical Land Use Map

Figure 6 – 1957 Historical Land Use Map

Figure 7 – 1970 Historical Land Use Map

Plate 1 – Site Plan and Summary of Available Soil and Groundwater Investigation Performed at the 10th Avenue Marine Terminal From April 1980 to March 2006

TABLES

Table 1 – Summary of Historical Photographs Reviewed

Table 2 – Summary of Sanborn Fire Insurance Maps Reviewed

Table 3 – Summary of City Directories Reviewed

Table 4 – Summary of Available Geotechnical and Environmental Investigations Performed at
the 10th Avenue Marine Terminal April 1980 to March 2006

ACRONYMS AND ABBREVIATIONS

AC	Asphalt concrete
AST	Aboveground storage tank
bgs	below ground surface
BLF	Bulk loading facility
CCR	California Code of Regulations
DCA	Dichloroethane
DCE	Dichloroethene
DEH	Department of Environmental Health of the County of San Diego
EDR	Environmental Data Resources, Inc.
ESA	Environmental site assessment
HMMD	Hazardous Materials Management Division of the County of San Diego
mllw	Mean lower low water
ND	Not detected above laboratory detection limit
Org. Pb	Organic lead
PCB	Polychlorinated biphenyl
PAH	Polyaromatic hydrocarbon
PRG	Preliminary remediation goal
REC	Recognized environmental condition
RWQCB	Regional Water Quality Control Board - San Diego Region
SDG&E	San Diego Gas & Electric Company
STLC	Soluble threshold limit concentration
SVOC	Semivolatile organic compound
TPH	Total petroleum hydrocarbons
TRPH	Total recoverable petroleum hydrocarbons
TTLC	Total threshold limit concentration
UST	Underground storage tank
VOC	Volatile organic compound
WET	Waste Extraction Test (Title 22 CCR)

1.0 INTRODUCTION

This report is an update of the November 1999 Historical Summary Report, a document prepared by Ninyo & Moore (1999b), for the 10th Avenue Marine Terminal, San Diego (site) (Figures 1 and 2). The primary purpose of this study was to provide available historical information and geotechnical and environmental investigations performed at the site. The current document provides updated information for the 10½ years since the preparation of the previous summary report. This updated summary was prepared by Tetra Tech, Inc., for the San Diego Unified Port District (Port District) as a reference document to assist with planning and to guide future design efforts associated with site redevelopment. This summary was limited to the reports, documents, maps, photographs, and sources listed in the reference section of this report and is not intended to be a complete summary of all activities and/or investigations previously performed at the site.

2.0 PROJECT SCOPE OF WORK

Tetra Tech, Inc.'s scope of work builds on the previous work of Ninyo & Moore (1999), which included the following:

- Obtaining and reviewing historical aerial and elevation photographs for the years 1907 to 2009, from the San Diego Historical Society, Aerial Fotobank, Inc., the Port District, Ninyo & Moore, United State Geological Survey, and Google.com. Hard copies of photographs were scanned at high resolution and pertinent site features were identified and electronically overlaid onto the photograph. Generally, pertinent site features were identified and labeled on the historical photographs based on information obtained from the Sanborn Fire Insurance Maps (Sanborn Maps). Occasionally, historical information obtained from the Sanborn Maps corresponding to the same years as the photographs, was different from historical information obtained from other sources. In these instances, the site feature on the photograph would be labeled using both the Sanborn Map and the other reference source. Photographs reviewed are summarized on Table 1. Copies of the photographs are included, chronologically, as Appendix A.
- Obtaining and reviewing available Sanborn Maps for the years 1887 to 1971. Ninyo & Moore requested and obtained Sanborn Maps from Environmental Data Resources (EDR), Vista Information Solutions Inc., the San Diego Public Library, and the San Diego Historical Society. The approximate former locations of pertinent features indicated on the Sanborn Maps for the years 1921, 1950, 1957, and 1970 were plotted onto 1999 base maps (Figures 4, 5, 6 and 7). Available Sanborn Maps are summarized on Table 2.
- Preparation of a historical shoreline map (Figure 3) using Sanborn Maps and aerial photographs.

- Reviewing Haines and Polk reverse city directories for businesses relevant to the subject site. Our reviews were generally limited to inquiries of the businesses noted on the Sanborn Maps and the years that the businesses were listed. [Table 3](#) summarizes the data obtained from the city directories. Copies of selected portions of the city directories reviewed, generally the first and last year the business was listed, are included as Appendix C in the Historical Study ([Ninyo & Moore, 1999](#)).
- Reviewing historical topographic and orthotopographic maps and incorporating these data into this report.
- Reviewing the additional 16 reports of geotechnical and environmental investigations performed throughout the site after 1998. For each report, Tetra Tech plotted the sampling points of each investigation onto a site plan ([Plate 1](#)). We summarized sampling-point location information, analytical testing and results, and general report findings on [Table 4](#).
- Obtaining and reviewing site utilities maps and other applicable site plans for the 10th Avenue Marine Terminal. We reviewed four map sheets and transferred locations of pertinent features onto [Plate 1](#).

3.0 SITE LOCATION AND DESCRIPTION

The 10th Avenue Marine Terminal is located along the eastern shore of San Diego Bay ([Figure 1](#)), approximately 0.5 mile south of downtown San Diego. The 10th Avenue Marine Terminal is bordered to the northwest, west, and southwest by the San Diego Bay, to the north by the Hilton San Diego Bayfront Hotel, to the northeast by Harbor Drive, east by railroad tracks, and southeast by railroad tracks, Crosby Road, and Crosby Street Park.

The marine terminal is at an average surface elevation of approximately 10 to 12 feet mean lower low water (mllw) and generally includes warehouse/office buildings referred to as Warehouses B and C, Transit Shed Nos. 1 and 2, the Bulk Loading Facility, seven aboveground storage tanks, and facilities of other Port District marine terminal tenants. The remainder of the property is asphalt and concrete paved, and includes several sets of railroad tracks ([Figure 2](#)).

4.0 SITE HISTORY

Historical information prior to November 1999 is taken verbatim from Ninyo & Moore's November 1999 historical summary document. Where previously unknown historical information has been provided the text has been corrected. Ninyo & Moore based their summary on review of historical photographs, Sanborn Maps, historical topographic and orthotopographic maps, city directories, previously prepared site investigation reports, and limited reviews of several Port District environmental files. Notes describing features on the aerial photographs are generally based on information obtained from the Sanborn Maps. In some instances, when noted, information regarding site features was obtained from Port District environmental files.

Although Sanborn Map coverage was not available for the site in 1887 and 1906, based on the coverage available for the property to the adjacent north, the site was part of the San Diego Bay.

Historical elevation and aerial photographs taken in 1907 indicate that the subject site was generally undeveloped, tidelands area (Historical Photographs, 1907). One of the 1907 photographs indicates a structure, identified by the San Diego Historical Society as Benson Lumber Company, at the southeast area of the site. According to the city directories, Benson Lumber Company occupied the southeastern area of the site from 1907 to 1957, at the foot of Sigsbee Street (Ninyo & Moore, 1999). The 1907 photographs suggest that miscellaneous debris such as large pieces of wood, telephone poles, and railroad ballast was scattered about the tidelands area at the eastern area of the site. To the northeast, across the railroad tracks, a steel gas holder and smoke stacks, operated by San Diego Consolidated Gas & Electric Company (SDCG&E) are visible in the 1907 photograph showing the northeastern site area.

The SDCG&E facility located at the southeast corner of Imperial and 9th Avenue, is first listed in the city directories in 1881 (Figure 4 and Table 3). The 1907 photograph also indicates burning refuse at what appears to be the immediate northeast of the subject site. Burning in this area that subsequently appears to extend easterly and southerly onto the subject site, is believed to be associated with what will be referred to as the 8th Avenue Tidelands Dump.

The brief history that follows summarizes information regarding the 8th Avenue Tidelands Dump. This information was obtained from Port District environmental files.

- Refuse was initially carted to garbage wharves and loaded onto garbage barges for disposal at sea. These wharves were unsightly and infested with rats as refuse accumulated for days waiting for disposal. Based on available information, the garbage wharves appeared to have been located northwest of the subject site. Also, after refuse was dumped at sea, it washed back into the San Diego Bay. Reportedly, 8th Avenue was originally proposed as the location of a garbage wharf, which was permitted for construction by the Harbor Commission in 1899. However, site photographs, as well as other sources, indicate that the wharf was never built.
- Prior to 1913, substantial amounts of garbage and rubbish reportedly accumulated and were openly burned northeast and possibly on site at the foot of 8th Avenue. As a result of these problems, a city incinerator was built in 1913. Reportedly, the incinerator was constructed of brick and consisted of a steam boiler, oil burners, and six ovens. This incinerator became a public controversy as the City of San Diego continued to dump surplus garbage into the bay. Reportedly, much of the garbage was being hauled to privately owned livestock farms and fed to hogs. However, rubbish and animal carcasses were accumulating on tidelands adjacent to the incinerator facility. The City of San Diego reportedly began to dispose of this accumulated refuse directly into the San Diego Bay. Reportedly, the Harbor Department frequently wrote letters to the City of San Diego and the Mayor protesting the tidelands dumping.
- In 1926, the City of San Diego entered into a disposal contract with H.O. Duerr of the San Diego Disposal Company to operate the incinerator. Reportedly, with implementation of this contract, Mr. Duerr began dumping and burning rubbish on tidelands adjacent to the incinerator facility for over 8 years.

- A new Rubbish Reduction Plant was built at 8th Avenue in 1934. However, this facility had immediate operating problems and tideland dumping and open burning of rubbish continued. In July 1934, shortly after operations began, an inspection was conducted by a City of San Diego health officer, who reported that the rubbish disposal operation was completely unsanitary. Reportedly during inspection, over 220 tons of rubbish were dumped and burned on tidelands. Chicken heads, entrails, and legs were scattered amongst the burning ash. Decaying animal carcasses, which were supposed to have been cremated, were left out in the open and the 8th Avenue Tidelands Dump reportedly became known as the "Rat Farm."
- In 1935, a city attorney reported that the Tidelands Dump was a public nuisance and advised the city council of contract violations as residue from the incinerator was being dumped daily on tidelands. As a result of this advisement and intense public pressure, the city council finally canceled the rubbish contract in September 1935. Although the contract was cancelled, aerial photographs suggest that open burning and tidelands dumping continued through the 1940s and possibly into the early 1950s until additional hydraulically-placed dredged fill created the western half of the 10th Avenue Marine Terminal.

Based on historical data, by 1913, a City Refuse Incinerator was constructed at the waterfront, at the foot of 8th Avenue, adjacent to the northeastern area of the site. A photograph dated 1914 shows the City Refuse Incinerator adjacent to the site. The City Refuse Incinerator is listed at the foot of 9th Avenue in the city directories beginning in 1913, continuing through 1956 (Ninyo & Moore, 1999a). The 1913 date for beginning operations of the incinerator correlates well with other sources of historical data. However, the incinerator building as previously described above is last seen in a 1926 historical photograph and this building is no longer present in the 1928-29 aerial photograph. The City Refuse Incinerator is also identified on the 1921 Sanborn Map (Figure 4). It appears that the city directories continued listing the City Refuse Incinerator for over 25 years after it was removed. A possible explanation for listing the City Refuse Incinerator for this time period is that the city directories were actually listing subsequent refuse disposal-related operations such as the City Garbage Disposal Plant/new Rubbish Reduction Plant located in the vicinity of the former City Refuse Incinerator.

A dark, rectangular area that is enclosed with a fence was located to the adjacent north of the site, west of the City Refuse Incinerator (first shown in photographs dated 1925) (Figure 4). A closeup view of this area is shown on a later photograph taken in September 1937. Reportedly, this area may have been a burn pit for smoldering ash, associated with the City Refuse Incinerator (Port District environmental files). However, a map sheet also obtained from Port District environmental files dated March 1935 labeled this feature a "Tar Basin."

By 1925, the northeastern most area of the site, which previously existed as part of the San Diego Bay, is occupied by a structure that is referred to as the "Gas Works Refuse Settling Tank" on the 1921 Sanborn Map (Figure 4 and photographs beginning in 1925). The use of the settling tank is unknown at this time. However, Leighton & Associates (1993) in their report indicated that San Diego Gas & Electric (SDG&E) (1987) identified a creosote pit in the same area where

the 1921 Sanborn Map identified the presence of the Gas Works Refuse Settling Tank. A close-up view of this structure is shown on a photograph taken circa 1939 (c.1939) that shows the northeastern area of the site. Port District map sheet, dated March 1935 (Ninyo & Moore, 1999), identified a rectangular feature as the "Gas Company Water Trap" existing adjacent to and/or partially overlapping the Gas Works Refuse Settling Tank.

To the adjacent north of the Gas Works Refuse Settling Tank is a saltwater tunnel that is shown on the 1921 Sanborn Map as extending from the SDG&E facility (located at 9th and Imperial Avenue) and trending in a southerly direction, along 9th Avenue, then westerly where it parallels the Gas Works Refuse Settling Tank and terminates at the shore of San Diego Bay. At the western terminus of the saltwater tunnel are rock jetties that appear to extend westerly into the bay (Figure 4). Reportedly, this saltwater tunnel used to take in and expel cooling water for SDG&E coal gasification at Station A (Port District environmental files).

Sanborn Map coverage was not available for the east central area of the site in the 1920s. However, based on the aerial photographs taken during this time period, this area of the site remained relatively unchanged and was part of the San Diego Bay.

A 1926 aerial photograph of the Benson Lumber Company, located at the foot of Sigsbee Street, indicates that the company expanded its operations and occupied most of the southeastern area of the site. The sawmill, planing mill, lumber yard, lumber shed, water tower, wharf, and what appear to be mill refuse piles are visible in the 1926 photograph of this area. These buildings and the wharf are identified on the 1920 and 1921 Sanborn Maps. Floating logs and giant log boats associated with the Benson Lumber Company are seen in the San Diego Bay, in the area that subsequently will be the westernmost extent of the 10th Avenue Marine Terminal (Figure 4, photographs dated 1926, 1928-1929, 1929). According to the 1921 Sanborn Maps, the area underlain by the Benson Lumber Company buildings is indicated as "mill refuse filled land" (Figure 4). To the south of the Benson Lumber Company and wharf are several buildings and wharves associated with the West Coast Crab & Lobster Company and the Southern Reduction Company (manufacturers of fish oils, fertilizer, and poultry food) located at the foot of Beardsley Street (Figure 4).

Subsequent to 1925, aerial photographs indicate the addition of land at the northeastern area of the site, south, southeast, and southwest of the aforementioned Gas Works Refuse Settling Tank and to the adjacent north of the site (photographs dated mid- to late-1920s, 1926, 1928-29). These areas of land appear to have been created by hydraulically-placed dredged fill and refuse burning-related activities associated with the 8th Avenue Tidelands Dump. As a result of this expansion of land into the San Diego Bay, a channel existed at the former location of the previously mentioned rock jetties (best illustrated on the 1928-29 aerial photograph).

As previously mentioned, sometime between 1926 and 1928-29, the City Refuse Incinerator building located adjacent to and at the northernmost area of the site was removed. The Gas Works Refuse Settling Tank, the dark rectangular area previously described, and the Economy Waste Paper Company remain.

A 1930 aerial photograph of the site indicates the shallowness of the San Diego Bay at the eastern part of the site. An aerial photograph dated October 1935 indicates structures at the northeastern area of the site that correspond to structures identified as the "ramp/garbage hopper/ramp" on the 1939 and 1950 Sanborn Maps (Figure 5). The City Garbage Disposal Plant Ramp/Garbage Hopper/Ramp are likely some of the same facilities that are referred to as the "new Rubbish Reduction Plant," reportedly built in 1934 (port District environmental files).

Between 1934 and 1935, the southernmost area of the site occupied by the Southern Reduction Company/American Processing Company (manufacturers of fish oil and poultry food) has expanded into the San Diego Bay as a result of hydraulically-placed dredged fill.

The March 1937 aerial photograph indicates what appears to be five aboveground storage tanks (ASTs) located to the adjacent north of the site. An August 1937 aerial photograph of the northern part of the site clearly shows these ASTs, as well as other features previously mentioned that existed in this area. Based on the 1939 Sanborn Map, these ASTs belonged to General Petroleum Corporation of California and contained gasoline and oil. Several, relatively small structures, possibly buildings are also shown on this photograph, located south of the ramp/garbage hopper/ramp. Based on a map sheet dated March, 1935 (Ninyo & Moore, 1999), these structures appear to be associated with "The San Diego Disposal Company Lease" (port District environmental files).

A 1937 photograph showing a close-up view of a relatively small area of the Benson Lumber Company shows telephone poles soaking in creosote. Mill refuse and SDG&E steel gas holders are visible in the background.

Various photographs, the earliest taken in 1907 and continuing through 1939, show burning refuse in the area of 8th Avenue and Harbor Drive associated with the 8th Avenue Tidelands Dump. These photographs, as well as photographs taken in 1941, illustrate the southwesterly expansion of land as a result of placing hydraulic fill and refuse burning operations. A comparison of the 1928-29, 1930, March 1937, and January 1941 aerial photographs illustrate this expansion of land.

A photograph taken c. 1939 provides an excellent close-up view of the northeastern part of the site. The Gas Work Refuse Settling Tank is clearly visible and shown in detail. To the southwest is the new Rubbish Reduction Plant consisting of a ramp, hopper, and other buildings and operations. To the south-southwest are areas of active refuse burning. It appears that the majority of land in this area is covered with burned refuse. Farther south, and mostly obscured by smoke is the Benson Lumber Company. The area of burned refuse appears to occupy a relatively large area that is generally bordered to the east by the railroad tracks and to the west by the San Diego Bay. The northern aerial extent of burned refuse, based on earlier photographs and other sources, extends beyond this photograph and off site to the adjacent Campbell Machine Company/Shipyard. The southern boundary is not clear in this photograph, but appears to be relatively close to the Benson Lumber Company.

The July 1941 photograph is a close-up of the northern area of the site. There appear to be three additional gasoline and oil ASTs (for a total of eight ASTs) associated with General Petroleum

Corporation of California. It also appears that this area of the site expanded to the west and southwest as a result of hydraulically-placed dredged fill. Grading of the site is also apparent. This photograph and a subsequent photograph taken September 1941 show a jetty of land extending from the end of the channel in a southerly direction associated with on-going placement of hydraulic fill. With the exception of the ramp/garbage hopper/ramp, evidence of the aforementioned new Rubbish Reduction Plant is no longer visible at the northern site area. Also, within this time period, the Glacier Gardens Ice Skating Rink was constructed to the adjacent north of the site, in the area west of the former City Refuse Incinerator. The rectangular area referred to as a burn pit for smoldering ash and/or tar basin is no longer visible, and appears to be covered by recent grading operations and possibly the easternmost portion of the Glacier Gardens facility. The July 1941 aerial photograph best illustrates this building. The city directories list the Glacier Gardens Ice Skating Rink at 175 8th Avenue from 1944 to 1957 and the San Diego Sports Arena occupying this same building from 1957 to 1960 ([Table 3](#)).

The 1947 aerial photograph shows the southwesterly expansion of the shoreline in the area west of the jetty previously described and best illustrated in the latter September 1941 photograph. Unidentifiable materials and possibly small structures are present southwest and in the area of the General Petroleum Corporation of California ASTs.

During the 1950s, substantial changes occurred in the site configuration. These generally included the westward expansion of the shoreline and the construction of new buildings. It is during this decade that the major dredging operations occurred at the eastern half of the terminal and the shoreline was established in its current configuration. The photographs dated March 31, 1953, December 1955, 1956, and March 1957 best illustrate the shoreline changes that occurred. The internal roads, including present day Gull Street and Water Street, are first visible in 1953 and 1955, respectively.

In addition to the changing shoreline, land use at the site was also changing. By 1953, American Processing Company, a manufacturer of fish oil and poultry food, occupied the former Southern Reduction Company and West Coast Crab & Lobster Company facility at the southernmost area of the site. Additional buildings associated with their operations appear to have been constructed in this area, as well as several ASTs. Notes on the 1950 Sanborn Maps indicate that the ASTs contained fish tallow and fish oil, and that one of the recently constructed buildings was an auto repair shop ([Figure 5](#)).

The 1950 Sanborn Map indicates the presence of nine ASTs belonging to General Petroleum Corporation of California. Aerial photographs, however, indicate the presence of only eight ASTs at this location.

The March 1953 and April 1954 aerial photographs show the Benson Lumber Company land bound to the west as a result of hydraulically-placed dredged fill. A circular feature located to the southwest of the sawmill building is referred to on the 1950 Sanborn Maps as a "refuse burner" ([Figure 5](#)). This refuse burner is only observed on the 1953 and 1954 photographs.

The March 1953 aerial photograph also shows a new building at the approximate former location of the City Garbage Disposal Plat/new Rubbish Reduction Plant at the northern site area. This

building is identified on the 1956 Sanborn Maps as "Auto Trucks Sales and Service." Reportedly, upon demolition of the City Garbage Disposal Plant/new Rubbish Reduction Plant, the Port District Maintenance Facility building was constructed in 1952 for commercial truck and tractor sales/repair and the Port District reportedly occupied the facility beginning in 1969 (Port District environmental files).

The December 1955 aerial photograph indicates the City of San Diego Harbor Department Warehouse A has been constructed at the north-central property boundary. Dark and light piles of unidentifiable materials/debris aligned approximately parallel to the jetty exist at the northwestern site boundary. The darker piles may be scrap metal based on the occurrence of a "scrap metal yard" that existed at the site by at least 1963, as indicated on the Sanborn Maps, and possibly as early as 1955, based on interpretation of the historical photographs. City directories indicate that in 1957, the Glacier Gardens Ice Skating Rink building, located to the adjacent north of the site was occupied by San Diego Sports Arena ([Table 3](#)).

The 1956 and March 1957 aerial photographs indicate the presence of numerous, dark colored, unidentifiable piles north-northwest of the Benson Lumber Company. These piles may be scrap metal for the reason presented above.

By December 1957, Transit Shed Nos. 1 and 2, currently located at the site, are partially constructed and building pads for future Warehouses B and C are apparent ([Figure 6](#)). A conveyor/hopper and piles of unidentifiable materials, some of which may comprise scrap metal, are apparent primarily throughout the southwestern area of the site. Other piles of material, located to the east and associated with recently placed hydraulic fill, may be lumber.

The late 1957/early 1958 aerial photograph is a close-up view of the Benson Lumber Company and indicates that most of the structures associated with this business had been removed. The 1957 aerial photograph, dated March 23, 1957 indicates an additional AST to the immediate adjacent north of the smaller existing ASTs belonging to the General Petroleum Corporation of California facility located to the adjacent north of the site. According to the 1956 Sanborn Maps, this additional tank was used to store kerosene.

Two photographs taken in 1958 indicate what appears to be a stockyard or livestock holding pens located at the southeastern area of the site in the area of the former Benson Lumber Company.

In 1958, four ASTs were constructed at the northeastern area of the site (photographs dated November 1958). This area, referred to as the Bulk Fuel Facility, was constructed for the fueling of marine vessels on the waterfront. Reportedly, these tanks are used for the storage of bunker fuel oil, marine diesel oil, and other petroleum products (Port District environmental files). The 1959 through 1971 Sanborn Maps identify these tanks as containing diesel fuel and oil, and belonging to Union Oil of California. The city directories indicated Union Oil of California listed at 1875 Water Street from 1959 through 1985. A map sheet dated October, 1928, revised January, 1946, identified the Benson Lumber Company Wharf as the Union Oil Company Wharf with fuel lines traversing Benson Lumber Company and continuing in a northerly direction off-site.

Photographs dated November 1958 also indicate the presence of a new building constructed south of the Bunker Fuel Facility ASTs. This building was noted on the 1959 Sanborn Map as Port District offices and subsequently as "Union Hall." Also at this same time, internal roads, including Gull, Switzer, Terminal, and Water Streets, are visible.

Between 1958 and 1959, (based on the 1959 Sanborn Maps), two additional ASTs were constructed easterly of the four ASTs at the Bunker Fuel Facility. These tanks are shown on the October 1963 aerial photograph. The 1959 Sanborn Map identifies these tanks as containing oil.

Although difficult to identify in the photographs due to the relatively small size of the structure, by 1959, a fueling area exists to the south of the Auto Trucks Sales and Service building. The 1959 Sanborn Maps indicate this area contains "gasoline and waste oil" and, based on environmental studies subsequently performed in this area, the notes on the Sanborn Maps refer to underground storage tanks (USTs) containing gasoline and waste oil.

A close-up view of the area designated to be the future site of Warehouse C, taken circa 1960, indicates dark-colored stockpiles of what appear to be scrap-metal or other debris, located in areas adjacent to and outlying the building pad for Warehouse C.

An October 1963 aerial photograph indicates six ASTs constructed at the southern half of the former stockyard or livestock holding pens at the southeastern area of the site. The 1965 Sanborn Map indicates these tanks as containing molasses. Pacific Molasses is listed in the city directories at 1750 Water Street from 1963 to 1979 ([Table 3](#)). A scrap-metal unloader and scrap-metal yard are apparent at the east-central area of the site on an October 1963 photograph and noted on the 1965 Sanborn Map. The dark-colored piles in this area are assumed to be scrap metal based on this map. The city directories listed Westside Metals/Scrap Metals at 626 and subsequently at 696 Switzer Street from 1979 to 1994 ([Table 3](#)). An earlier listing for scrap metals operations at the site was not readily found in the city directories. Based on the aerial photographs and the 1965 Sanborn Map, it appears that there were earlier scrap-metal-related operations at this general site area as evidenced by the dark colored piles and the Sanborn Maps indicating this area was the site of Westside Metals/Scrap Metals, both in 1965, approximately 14 years before the first listing in the city directory.

An October 1963 photograph also indicates a conveyor system constructed at the southern portion of the scrap-metal yard and extending to Transit Shed No.2. This photograph indicates Warehouse B has been constructed and Warehouse C is just beginning construction. Finally, this photograph indicates two buildings, similar in appearance, constructed to the southwest of Union Hall and northwest of the scrap metal yard. The 1970 Sanborn Map identifies these two buildings as truck repair ([Figure 7](#)). A map sheet titled "10th Avenue Marine Terminal Utilities" (undated) refers to these structures as "Marine Terminals Corporation" and "San Diego Terminal & Warehouse Company" (Port District environmental files).

By January 1969, a cluster of relatively small ASTs and a single, relatively large AST were constructed just north of the Bunker Fuel Facility. The 1965 Sanborn Map referred to these tanks as containing acid and molasses, respectively. Between January and July 1969, 12 silos were constructed in the area of the scrap metal yard at the east central area of the site. Reportedly,

these silos were owned and operated by Garnac Grain Company/San Diego Bulk Terminal from 1973 to 1993 and were listed at street 1090 Water Street ([Table 3](#)). Two additional smaller buildings, possibly storage sheds, appear to have been constructed westerly of Warehouse B and there is a small building addition to Warehouse C.

Between 1969 and 1973, the gasoline and oil tanks owned and operated by General Petroleum Corporation of California appear to have been removed from the adjacent property to the north. The city directories listed General Petroleum Corporation of California only from 1950 through 1959 with a street address of 1883 Harbor Drive. These dates do not correspond well with information obtained from the aerial photographs, which indicate the presence of ASTs associated with General Petroleum Corporation of California from approximately 1937 and continuing until between 1969 and 1973. (It is also possible that the city directory listing corresponds to a different facility, also operated by this same corporation, at an off-site location). The July 1969 aerial photograph also indicates a small building south of the three molasses tanks.

The Peterson Manufacturing Company occupied the southeastern area of the site (formerly Southern Reduction Company and American Processing Company) sometime before 1970, based on notes on the 1970 Sanborn Map. Peterson Manufacturing Co. is listed in the city directories from 1965 through 1974 with a location at the foot of Beardsley Street ([Table 3](#)). At this location, the four steel ASTs containing fish oil and some of the smaller fish oil and tallow tanks were removed by November 1973.

Prior to November 1973, the southeasternmost portion of Warehouse C appears to have been constructed. The area adjacent to Warehouse A appears to be used for storage of lumber and other building materials, possibly associated with future construction of Building No. 1. The November 1973 photograph also indicates what appears to be two ASTs located east of the single molasses tank located north of the Bunker Fuel Facility.

Between November 1973 and January 1976, Building No. 1 was constructed adjacent to Warehouse A. The January 1976 photograph indicates four ASTs located to the adjacent west of Building No. 1. Numerous small structures, stockpiled materials, and ASTs are apparent west of Warehouse A. Railroad tracks are shown between Transit Shed No. 2 and Warehouse C and in the area south of Warehouse C. Several dark-colored stockpiles remain to the adjacent north of the grain silos and based on historical site uses, likely are scrap metal piles. What appear to be a cluster of ASTs and/or unidentifiable structures are apparent near the eastern property boundary, in the vicinity of the two recently constructed ASTs adjacent to the single molasses tank.

Between January 1976 and April 1979, the area south and southwest of Union Hall appears to have been paved and used for parking. There are abundant stockpiled materials northwest of Warehouse B and Transit Shed No. 1. Additional railroad tracks appear to have been constructed northwest of Warehouse C. The two ASTs located east of the single molasses tank and other ASTs and/or unidentifiable structures located near the easterly property boundary have been removed from the site by 1979, and this area appears to contain piles of building materials or possibly demolition debris.

The July 1985 aerial photograph indicates two additional silos have been constructed to the adjacent east of the existing twelve silos. Construction-related activities are apparent in the area between Warehouse C and Transit Shed No. 2 and the northern portion of this area has been paved with concrete as indicated in the 1989 aerial photograph. Buildings formerly located at the southeastern area of the site, generally associated with the production of fish oils and tallow, have been removed with the exception of one building. The time period that these buildings were removed is not entirely known due to the absence of photograph coverage of the southeastern, southern, and southwestern portions of the site. The parking area southeasterly of Union Hall appears to contain unidentifiable materials.

By February 1989, the ASTs and other unidentifiable structures and materials previously located west of Warehouse A have been removed. Additional small structures or stockpiled materials are apparent in the area south of the molasses tanks at the southeastern property area and unidentifiable stockpiled materials, possibly related to construction activities, exist south of Crosby Road. The smaller structures, west of Warehouse B are also not present in the 1989 aerial photograph. The single molasses tank and cluster of smaller acid tanks located adjacent to the Bunker Fuel Facility have also been removed by 1989. The February 1989 photograph also indicated a smaller building southeasterly of the Port District Maintenance Shop.

In 1998 there are unidentifiable materials and/or small structures and/or vehicles located to the adjacent northwest of the Bunker Fuel Facility. Throughout the site, there are different areas of stockpiled materials likely associated with businesses operating at the site and/or ongoing and planned construction activities. The northwestern portion of Building No. 1 has been removed. Road work associated with the construction of Crosby Road is apparent at the southeastern area of the site. There has been additional concrete paving west of Warehouse B.

By July 2001 Building 1 and Warehouse A have been demolished and pavement in the surrounding areas. Smaller structures immediately northwest of the site and Warehouse A have also been removed including the piers directly northwest of Warehouse B. Stockpiled material from the demolished structures is visible throughout the areas of former Building 1 and Warehouse A. A crushed concrete stockpile associated with Building 1 and Warehouse A demolition activities can also be seen in the unimproved area north of the molasses tanks and east of the conveyer and railroad tracks on the south portion of the site. Exposed soil is visible throughout the area adjacent to the southern portion of Warehouse C possibly associated with surface grade improvements, however, based on the available reports it is unknown if grading or excavation activities occurred at the time of the aerial photograph. Two ASTs previously observed within the tank farm area on the northern portion of the site have been removed.

Construction activities in the area of former Building 1 and Warehouse A are shown to have been completed by November 2002. The area has been graded and concrete/asphalt has been placed on what is now known as the East Refrigerated Container Facility. The area directly adjacent to the northwest of the diesel fuel and oil bunker oil ASTs has been improved with concrete and one small building structure along northwest corner of the tank farm. An additional structure has been constructed southeast of the tank farm. The area directly north of the East Container Facility (a portion of former the Warehouse A footprint) and west of the maintenance shops is still unimproved and appears to have been prepared for future construction activities. Another building has been constructed along Water Street near the northeast corner of the

Warehouse C. The activities previously observed along the southern portion of Warehouse C have since been completed and the area has been improved with concrete asphalt.

By March 2003, the terminal maintenance shop building has been removed and the surrounding area has been graded and prepared for future construction. The East Container Facility is in use and a number of containers can be seen throughout facility.

As of June 2009, the Hilton San Diego Bayfront Hotel and associated parking structure have been built on the areas of the former terminal maintenance shops, a portion of former Warehouse A, and adjacent former Campbell Shipyard to the northwest. Two smaller ASTs in the tank farm area at the northern portion of the site have since been replaced by a single large AST. A portion of Warehouse C has been removed from the northwest edge of the structure. Improvements to the conveyor have been made to distribute material to the area north of the molasses tanks and east of the railroad tracks on the southern portion of the site.

5.0 PREVIOUS INVESTIGATIONS

This section provides a review of 16 additional readily available geotechnical and environmental reports for studies performed at the 10th Avenue Marine Terminal subsequent to the 24 reports Ninyo & Moore reviewed for their November 1999 report. The reports reviewed for this study are stored at the Port District. A total of 40 reports were reviewed and summarized and the data are presented in [Table 4](#) and [Plate 1](#). [Table 4](#) is organized chronologically, beginning with the earliest available report, dated April 1980 and continuing through March 2006. For brevity, the reports are referred to as References "1" through "40." For each report reviewed, the following information is provided and summarized on [Table 4](#):

- Sampling-point (or study area) identification with location descriptions.
- Type of investigation (e.g., geotechnical, soil, and groundwater).
- Number of sampling points and corresponding dates.
- Descriptions of the analytical testing performed.
- Significant findings and analytical results. Analytical results were generally obtained from site plans or summary tables and not from the actual laboratory analytical reports, which commonly were absent from the reports.

Each sampling point was plotted onto [Plate 1](#). Sampling-point locations were manually transferred from the reports onto the site map. For most of the reports, sampling point locations could be transferred based on landmarks provided in the reports. However, for several reports, the absence of identifiable landmarks and/or poor site plans made it difficult to locate the sampling points and transfer them precisely onto the plate. In these situations, we have noted on [Table 4](#) that the sample-point locations are approximate. In addition, information for three references (4, 6 and 7) were obtained from a Ninyo & Moore 1990, report (reference 10) and, therefore, these data were obtained from a secondary source. For these three references, in the

absence of specific sample-point locations, we have shaded the general areas of these investigations ([Plate 1](#)) and summarized investigation results based on available data ([Table 4](#)).

Some of the study areas for environmental investigations such as Ninyo & Moore 1990, Leighton & Associates 1993, and PTI Environmental Services 1994 included off-site areas. For these investigations, we only plotted those sampling points that were within the study area and the summary of analytical data is only for on-site sampling locations.

Based on reviews of the readily available geotechnical and environmental reports, we have provided below, a summary of the types of investigations performed at the site. The purpose of this summary is to group similar investigations and investigations and/or studies that evaluated similar contaminant sources.

- Of the 40 reports available for our review, six of these reports were geotechnical studies performed at the site generally associated with various phases of pavement replacement projects ([Table 4](#) and [Plate 1](#), references 1, 2, 11, 17, 21, and 22). Information from these studies was generally limited to that obtained from reviewing boring logs. Analytical testing was not part of these types of investigations.
- Several studies, ([Table 4](#) and [Plate 1](#), references 4, 8, 10, 12, 13, 18, and 19) were either specifically performed at or included the area of the Port District Maintenance Shops. Several of these studies specifically evaluated the five, 4,000-gallon capacity USTs that were removed in the area of the Port District Maintenance Buildings in June 1995. The other studies encompassed larger areas, but also included this former UST area.
- Several studies, ([Table 4](#) and [Plate 1](#), references 3, 5, 9, and 10) were performed at the Bunker Fuel Facility (Union Oil Company of California and BP Petroleum). One of these studies, (reference 10) evaluated areas surrounding this tank farm. Although not mentioned in references 3 and 5, based on previous reviews of Department of Environmental Health (DEH) files by Ninyo & Moore personnel (1990), it appears that an UST existed in the area immediately north of the Bunker Fuel Facility, in the area between the two former ASTs that stored oil.
- Several studies ([Table 4](#) and [Plate 1](#), reference 7, and reportedly an earlier unavailable study performed by American Processing Co.) were conducted as a result of a tank that experienced an unauthorized release in the area generally south of the former Union Hall building. A limited amount of information regarding these studies was also obtained from the Ninyo & Moore 1990 report ([Table 4](#) and [Plate 1](#), reference 10).
- Reportedly, SDG&E performed several investigations within and adjacent to the study area ([Table 4](#) and [Plate 1](#), reference 6). Limited information regarding their studies comes from the Ninyo & Moore 1990 report (reference 10).
- A geotechnical and environmental study, ([Table 4](#) and [Plate 1](#), references 15 and 16), was performed in association with the Port District railroad track replacement project.

One of the reports associated with this investigation referenced a relatively large, diesel-fuel spill underlying the Bulk Loading Facility (BLF). Based on the locations of the borings that were drilled and what is referred to as soil possibly impacted by this diesel fuel spill, it appears that the extent of this spill corresponds to the majority of the southernmost area of the site. A subsequent study was performed in the same general area (Table 4 and Plate 1, reference 20). However, this later study was more limited in the area evaluated and generally included the area of railroad tracks north of Warehouse C. A more recent study (Table 4 and Plate 1, reference 24), evaluated soils in the areas north, west, and south of Warehouse C, along the westernmost site boundary, and south of Transit Shed No. 2. An earlier limited study (Table 4 and Plate 1, reference 14) was performed at the "railcar switching ramp." This limited study indicated the presence of buried asphalt and glass extending to the southeastern property area, likely associated with the former 8th Avenue Tidelands Dump.

- A limited subsurface soil and groundwater investigation was independently conducted by the Jankovich Co. at the Jankovich Co. tank farm area adjacent to the east container facility (Table 4 and Plate 1, reference 25).
- Several subsurface environmental site assessment studies were conducted in association with the East Refrigerated Container Facility project (Table 4 and Plate 1, references 26, 27, 28). Following demolition activities of Warehouse A and Building 1 (the location of the east container facility) several characterization studies of the excavated soil and concrete debris stockpiles were conducted in accordance with the site soil management plan requirements to determine the potential for future use of the excavated soils and concrete debris on- and off-site (Table 4 and Plate 1, references 29 through 33, and 35). Based on the available references it is unknown if the soil material (with the exception of soils from stockpile P4) excavated from the footprints of Warehouse A and Building 1 was removed off-site; however, according to soil characterization studies the soil from these areas was deemed acceptable to remain onsite (Table 4 and Plate 1, references 29, 32 and 33). A concrete debris characterization and fate and transport study concluded that the crushed concrete material from Building 1 and Warehouse A demolition activities were suitable for use as an underlying base material for pavement or concrete constructed onsite. According to a report prepared by TRC, approximately 512 tons of the concrete debris were transferred to an elementary school to be used as a base material for an athletic track construction project. Following the initial construction of the track the material was subsequently excavated and transferred to a disposal facility under a non-hazardous waste manifest (TRC 2002). In accordance with the soil management plan a radiation survey and dioxin/furan analysis was also conducted during demolition and excavation activities associated with the east refrigerated facility project (Table 4 and Plate 1, reference 35).
- An environmental site assessment was conducted in conjunction with a geotechnical investigation at the North American Marine Terminals associated with future improvements at the site including upgrading the conveyor system and transfer tower, construction of a scale, relocation of railroad tracks and wye track, and the relocation of a hydraulic retarder (Table 4 and Plate 1, reference 34). The assessment was

focused within the area along the eastern side of Warehouse C adjacent to Water Street. Excavation activities associated with construction of a new scale pit soon commenced following the assessment. The excavation area was located within a potential burn-ash area and the soils were segregated into two separate stockpiles and subsequently sampled for characterization and disposal (Table 4 and Plate 1, reference 37).

- A subsurface soil assessment was conducted on the western end of Transit Shed 1. According to the final report, no further assessment was necessary. The assessment was conducted in preparation for demolition of the building structure (Table 4 and Plate 1, reference 36).
- Remedial excavation activities were conducted for the Foss Maritime Landside Leasehold based on the recognized environmental conditions (RECs) identified during a Phase I Environmental Site Assessment conducted at the site (Table 4 and Plate 1, reference 38). At the request of the port, the impacted soils at the locations identified as RECs were excavated and confirmation samples were collected at the limits of the excavations. The excavated soil was characterized and transported offsite for disposal.
- Lead testing was conducted at the Tenth Avenue Marine Terminal along with several other sites owned by the Port of San Diego. An assessment of one building at the Tenth Avenue Marine Terminal was conducted using an x-ray fluorescence spectrum analyzer to test surfaces for lead content. According to the asbestos assessment report, the data collected from the various sites was to be used for future scheduled improvements (Table 4 and Plate 1, reference 39).
- A research study was conducted on behalf of the port district in response to Request for Information requested by the San Diego Regional Water Quality Control Board to interested parties to submit information related to tanks, piping, and/or historical spills within a 1/2 mile radius of city manhole where phase-separated hydrocarbon was discovered during dewatering operations. The report indicated that the source of the free-product was not suspected to be related to the District-owned or operated facilities (Table 4 and Plate 1, reference 40).

6.0 REPORT LIMITATIONS

The historical information described in this report is limited to the accuracy and availability of the sources reviewed (Section 7). More specifically, the following limitations are noted.

Complete Sanborn Fire Insurance Map coverage was not available for the site. The 1920 Sanborn Maps covered only the southern area of the site and properties to the adjacent north of the site. The 1921 Sanborn Maps only covered the northern and southern areas of the site. The 1939 Sanborn Map coverage included only one map sheet for the northern area of the site. In addition, several features on these Sanborn Maps were illegible and although requested from

Sanborn Map sources, more legible copies were not available for review. In addition, map scales on the Sanborn Map sheets varied from different sources and between maps.

Features and structures identified and noted on some of the Sanborn Maps, often did not correlate well with features and structures on the aerial photographs of the corresponding years. In these instances, the aerial photographs were considered to provide the most accurate data.

The addresses for businesses listed in the city directories were not always consistent with what was observed on the historical photographs. A possible explanation for businesses being listed for a time period shorter than they were observed on photographs may be that the businesses were actually no longer in existence; however, the structures associated with these businesses may have remained subsequent to their conclusion of business, and, therefore, are apparent on aerial photographs with later dates.

Some features on the aerial photographs could not be identified and/or were not identified due to their small size, scale of the photographs and/or resolution. In most cases, these features are small structures or piles of unknown materials likely related to businesses or associated with activities that were operating at or in the vicinity of the site. For example, many of the piles appear to be lumber and other construction-related materials, scrap metal, mill refuse or materials storage associated with the warehouses.

Pertinent features labeled on the historical photographs were generally obtained by identifying the corresponding structures and notes on the Sanborn Maps that best corresponded to the dates of the photographs. For aerial photographs taken at dates that did not correspond with available Sanborn Maps (e.g., between dates of Sanborn Map coverage), and when other historical data were absent, we made assumptions regarding whether the businesses remained the same, if the features on the photographs remained unchanged. Therefore, it is possible that our identification of some businesses on the photographs may be in error, generally with respect to their years of operation.

The identification of some features at the site and vicinity may differ from source to source. For example, two sources obtained from the Port District environmental files identify the dark rectangular area in the vicinity of the City Refuse Incinerator differently. One source indicated that this area was a burn pit used for smoldering ash and the other source indicated this area was a tar basin.

Finally and most importantly, this study is limited to the referenced sources included in Section 7 of this report. A total of 40 geotechnical and environmental reports for the site were reviewed. We are aware that additional information and data exist that could be added to this historical summary, some of which could resolve uncertainties and/or discrepancies associated with this study.

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions

may exist and conditions not observed or described in this report may be encountered during subsequent activities.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein.

This report is intended exclusively for use by the client. Any use or reuse of the findings, conclusions, and/or recommendations of this report by parties other than the client is undertaken at said parties' sole risk.

7.0 SELECTED REFERENCES

- Applied Hydrogeologic Consultants, 1987, *in* Ninyo & Moore 1990.
- City Planning Commission, 1938, City of San Diego, California, Report on Refuse Dumps, Document Number 306491, dated January 31.
- County of San Diego, 1986, Department of Environmental Health, Hazardous Materials Management Division, HMMD file H11530, dated August, *in* Ninyo & Moore 1990.
- Dames & Moore, 1999, Environmental Assessment Services, 10th Avenue Marine Terminal, dated December 21.
- Environmental Audit, 1992, Ground Water Monitoring Report BP North American Petroleum, Inc., Tenth Avenue Marine Terminal, dated March 25.
- Environmental Audit, 1992, Supplemental Site Assessment BP North American Petroleum Inc., Tenth Avenue Marine Terminal, dated December 2.
- ERC Environmental and Energy Services Co., 1991, Bayside LRT Soil Stockpile and Line Characterization Program, Volume 2 - Appendices, dated October.
- Geotechnics Incorporated, 1996, Geotechnical Investigation Warehouse C, Railroad Tracks and Asphalt Pavement Distress, Tenth Avenue Marine Terminal, dated August 21.
- Geotechnics Incorporated, 1997, Observation and Testing of Compaction Grouting, Pavement Replacement, dated October 20.
- Geotechnics Incorporated, 1997, Pavement Replacement Phase 5, 10th Avenue Marine Terminal, dated October 7.
- Geotechnics Incorporated, 1998, Groundwater Monitoring Wells, 10th Avenue Marine Terminal, dated October 16.
- Holguin, Fahan & Associates, Inc., 1997, Soil Characterization, Tenth Avenue Marine Terminal, dated July 11.
- L.K.R. Group, Inc., 1995, Geotechnical Investigation Report, Railroad Track Evaluation, Tenth Avenue Marine Terminal and National City Marine Terminal, dated August 30.
- Law/Crandall, Inc., 1995, Report of Environmental Soils Investigation, Railroad Track Replacement San Diego and National Cities, dated August 22.
- Leighton and Associates, Inc., 1993, Subsurface Investigations, San Diego Unified Port District Maintenance Facility, dated March 31.
- Levine-Fricke, 1996, Additional Site Assessment for San Diego Unified Port District Maintenance Department, 825 East Harbor Drive, dated May 9.

- Levine-Fricke-Recon, 1996, Draft Fate and Transport Study, Volatilization of Benzene for San Diego Unified Port District Maintenance Department, 825 East Harbor Drive, dated October 18.
- Moore & Taber in Bright & Associates, 1986, Environmental Audit, Tenth Avenue Marine Terminal, dated June.
- Moore & Taber in Bright & Associates, 1987, Letter Report, Tenth Avenue Marine Terminal, dated August 13.
- Ninyo & Moore, 1990, Site Assessment Investigation, Eighth Avenue and East Harbor Drive, dated February 9.
- Ninyo & Moore, 1999a, Subsurface Environmental Site Assessment 10th Avenue Marine Terminal, dated February 8.
- Ninyo & Moore, 1999b, Limited Historical Study of the 10th Avenue Marine Terminal, dated 22 November.
- Ninyo & Moore, 1999c, Historical Study of the 10th Avenue Marine Terminal, Volumes I and II: dated November 30.
- Ninyo & Moore, 2000a, Limited Subsurface Assessment, Port District General Services Facility, 825 East Harbor Drive, San Diego, California: dated August 28.
- Ninyo & Moore, 2000b, Limited Environmental Site Assessment, 10th Avenue Marine Terminal, East Container Facility, San Diego, California: dated November 16.
- Ninyo & Moore, 2001a, Additional Subsurface Environmental Site Assessment, Proposed East Refrigerated Container Facility, 10th Avenue Marine Terminal, San Diego, California: dated March 28.
- Ninyo & Moore, 2001b, Additional Subsurface Environmental Site Assessment, Proposed East Refrigerated Container Facility, 10th Avenue Marine Terminal, San Diego, California: dated July 20.
- Ninyo & Moore, 2001c, Correspondence to Mr. James Chen, City of San Diego Environmental Services Department Regarding Special Waste Disposal Request with Attached Analytical Results from Switzer Creek Bridge Construction Project, 10th Avenue Marine Terminal, San Diego, California: dated October 11.
- Ninyo & Moore, 2001d, Analytical Test Results, Crushed Concrete Stockpiles, Former Building One and Warehouse A, 10th Avenue Marine Terminal, San Diego, California: dated November 21.
- Ninyo & Moore, 2001e, Fate and Transport Study, Crushed Concrete Stockpiles, 10th Avenue Marine Terminal, San Diego, California: dated December 18.
- Ninyo & Moore, 2001f, Soil Analytical Results, Former Warehouse A and Building One, 10th Avenue Marine Terminal, San Diego, California: dated December 31.

Ninyo & Moore, 2002a, Soil Analytical Results, Former Building One, 10th Avenue Marine Terminal, San Diego, California: dated January 4.

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PTI Environmental Services, 1994, Site Investigation and Corrective Action Report, Campbell Shipyards, dated October.

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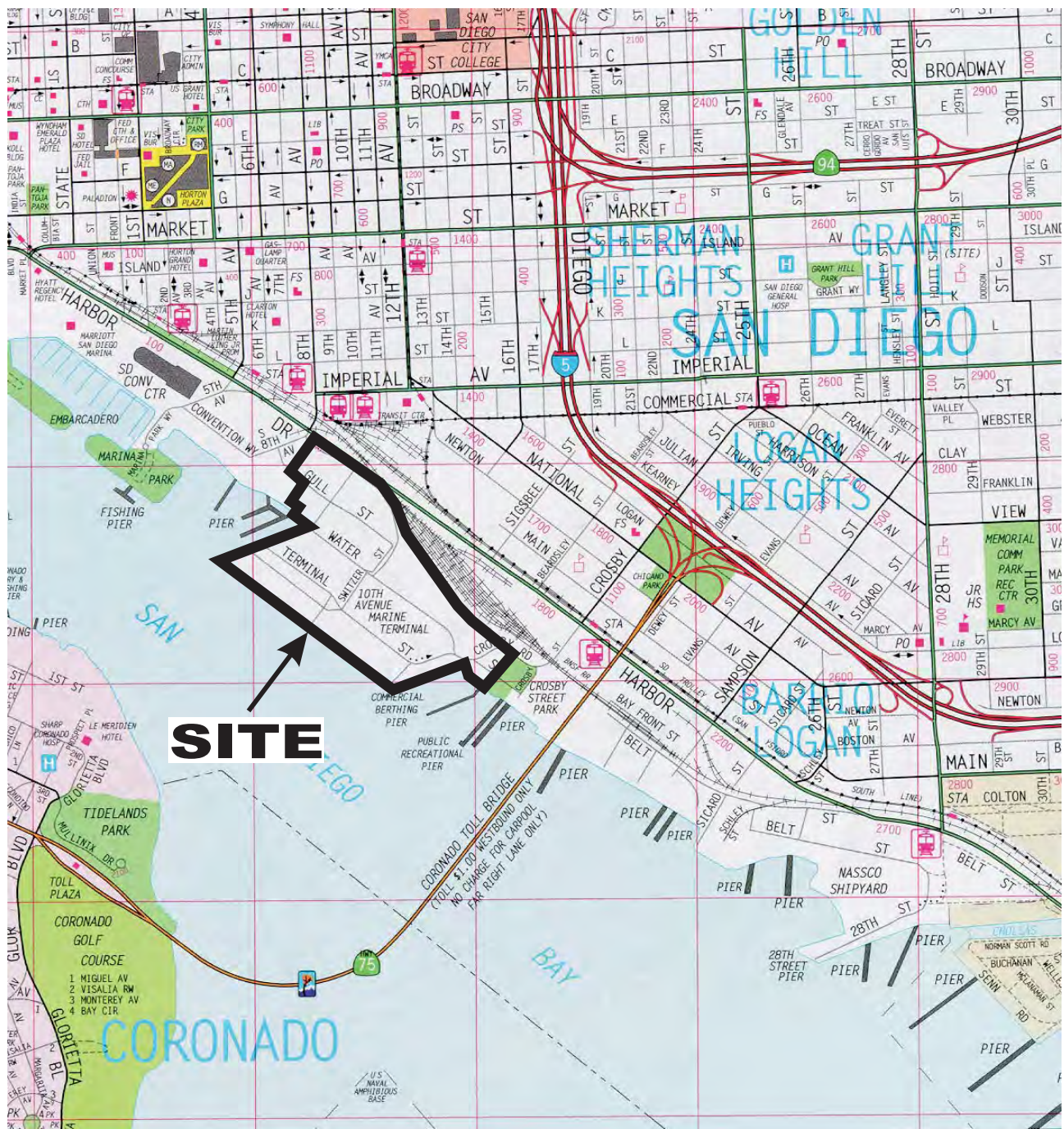
TRC, 2002, Removal of Crushed Concrete Base Material, Valley Elementary School, Poway, CA, Prepared for: Port of San Diego, San Diego, California, dated August 29

Woodward-Clyde Consultants, 1980, Geotechnical Investigation, Pavement Replacement, 10th Avenue Marine Terminal, dated May 14.

Woodward-Clyde Consultants, 1983, Geotechnical Investigation, Pavement Replacement, 10th Avenue Marine Terminal, dated April 4.

Woodward-Clyde Consultants, 1992, Geotechnical Investigation, Proposed Phase 2 Pavement Replacement, 10th Avenue Marine Terminal, dated May 18.

FIGURES



SITE

1900 0 1900 3800
Approximate Scale in Feet

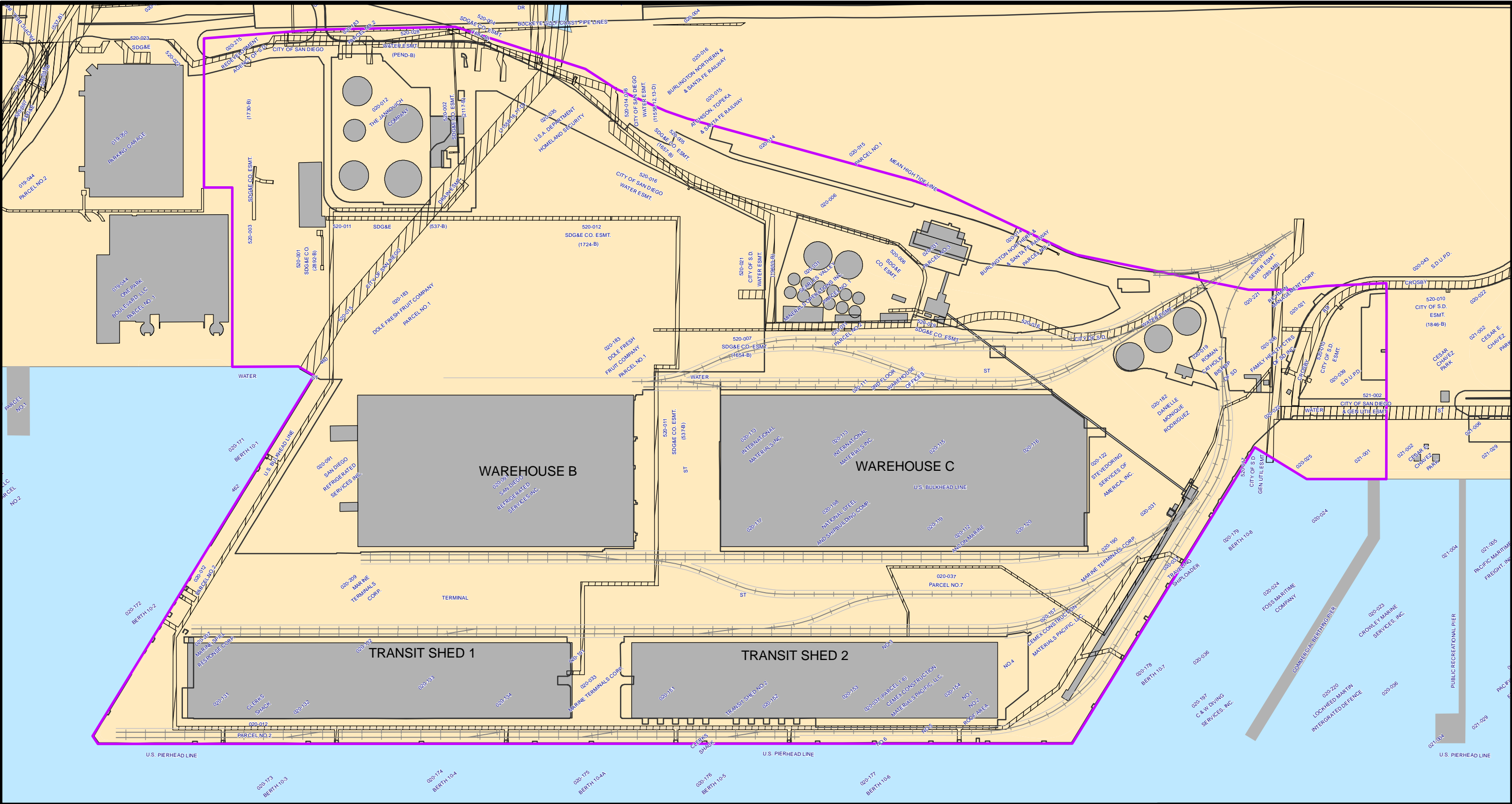


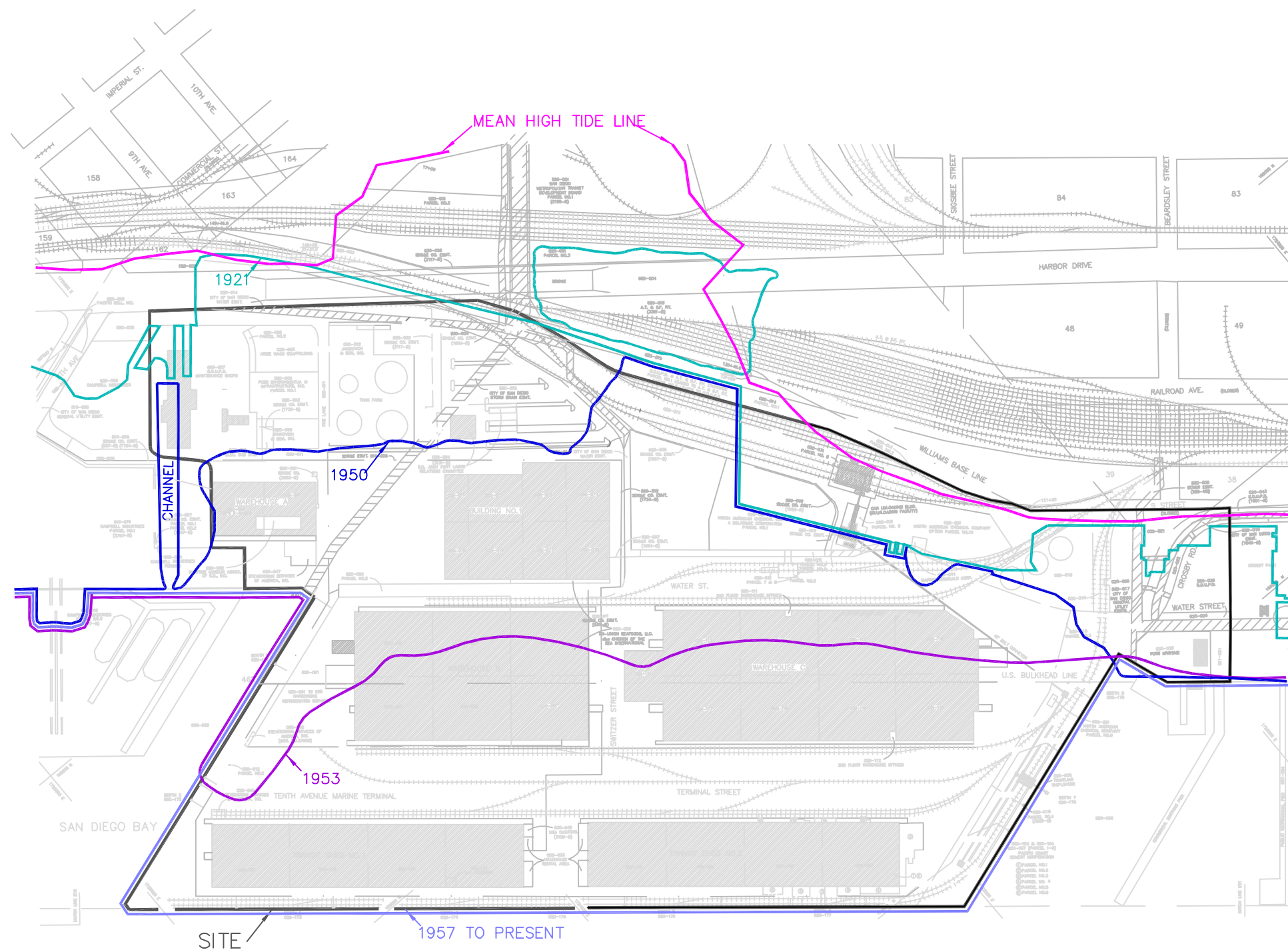
REFERENCES: 1. 1999 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY
2. HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

SITE LOCATION MAP



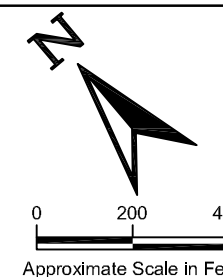




REFERENCE: HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

LEGEND

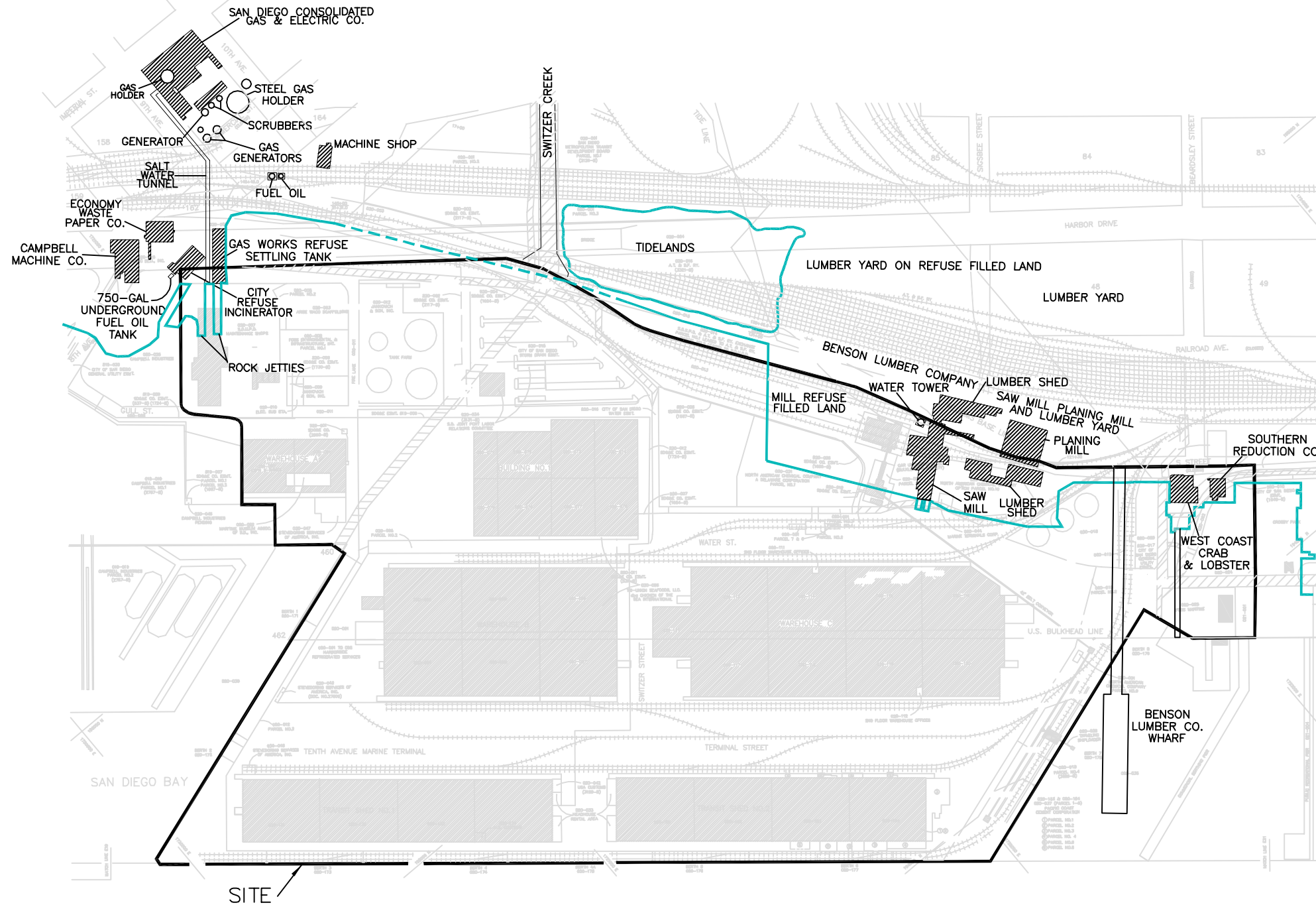
- APPROXIMATE LOCATION OF 1921 SHORELINE
- APPROXIMATE LOCATION OF 1950 SHORELINE
- APPROXIMATE LOCATION OF 1953 SHORELINE
- APPROXIMATE LOCATION OF 1957 SHORELINE TO PRESENT
- MEAN HIGH TIDE LINE (1858)



10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

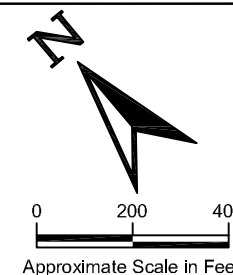
FIGURE 3
HISTORICAL SHORELINE MAP





REFERENCE: HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

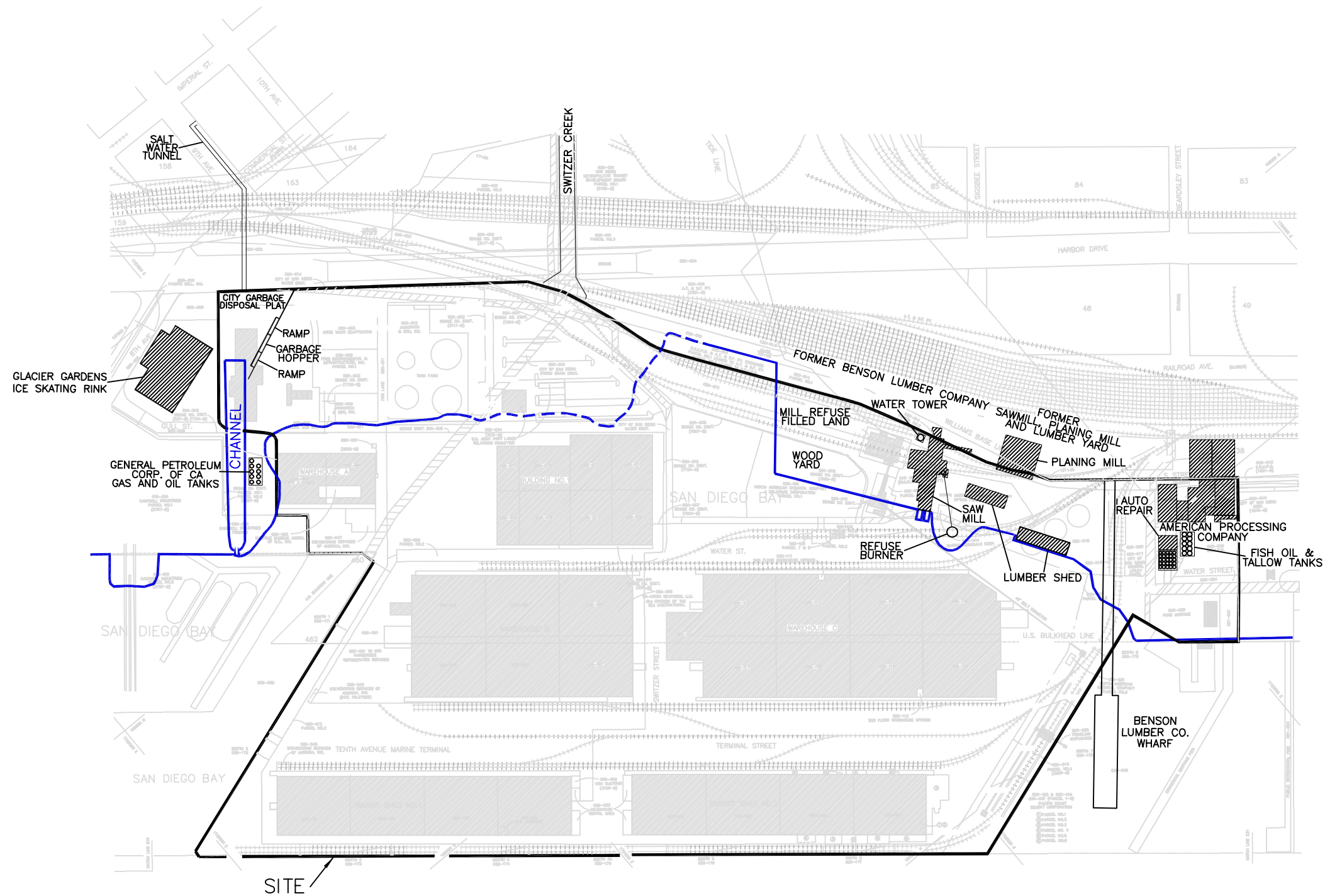
LEGEND	
	APPROXIMATE LOCATION OF 1921 SHORELINE.
	INDICATES AREAS WHERE SANBORN MAP COVERAGE WAS NOT AVAILABLE.
	INDICATES APPROXIMATE LOCATION AND DESCRIPTION (AS APPLICABLE) OF SITE FEATURE AS INDICATED ON THE 1921 SANBORN FIRE INSURANCE MAPS.



10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE 4
1921 HISTORICAL LAND USE MAP

TETRA TECH



REFERENCE: HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

LEGEND



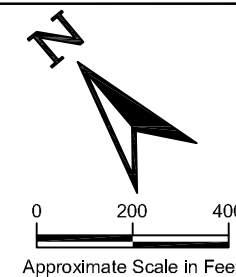
APPROXIMATE LOCATION OF 1950 SHORELINE.



INDICATES AREAS WHERE SANBORN MAP COVERAGE WAS NOT AVAILABLE.



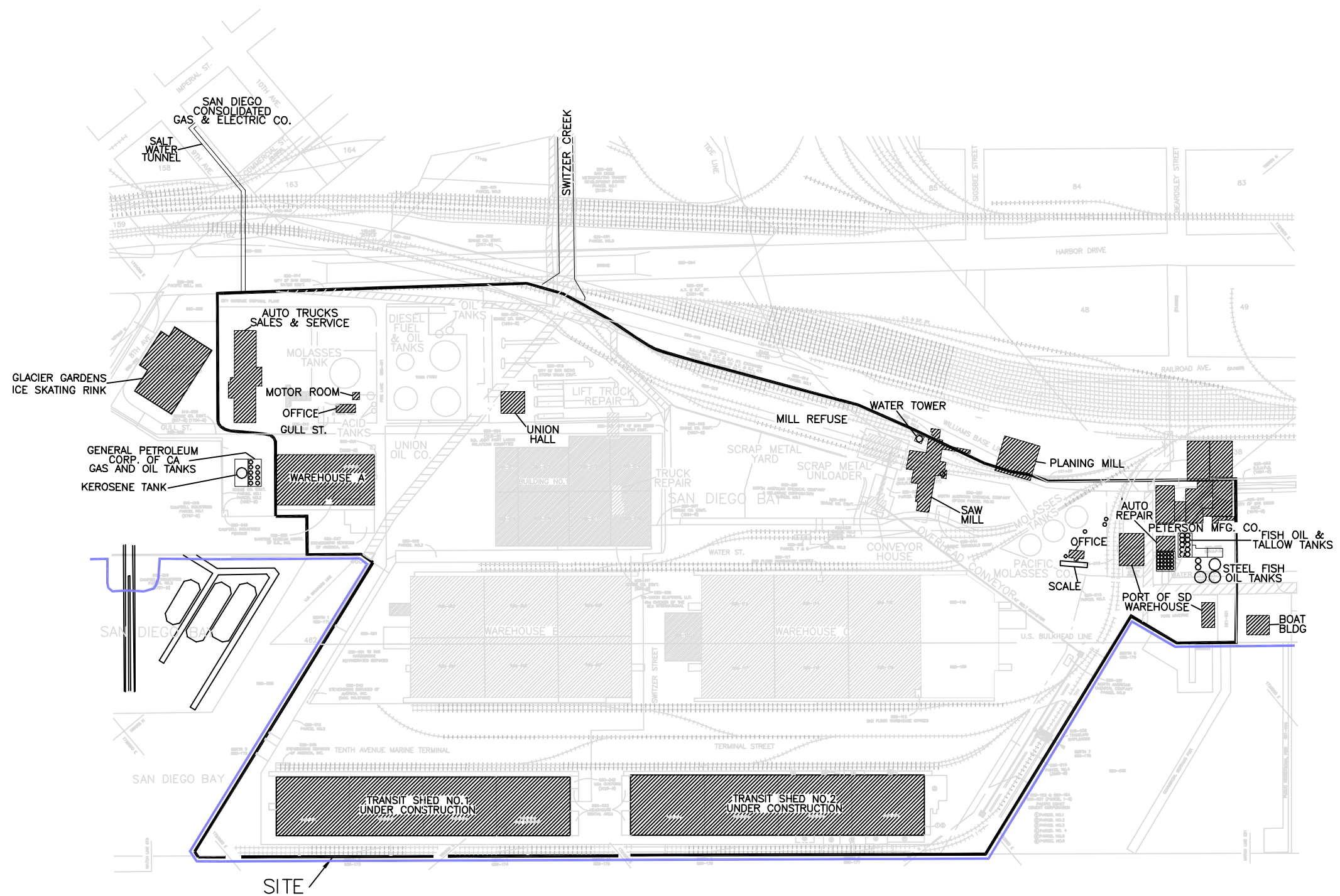
INDICATES APPROXIMATE LOCATION AND DESCRIPTION (AS APPLICABLE)
OF SITE FEATURE AS INDICATED ON THE 1950 SANBORN FIRE INSURANCE MAPS.



10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE 5
1950 HISTORICAL LAND USE MAP

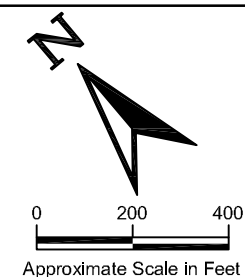




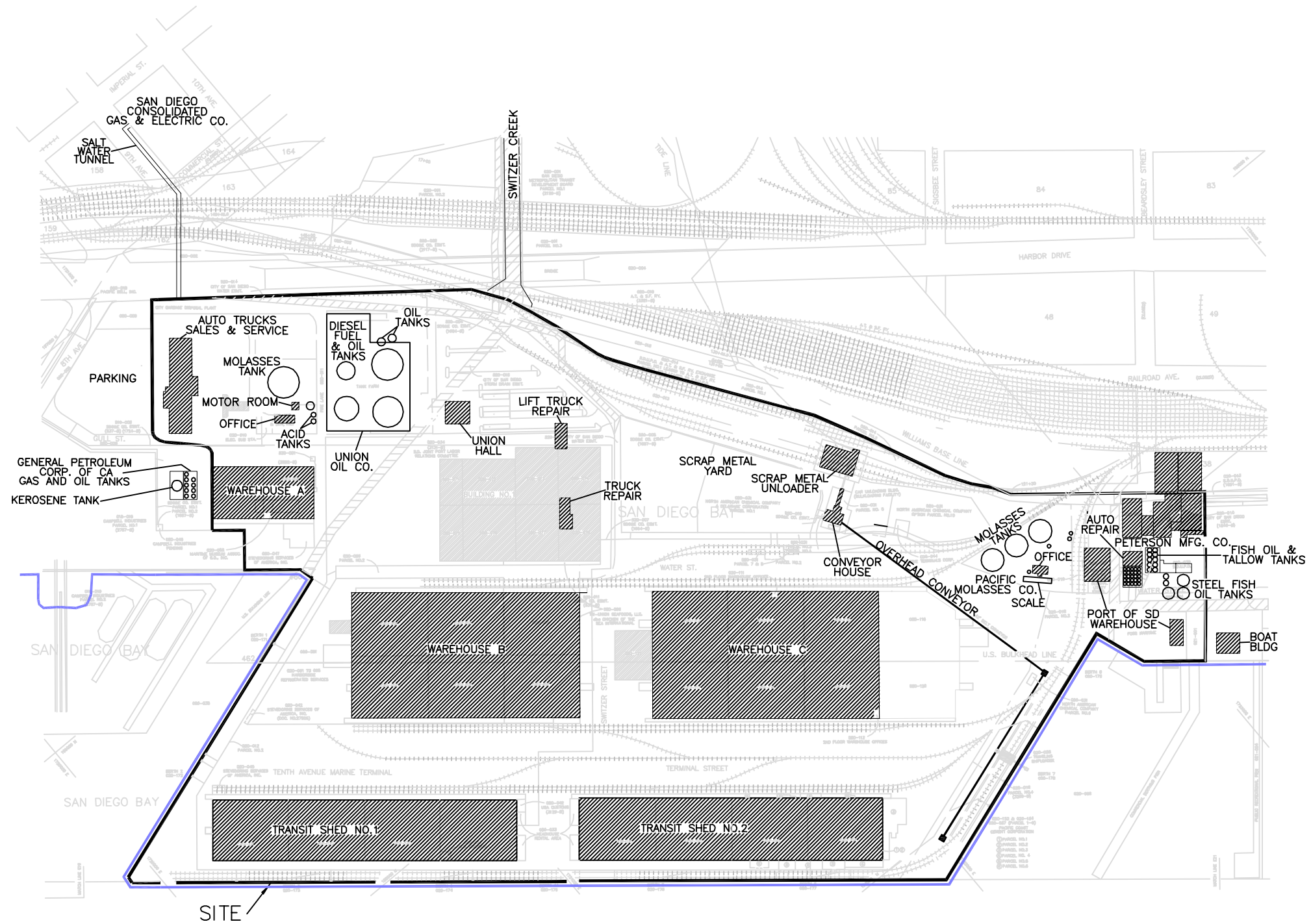
REFERENCE: HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

LEGEND

- APPROXIMATE LOCATION OF LATE 1957 SHORELINE.
- INDICATES APPROXIMATE LOCATION AND DESCRIPTION (AS APPLICABLE) OF SITE FEATURES OBSERVED IN AERIAL PHOTOGRAPHS DATED 1957.



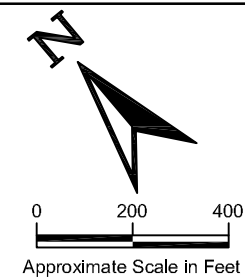
10TH AVENUE MARINE TERMINAL SAN DIEGO, CALIFORNIA	
FIGURE 6 1957 HISTORICAL LAND USE MAP	
	TETRA TECH



REFERENCE: HISTORICAL SUMMARY OF THE 10TH AVENUE MARINE TERMINAL -
NINYO & MOORE - NOVEMBER 30, 1999.

LEGEND

- APPROXIMATE LOCATION OF 1970 SHORELINE.
- INDICATES APPROXIMATE LOCATION AND DESCRIPTION (AS APPLICABLE) OF SITE FEATURE AS INDICATED ON THE 1970 SANBORN FIRE INSURANCE MAPS.



10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE 7
1970 HISTORICAL LAND USE MAP



TABLES

Table 1 - Summary of Historical Photographs Reviewed

Date	Photograph Number	Source
3/19/1907	99:19872	C
1907	6555	C
1914	5550	C
March 1925	82:13498	C
March 1925	82: 13498 Detail	C
c. 1925	S-71 Detail	C
1920's	90:18138-52	C
1926	7643	C
1926	7643-1	C
1928-29	66-E8	A
1929	82: 13673-2214	C
March 1930	89: 17537-46 Detail	C
c.1934	90:18138-470	C
10/20/1935	79:741-62 Detail	C
1937	None Detail	B
3/28/1937	79:741-224-Detail	C
8/9/1937	79:741-351-Detail	C
12/23/1937	79:741-457	C
c.1939	99:19873	C
1/12/1941	79:741-609 Detail	C
1/12/1941	79:741-616 Detail	C
March 1941	79:741-673	C
7/14/1941	79:741-718	C
9/10/1941	79:741-732	C
1947	82:13673-615 Detail	C
3/31/1953	AXN-3M-53	A, D
4/20/1954	99:19870	C
December 1955	82: I 3673-1301-Detail	C
1956	82: 13673-2003	C
3/23/1957	82: 13673-1 390-Detail	C
12/7/1957	82:13673-1415	C
12/7/1957	82:13673-1423	C
Late 1957/Early 1958	N/A	C
6/16/1958	99:19871	C
11/2/1958	82:13673-1511	C
11/2/1958	82:13673-1513	C
c.1960	N/A	C
10/25/1963	A-I13	A
10/25/1963	A-I13	A
1/4/1969	10,984	A
July 1969	13,357 B	A
4/23/1973	54,090	A
11/27/1973	82,568	A
1/7/1976	F-462	A
4/21/1979	24,415	A
7/31/1985	26,560	A
2/29/1989	CV89-11	A
10/6/1998	CVSD98-936+	A

Table 1 - Summary of Historical Photographs Reviewed

Date	Photograph Number	Source
4/1/2000	N/A	G
6/10/2001	N/A	G
July 2001	N/A	E
4/8/2002	N/A	G
November 2002	N/A	F
12/11/2002	N/A	H
3/11/2003	N/A	G
4/29/2004	N/A	H
10/10/2005	N/A	H
January 2006	77022257	F
5/30/2007	N/A	H
March 2008	34205885	F
6/5/2009	N/A	E

NOTES:

Aerial Photographs are included as Appendix A.

N/A - Not Available

c.1960 - Indicates circa 1960

Sources:

A - Aerial Fotobank Inc., San Diego

B - San Diego Unified Port District

C - San Diego Historical Society, Photograph Collection, San Diego

D - Ninyo & Moore, San Diego

E - United States Department of Agriculture courtesy of Google Earth

F - United States Geological Survey website, <http://seamless.usgs.gov>

G - GeoEye Inc. courtesy of Google Earth

H - DigitalGlobe courtesy of Google Earth

Table 2 -Summary of Sanborn Fire Insurance Maps Reviewed

Year	Site Coverage	Limitations	Source/Map Sheet No.
1888	No site coverage. Coverage only for the property to the adjacent north (including Water and Gas Works).	No site coverage (1)	San Diego Public Library, Reel 52, Sheet 4, Book 4
1906	No site coverage. Coverage only for the property to the adjacent north (including Water and Gas Works).	No site coverage (1)	San Diego Public Library, Reel 52, Sheet 16, Book 4
1920	Southern area of the site is covered. No site coverage for the northern or central site areas.	Map inaccurately scaled	Environmental Database Resources, Sheets 77, 101, and 102
1921	Northern and southern areas of the site are covered. No site coverage for the central site area.	No coverage for the central area of the site. Map inaccurately scaled.	Vista Information Solutions, sheets 101,102, and San Diego Public Library, Reel 52, Sheet 104
1939	Northern and central areas of the site are covered.	NC	San Diego Public Library, Reel 53, Sheet 111
1950	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1956	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1959	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1960	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1962	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1965	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111
1970	Site area covered	Map inaccurately scaled.	Environmental Database Resources, Sheets 101, 102, and 111
1971	Site area covered	NC	Environmental Database Resources, Sheets 101, 102, and 111

Notes:

NC - Indicates no comment concerning limitations

(1) The San Diego Public Library, EDR, Vista Information Solutions, and The San Diego Historical Society were checked for Sanborn Fire Insurance Map Coverage.

Table 3 - Summary of City Directories Reviewed

Business Listing	Years listed	Address
San Diego Consolidated Gas & Electric (offsite, to the northeast)	1881-present	111 9th Street
City Incinerator (offsite, to the adjacent north)	1913-56	Waterfront, foot of 9th Ave
Benson Lumber Co. (site)	1907-57	Foot of Sigsbee Street
West Coast Crab & Lobster (site)	no listings	N/A
Southern Reduction Co. (site)	1918-21	Bayfront, foot of Beardsley Street
American Processing Co. (site)	1944-65	Foot of Beardsley Street
Peterson Manufacturing Co. (site)	1965-74	Foot of Beardsley Street
American Products Inc. (site)	1958-59	Foot of Sigsbee Street
Glacier Gardens/SD Sports Arena (offsite, to the adjacent north)	1944-57	175 8th Ave (Glacier Gardens)
	1957-60	175 8th Ave (S.D. Sports Arena)
Auto Trucks Service & Sales	No listings	N/A
General Petroleum Corporation of California (offsite, to the adjacent north)	1950-59	1883 Harbor Drive
Garnac Grain/SD Bulk Terminal (site)	1973-93	1090 Water Street
Pacific Molasses (site)	1963-79	1750 Water Street
Westside Metals (also listed as Scrap Metals) (site)	1979-94	626 then 696 Switzer Street
		Listed as the Union Oil Marine Dock at 1875 Water Street (formerly the Benson Lumber Company Wharf)
Union Oil of California (site)	1959-85	

Notes:

N/A - Not applicable

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
Boring 1	North of Transit Shed No. 1	Geotechnical Investigation associated with a SDUPD pavement replacement project.	4/17/80	N/A	(1) Woodward-Clyde. Locations on Plate 1 are approximate. Boring logs indicate only minor amounts of debris (bricks, rubble, gravels) in boring drilled.
Boring 2	Between Warehouses B & C		4/17/80		
Boring 3	Between Warehouses B & C		4/17/80		
Boring 4	West of Warehouse C		4/17/80		
Boring 5	Between Transit Shed Nos. 1 & 2		4/17/80		
Boring 6	Northeast of Transit Shed No. 1		4/17/80		
Boring 7	Southwest of Warehouse B		4/17/80		
Boring 8	West of Warehouse B		4/17/80		
Test Pit 1	North of Transit Shed No. 2	Geotechnical Investigation associated with a SDUPD pavement replacement project Phases 2, 3, and 4.	3/23/83	N/A	(2) Woodward-Clyde. Locations on Plate 1 are approximate. Borings were shallow to approximately 6.5 feet bgs. Boring logs do not indicate the presence of debris or other materials.
Test Pit 2	Northeast of Transit Shed No. 2		3/23/83		
Test Pit 3	East of Transit Shed No. 2		3/23/83		
Test Pit 4	South of Warehouse C		3/23/83		
Test Pit 5	South of Warehouse C		3/23/83		
Boring 1	Bunker Fuel Facility	Limited Environmental Site Assessment	5/7/86	Composite samples obtained from the borings, purgeable organics (624/8240), lead, chromium and pH.	(3) Moore & Taber in Bright & Associates. Composite samples were obtained from the 5 borings drilled. Purgeable organics ND. Lead in B-1 only (5.1 mg/kg). Chromium detected in 2 borings at low concentrations (3.1-7.0 mg/kg). Concluded no apparent soil contamination in areas investigated.
Boring 2	Bunker Fuel Facility		5/7/86		
Boring 3	Bunker Fuel Facility		5/7/86		
Boring 4	Bunker Fuel Facility		5/7/86		
Boring 5	Bunker Fuel Facility		5/7/86		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
N/A	SDUPD Maintenance Shops, 825 East Harbor Drive	HMMD file H11530 indicating unauthorized release associated with UST belonging to SDUPD Maintenance Shops.	8/86	N/A	(4) HMMD case discussed in Ninyo & Moore 1990. Analytical data not available. Reportedly, 6 USTs, (4) 6,000 gallon gasoline, (1) 2,000 gallon waste oil and (1) 550 gallon waste oil at site. Reportedly, one 6,000 gallon tank leaking study area only shown on Plate 1.
B-1 (MW-1)	Bunker Fuel Facility	Study of background concentrations of soil and groundwater (drilled 10 borings, 4 converted to monitoring wells). The boring logs appear to refer to the monitoring wells as B-1, B-3, B-4, and B-5; however, the site map refers to the wells as MW-1, MW-3, MW-4, and MW-5 (assuming they are the same).	9/29/98	TRPH (418.1) <u>or</u> purgeable organics (8240)	(5) Bright & Associates. Establish background TRPH/VOC concentrations prior to BP assuming responsibility of site.
B-3 (MW-3)	Bunker Fuel Facility		9/29/98		Concluded that all VOCs detected in soil and water samples except methylene chloride and acetone were either natural components or degradation products of bunker fuel oil.
B-4 (MW-4)	Bunker Fuel Facility		9/29/98		Ninyo & Moore (8) indicated that their DEH file review revealed a 900-gallon UST removed from an area in the northern part of the BP leasehold.
B-5 (MW-5)	Bunker Fuel Facility		9/29/98		SOIL CONCENTRATIONS TRPH: 16-490 mg/kg (data from 6 samples not available) VOCS (showing highest concentration) as follows:
BS1	Bunker Fuel Facility		9/29/98		Acetone - 0.09 mg/kg 1,1,1-trichloroethane - 0.001 mg/kg Benzene - 9.947 mg/kg Toluene - 2.853 mg/kg Ethylbenzene - 4.484 mg/kg Xylenes - 0.554 mg/kg Methyl cyclopentane - 0.470 mg/kg 2-Methylcyclopentane - 1.0 mg/kg 3-Methylthiophene - 0.017 mg/kg Hexane - 0.585 mg/kg Heptane - 0.036 mg/kg
BS2	Bunker Fuel Facility		9/29/98		
BS3	Bunker Fuel Facility		9/29/98		
BS4	Bunker Fuel Facility		9/29/98		(continued)

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
BS5	Bunker Fuel Facility	Same as above.	9/29/98	Same as above.	GROUNDWATER CONCENTRATIONS Carbon disulfide - 0.180 mg/L Methylene chloride - 0.032 mg/L Benzene - 0.006 mg/L Ethylbenzene - 0.005 mg/L
BS6	Bunker Fuel Facility		9/29/98		
N/A	Eighth Avenue and East Harbor Drive	Preliminary Site Assessment performed in the vicinity of Eighth Ave. and East Harbor Drive that revealed the presence of contaminated soil in at least two locations (one area within project site <u>in</u> N&M study area 1990.	1987	TRPH (418.1) TPH (8015), BTX (8020), PAH (8310), organochlorine pesticides and PCBs (8080), purgeable halocarbons (8010)	(6) SDG&E <u>in</u> Ninyo & Moore 1990. SOIL CONCENTRATIONS (both locations) PAHs detected in all soil samples analyzed. PCBs - ND BTEX - ND Purgeable halocarbons - ND TPH - 90 mg/kg TRPH - 380 mg/kg Study area only shown on Plate 1.
N/A	Southeast of tank farm (previously referred to as 1025 East Harbor Drive also referred to as Ralston Purina/Van Camp Seafood Leasehold)	Environmental Investigation of soil and groundwater associated with a leaking UST. Drilled 4 exploratory borings, converted to monitor wells. (Also an earlier study by American Processing Co. with no data available regarding investigation areas).	1987	TRPH (418.1), (8015)	(7) Applied Hydrogeologic Consultants and American Processing Company <u>in</u> Ninyo & Moore 1990. Concluded contamination adjacent to tank was associated with unauthorized release from tank. Stated that the 8,950 mg/kg TRPH in soil located approx. 100 feet away is unrelated to tank and responsibility of SDUPD. SOLID CONCENTRATIONS: TRPH: ND-8,950 mg/kg TPH: ND-14,000 mg/kg GROUNDWATER CONCENTRATIONS: TRPH: ND-0.09 mg/L EARLIER API STUDY TPH (soil): 1,100 mg/kg TPH (water): 96 mg/L Study area only shown on Plate 1.

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
MW-4	North of SDUPD Maintenance Shop	Environmental Investigation of soil and groundwater associated with a leaking UST. Drilled 15 borings, all of which were converted to monitoring wells. Monitoring wells MW-1 through MW-3 are located outside of study area.	9/13/89	TPH, TRPH, Pb, BTEX, PCBs, PNAs, Title 22 metals	<p>(8) Ninyo & Moore.</p> <p>This study indicated detectable concentrations of TPH and/or TRPH in all soil samples analyzed. Elevated concentrations of these constituents (equal or greater than 1,000 mg/kg) were evident at two separate areas. The first area extended from the northern corner of the Campbell Shipyard parking lot (offsite) eastward (offsite) and southerly toward the southwest portion of the SDUPD maintenance shops (MW-7). The second area occurs in the northern corner of the former Ralston Purina/Van Camp Seafood leasehold parking lot (MW-10) and extends southerly toward MW-13. Absence of BTEX in soil samples. Soil samples two monitoring well borings MW-1 (offsite) and MW-15 (onsite) contained hazardous waste levels of soluble lead, according to California Title 22.</p> <p>TPH concentrations in groundwater were relatively low and when contoured suggested the possibility of either an offsite source(s) or a former onsite source(s).</p> <p>SOIL CONCENTRATIONS TPH: ND-7,600 mg/kg TRPH: 10.8-616 mg/kg PCBs - ND BTEX - ND Org Pb - ND-1.49 mg/kg Metals Pb (2 supplies considered hazardous using WET method) Total PAHs-ND-1,376 mg/kg</p> <p>(continued)</p>
MW-5	Northeast of SDUPD Maintenance Shop		9/14/89		
MW-6	East of SDUPD Maintenance Shop		9/14/89		
MW-7	South of SDUPD Maintenance Shop		9/18/89		
MW-8	West of SDUPD Maintenance Shop		9/18/89		
MW-9	North of SDUPD Maintenance Shop		9/18/89		
MW-10	Southeast of Bunker Fuel Facility		9/20/89		
MW-11	Southeast of Bunker Fuel Facility		9/21/89		
MW-12	Southeast of Bunker Fuel Facility		9/21/89		
MW-13	Southeast of Bunker Fuel Facility		9/22/89		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
MW-14	Southeast of Bunker Fuel Facility	Same as above.	9/22/89	Same as above.	WATER CONCENTRATIONS TPH: ND-1,560 µg/L B -- ND(<0.3)-530 µg/L (not all wells were analyzed) T -- ND-35.4 µg/L (not all wells were analyzed) E -- ND-91.2 µg/L (not all wells were analyzed) X -- ND-279 µg/L (not all wells were analyzed) Total PAHs - 73.96-1104.37 µg/L (3 wells only) PCBs -- ND Metals -- ND -- low concentrations Org Pb -- ND
MW-15	Southeast of Bunker Fuel Facility		9/25/89		
MW-3	SDUPD Maintenance Shop	Groundwater sampling of three existing monitoring wells.	2/24/92	TPH, Benzene Toluene, Ethylbenzene, VOCs (624)	(9) Environmental Audit, Inc. GROUNDWATER CONCENTRATIONS (MW -3, MW-4, and MW-5) - TPH ND-0.500 mg/L Benzene - ND-0.010 mg/L Toluene - ND-0.002 mg/L Ethylbenzene - ND-0.005 mg/L Xylenes - ND VOCs (styrene) - 0.010 mg/L
MW-4	SDUPD Maintenance Shop		2/24/92		
MW-5	SDUPD Maintenance Shop		2/24/92		
MW-6	Bunker Fuel Facility	Supplemental Environmental Investigation, soil and groundwater. Drilled and sampled two additional monitoring wells.	11/20 - 24/92	TRPH (418.1), TPH (8015) and VOCs (8240)	(10) Environmental Audit, Inc. GROUNDWATER CONCENTRATIONS TRPH - ND TPH - ND VOCs - ND
MW-7	Bunker Fuel Facility		11/20 - 24/92		
Boring 1	West corner of Building 1	Geotechnical boring associated with Phase 2 Pavement Replacement Areas 1, 2, and 3. One boring only.	5/1/92	N/A	(11) Woodward-Clyde. Boring log did not indicate the presence of buried wood/debris.

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-1	SDUPD Maintenance Shop Area	Soil and Groundwater Investigation. Drilled 16 borings, sampled 4 existing monitoring wells.	7/14/92	TPH (8015), BTEX (8020), Org. Pb, VOCs (8240)	(12) Leighton & Associates. Oily substance and creosote identified in B-1 and B-3, A black coal-like substance was identified in several soil samples in two general areas, the northern area (B-1) and the relatively extensive southern site area as identified in seven borings (B-8 -- B-14). Analytical data indicated petroleum-hydrocarbon-impacted soils located primarily in the northern and southern site areas. Significant levels of TPH and PAH and the presence of oily material in northern area suggests presence of creosote and/or coal tar.
B-2	SDUPD Maintenance Shop Area		7/14/92	TPH (8015) PAHs (8270)	Reportedly, a creosote pit was identified (SDG&E 1987) northeast of the subject site, the same area as the "Gas Works Refuse Settling Tank" on the 1921 Sanborn map.
B-3	SDUPD Maintenance Shop Area		7/15/92	TPH (8015) PAHs (8270)	This pit is a likely source of the PAHs in the area of B-1, B-3 and MW-9. PAHs were also identified in groundwater samples in area around the USTs. Six other borings (B-8 through B-13) identified a coal-like substance at 6-9 feet bgs. Possible source of the TPH and BTEX in soil and groundwater in southern area of the site appears to be associated with the presence of the USTs. Soil samples from
B-4	SDUPD Maintenance Shop Area		7/15/92	TPH (8015) PAHs (8270)	
B-5	SDUPD Maintenance Shop Area		7/15/92	TPH (8015) PAHs (8270)	
B-6	SDUPD Maintenance Shop Area		7/15/92	TPH (8015), BTEX (8020), PAHs (8270)	
B-7	SDUPD Maintenance Shop Area		7/15/92	TPH (8015) PAHs (8270)	SOIL CONCENTRATIONS TPH: ND- 21,600 mg/kg TPH for all hydrocarbon peaks including creosote ND - 79,700 mg/kg
B-8	SDUPD Maintenance Shop Area		7/15/92	TPH (8015), BTEX (8020), PAHs (8270)	SOIL CONCENTRATIONS Maximum concentrations for: Benzene - 1,790 mg/kg Toluene - 12,600 mg/kg Ethylbenzene - 18,800 mg/kg Xylenes - 12,500 mg/kg VOCs - ND (3 samples) Total PAHs - ND - 27,454 mg/kg Phenols - ND (4 samples) Title 22 metals: Pb & Zn exceeds TTLC Org Pb: ND-3.2 mg/kg
B-9	SDUPD Maintenance Shop Area		7/15/92	TPH (8015), BTEX (8020)	
B-10	SDUPD Maintenance Shop Area		7/15/92	TPH (8015), BTEX (8020)	
B-11	SDUPD Maintenance Shop Area		7/16/92	TPH (8015), BTEX (8020), Org. Pb, VOCs (8240)	(continued)

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-12	SDUPD Maintenance Shop Area	Same as above.	7/16/92	TPH (8015), BTEX (8020), VOCs (8240)	GROUNDWATER CONCENTRATIONS Maximum concentrations for: TPH-63,500 µg/L Benzene - 2,530 µg/L Toluene - 2,570 µg/L Ethylbenzene - 1,230 µg/L Xylenes - 4,520 µg/L VOCs - (toluene 381,000 µg/L, ethylbenzene 280,000 µg/L, xylenes 1,790,000 µg/L) PAHs - 74,900 µg/L Phenols ND (3 wells)
B-13	SDUPD Maintenance Shop Area		7/16/92	TPH (8015), BTEX (8020),	
B-14	SDUPD Maintenance Shop Area		7/16/92	TPH (8015), BTEX (8020), PAHs (8270)	
B-15	SDUPD Maintenance Shop Area		7/15/92	TPH (8015), BTEX (8020), PAHs (8270)	
B-16	SDUPD Maintenance Building Area		7/15/92	TPH (8015), BTEX (8020), PAHs (8270)	
MW-7-N	SDUPD Maintenance Shop Area	Summary of soil and groundwater investigations and groundwater sampling of existing wells-Campbell Shipyard. Only 4 monitoring wells MW-7-N, MW-8-N, MW-9-N, and MW-15-N (Ninyo & Moore wells) are included within the subject study area, of which 2 were sampled.	N/A	Groundwater study included collecting 15 samples (2 of which were located within study area) analyzed for VOCs (8260), SVOCs (8270), Cu, Pb, Zn, general chemistry. (The one soil sample collected was from outside the study area.) Not all groundwater samples were analyzed for all constituents listed above.	(13) PTI Environmental Services. Study delineated seven separate areas of soil contamination at the adjacent Campbell Shipyard. One of the contaminated areas is immediately adjacent to the subject site, and is located at the south parking lot and is associated with the former diesel and gasoline tank farm operated by General Petroleum Corporation of California. The second area adjacent to the site is the east parking lot where elevated petroleum hydrocarbons were present and reported appeared to be associated with historical site uses in the area such as the SDG&E facility, city garbage disposal plant, other machine companies, and truck repair facilities. Analytical data area for the two wells located within the subject area. (continued)
MW-8-N	SDUPD Maintenance Shop Area		12/1/93		
MW-9-N	SDUPD Maintenance Shop Area		12/1/93		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
MW-15	SDUPD Maintenance Shop Area	Same as above.	N/A	Same as above.	GROUNDWATER CONCENTRATIONS VOCs: cis-1,2-DCE - ND-78 µg/L 1,2 DCA - ND-1 µg/L (also in equipment blank) PAHs: Acenaphthene - ND-20 µg/L Fluoranthene - ND-25 µg/L Pyrene - ND-35 µg/L Benzofluoranthene - ND-11 µg/L Benzoperylene - ND-10 µg/L
B-1	North of molasses tanks near RR tracks.	Environmental assessment of soil comprising the railcar switching ramp Drilled three borings ranging from 6.5 to 19.5-feet.	11/21/94	TRPH (418.1), VOCs (8240), TPH-IDQ (8015M), Title 22 Metals (6010/7000)	(14) Dames & Moore. Asphalt and glass were noted in all three borings. Both samples contained TRPH levels greater than 100 mg/kg. Concentrations of metals did not exceed the TTLC for the samples analyzed. Concentrations of some metals were greater than ten times their respective STLCs. SOIL CONCENTRATIONS (Two samples only) Copper - 22.0-32.0 mg/kg Lead - 30.0-33.0 mg/kg Zinc - 160.0 - 190.0 mg/kg TRPH - 350.0 -470.0 mg/kg Waste Oil - 180.0 - 270.0 mg/kg
B-2	North of molasses tanks near RR tracks.		11/21/94		
B-3	North of molasses tanks near RR tracks.		11/21/94	N/A	Note: Locations on Plate 1 are approximate.

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-1	RR track replacement ESA (easternmost track area).	Railroad Track Replacement Soils Investigation concurrently performed with a geotechnical investigation. Drilled 26 borings. Borings generally located on 200-ft centers for geotechnical purposes and in potentially contaminated areas as defined by a Preliminary ESA. Both companies were present while drilling borings and sampling.	5/31/95	TRPH (418.1) TPH (8015)	(15) Law/Crandall, Inc. (16) L.K.R. Group, Inc. Moderate (100-500 mg/kg) TPH-Diesel concentrations were present in samples from B-12, B-13, B-13a, B-13b, B-13c, B-23, B-24 and B-25 at depths between ground surface and 10 feet bgs. Field data suggested groundwater was probably contaminated by diesel fuel in this area. Conclude that soil sample with highest TPH-Diesel at B-25 is probably associated with groundwater contamination. Pyrene in composite sample B-23/B-24 probably from former coal gasification plant located northwest of site. TPH-Diesel in B-5 and B-9 may be associated with large diesel spill underlying the BLF. (continued)
B-2	RR track replacement ESA (east of molasses tanks)		5/31/95	TRPH (418.1)	
B-3	RR track replacement ESA (east of molasses tanks)		6/1/95	TRPH (418.1)	
B-4	RR track replacement ESA (south of molasses tanks)		6/1/95	TRPH (418.1)	
B-5	RR track replacement ESA (south of molasses tanks)		6/2/95	TRPH (418.1), TPH (8015), BTEX (8020) and VOCs (8240)	
B-6	RR track replacement ESA (south of Warehouse C)		6/1/95	TRPH (418.1)	
B-9	RR track replacement ESA (near south corner of Transit Shed No.2)		6/1/95	TRPH (418.1), TPH (8015) and VOCs (8240)	
B-10	RR track replacement ESA (near east corner of Transit Shed No.2)		6/1/95	TRPH (418.1)	
B-11	RR track replacement ESA (south of Warehouse C)		6/1/95	TRPH (418.1)	
B-12	RR track replacement ESA (northeast of molasses tanks)		5/31/95	TRPH (418.1), TPH (8015) BTEX (8020)	
B-13	RR track replacement ESA (north of molasses tanks)		5/31/95	TRPH (418.1) TPH (8015) BTEX (8020) VOCs (8240)	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-13a	RR track replacement ESA (north of molasses tanks)	Same as above.	6/2/95	TRPH (418.1) TPH (8015) BTEX (8020) VOCs (8240)	SOIL CONCENTRATIONS TRPH - ND- 13,700 (B-25) TPH - ND - 2,800 mg/kg Benzene - ND Toluene - ND - 1.6 mg/kg Ethylbenzene - ND-3.1 mg/kg VOCs (8240) - ND Semi-volatiles (8270) - Pyrene - 3.5 mg/kg
B-13b	RR track replacement ESA (north of molasses tanks)		6/2/95	TRPH (418.1) TPH (8015) BTEX (8020) VOCs (8240)	
B-13c	RR track replacement ESA (north of molasses tanks)		6/2/95	TRPH (418.1) TPH (8015) BTEX (8020) VOCs (8240)	
B-14	RR track replacement ESA (east of Warehouse C)		5/31/95	TRPH (418.1) TPH (8015)	
B-15	RR track replacement ESA (north of Warehouse C)		5/31/95 & 6/1/95	TRPH (418.1) TPH (8015)	
B-16	RR track replacement ESA (north of Warehouse C)		5/31/95	TRPH (418.1) TPH (8015)	
B-17	RR track replacement ESA (north of Warehouse C)		5/31/95	TRPH (418.1) TPH (8015)	
B-18	RR track replacement ESA (north of Warehouse C)		5/31/95 & 6/1/95	TRPH (418.1) TPH (8015)	
B-19	RR track replacement ESA (north of Warehouse C)		5/31/95 & 6/1/95	TRPH (418.1) TPH (8015)	
B-20	RR track replacement ESA (north of Warehouse C)		5/31/95	TRPH (418.1) TPH (8015)	
B-21	RR track replacement ESA (north of Warehouse C)		5/31/95	TRPH (418.1) TPH (8015)	

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Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-22	RR track replacement ESA (north of Warehouse C)	Same as above.	5/31/95	TRPH (418.1) TPH (8015)	Same as above.
B-23	RR track replacement ESA (north of Warehouse C)		6/1/95	TRPH (418.1) TPH (8015) VOCs (8240) SVOCs (8270)	
B-24	RR track replacement ESA (northeast of Warehouse C)		6/1/95	TRPH (418.1) TPH (8015) VOCs (8240) SVOCs (8270)	
B-25	RR track replacement ESA (east of Warehouse C)		6/1/95	TRPH (418.1) TPH (8015) VOCs (8240)	
B-1	North of Warehouse C	Geotechnical Investigation of Warehouse C RR tracks and AC Pavement Distress.	4/25/96	N/A	(17) Geotechnics Incorporated. Fill soils up to 30 feet thick in the areas drilled.
B-2	Warehouse C		4/25/96		
B-3	Warehouse C		4/25/96		
B-4	Warehouse C		4/26/96		
B-5	North of Warehouse C		4/26/96		
B-6	North of Warehouse C		4/29/96		
B-7	North of Warehouse C		4/29/96		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-8	North of Warehouse C	Same as above.	5/2/96	N/A	Same as above.
B-9	North of Warehouse C		5/2/96		
B-10	North of Warehouse C		5/2/96		
P1	Area south of SDUPD Maintenance Shops, 825 East Harbor Drive.	Subsurface Soil and Groundwater Investigation (825 East Harbor Drive) in areas outlying former USTs. Drilled 18 direct-push borings and constructed and sampled 3 groundwater monitoring wells.	1/18/96	TPH (8015), BTEX (8020)	<p>(18 & 19) Levine-Fricke-Recon. On June 12, 1995, five, 4,000-gallon USTs were removed. Elevated (greater than 1,000 mg/kg) TPH-Gasoline and/or Diesel were detected in 7 of 33 samples. The chromatograms of 2 samples were not typical of gasoline or diesel, but of heavier hydrocarbons; assumed unrelated to the USTs. The extent of petroleum hydrocarbon-affected soils exceeding 1,000 mg/kg is an approximately 60 by 80-foot area. PCBs or chlorinated hydrocarbons do not appear to have impacted sediments in immediate vicinity of former waste oil UST. BTEX was detected in 2 of the 4 wells. Benzene concentrations did not exceed SDRWQCB interim guidelines for groundwater within 1,000 feet of marine surface. TPH-Gas and Diesel were not detected. Levine-Fricke-Recon subsequently conducted a fate and transport evaluation for the same site. Three samples exceeded USEPA Region IX PRG for benzene at 3.2 mg/kg. Therefore, at request of DEH, a subsurface to surface vapor transport study of benzene was conducted. Concentrations of benzene that exceeded 3.2 mg/kg occur at depths of 8.5</p> <p>SOIL CONCENTRATIONS TPH-Gas: ND-17,200 mg/kg TPH-Diesel: ND-27,500 mg/kg (P-6) Benzene: ND-18 mg/kg Toluene: ND-32.8 mg/kg Ethylbenzene: ND-248 mg/kg Xylenes: ND- 461 mg/kg</p> <p>(continued)</p>
P2	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P3	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P4	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P5	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P6	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P7	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P8	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P9	Area south of SDUPD Maintenance Shops		1/19/96	TPH (8015) BTEX (8020)	

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Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
P10	Area south of SDUPD Maintenance Shops	Same as above.	1/18/96	TPH (8015) BTEX (8020)	GROUNDWATER CONCENTRATIONS TPH-Gas: ND TPH-Diesel: ND Benzene: ND-26.5 µg/L Toluene: ND-2.0 µg/L Ethylbenzene: ND-17.3 µg/L Xylenes: ND-11.5 µg/L
P11	Area south of SDUPD Maintenance Shops		1/19/96	TPH (8015) BTEX (8020)	
P12	Area south of SDUPD Maintenance Shops		1/18/96	TPH (8015) BTEX (8020)	
P13	Area south of SDUPD Maintenance Shops		1/19/96	TPH (8015) BTEX (8020)	
P14	Area south of SDUPD Maintenance Shops		1/19/96	TPH (8015) BTEX (8020)	
96MW-1	Area south of SDUPD Maintenance Shops Former UST area		1/19/96	TPH (8015) BTEX (8020)	
96MW-2	Area south of SDUPD Maintenance Shops Former UST area		1/19/96	TPH (8015) BTEX (8020)	
96MW-3	Area south of SDUPD Maintenance Shops Former UST area		1/19/96	TPH (8015) BTEX (8020)	
MW-7	Area south of SDUPD Maintenance Shops		2/9/96	TPH (8015) BTEX (8020)	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
R14/17-1	RR tracks, generally between Building No. 1 and Warehouse C	Environmental Site Assessment, Soil Investigation/Characterization. Advanced 14 hand auger borings in the vicinity of railroad tracks. Random sampling locations on grid.	6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) Title 22 metals	(20) Holguin, Fahan & Associates, Inc. Sampling plan for characterization of soil at 10th Avenue Marine Terminal was based on systematic random sampling (SW-846). VOCs and SVOCs not detected in samples at each of the 14 locations sampled. 11 samples contained detectable TRPH 75-7,530 mg/kg. The TRPH is believed to be attributed to the heavy fraction of petroleum hydrocarbons (oil). Selected samples did not contain PCBs. One sample out of 14, contained Cu and another sample contained Pb at concentrations that exceeded their respective STLCs.
R14/20-1	RR tracks, area generally between Building No. 1 and Warehouse C		6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	
R20/23-4	RR tracks area, north of Warehouse C		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	
R23/25-4	RR tracks area, north of Warehouse C		6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	
R25/27-5	RR tracks area, north of Warehouse C		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	
R27/29-5	RR tracks area, north of Warehouse C	Same as above.	6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	SOIL CONCENTRATIONS VOCs: (8260) ND SVOCs: (8270) ND PCBs: ND TRPH: ND-7,530 mg/kg Cu & Pb--one sample exceeded STLC The site and boring location map from this reference lacks scale and recognizable landmarks; therefore, sample locations are approximated.
R29/31-5	RR tracks area, north of Warehouse C		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	
R31/33-4	RR tracks area, north of molasses tanks		6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	
R33/36-4	RR tracks area, north of molasses tanks		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
NE300/100-2	RR tracks area, east of molasses tanks	Same as above.	6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	Same as above.
NE100/SE100-2	RR tracks area, south of molasses tanks		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	
SE100/300-2	RR tracks area, south of molasses tanks		6/30/97	TRPH (418.1) VOCs (8260) SVOCs (8270) Title 22 metals	
SW100/200-1	RR tracks, area generally between Warehouse B and C		6/30/97	TRPH (418.1) PCBs (8081) VOCs (8260) SVOCs (8270) Title 22 metals	
SW300/500-1	RR tracks, area generally between Warehouse B and C		6/30/97	TRPH (418.1) VOCs (8260) Title 22 metals	
CB-1	Northwest of Warehouse C	Compaction grouting geotechnical investigation, Warehouse C, Pavement Replacement Phase IV. Drilled 8 geotechnical confirmation borings to evaluate effectiveness of compaction grouting.	7/1/97	N/A	(21) Geotechnical Incorporated. Boring logs indicated wood chips and decaying organic odors in most of the borings which were drilled to depths on the order of 30 feet bgs. At some locations, entire fill was wood chips at depths of 20 to 21 feet bgs (no soil matrix).
CB-2	North of Warehouse C		7/1/97		
CB-3	North of Warehouse C		7/9/97		
CB-4	North of Warehouse C		7/9/97		
CB-5	North of Warehouse C		7/16/97		
CB-6	North of Warehouse C		7/16/97		
CB-7	North of Warehouse C		7/31/97		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
CB-8	North of Warehouse C	Same as above.	7/31/97	Same as above.	Same as above.
B-1	North of Warehouse B	Geotechnical Investigation Pavement Replacement, Phase 5, Drilled 30 geotechnical borings.	4/22/98	N/A	<p>(22) Geotechnical Incorporated.</p> <p>The presence of hazardous waste or hydrocarbon contaminated soils in the 30 borings drilled was not observed (analytical testing was beyond the scope of the evaluation). However, a soil report by Law/Crandall 1995, documented gasoline odor in their boring B-5, which was drilled within Track 3 between Geotechnics borings 6 and 7. Geotechnics also reported that Phase 4 construction encountered tallow contaminated soils in the same vicinity. They noted the presence of a fuel line paralleling the quay wall and noted it was possible that some hydrocarbon contamination may be present along this fuel line at the filling ports.</p>
B-2	North of Warehouse B		4/22/98		
B-3	Near east corner of Warehouse B		4/22/98		
B-4	Southeast of molasses tanks, Crosby Road		4/23/98		
B-5	Southeast of molasses tanks		4/23/98		
B-6	South of molasses tanks (near track 2 and Crosby Road)		4/23/98		
B-7	Southwest of molasses tanks (north of track 3)		4/23/98		
B-8	East of Warehouse C		4/23/98		
B-9	Southeast of Warehouse C		4/23/98		
B-10	Near south corner of Warehouse C		4/22/98		
B-11	South of Warehouse C		4/22/98		
B-12	South of Warehouse C		4/22/98		
B-13	South of Warehouse C (near tracks 2 & 3)		4/21/98		
B-14	West of Warehouse C		4/22/98		
B-15	South of Warehouse C (near track 3)		4/22/98		
B-16	South of Warehouse C (near track 3)		4/23/98		
B-17	South of Warehouse C (near track 2)		4/21/98		
B-18	North of Transit Shed No. 2		4/22/98		
B-19	North of Transit Shed No. 2		4/22/98		
B-20	South of Transit Shed No. 2		4/30/98		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-21	South of Transit Shed No. 2 (near track 2)	Same as above.	4/30/98	N/A	Same as above.
B-22	Northwest of Transit Shed No. 1 (near track 1)		4/30/98		
B-23	Near west corner of Transit Shed No.1		4/30/99		
B-24	West of Transit Shed No. 1		6/02/98		
B-25	Near south corner Transit Shed No. 1		6/02/99		
B-26	Near west corner of Transit Shed No. 2		6/02/100		
B-27	West of Transit Shed No. 2		6/02/101		
B-28	Near south corner of Transit Shed No. 2		4/30/104		
B-29	South of Transit Shed No.2 (near track 2)		4/30/105		
B-30	Switzer Street between Warehouse B & C		4/30/98		

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
W-1	Switzer Creek (just south of Harbor Drive)	Groundwater monitoring well constructions and water level monitoring. Study included installation of 9 of the 10 monitoring wells proposed. (W-4 not installed due to construction work at the site.)	6/4/98	N/A	(23) Geotechnics Incorporated. 9 of 10 wells were installed. Only soil samples from W-3 and W-5 were submitted for analytical testing based on strong petroleum hydrocarbon odors/organic odors respectively at these locations. Soil cuttings from these borings were submitted to PTAS. Analytical data not available.
W-2	Gull Street, north of Warehouse A				
W-3	Track area, south of Harbor Drive			Drill cuttings submitted for analytical testing including TTLC metals, PCBs (8080), and SVOCs (8270).	
W-5	North of molasses tanks		6/2/98	N/A	
W-6	Near west corner of Warehouse B				
W-7	West of Transit Shed No. 1 (near B-23)				
W-8	South of Transit Shed No. 2 (near B-20)	Same as above.	6/2/98	N/A	Same as above.
W-9	East of Transit Shed No. 2 (near B-14)				
W-10	South of Warehouse C (near B-8)			6/3/98	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
NMB-1	Northwest of Transit Shed No. 1	Subsurface ESA-Soils Investigation. Drilled and sampled 28 direct-push borings.	12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	(24) Ninyo & Moore. TPH Gas and Diesel were detected in soil samples collected from borings NMB-17, -22, -24, -25, -28, and -30. TPH-Gasoline and Diesel concentrations greater than 100 mg/kg correspond to a confined area approximately south of the ASTs and north of Berth 8, adjacent to the water's edge. Two soil samples, NMB-27 and 29 contained lead concentrations less than the TTLC but higher than 10 times the STLC; however, soluble lead (using WET method) and concentrations were less than the STLC. SOIL CONCENTRATIONS TPH-Gasoline - ND to 1,147 mg/kg TPH-Diesel - ND to 930 mg/kg Cu - ND-179 mg/kg Pb - ND-186 mg/kg / 3.20 mg/L (WET) Zn - 5.39-372 mg/kg
NMB-2	West of Transit Shed No. 1		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-4	Southwest of Transit Shed No. 2		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-5	South of Transit Shed No. 2		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-6	Southwest of Warehouse C		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-7	Southwest of Transit Shed No. 2		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-8	Southeast of Transit Shed No. 2		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-9	South of Transit Shed No. 2		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-10	Near south corner of Warehouse C		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-11	South of Warehouse C, north of RR tracks		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-12	South of Warehouse C, north of RR tracks		12/30/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-13	South of Warehouse C, north of RR tracks		12/29/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-14	South of Warehouse C, north of RR tracks		12/29/98	TPH-Gas/Diesel, Copper, Lead, Zinc	
NMB-15	South of Warehouse C, north of RR tracks		12/29/98	TPH-Gas/Diesel, Copper, Lead, Zinc	

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Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
JB-1C	East of former clarifier, Jankovich Co. tank farm	Limited Subsurface Soil and Groundwater Investigation. Drilled and sampled soil from 14 direct-push borings and one hand auger boring. Grab groundwater samples were collected from 9 of the direct push borings and 5 existing monitoring wells.	9/16/99	TPH-Gas/Diesel, VOCs, PAHs	<p>(25) JE Assessment Services 15 soil borings advanced adjacent to tank farm ASTs and structures associated with pumping operations to a max depth of 10 ft bgs. Three soil samples each were collected from soil borings JB-1A to JB-1C, -2, -3B, -4B, -5, -6, -7, -9, 10, and -11. Two samples were collected from soil borings JB-8, -12, -13, -14, and -15. VOCs detected in soil samples collected from borings JB-4B at 2 ft bgs and JB-7 at 10 ft bgs. TPH-G and TPH-D were not detected in any of the soil samples collected. Organic lead was not detected in the sample collected from JB-4B at a depth of 2 ft bgs. PAHs detected in the sample collected from JB-4 (adjacent to JB-4B) at a depth of 2 ft bgs. Grab groundwater samples were collected from borings JB-1C, -2, -3B, -4B, 5, -6, -7, -8 and -9 and from existing monitoring wells MW-3, MW-4, MW-5, MW-6, and MW-7. Groundwater samples were ND for TPH and lead. VOCs detected in 6 of 9 grab groundwater samples collected from soil borings and in 4 of 5 monitoring wells sampled.</p> <p>SOIL CONCENTRATIONS VOCs: Naphthalene - 0.028 to 0.525 mg/kg PAHs: BaP - 5.06 mg/kg Benzo(b)fluoranthene - 5.00 mg/kg Benzo(g,h,i)perylene - 4.61 mg/kg Chrysene - 3.59 mg/kg Fluoranthene - 7.86 mg/kg Indeno(1,2,3-cd)pyrene - 3.81 mg/kg Phenanthrene - 6.56 mg/kg Pyrene -11.5 mg/kg</p> <p>GROUNDWATER CONCENTRATIONS MTBE - 0.58 to 3.10 µg/L naphthalene - 1.52 to 11.6µg/L carbon disulfide - 1.53 to 3.39µg/L</p>
JB-2	North east of Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-3B	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-4B	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs, PAHs, Organic Lead	
JB-5	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-6	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-7	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-8	Jankovich Co. tank farm pumping station		9/16/99	TPH-Gas/Diesel, VOCs	
JB-9	West of piping vault, Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs	
JB-10	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs	
JB-11	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel	
JB-12	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs	
JB-13	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs	
JB-14	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs, PAHs	
JB-15	Jankovich Co. tank farm		9/16/99	TPH-Gas/Diesel, VOCs	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-1	North of Warehouse C, east of Building 1	Limited subsurface environmental site assessment in support of geotechnical investigation. Drilled and sampled 10 borings.	9/19/00-9/25/00	TPH - full range, Title 22 metals	(26) Ninyo & Moore Two samples were collected from each of the soil borings at depth intervals of 2 to 3 ft bgs and 5 to 7 ft bgs. TPH-full range was detected in 8 of the 10 borings. Two of the borings sampled contained TPH concentrations exceeding 1000 mg/kg. The TPH detected in these samples was in the heavier hydrocarbon range (C18 to C32). Seven of the borings sampled contained California hazardous waste levels of metals, including two borings which exceeded the TTL for lead, and one which exceeded the TTL for mercury. Five other borings contained samples which exceeded the STL for lead, and one of which exceeded the STL for copper. The report indicated that California hazardous waste levels of metals in the upper 10 ft would likely be encountered. Soluble metals were analyzed by WET method where a total metal concentrations exceeded 10 times the STL. SOIL CONCENTRATIONS TPH-full range - ND to 5160 mg/kg Copper - ND to 1028 mg/kg [0.825 mg/L (WET)] Lead - <2.0 to 4061 mg/kg [5.28 to 134 mg/L (WET)] Mercury - ND to 23.9 mg/kg [<0.010 mg/L (WET)]
B-2	Eastern portion of Building 1		9/19/00-9/25/00	TPH - full range, Title 22 metals	
B-3	Western portion of Building 2		9/19/00-9/25/01	TPH - full range, Title 22 metals	
B-4	North of west end of Warehouse B, east of Switzer Creek storm drain		9/19/00-9/25/02	TPH - full range, Title 22 metals	
B-5	South of Jankovich Co. tank farm, north of Switzer Creek Storm drain		9/19/00-9/25/03	TPH - full range, Title 22 metals	
B-6	Warehouse A footprint, South of Jankovich Co. tank farm, north of Switzer Creek Storm drain		9/19/00-9/25/04	TPH - full range, Title 22 metals	
B-7	South of Warehouse A, north of Switzer Creek storm drain		9/19/00-9/25/05	TPH - full range, Title 22 metals	
B-8	west of Jankovich Co. tank farm		9/19/00-9/25/06	TPH - full range, Title 22 metals	
B-9	west of Jankovich Co. tank farm		9/19/00-9/25/07	TPH - full range, Title 22 metals	
B-10	North of Switzer Creek storm drain, east of Jankovich Tank Farm		9/19/00-9/25/00	TPH - full range, Title 22 metals	

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Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-11	North of Warehouse A, west end of building footprint	Additional Subsurface Environmental Site Assessment. Drilled and sampled 6 hollow-stem auger borings. Three CPT borings were also advanced to supplement a geotechnical study.	1/19/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	(27) Ninyo & Moore Two samples were collected from each of the soil borings at depth intervals of 2 to 3 ft bgs and 5 to 7 ft bgs. TPH-full range was detected in 4 of the 6 borings. One sample collected from B-14 at a depth of 6.5 bgs contained TPH concentrations exceeding 1000 mg/kg. 5 of the 6 borings contained metal concentrations that exceeded thier respective TTLC or STLC. Samples exceeding 10 times the STLC and less than TTLC were submitted for soluble metal analysis (copper, lead, and zinc) using the WET method. Soluble metals were analyzed by SPLP to evaluate potential for contaminant migration. VOCs were detected in 3 of the 6 borings. However, none of the VOC analytical results exceeded EPA Region 9 PRGs for industrial soil. 3 of the 6 borings contained detectable concentrations of PAHs. PAH concentrations exceeded PRGs for industrial soils in the deeper sample interval of all 3 soil borings where PAHs were detected. SOIL CONCENTRATIONS TPH-full range - ND to 3830 mg/kg Copper - 4.08 to 1140 mg/kg [0.0482 to 0.825 mg/L (SPLP)] Lead - 7.26 to 4660 mg/kg [0.01 to 1.06 mg/L (SPLP)] Zinc - 15.4 to 5990 mg/kg [0.246 to 0.664 mg/L (SPLP)] Acetone - ND to 74 ug/kg Benzene - ND to 8.0 ug/kg Naphthalene - ND to 570 ug/kg BaP - ND to 8.1 mg/kg Benzo(a)anthracene - ND to 5.2 mg/kg Benzo(b)fluoranthene - ND to 6.6 mg/kg Indeno(1,2,3-c,d)pyrene - ND to 3.4 mg/kg
B-12	North of Warehouse A, west of Jankovich Co. tank farm		1/19/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	
B-13	North of Warehouse A, west of Jankovich Co. tank farm		1/20/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	
B-14	North of Warehouse A, west of Jankovich Co. tank farm		1/20/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	
B-15	Southeast of Warehouse A, north of Switzer Creek storm drain outfall		1/19/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	
B-18	South of Jankovich Co. tank farm, north of Switzer Creek Storm drain.		1/20/01	TPH - full range (C7 to C44), VOCs, PAHs, Title 22 metals	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-20	North of Warehouse A, east end of building footprint	Limited Subsurface Environmental Site Basement. Drilled and sampled 2 hollow-stem auger borings.	5/25/01	TPH - full range (C7 to C44), PAHs, soluble metals by SPLP	(28) Ninyo & Moore Three samples were collected from each of the soil borings at a max depth of 10.5 ft bgs. TPH-full range was detected in 4 of the 6 samples. TPH-full range concentration exceeded 1000 mg/kg in the sample collected from B-20 at depth of 7 ft bgs. 5 of the 6 samples analyzed by SPLP exceeded comparative values for enclosed bays and estuaries based on a dilution attenuation factor of 20. PAHs were detected in 2 of samples collected. Benzo(a)anthracene detected in one sample exceeded PRG screening levels with a dilution attenuation factor of 20. SOIL CONCENTRATIONS TPH-full range - ND to 1500 mg/kg Soluble metals by SPLP: Ba - 0.146 to 1.50 mg/L Be - ND to 0.0140 mg/L Cr - ND to 0.494 mg/L Co - ND to 0.206 mg/L Cu - 0.0582 to 0.937 mg/L Hg - ND to 0.0033 mg/L Mo - ND to 0.0742 mg/L Va - ND to 1.7 mg/L Zn - 0.379 to 2.69 mg/L Benzo(a)anthracene - ND to 3.5 mg/kg
B-21	East of Jankovich Co. tank farm, north of Building No. 1		5/24/01	TPH - full range (C7 to C44), PAHs, soluble metals by SPLP	
Stockpile P4	N/A	Special waste disposal request for soil stockpile P4 associated with the demolition of Building 1 and Warehouse A. A total of 14 samples were collected from the stockpile.	9/17/01-9/28/01	TPH - extended, PAHs, PCBs, VOCs, Title 22 metals (SPLP), lead and vanadium	(29) Ninyo & Moore A statistical analysis was performed on the soil samples collected from stockpile P4 to calculate the 80 percent UCL of the mean. The UCL for TPH -gasoline, TPH -Diesel, and TPH-heavy oil were all reported below the respective action threshold. The UCL for soluble metals were reported to be less than their respective action threshold. No PCBs were detected. The UCL for Benzo(a)anthracene and Benzo(b)fluoranthene were both reported slightly above the reported action threshold. Based on the reported UCLs the request letter indicated that the soil met the requirements for disposal at the Miramar Landfill.

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Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
North Stockpile	North of former Warehouse A	Analytical testing of crushed concrete stockpiles associated with demolition of Warehouse A and Building 1. 12 samples collected south stockpile, 14 collected from north stockpile.	10/12/01	PCBs (SPLP)	(30 & 31) Ninyo & Moore Samples were collected from each stockpile and statistically analyzed to determine mean concentrations and 80 percent UCL of the mean. Soluble PCBs were analyzed using SPLP. The UCL for total PCB concentrations were 0.061 and 0.29 mg/kg for the south and north stockpile respectively. The UCL for soluble PCB concentrations were <5.0 mg/kg and were 1.05 mg/kg at the south and north stockpiles respectively. The UCL for lead concentration at the north stockpile was calculated to be 35.3 mg/kg. A fate and transport study was conducted on the characterized stockpiles considering a model reuse scenario which would include it as a base material underlying an impervious layer of concrete or asphalt. This model scenario, therefore, assumes the concrete or asphalt layer would inhibit water from making direct contact with the crushed concrete material. To evaluate leaching of soluble PCBs into the groundwater the SPLP was used to under various assumptions. Under the model reuse scenario, the probability of the material reaching saturated conditions would
South Stockpile	East of the south end of Warehouse C		10/29/01	PCBs (SPLP), lead	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
Warehouse A Footprint	Warehouse A building footprint	Soil analytical testing results to satisfy soil management plan requirements for excavated soils associated with the demolition of Warehouse A and Building 1. Collected 21 grid soil samples from the footprint of Warehouse A. Collected 19 composite samples from soil stockpiles excavated from Building 1 footprint.	6/01 to 7/01	TPH - full range (C7 to C44), soluble metals by SPLP	(32) Ninyo & Moore A total of 21 grid samples were collected from the footprint of Warehouse A at depths ranging from 0.5 to 1.5 ft below the 3-ft thick fill material layer that the former structure was built on. The TPH concentrations ranged from 5 to 1400 mg/kg. Statistical analysis of the samples indicated an 80 percent UCL of the mean of 256 mg/kg is 370 mg/kg which was below the threshold value of 1000 mg/kg established in the soil management plan. The UCL for each of the soluble Title 22 metals was less than its respective threshold limit. 19 samples were collected from soil stockpiles generated during the excavation to expose the piling caps within the Building One footprint. Statistical analysis of the TPH results indicated an 80 percent UCL of the mean of 114 mg/kg is 177 mg/kg. The mean and UCL for total chromium was 0.039 mg/L and 0.51 mg/L, respectively, presumably indicating that the threshold limit for chromium(IV) (0.05 mg/L) was exceeded.
Building 1 Footprint	Stockpiles within Building 1 building footprint		6/01 to 7/01	TPH - extended, PAHs, soluble metals by SPLP	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
Building 1 Footprint	Building 1 building footprint	Soil analytical testing results to satisfy soil management plan requirements for excavated soils associated with the demolition of Warehouse A and Building 1. Collected and analyzed 29 samples from sample grid locations in the project area.	6/01 to 7/01	TPH - extended, PAHs, PCBs, VOCs, Title 22 metals	<p>(33) Ninyo & Moore. 29 grid soil samples were collected from the Building 1 footprint to a depth range of 1 to 3 ft bgs, and statistically analyzed to characterize the excavated soil for possible reuse. TPH-heavy oil was detected in all samples analyzed. TPH-diesel was detected in 23 of 29 samples. Metals were observed in all samples. PAHs were detected in 24 of the 29 samples. Trichloroethene, the only VOC detected, was detected in 3 of the samples. PCBs were not detected in any of the samples.</p> <p>SOIL CONCENTRATIONS TPH-gasoline - ND TPH-diesel - ND to 102 mg/kg TPH-heavy oil - 9.3 to 502 kg/mg Metals: Pb - 3.38 to 87 mg/kg Sb, Se, Ag - ND Other metals detected</p>

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-1	North American Terminals, southeast end of silos	Soil Investigation, part of geotechnical study for tenant improvements. Drilled and sampled 3 hollow-stem auger borings, collected 2 soil samples each, for a total of 6 soil samples.	4/11/02	TPH-extended, PAHs, Metals	(34) Ninyo & Moore. TPH detected in the 2 soil samples from B-3. PAHs detected in soil sample B-3 at 7-8.5 feet. Staining and hydrocarbon odor reported in boring B-3 in 7-8.5 foot range. Milled wood possibly from former Benson Lumber operations also reported. Total metals results from the 6 samples indicated levels below 10 times STLC. SOIL CONCENTRATIONS TPH-extended - ND to 1,400 mg/kg BaP - ND to 1.3 mg/kg Fluoranthene - ND to 3.1 mg/kg
B-2	North American Terminals, improvements		4/11/02	TPH-extended, PAHs, Metals	
B-3	Transfer Tower		4/11/02	TPH-extended, PAHs, Metals	
East Container Facility	Proposed East Container Facility Area	Radiation survey of soil stockpiles and open trenches and Dioxin/Furan analysis of soil burn ash/refuse stockpile associated with improvements. Collected 1 composite sample from burn ash/refuse stockpile.	3/15/02	Radiological Survey	(35) Ninyo & Moore Ground surface radiation survey of the soil stockpiles and open trenches was conducted using a digital Gamma-Scout actinometer in the vicinity of the East Container Facility in accordance with soil management plan. Measurements ranged from 0.02 to 0.18 μ Sv/hr. A composite sample was collected from a burn ash/refuse stockpile. Dioxin/Furan analysis was presented as the toxic equivalent quotient (TEQ) based on total 2,3,7,8-TCDD. The TEQ for the sample collected was 51 ng/kg.
15-15BA	Burn ash/refuse stockpile, Northeast portion of East Container Facility		3/15/02	Dioxins and Furans	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
B-1	Western portion of Transit Shed 1, along outside perimeter of south facing wall	Soil assessment in preparation for building demolition. Drilled and sampled 9 direct push borings. Collected 2 soil samples from each boring for a total of 18 samples.	7/24/02	TPH, PCBs, metals	<p>(36) TRC Alton Geoscience 18 borings were advanced to a depth 6.5 ft bgs. TPH was detected in 4 borings. TPH-motor oil was detected at a concentration of 550 mg/kg in boring B-2 at the 6.5 ft bgs. Metals were detected within or below the normal range for metals in soil. PCBs were not detected in any of the samples analyzed.</p> <p>SOIL CONCENTRATIONS TPH-diesel - ND to 11 mg/kg TPH-motor oil - ND to 550 mg/kg As - 1.5 to 5.3 mg/kg Ba - 6.2 to 93.0 mg/L Cr - 2.1 to 15.4 mg/L Co - 0.83 to 5.4 mg/L Cu - 0.88 to 4.4 mg/L Mo - ND to 1.4 mg/L Ni - 0.77 to 11.7 mg/kg Va - 6.8 to 29.9 mg/L Zn - 4.4 to 24 mg/L</p>
B-2	Western portion of Transit Shed 1, along outside perimeter of south facing wall		7/24/02	TPH, PCBs, metals	
B-3	Inner half of Transit Shed 1, along inside perimeter of south facing wall		7/24/02	TPH, PCBs, metals	
B-4	Inner half of Transit Shed 1, along inside perimeter of south facing wall		7/24/02	TPH, PCBs, metals	
B-5	Inner half of Transit Shed 1, near south facing wall and center fire wall		7/24/02	TPH, PCBs, metals	
B-6	Inner half of Transit Shed 1, near north facing wall and western fire wall		7/24/02	TPH, PCBs, metals	
B-7	Inner half of Transit Shed 1, along inside perimeter of north facing wall		7/24/02	TPH, PCBs, metals	
B-8	Western portion of Transit Shed 1, along inside perimeter of north facing wall		7/24/02	TPH, PCBs, metals	
B-9	Western portion of Transit Shed 1, along inside perimeter of north facing wall		7/24/02	TPH, PCBs, metals	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
Southwest Stockpile	Adjacent to ASTs and railroad tracks near the terminal entrance	Stockpile sampling of excavated soil for characterization and disposal. 7 samples were collected from southwest stockpile and 14 samples were collected from the northeastern stockpile.	11/11/02	PAHs, Title 22 metals	(37) Ninyo & Moore Two stockpiles were generated from excavation for a scale pit at the railroad tracks adjacent to the North American Terminal Inc. facility. The excavation area was located with a potential burn-ash area and therefore the soils were segregated into two stockpiles. A total of 8 samples were analyzed for PAHs. The samples analyzed for PAHs contained relatively low concentrations of PAHs. Lead was detected in all 21 samples at concentrations requiring STLC analysis by WET. Samples from the northeast stockpile additionally required TCLP analysis for lead. The 80 percent UCL of the mean for lead from the northeast stockpile exceeded the 5.0 mg/kg limit for lead by STLC and was indicated as a California hazardous waste. The lead results from the smaller stockpile did not exceed the 5.0 mg/kg limit and was considered a non-hazardous waste. Based on the UCL for lead by TCLP, both stockpiles were indicated as non-hazardous under RCRA.
Northeast Stockpile	Adjacent to ASTs and railroad tracks near the terminal entrance		11/12/02	PAHs, Title 22 metals	SOIL CONCENTRATIONS lead by STLC (UCL northeast stockpile) - 7.60 mg/l lead by STLC (UCL southwest stockpile) - 1.15 mg/l lead by TCLP (UCL northeast stockpile) - 0.310 mg/l

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
REC1	West of Foss Environmental warehouse/office building	Remedial excavation activities at RECs identified during a Phase I ESA. A total of 3 remedial trenches and 5 test pit locations were excavated and sampled. 5 samples were collected from each trench and 1 sample was collected from each test pit location.	10/21/03	TPH-extended, SVOCs, Metals	(38) Haley & Aldrich TPH was detected in REC1 and REC2. TPH results ranged from ND (<10 mg/kg) to 34.2 mg/kg which is two orders of magnitude less than the San Diego DEH residual saturation capacity concentration of 5900 mg/kg for medium to coarse sand. PAHs were detected in the 2 samples analyzed for SVOCs. PAH concentrations ranged from 22.7 ug/kg for benzo(a)pyrene to 96.7 ug/kg for pyrene. All PAHs were less than the USEPA Region 9 PRGs. Maximum detected metal concentrations ranged from 0.24 mg/kg for mercury to 136 mg/kg for zinc. Metal concentrations were compared to published background concentrations for California as well as USEPA Region 9 PRGs. The metal concentrations detected in each of the samples were all within reported background concentrations.
REC2	West of Foss Environmental warehouse/office building		10/21/03	TPH-extended, SVOCs, Metals	
REC3	West of Foss Environmental warehouse/office building		10/21/03	TPH-extended	
4A	North of Foss Environmental warehouse/office building South of Crosby St.		10/22/03-10/23/01	TPH-extended	
4B	North of Foss Environmental warehouse/office building South of Crosby St.		10/22/03-10/23/00	TPH-extended	
4C	North of Foss Environmental warehouse/office building South of Crosby St.		10/22/03-10/23/01	TPH-extended	
4D	North of Foss Environmental warehouse/office building South of Crosby St.		10/22/03-10/23/02	TPH-extended	
4E	North of Foss Environmental warehouse/office building South of Crosby St.		10/22/03-10/23/03	TPH-extended	

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

Sample I.D./ Study Area	Sample Location	Investigation Type	Sample Date	Analytical Testing	Consultant/Summary
Marine Terminal Building	N/A	XRF spectrum analysis of building surfaces for lead content.	N/A	lead	(39) Ninyo & Moore A portable XRF spectrum analyzer was used to test surfaces of building components by a State of California Department of Health Services Lead Inspector. No surface material analyzed by XRF were found to contain lead greater than 1.0 mg/cm ² , the Department of Health Services value for lead-based paint.
Pump Station 34	City right-of-way on BNSF Railroad property north of Cesar Chavez Parkway (formerly Crosby St.)	Historical research of known petroleum releases/sources.	N/A	TPH	(40) Ninyo & Moore Phase-separated hydrocarbon on groundwater was discovered during dewatering operations at City of San Diego manhole #3 (north of the terminal entrance and southwest of Harbor Dr.). According to San Diego RWQCB approximately 50% of the 70,000 gallons of groundwater extracted during dewatering operations consisted of free product. The report concluded the following: <ul style="list-style-type: none"> • A previous geotechnical evaluation conducted near manhole #3 did not indicate free product was present at the project site at that time. • The offsite properties researched during the study are unlikely sources of the free product. • It is unlikely that the refined petroleum pipeline or the fuel oil pipeline were sources of the free product. • Free product was measured on groundwater in wells located less than 500 feet upgradient of the project site prior to project construction.

Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

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Table 4: Summary of Available Geotechnical and Environmental Investigations Performed at the 10th Avenue Marine Terminal April 1980 to January 2006

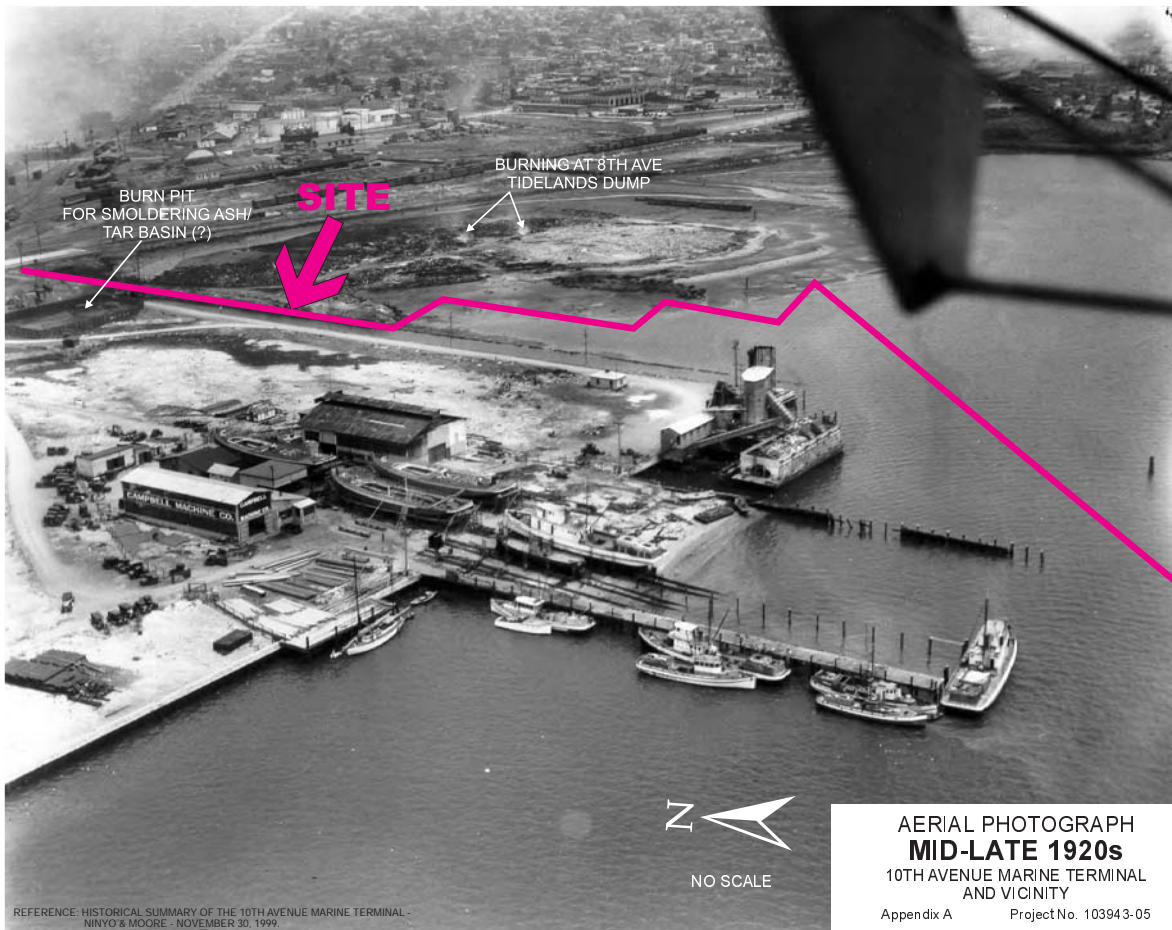
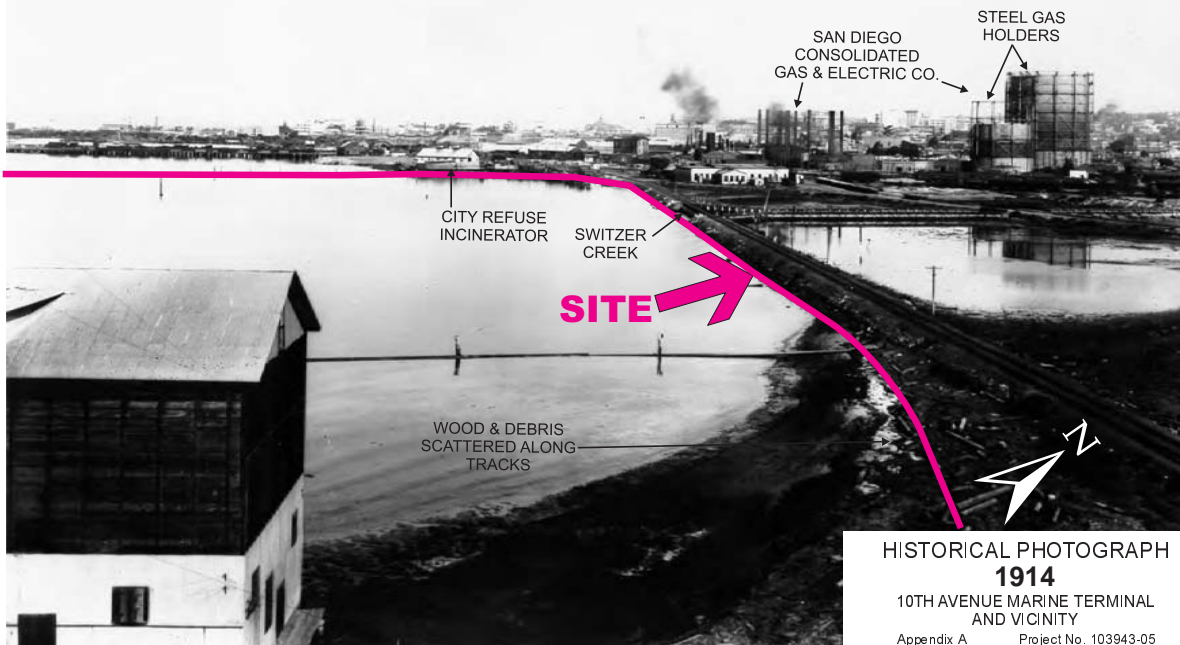
Abbreviations and Acronyms

AC	= Asphalt Concrete
B	= Benzene
T	= Toluene
E	= Ethylbenzene
X	= Xylenes
bgs	= below ground surface
BLF	= Bulk Loading Facility
DCA	= Dichloroethane
DCE	= Dichloroethene
DEH/HMMD	= County of San Diego Department of Environmental Health/Hazardous Materials Management Divisions
ESA	= Environmental site assessment
N/A	= Not available (not applicable)
ND	= Not detected above laboratory detection limit
Org. Pb	= Organic lead
PCBs	= Polychlorinated Biphenyls
PNAs/PAHs	= Polynuclear aromatic hydrocarbons
PRG	= Preliminary remediation goal
RR	= Railroad
SDRWQCB/ RWQCB	= Regional Water Quality Control Board - San Diego Region
STLC	= Soluble Threshold Limit Concentration
SVOCs	= Semi Volatile Organic Carbons
TRPH	= Total Recoverable Petroleum Hydrocarbons
TPH	= Total Petroleum Hydrocarbons
TTLC	= Total Threshold Limit Concentrations
VOCs	= Volatile Organic Compounds
WET	= Waste Extraction Test (Title 22 CCR)
μg/kg	micrograms per kilogram
mg/kg	milligrams per kilograms
μg/L	micrograms per liter
mg/L	milligrams per liter

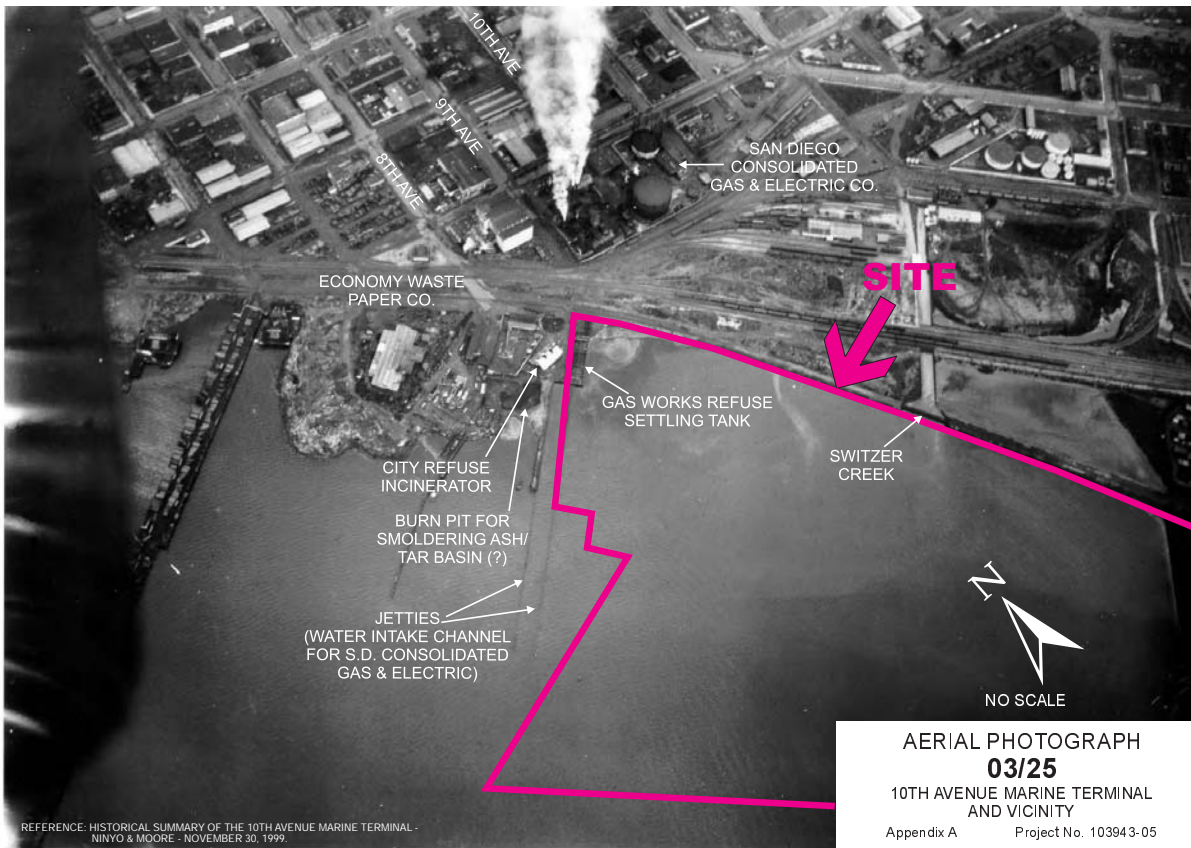
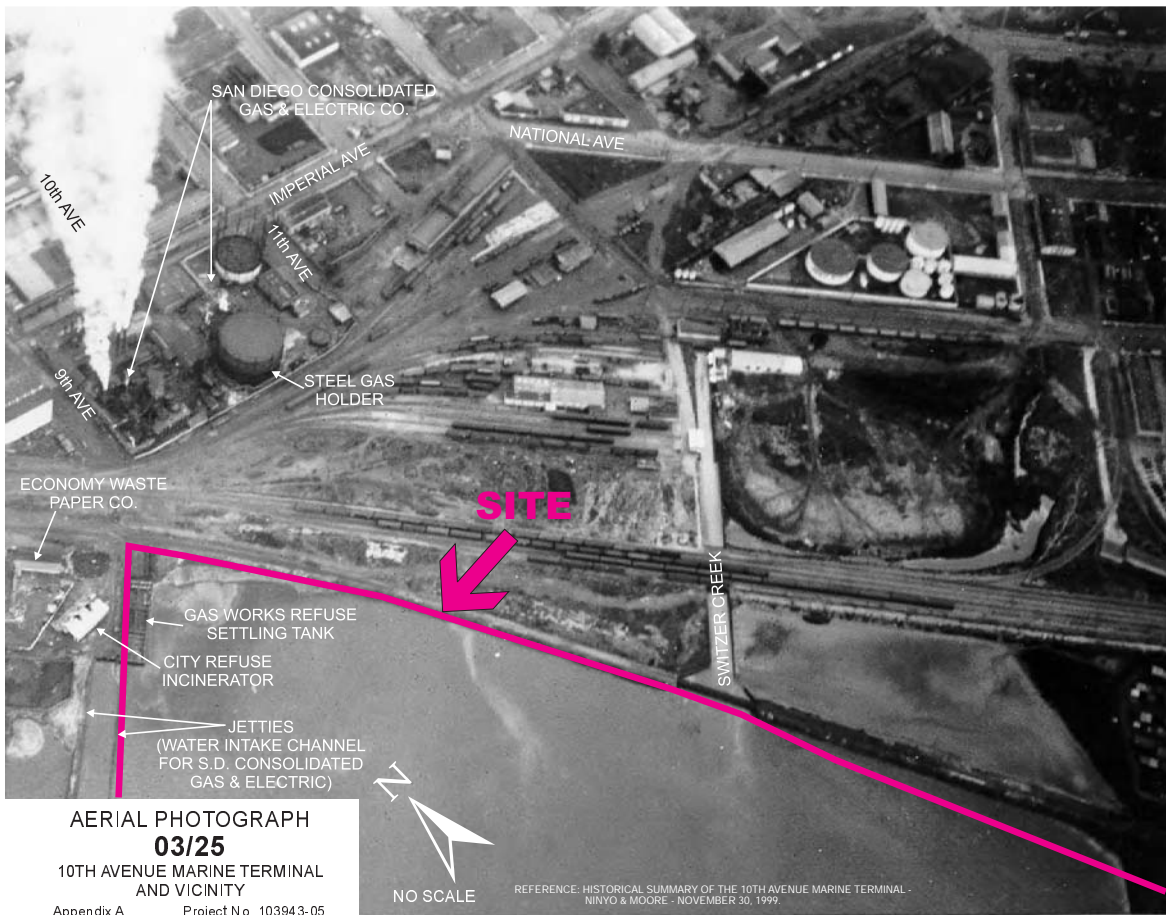
APPENDIX A
HISTORICAL PHOTOGRAPHS

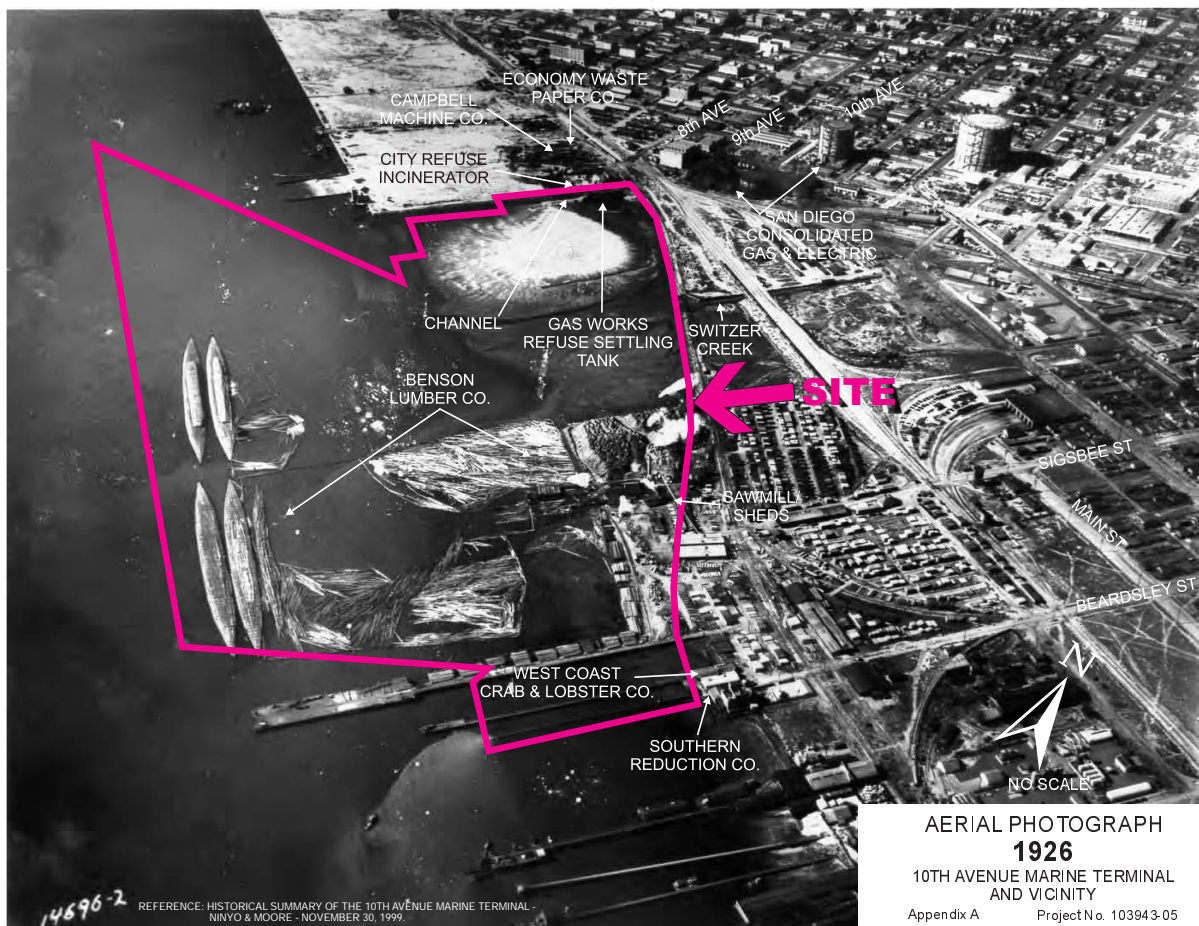
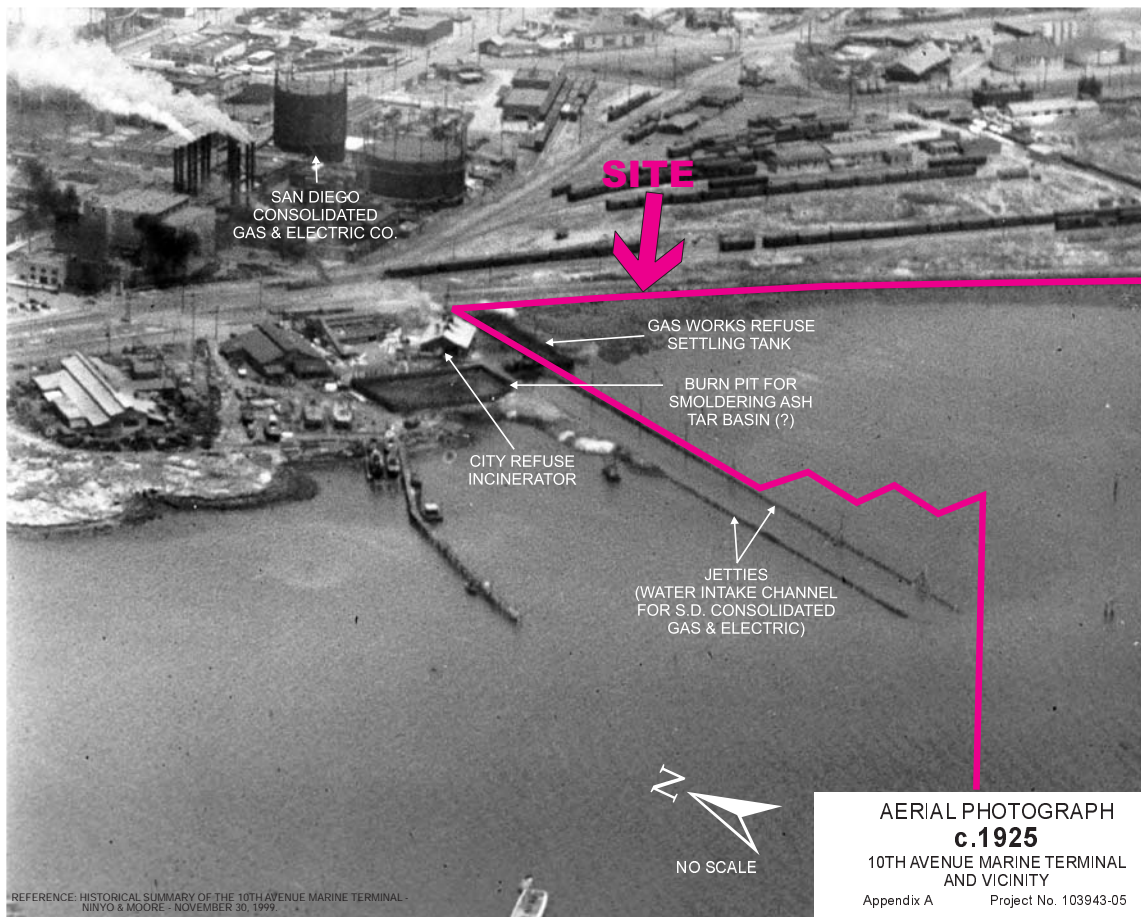


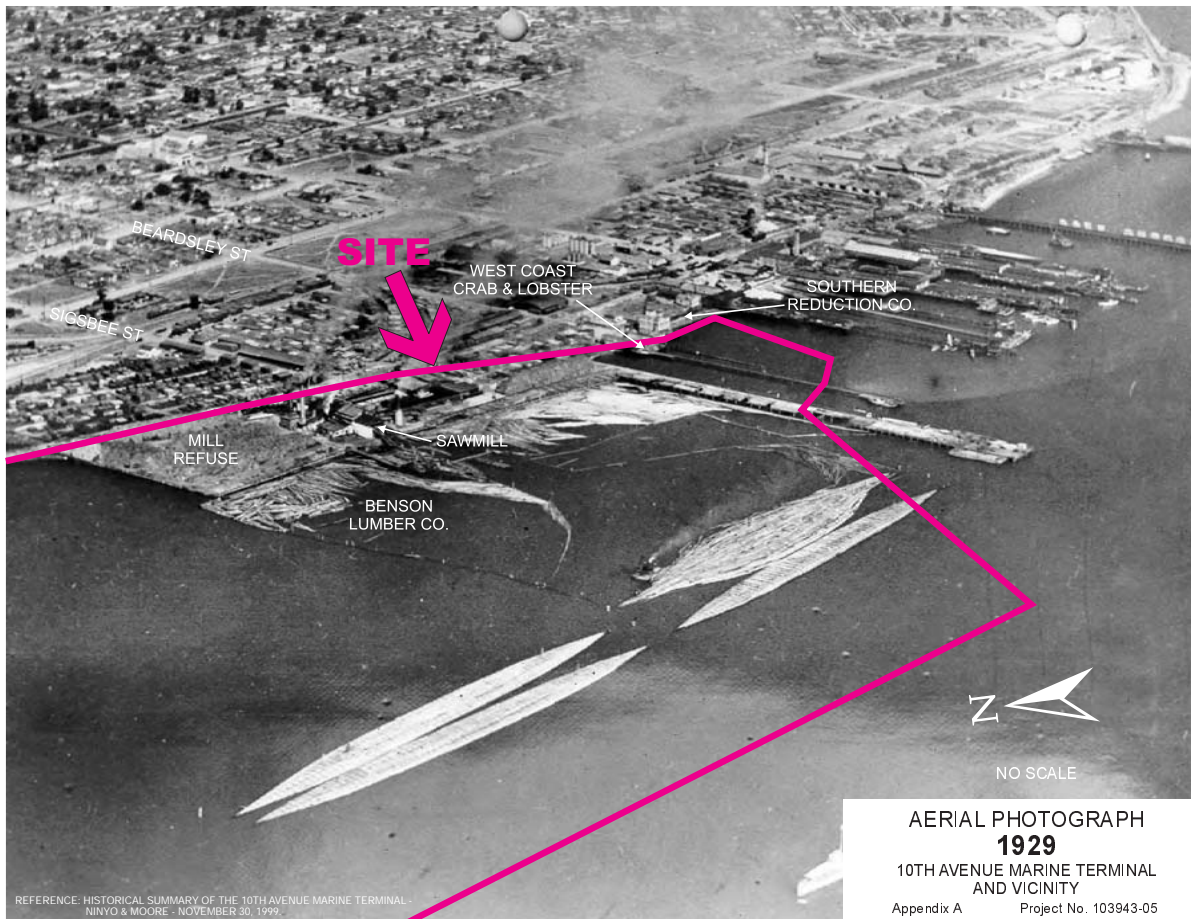
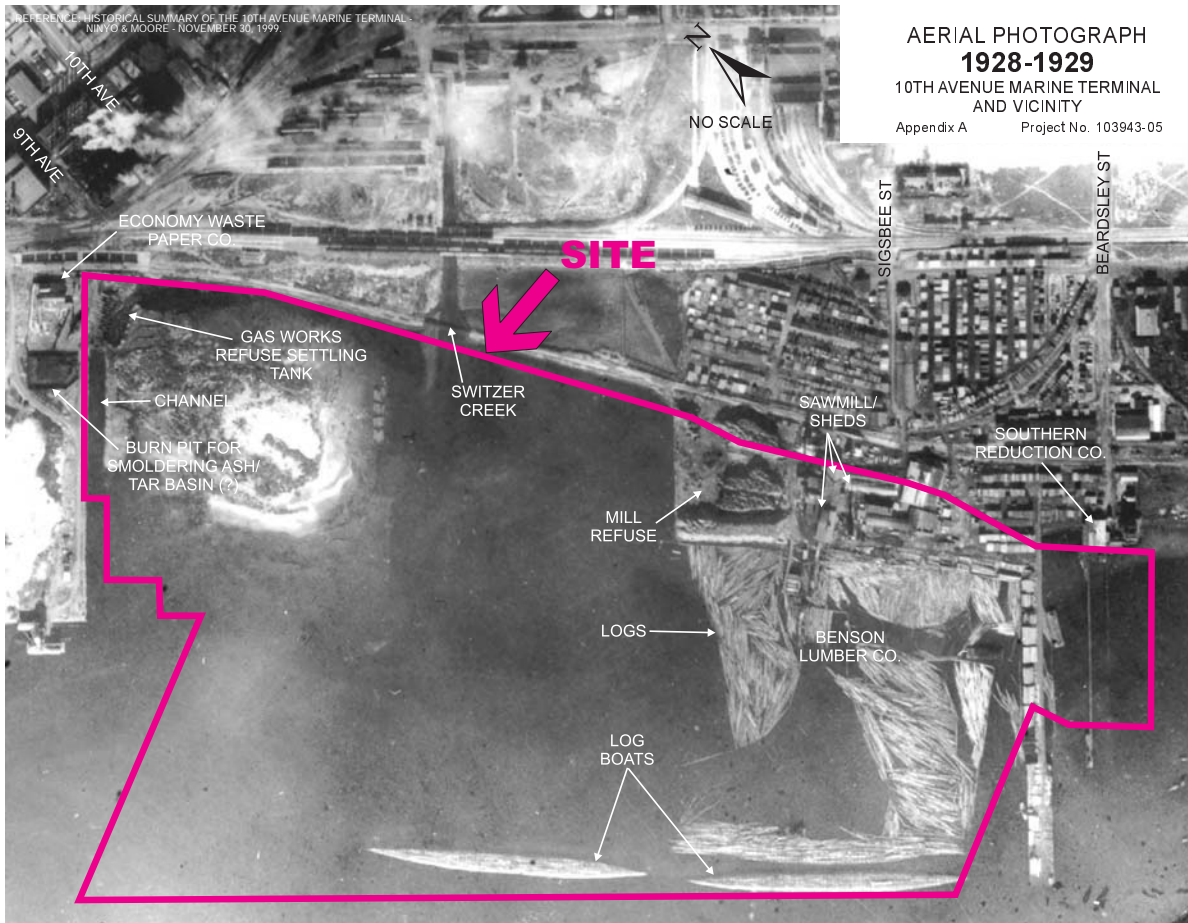
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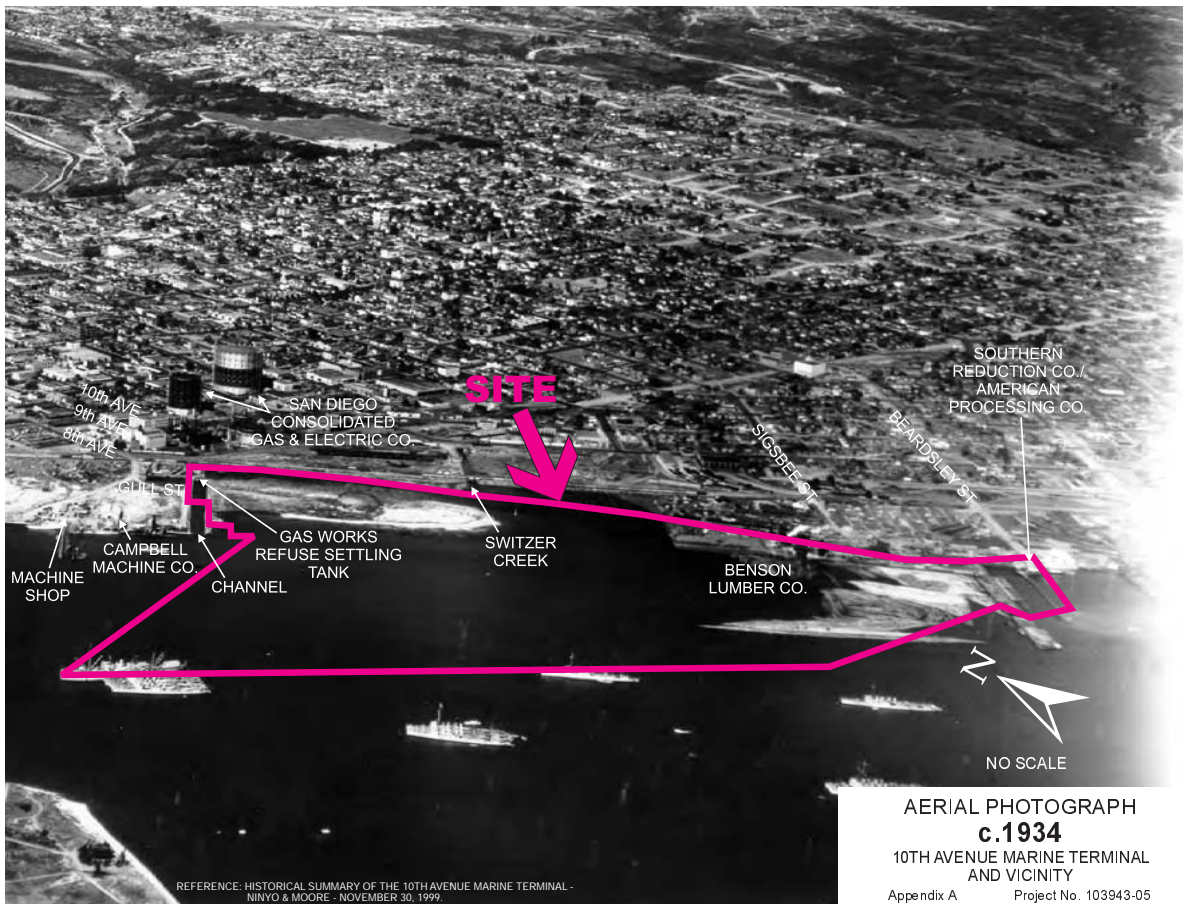


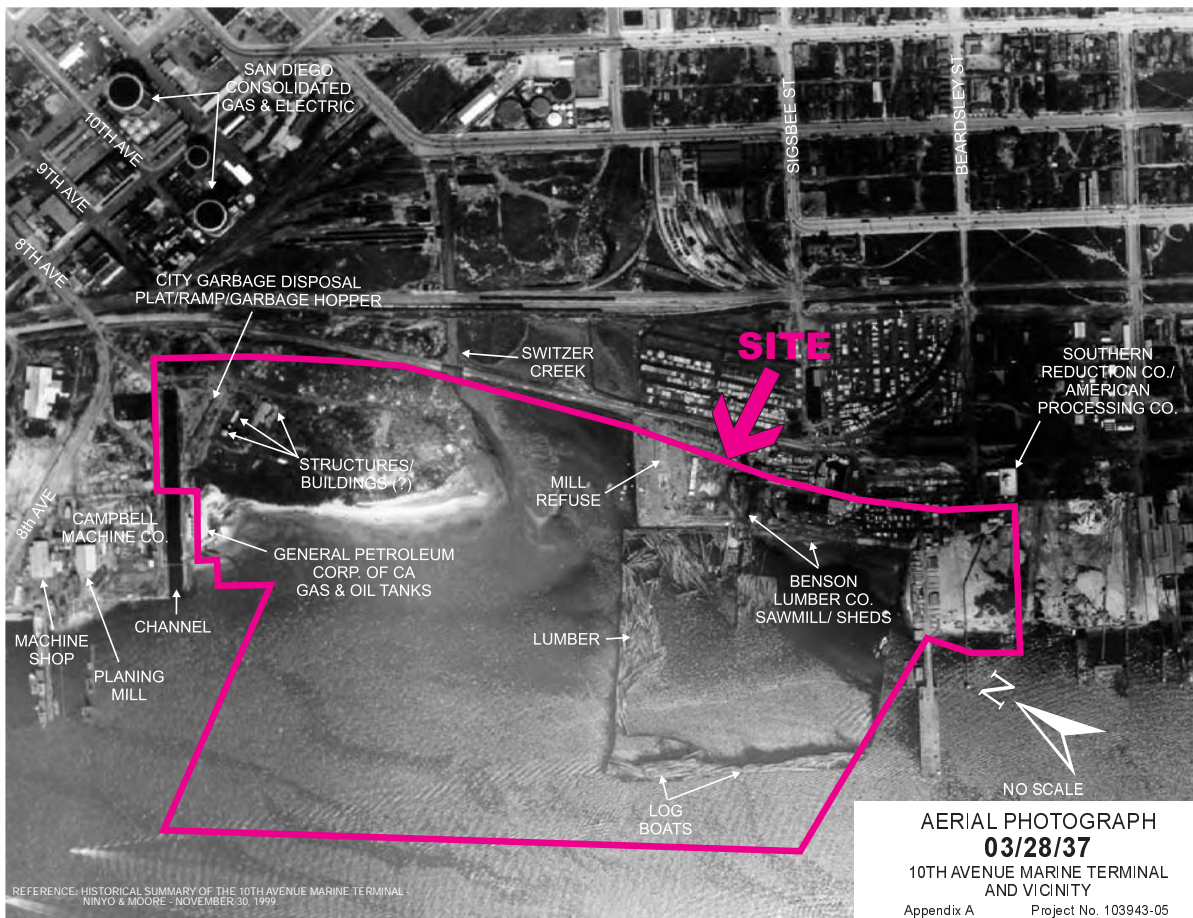
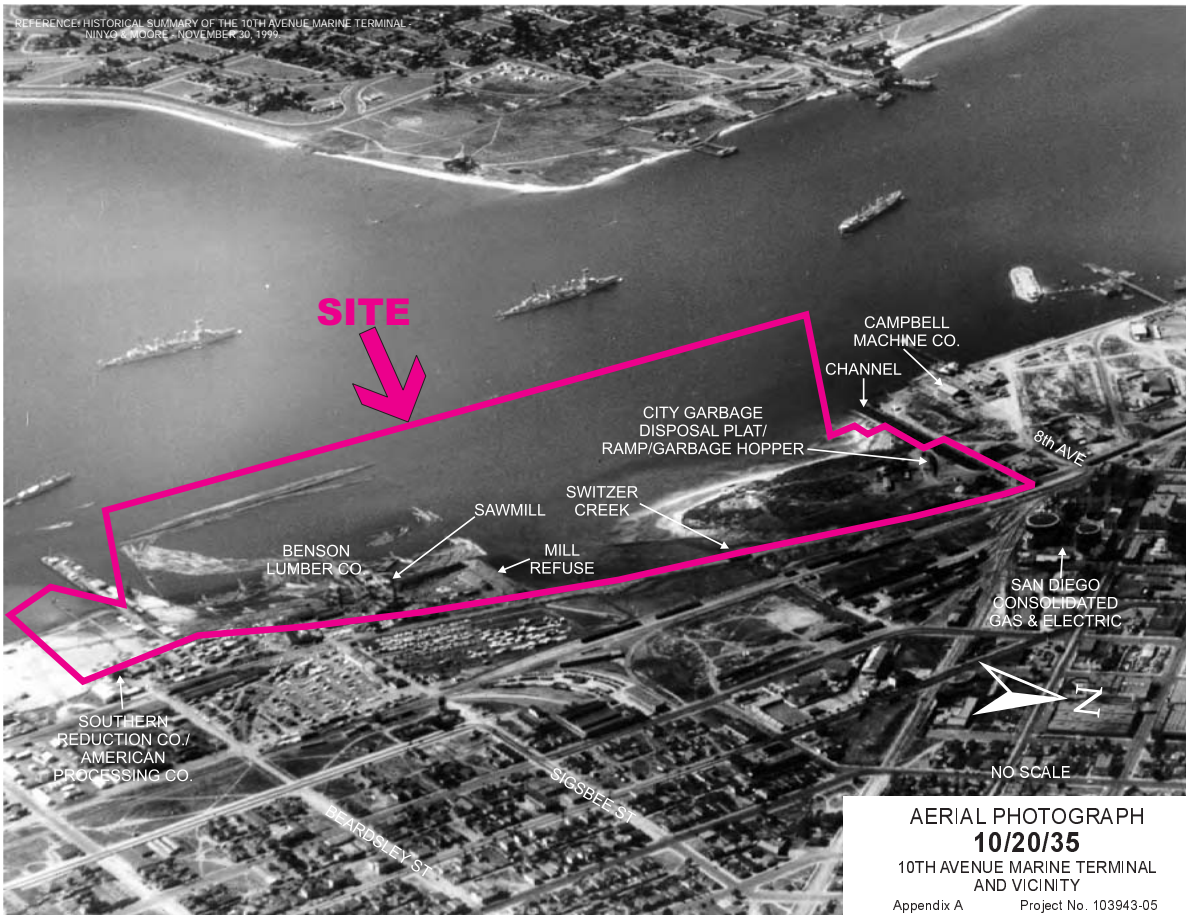
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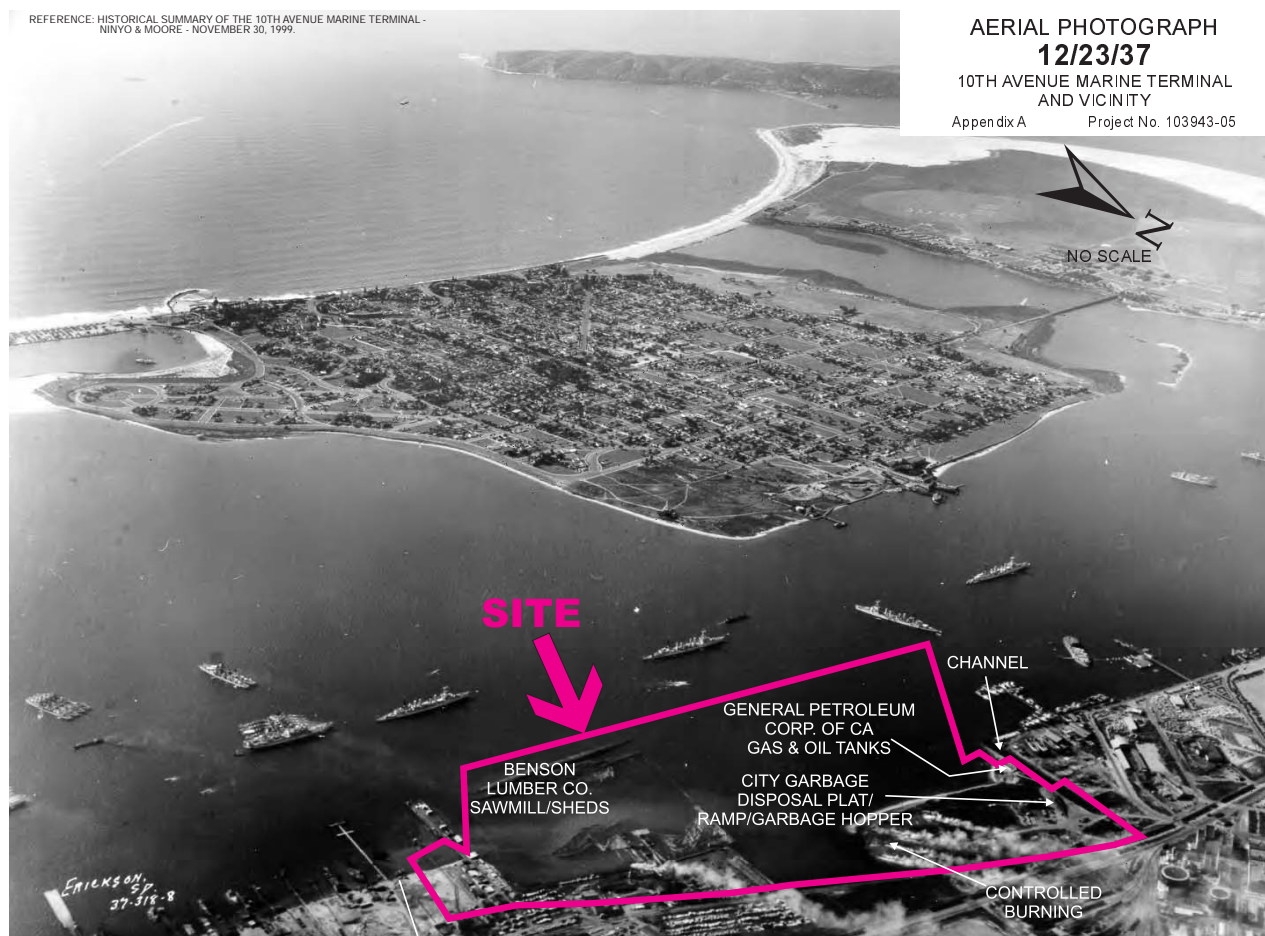














HISTORICAL PHOTOGRAPH
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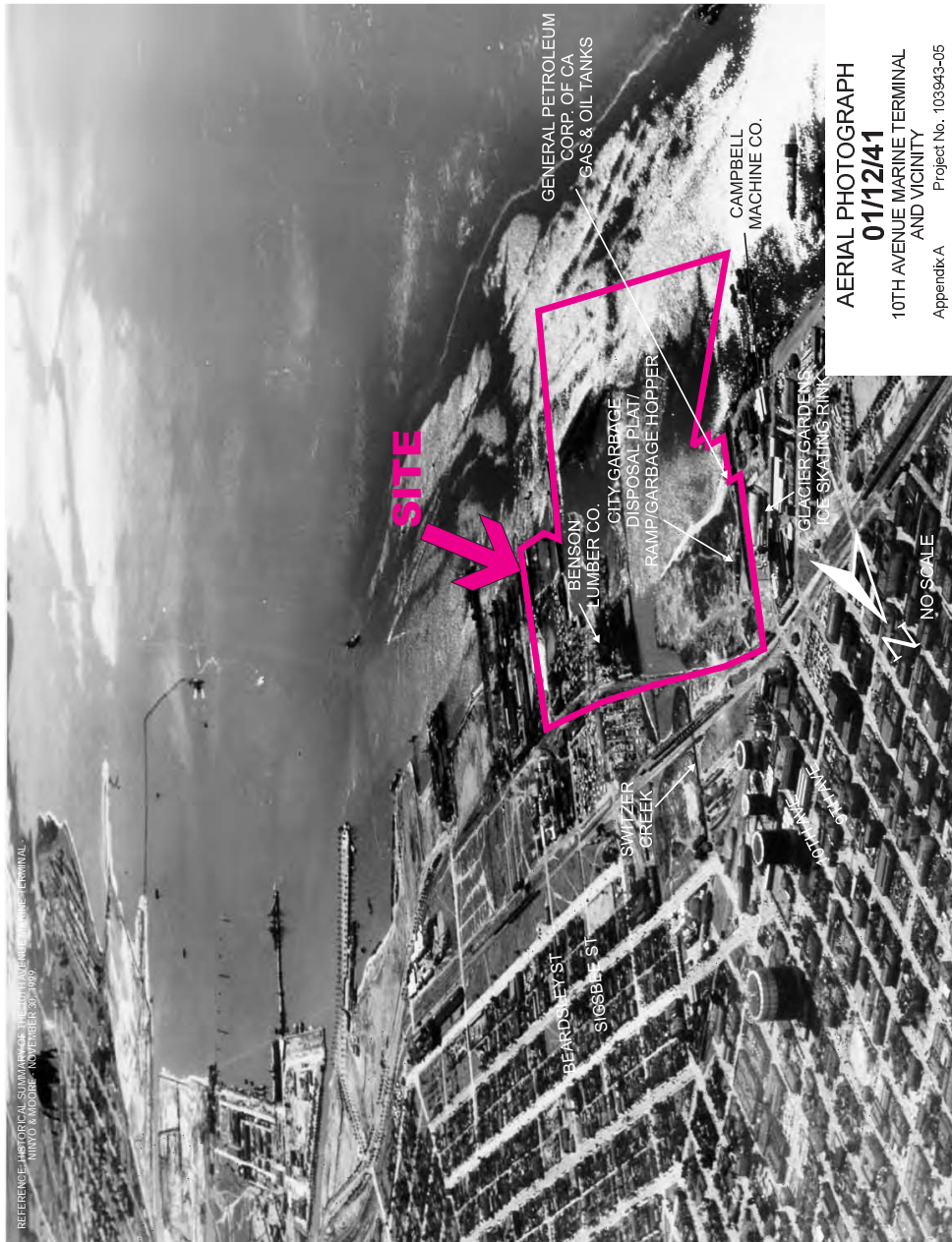
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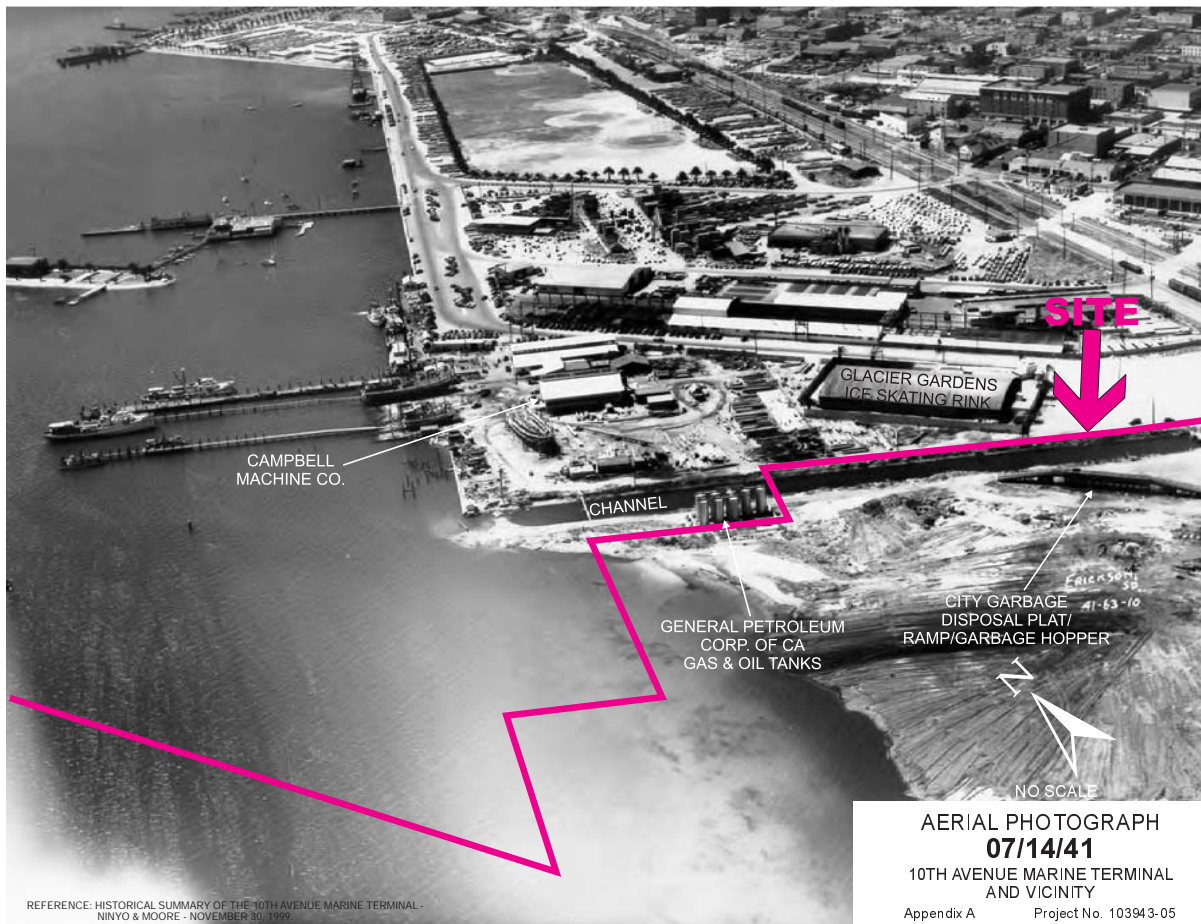
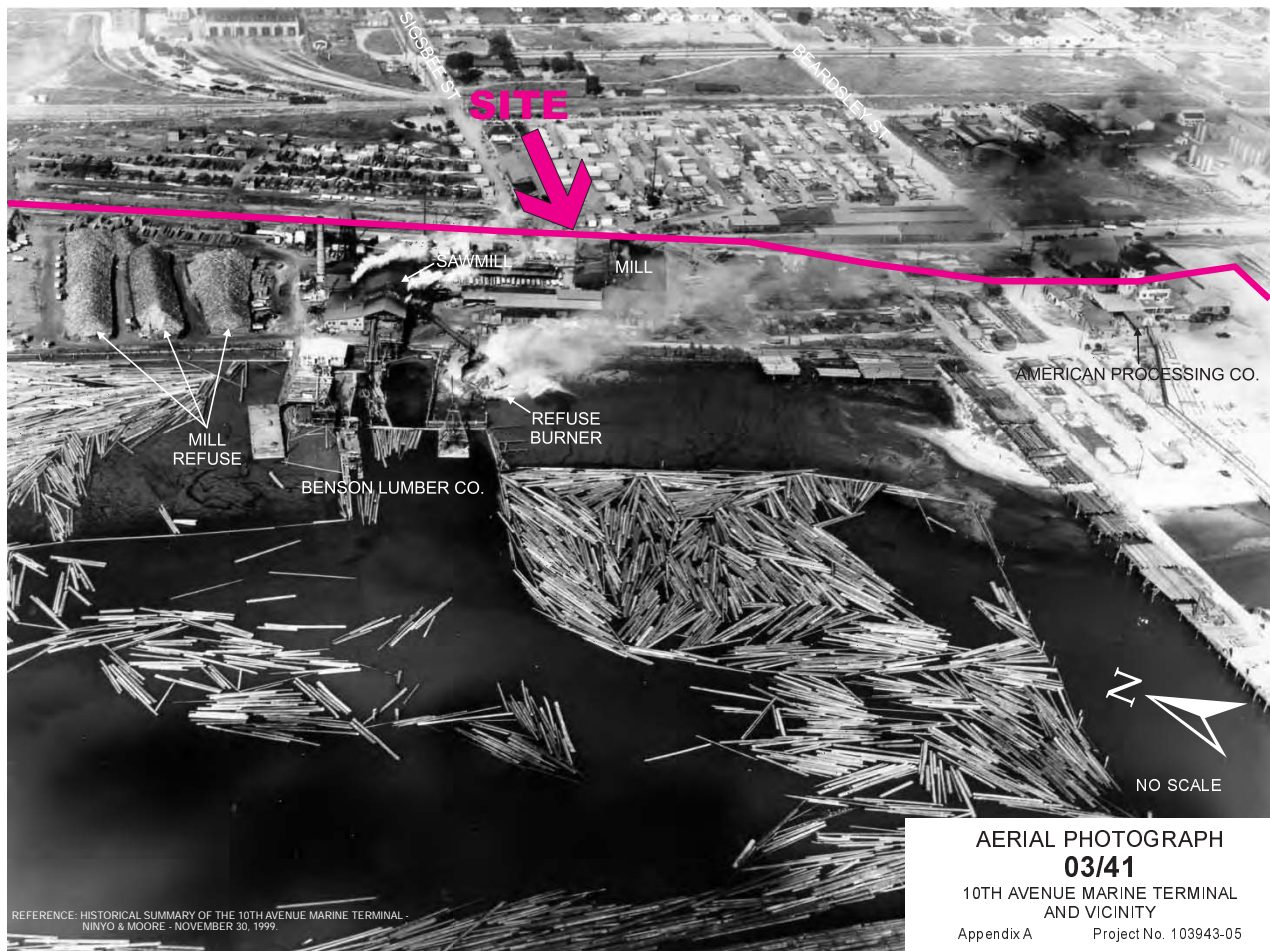


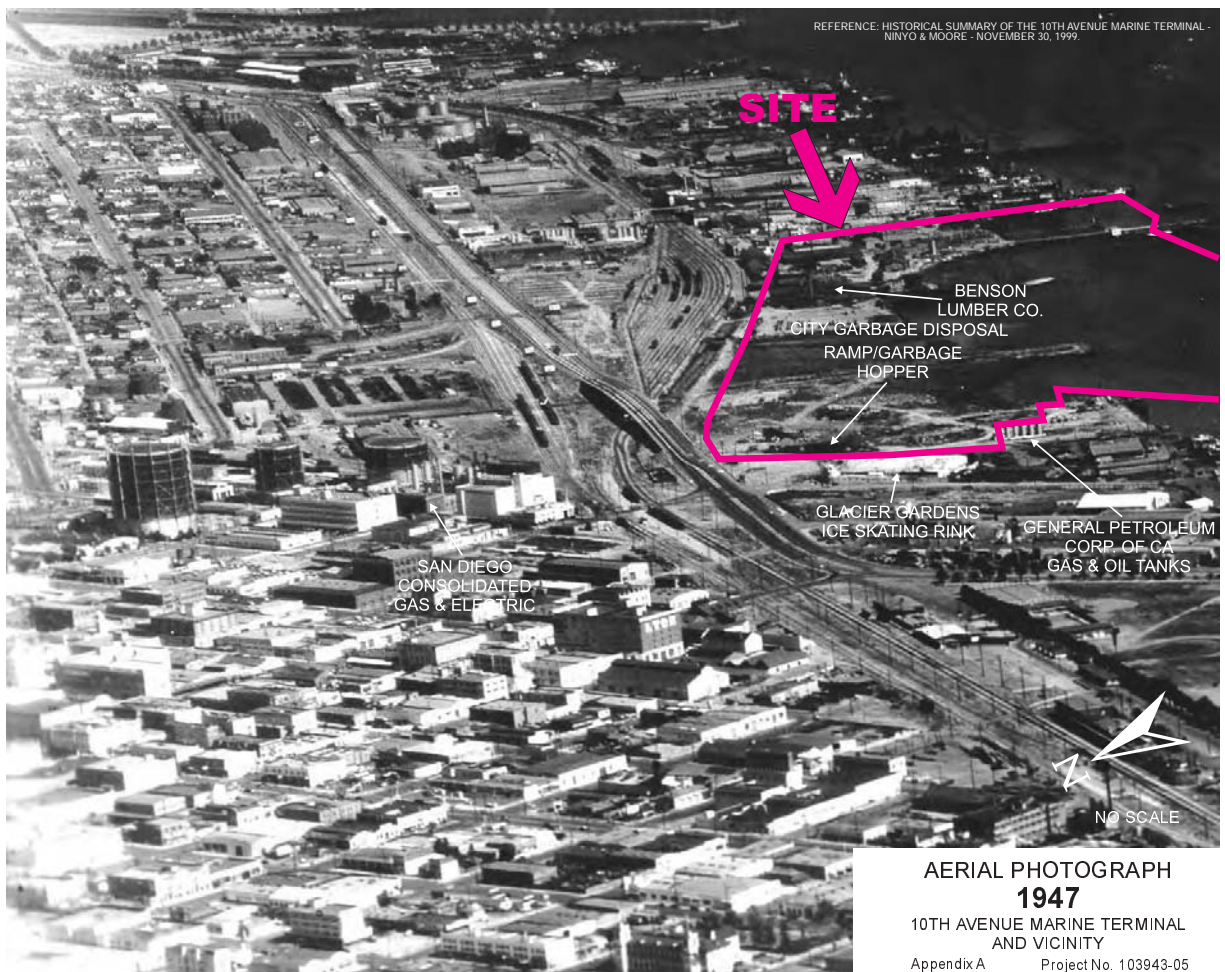
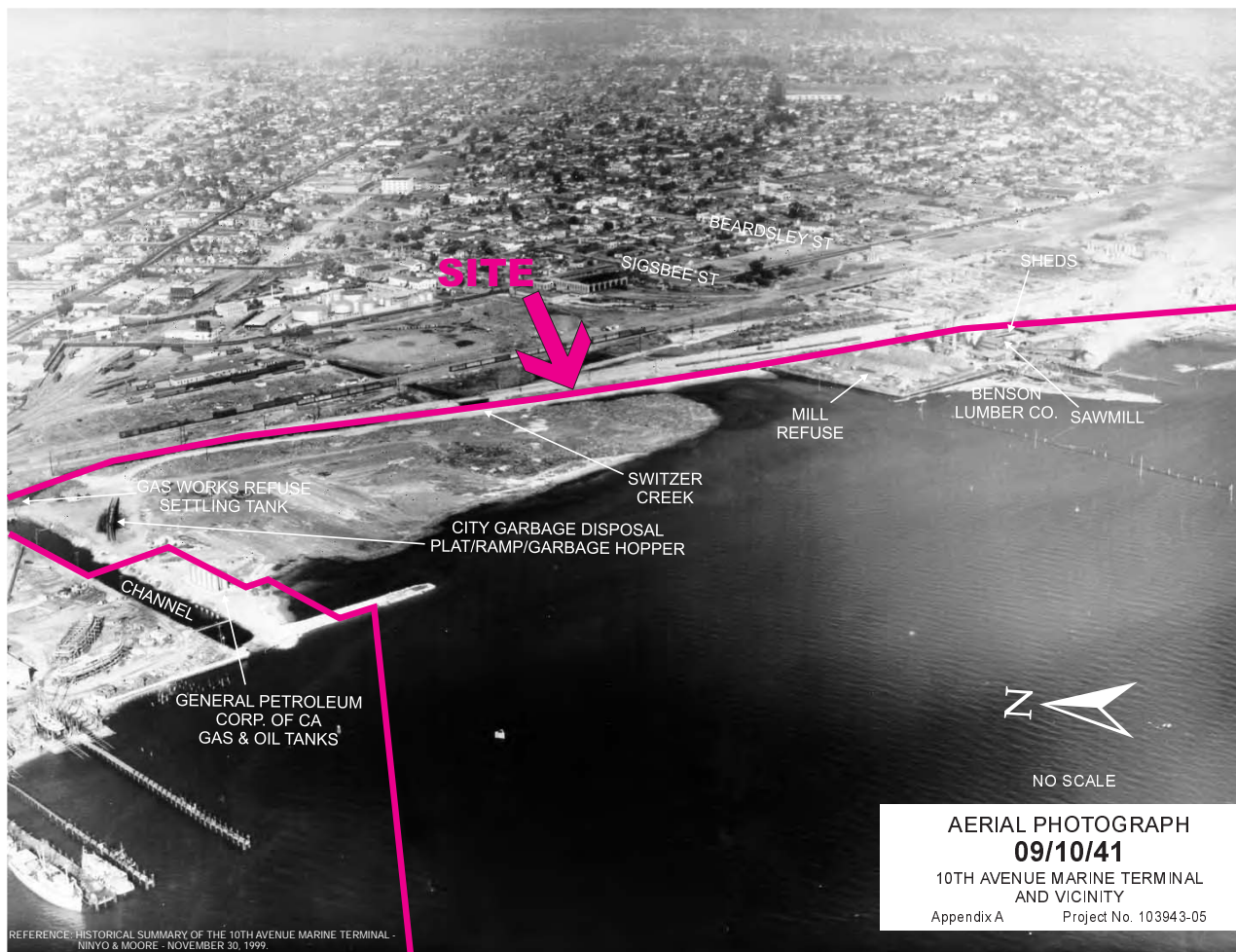
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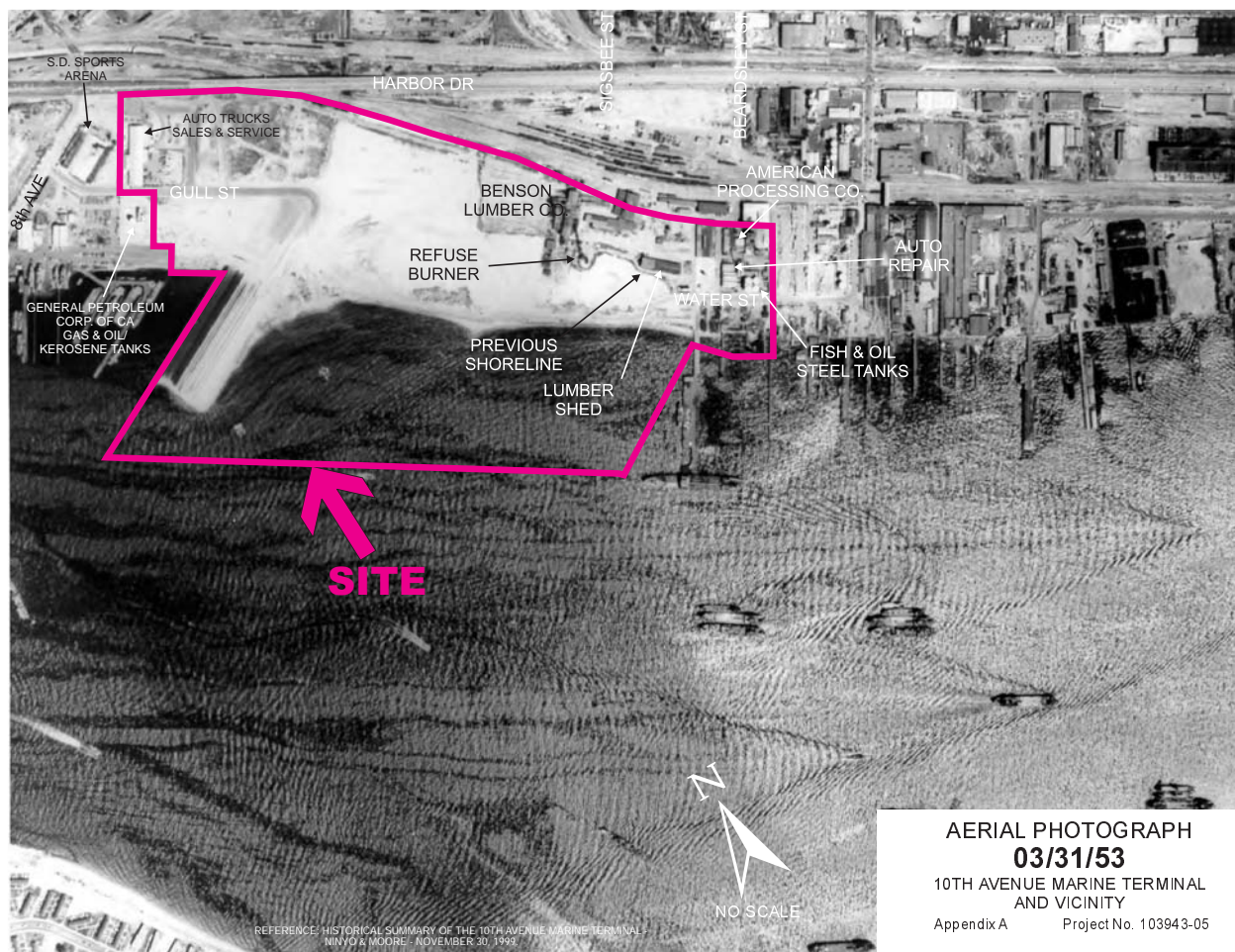
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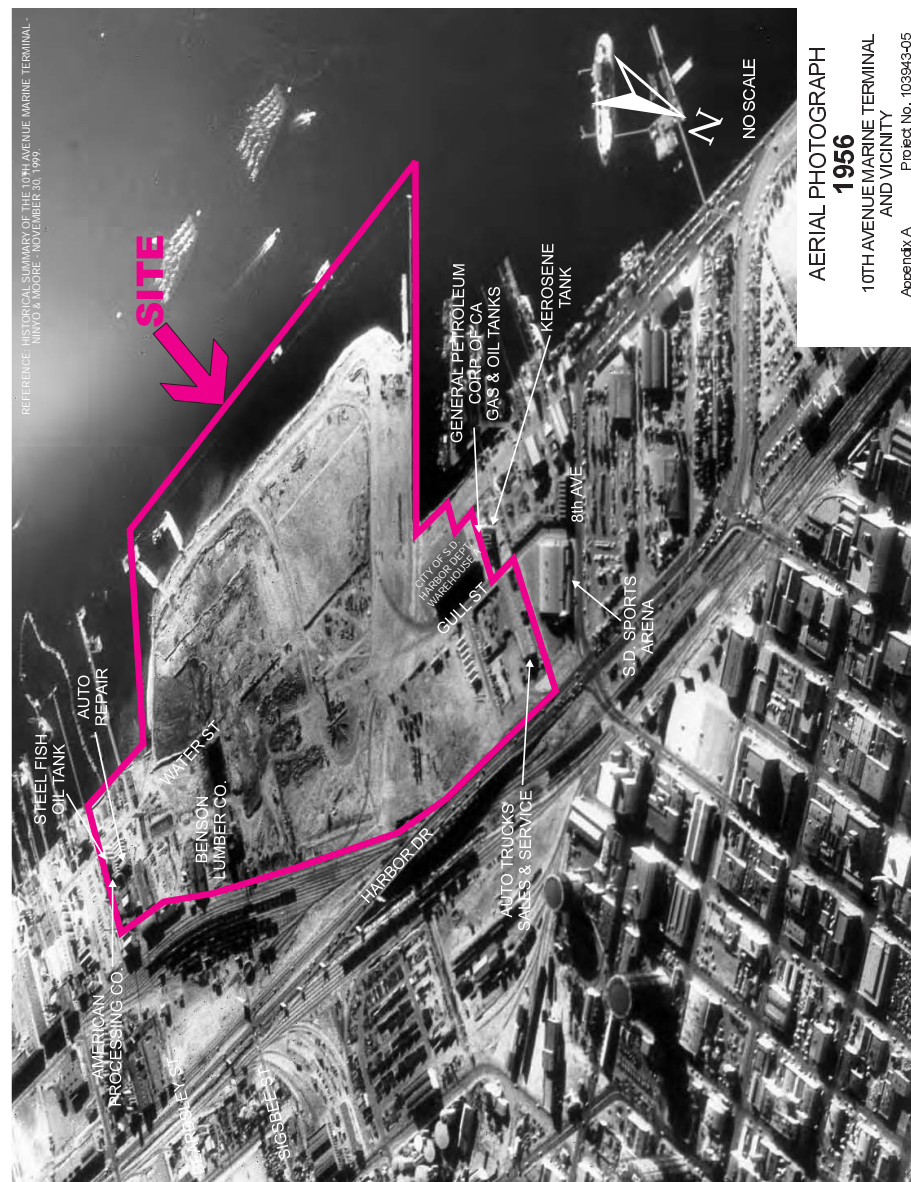
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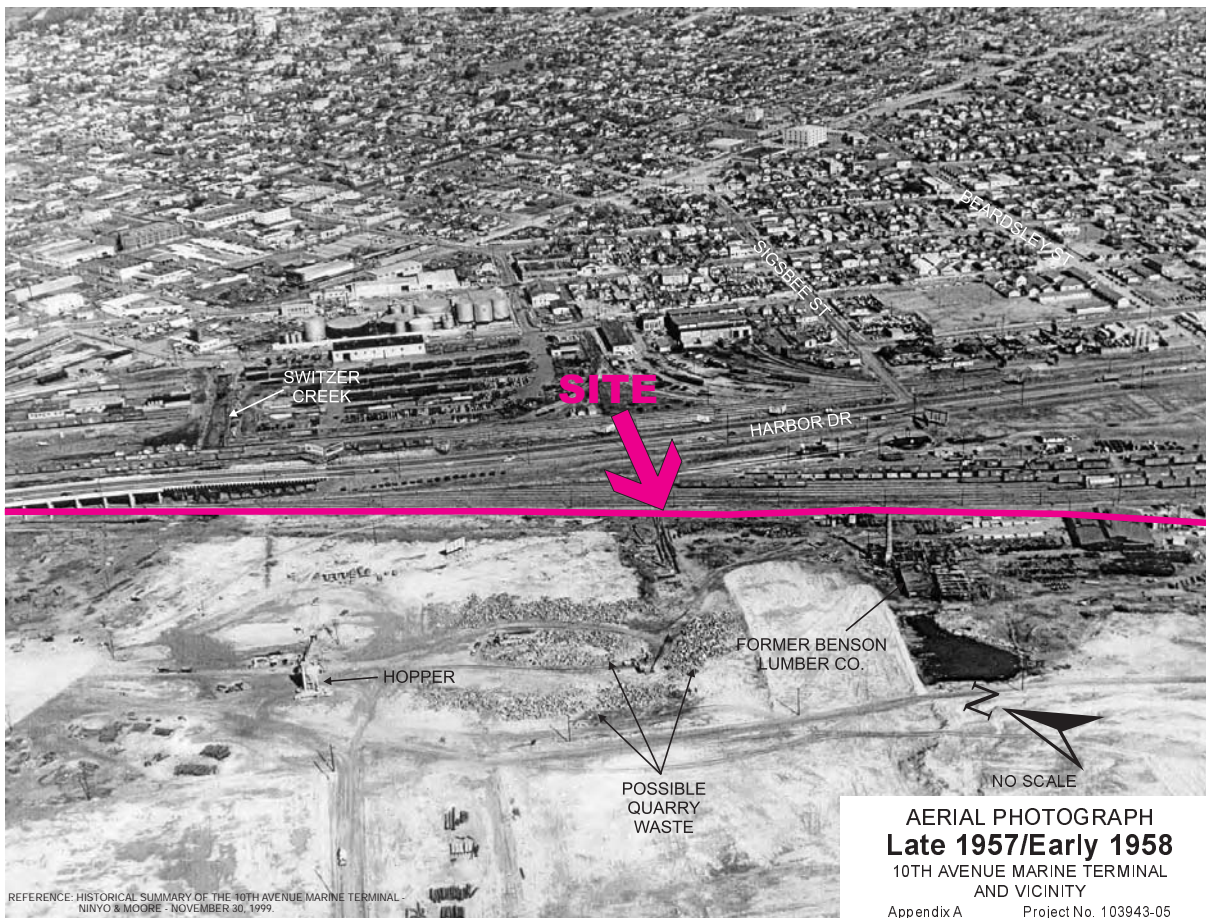


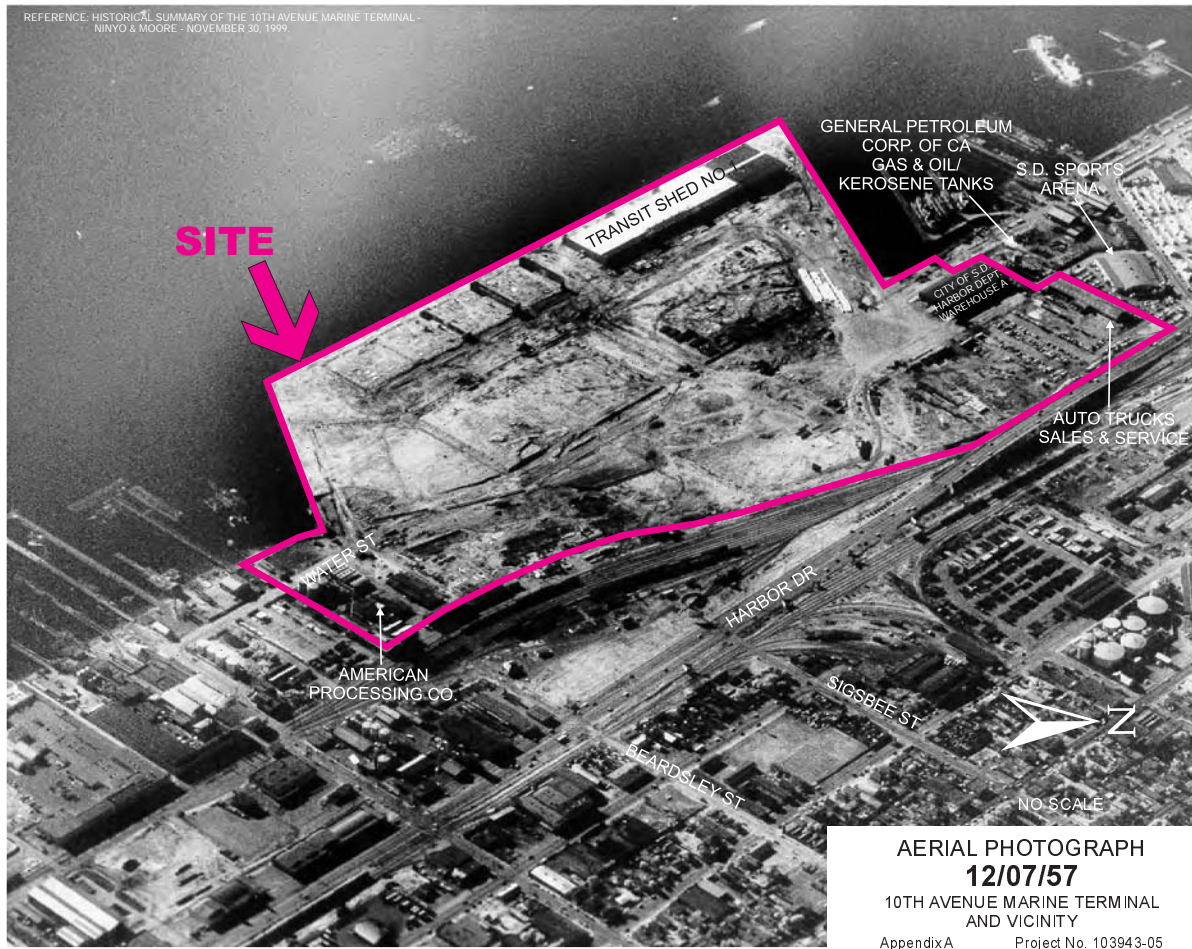
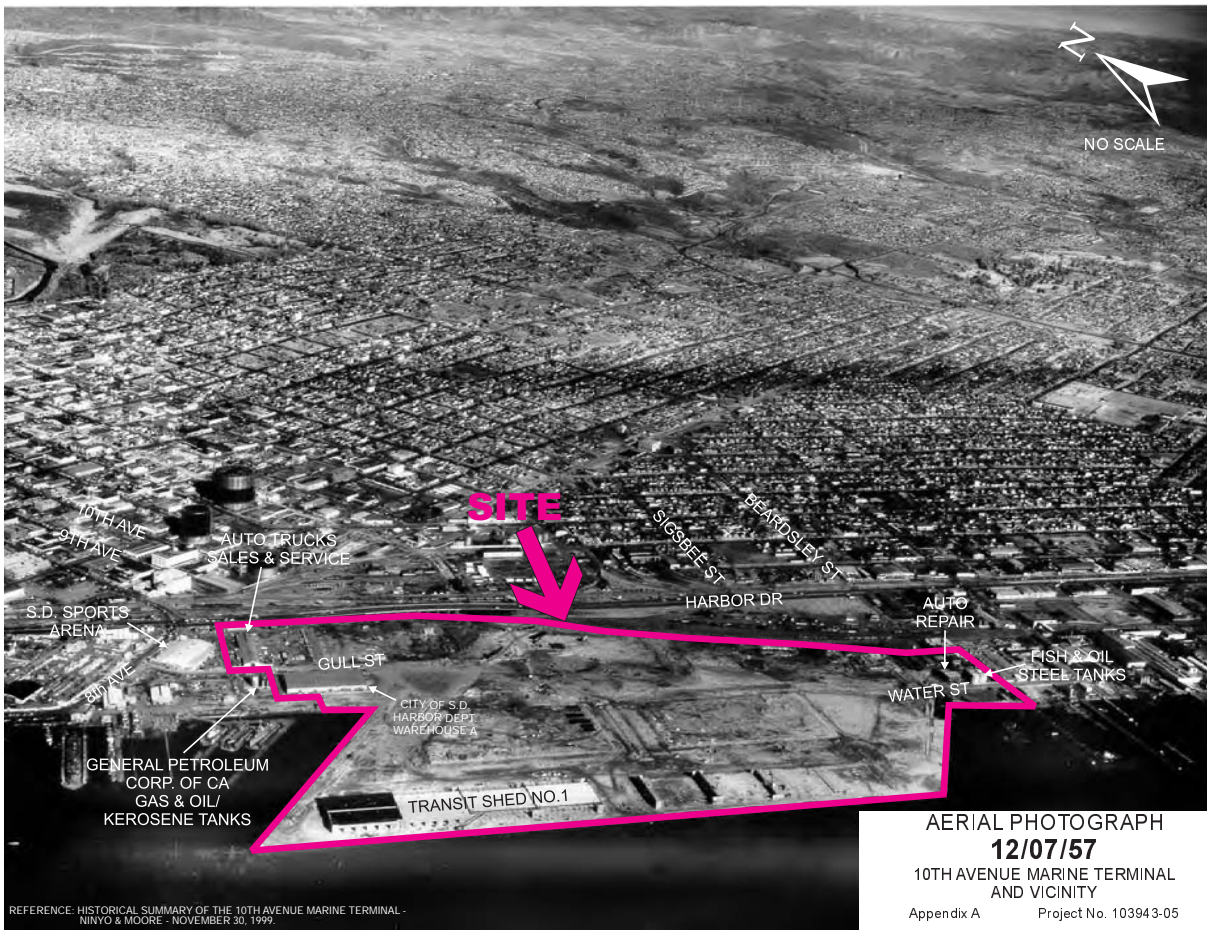


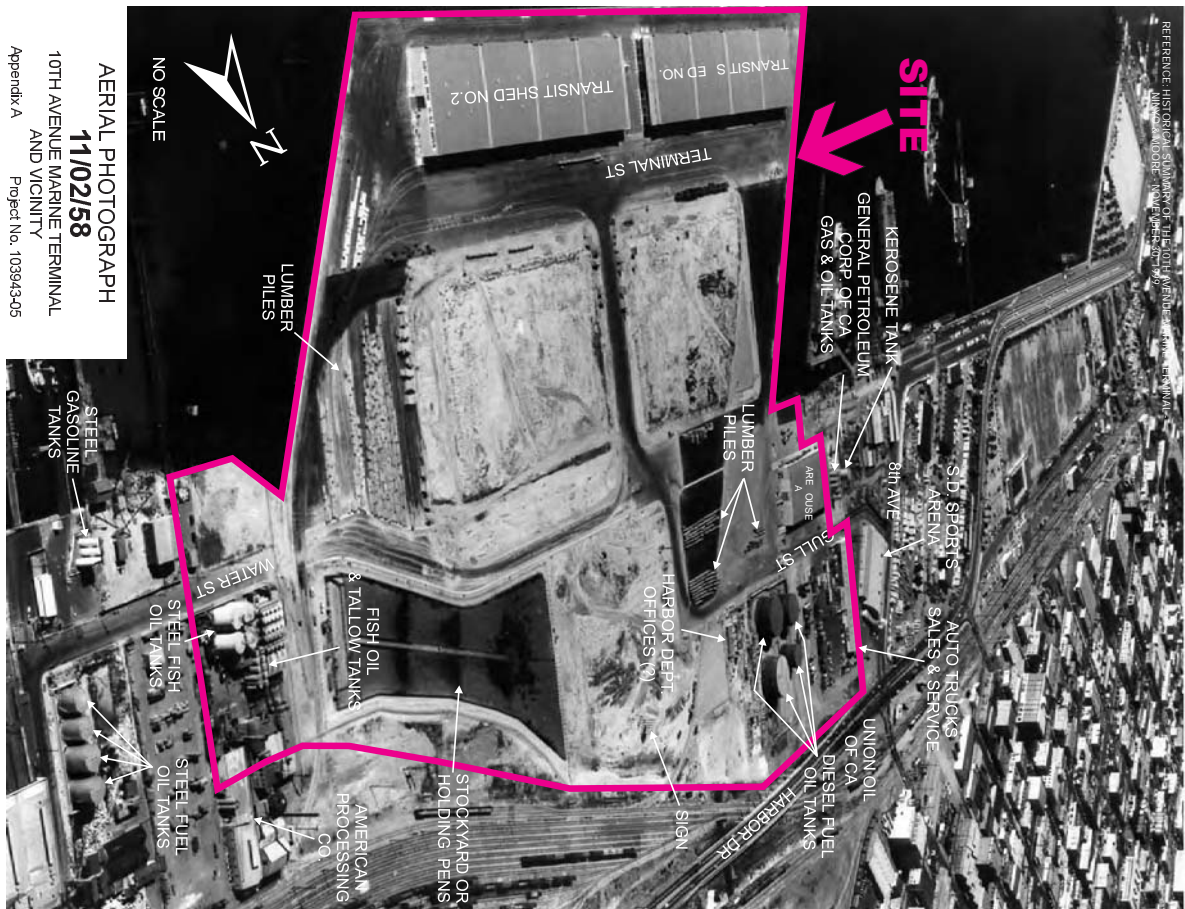












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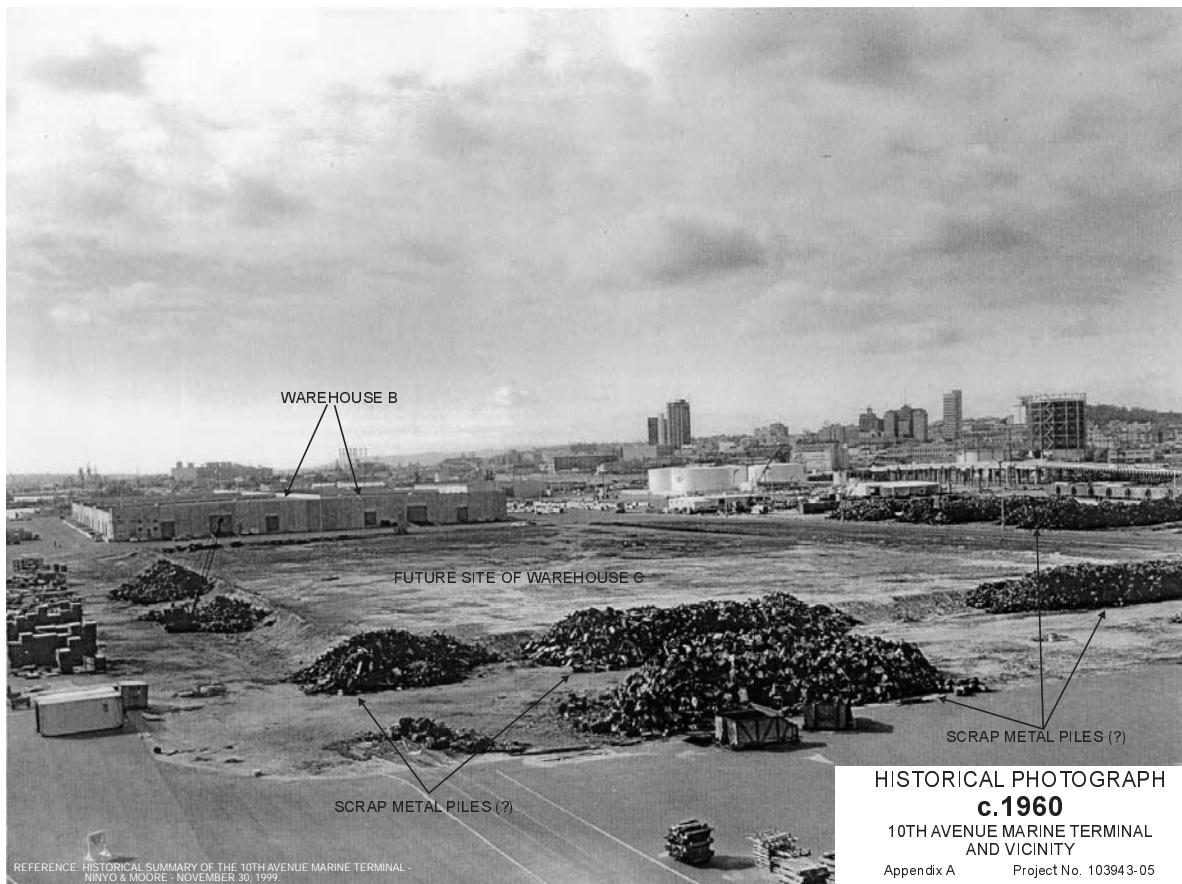


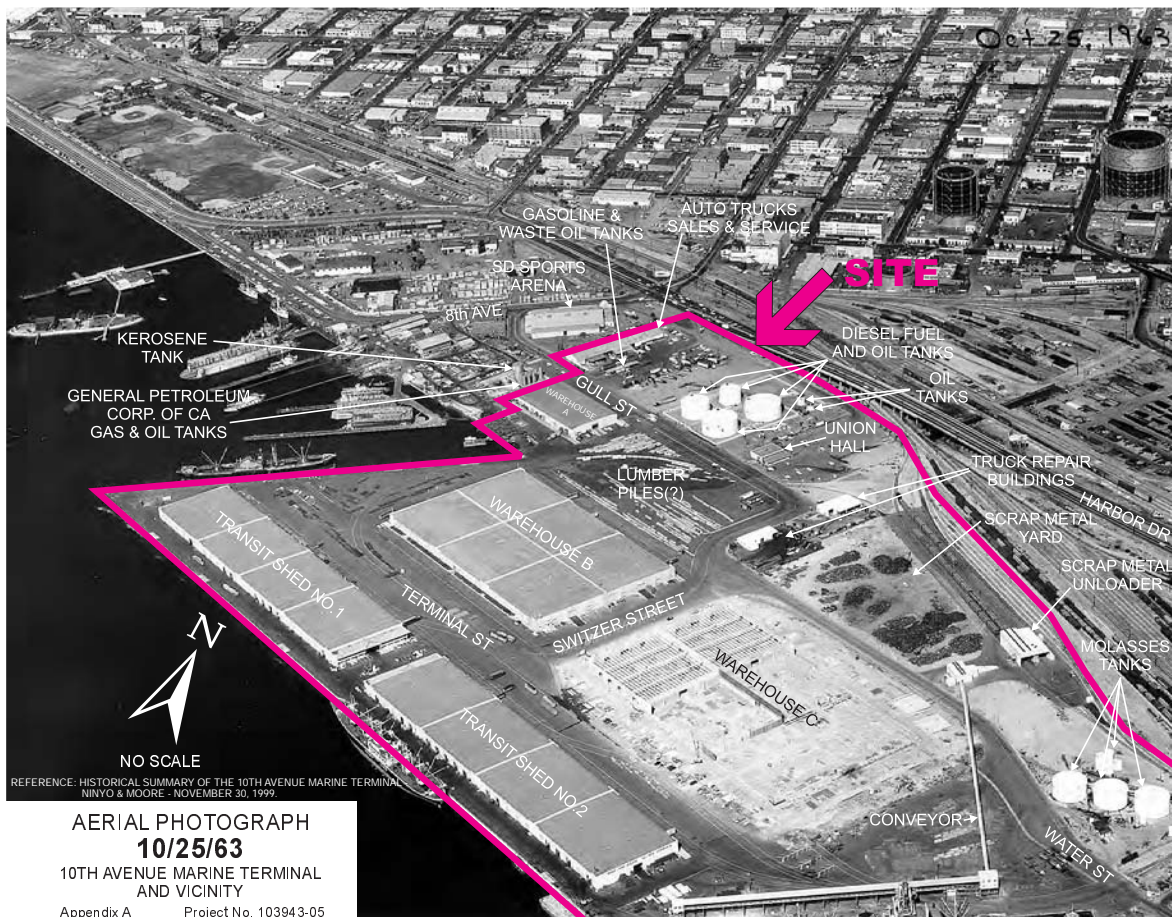
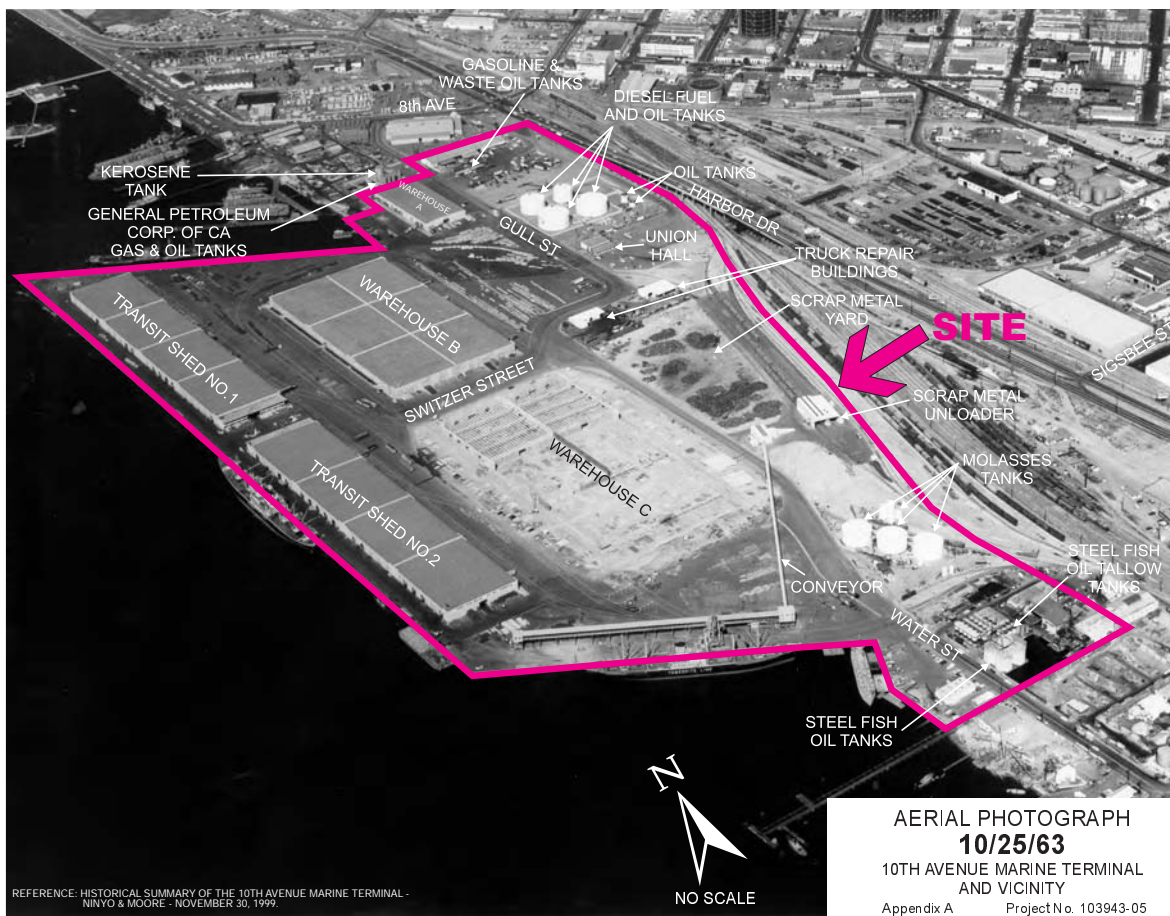
STOCKYARD OR HOLDING PENS,
SOUTHEASTERN AREA
OF THE 10TH AVENUE MARINE TERMINAL

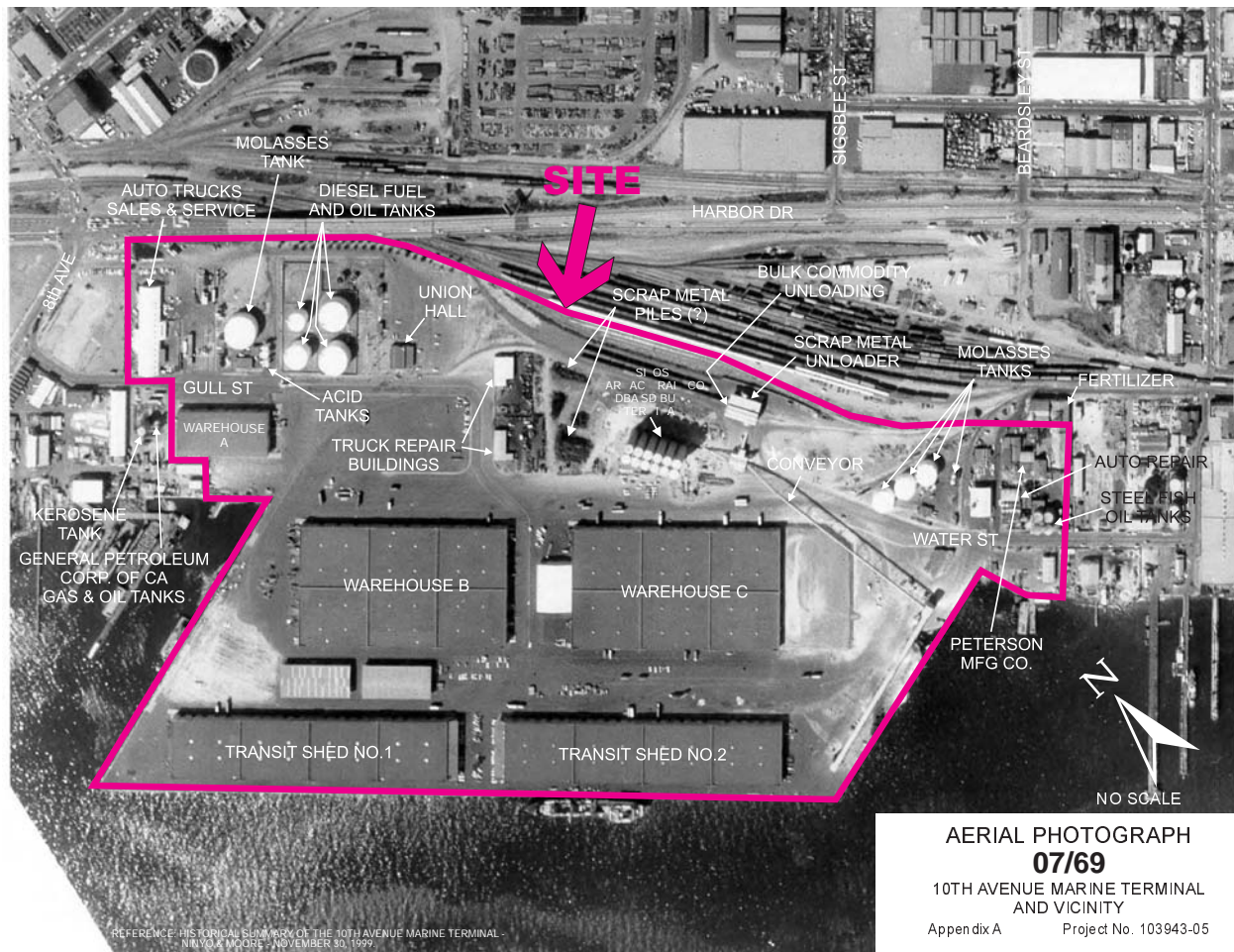
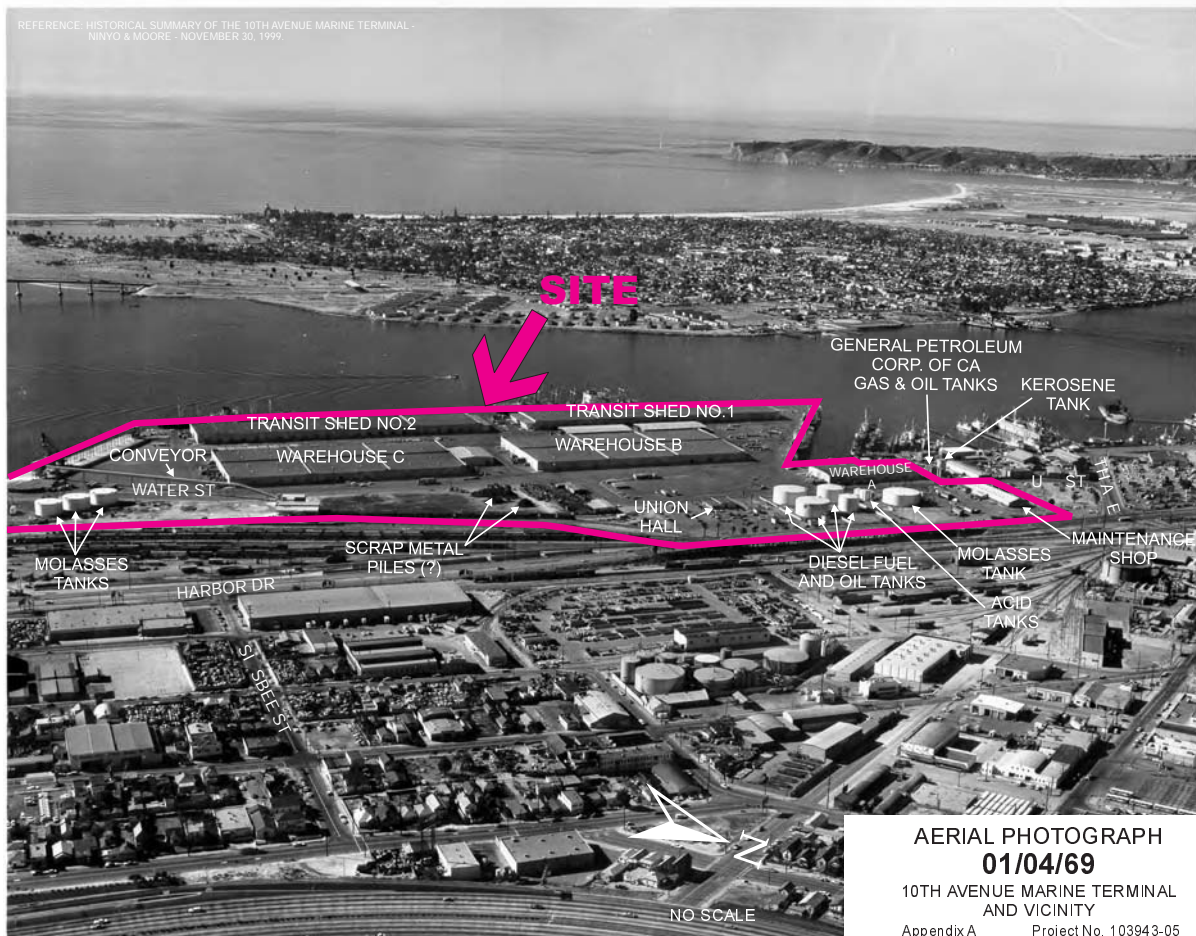


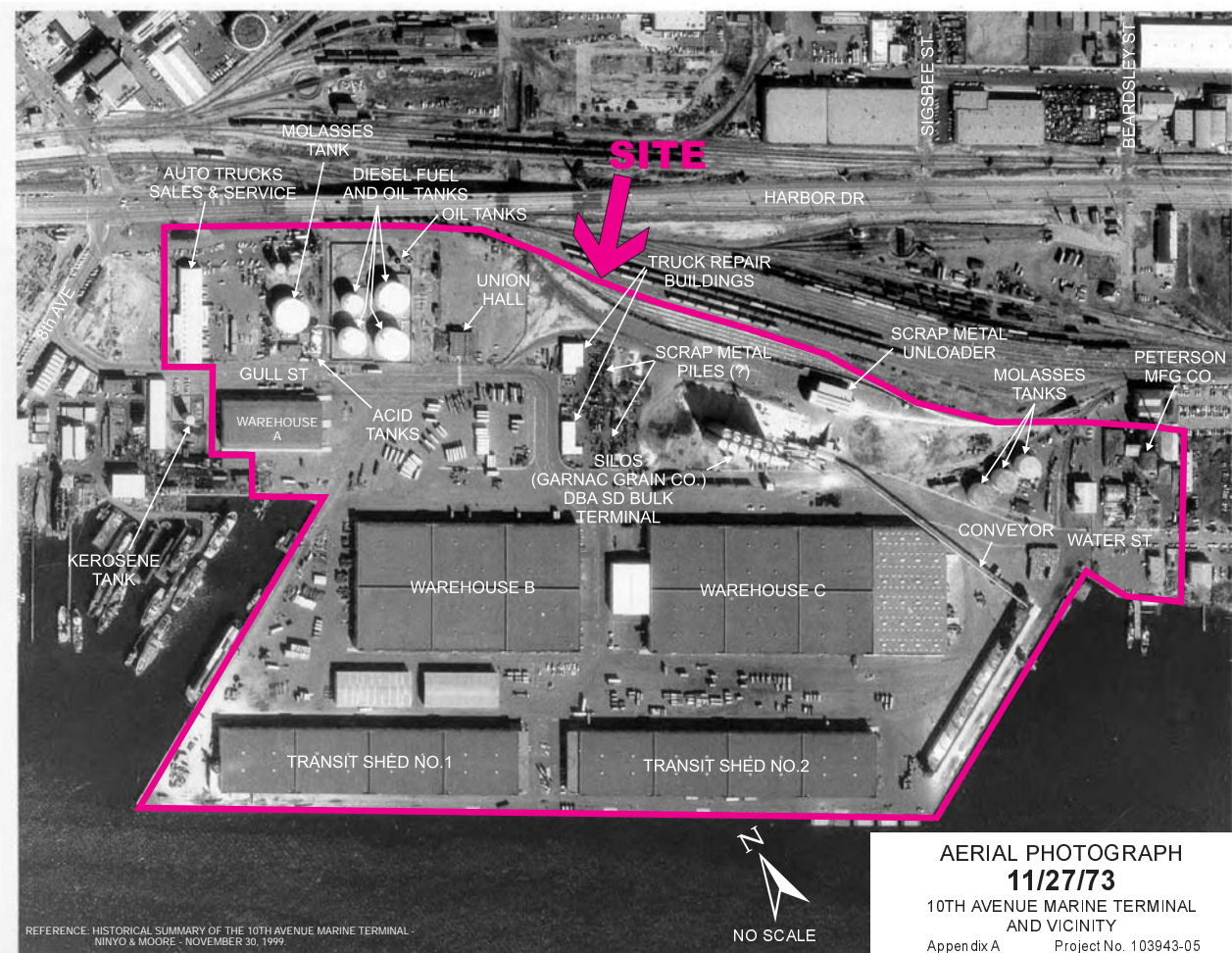
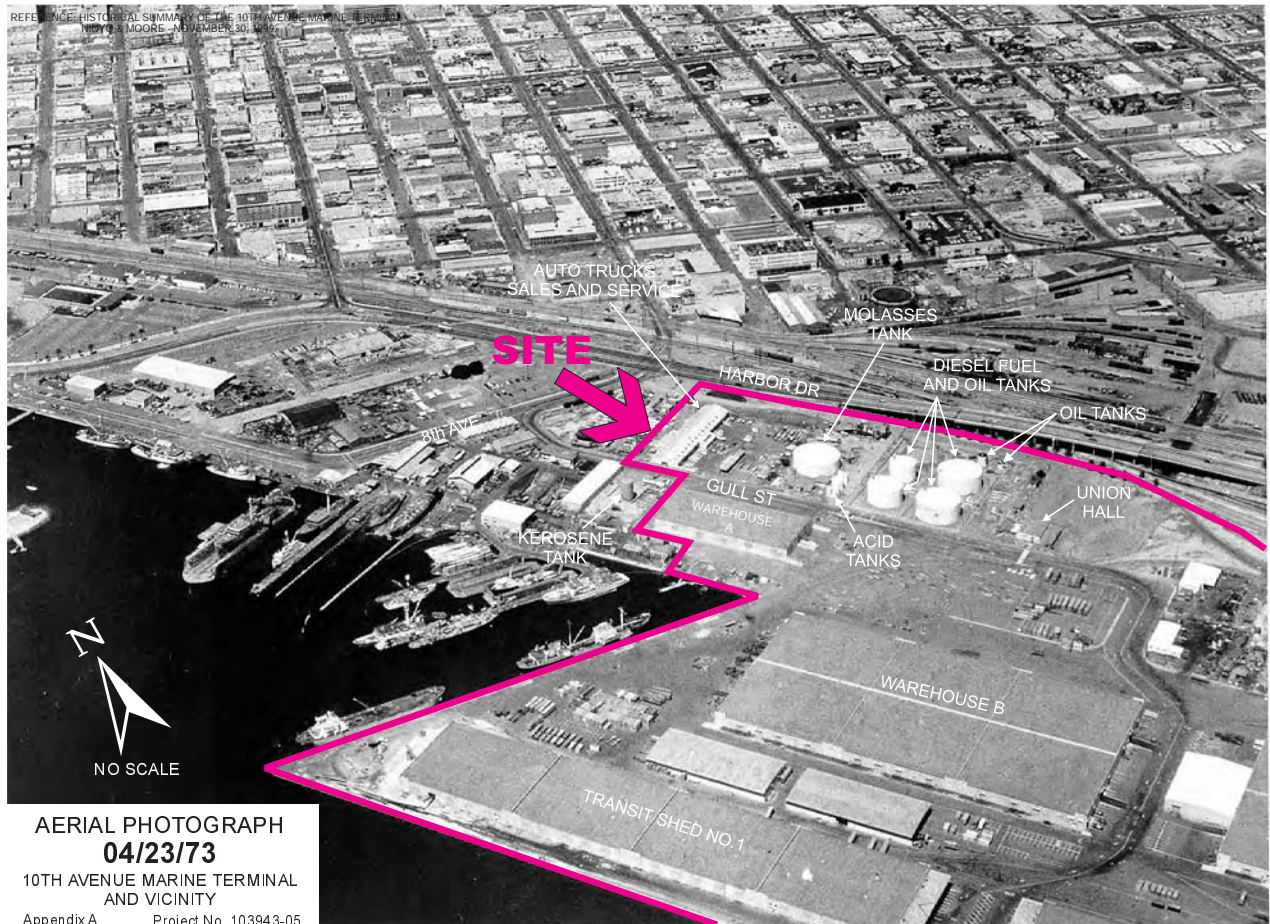
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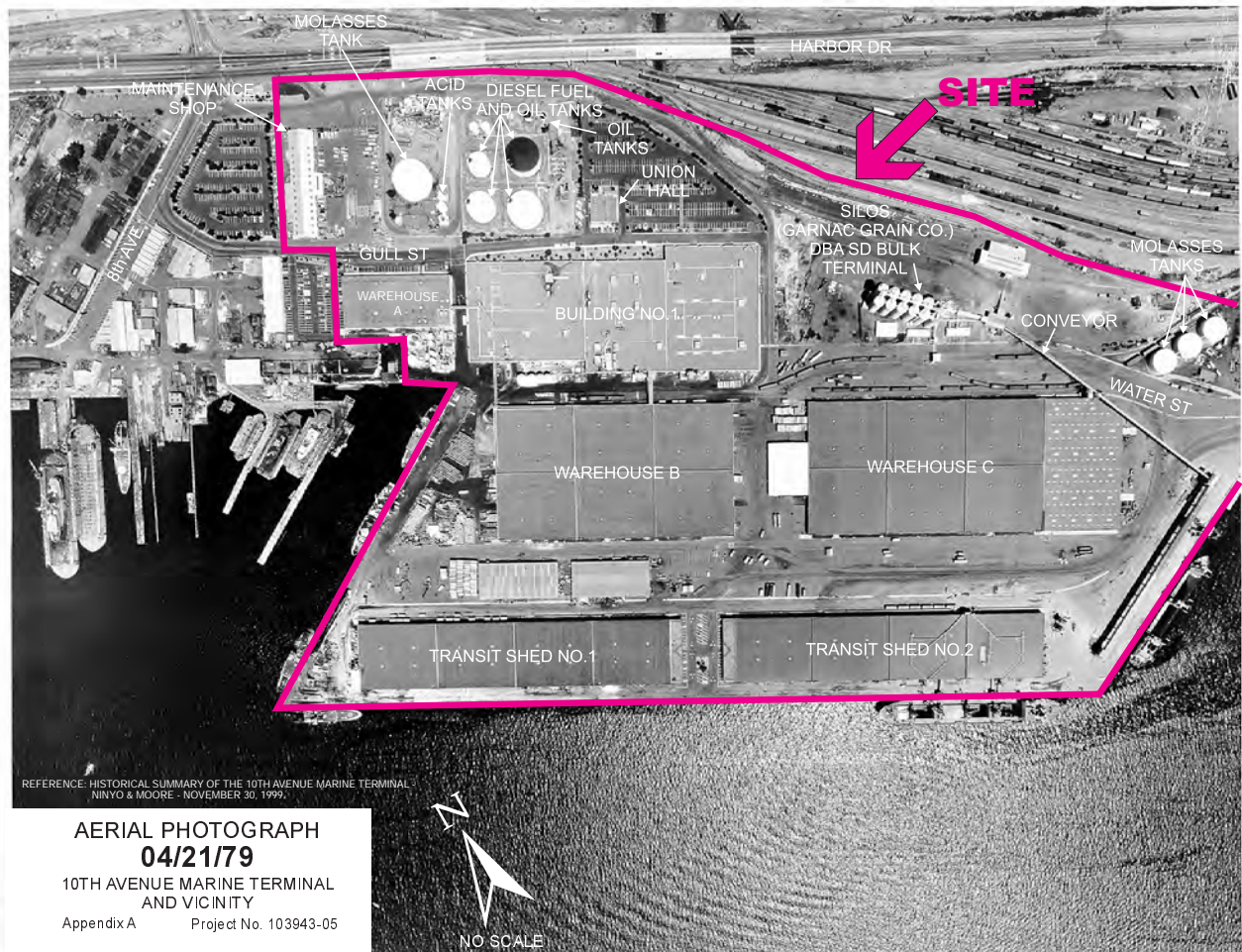
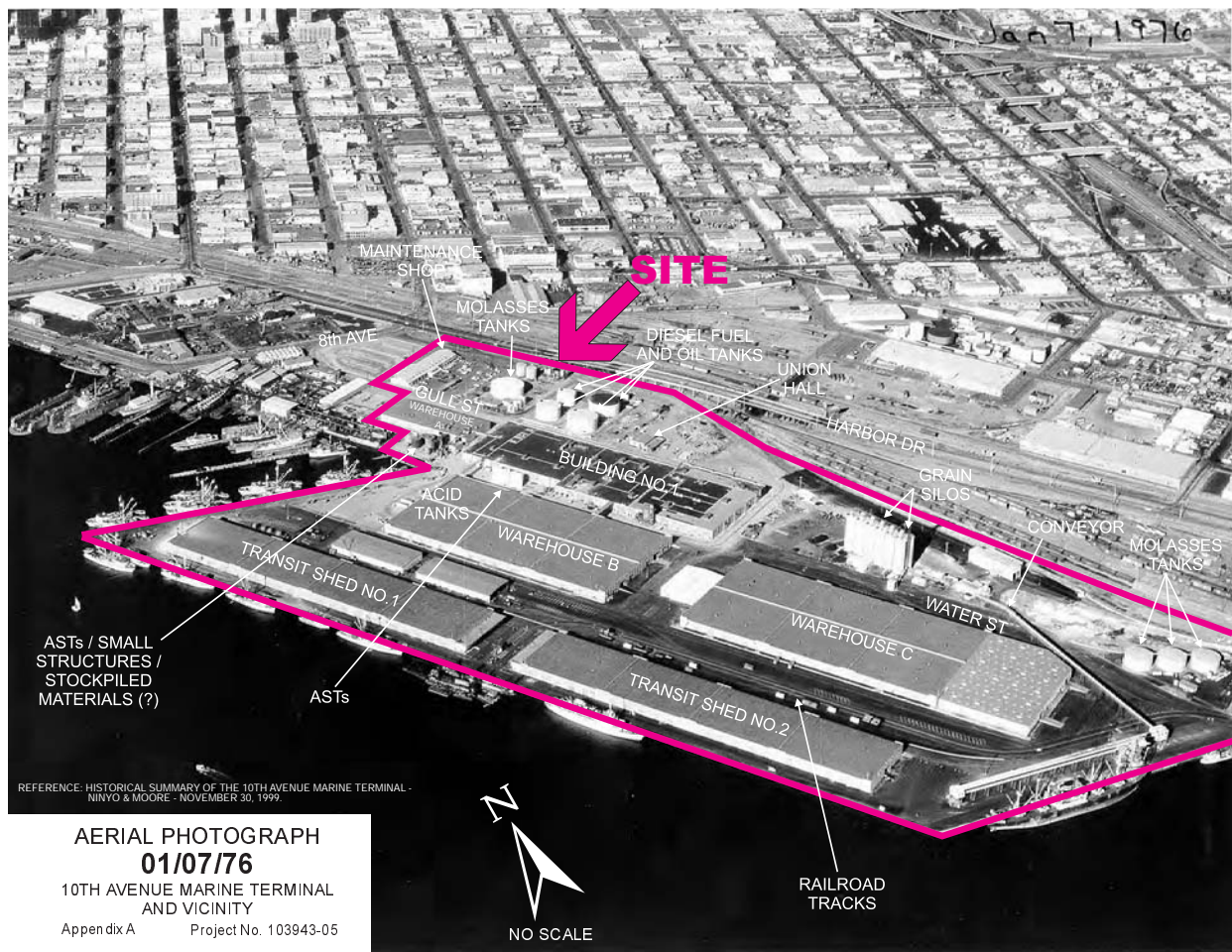
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10TH AVENUE MARINE TERMINAL
AND VICINITY
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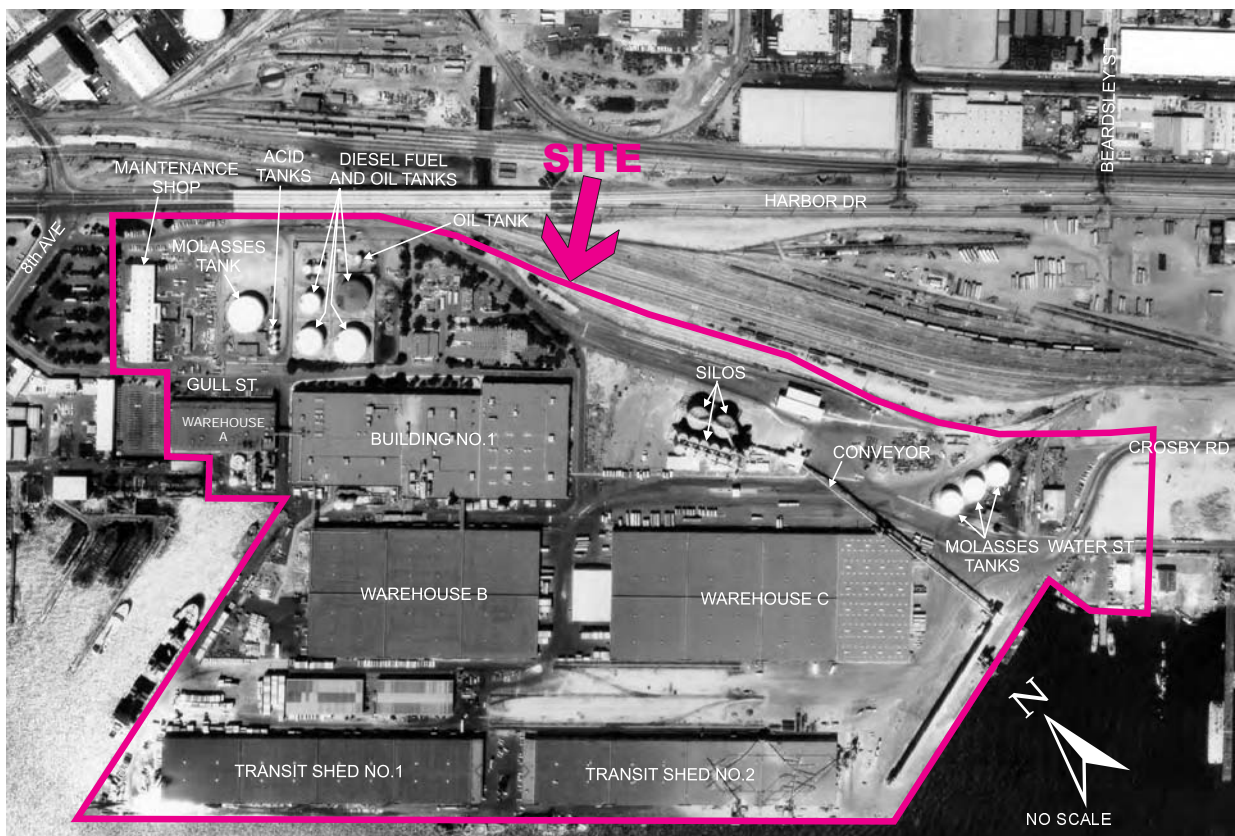












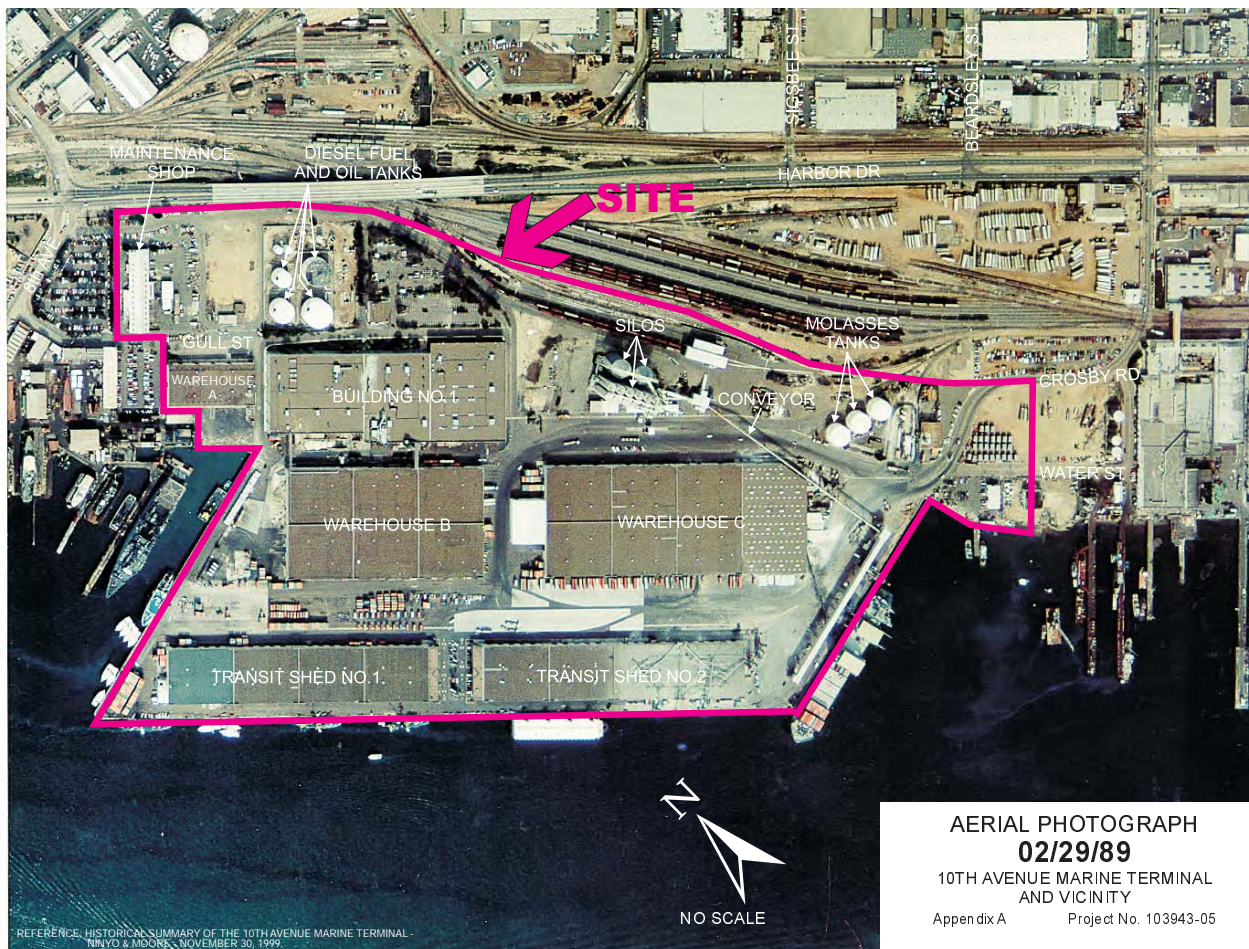
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10TH AVENUE MARINE TERMINAL
AND VICINITY

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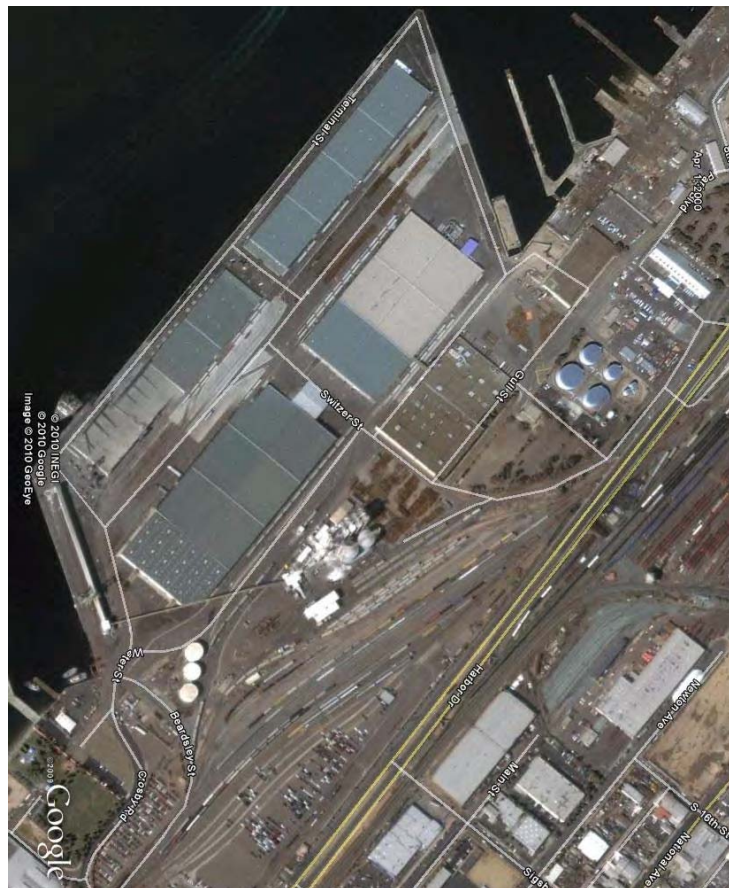
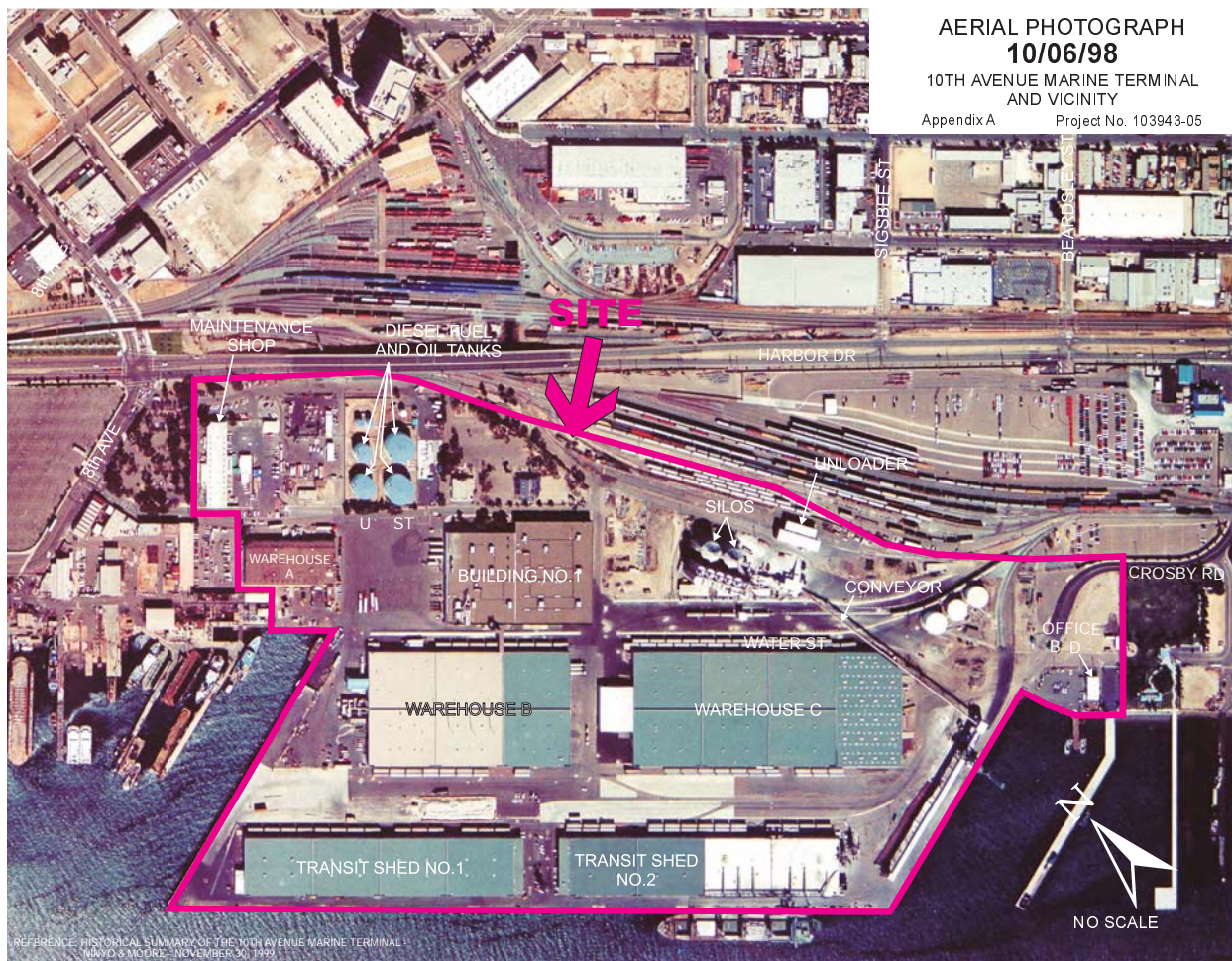
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NIRVO & MOORE - NOVEMBER 30, 1999

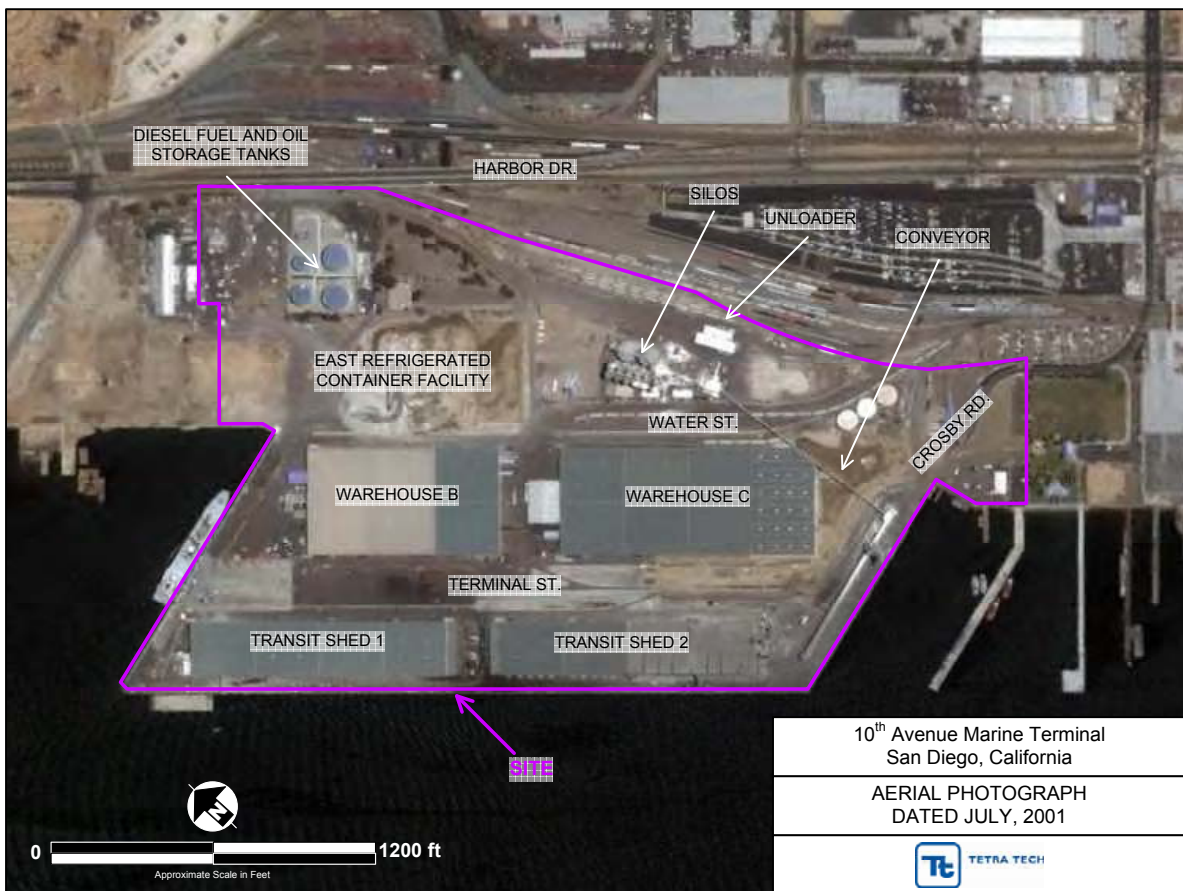
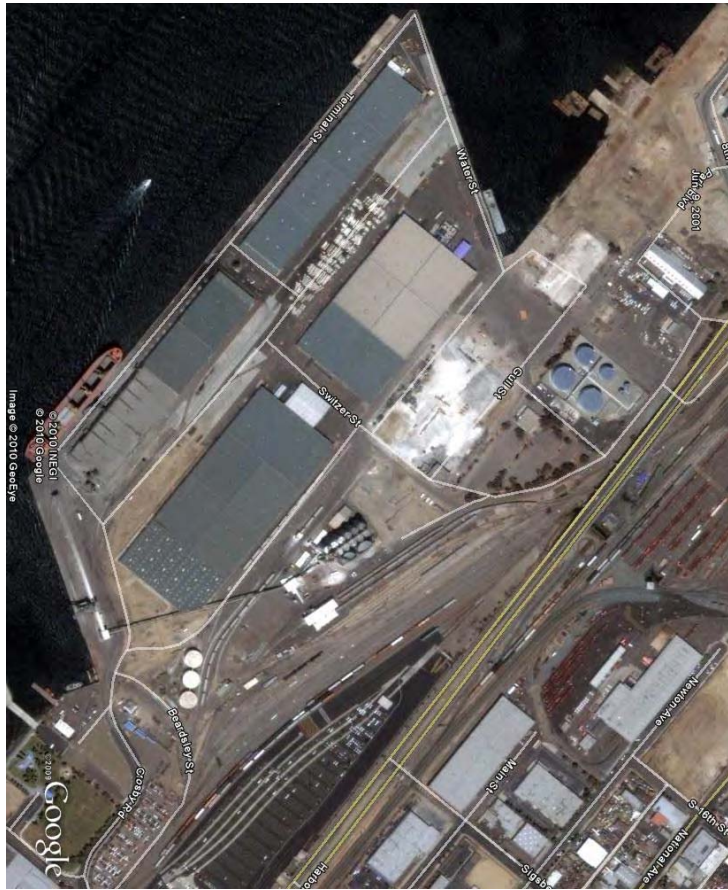
AERIAL PHOTOGRAPH
02/29/89

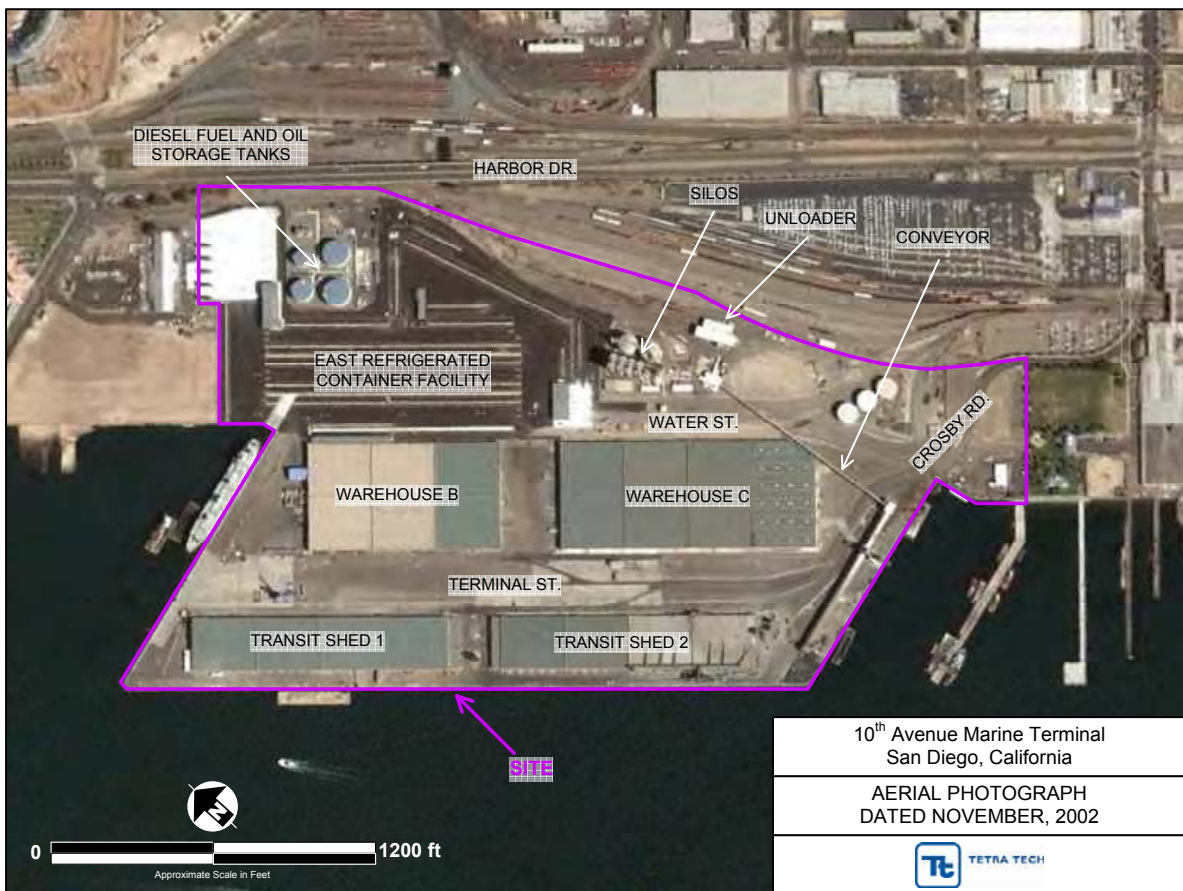
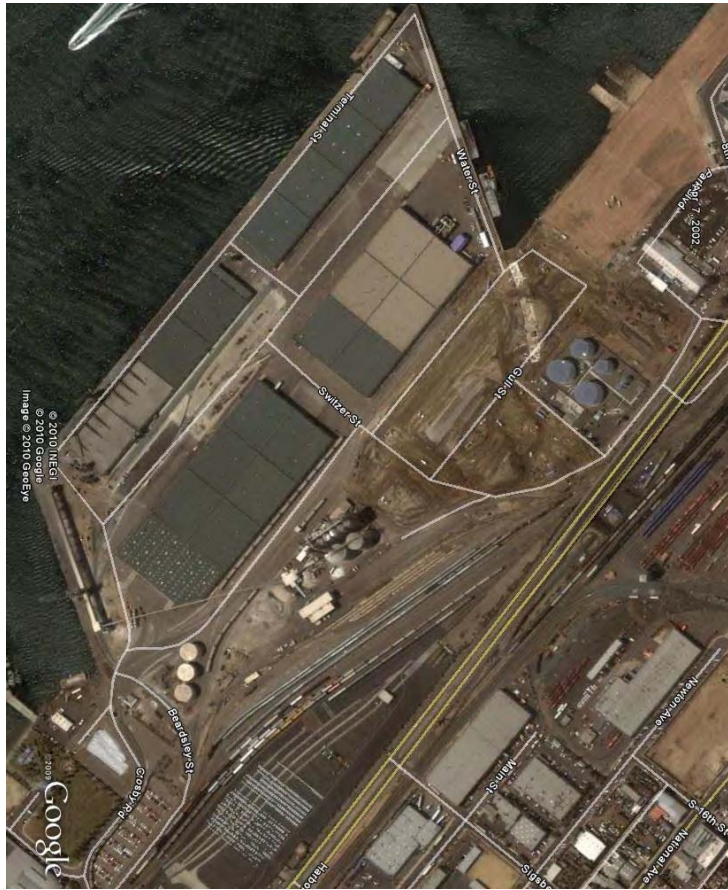
10TH AVENUE MARINE TERMINAL
AND VICINITY

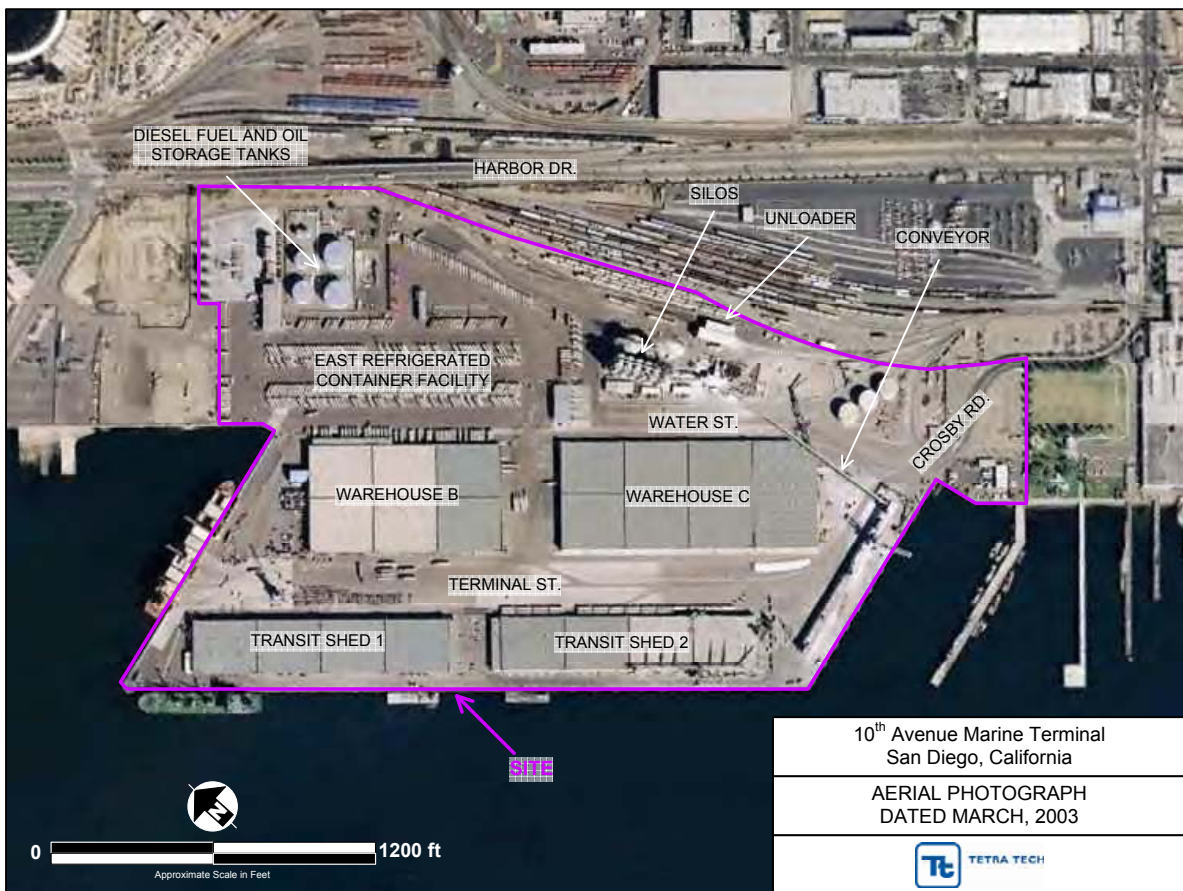
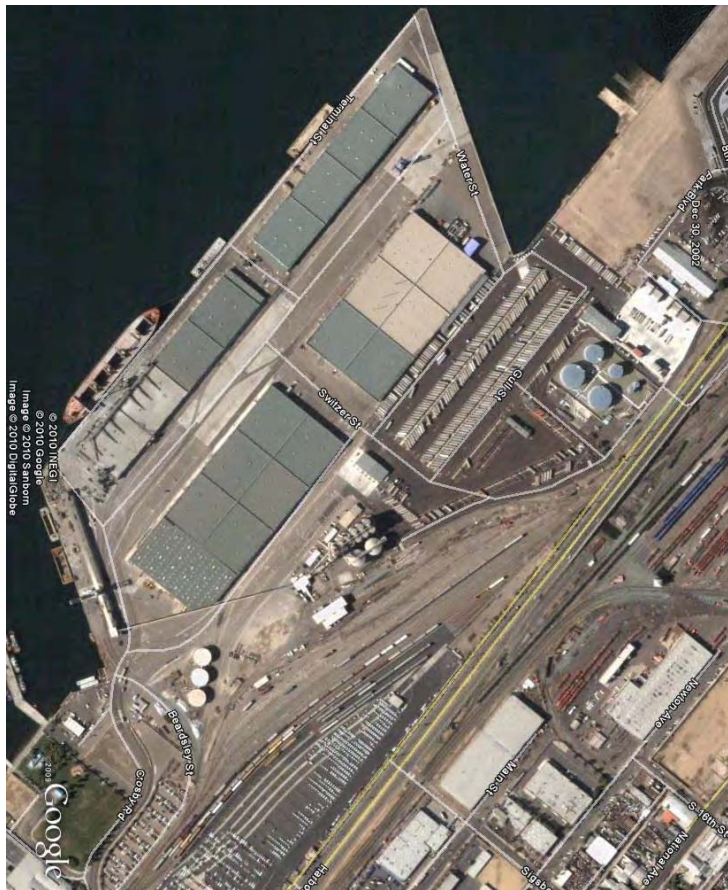
Appendix A

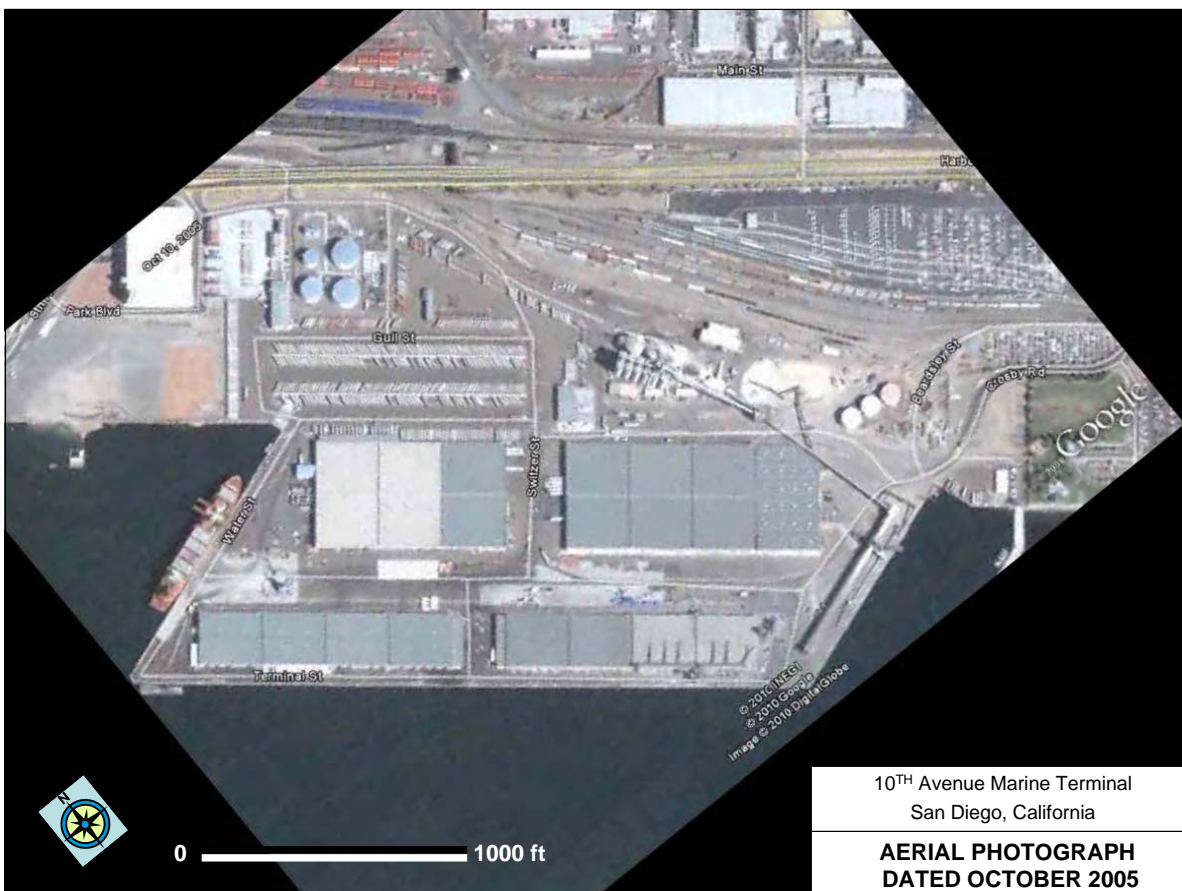
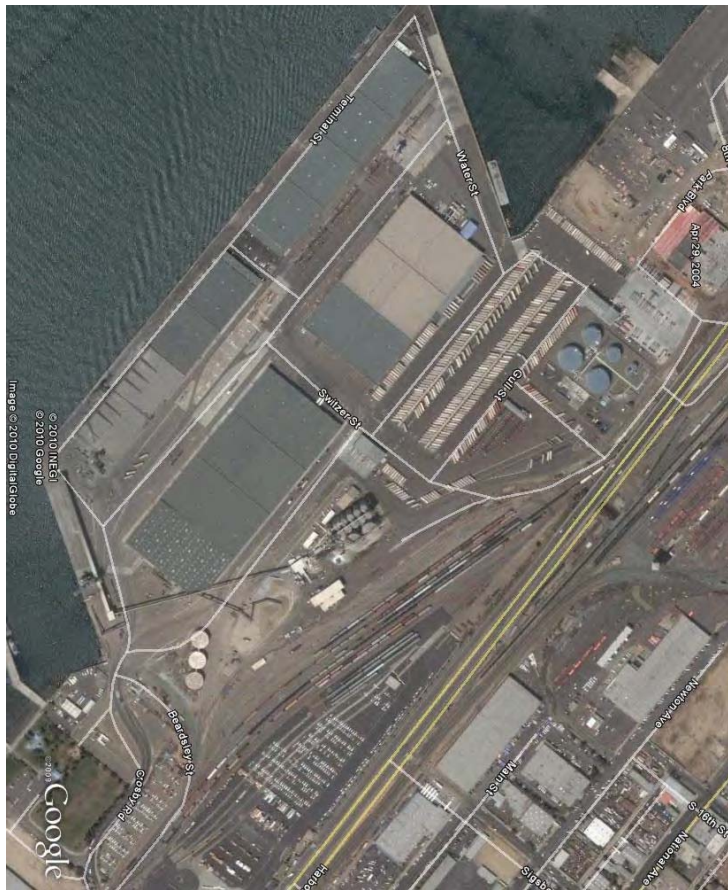
Project No. 103943-05





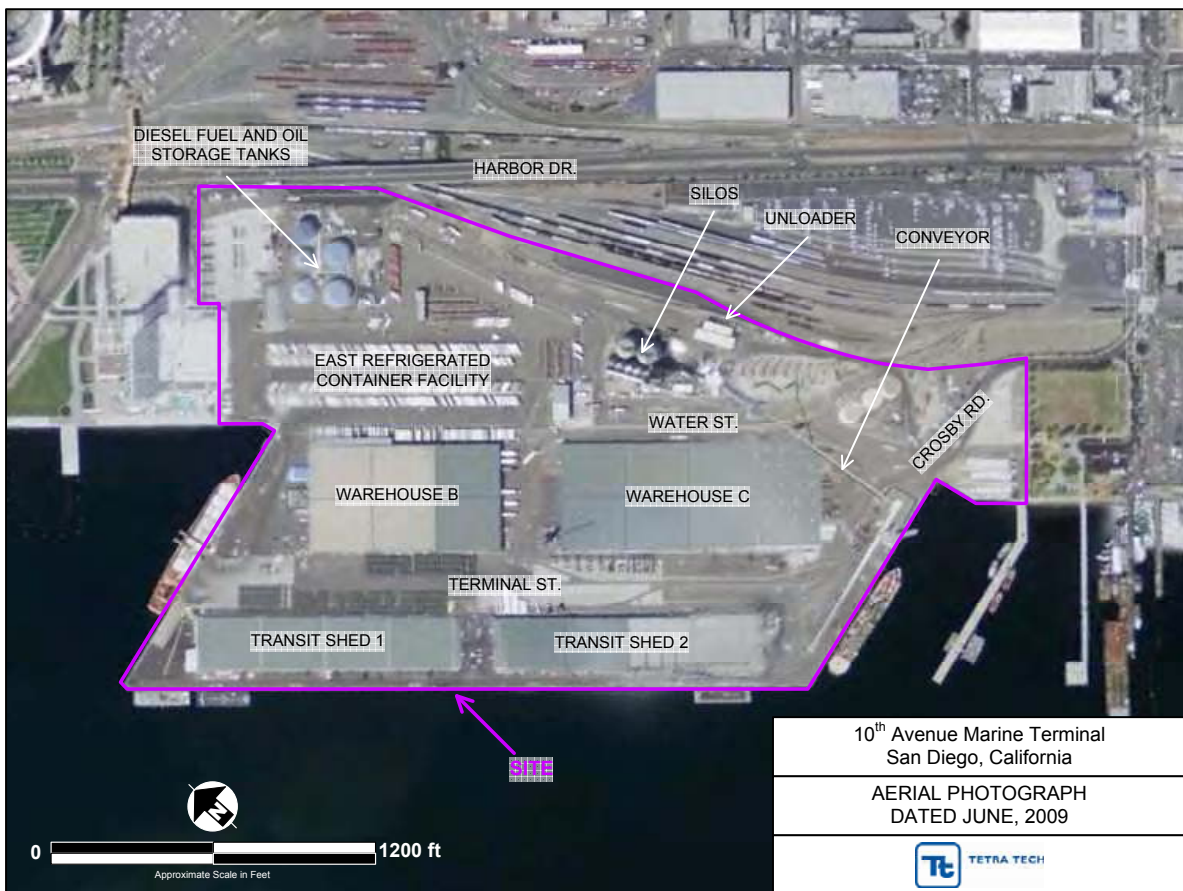
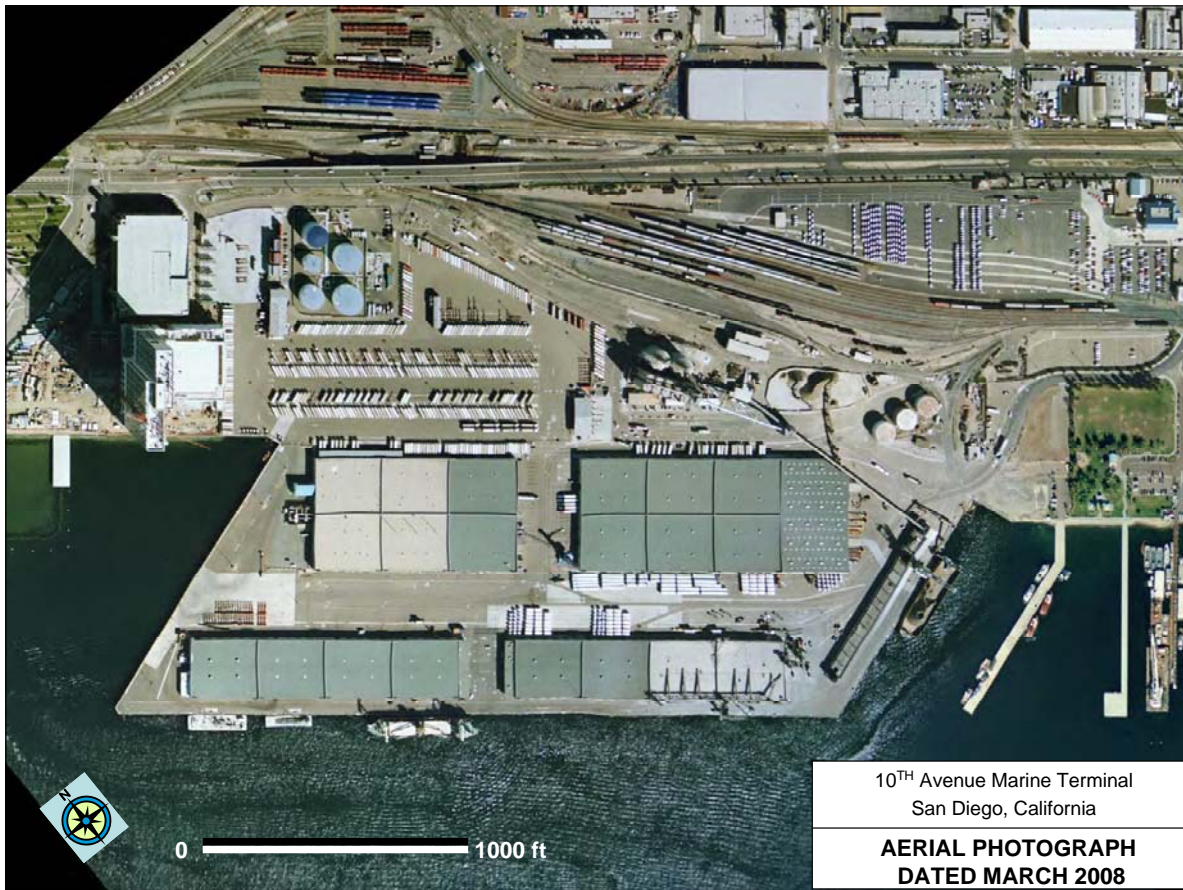






10TH Avenue Marine Terminal
San Diego, California

**AERIAL PHOTOGRAPH
DATED OCTOBER 2005**



March 26, 2015
Project No. 107589004

Mr. John Anderson
Regional Water Quality Control Board
2375 Northside Drive
San Diego, California 92108

Subject: Import Soil Evaluation
Chula Vista Bayfront Master Plan
Transit Shed No. 1, Tenth Avenue Marine Terminal
Chula Vista, California
T10000006477:Smearon

Dear Mr. Anderson:

At the request of the San Diego Unified Port District (Port), Ninyo & Moore evaluated a potential source of import fill soil for the Chula Vista Bayfront Master Plan (CVBMP) area (Attachment A). The import fill soil source is located at Transit Shed No. 1 on the Tenth Avenue Marine Terminal (TAMT), which is proposed for demolition (site) (Figures 1 and 2). This report describes soil sampling and analysis performed at the site and an evaluation of the suitability of the proposed import soil for potential use within the CVBMP area. As indicated in the Final Environmental Impact Report for the CVBMP, prepared by Dudek and dated April 2010, the planned redevelopment activities within the CVBMP area include, "hotel and conference space, retail and commercial recreation, office, residential, industrial business park, cultural, marina, RV Park, natural open space, and parkland."

Transit Shed No. 1 was constructed on an elevated building pad that was created using undocumented fill material. Based on the elevation changes due to removal of the built-up foundations of the subject building, we estimate that up to 36,000 tons of export soil may be generated from the demolition of Transit Shed No. 1. Ninyo & Moore performed soil sampling and analysis to evaluate the soil within the footprint of the planned removal area for constituents of potential concern (COPCs) that have been found during previous subsurface projects at TAMT, which are summarized below.

DRILLING, SOIL SAMPLING, AND ANALYSIS

On September 16, 2013, Ninyo & Moore advanced five direct-push borings to depths ranging from 3 to 5 feet below ground surface (Figure 3). Three soil samples were collected from each boring at randomly selected depths. Soil samples were collected with a 2-inch inside-diameter sampler lined with an acetate sleeve, 4 feet in length. The acetate sleeves were cut and the desired sampling interval retrieved, covered with Teflon™ sheeting, and sealed on both ends with plastic caps. Soil samples were labeled with pertinent information, placed into coolers containing ice, and delivered to Advanced Technology Laboratories of Signal Hill, California.

Eleven of the 15 samples collected were randomly selected to be analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and total petroleum hydrocarbons extended range C8-C40 (TPH-e) by United States Environmental Protection Agency (EPA) Method 8015M, Title 22 Metals by EPA Method 6010B/7471A, organochlorine pesticides (OCPs) by EPA Method 8081A, volatile organic compounds (VOCs) by EPA Method 8260B, and semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

FINDINGS

The following summarizes the findings of the soil sample analytical results.

- Arsenic, barium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc were detected in the samples analyzed at concentrations below hazardous waste criteria (Table 1).
- TPH-g, TPH-e, OCPs, VOCs and SVOCs were not detected in the samples analyzed.
- Based on the Environmental Protection Agency's SW-846, entitled Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, the 11 soil samples collected from within the removal area are sufficient to characterize the material (Table 1).

A copy of the analytical report is provided as Attachment B.

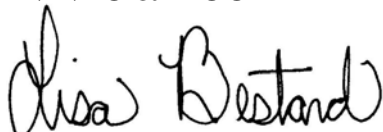
CONCLUSIONS AND RECOMMENDATIONS

Based on the findings listed above, Ninyo & Moore provides the following conclusions and recommendations:

- Metals were the only COPCs detected in the soil samples.
- The 95% UCLs of the detected metals are significantly lower than waste criteria; therefore, metals are not considered a contaminant of concern at the site.

Since contaminants of concern were not detected at the site and the site is not associated with an unauthorized release, it is Ninyo & Moore's opinion that the soil is suitable for reuse within the CVBMP area without restriction (Attachment A).

Sincerely,
NINYO & MOORE



Lisa Bestard
Senior Project Environmental Scientist



Stephan A. Beck, PG 4375
Manager, Environmental Sciences Division

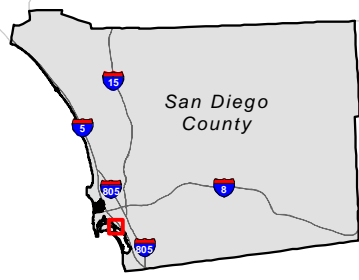
LB/SB/gg

Attachments: Figure 1 – Site Location
Figure 2 – Site Plan
Figure 4 – Boring Locations
Table 1 – Soil Sample Analytical Results - Detected Metals
Attachment A – Chula Vista Bayfront Master Plan Area Maps
Attachment B – Laboratory Analytical Report

Distribution: (1) Addressee
(1) Mr. Paul Brown, Port of San Diego
(1) Mr. E. Javier Saunders, Harris & Associates

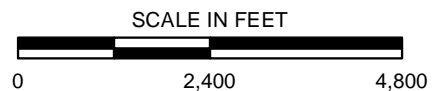


SOURCE: 2008 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY; MAP © RAND MCNALLY, R.L.07-S-129



MAP EXTENT

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE



Ninyo & Moore

SITE LOCATION

FIGURE

PROJECT NO.

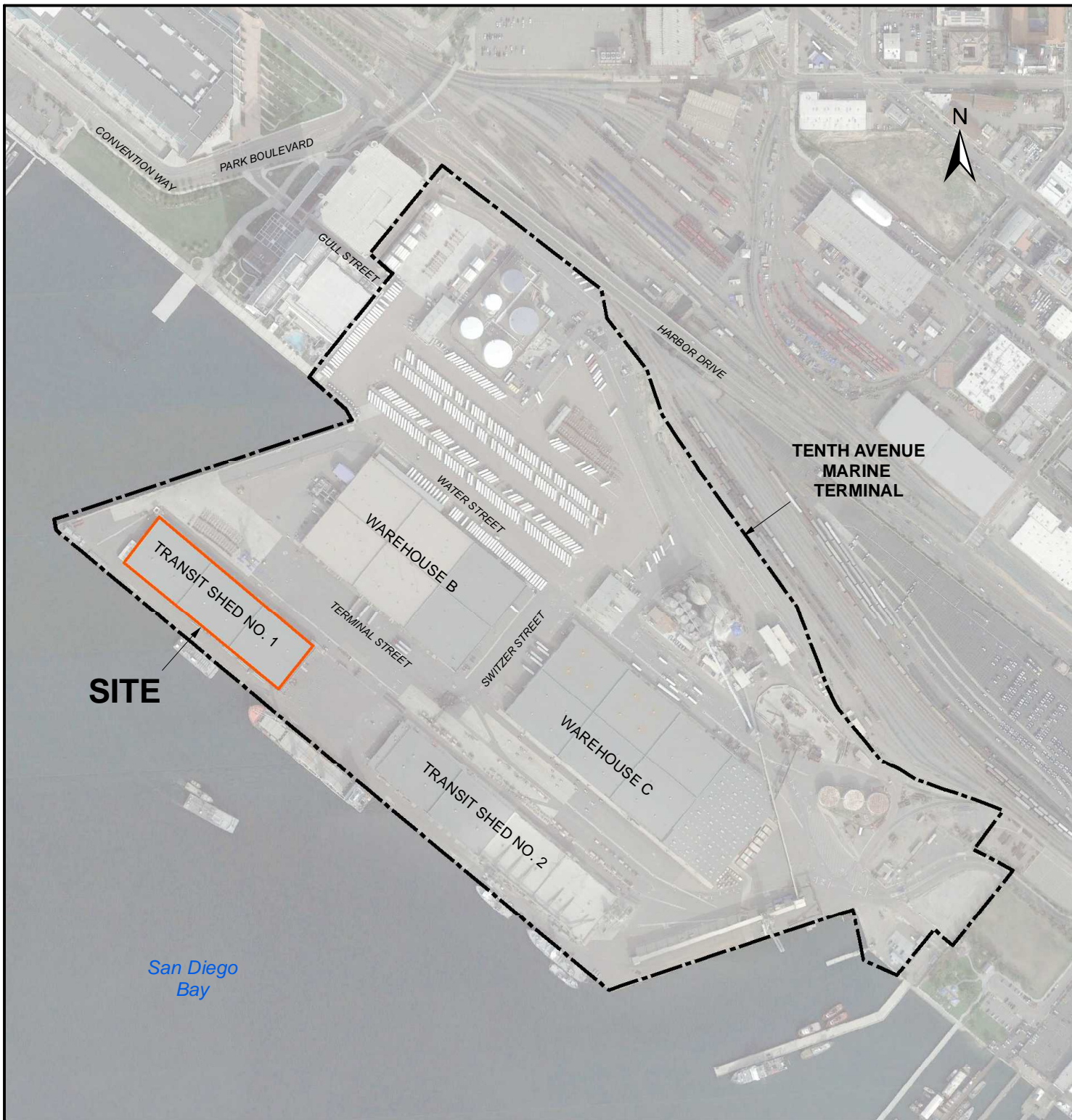
DATE

TRANSIT SHED NO. 1
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107589004

3/15

1



SOURCE: GOOGLE EARTH, 2015

LEGEND

--- TAMT BOUNDARY

SCALE IN FEET



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

SITE PLAN

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 1
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107589004

3/15

2



SOURCE: GOOGLE EARTH, 2015

LEGEND



BORING LOCATION



SCALE IN FEET



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

BORING LOCATIONS

FIGURE

PROJECT NO.

DATE

107589004

3/15

TRANSIT SHED NO. 1
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

3

Table 1 – Soil Sample Analytical Results - Detected Metals

Sample ID	Depth (feet bgs)	Sample Date	Arsenic	Barium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Vanadium	Zinc
milligrams per kilogram													
B1-0.5	0.5	9/20/2013	3.1	37	9.9	1.8	2.8	3.2	0.15	ND	1.6	15	16
B1-3.5	3.5	9/20/2013	2.0	2.6	2.6	2.1	ND	ND	0.25	ND	ND	8.7	4.4
B2-2.5	2.5	9/20/2013	2.5	6.7	2.2	1.3	ND	ND	ND	ND	ND	9.2	4.2
B2-4.5	4.5	9/20/2013	2.6	5.5	2.1	1.2	ND	ND	ND	ND	ND	8.9	5
B3-3.5	3.5	9/20/2013	2.6	4.9	2.2	1.3	ND	ND	ND	ND	0.99	10	4.3
B3-5.0	5.0	9/20/2013	2.6	5.2	2.5	1.3	ND	ND	ND	ND	ND	9.1	4.7
B4-1.0	1.0	9/20/2013	3.1	53	9.7	28	3.9	3.5	ND	1.6	5.9	15	27
B4-2	2.0	9/20/2013	ND	6.2	1.9	ND	ND	ND	ND	ND	ND	6.7	3.5
B5-1	1.0	9/20/2013	1.2	5.4	3.3	ND	ND	ND	ND	ND	ND	6.8	3.9
B5-3.5	3.5	9/20/2013	1.1	6.9	1.9	1	ND	ND	0.12	ND	ND	7.1	7.6
B5-4.5	4.5	9/20/2013	1.1	4.4	1.7	ND	ND	0.99	1.1	ND	ND	6.6	4.0
TTLC			500	10,000	2,500	8,000	2,500	1,000	20	3,500	2,000	2,400	5000
STLC Trigger			50	1,000	50	800	250	50	2	350	20	240	250
95% Upper Confidence Limit			2.54	34.2	7.68	19.2	N/A	N/A	0.39	N/A	N/A	11.0	17.3
Mean (with NDs)			2.08	12.5	2.2	3.73	2.25	1.42	0.21	1.05	1.49	9.37	7.69
Variance (with NDs)			0.63	272	9.48	59.1	0.33	0.83	0.08	0.03	1.97	9.11	53.8
Minimum Number of Samples Required			0.0003	0.14	0.07	0.01	3.26E-06	0.0006	0.004	1.47E-08	0.02	0.003	0.09

Notes:

bgs - below ground surface

N/A - not applicable because insufficient data was available for statistical analysis to be performed.

ND - not detected at or above the laboratory practical quantital limit

SSL - soil screening level identified in Regional Water Quality Control Board Order R9-2014-0041

STLC - soluble threshold limit concentration

TTLC - total threshold limit concentration

ATTACHMENT A

CHULA VISTA BAYFRONT MASTER PLAN AREA MAPS

Z:\Projects\1570301\Figs\EIR Figs 2010\Section 3\Fig3-02_aerial.mxd

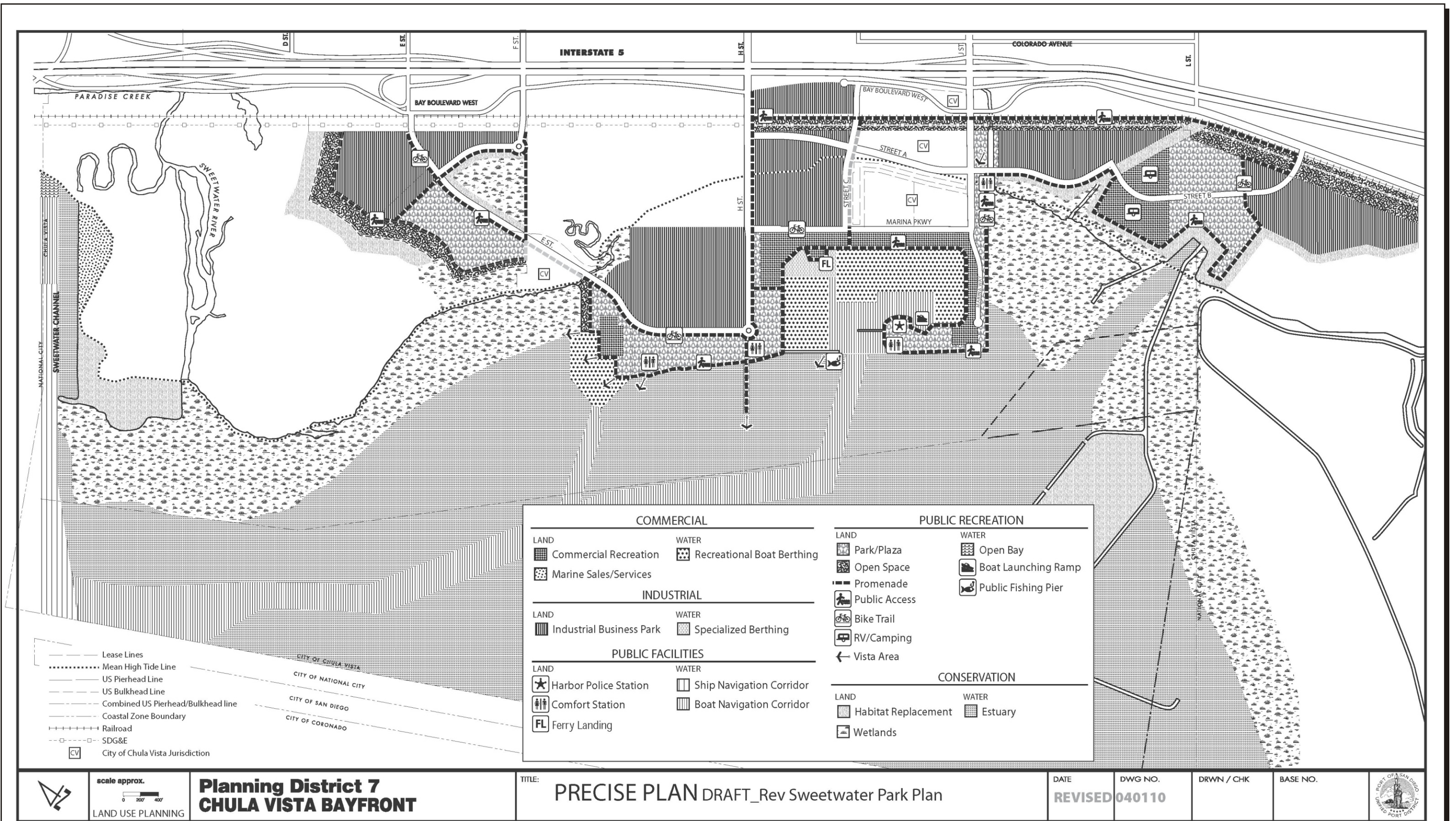


AERIAL SOURCE: DIGITAL GLOBE, MARCH 2007

Final Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan
Project Location on Aerial Photograph

FIGURE
3-2

Z:\Projects\1570301\Figs\EIR Figs\Section 3\Fig3-6_prop_amendment.cdr



SOURCE: Port Of San Diego

Final Environmental Impact Report (EIR) for the Chula Vista Bayfront Master Plan
Proposed Amendments to the Planning District 7 Chula Vista Bayfront Precise Plan (Port Master Plan)

FIGURE
3-6

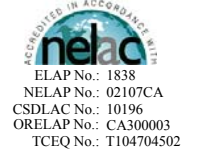
Transit Shed No. 1, Tenth Avenue Marine Terminal
San Diego, California

March 26, 2015
Project No. 107589004



September 24, 2013

Lisa Bestard
Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123
Tel: (858) 576-1000
Fax: (858) 576-9600



Re: ATL Work Order Number : 1302866
Client Reference : TAMT, 107589002

Enclosed are the results for sample(s) received on September 17, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0.5	1302866-01	Soil	9/16/13 8:02	9/17/13 11:50
B1-3.5	1302866-03	Soil	9/16/13 8:05	9/17/13 11:50
B2-2.5	1302866-04	Soil	9/16/13 8:25	9/17/13 11:50
B2-4.5	1302866-06	Soil	9/16/13 8:20	9/17/13 11:50
B3-3.5	1302866-08	Soil	9/16/13 8:31	9/17/13 11:50
B3-5.0	1302866-09	Soil	9/16/13 8:31	9/17/13 11:50
B4-1.0	1302866-10	Soil	9/16/13 8:41	9/17/13 11:50
B4-2	1302866-11	Soil	9/16/13 8:41	9/17/13 11:50
B5-1	1302866-13	Soil	9/16/13 8:52	9/17/13 11:50
B5-3.5	1302866-14	Soil	9/16/13 8:52	9/17/13 11:50
B5-4.5	1302866-15	Soil	9/16/13 8:52	9/17/13 11:50
B6-1	1302866-16	Soil	9/16/13 9:06	9/17/13 11:50
B6-4.5	1302866-18	Soil	9/16/13 9:06	9/17/13 11:50
B7-0.5	1302866-19	Soil	9/16/13 9:13	9/17/13 11:50
B7-2.0	1302866-20	Soil	9/16/13 9:13	9/17/13 11:50
B7-4.0	1302866-21	Soil	9/16/13 9:13	9/17/13 11:50
B8-0.5	1302866-22	Soil	9/16/13 9:53	9/17/13 11:50
B8-3.0	1302866-23	Soil	9/16/13 9:53	9/17/13 11:50
B8-4.0	1302866-24	Soil	9/16/13 9:53	9/17/13 11:50
B9-1.0	1302866-26	Soil	9/16/13 10:01	9/17/13 11:50
B9-4.5	1302866-27	Soil	9/16/13 10:01	9/17/13 11:50
B10-1	1302866-28	Soil	9/16/13 10:10	9/17/13 11:50
B10-3.5	1302866-30	Soil	9/16/13 10:10	9/17/13 11:50
B13-0.5	1302866-31	Soil	9/16/13 10:23	9/17/13 11:50
B13-2.0	1302866-32	Soil	9/16/13 10:23	9/17/13 11:50
B13-4.5	1302866-33	Soil	9/16/13 10:23	9/17/13 11:50
B12-4.0	1302866-35	Soil	9/16/13 10:32	9/17/13 11:50
B12-6.0	1302866-36	Soil	9/16/13 10:32	9/17/13 11:50
B11-3.0	1302866-37	Soil	9/16/13 10:42	9/17/13 11:50
B11-5.5	1302866-39	Soil	9/16/13 10:42	9/17/13 11:50



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

CASE NARRATIVE

Sample Receiving/General Comments:

All samples were collected 09/16/13 as indicated on sample container labels.

Pages 2 to 4 of the COC listed TPH (C4-C80) 8015 M, however page 1 has TPH (C8-C40) 8015M. Per client, follow breakdown listed on page 1 of the COC.



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Arsenic	3.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Barium	37	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Chromium	9.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Cobalt	1.8	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Copper	2.8	2.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Lead	3.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Nickel	1.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Vanadium	15	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Zinc	16	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.15	0.10	NA	1	B310360	09/20/2013	09/23/13 14:37	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 09:47	
Surrogate: 4-Bromofluorobenzene	104 %		54 - 150		B310313	09/19/2013	09/19/13 09:47	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
Surrogate: p-Terphenyl	99.8 %		55 - 153		B310342	09/19/2013	09/20/13 00:21	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 16:51	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 16:51	
Surrogate: Decachlorobiphenyl	93.0 %		32 - 113		B310351	09/20/2013	09/20/13 16:51	
Surrogate: Tetrachloro-m-xylene	78.2 %		32 - 101		B310351	09/20/2013	09/20/13 16:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:22	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Surrogate: 1,2-Dichloroethane-d4	117 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: 4-Bromofluorobenzene	91.1 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: Dibromofluoromethane	122 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: Toluene-d8	105 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Surrogate: 1,2-Dichlorobenzene-d4	81.2 %	48 - 113			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2,4,6-Tribromophenol	93.2 %	14 - 162			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Chlorophenol-d4	82.1 %	40 - 117			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Fluorobiphenyl	93.2 %	52 - 126			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Fluorophenol	78.5 %	26 - 124			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 4-Terphenyl-d14	95.0 %	36 - 163			B310349	09/20/2013	09/20/13 17:40	
Surrogate: Nitrobenzene-d5	80.6 %	42 - 118			B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

Client Sample ID B1-0.5
Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	79.8 %	29 - 124			B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

Client Sample ID B1-3.5
Lab ID: 1302866-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Arsenic	2.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Barium	5.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:37	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Chromium	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Cobalt	1.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Vanadium	8.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Zinc	4.4	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.25	0.10	NA	1	B310360	09/20/2013	09/23/13 14:39	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:03	
Surrogate: 4-Bromofluorobenzene	97.9 %	54 - 150			B310313	09/19/2013	09/19/13 10:03	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
Surrogate: <i>p</i> -Terphenyl	118 %		55 - 153		B310342	09/19/2013	09/20/13 00:38	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:04	
Surrogate: Decachlorobiphenyl	105 %		32 - 113		B310351	09/20/2013	09/20/13 17:04	
Surrogate: Tetrachloro-m-xylene	94.9 %		32 - 101		B310351	09/20/2013	09/20/13 17:04	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:40	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: 4-Bromofluorobenzene	92.1 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	

Surrogate: 1,2-Dichlorobenzene-d4	80.0 %	48 - 113	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2,4,6-Tribromophenol	89.6 %	14 - 162	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Chlorophenol-d4	79.5 %	40 - 117	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Fluorobiphenyl	87.2 %	52 - 126	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Fluorophenol	77.1 %	26 - 124	B310349	09/20/2013	09/20/13 18:08
Surrogate: 4-Terphenyl-d14	90.0 %	36 - 163	B310349	09/20/2013	09/20/13 18:08
Surrogate: Nitrobenzene-d5	77.7 %	42 - 118	B310349	09/20/2013	09/20/13 18:08



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	76.7 %	29 - 124			B310349	09/20/2013	09/20/13 18:08	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Arsenic	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Barium	6.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Chromium	2.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Cobalt	1.3	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Vanadium	9.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Zinc	4.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:45	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:19	
Surrogate: 4-Bromofluorobenzene	93.1 %		54 - 150		B310313	09/19/2013	09/19/13 10:19	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
Surrogate: p-Terphenyl	107 %		55 - 153		B310342	09/19/2013	09/20/13 00:55	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
4,4'-DDE	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
4,4'-DDT	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Aldrin	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
alpha-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
alpha-Chlordane	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
beta-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Chlordane	ND	26	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
delta-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Dieldrin	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan I	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan II	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan sulfate	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin aldehyde	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin ketone	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
gamma-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
gamma-Chlordane	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Heptachlor	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Heptachlor epoxide	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Methoxychlor	ND	15	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Toxaphene	ND	150	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Surrogate: Decachlorobiphenyl	98.6 %		32 - 113		B310367	09/23/2013	09/23/13 15:05	
Surrogate: Tetrachloro-m-xylene	97.2 %		32 - 101		B310367	09/23/2013	09/23/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:59	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: 4-Bromofluorobenzene	93.5 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: Toluene-d8	105 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Surrogate: 1,2-Dichlorobenzene-d4	70.4 %	48 - 113			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2,4,6-Tribromophenol	85.1 %	14 - 162			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Chlorophenol-d4	70.9 %	40 - 117			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Fluorobiphenyl	78.6 %	52 - 126			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Fluorophenol	68.3 %	26 - 124			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 4-Terphenyl-d14	85.1 %	36 - 163			B310349	09/20/2013	09/20/13 18:35	
Surrogate: Nitrobenzene-d5	70.8 %	42 - 118			B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	69.2 %	29 - 124			B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Arsenic	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Barium	5.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:45	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Chromium	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Cobalt	1.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Lead	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Vanadium	8.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Zinc	5.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:47	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:35	
Surrogate: 4-Bromofluorobenzene	100 %	54 - 150			B310313	09/19/2013	09/19/13 10:35	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
Surrogate: <i>p</i> -Terphenyl	126 %		55 - 153		B310342	09/19/2013	09/20/13 01:12	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
4,4'-DDT [2C]	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:18	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:18	
Surrogate: Decachlorobiphenyl	92.1 %		32 - 113		B310351	09/20/2013	09/20/13 17:18	
Surrogate: Tetrachloro-m-xylene	75.7 %		32 - 101		B310351	09/20/2013	09/20/13 17:18	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:17	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Surrogate: 1,2-Dichloroethane-d4	121 %		70 - 130		B310280	09/18/2013	09/18/13 12:17	
Surrogate: 4-Bromofluorobenzene	92.7 %		70 - 130		B310280	09/18/2013	09/18/13 12:17	
Surrogate: Dibromofluoromethane	126 %		70 - 130		B310280	09/18/2013	09/18/13 12:17	
Surrogate: Toluene-d8	107 %		70 - 130		B310280	09/18/2013	09/18/13 12:17	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	

Surrogate: 1,2-Dichlorobenzene-d4 78.2 % 48 - 113 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2,4,6-Tribromophenol 90.1 % 14 - 162 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Chlorophenol-d4 79.0 % 40 - 117 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Fluorobiphenyl 88.3 % 52 - 126 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Fluorophenol 75.7 % 26 - 124 B310349 09/20/2013 09/20/13 19:03

Surrogate: 4-Terphenyl-d14 96.1 % 36 - 163 B310349 09/20/2013 09/20/13 19:03

Surrogate: Nitrobenzene-d5 75.5 % 42 - 118 B310349 09/20/2013 09/20/13 19:03



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 76.3 % 29 - 124 B310349 09/20/2013 09/20/13 19:03



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:50	
Arsenic	2.6	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Barium	4.9	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:49	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Chromium	2.2	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Cobalt	1.3	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:50	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Vanadium	10	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Zinc	4.3	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:49	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:17	
Surrogate: 4-Bromofluorobenzene	107 %		54 - 150		B310313	09/19/2013	09/19/13 11:17	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
Surrogate: p-Terphenyl	108 %		55 - 153		B310342	09/19/2013	09/20/13 01:28	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:31	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:31	
Surrogate: Decachlorobiphenyl	101 %		32 - 113		B310351	09/20/2013	09/20/13 17:31	
Surrogate: Tetrachloro-m-xylene	89.7 %		32 - 101		B310351	09/20/2013	09/20/13 17:31	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:36	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Surrogate: 1,2-Dichloroethane-d4	119 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: 4-Bromofluorobenzene	89.6 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: Toluene-d8	103 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Surrogate: 1,2-Dichlorobenzene-d4	89.5 %	48 - 113			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2,4,6-Tribromophenol	93.4 %	14 - 162			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Chlorophenol-d4	87.2 %	40 - 117			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Fluorobiphenyl	88.0 %	52 - 126			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Fluorophenol	87.8 %	26 - 124			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 4-Terphenyl-d14	93.4 %	36 - 163			B310349	09/20/2013	09/20/13 19:30	
Surrogate: Nitrobenzene-d5	76.3 %	42 - 118			B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	83.6 %	29 - 124			B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Arsenic	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Barium	5.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Chromium	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Cobalt	1.3	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Vanadium	9.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Zinc	4.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:51	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:33	
Surrogate: 4-Bromofluorobenzene	87.0 %	54 - 150			B310313	09/19/2013	09/19/13 11:33	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

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Lab ID: 1302866-09

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
Surrogate: <i>p</i> -Terphenyl	102 %		55 - 153		B310342	09/19/2013	09/20/13 01:45	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:44	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:44	
Surrogate: Decachlorobiphenyl	99.5 %		32 - 113		B310351	09/20/2013	09/20/13 17:44	
Surrogate: Tetrachloro-m-xylene	89.9 %		32 - 101		B310351	09/20/2013	09/20/13 17:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:54	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Surrogate: 1,2-Dichloroethane-d4	124 %		70 - 130		B310280	09/18/2013	09/18/13 12:54	
Surrogate: 4-Bromofluorobenzene	93.4 %		70 - 130		B310280	09/18/2013	09/18/13 12:54	
Surrogate: Dibromofluoromethane	132 %		70 - 130		B310280	09/18/2013	09/18/13 12:54	S1
Surrogate: Toluene-d8	107 %		70 - 130		B310280	09/18/2013	09/18/13 12:54	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	

Surrogate: 1,2-Dichlorobenzene-d4 88.1 % 48 - 113 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2,4,6-Tribromophenol 98.1 % 14 - 162 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Chlorophenol-d4 88.8 % 40 - 117 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Fluorobiphenyl 99.8 % 52 - 126 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Fluorophenol 83.1 % 26 - 124 B310349 09/20/2013 09/20/13 19:56

Surrogate: 4-Terphenyl-d14 103 % 36 - 163 B310349 09/20/2013 09/20/13 19:56

Surrogate: Nitrobenzene-d5 85.1 % 42 - 118 B310349 09/20/2013 09/20/13 19:56



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 86.3 % 29 - 124 B310349 09/20/2013 09/20/13 19:56



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Arsenic	3.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Barium	53	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Chromium	9.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Cobalt	28	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Copper	3.9	2.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Lead	3.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Molybdenum	1.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Nickel	5.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Vanadium	15	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Zinc	27	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:53	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:49	
Surrogate: 4-Bromofluorobenzene	96.2 %		54 - 150		B310313	09/19/2013	09/19/13 11:49	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	



Certificate of Analysis

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Client Sample ID B4-1.0

Lab ID: 1302866-10

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
Surrogate: p-Terphenyl	117 %		55 - 153		B310342	09/19/2013	09/20/13 02:02	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
4,4'-DDE	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
4,4'-DDT	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Aldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
alpha-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
alpha-Chlordane	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
beta-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Chlordane	ND	17	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
delta-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Dieldrin	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan I	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan II	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan sulfate	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin aldehyde	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin ketone	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
gamma-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
gamma-Chlordane	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Heptachlor	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Heptachlor epoxide	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Methoxychlor	ND	10	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Toxaphene	ND	100	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Surrogate: Decachlorobiphenyl	98.6 %		32 - 113		B310351	09/20/2013	09/20/13 20:51	
Surrogate: Tetrachloro-m-xylene	85.9 %		32 - 101		B310351	09/20/2013	09/20/13 20:51	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:13	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Surrogate: 1,2-Dichloroethane-d4	125 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: 4-Bromofluorobenzene	89.7 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: Toluene-d8	103 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Surrogate: 1,2-Dichlorobenzene-d4	74.1 %	48 - 113			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2,4,6-Tribromophenol	86.9 %	14 - 162			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Chlorophenol-d4	75.6 %	40 - 117			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Fluorobiphenyl	86.4 %	52 - 126			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Fluorophenol	71.9 %	26 - 124			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 4-Terphenyl-d14	98.7 %	36 - 163			B310349	09/20/2013	09/20/13 20:24	
Surrogate: Nitrobenzene-d5	73.2 %	42 - 118			B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	73.0 %	29 - 124			B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:00	
Arsenic	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Barium	6.2	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:59	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Chromium	1.9	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Cobalt	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:00	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Vanadium	6.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Zinc	3.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:55	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:05	
Surrogate: 4-Bromofluorobenzene	97.0 %	54 - 150			B310313	09/19/2013	09/19/13 12:05	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	



Certificate of Analysis

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Lab ID: 1302866-11

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
Surrogate: <i>p</i> -Terphenyl	104 %		55 - 153		B310342	09/19/2013	09/20/13 02:19	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:58	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:58	
Surrogate: Decachlorobiphenyl	96.4 %		32 - 113		B310351	09/20/2013	09/20/13 17:58	
Surrogate: Tetrachloro- <i>m</i> -xylene	83.4 %		32 - 101		B310351	09/20/2013	09/20/13 17:58	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:32	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Surrogate: 1,2-Dichloroethane-d4	123 %		70 - 130		B310280	09/18/2013	09/18/13 13:32	
Surrogate: 4-Bromofluorobenzene	91.6 %		70 - 130		B310280	09/18/2013	09/18/13 13:32	
Surrogate: Dibromofluoromethane	126 %		70 - 130		B310280	09/18/2013	09/18/13 13:32	
Surrogate: Toluene-d8	106 %		70 - 130		B310280	09/18/2013	09/18/13 13:32	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	

Surrogate: 1,2-Dichlorobenzene-d4 87.2 % 48 - 113 B310349 09/20/2013 09/20/13 20:52

Surrogate: 2,4,6-Tribromophenol 81.3 % 14 - 162 B310349 09/20/2013 09/20/13 20:52

Surrogate: 2-Chlorophenol-d4 91.9 % 40 - 117 B310349 09/20/2013 09/20/13 20:52

Surrogate: 2-Fluorobiphenyl 92.4 % 52 - 126 B310349 09/20/2013 09/20/13 20:52

Surrogate: 2-Fluorophenol 87.4 % 26 - 124 B310349 09/20/2013 09/20/13 20:52

Surrogate: 4-Terphenyl-d14 95.7 % 36 - 163 B310349 09/20/2013 09/20/13 20:52

Surrogate: Nitrobenzene-d5 73.6 % 42 - 118 B310349 09/20/2013 09/20/13 20:52



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 85.4 % 29 - 124 B310349 09/20/2013 09/20/13 20:52



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Arsenic	1.2	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Barium	5.4	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Chromium	3.3	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Cobalt	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Vanadium	6.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Zinc	3.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:57	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:21	
Surrogate: 4-Bromofluorobenzene	93.8 %		54 - 150		B310313	09/19/2013	09/19/13 12:21	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
Surrogate: p-Terphenyl	103 %		55 - 153		B310342	09/19/2013	09/20/13 02:36	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:11	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:11	
Surrogate: Decachlorobiphenyl	107 %		32 - 113		B310351	09/20/2013	09/20/13 18:11	
Surrogate: Tetrachloro-m-xylene	84.7 %		32 - 101		B310351	09/20/2013	09/20/13 18:11	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:52	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Surrogate: 1,2-Dichloroethane-d4	124 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: 4-Bromofluorobenzene	92.8 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: Toluene-d8	106 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Surrogate: 1,2-Dichlorobenzene-d4	79.7 %	48 - 113			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2,4,6-Tribromophenol	75.5 %	14 - 162			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Chlorophenol-d4	84.9 %	40 - 117			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Fluorobiphenyl	87.6 %	52 - 126			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Fluorophenol	79.8 %	26 - 124			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 4-Terphenyl-d14	94.4 %	36 - 163			B310349	09/20/2013	09/20/13 21:19	
Surrogate: Nitrobenzene-d5	69.2 %	42 - 118			B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	79.0 %	29 - 124			B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Arsenic	1.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Barium	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:07	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Chromium	1.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Cobalt	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Vanadium	7.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Zinc	7.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.12	0.10	NA	1	B310360	09/20/2013	09/23/13 14:59	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:37	
Surrogate: 4-Bromofluorobenzene	91.0 %	54 - 150			B310313	09/19/2013	09/19/13 12:37	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
Surrogate: <i>p</i> -Terphenyl	120 %		55 - 153		B310342	09/19/2013	09/20/13 02:52	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:24	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:24	
Surrogate: Decachlorobiphenyl	102 %		32 - 113		B310351	09/20/2013	09/20/13 18:24	
Surrogate: Tetrachloro-m-xylene	89.0 %		32 - 101		B310351	09/20/2013	09/20/13 18:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:10	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Surrogate: 1,2-Dichloroethane-d4	128 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: 4-Bromofluorobenzene	90.9 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: Dibromofluoromethane	129 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: Toluene-d8	105 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benazidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	

Surrogate: 1,2-Dichlorobenzene-d4 87.7 % 48 - 113 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2,4,6-Tribromophenol 85.3 % 14 - 162 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Chlorophenol-d4 92.3 % 40 - 117 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Fluorobiphenyl 95.6 % 52 - 126 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Fluorophenol 88.2 % 26 - 124 B310349 09/20/2013 09/20/13 21:46

Surrogate: 4-Terphenyl-d14 103 % 36 - 163 B310349 09/20/2013 09/20/13 21:46

Surrogate: Nitrobenzene-d5 75.2 % 42 - 118 B310349 09/20/2013 09/20/13 21:46



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 86.9 % 29 - 124 B310349 09/20/2013 09/20/13 21:46



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:12	
Arsenic	1.1	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Barium	4.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:11	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Chromium	1.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Cobalt	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:12	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Vanadium	6.6	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Zinc	4.0	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	1.1	0.10	NA	1	B310364	09/20/2013	09/23/13 15:08	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:53	
Surrogate: 4-Bromofluorobenzene	107 %		54 - 150		B310313	09/19/2013	09/19/13 12:53	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
Surrogate: p-Terphenyl	107 %		55 - 153		B310342	09/19/2013	09/20/13 03:09	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:38	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:38	
Surrogate: Decachlorobiphenyl	103 %		32 - 113		B310351	09/20/2013	09/20/13 18:38	
Surrogate: Tetrachloro-m-xylene	83.8 %		32 - 101		B310351	09/20/2013	09/20/13 18:38	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:29	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Surrogate: 1,2-Dichloroethane-d4	128 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	
Surrogate: 4-Bromofluorobenzene	89.4 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	S1
Surrogate: Toluene-d8	102 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Surrogate: 1,2-Dichlorobenzene-d4	105 %	48 - 113			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2,4,6-Tribromophenol	97.3 %	14 - 162			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Chlorophenol-d4	110 %	40 - 117			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Fluorobiphenyl	112 %	52 - 126			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Fluorophenol	104 %	26 - 124			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 4-Terphenyl-d14	117 %	36 - 163			B310349	09/20/2013	09/20/13 22:13	
Surrogate: Nitrobenzene-d5	88.9 %	42 - 118			B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	102 %	29 - 124			B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Arsenic	7.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Barium	130	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Chromium	2.7	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Cobalt	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Copper	4.3	2.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Lead	4.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Molybdenum	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Nickel	2.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Vanadium	6.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Zinc	22	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.21	0.10	NA	1	B310364	09/20/2013	09/23/13 15:16	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:09	
Surrogate: 4-Bromofluorobenzene	82.4 %	54 - 150			B310313	09/19/2013	09/19/13 13:09	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B6-1

Lab ID: 1302866-16

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
Surrogate: <i>p</i> -Terphenyl	103 %		55 - 153		B310342	09/19/2013	09/20/13 03:26	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:51	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:51	
Surrogate: Decachlorobiphenyl	94.8 %		32 - 113		B310351	09/20/2013	09/20/13 18:51	
Surrogate: Tetrachloro-m-xylene	88.4 %		32 - 101		B310351	09/20/2013	09/20/13 18:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:47	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Surrogate: 1,2-Dichloroethane-d4	125 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	
Surrogate: 4-Bromofluorobenzene	89.7 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	
Surrogate: Dibromofluoromethane	130 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	

Surrogate: 1,2-Dichlorobenzene-d4	99.6 %	48 - 113	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2,4,6-Tribromophenol	92.8 %	14 - 162	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Chlorophenol-d4	106 %	40 - 117	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Fluorobiphenyl	106 %	52 - 126	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Fluorophenol	99.4 %	26 - 124	B310349	09/20/2013	09/20/13 22:40
Surrogate: 4-Terphenyl-d14	108 %	36 - 163	B310349	09/20/2013	09/20/13 22:40
Surrogate: Nitrobenzene-d5	84.6 %	42 - 118	B310349	09/20/2013	09/20/13 22:40



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	97.7 %	29 - 124	B310349	09/20/2013	09/20/13 22:40
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:26	
Arsenic	2.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Barium	32	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Beryllium	ND	2.0	NA	2	B310334	09/19/2013	09/20/13 14:50	D5
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Chromium	8.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Cobalt	3.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Copper	30	2.0	NA	1	B310334	09/19/2013	09/20/13 14:26	
Lead	5.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Nickel	4.1	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Vanadium	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Zinc	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.14	0.10	NA	1	B310364	09/20/2013	09/23/13 15:18	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:25	
Surrogate: 4-Bromofluorobenzene	109 %		54 - 150		B310313	09/19/2013	09/19/13 13:25	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
Surrogate: p-Terphenyl	101 %		55 - 153		B310342	09/19/2013	09/20/13 03:43	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:04	
Surrogate: Decachlorobiphenyl	108 %		32 - 113		B310351	09/20/2013	09/20/13 19:04	
Surrogate: Tetrachloro-m-xylene	94.2 %		32 - 101		B310351	09/20/2013	09/20/13 19:04	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:05	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Surrogate: 1,2-Dichloroethane-d4	135 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	S1
Surrogate: 4-Bromofluorobenzene	91.7 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	
Surrogate: Dibromofluoromethane	134 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	S1
Surrogate: Toluene-d8	106 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Ben-zidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Surrogate: 1,2-Dichlorobenzene-d4	77.9 %	48 - 113			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2,4,6-Tribromophenol	88.1 %	14 - 162			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Chlorophenol-d4	84.0 %	40 - 117			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Fluorobiphenyl	95.6 %	52 - 126			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Fluorophenol	78.2 %	26 - 124			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 4-Terphenyl-d14	104 %	36 - 163			B310349	09/20/2013	09/20/13 23:07	
Surrogate: Nitrobenzene-d5	71.2 %	42 - 118			B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	78.6 %	29 - 124			B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Arsenic	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Barium	110	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Chromium	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Cobalt	2.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Copper	3.7	2.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Lead	5.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Nickel	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Vanadium	5.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Zinc	20	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:20	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:41	
Surrogate: 4-Bromofluorobenzene	102 %	54 - 150			B310313	09/19/2013	09/19/13 13:41	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
Surrogate: <i>p</i> -Terphenyl	119 %		55 - 153		B310342	09/19/2013	09/20/13 03:59	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:17	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:17	
Surrogate: Decachlorobiphenyl	73.1 %		32 - 113		B310351	09/20/2013	09/20/13 19:17	
Surrogate: Tetrachloro-m-xylene	67.0 %		32 - 101		B310351	09/20/2013	09/20/13 19:17	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:24	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Surrogate: 1,2-Dichloroethane-d4	128 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	
Surrogate: 4-Bromofluorobenzene	93.0 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	
Surrogate: Dibromofluoromethane	131 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	S1
Surrogate: Toluene-d8	108 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	

Surrogate: 1,2-Dichlorobenzene-d4	58.5 %	48 - 113	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2,4,6-Tribromophenol	66.3 %	14 - 162	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Chlorophenol-d4	61.3 %	40 - 117	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Fluorobiphenyl	69.0 %	52 - 126	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Fluorophenol	56.9 %	26 - 124	B310349	09/20/2013	09/20/13 23:35
Surrogate: 4-Terphenyl-d14	83.3 %	36 - 163	B310349	09/20/2013	09/20/13 23:35
Surrogate: Nitrobenzene-d5	52.9 %	42 - 118	B310349	09/20/2013	09/20/13 23:35



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	58.0 %	29 - 124	B310349	09/20/2013	09/20/13 23:35
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:33	
Arsenic	1.3	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Barium	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:32	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Chromium	6.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Cobalt	2.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Copper	3.6	2.0	NA	1	B310334	09/19/2013	09/20/13 14:33	
Lead	1.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Nickel	2.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Vanadium	15	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Zinc	12	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.10	0.10	NA	1	B310364	09/20/2013	09/23/13 15:22	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 14:00	
Surrogate: 4-Bromofluorobenzene	92.0 %		54 - 150		B310313	09/19/2013	09/19/13 14:00	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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Lab ID: 1302866-20

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
Surrogate: p-Terphenyl	101 %		55 - 153		B310342	09/19/2013	09/20/13 04:16	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:31	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:31	
Surrogate: Decachlorobiphenyl	101 %		32 - 113		B310351	09/20/2013	09/20/13 19:31	
Surrogate: Tetrachloro-m-xylene	94.1 %		32 - 101		B310351	09/20/2013	09/20/13 19:31	



Certificate of Analysis

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Client Sample ID B7-2.0

Lab ID: 1302866-20

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:42	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Surrogate: 1,2-Dichloroethane-d4	128 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: 4-Bromofluorobenzene	92.7 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: Dibromofluoromethane	129 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: Toluene-d8	107 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Surrogate: 1,2-Dichlorobenzene-d4	92.6 %	48 - 113			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2,4,6-Tribromophenol	91.3 %	14 - 162			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Chlorophenol-d4	97.8 %	40 - 117			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Fluorobiphenyl	103 %	52 - 126			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Fluorophenol	92.7 %	26 - 124			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 4-Terphenyl-d14	104 %	36 - 163			B310349	09/20/2013	09/21/13 00:02	
Surrogate: Nitrobenzene-d5	82.7 %	42 - 118			B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	90.6 %	29 - 124			B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:37	
Arsenic	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Barium	14	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:36	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Chromium	2.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Cobalt	1.0	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:37	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Vanadium	8.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Zinc	5.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	NA	1	B310364	09/20/2013	09/23/13 15:24	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 14:16	
Surrogate: 4-Bromofluorobenzene	97.1 %	54 - 150			B310313	09/19/2013	09/19/13 14:16	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	



Certificate of Analysis

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Lab ID: 1302866-21

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
Surrogate: <i>p</i> -Terphenyl	104 %		55 - 153		B310342	09/19/2013	09/20/13 04:33	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:44	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:44	
Surrogate: Decachlorobiphenyl	95.6 %		32 - 113		B310351	09/20/2013	09/20/13 19:44	
Surrogate: Tetrachloro-m-xylene	87.1 %		32 - 101		B310351	09/20/2013	09/20/13 19:44	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:01	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	
Surrogate: 4-Bromofluorobenzene	91.9 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	
Surrogate: Dibromofluoromethane	133 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	S1
Surrogate: Toluene-d8	107 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	

Surrogate: 1,2-Dichlorobenzene-d4	83.7 %	48 - 113	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2,4,6-Tribromophenol	84.0 %	14 - 162	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Chlorophenol-d4	87.9 %	40 - 117	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Fluorobiphenyl	91.8 %	52 - 126	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Fluorophenol	82.4 %	26 - 124	B310349	09/20/2013	09/21/13 00:29
Surrogate: 4-Terphenyl-d14	106 %	36 - 163	B310349	09/20/2013	09/21/13 00:29
Surrogate: Nitrobenzene-d5	71.2 %	42 - 118	B310349	09/20/2013	09/21/13 00:29



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	80.6 %	29 - 124	B310349	09/20/2013	09/21/13 00:29	
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Arsenic	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Barium	140	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:40	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Chromium	3.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Cobalt	11	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Copper	5.5	2.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Lead	5.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Nickel	3.4	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Vanadium	7.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Zinc	23	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.13	0.10	NA	1	B310364	09/20/2013	09/23/13 15:26	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:16	
Surrogate: 4-Bromofluorobenzene	102 %		54 - 150		B310313	09/19/2013	09/19/13 15:16	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

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Lab ID: 1302866-22

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
Surrogate: p-Terphenyl	106 %		55 - 153		B310342	09/19/2013	09/20/13 04:50	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 21:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 21:04	
Surrogate: Decachlorobiphenyl	80.7 %		32 - 113		B310351	09/20/2013	09/20/13 21:04	
Surrogate: Tetrachloro-m-xylene	86.7 %		32 - 101		B310351	09/20/2013	09/20/13 21:04	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:19	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	
Surrogate: 4-Bromofluorobenzene	88.1 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	
Surrogate: Dibromofluoromethane	134 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Surrogate: 1,2-Dichlorobenzene-d4	81.1 %	48 - 113			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2,4,6-Tribromophenol	96.9 %	14 - 162			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Chlorophenol-d4	84.1 %	40 - 117			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Fluorobiphenyl	84.0 %	52 - 126			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Fluorophenol	84.5 %	26 - 124			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 4-Terphenyl-d14	98.5 %	36 - 163			B310349	09/20/2013	09/23/13 12:09	
Surrogate: Nitrobenzene-d5	76.8 %	42 - 118			B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	80.0 %	29 - 124			B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Arsenic	1.8	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Barium	23	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Chromium	7.6	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Cobalt	2.9	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Copper	3.3	2.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Lead	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Nickel	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Vanadium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Zinc	12	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	NA	1	B310364	09/20/2013	09/23/13 15:32	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:32	
Surrogate: 4-Bromofluorobenzene	89.1 %	54 - 150			B310313	09/19/2013	09/19/13 15:32	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	



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Lab ID: 1302866-23

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
Surrogate: <i>p</i> -Terphenyl	97.0 %		55 - 153		B310342	09/19/2013	09/20/13 05:07	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:57	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:57	
Surrogate: Decachlorobiphenyl	95.0 %		32 - 113		B310351	09/20/2013	09/20/13 19:57	
Surrogate: Tetrachloro-m-xylene	89.5 %		32 - 101		B310351	09/20/2013	09/20/13 19:57	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:20	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: 4-Bromofluorobenzene	92.8 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: Dibromofluoromethane	124 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	

Surrogate: 1,2-Dichlorobenzene-d4	86.1 %	48 - 113	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2,4,6-Tribromophenol	104 %	14 - 162	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Chlorophenol-d4	89.1 %	40 - 117	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Fluorobiphenyl	89.1 %	52 - 126	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Fluorophenol	89.3 %	26 - 124	B310349	09/20/2013	09/23/13 12:36
Surrogate: 4-Terphenyl-d14	104 %	36 - 163	B310349	09/20/2013	09/23/13 12:36
Surrogate: Nitrobenzene-d5	83.6 %	42 - 118	B310349	09/20/2013	09/23/13 12:36



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	84.2 %	29 - 124	B310349	09/20/2013	09/23/13 12:36
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Arsenic	1.3	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Barium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:58	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Chromium	2.6	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Cobalt	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Copper	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Lead	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Nickel	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Vanadium	8.8	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Zinc	3.9	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	1.3	0.10	NA	1	B310364	09/20/2013	09/23/13 15:34	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:48	
Surrogate: 4-Bromofluorobenzene	102 %		54 - 150		B310313	09/19/2013	09/19/13 15:48	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	



Certificate of Analysis

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Lab ID: 1302866-24

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
Surrogate: p-Terphenyl	99.2 %		55 - 153		B310342	09/19/2013	09/20/13 05:23	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/23/13 08:39	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/23/13 08:39	
Surrogate: Decachlorobiphenyl	96.5 %		32 - 113		B310351	09/20/2013	09/23/13 08:39	
Surrogate: Tetrachloro-m-xylene	91.2 %		32 - 101		B310351	09/20/2013	09/23/13 08:39	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:39	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: Dibromofluoromethane	126 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: Toluene-d8	105 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Surrogate: 1,2-Dichlorobenzene-d4	74.5 %	48 - 113			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2,4,6-Tribromophenol	94.2 %	14 - 162			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Chlorophenol-d4	77.8 %	40 - 117			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Fluorobiphenyl	77.7 %	52 - 126			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Fluorophenol	77.9 %	26 - 124			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 4-Terphenyl-d14	97.3 %	36 - 163			B310349	09/20/2013	09/23/13 13:03	
Surrogate: Nitrobenzene-d5	72.4 %	42 - 118			B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	74.7 %	29 - 124			B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Arsenic	4.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Barium	53	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:01	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Chromium	6.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Cobalt	3.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Copper	6.0	2.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Lead	94	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Nickel	2.9	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Vanadium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Zinc	18	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.12	0.10	NA	1	B310364	09/20/2013	09/23/13 15:36	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 16:04	
Surrogate: 4-Bromofluorobenzene	110 %	54 - 150			B310313	09/19/2013	09/19/13 16:04	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	



Certificate of Analysis

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Lab ID: 1302866-26

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
Surrogate: <i>p</i> -Terphenyl	118 %		55 - 153		B310342	09/19/2013	09/20/13 05:40	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 20:24	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 20:24	
Surrogate: Decachlorobiphenyl	92.7 %		32 - 113		B310351	09/20/2013	09/20/13 20:24	
Surrogate: Tetrachloro-m-xylene	82.3 %		32 - 101		B310351	09/20/2013	09/20/13 20:24	



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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B9-1.0

Lab ID: 1302866-26

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:57	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: 4-Bromofluorobenzene	91.0 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: Dibromofluoromethane	127 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	

Surrogate: 1,2-Dichlorobenzene-d4	78.4 %	48 - 113	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2,4,6-Tribromophenol	94.9 %	14 - 162	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Chlorophenol-d4	80.9 %	40 - 117	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Fluorobiphenyl	80.6 %	52 - 126	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Fluorophenol	81.2 %	26 - 124	B310349	09/20/2013	09/23/13 13:30
Surrogate: 4-Terphenyl-d14	94.5 %	36 - 163	B310349	09/20/2013	09/23/13 13:30
Surrogate: Nitrobenzene-d5	76.1 %	42 - 118	B310349	09/20/2013	09/23/13 13:30



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	77.8 %	29 - 124			B310349	09/20/2013	09/23/13 13:30	
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:11	
Arsenic	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Barium	27	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Beryllium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Cadmium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Chromium	11	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Cobalt	3.7	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Copper	7.3	2.0	NA	1	B310354	09/20/2013	09/20/13 18:11	
Lead	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Molybdenum	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Nickel	4.6	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Selenium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Silver	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Thallium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Vanadium	25	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Zinc	23	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:38	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:27	
Surrogate: 4-Bromofluorobenzene	101 %		54 - 150		B310345	09/20/2013	09/20/13 04:27	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	



Certificate of Analysis

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Lab ID: 1302866-27

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
Surrogate: p-Terphenyl	108 %		55 - 153		B310343	09/19/2013	09/20/13 17:07	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 20:37	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 20:37	
Surrogate: Decachlorobiphenyl	105 %		32 - 113		B310351	09/20/2013	09/20/13 20:37	
Surrogate: Tetrachloro-m-xylene	87.8 %		32 - 101		B310351	09/20/2013	09/20/13 20:37	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:16	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Surrogate: 1,2-Dichloroethane-d4	126 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: 4-Bromofluorobenzene	90.6 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	



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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Surrogate: 1,2-Dichlorobenzene-d4	66.9 %	48 - 113			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2,4,6-Tribromophenol	95.7 %	14 - 162			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Chlorophenol-d4	71.3 %	40 - 117			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Fluorobiphenyl	77.2 %	52 - 126			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Fluorophenol	70.9 %	26 - 124			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 4-Terphenyl-d14	98.4 %	36 - 163			B310361	09/20/2013	09/23/13 14:52	
Surrogate: Nitrobenzene-d5	67.5 %	42 - 118			B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	72.1 %	29 - 124			B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Arsenic	8.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Barium	130	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Chromium	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Cobalt	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Copper	3.9	2.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Lead	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Nickel	2.6	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Vanadium	8.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Zinc	19	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:40	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:43	
Surrogate: 4-Bromofluorobenzene	98.2 %	54 - 150			B310345	09/20/2013	09/20/13 04:43	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	



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Client Sample ID B10-1

Lab ID: 1302866-28

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
Surrogate: <i>p</i> -Terphenyl	107 %		55 - 153		B310343	09/19/2013	09/20/13 17:24	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 16:38	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 16:38	
Surrogate: Decachlorobiphenyl	82.2 %		32 - 113		B310367	09/23/2013	09/23/13 16:38	
Surrogate: Tetrachloro-m-xylene	98.2 %		32 - 101		B310367	09/23/2013	09/23/13 16:38	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:34	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: 4-Bromofluorobenzene	93.5 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: Toluene-d8	108 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,2-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,3-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,4-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4,5-Trichlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4,6-Trichlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dichlorophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dimethylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dinitrophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dinitrotoluene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,6-Dinitrotoluene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Chloronaphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Chlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Methylnaphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Methylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Nitrophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
3,3'-Dichlorobenzidine	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
3-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4,6-Dinitro-2-methylphenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Bromophenyl-phenylether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chloro-3-methylphenol	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chloroaniline	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chlorophenyl-phenylether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Methylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Nitrophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Acenaphthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Acenaphthylene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzidine (M)	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(a)anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(a)pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(b)fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(g,h,i)perylene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(k)fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzoic acid	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-chloroethoxy)methane	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-Chloroethyl)ether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-chloroisopropyl)ether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-ethylhexyl)phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Butylbenzylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Chrysene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Di-n-butylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Di-n-octylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dibenz(a,h)anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dibenzofuran	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Diethyl phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dimethyl phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Fluorene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorobutadiene	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorocyclopentadiene	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachloroethane	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Indeno(1,2,3-cd)pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Isophorone	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
N-Nitroso-di-n propylamine	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
N-Nitrosodiphenylamine	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Naphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Nitrobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pentachlorophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Phenanthrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Phenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pyridine	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1

Surrogate: 1,2-Dichlorobenzene-d4	73.8 %	48 - 113	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2,4,6-Tribromophenol	84.4 %	14 - 162	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Chlorophenol-d4	79.1 %	40 - 117	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Fluorobiphenyl	81.5 %	52 - 126	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Fluorophenol	76.8 %	26 - 124	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 4-Terphenyl-d14	93.6 %	36 - 163	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: Nitrobenzene-d5	76.3 %	42 - 118	B310361	09/20/2013	09/23/13 17:24	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	77.0 %	29 - 124	B310361	09/20/2013	09/23/13 17:24	D1
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Arsenic	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Barium	35	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Chromium	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Cobalt	4.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Copper	6.4	2.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Lead	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Nickel	5.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Vanadium	35	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Zinc	29	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:42	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:59	
Surrogate: 4-Bromofluorobenzene	96.2 %		54 - 150		B310345	09/20/2013	09/20/13 04:59	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
Surrogate: p-Terphenyl	112 %		55 - 153		B310343	09/19/2013	09/20/13 17:41	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 15:19	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:19	
Surrogate: Decachlorobiphenyl	75.5 %		32 - 113		B310367	09/23/2013	09/23/13 15:19	
Surrogate: Tetrachloro-m-xylene	89.9 %		32 - 101		B310367	09/23/2013	09/23/13 15:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:53	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Surrogate: 1,2-Dichloroethane-d4	132 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	S1
Surrogate: 4-Bromofluorobenzene	91.3 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	S1
Surrogate: Toluene-d8	103 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Surrogate: 1,2-Dichlorobenzene-d4	73.7 %	48 - 113			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2,4,6-Tribromophenol	96.0 %	14 - 162			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Chlorophenol-d4	76.6 %	40 - 117			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Fluorobiphenyl	81.6 %	52 - 126			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Fluorophenol	76.2 %	26 - 124			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 4-Terphenyl-d14	98.6 %	36 - 163			B310361	09/20/2013	09/23/13 15:20	
Surrogate: Nitrobenzene-d5	74.9 %	42 - 118			B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	75.0 %	29 - 124			B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Arsenic	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Barium	68	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:26	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Chromium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Cobalt	4.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Copper	4.4	2.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Lead	8.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Nickel	3.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Vanadium	40	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Zinc	36	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:44	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:15	
Surrogate: 4-Bromofluorobenzene	95.3 %	54 - 150			B310345	09/20/2013	09/20/13 05:15	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
Surrogate: <i>p</i> -Terphenyl	109 %		55 - 153		B310343	09/19/2013	09/20/13 17:58	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
4,4'-DDE	13	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
4,4'-DDT	7.1	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
alpha-Chlordane	2.6	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Chlordane	29	8.5	NA	1	B310367	09/23/2013	09/23/13 15:32	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
gamma-Chlordane [2C]	3.2	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:32	
Surrogate: Decachlorobiphenyl	71.8 %		32 - 113		B310367	09/23/2013	09/23/13 15:32	
Surrogate: Tetrachloro-m-xylene	85.5 %		32 - 101		B310367	09/23/2013	09/23/13 15:32	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:12	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Surrogate: 1,2-Dichloroethane-d4	133 %		70 - 130		B310298	09/19/2013	09/19/13 13:12	S1
Surrogate: 4-Bromofluorobenzene	91.6 %		70 - 130		B310298	09/19/2013	09/19/13 13:12	
Surrogate: Dibromofluoromethane	132 %		70 - 130		B310298	09/19/2013	09/19/13 13:12	S1
Surrogate: Toluene-d8	104 %		70 - 130		B310298	09/19/2013	09/19/13 13:12	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	

Surrogate: 1,2-Dichlorobenzene-d4 73.4 % 48 - 113 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2,4,6-Tribromophenol 99.2 % 14 - 162 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Chlorophenol-d4 76.5 % 40 - 117 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Fluorobiphenyl 84.2 % 52 - 126 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Fluorophenol 76.1 % 26 - 124 B310361 09/20/2013 09/23/13 15:47

Surrogate: 4-Terphenyl-d14 98.8 % 36 - 163 B310361 09/20/2013 09/23/13 15:47

Surrogate: Nitrobenzene-d5 73.8 % 42 - 118 B310361 09/20/2013 09/23/13 15:47



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 76.0 % 29 - 124 B310361 09/20/2013 09/23/13 15:47



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Arsenic	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Barium	45	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:29	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Chromium	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Cobalt	4.9	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Copper	3.8	2.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Lead	16	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Nickel	3.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Vanadium	38	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Zinc	27	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:46	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:31	
Surrogate: 4-Bromofluorobenzene	96.5 %		54 - 150		B310345	09/20/2013	09/20/13 05:31	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	



Certificate of Analysis

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Client Sample ID B13-2.0

Lab ID: 1302866-32

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
Surrogate: p-Terphenyl	113 %		55 - 153		B310343	09/19/2013	09/20/13 18:14	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Chlordane	14	8.5	NA	1	B310367	09/23/2013	09/23/13 15:45	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:45	
Surrogate: Decachlorobiphenyl	104 %		32 - 113		B310367	09/23/2013	09/23/13 15:45	
Surrogate: Tetrachloro-m-xylene	99.9 %		32 - 101		B310367	09/23/2013	09/23/13 15:45	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:30	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:30	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: 4-Bromofluorobenzene	93.3 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: Toluene-d8	108 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Surrogate: 1,2-Dichlorobenzene-d4	71.8 %	48 - 113			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2,4,6-Tribromophenol	95.7 %	14 - 162			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Chlorophenol-d4	76.7 %	40 - 117			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Fluorobiphenyl	82.5 %	52 - 126			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Fluorophenol	75.5 %	26 - 124			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 4-Terphenyl-d14	96.7 %	36 - 163			B310361	09/20/2013	09/23/13 16:14	
Surrogate: Nitrobenzene-d5	74.5 %	42 - 118			B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	75.4 %	29 - 124			B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Arsenic	2.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Barium	31	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Chromium	11	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Cobalt	3.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Copper	3.6	2.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Lead	4.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Nickel	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Vanadium	33	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Zinc	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:48	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:47	
Surrogate: 4-Bromofluorobenzene	95.5 %	54 - 150			B310345	09/20/2013	09/20/13 05:47	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

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Lab ID: 1302866-33

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
Surrogate: <i>p</i> -Terphenyl	108 %		55 - 153		B310343	09/19/2013	09/20/13 18:31	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 15:58	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:58	
Surrogate: Decachlorobiphenyl	88.1 %		32 - 113		B310367	09/23/2013	09/23/13 15:58	
Surrogate: Tetrachloro-m-xylene	88.2 %		32 - 101		B310367	09/23/2013	09/23/13 15:58	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B13-4.5

Lab ID: 1302866-33

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:49	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Surrogate: 1,2-Dichloroethane-d4	130 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: 4-Bromofluorobenzene	91.7 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: Dibromofluoromethane	129 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	

Surrogate: 1,2-Dichlorobenzene-d4 69.0 % 48 - 113 B310361 09/20/2013 09/23/13 13:57

Surrogate: 2,4,6-Tribromophenol 96.2 % 14 - 162 B310361 09/20/2013 09/23/13 13:57

Surrogate: 2-Chlorophenol-d4 72.4 % 40 - 117 B310361 09/20/2013 09/23/13 13:57

Surrogate: 2-Fluorobiphenyl 76.7 % 52 - 126 B310361 09/20/2013 09/23/13 13:57

Surrogate: 2-Fluorophenol 71.6 % 26 - 124 B310361 09/20/2013 09/23/13 13:57

Surrogate: 4-Terphenyl-d14 95.8 % 36 - 163 B310361 09/20/2013 09/23/13 13:57

Surrogate: Nitrobenzene-d5 68.5 % 42 - 118 B310361 09/20/2013 09/23/13 13:57



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 71.1 % 29 - 124 B310361 09/20/2013 09/23/13 13:57



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:35	
Arsenic	1.9	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Barium	44	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Beryllium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Cadmium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Chromium	11	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Cobalt	4.3	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Copper	3.3	2.0	NA	1	B310354	09/20/2013	09/20/13 18:35	
Lead	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Molybdenum	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Nickel	3.2	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Selenium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Silver	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Thallium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Vanadium	35	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Zinc	23	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:50	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:03	
Surrogate: 4-Bromofluorobenzene	110 %		54 - 150		B310345	09/20/2013	09/20/13 06:03	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	



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Lab ID: 1302866-35

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
Surrogate: p-Terphenyl	104 %		55 - 153		B310343	09/19/2013	09/20/13 18:48	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
4,4'-DDE	2.5	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
4,4'-DDT [2C]	2.3	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Chlordane	14	8.5	NA	1	B310367	09/23/2013	09/23/13 16:51	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
gamma-Chlordane [2C]	1.0	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 16:51	
Surrogate: Decachlorobiphenyl	80.8 %		32 - 113		B310367	09/23/2013	09/23/13 16:51	
Surrogate: Tetrachloro-m-xylene	98.7 %		32 - 101		B310367	09/23/2013	09/23/13 16:51	



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Client Sample ID B12-4.0

Lab ID: 1302866-35

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:07	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	
Surrogate: 4-Bromofluorobenzene	91.1 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	



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Client Sample ID B12-4.0

Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	



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Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Surrogate: 1,2-Dichlorobenzene-d4	73.7 %	48 - 113			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2,4,6-Tribromophenol	94.6 %	14 - 162			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Chlorophenol-d4	78.3 %	40 - 117			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Fluorobiphenyl	82.7 %	52 - 126			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Fluorophenol	78.1 %	26 - 124			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 4-Terphenyl-d14	98.3 %	36 - 163			B310361	09/20/2013	09/23/13 17:51	
Surrogate: Nitrobenzene-d5	76.0 %	42 - 118			B310361	09/20/2013	09/23/13 17:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	76.5 %	29 - 124			B310361	09/20/2013	09/23/13 17:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Arsenic	8.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Barium	100	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Chromium	5.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Cobalt	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Copper	4.8	2.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Lead	5.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Nickel	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Vanadium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Zinc	19	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:56	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:19	
Surrogate: 4-Bromofluorobenzene	99.2 %	54 - 150			B310345	09/20/2013	09/20/13 06:19	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C18-C28	47	10	NA	1	B310343	09/19/2013	09/20/13 19:21	



Certificate of Analysis

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Lab ID: 1302866-36

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	160	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C36-C40	190	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C8-C40 Total (HS)	400	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
Surrogate: p-Terphenyl	113 %		55 - 153		B310343	09/19/2013	09/20/13 19:21	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 18:10	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 18:10	
Surrogate: Decachlorobiphenyl	54.6 %		32 - 113		B310367	09/23/2013	09/23/13 18:10	
Surrogate: Tetrachloro-m-xylene	81.0 %		32 - 101		B310367	09/23/2013	09/23/13 18:10	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:26	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Surrogate: 1,2-Dichloroethane-d4	130 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: Dibromofluoromethane	130 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: Toluene-d8	105 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,2-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,3-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,4-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4,5-Trichlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4,6-Trichlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dichlorophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dimethylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dinitrophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dinitrotoluene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,6-Dinitrotoluene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Chloronaphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Chlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Methylnaphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Methylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Nitrophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
3,3'-Dichlorobenzidine	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
3-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4,6-Dinitro-2-methylphenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Bromophenyl-phenylether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chloro-3-methylphenol	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chloroaniline	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chlorophenyl-phenylether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Methylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Nitrophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Acenaphthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Acenaphthylene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzidine (M)	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(a)anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(a)pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(b)fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(g,h,i)perylene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(k)fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzoic acid	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-chloroethoxy)methane	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-Chloroethyl)ether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-chloroisopropyl)ether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-ethylhexyl)phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Butylbenzylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Chrysene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Di-n-butylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Di-n-octylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dibenz(a,h)anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dibenzofuran	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Diethyl phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dimethyl phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Fluorene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorobutadiene	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorocyclopentadiene	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachloroethane	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Indeno(1,2,3-cd)pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Isophorone	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
N-Nitroso-di-n propylamine	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
N-Nitrosodiphenylamine	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Naphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Nitrobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pentachlorophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Phenanthrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Phenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pyridine	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1

Surrogate: 1,2-Dichlorobenzene-d4	72.0 %	48 - 113	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2,4,6-Tribromophenol	52.0 %	14 - 162	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Chlorophenol-d4	65.0 %	40 - 117	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Fluorobiphenyl	68.5 %	52 - 126	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Fluorophenol	65.0 %	26 - 124	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 4-Terphenyl-d14	78.0 %	36 - 163	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: Nitrobenzene-d5	64.5 %	42 - 118	B310361	09/20/2013	09/23/13 18:18	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	57.5 %	29 - 124	B310361	09/20/2013	09/23/13 18:18	D1
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Arsenic	17	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Barium	130	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Chromium	7.6	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Cobalt	100	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Copper	5.1	2.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Lead	4.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Nickel	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Vanadium	16	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Zinc	23	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:58	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:35	
Surrogate: 4-Bromofluorobenzene	94.2 %		54 - 150		B310345	09/20/2013	09/20/13 06:35	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C18-C28	21	10	NA	1	B310343	09/19/2013	09/20/13 19:04	



Certificate of Analysis

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Lab ID: 1302866-37

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	92	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C36-C40	110	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C8-C40 Total (HS)	220	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
Surrogate: p-Terphenyl	120 %		55 - 153		B310343	09/19/2013	09/20/13 19:04	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 17:30	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 17:30	
Surrogate: Decachlorobiphenyl	72.8 %		32 - 113		B310367	09/23/2013	09/23/13 17:30	
Surrogate: Tetrachloro-m-xylene	94.8 %		32 - 101		B310367	09/23/2013	09/23/13 17:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dibromoethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
2,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
2-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
4-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
4-Isopropyltoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Benzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromodichloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromoform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Carbon disulfide	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Carbon tetrachloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloroform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Di-isopropyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dibromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dibromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dichlorodifluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl Acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl Ether	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Freon-113	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Hexachlorobutadiene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Isopropylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
m,p-Xylene	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:26	
Methylene chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
MTBE	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
n-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
n-Propylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Naphthalene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
o-Xylene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
sec-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Styrene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Amyl methyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Butanol	ND	100	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Tetrachloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Toluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Trichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Trichlorofluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Vinyl acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Vinyl chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Surrogate: 1,2-Dichloroethane-d4	114 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: 4-Bromofluorobenzene	95.5 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: Dibromofluoromethane	118 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: Toluene-d8	104 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dichlorophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dimethylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dinitrophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dinitrotoluene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,6-Dinitrotoluene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Chloronaphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Chlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Methylnaphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Methylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Nitrophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
3,3'-Dichlorobenzidine	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
3-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4,6-Dinitro-2-methylphenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chloroaniline	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Methylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Nitrophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Acenaphthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Acenaphthylene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzidine (M)	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(a)anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(a)pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzoic acid	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroethyl)ether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Butylbenzylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Chrysene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Di-n-butylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Di-n-octylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dibenz(a,h)anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dibenzofuran	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Diethyl phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dimethyl phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Fluorene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorobutadiene	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorocyclopentadiene	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachloroethane	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Isophorone	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Naphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Nitrobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pentachlorophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Phenanthrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Phenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pyridine	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 1,2-Dichlorobenzene-d4	63.4 %	48 - 113			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2,4,6-Tribromophenol	60.8 %	14 - 162			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Chlorophenol-d4	63.2 %	40 - 117			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Fluorobiphenyl	63.9 %	52 - 126			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Fluorophenol	62.2 %	26 - 124			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 4-Terphenyl-d14	70.5 %	36 - 163			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: Nitrobenzene-d5	62.7 %	42 - 118			B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

Client Sample ID B11-3.0
Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	59.8 %	29 - 124			B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

Client Sample ID B11-5.5
Lab ID: 1302866-39

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Arsenic	8.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Barium	59	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:43	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Chromium	4.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Cobalt	2.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Copper	4.5	2.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Lead	4.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Nickel	3.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Vanadium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Zinc	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 16:00	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:52	
Surrogate: 4-Bromofluorobenzene	91.0 %	54 - 150			B310345	09/20/2013	09/20/13 06:52	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C18-C28	270	10	NA	1	B310343	09/19/2013	09/20/13 19:38	



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Client Sample ID B11-5.5

Lab ID: 1302866-39

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	930	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C36-C40	990	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C8-C40 Total (HS)	2200	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
Surrogate: p-Terphenyl	104 %		55 - 153		B310343	09/19/2013	09/20/13 19:38	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 18:23	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 18:23	
Surrogate: Decachlorobiphenyl	60.0 %		32 - 113		B310367	09/23/2013	09/23/13 18:23	
Surrogate: Tetrachloro-m-xylene	86.8 %		32 - 101		B310367	09/23/2013	09/23/13 18:23	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dibromoethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
2,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
2-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
4-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
4-Isopropyltoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Benzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromodichloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromoform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Carbon disulfide	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Carbon tetrachloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloroform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Di-isopropyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dibromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dibromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dichlorodifluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl Acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl Ether	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Freon-113	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Hexachlorobutadiene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Isopropylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
m,p-Xylene	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:44	
Methylene chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
MTBE	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
n-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
n-Propylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Naphthalene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
o-Xylene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
sec-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Styrene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Amyl methyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Butanol	ND	100	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Tetrachloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Toluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Trichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Trichlorofluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Vinyl acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Vinyl chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Surrogate: 1,2-Dichloroethane-d4	116 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: Dibromofluoromethane	121 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: Toluene-d8	104 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,2-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,3-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,4-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4,5-Trichlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4,6-Trichlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dichlorophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dimethylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dinitrophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dinitrotoluene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,6-Dinitrotoluene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Chloronaphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Chlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Methylnaphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Methylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Nitrophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
3,3'-Dichlorobenzidine	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
3-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4,6-Dinitro-2-methylphenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Bromophenyl-phenylether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chloro-3-methylphenol	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chloroaniline	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chlorophenyl-phenylether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Methylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Nitrophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Acenaphthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Acenaphthylene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzidine (M)	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(a)anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(a)pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(b)fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(g,h,i)perylene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(k)fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzoic acid	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-chloroethoxy)methane	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-Chloroethyl)ether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-chloroisopropyl)ether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-ethylhexyl)phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Butylbenzylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Chrysene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Di-n-butylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Di-n-octylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dibenz(a,h)anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dibenzofuran	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Diethyl phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dimethyl phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Fluorene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorobutadiene	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorocyclopentadiene	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachloroethane	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Indeno(1,2,3-cd)pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Isophorone	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
N-Nitroso-di-n propylamine	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
N-Nitrosodiphenylamine	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Naphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Nitrobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pentachlorophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Phenanthrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Phenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pyridine	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1

Surrogate: 1,2-Dichlorobenzene-d4	74.2 %	48 - 113	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2,4,6-Tribromophenol	70.0 %	14 - 162	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Chlorophenol-d4	74.8 %	40 - 117	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Fluorobiphenyl	73.4 %	52 - 126	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Fluorophenol	72.2 %	26 - 124	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 4-Terphenyl-d14	84.0 %	36 - 163	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: Nitrobenzene-d5	70.2 %	42 - 118	B310361	09/20/2013	09/23/13 19:13	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	71.4 %	29 - 124	B310361	09/20/2013	09/23/13 19:13	D1
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310334 - EPA 3050B

Blank (B310334-BLK1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	ND	2.0		NR
Arsenic	ND	1.0		NR
Barium	ND	1.0		NR
Beryllium	ND	1.0		NR
Cadmium	ND	1.0		NR
Chromium	ND	1.0		NR
Cobalt	ND	1.0		NR
Copper	ND	2.0		NR
Lead	ND	1.0		NR
Molybdenum	ND	1.0		NR
Nickel	ND	1.0		NR
Selenium	ND	1.0		NR
Silver	ND	1.0		NR
Thallium	ND	1.0		NR
Vanadium	ND	1.0		NR
Zinc	ND	1.0		NR

LCS (B310334-BS1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	51.5772	2.0	50.0000	103	80 - 120
Arsenic	48.8957	1.0	50.0000	97.8	80 - 120
Barium	53.3421	1.0	50.0000	107	80 - 120
Beryllium	55.3400	1.0	50.0000	111	80 - 120
Cadmium	49.6980	1.0	50.0000	99.4	80 - 120
Chromium	53.3932	1.0	50.0000	107	80 - 120
Cobalt	51.2052	1.0	50.0000	102	80 - 120
Copper	53.2264	2.0	50.0000	106	80 - 120
Lead	50.8354	1.0	50.0000	102	80 - 120
Molybdenum	51.7994	1.0	50.0000	104	80 - 120
Nickel	51.2376	1.0	50.0000	102	80 - 120
Selenium	46.5933	1.0	50.0000	93.2	80 - 120
Silver	48.0620	1.0	50.0000	96.1	80 - 120
Thallium	51.6678	1.0	50.0000	103	80 - 120
Vanadium	53.1200	1.0	50.0000	106	80 - 120
Zinc	46.1231	1.0	50.0000	92.2	80 - 120

Matrix Spike (B310334-MS1)

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	108.478	2.0	125.000	ND	86.8	21 - 109
Arsenic	113.144	1.0	125.000	1.16458	89.6	55 - 102
Barium	177.434	1.0	125.000	58.0390	95.5	40 - 130
Beryllium	120.063	1.0	125.000	ND	96.1	60 - 104



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310334 - EPA 3050B (continued)

Matrix Spike (B310334-MS1) - Continued

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Cadmium	112.156	1.0	125.000	0.166052	89.6	52 - 100
Chromium	126.836	1.0	125.000	8.45136	94.7	53 - 113
Cobalt	119.348	1.0	125.000	3.87709	92.4	53 - 104
Copper	128.879	2.0	125.000	5.03628	99.1	51 - 122
Lead	115.964	1.0	125.000	2.74322	90.6	51 - 106
Molybdenum	116.374	1.0	125.000	0.305245	92.9	55 - 103
Nickel	118.205	1.0	125.000	4.59159	90.9	48 - 112
Selenium	104.976	1.0	125.000	ND	84.0	53 - 104
Silver	114.526	1.0	125.000	ND	91.6	61 - 109
Thallium	111.267	1.0	125.000	ND	89.0	44 - 103
Vanadium	136.039	1.0	125.000	15.9844	96.0	55 - 115
Zinc	123.151	1.0	125.000	13.8392	87.4	24 - 130

Matrix Spike Dup (B310334-MSD1)

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	101.499	2.0	125.000	ND	81.2	21 - 109	6.65	20
Arsenic	108.193	1.0	125.000	1.16458	85.6	55 - 102	4.47	20
Barium	170.125	1.0	125.000	58.0390	89.7	40 - 130	4.21	20
Beryllium	116.665	1.0	125.000	ND	93.3	60 - 104	2.87	20
Cadmium	108.280	1.0	125.000	0.166052	86.5	52 - 100	3.52	20
Chromium	122.444	1.0	125.000	8.45136	91.2	53 - 113	3.52	20
Cobalt	114.904	1.0	125.000	3.87709	88.8	53 - 104	3.79	20
Copper	124.281	2.0	125.000	5.03628	95.4	51 - 122	3.63	20
Lead	184.532	1.0	125.000	2.74322	145	51 - 106	45.6	20
Molybdenum	111.522	1.0	125.000	0.305245	89.0	55 - 103	4.26	20
Nickel	114.368	1.0	125.000	4.59159	87.8	48 - 112	3.30	20
Selenium	100.316	1.0	125.000	ND	80.3	53 - 104	4.54	20
Silver	107.966	1.0	125.000	ND	86.4	61 - 109	5.90	20
Thallium	106.032	1.0	125.000	ND	84.8	44 - 103	4.82	20
Vanadium	131.051	1.0	125.000	15.9844	92.1	55 - 115	3.73	20
Zinc	119.591	1.0	125.000	13.8392	84.6	24 - 130	2.93	20

Batch B310354 - EPA 3050B

Blank (B310354-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Antimony	ND	2.0		NR
Arsenic	ND	1.0		NR
Barium	ND	1.0		NR
Beryllium	ND	1.0		NR
Cadmium	ND	1.0		NR
Chromium	ND	1.0		NR
Cobalt	ND	1.0		NR



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310354 - EPA 3050B (continued)

Blank (B310354-BLK1) - Continued

Prepared: 9/20/2013 Analyzed: 9/20/2013

Copper	ND	2.0		NR					
Lead	ND	1.0		NR					
Molybdenum	ND	1.0		NR					
Nickel	ND	1.0		NR					
Selenium	ND	1.0		NR					
Silver	ND	1.0		NR					
Thallium	ND	1.0		NR					
Vanadium	ND	1.0		NR					
Zinc	ND	1.0		NR					

LCS (B310354-BS1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Antimony	48.5102	2.0	50.0000	97.0	80 - 120				
Arsenic	47.6414	1.0	50.0000	95.3	80 - 120				
Barium	50.6666	1.0	50.0000	101	80 - 120				
Beryllium	53.3400	1.0	50.0000	107	80 - 120				
Cadmium	47.8618	1.0	50.0000	95.7	80 - 120				
Chromium	51.1508	1.0	50.0000	102	80 - 120				
Cobalt	49.1739	1.0	50.0000	98.3	80 - 120				
Copper	50.1964	2.0	50.0000	100	80 - 120				
Lead	49.1440	1.0	50.0000	98.3	80 - 120				
Molybdenum	48.5251	1.0	50.0000	97.1	80 - 120				
Nickel	48.2867	1.0	50.0000	96.6	80 - 120				
Selenium	45.2714	1.0	50.0000	90.5	80 - 120				
Silver	49.0676	1.0	50.0000	98.1	80 - 120				
Thallium	49.9585	1.0	50.0000	99.9	80 - 120				
Vanadium	50.2103	1.0	50.0000	100	80 - 120				
Zinc	44.8607	1.0	50.0000	89.7	80 - 120				

Matrix Spike (B310354-MS1)

Source: 1302866-26

Prepared: 9/20/2013 Analyzed: 9/20/2013

Antimony	97.2508	2.0	125.000	ND	77.8	21 - 109			
Arsenic	104.816	1.0	125.000	4.27784	80.4	55 - 102			
Barium	144.113	1.0	125.000	53.3006	72.6	40 - 130			
Beryllium	108.760	1.0	125.000	ND	87.0	60 - 104			
Cadmium	100.676	1.0	125.000	0.199326	80.4	52 - 100			
Chromium	115.174	1.0	125.000	6.74174	86.7	53 - 113			
Cobalt	107.174	1.0	125.000	3.15541	83.2	53 - 104			
Copper	120.657	2.0	125.000	6.01669	91.7	51 - 122			
Lead	139.965	1.0	125.000	93.5743	37.1	51 - 106			
Molybdenum	103.996	1.0	125.000	0.288232	83.0	55 - 103			
Nickel	104.603	1.0	125.000	2.86028	81.4	48 - 112			
Selenium	96.9225	1.0	125.000	ND	77.5	53 - 104			
Silver	109.044	1.0	125.000	ND	87.2	61 - 109			

M1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310354 - EPA 3050B (continued)

Matrix Spike (B310354-MS1) - Continued

Source: 1302866-26

Prepared: 9/20/2013 Analyzed: 9/20/2013

Thallium	97.9396	1.0	125.000	ND	78.4	44 - 103			
Vanadium	137.353	1.0	125.000	22.4544	91.9	55 - 115			
Zinc	118.002	1.0	125.000	17.7426	80.2	24 - 130			

Matrix Spike Dup (B310354-MSD1)

Source: 1302866-26

Prepared: 9/20/2013 Analyzed: 9/20/2013

Antimony	106.424	2.0	125.000	ND	85.1	21 - 109	9.01	20	
Arsenic	116.078	1.0	125.000	4.27784	89.4	55 - 102	10.2	20	
Barium	151.670	1.0	125.000	53.3006	78.7	40 - 130	5.11	20	
Beryllium	114.889	1.0	125.000	ND	91.9	60 - 104	5.48	20	
Cadmium	103.966	1.0	125.000	0.199326	83.0	52 - 100	3.22	20	
Chromium	121.016	1.0	125.000	6.74174	91.4	53 - 113	4.95	20	
Cobalt	110.248	1.0	125.000	3.15541	85.7	53 - 104	2.83	20	
Copper	131.308	2.0	125.000	6.01669	100	51 - 122	8.45	20	
Lead	358.735	1.0	125.000	93.5743	212	51 - 106	87.7	20	M1, R
Molybdenum	111.512	1.0	125.000	0.288232	89.0	55 - 103	6.98	20	
Nickel	108.494	1.0	125.000	2.86028	84.5	48 - 112	3.65	20	
Selenium	105.948	1.0	125.000	ND	84.8	53 - 104	8.90	20	
Silver	118.951	1.0	125.000	ND	95.2	61 - 109	8.69	20	
Thallium	103.603	1.0	125.000	ND	82.9	44 - 103	5.62	20	
Vanadium	143.354	1.0	125.000	22.4544	96.7	55 - 115	4.28	20	
Zinc	123.576	1.0	125.000	17.7426	84.7	24 - 130	4.61	20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310360 - EPA 7471

Blank (B310360-BLK1) Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury ND 0.10 NR

LCS (B310360-BS1) Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 0.874058 0.10 0.833333 105 80 - 120

Matrix Spike (B310360-MS1) **Source: 1302860-22** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 1.01192 0.10 0.833333 0.140113 105 70 - 130

Matrix Spike Dup (B310360-MSD1) **Source: 1302860-22** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 1.02507 0.10 0.833333 0.140113 106 70 - 130 1.29 20

Post Spike (B310360-PS1) **Source: 1302860-22** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 0.006890 5.00000E-3 0.001681 104 85 - 115

Batch B310364 - EPA 7471

Blank (B310364-BLK1) Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury ND 0.10 NR

LCS (B310364-BS1) Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 0.859024 0.10 0.833333 103 80 - 120

Matrix Spike (B310364-MS1) **Source: 1302866-15** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 2.46037 0.20 0.819672 1.13233 162 70 - 130 M1

Matrix Spike Dup (B310364-MSD1) **Source: 1302866-15** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 2.51272 0.20 0.819672 1.13233 168 70 - 130 2.11 20 M1

Post Spike (B310364-PS1) **Source: 1302866-15** Prepared: 9/20/2013 Analyzed: 9/23/2013

Mercury 0.018881 5.00000E-3 0.013588 106 85 - 115



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310313 - GCVOAS

Blank (B310313-BLK1) Prepared: 9/19/2013 Analyzed: 9/19/2013

Gasoline Range Organics ND 1.0 NR

Surrogate: 4-Bromofluorobenzene 0.1878 0.200000 93.9 54 - 150

LCS (B310313-BS1) Prepared: 9/19/2013 Analyzed: 9/19/2013

Gasoline Range Organics 4.69500 1.0 5.00000 93.9 70 - 130

Surrogate: 4-Bromofluorobenzene 0.2174 0.200000 109 54 - 150

LCS Dup (B310313-BSD1) Prepared: 9/19/2013 Analyzed: 9/19/2013

Gasoline Range Organics 5.06400 1.0 5.00000 101 70 - 130 7.56 20

Surrogate: 4-Bromofluorobenzene 0.1878 0.200000 93.9 54 - 150

Matrix Spike (B310313-MS1) **Source: 1302866-01** Prepared: 9/19/2013 Analyzed: 9/19/2013

Gasoline Range Organics 3.65400 1.0 5.00000 ND 73.1 42 - 125

Surrogate: 4-Bromofluorobenzene 0.1887 0.200000 94.3 54 - 150

Matrix Spike Dup (B310313-MSD1) **Source: 1302866-01** Prepared: 9/19/2013 Analyzed: 9/19/2013

Gasoline Range Organics 3.52300 1.0 5.00000 ND 70.5 42 - 125 3.65 20

Surrogate: 4-Bromofluorobenzene 0.1724 0.200000 86.2 54 - 150

Batch B310345 - GCVOAS

Blank (B310345-BLK1) Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics ND 1.0 NR

Surrogate: 4-Bromofluorobenzene 0.1867 0.200000 93.3 54 - 150

LCS (B310345-BS1) Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics 4.52700 1.0 5.00000 90.5 70 - 130

Surrogate: 4-Bromofluorobenzene 0.2096 0.200000 105 54 - 150

LCS Dup (B310345-BSD1) Prepared: 9/20/2013 Analyzed: 9/20/2013

Gasoline Range Organics 4.57900 1.0 5.00000 91.6 70 - 130 1.14 20

Surrogate: 4-Bromofluorobenzene 0.2204 0.200000 110 54 - 150



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310345 - GCVOAS (continued)

Matrix Spike (B310345-MS1)		Source: 1302866-27		Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	3.69800	1.0	5.00000	ND	74.0	42 - 125			
Surrogate: 4-Bromofluorobenzene	0.2041		0.200000		102	54 - 150			



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310345 - GCVOAS (continued)

Matrix Spike Dup (B310345-MSD1)		Source: 1302866-27		Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	3.53900	1.0	5.00000	ND	70.8	42 - 125	4.39	20	
Surrogate: 4-Bromofluorobenzene	0.2336		0.200000		117	54 - 150			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO

Blank (B310342-BLK1)		Prepared: 9/19/2013 Analyzed: 9/20/2013							
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: <i>p</i> -Terphenyl	63.22		80.0000		79.0	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

LCS (B310342-BS1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
DRO	1213.72	10	1000.00		121	65 - 151			
Surrogate: <i>p</i> -Terphenyl	79.69		80.0000		99.6	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

Matrix Spike (B310342-MS1)		Source: 1302866-20		Prepared: 9/19/2013 Analyzed: 9/19/2013	
DRO	1232.88	10	1000.00	ND	123 45 - 168
Surrogate: <i>p</i> -Terphenyl	86.59		80.0000		108 55 - 153



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

Matrix Spike Dup (B310342-MSD1)		Source: 1302866-20		Prepared: 9/19/2013 Analyzed: 9/20/2013	
DRO	1133.16	10	1000.00	ND	113 45 - 168 8.43 20
Surrogate: <i>p</i> -Terphenyl	77.31		80.0000		96.6 55 - 153



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO

Blank (B310343-BLK1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: <i>p</i> -Terphenyl	103.5		80.0000		129	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

LCS (B310343-BS1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

DRO	1238.64	10	1000.00		124	65 - 151			
Surrogate: <i>p</i> -Terphenyl	75.72		80.0000		94.6	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

Matrix Spike (B310343-MS1)	Source: 1302866-30		Prepared: 9/19/2013 Analyzed: 9/20/2013						
DRO	1275.10	10	1000.00	ND	128	45 - 168			
Surrogate: <i>p</i> -Terphenyl	90.14		80.0000		113	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

Matrix Spike Dup (B310343-MSD1)	Source: 1302866-30		Prepared: 9/19/2013 Analyzed: 9/20/2013						
DRO	1146.61	10	1000.00	ND	115	45 - 168	10.6	20	
Surrogate: <i>p</i> -Terphenyl	75.45		80.0000		94.3	55 - 153			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST

Blank (B310351-BLK1) Prepared: 9/20/2013 Analyzed: 9/20/2013

4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Blank (B310351-BLK1) - Continued Prepared: 9/20/2013 Analyzed: 9/20/2013

Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	14.86	16.6667			89.2	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	15.40	16.6667			92.4	32 - 113			
Surrogate: Tetrachloro-m-xylene	13.88	16.6667			83.3	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	13.91	16.6667			83.5	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

LCS (B310351-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
4,4'-DDT	12.4017	2.0	16.6667	74.4	60 - 108				
4,4'-DDT [2C]	11.2232	2.0	16.6667	67.3	60 - 108				
Aldrin	10.5763	1.0	16.6667	63.5	57 - 111				
Aldrin [2C]	10.5418	1.0	16.6667	63.3	57 - 111				
Dieldrin	10.8425	2.0	16.6667	65.1	61 - 106				
Dieldrin [2C]	10.9713	2.0	16.6667	65.8	61 - 106				
Endrin	12.9078	2.0	16.6667	77.4	57 - 97				
Endrin [2C]	12.6122	2.0	16.6667	75.7	57 - 97				
gamma-BHC	10.7478	1.0	16.6667	64.5	61 - 109				
gamma-BHC [2C]	10.6107	1.0	16.6667	63.7	61 - 109				
Heptachlor	17.5612	1.0	16.6667	105	58 - 115				
Heptachlor [2C]	16.5775	1.0	16.6667	99.5	58 - 115				
Surrogate: Decachlorobiphenyl	10.97		16.6667	65.8	32 - 113				
Surrogate: Decachlorobiphenyl [2C]	11.30		16.6667	67.8	32 - 113				
Surrogate: Tetrachloro-m-xylene	9.780		16.6667	58.7	32 - 101				
Surrogate: Tetrachloro-m-xylene [2C]	10.05		16.6667	60.3	32 - 101				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Matrix Spike (B310351-MS1)		Source: 1302866-01		Prepared: 9/20/2013 Analyzed: 9/20/2013					
4,4'-DDT	20.9887	2.0	16.6667	ND	126	26 - 133			
4,4'-DDT [2C]	21.1528	2.0	16.6667	ND	127	26 - 133			
Aldrin	16.8517	1.0	16.6667	ND	101	38 - 119			
Aldrin [2C]	18.7565	1.0	16.6667	ND	113	38 - 119			
Dieldrin	16.8808	2.0	16.6667	ND	101	30 - 120			
Dieldrin [2C]	18.7238	2.0	16.6667	ND	112	30 - 120			
Endrin	20.8803	2.0	16.6667	ND	125	30 - 114			M1
Endrin [2C]	21.8052	2.0	16.6667	ND	131	30 - 114			M1
gamma-BHC	17.1290	1.0	16.6667	ND	103	31 - 122			
gamma-BHC [2C]	19.0453	1.0	16.6667	ND	114	31 - 122			
Heptachlor	28.3068	1.0	16.6667	ND	170	38 - 123			M1
Heptachlor [2C]	30.9740	1.0	16.6667	ND	186	38 - 123			M1
Surrogate: Decachlorobiphenyl	16.93		16.6667		102	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	14.30		16.6667		85.8	32 - 113			
Surrogate: Tetrachloro-m-xylene	15.66		16.6667		94.0	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	16.75		16.6667		100	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Matrix Spike Dup (B310351-MSD1)		Source: 1302866-01		Prepared: 9/20/2013 Analyzed: 9/20/2013					
4,4'-DDT	21.6670	2.0	16.6667	ND	130	26 - 133	3.18	20	
4,4'-DDT [2C]	21.2828	2.0	16.6667	ND	128	26 - 133	0.613	20	
Aldrin	17.0675	1.0	16.6667	ND	102	38 - 119	1.27	20	
Aldrin [2C]	18.9610	1.0	16.6667	ND	114	38 - 119	1.08	20	
Dieldrin	17.0330	2.0	16.6667	ND	102	30 - 120	0.897	20	
Dieldrin [2C]	18.9000	2.0	16.6667	ND	113	30 - 120	0.936	20	
Endrin	21.4367	2.0	16.6667	ND	129	30 - 114	2.63	20	M1
Endrin [2C]	22.2753	2.0	16.6667	ND	134	30 - 114	2.13	20	M1
gamma-BHC	17.4285	1.0	16.6667	ND	105	31 - 122	1.73	20	
gamma-BHC [2C]	19.2900	1.0	16.6667	ND	116	31 - 122	1.28	20	
Heptachlor	29.1840	1.0	16.6667	ND	175	38 - 123	3.05	20	M1
Heptachlor [2C]	31.7883	1.0	16.6667	ND	191	38 - 123	2.59	20	M1
Surrogate: Decachlorobiphenyl	16.45		16.6667			98.7	32 - 113		
Surrogate: Decachlorobiphenyl [2C]	14.64		16.6667			87.9	32 - 113		
Surrogate: Tetrachloro-m-xylene	15.74		16.6667			94.4	32 - 101		
Surrogate: Tetrachloro-m-xylene [2C]	16.82		16.6667			101	32 - 101		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST

Blank (B310367-BLK1)		Prepared: 9/23/2013 Analyzed: 9/23/2013							
4,4'-DDD	ND	2.0							NR
4,4'-DDD [2C]	ND	2.0							NR
4,4'-DDE	ND	2.0							NR
4,4'-DDE [2C]	ND	2.0							NR
4,4'-DDT	ND	2.0							NR
4,4'-DDT [2C]	ND	2.0							NR
Aldrin	ND	1.0							NR
Aldrin [2C]	ND	1.0							NR
alpha-BHC	ND	1.0							NR
alpha-BHC [2C]	ND	1.0							NR
alpha-Chlordane	ND	1.0							NR
alpha-Chlordane [2C]	ND	1.0							NR
beta-BHC	ND	1.0							NR
beta-BHC [2C]	ND	1.0							NR
Chlordane	ND	8.5							NR
Chlordane [2C]	ND	8.5							NR
delta-BHC	ND	1.0							NR
delta-BHC [2C]	ND	1.0							NR
Dieldrin	ND	2.0							NR
Dieldrin [2C]	ND	2.0							NR
Endosulfan I	ND	1.0							NR
Endosulfan I [2C]	ND	1.0							NR
Endosulfan II	ND	2.0							NR
Endosulfan II [2C]	ND	2.0							NR
Endosulfan sulfate	ND	2.0							NR
Endosulfan Sulfate [2C]	ND	2.0							NR
Endrin	ND	2.0							NR
Endrin [2C]	ND	2.0							NR
Endrin aldehyde	ND	2.0							NR
Endrin aldehyde [2C]	ND	2.0							NR
Endrin ketone	ND	2.0							NR
Endrin ketone [2C]	ND	2.0							NR
gamma-BHC	ND	1.0							NR
gamma-BHC [2C]	ND	1.0							NR
gamma-Chlordane	ND	1.0							NR
gamma-Chlordane [2C]	ND	1.0							NR
Heptachlor	ND	1.0							NR
Heptachlor [2C]	ND	1.0							NR
Heptachlor epoxide	ND	1.0							NR
Heptachlor epoxide [2C]	ND	1.0							NR
Methoxychlor	ND	5.0							NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Blank (B310367-BLK1) - Continued

Blank (B310367-BLK1) - Continued			Prepared: 9/23/2013 Analyzed: 9/23/2013		
Methoxychlor [2C]	ND	5.0	NR		
Toxaphene	ND	50	NR		
Toxaphene [2C]	ND	50	NR		
Surrogate: Decachlorobiphenyl	12.95	16.6667	77.7	32 - 113	
Surrogate: Decachlorobiphenyl [2C]	12.56	16.6667	75.3	32 - 113	
Surrogate: Tetrachloro-m-xylene	13.37	16.6667	80.2	32 - 101	
Surrogate: Tetrachloro-m-xylene [2C]	13.18	16.6667	79.1	32 - 101	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

LCS (B310367-BS1)

LCS (B310367-BS1)			Prepared: 9/23/2013 Analyzed: 9/23/2013		
4,4'-DDT	14.6780	2.0	16.6667	88.1	60 - 108
4,4'-DDT [2C]	14.3712	2.0	16.6667	86.2	60 - 108
Aldrin	14.9100	1.0	16.6667	89.5	57 - 111
Aldrin [2C]	13.9212	1.0	16.6667	83.5	57 - 111
Dieldrin	13.5493	2.0	16.6667	81.3	61 - 106
Dieldrin [2C]	13.9295	2.0	16.6667	83.6	61 - 106
Endrin	15.1307	2.0	16.6667	90.8	57 - 97
Endrin [2C]	15.1868	2.0	16.6667	91.1	57 - 97
gamma-BHC	15.1337	1.0	16.6667	90.8	61 - 109
gamma-BHC [2C]	14.9720	1.0	16.6667	89.8	61 - 109
Heptachlor	17.2137	1.0	16.6667	103	58 - 115
Heptachlor [2C]	17.3708	1.0	16.6667	104	58 - 115
Surrogate: Decachlorobiphenyl	14.03		16.6667	84.2	32 - 113
Surrogate: Decachlorobiphenyl [2C]	14.53		16.6667	87.2	32 - 113
Surrogate: Tetrachloro-m-xylene	13.98		16.6667	83.9	32 - 101
Surrogate: Tetrachloro-m-xylene [2C]	14.86		16.6667	89.2	32 - 101



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Matrix Spike (B310367-MS1)		Source: 1302866-32		Prepared: 9/23/2013 Analyzed: 9/23/2013					
4,4'-DDT	18.5592	2.0	16.6667	ND	111	26 - 133			
4,4'-DDT [2C]	17.8810	2.0	16.6667	ND	107	26 - 133			
Aldrin	14.5413	1.0	16.6667	ND	87.2	38 - 119			
Aldrin [2C]	14.9472	1.0	16.6667	ND	89.7	38 - 119			
Dieldrin	15.8587	2.0	16.6667	ND	95.2	30 - 120			
Dieldrin [2C]	16.0840	2.0	16.6667	ND	96.5	30 - 120			
Endrin	19.4693	2.0	16.6667	ND	117	30 - 114			M1
Endrin [2C]	15.5763	2.0	16.6667	ND	93.5	30 - 114			
gamma-BHC	15.3837	1.0	16.6667	ND	92.3	31 - 122			
gamma-BHC [2C]	14.9732	1.0	16.6667	ND	89.8	31 - 122			
Heptachlor	19.5465	1.0	16.6667	ND	117	38 - 123			
Heptachlor [2C]	19.4722	1.0	16.6667	ND	117	38 - 123			
Surrogate: Decachlorobiphenyl	13.69		16.6667		82.1	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	13.42		16.6667		80.5	32 - 113			
Surrogate: Tetrachloro-m-xylene	14.07		16.6667		84.4	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	14.16		16.6667		84.9	32 - 101			



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Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Matrix Spike Dup (B310367-MSD1)		Source: 1302866-32		Prepared: 9/23/2013 Analyzed: 9/23/2013					
4,4'-DDT	21.3490	2.0	16.6667	ND	128	26 - 133	14.0	20	
4,4'-DDT [2C]	21.1698	2.0	16.6667	ND	127	26 - 133	16.8	20	
Aldrin	15.9995	1.0	16.6667	ND	96.0	38 - 119	9.55	20	
Aldrin [2C]	17.4592	1.0	16.6667	ND	105	38 - 119	15.5	20	
Dieldrin	17.6730	2.0	16.6667	ND	106	30 - 120	10.8	20	
Dieldrin [2C]	19.2018	2.0	16.6667	ND	115	30 - 120	17.7	20	
Endrin	22.1153	2.0	16.6667	ND	133	30 - 114	12.7	20	M1
Endrin [2C]	18.7513	2.0	16.6667	ND	113	30 - 114	18.5	20	
gamma-BHC	16.9963	1.0	16.6667	ND	102	31 - 122	9.96	20	
gamma-BHC [2C]	17.9573	1.0	16.6667	ND	108	31 - 122	18.1	20	
Heptachlor	21.9193	1.0	16.6667	ND	132	38 - 123	11.4	20	M1
Heptachlor [2C]	24.0395	1.0	16.6667	ND	144	38 - 123	21.0	20	M1, R
Surrogate: Decachlorobiphenyl	15.54		16.6667		93.2	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	16.50		16.6667		99.0	32 - 113			
Surrogate: Tetrachloro-m-xylene	15.44		16.6667		92.6	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	16.43		16.6667		98.6	32 - 101			



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Volatile Organic Compounds by EPA 8260 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS

Blank (B310280-BLK1) Prepared: 9/18/2013 Analyzed: 9/18/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Blank (B310280-BLK1) - Continued Prepared: 9/18/2013 Analyzed: 9/18/2013

Dichlorodifluoromethane	ND	5.0		NR
Ethyl Acetate	ND	50		NR
Ethyl Ether	ND	50		NR
Ethyl tert-butyl ether	ND	5.0		NR
Ethylbenzene	ND	5.0		NR
Freon-113	ND	5.0		NR
Hexachlorobutadiene	ND	5.0		NR
Isopropylbenzene	ND	5.0		NR
m,p-Xylene	ND	10		NR
Methylene chloride	ND	5.0		NR
MTBE	ND	5.0		NR
n-Butylbenzene	ND	5.0		NR
n-Propylbenzene	ND	5.0		NR
Naphthalene	ND	5.0		NR
o-Xylene	ND	5.0		NR
sec-Butylbenzene	ND	5.0		NR
Styrene	ND	5.0		NR
tert-Amyl methyl ether	ND	5.0		NR
tert-Butanol	ND	100		NR
tert-Butylbenzene	ND	5.0		NR
Tetrachloroethene	ND	5.0		NR
Toluene	ND	5.0		NR
trans-1,2-Dichloroethene	ND	5.0		NR
trans-1,3-Dichloropropene	ND	5.0		NR
Trichloroethene	ND	5.0		NR
Trichlorofluoromethane	ND	5.0		NR
Vinyl acetate	ND	50		NR
Vinyl chloride	ND	5.0		NR
Surrogate: 1,2-Dichloroethane-d4	57.72	50.0000	115	70 - 130
Surrogate: 4-Bromofluorobenzene	46.94	50.0000	93.9	70 - 130
Surrogate: Dibromofluoromethane	59.51	50.0000	119	70 - 130
Surrogate: Toluene-d8	51.60	50.0000	103	70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

LCS (B310280-BS1)		Prepared: 9/18/2013 Analyzed: 9/18/2013							
1,1-Dichloroethene	48.7200	5.0	50.0000	97.4	70 - 130				
Benzene	104.380	5.0	100.000	104	70 - 130				
Chlorobenzene	55.0800	5.0	50.0000	110	70 - 130				
MTBE	48.4100	5.0	50.0000	96.8	70 - 130				
Toluene	108.520	5.0	100.000	109	70 - 130				
Trichloroethene	51.4100	5.0	50.0000	103	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	54.31		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.99		50.0000	100	70 - 130				
Surrogate: Dibromofluoromethane	57.64		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.55		50.0000	107	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

LCS Dup (B310280-BSD1)		Prepared: 9/18/2013 Analyzed: 9/18/2013							
1,1-Dichloroethene	47.7500	5.0	50.0000	95.5	70 - 130	2.01	20		
Benzene	107.010	5.0	100.000	107	70 - 130	2.49	20		
Chlorobenzene	55.3000	5.0	50.0000	111	70 - 130	0.399	20		
MTBE	50.9200	5.0	50.0000	102	70 - 130	5.05	20		
Toluene	107.730	5.0	100.000	108	70 - 130	0.731	20		
Trichloroethene	52.2200	5.0	50.0000	104	70 - 130	1.56	20		
Surrogate: 1,2-Dichloroethane-d4	53.82		50.0000	108	70 - 130				
Surrogate: 4-Bromofluorobenzene	48.90		50.0000	97.8	70 - 130				
Surrogate: Dibromofluoromethane	57.19		50.0000	114	70 - 130				
Surrogate: Toluene-d8	51.92		50.0000	104	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Matrix Spike (B310280-MS1)	Source: 1302865-01			Prepared: 9/18/2013 Analyzed: 9/18/2013					
1,1-Dichloroethene	45.3800	5.0	50.0000	ND	90.8	70 - 130			
Benzene	107.980	5.0	100.000	ND	108	70 - 130			
Chlorobenzene	62.3900	5.0	50.0000	ND	125	70 - 130			
MTBE	50.3200	5.0	50.0000	ND	101	70 - 130			
Toluene	121.100	5.0	100.000	ND	121	70 - 130			
Trichloroethene	55.7700	5.0	50.0000	ND	112	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	51.92		50.0000		104	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.06		50.0000		102	70 - 130			
Surrogate: Dibromofluoromethane	55.94		50.0000		112	70 - 130			
Surrogate: Toluene-d8	53.87		50.0000		108	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Matrix Spike Dup (B310280-MSD1)	Source: 1302865-01			Prepared: 9/18/2013 Analyzed: 9/18/2013					
1,1-Dichloroethene	46.9300	5.0	50.0000	ND	93.9	70 - 130	3.36	20	
Benzene	104.880	5.0	100.000	ND	105	70 - 130	2.91	20	
Chlorobenzene	57.9700	5.0	50.0000	ND	116	70 - 130	7.34	20	
MTBE	50.7200	5.0	50.0000	ND	101	70 - 130	0.792	20	
Toluene	109.370	5.0	100.000	ND	109	70 - 130	10.2	20	
Trichloroethene	54.5300	5.0	50.0000	ND	109	70 - 130	2.25	20	
Surrogate: 1,2-Dichloroethane-d4	52.65		50.0000		105	70 - 130			
Surrogate: 4-Bromofluorobenzene	49.30		50.0000		98.6	70 - 130			
Surrogate: Dibromofluoromethane	55.93		50.0000		112	70 - 130			
Surrogate: Toluene-d8	52.13		50.0000		104	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS

Blank (B310298-BLK1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Blank (B310298-BLK1) - Continued

Prepared: 9/19/2013 Analyzed: 9/19/2013

Dichlorodifluoromethane	ND	5.0		NR
Ethyl Acetate	ND	50		NR
Ethyl Ether	ND	50		NR
Ethyl tert-butyl ether	ND	5.0		NR
Ethylbenzene	ND	5.0		NR
Freon-113	ND	5.0		NR
Hexachlorobutadiene	ND	5.0		NR
Isopropylbenzene	ND	5.0		NR
m,p-Xylene	ND	10		NR
Methylene chloride	ND	5.0		NR
MTBE	ND	5.0		NR
n-Butylbenzene	ND	5.0		NR
n-Propylbenzene	ND	5.0		NR
Naphthalene	ND	5.0		NR
o-Xylene	ND	5.0		NR
sec-Butylbenzene	ND	5.0		NR
Styrene	ND	5.0		NR
tert-Amyl methyl ether	ND	5.0		NR
tert-Butanol	ND	100		NR
tert-Butylbenzene	ND	5.0		NR
Tetrachloroethene	ND	5.0		NR
Toluene	ND	5.0		NR
trans-1,2-Dichloroethene	ND	5.0		NR
trans-1,3-Dichloropropene	ND	5.0		NR
Trichloroethene	ND	5.0		NR
Trichlorofluoromethane	ND	5.0		NR
Vinyl acetate	ND	50		NR
Vinyl chloride	ND	5.0		NR
Surrogate: 1,2-Dichloroethane-d4	57.11	50.0000	114	70 - 130
Surrogate: 4-Bromofluorobenzene	48.14	50.0000	96.3	70 - 130
Surrogate: Dibromofluoromethane	57.74	50.0000	115	70 - 130
Surrogate: Toluene-d8	52.64	50.0000	105	70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

LCS (B310298-BS1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
1,1-Dichloroethene	46.7200	5.0	50.0000	93.4	70 - 130				
Benzene	102.210	5.0	100.000	102	70 - 130				
Chlorobenzene	54.1500	5.0	50.0000	108	70 - 130				
MTBE	47.7400	5.0	50.0000	95.5	70 - 130				
Toluene	103.760	5.0	100.000	104	70 - 130				
Trichloroethene	49.8200	5.0	50.0000	99.6	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	56.52		50.0000	113	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.54		50.0000	99.1	70 - 130				
Surrogate: Dibromofluoromethane	57.95		50.0000	116	70 - 130				
Surrogate: Toluene-d8	53.25		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

LCS Dup (B310298-BSD1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
1,1-Dichloroethene	46.8600	5.0	50.0000	93.7	70 - 130	0.299	20		
Benzene	105.000	5.0	100.000	105	70 - 130	2.69	20		
Chlorobenzene	54.8600	5.0	50.0000	110	70 - 130	1.30	20		
MTBE	49.1500	5.0	50.0000	98.3	70 - 130	2.91	20		
Toluene	106.670	5.0	100.000	107	70 - 130	2.77	20		
Trichloroethene	49.5500	5.0	50.0000	99.1	70 - 130	0.543	20		
Surrogate: 1,2-Dichloroethane-d4	54.67		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	50.12		50.0000	100	70 - 130				
Surrogate: Dibromofluoromethane	57.62		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.25		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Matrix Spike (B310298-MS1)	Source: 1302866-23			Prepared: 9/19/2013 Analyzed: 9/19/2013					
1,1-Dichloroethene	39.7300	5.0	50.0000	ND	79.5	70 - 130			
Benzene	84.6700	5.0	100.0000	ND	84.7	70 - 130			
Chlorobenzene	42.4900	5.0	50.0000	ND	85.0	70 - 130			
MTBE	40.8700	5.0	50.0000	ND	81.7	70 - 130			
Toluene	87.6900	5.0	100.0000	ND	87.7	70 - 130			
Trichloroethene	42.0700	5.0	50.0000	ND	84.1	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	61.33		50.0000		123	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.28		50.0000		103	70 - 130			
Surrogate: Dibromofluoromethane	58.40		50.0000		117	70 - 130			
Surrogate: Toluene-d8	53.17		50.0000		106	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Matrix Spike Dup (B310298-MSD1)	Source: 1302866-23			Prepared: 9/19/2013 Analyzed: 9/19/2013					
1,1-Dichloroethene	40.7800	5.0	50.0000	ND	81.6	70 - 130	2.61	20	
Benzene	86.1100	5.0	100.0000	ND	86.1	70 - 130	1.69	20	
Chlorobenzene	48.7300	5.0	50.0000	ND	97.5	70 - 130	13.7	20	
MTBE	40.0300	5.0	50.0000	ND	80.1	70 - 130	2.08	20	
Toluene	93.3900	5.0	100.0000	ND	93.4	70 - 130	6.30	20	
Trichloroethene	44.7500	5.0	50.0000	ND	89.5	70 - 130	6.17	20	
Surrogate: 1,2-Dichloroethane-d4	60.16		50.0000		120	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.19		50.0000		102	70 - 130			
Surrogate: Dibromofluoromethane	58.70		50.0000		117	70 - 130			
Surrogate: Toluene-d8	53.11		50.0000		106	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS

Blank (B310338-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Blank (B310338-BLK1) - Continued

Prepared: 9/20/2013 Analyzed: 9/20/2013

Dichlorodifluoromethane	ND	5.0		NR
Ethyl Acetate	ND	50		NR
Ethyl Ether	ND	50		NR
Ethyl tert-butyl ether	ND	5.0		NR
Ethylbenzene	ND	5.0		NR
Freon-113	ND	5.0		NR
Hexachlorobutadiene	ND	5.0		NR
Isopropylbenzene	ND	5.0		NR
m,p-Xylene	ND	10		NR
Methylene chloride	ND	5.0		NR
MTBE	ND	5.0		NR
n-Butylbenzene	ND	5.0		NR
n-Propylbenzene	ND	5.0		NR
Naphthalene	ND	5.0		NR
o-Xylene	ND	5.0		NR
sec-Butylbenzene	ND	5.0		NR
Styrene	ND	5.0		NR
tert-Amyl methyl ether	ND	5.0		NR
tert-Butanol	ND	100		NR
tert-Butylbenzene	ND	5.0		NR
Tetrachloroethene	ND	5.0		NR
Toluene	ND	5.0		NR
trans-1,2-Dichloroethene	ND	5.0		NR
trans-1,3-Dichloropropene	ND	5.0		NR
Trichloroethene	ND	5.0		NR
Trichlorofluoromethane	ND	5.0		NR
Vinyl acetate	ND	50		NR
Vinyl chloride	ND	5.0		NR
Surrogate: 1,2-Dichloroethane-d4	57.19	50.0000	114	70 - 130
Surrogate: 4-Bromofluorobenzene	46.57	50.0000	93.1	70 - 130
Surrogate: Dibromofluoromethane	59.00	50.0000	118	70 - 130
Surrogate: Toluene-d8	51.78	50.0000	104	70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

LCS (B310338-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,1-Dichloroethene	45.9800	5.0	50.0000	92.0	70 - 130				
Benzene	104.940	5.0	100.000	105	70 - 130				
Chlorobenzene	54.4400	5.0	50.0000	109	70 - 130				
MTBE	46.2500	5.0	50.0000	92.5	70 - 130				
Toluene	108.800	5.0	100.000	109	70 - 130				
Trichloroethene	48.5300	5.0	50.0000	97.1	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	55.36		50.0000	111	70 - 130				
Surrogate: 4-Bromofluorobenzene	48.93		50.0000	97.9	70 - 130				
Surrogate: Dibromofluoromethane	57.51		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.16		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

LCS Dup (B310338-BSD1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,1-Dichloroethene	44.1200	5.0	50.0000	88.2	70 - 130	4.13	20		
Benzene	105.310	5.0	100.000	105	70 - 130	0.352	20		
Chlorobenzene	60.5900	5.0	50.0000	121	70 - 130	10.7	20		
MTBE	48.3200	5.0	50.0000	96.6	70 - 130	4.38	20		
Toluene	109.650	5.0	100.000	110	70 - 130	0.778	20		
Trichloroethene	48.9700	5.0	50.0000	97.9	70 - 130	0.903	20		
Surrogate: 1,2-Dichloroethane-d4	54.37		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.80		50.0000	99.6	70 - 130				
Surrogate: Dibromofluoromethane	56.52		50.0000	113	70 - 130				
Surrogate: Toluene-d8	52.89		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Matrix Spike (B310338-MS1)	Source: 1302866-37			Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,1-Dichloroethene	43.0800	5.0	50.0000	ND	86.2	70 - 130			
Benzene	90.9200	5.0	100.0000	ND	90.9	70 - 130			
Chlorobenzene	47.9400	5.0	50.0000	ND	95.9	70 - 130			
MTBE	46.2100	5.0	50.0000	ND	92.4	70 - 130			
Toluene	91.9400	5.0	100.0000	ND	91.9	70 - 130			
Trichloroethene	45.5800	5.0	50.0000	ND	91.2	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	55.26		50.0000		111	70 - 130			
Surrogate: 4-Bromofluorobenzene	50.18		50.0000		100	70 - 130			
Surrogate: Dibromofluoromethane	56.32		50.0000		113	70 - 130			
Surrogate: Toluene-d8	52.51		50.0000		105	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Matrix Spike Dup (B310338-MSD1)	Source: 1302866-37			Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,1-Dichloroethene	42.5500	5.0	50.0000	ND	85.1	70 - 130	1.24	20	
Benzene	93.5200	5.0	100.0000	ND	93.5	70 - 130	2.82	20	
Chlorobenzene	46.3300	5.0	50.0000	ND	92.7	70 - 130	3.42	20	
MTBE	45.3500	5.0	50.0000	ND	90.7	70 - 130	1.88	20	
Toluene	93.3000	5.0	100.0000	ND	93.3	70 - 130	1.47	20	
Trichloroethene	44.5100	5.0	50.0000	ND	89.0	70 - 130	2.38	20	
Surrogate: 1,2-Dichloroethane-d4	56.03		50.0000		112	70 - 130			
Surrogate: 4-Bromofluorobenzene	50.54		50.0000		101	70 - 130			
Surrogate: Dibromofluoromethane	56.94		50.0000		114	70 - 130			
Surrogate: Toluene-d8	52.83		50.0000		106	70 - 130			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI

Blank (B310349-BLK1) Prepared: 9/20/2013 Analyzed: 9/20/2013

1,2,4-Trichlorobenzene	ND	330		NR					
1,2-Dichlorobenzene	ND	330		NR					
1,3-Dichlorobenzene	ND	330		NR					
1,4-Dichlorobenzene	ND	330		NR					
2,4,5-Trichlorophenol	ND	330		NR					
2,4,6-Trichlorophenol	ND	330		NR					
2,4-Dichlorophenol	ND	1600		NR					
2,4-Dimethylphenol	ND	330		NR					
2,4-Dinitrophenol	ND	1600		NR					
2,4-Dinitrotoluene	ND	330		NR					
2,6-Dinitrotoluene	ND	330		NR					
2-Chloronaphthalene	ND	330		NR					
2-Chlorophenol	ND	330		NR					
2-Methylnaphthalene	ND	330		NR					
2-Methylphenol	ND	330		NR					
2-Nitroaniline	ND	1600		NR					
2-Nitrophenol	ND	330		NR					
3,3'-Dichlorobenzidine	ND	660		NR					
3-Nitroaniline	ND	1600		NR					
4,6-Dinitro-2-methylphenol	ND	1600		NR					
4-Bromophenyl-phenylether	ND	330		NR					
4-Chloro-3-methylphenol	ND	660		NR					
4-Chloroaniline	ND	660		NR					
4-Chlorophenyl-phenylether	ND	330		NR					
4-Methylphenol	ND	330		NR					
4-Nitroaniline	ND	1600		NR					
4-Nitrophenol	ND	330		NR					
Acenaphthene	ND	330		NR					
Acenaphthylene	ND	330		NR					
Anthracene	ND	330		NR					
Benidine (M)	ND	1600		NR					
Benzo(a)anthracene	ND	330		NR					
Benzo(a)pyrene	ND	330		NR					
Benzo(b)fluoranthene	ND	330		NR					
Benzo(g,h,i)perylene	ND	330		NR					
Benzo(k)fluoranthene	ND	330		NR					
Benzoic acid	ND	1600		NR					
Benzyl alcohol	ND	660		NR					
bis(2-chloroethoxy)methane	ND	330		NR					
bis(2-Chloroethyl)ether	ND	330		NR					
bis(2-chloroisopropyl)ether	ND	330		NR					



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Blank (B310349-BLK1) - Continued Prepared: 9/20/2013 Analyzed: 9/20/2013

bis(2-ethylhexyl)phthalate	ND	330		NR					
Butylbenzylphthalate	ND	330		NR					
Chrysene	ND	330		NR					
Di-n-butylphthalate	ND	330		NR					
Di-n-octylphthalate	ND	330		NR					
Dibenz(a,h)anthracene	ND	330		NR					
Dibenzofuran	ND	330		NR					
Diethyl phthalate	ND	330		NR					
Dimethyl phthalate	ND	330		NR					
Fluoranthene	ND	330		NR					
Fluorene	ND	330		NR					
Hexachlorobenzene	ND	330		NR					
Hexachlorobutadiene	ND	660		NR					
Hexachlorocyclopentadiene	ND	660		NR					
Hexachloroethane	ND	330		NR					
Indeno(1,2,3-cd)pyrene	ND	330		NR					
Isophorone	ND	330		NR					
N-Nitroso-di-n-propylamine	ND	330		NR					
N-Nitrosodiphenylamine	ND	330		NR					
Naphthalene	ND	330		NR					
Nitrobenzene	ND	330		NR					
Pentachlorophenol	ND	1600		NR					
Phenanthrene	ND	330		NR					
Phenol	ND	330		NR					
Pyrene	ND	330		NR					
Pyridine	ND	1600		NR					
Surrogate: 1,2-Dichlorobenzene-d4	2313		3333.33		69.4	48 - 113			
Surrogate: 2,4,6-Tribromophenol	2850		3333.33		85.5	14 - 162			
Surrogate: 2-Chlorophenol-d4	2312		3333.33		69.4	40 - 117			
Surrogate: 2-Fluorobiphenyl	2609		3333.33		78.3	52 - 126			
Surrogate: 2-Fluorophenol	2266		3333.33		68.0	26 - 124			
Surrogate: 4-Terphenyl-d14	3081		3333.33		92.4	36 - 163			
Surrogate: Nitrobenzene-d5	2297		3333.33		68.9	42 - 118			
Surrogate: Phenol-d5	2269		3333.33		68.1	29 - 124			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

LCS (B310349-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,2,4-Trichlorobenzene	3260.00	330	3333.33		97.8	62 - 101			
1,4-Dichlorobenzene	2924.00	330	3333.33		87.7	58 - 93			
2,4-Dinitrotoluene	3910.67	330	3333.33		117	67 - 133			
2-Chlorophenol	3073.33	330	3333.33		92.2	63 - 100			
4-Chloro-3-methylphenol	3496.33	660	3333.33		105	70 - 120			
4-Nitrophenol	3607.33	330	3333.33		108	55 - 137			
Acenaphthene	3525.33	330	3333.33		106	73 - 112			
N-Nitroso-di-n propylamine	3291.67	330	3333.33		98.8	56 - 114			
Pentachlorophenol	3869.33	1600	3333.33		116	61 - 125			
Phenol	3088.67	330	3333.33		92.7	61 - 106			
Pyrene	4236.67	330	3333.33		127	66 - 122		L5	
Surrogate: 1,2-Dichlorobenzene-d4	2985		3333.33		89.6	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3476		3333.33		104	14 - 162			
Surrogate: 2-Chlorophenol-d4	2941		3333.33		88.2	40 - 117			
Surrogate: 2-Fluorobiphenyl	3272		3333.33		98.2	52 - 126			
Surrogate: 2-Fluorophenol	2675		3333.33		80.3	26 - 124			
Surrogate: 4-Terphenyl-d14	3177		3333.33		95.3	36 - 163			
Surrogate: Nitrobenzene-d5	2821		3333.33		84.6	42 - 118			
Surrogate: Phenol-d5	2805		3333.33		84.1	29 - 124			



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Matrix Spike (B310349-MS1)		Source: 1302866-08		Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,2,4-Trichlorobenzene	2683.00	330	3333.33	ND	80.5	52 - 111			
1,4-Dichlorobenzene	2440.33	330	3333.33	ND	73.2	47 - 101			
2,4-Dinitrotoluene	3728.33	330	3333.33	ND	112	66 - 134			
2-Chlorophenol	2461.33	330	3333.33	ND	73.8	55 - 107			
4-Chloro-3-methylphenol	3176.33	660	3333.33	ND	95.3	64 - 129			
4-Nitrophenol	3454.67	330	3333.33	ND	104	56 - 144			
Acenaphthene	3259.00	330	3333.33	ND	97.8	63 - 121			
N-Nitroso-di-n propylamine	2671.00	330	3333.33	ND	80.1	45 - 123			
Pentachlorophenol	4052.00	1600	3333.33	ND	122	51 - 144			
Phenol	2562.00	330	3333.33	ND	76.9	50 - 116			
Pyrene	4114.33	330	3333.33	ND	123	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	2457		3333.33		73.7	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3459		3333.33		104	14 - 162			
Surrogate: 2-Chlorophenol-d4	2423		3333.33		72.7	40 - 117			
Surrogate: 2-Fluorobiphenyl	2955		3333.33		88.7	52 - 126			
Surrogate: 2-Fluorophenol	2266		3333.33		68.0	26 - 124			
Surrogate: 4-Terphenyl-d14	3174		3333.33		95.2	36 - 163			
Surrogate: Nitrobenzene-d5	2408		3333.33		72.2	42 - 118			
Surrogate: Phenol-d5	2386		3333.33		71.6	29 - 124			



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Matrix Spike Dup (B310349-MSD1)		Source: 1302866-08		Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,2,4-Trichlorobenzene	2913.67	330	3333.33	ND	87.4	52 - 111	8.24	20	
1,4-Dichlorobenzene	2553.67	330	3333.33	ND	76.6	47 - 101	4.54	20	
2,4-Dinitrotoluene	3505.00	330	3333.33	ND	105	66 - 134	6.18	20	
2-Chlorophenol	2672.67	330	3333.33	ND	80.2	55 - 107	8.23	20	
4-Chloro-3-methylphenol	3150.33	660	3333.33	ND	94.5	64 - 129	0.822	20	
4-Nitrophenol	3233.33	330	3333.33	ND	97.0	56 - 144	6.62	20	
Acenaphthene	3256.67	330	3333.33	ND	97.7	63 - 121	0.0716	20	
N-Nitroso-di-n propylamine	2835.33	330	3333.33	ND	85.1	45 - 123	5.97	20	
Pentachlorophenol	3699.33	1600	3333.33	ND	111	51 - 144	9.10	20	
Phenol	2752.67	330	3333.33	ND	82.6	50 - 116	7.18	20	
Pyrene	3921.33	330	3333.33	ND	118	65 - 127	4.80	20	
Surrogate: 1,2-Dichlorobenzene-d4	2644		3333.33		79.3	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3207		3333.33		96.2	14 - 162			
Surrogate: 2-Chlorophenol-d4	2644		3333.33		79.3	40 - 117			
Surrogate: 2-Fluorobiphenyl	3098		3333.33		92.9	52 - 126			
Surrogate: 2-Fluorophenol	2453		3333.33		73.6	26 - 124			
Surrogate: 4-Terphenyl-d14	2972		3333.33		89.2	36 - 163			
Surrogate: Nitrobenzene-d5	2647		3333.33		79.4	42 - 118			
Surrogate: Phenol-d5	2593		3333.33		77.8	29 - 124			



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI

Blank (B310361-BLK1)		Prepared: 9/20/2013 Analyzed: 9/23/2013							
1,2,4-Trichlorobenzene	ND	330							NR
1,2-Dichlorobenzene	ND	330							NR
1,3-Dichlorobenzene	ND	330							NR
1,4-Dichlorobenzene	ND	330							NR
2,4,5-Trichlorophenol	ND	330							NR
2,4,6-Trichlorophenol	ND	330							NR
2,4-Dichlorophenol	ND	1600							NR
2,4-Dimethylphenol	ND	330							NR
2,4-Dinitrophenol	ND	1600							NR
2,4-Dinitrotoluene	ND	330							NR
2,6-Dinitrotoluene	ND	330							NR
2-Chloronaphthalene	ND	330							NR
2-Chlorophenol	ND	330							NR
2-Methylnaphthalene	ND	330							NR
2-Methylphenol	ND	330							NR
2-Nitroaniline	ND	1600							NR
2-Nitrophenol	ND	330							NR
3,3'-Dichlorobenzidine	ND	660							NR
3-Nitroaniline	ND	1600							NR
4,6-Dinitro-2-methylphenol	ND	1600							NR
4-Bromophenyl-phenylether	ND	330							NR
4-Chloro-3-methylphenol	ND	660							NR
4-Chloroaniline	ND	660							NR
4-Chlorophenyl-phenylether	ND	330							NR
4-Methylphenol	ND	330							NR
4-Nitroaniline	ND	1600							NR
4-Nitrophenol	ND	330							NR
Acenaphthene	ND	330							NR
Acenaphthylene	ND	330							NR
Anthracene	ND	330							NR
Benzidine (M)	ND	1600							NR
Benzo(a)anthracene	ND	330							NR
Benzo(a)pyrene	ND	330							NR
Benzo(b)fluoranthene	ND	330							NR
Benzo(g,h,i)perylene	ND	330							NR
Benzo(k)fluoranthene	ND	330							NR
Benzoic acid	ND	1600							NR
Benzyl alcohol	ND	660							NR
bis(2-chloroethoxy)methane	ND	330							NR
bis(2-Chloroethyl)ether	ND	330							NR
bis(2-chloroisopropyl)ether	ND	330							NR



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Blank (B310361-BLK1) - Continued

Prepared: 9/20/2013 Analyzed: 9/23/2013

bis(2-ethylhexyl)phthalate	ND	330		NR					
Butylbenzylphthalate	ND	330		NR					
Chrysene	ND	330		NR					
Di-n-butylphthalate	ND	330		NR					
Di-n-octylphthalate	ND	330		NR					
Dibenz(a,h)anthracene	ND	330		NR					
Dibenzofuran	ND	330		NR					
Diethyl phthalate	ND	330		NR					
Dimethyl phthalate	ND	330		NR					
Fluoranthene	ND	330		NR					
Fluorene	ND	330		NR					
Hexachlorobenzene	ND	330		NR					
Hexachlorobutadiene	ND	660		NR					
Hexachlorocyclopentadiene	ND	660		NR					
Hexachloroethane	ND	330		NR					
Indeno(1,2,3-cd)pyrene	ND	330		NR					
Isophorone	ND	330		NR					
N-Nitroso-di-n propylamine	ND	330		NR					
N-Nitrosodiphenylamine	ND	330		NR					
Naphthalene	ND	330		NR					
Nitrobenzene	ND	330		NR					
Pentachlorophenol	ND	1600		NR					
Phenanthrene	ND	330		NR					
Phenol	ND	330		NR					
Pyrene	ND	330		NR					
Pyridine	ND	1600		NR					

Surrogate: 1,2-Dichlorobenzene-d4	2384	3333.33	71.5	48 - 113
Surrogate: 2,4,6-Tribromophenol	2961	3333.33	88.8	14 - 162
Surrogate: 2-Chlorophenol-d4	2495	3333.33	74.8	40 - 117
Surrogate: 2-Fluorobiphenyl	2553	3333.33	76.6	52 - 126
Surrogate: 2-Fluorophenol	2546	3333.33	76.4	26 - 124
Surrogate: 4-Terphenyl-d14	3447	3333.33	103	36 - 163
Surrogate: Nitrobenzene-d5	2343	3333.33	70.3	42 - 118
Surrogate: Phenol-d5	2444	3333.33	73.3	29 - 124



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

LCS (B310361-BS1)

Prepared: 9/20/2013 Analyzed: 9/23/2013

1,2,4-Trichlorobenzene	2582.33	330	3333.33	77.5	62 - 101
1,4-Dichlorobenzene	2403.33	330	3333.33	72.1	58 - 93
2,4-Dinitrotoluene	3543.67	330	3333.33	106	67 - 133
2-Chlorophenol	2606.00	330	3333.33	78.2	63 - 100
4-Chloro-3-methylphenol	3125.33	660	3333.33	93.8	70 - 120
4-Nitrophenol	3050.33	330	3333.33	91.5	55 - 137
Acenaphthene	2956.33	330	3333.33	88.7	73 - 112
N-Nitroso-di-n propylamine	2728.33	330	3333.33	81.8	56 - 114
Pentachlorophenol	3712.33	1600	3333.33	111	61 - 125
Phenol	2647.67	330	3333.33	79.4	61 - 106
Pyrene	3570.33	330	3333.33	107	66 - 122
Surrogate: 1,2-Dichlorobenzene-d4	2377		3333.33	71.3	48 - 113
Surrogate: 2,4,6-Tribromophenol	3227		3333.33	96.8	14 - 162
Surrogate: 2-Chlorophenol-d4	2498		3333.33	74.9	40 - 117
Surrogate: 2-Fluorobiphenyl	2621		3333.33	78.6	52 - 126
Surrogate: 2-Fluorophenol	2423		3333.33	72.7	26 - 124
Surrogate: 4-Terphenyl-d14	3104		3333.33	93.1	36 - 163
Surrogate: Nitrobenzene-d5	2360		3333.33	70.8	42 - 118
Surrogate: Phenol-d5	2472		3333.33	74.2	29 - 124



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Matrix Spike (B310361-MS1)	Source: 1302866-33			Prepared: 9/20/2013 Analyzed: 9/23/2013					
1,2,4-Trichlorobenzene	2910.00	330	3333.33	ND	87.3	52 - 111			
1,4-Dichlorobenzene	2686.00	330	3333.33	ND	80.6	47 - 101			
2,4-Dinitrotoluene	3786.67	330	3333.33	ND	114	66 - 134			
2-Chlorophenol	2899.67	330	3333.33	ND	87.0	55 - 107			
4-Chloro-3-methylphenol	3396.33	660	3333.33	ND	102	64 - 129			
4-Nitrophenol	3201.00	330	3333.33	ND	96.0	56 - 144			
Acenaphthene	3221.33	330	3333.33	ND	96.6	63 - 121			
N-Nitroso-di-n propylamine	2896.00	330	3333.33	ND	86.9	45 - 123			
Pentachlorophenol	4099.67	1600	3333.33	ND	123	51 - 144			
Phenol	2917.33	330	3333.33	ND	87.5	50 - 116			
Pyrene	3746.00	330	3333.33	ND	112	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	2717		3333.33		81.5	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3448		3333.33		103	14 - 162			
Surrogate: 2-Chlorophenol-d4	2847		3333.33		85.4	40 - 117			
Surrogate: 2-Fluorobiphenyl	2999		3333.33		90.0	52 - 126			
Surrogate: 2-Fluorophenol	2760		3333.33		82.8	26 - 124			
Surrogate: 4-Terphenyl-d14	3308		3333.33		99.2	36 - 163			
Surrogate: Nitrobenzene-d5	2646		3333.33		79.4	42 - 118			
Surrogate: Phenol-d5	2779		3333.33		83.4	29 - 124			



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Matrix Spike Dup (B310361-MSD1)	Source: 1302866-33			Prepared: 9/20/2013 Analyzed: 9/23/2013					
1,2,4-Trichlorobenzene	2913.33	330	3333.33	ND	87.4	52 - 111	0.114	20	
1,4-Dichlorobenzene	2765.67	330	3333.33	ND	83.0	47 - 101	2.92	20	
2,4-Dinitrotoluene	3728.67	330	3333.33	ND	112	66 - 134	1.54	20	
2-Chlorophenol	2955.33	330	3333.33	ND	88.7	55 - 107	1.90	20	
4-Chloro-3-methylphenol	3338.67	660	3333.33	ND	100	64 - 129	1.71	20	
4-Nitrophenol	3212.67	330	3333.33	ND	96.4	56 - 144	0.364	20	
Acenaphthene	3203.67	330	3333.33	ND	96.1	63 - 121	0.550	20	
N-Nitroso-di-n propylamine	2913.00	330	3333.33	ND	87.4	45 - 123	0.585	20	
Pentachlorophenol	4134.00	1600	3333.33	ND	124	51 - 144	0.834	20	
Phenol	2937.33	330	3333.33	ND	88.1	50 - 116	0.683	20	
Pyrene	3775.33	330	3333.33	ND	113	65 - 127	0.780	20	
Surrogate: 1,2-Dichlorobenzene-d4	2818		3333.33		84.5	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3442		3333.33		103	14 - 162			
Surrogate: 2-Chlorophenol-d4	2903		3333.33		87.1	40 - 117			
Surrogate: 2-Fluorobiphenyl	2962		3333.33		88.9	52 - 126			
Surrogate: 2-Fluorophenol	2842		3333.33		85.3	26 - 124			
Surrogate: 4-Terphenyl-d14	3357		3333.33		101	36 - 163			
Surrogate: Nitrobenzene-d5	2639		3333.33		79.2	42 - 118			
Surrogate: Phenol-d5	2809		3333.33		84.3	29 - 124			



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123

Project Number: TMT, 107589002
Report To: Lisa Bestard
Reported: 09/24/2013

Notes and Definitions

- S1 Surrogate recovery was above laboratory acceptance limit. No target analyte was detected in the sample.
- R RPD value outside acceptance criteria. Calculation is based on raw values.
- M1 Matrix spike recovery outside of acceptance limit. The analytical batch was validated by the laboratory control sample.
- L5 Laboratory Control Sample high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
- D5 Sample diluted due to failing internal standard in the original run.
- D3 Sample required dilution due to insufficient sample.
- D1 Sample required dilution due to possible matrix interference.
- ND Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
- PQL Practical Quantitation Limit
- MDL Method Detection Limit
- NR Not Reported
- RPD Relative Percent Difference
- CA1 CA-NELAP (CDPH)
- CA2 CA-ELAP (CDPH)
- OR1 OR-NELAP (OSPHL)
- TX1 TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.

ADVANCED TECHNOLOGY LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 4

Project Name: TMT		Quote No: 107589002	PO #: 900
Project No: 107589002		Sampler: GNC	
Lab No. 1302460-1		Sample ID / Location B-1-05	Date 9/16/13
1		B-1-05	0805
2		B-1-05	0805
3		B-2-2.5	0825
4		B-2-2.5	0825
5		B-2-3.5	0815
6		B-2-4.5	0820
7		B-3-2	0831
8		B-3-2.5	0831
9		B-3-3.0	0831
10		B-4-1.0	0841

Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
8015(GRO)	SOLIDS / WASTE / SLUDGE	1	QA/QC
8015(GRO)	WATER - DRINKING / GROUND	2	QA/QC
8015(GRO)	WATER - STORM / WASTE	3	QA/QC
8015(GRO)	AQUEOUS / LIQUID - OIL	4	QA/QC
8015(GRO)	Other	5	QA/QC

Remarks	QA/QC
1	QA/QC
2	QA/QC
3	QA/QC
4	QA/QC
5	QA/QC

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: Lisa Bestard
Submitter Print Name: Lisa Bestard

Date: 9/17/13
Time: 1:50

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instruction: Complete all shaded areas.

		For Laboratory Use Only		ATLCC Ver: 20130715			
Method of Transport		Sample Conditions Upon Receipt					
		Condition	Y	N	Condition	Y	N
<input type="checkbox"/> Client	<input type="checkbox"/> ATL	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # of SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	<input type="checkbox"/> OnTrac	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> GSO		3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other: _____		4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

CUSTOMER	Company: Ningo & Moore		Address: 5710 Rutan Rd		State: CA		Zip: 91223		Tel: 858 576-1100		Fax: 858 576-1100	
	SEND REPORT TO:		Email: LBestford@Ningo and Moore.com		SEND INVOICE TO:		Email: X same as SEND REPORT TO					
	Attn: Lisa Bestford		Attn: LBestford@Ningo and Moore.com									
	Company: Ningo & Moore		Company:									
PROJECT SAMPLES	Address: 5710 Rutan Rd		Address:									
	City: San Diego		City:									
	State: CA		Zip: 91223									
	State:		Zip:									
TERMS	Project Name: TAT#1		Quote No:		Special Instructions/Comments: Hold additional samples please		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container	
	Project No.: 167589002		PO #:									
	Sampler: BME											
CUSTODY	ITEM		Lab No.		Sample Description		Date		Time			
	1		1302466 -11		B4-2		9/11/13		0841		X X X X X	
	2		-12		B4-3				0841		X X X X X	
	3		-13		B5-1				0852		X X X X X	
	4		-14		B5-3.5				0852		X X X X X	
	5		-15		B5-4.5				0652		X X X X X	
	6		-16		B6-1				0906		X X X X X	
	7		-17		B6-3.5				0906		X X X X X	
	8		-18		B6-4.5				0906		X X X X X	
	9		-19		B7-0.5				0913		X X X X X	
	10		-20		B7-2.0				0913		X X X X X	
	<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. Samples submitted AFTER 8:00 PM are considered received the following Business day at 8:00 AM. TAT = 4: 30% Surcharge. SAME BUSINESS DAY (COB 5:00 PM) TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3: 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after hours work - ask for quote. 5. Subcontract TAT is 10-15 Business days. Projects requiring shorter TATs will incur a surcharge respective to the subcontract lab - ask for quote. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p>											
<p>7. Electronic records maintained for 90 days (90) days from report date. 8. Hard copy reports will be disposed of after 90 calendar days from report date. 9. Storage and Report Fee: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat report; \$35 per reprocessed EDO. 10. Rush TAT/STIC samples: add 2 days to analysts TAT for extraction on production. 11. Unusually samples will incur a disposal fee of \$7 per sample.</p>												
<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Brianne Cortright [Signature] Submitter Print Name Signature</p>												
<p>Relinquished by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50 Received by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50</p> <p>Relinquished by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50 Received by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50</p> <p>Relinquished by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50 Received by: (Signature and Printed Name) [Signature] Date: 9/17/13 Time: 1:50</p>												

ADVANCED TECHNOLOGY
LABORATORIES

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOC Ver: 2013071				
Method of Transport	Sample Conditions Upon Receipt					
	Condition	Y	N	Condition	Y	N
<input type="checkbox"/> Client	1. CHILLED	<input type="checkbox"/>	<input type="checkbox"/>	5. # of SAMPLES MATCH COC	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> FedEx	2. HEADSPACE (VOA)	<input type="checkbox"/>	<input type="checkbox"/>	6. PRESERVED	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> OnTrac	3. CONTAINER INTACT	<input type="checkbox"/>	<input type="checkbox"/>	7. COOLER TEMP, deg C:		
<input type="checkbox"/> GSO	4. SEALED	<input type="checkbox"/>	<input type="checkbox"/>			
<input type="checkbox"/> Other: _____						

CUSTOMER	Company: Ningyo's Moore		Address: 5710 Reuther Rd City: San Diego		State: CA Zip: 92123		Tel: 619 576-1000 Fax: 619 576-9600																				
	SEND REPORT TO:		Email: LBestard@NingyoandMoore.com		SEND INVOICE TO:		Email: Same as SEND REPORT TO																				
	ATTN: Lisa Bestard		ATTN:																								
	Company: Ningyo's Moore		Company:																								
	Address: 5710 Reuther Rd		Address:																								
	City: San Diego		City: San Diego		State: CA		Zip: 92123																				
PROJECT SUMMARY	Project Name: TAMI		Quote No:		Special Instructions/Comments: Hold remaining samples please		Encircle or Write Requested Analysis		Encircle Sample Matrix		Container		QA/QC <input type="checkbox"/> Routine <input type="checkbox"/> Caltrans <input type="checkbox"/> Legal <input type="checkbox"/> RWQCB Level IV														
	Project No.: 107S89002		PO #:																								
	Sampler: BMC																										
	ITEM	Lab No.	Sample Description		Date	Time	8015(GRO)	8015(Semi-volatiles)	8081(Organochlorine Pesticides)	8270(Semi-volatiles)	TO-15	8015(GRO)	8015(Semi-volatiles)	8081(Organochlorine Pesticides)	8270(Semi-volatiles)	TO-15	8015(GRO)	8015(Semi-volatiles)	8081(Organochlorine Pesticides)	8270(Semi-volatiles)	TO-15	8015(GRO)	8015(Semi-volatiles)	8081(Organochlorine Pesticides)	8270(Semi-volatiles)	TO-15	
	1	130-2866-21	B7 - 4.0		9/16	0913	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	2	-22	B8 - 0.5			0953	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	3	-23	B8 - 3.0			0953	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	4	-24	B8 - 4.0			0953	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	5	-25	B9 - 0.5			1001	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	6	-26	B9 - 1.0			1001	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
7	-27	B9 - 4.5			1001	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
8	-28	B10 - 1			1010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
9	-29	B10 - 3			1010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
10	-30	B10 - 3.5			1010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
TERMS	<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. Samples submitted AFTER 3:00 PM are considered received the following business day at 8:00 AM. 2. The following turnaround time conditions apply: TAT = 1: 100% Surcharge SAME BUSINESS DAY (COB 5:00 PM) TAT = 2: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 3: 100% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 4: 100% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 5: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 6: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 7: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 8: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 9: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 10: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 11: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 12: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 13: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 14: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 15: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 16: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 17: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 18: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 19: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 20: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 21: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 22: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 23: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 24: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 25: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 26: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 27: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 28: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 29: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 30: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 31: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 32: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 33: NO SURCHARGE 5TH BUSINESS DAY (COB 5:00 PM) TAT = 34: NO</p>																										

Pg 4 of 4

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June 24, 2014
Project No. 107742002

Mr. E. Javier Saunders
Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

Subject: Soil, Concrete, and Asphalt Sampling and Analysis
Transit Shed No. 2 – Bays E and F
Tenth Avenue Marine Terminal
San Diego, California

Dear Mr. Saunders:

At the request of the San Diego Unified Port District (Port), Ninyo & Moore collected soil, concrete, and asphalt samples for analytical testing from Bays E and F of Transit Shed No. 2 on the Tenth Avenue Marine Terminal (TAMT), which is proposed for demolition (Figures 1 and 2). The structure was constructed on an elevated building pad that was created using undocumented fill material. It is our understanding that the undocumented fill material may be reused on site or excavated and disposed of off site and that the concrete and asphalt portions of the structure would be crushed and potentially utilized as base material on site or exported off site for reuse or disposal. The purpose of the soil sampling and analysis activities was to evaluate the footprint of the planned removal area for constituents of potential concern (COPCs) that have been found during previous subsurface projects at TAMT. The purpose of the concrete and asphalt sampling and analysis activities was to evaluate if polychlorinated biphenyls (PCBs) are present in the concrete/asphalt and provide opinions regarding the potential for reuse of the material on or off site.

DRILLING, SOIL SAMPLING, AND ANALYSIS

On June 10, 2014, Ninyo & Moore advanced four direct push borings (B-1 through B-4) to depths ranging from 5 to 9 feet below ground surface (Figure 2). Three soil samples were collected from each boring at randomly selected depths using a 2-inch inside-diameter sampler lined with an acetate sleeve, 4 feet in length. The acetate sleeves were cut and the desired sampling interval was retrieved and sealed on both ends with Teflon™ sheeting and plastic caps. Soil sample containers were labeled with perti-

ment information, placed into coolers containing ice, and delivered to Calscience Environmental Laboratories of Garden Grove, California, under appropriate chain-of-custody documentation.

The samples were analyzed for total petroleum hydrocarbons (TPH) gasoline (TPH-g) and TPH-extended range C₆-C₄₄ (TPH-e) by United States Environmental Protection Agency (EPA) Method 8015M, Title 22 Metals by EPA Method 6010B/7471A, PCBs by EPA Method 8082, volatile organic compounds (VOCs) by EPA Method 8260B, and semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

CONCRETE/ASPHALT SAMPLING AND ANALYSIS

On June 10, 2014, Ninyo & Moore advanced four cores through the asphalt floor of the transit shed using a 2-inch diameter coring drill (CR-1 through CR-4). Twelve concrete/asphalt chip samples (CP-1 through CP-12) were collected from various surfaces (e.g., walls, floors, pillars, loading docks, etc.) utilizing a demolition hammer. The cores were placed into plastic bags and the chip samples were placed into laboratory supplied glass jars, the bags/jars were labeled with pertinent information and delivered to Calscience Environmental Laboratories of Garden Grove, California under appropriate chain-of-custody documentation. The samples were individually crushed and homogenized by the laboratory and analyzed for PCBs by EPA test method 8082.

FINDINGS

The following summarizes the findings of the concrete/asphalt sample analytical results.

- Arsenic, barium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc were detected in the soil samples; however, the metals were not detected at concentrations at or exceeding their respective trigger limit for analysis of the soluble concentration by State or Federal standards.
- TPH-g, TPH C₆-C₄₄, PCBs, VOCs, and SVOCs were not detected at or above the laboratory reporting limit in the soil samples.
- PCBs were not detected above the laboratory reporting limit in the concrete and asphalt samples.

Copies of the analytical reports are provided as Attachment A.

OPINION

COPCs were not detected in the soil samples and PCBs were not detected in the asphalt/concrete samples; therefore, it is our opinion that the soil, asphalt, and concrete from Transit Shed 2 Bays E and F, if reused on site or off site, would not pose a significant threat to human health or the environment.

Sincerely,
NINYO & MOORE



Lisa Bestard
Senior Project Environmental Scientist



Stephan A. Beck, PG 4375
Manager, Environmental Sciences Division

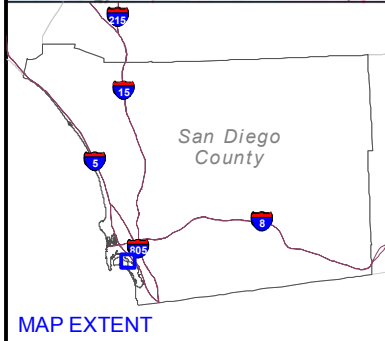
LB/SB/gg

Attachments: Figure 1 – Site Location
Figure 2 – Sample Locations
Attachment A – Laboratory Analytical Report

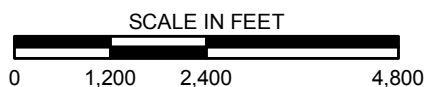
Distribution: (1) Addressee



SOURCE: 2008 Thomas Guide for San Diego County, Street Guide and Directory; Map © Rand McNally, R.L.07-S-129



MAP EXTENT



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

SITE LOCATION

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 2
10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

1

107742002

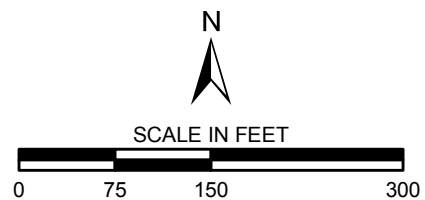
6/14



SOURCE: 2012 SAN DIEGO IMAGERY ACQUISITION PARTNERSHIP (FLIGHT DATES: MAY 20 - JUNE 6, 2012)

LEGEND

- ⊕ **B-4** ASPHALT CORE
- ⊕ **CR-12** CONCRETE/ASPHALT CHIP SAMPLE



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

SAMPLE LOCATIONS

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 2
10TH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107742002

6/14

2


Tenth Avenue Marine Terminal
San Diego, California


June 24, 2014
Project No. 107742002

ATTACHMENT A
LABORATORY ANALYTICAL REPORT


107742002 L.doc

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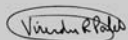
 **WORK ORDER NUMBER: 14-06-0885**

The difference is service




AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: Ninyo & Moore
Client Project Name: TAMT - Transit Shed 2 / 107742002
Attention: Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123-1013


Approved for release on 06/19/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

7440 Lincoln Way, Garden Grove, CA 92641-1432 • TEL: (714) 895-5494 • FAX: (714) 894-7501 • www.calscience.com

NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

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Work Order Number: 14-06-0885

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Work Order Narrative

Work Order: 14-06-0885

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/11/14. They were assigned to Work Order 14-06-0885.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0885
Project Name: TAMT - Transit Shed 2 / 107742002
PO Number:
Date/Time Received: 06/11/14 19:15
Number of Containers: 12

Attn: Lisa Bestard

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
B-1-1.5	14-06-0885-1	06/10/14 13:36	1	Solid
B-1-6.5	14-06-0885-2	06/10/14 13:48	1	Solid
B-1-9	14-06-0885-3	06/10/14 13:53	1	Solid
B-2-0.5	14-06-0885-4	06/10/14 14:10	1	Solid
B-2-4	14-06-0885-5	06/10/14 14:14	1	Solid
B-2-6	14-06-0885-6	06/10/14 14:20	1	Solid
B-3-2	14-06-0885-7	06/10/14 14:40	1	Solid
B-3-5	14-06-0885-8	06/10/14 14:50	1	Solid
B-3-9.5	14-06-0885-9	06/10/14 14:58	1	Solid
B-4-1	14-06-0885-10	06/10/14 15:25	1	Solid
B-4-3	14-06-0885-11	06/10/14 15:30	1	Solid
B-4-5	14-06-0885-12	06/10/14 15:30	1	Solid

[Return to Contents](#)



Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0885
Project Name: TAMT - Transit Shed 2 / 107742002
Received: 06/11/14

Attn: Lisa Bestard Page 1 of 4

Client SampleID	Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-1-1.5 (14-06-0885-1)							
	Arsenic	4.91		0.732	mg/kg	EPA 6010B	EPA 3050B
	Barium	26.6		0.488	mg/kg	EPA 6010B	EPA 3050B
	Chromium	6.92		0.244	mg/kg	EPA 6010B	EPA 3050B
	Cobalt	3.43		0.244	mg/kg	EPA 6010B	EPA 3050B
	Copper	3.95		0.488	mg/kg	EPA 6010B	EPA 3050B
	Lead	4.60		0.488	mg/kg	EPA 6010B	EPA 3050B
	Nickel	3.05		0.244	mg/kg	EPA 6010B	EPA 3050B
	Vanadium	27.1		0.244	mg/kg	EPA 6010B	EPA 3050B
	Zinc	17.7		0.976	mg/kg	EPA 6010B	EPA 3050B
B-1-6.5 (14-06-0885-2)							
	Arsenic	1.52		0.714	mg/kg	EPA 6010B	EPA 3050B
	Barium	25.2		0.476	mg/kg	EPA 6010B	EPA 3050B
	Chromium	3.42		0.238	mg/kg	EPA 6010B	EPA 3050B
	Cobalt	1.57		0.238	mg/kg	EPA 6010B	EPA 3050B
	Copper	1.08		0.476	mg/kg	EPA 6010B	EPA 3050B
	Lead	0.845		0.476	mg/kg	EPA 6010B	EPA 3050B
	Nickel	1.30		0.238	mg/kg	EPA 6010B	EPA 3050B
	Vanadium	10.8		0.238	mg/kg	EPA 6010B	EPA 3050B
	Zinc	7.48		0.952	mg/kg	EPA 6010B	EPA 3050B
B-1-9 (14-06-0885-3)							
	Arsenic	0.971		0.754	mg/kg	EPA 6010B	EPA 3050B
	Barium	6.32		0.503	mg/kg	EPA 6010B	EPA 3050B
	Chromium	1.73		0.251	mg/kg	EPA 6010B	EPA 3050B
	Cobalt	0.793		0.251	mg/kg	EPA 6010B	EPA 3050B
	Copper	0.907		0.503	mg/kg	EPA 6010B	EPA 3050B
	Lead	1.14		0.503	mg/kg	EPA 6010B	EPA 3050B
	Nickel	0.711		0.251	mg/kg	EPA 6010B	EPA 3050B
	Vanadium	5.88		0.251	mg/kg	EPA 6010B	EPA 3050B
	Zinc	3.92		1.01	mg/kg	EPA 6010B	EPA 3050B

[Return to Contents](#)

* MDL is shown

Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0885
Project Name: TAMT - Transit Shed 2 / 107742002
Received: 06/11/14

Attn: Lisa Bestard

Page 2 of 4

Client SampleID						
Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-2-0.5 (14-06-0885-4)						
Arsenic	3.68		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	66.1		0.478	mg/kg	EPA 6010B	EPA 3050B
Chromium	5.51		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.62		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	2.19		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	2.76		0.478	mg/kg	EPA 6010B	EPA 3050B
Nickel	2.12		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	22.7		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	20.6		0.957	mg/kg	EPA 6010B	EPA 3050B
B-2-4 (14-06-0885-5)						
Arsenic	1.51		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	25.3		0.513	mg/kg	EPA 6010B	EPA 3050B
Chromium	6.93		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	3.55		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	27.1		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	2.67		0.513	mg/kg	EPA 6010B	EPA 3050B
Nickel	7.89		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	18.7		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	110		1.03	mg/kg	EPA 6010B	EPA 3050B
Mercury	0.110		0.0806	mg/kg	EPA 7471A	EPA 7471A Total
B-2-6 (14-06-0885-6)						
Arsenic	1.05		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	14.6		0.498	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.98		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	2.14		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	5.03		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	5.26		0.498	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.69		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.7		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	12.1		0.995	mg/kg	EPA 6010B	EPA 3050B

[Return to Contents](#)

* MDL is shown

Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0885
Project Name: TAMT - Transit Shed 2 / 107742002
Received: 06/11/14

Attn: Lisa Bestard

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Client SampleID						
Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-3-2 (14-06-0885-7)						
Arsenic	1.38		0.758	mg/kg	EPA 6010B	EPA 3050B
Barium	15.9		0.505	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.39		0.253	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.68		0.253	mg/kg	EPA 6010B	EPA 3050B
Copper	3.54		0.505	mg/kg	EPA 6010B	EPA 3050B
Lead	4.40		0.505	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.43		0.253	mg/kg	EPA 6010B	EPA 3050B
Vanadium	11.0		0.253	mg/kg	EPA 6010B	EPA 3050B
Zinc	9.26		1.01	mg/kg	EPA 6010B	EPA 3050B
B-3-5 (14-06-0885-8)						
Arsenic	1.73		0.750	mg/kg	EPA 6010B	EPA 3050B
Barium	25.7		0.500	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.47		0.250	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.96		0.250	mg/kg	EPA 6010B	EPA 3050B
Copper	3.99		0.500	mg/kg	EPA 6010B	EPA 3050B
Lead	17.0		0.500	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.43		0.250	mg/kg	EPA 6010B	EPA 3050B
Vanadium	10.6		0.250	mg/kg	EPA 6010B	EPA 3050B
Zinc	11.2		1.00	mg/kg	EPA 6010B	EPA 3050B
B-3-9.5 (14-06-0885-9)						
Arsenic	0.891		0.761	mg/kg	EPA 6010B	EPA 3050B
Barium	9.04		0.508	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.21		0.254	mg/kg	EPA 6010B	EPA 3050B
Cobalt	0.891		0.254	mg/kg	EPA 6010B	EPA 3050B
Copper	4.79		0.508	mg/kg	EPA 6010B	EPA 3050B
Lead	6.95		0.508	mg/kg	EPA 6010B	EPA 3050B
Nickel	0.907		0.254	mg/kg	EPA 6010B	EPA 3050B
Vanadium	7.48		0.254	mg/kg	EPA 6010B	EPA 3050B
Zinc	8.59		1.02	mg/kg	EPA 6010B	EPA 3050B

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* MDL is shown



Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0885
Project Name: TAMT - Transit Shed 2 / 107742002
Received: 06/11/14

Attn: Lisa Bestard

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Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
B-4-1 (14-06-0885-10)						
Arsenic	2.34		0.746	mg/kg	EPA 6010B	EPA 3050B
Barium	44.6		0.498	mg/kg	EPA 6010B	EPA 3050B
Chromium	8.39		0.249	mg/kg	EPA 6010B	EPA 3050B
Cobalt	4.38		0.249	mg/kg	EPA 6010B	EPA 3050B
Copper	4.71		0.498	mg/kg	EPA 6010B	EPA 3050B
Lead	3.17		0.498	mg/kg	EPA 6010B	EPA 3050B
Nickel	3.47		0.249	mg/kg	EPA 6010B	EPA 3050B
Vanadium	27.2		0.249	mg/kg	EPA 6010B	EPA 3050B
Zinc	18.9		0.995	mg/kg	EPA 6010B	EPA 3050B
B-4-3 (14-06-0885-11)						
Arsenic	1.56		0.769	mg/kg	EPA 6010B	EPA 3050B
Barium	9.90		0.513	mg/kg	EPA 6010B	EPA 3050B
Chromium	3.00		0.256	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.38		0.256	mg/kg	EPA 6010B	EPA 3050B
Copper	1.44		0.513	mg/kg	EPA 6010B	EPA 3050B
Lead	18.5		0.513	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.07		0.256	mg/kg	EPA 6010B	EPA 3050B
Vanadium	9.41		0.256	mg/kg	EPA 6010B	EPA 3050B
Zinc	9.45		1.03	mg/kg	EPA 6010B	EPA 3050B
B-4-5 (14-06-0885-12)						
Arsenic	2.13		0.718	mg/kg	EPA 6010B	EPA 3050B
Barium	5.89		0.478	mg/kg	EPA 6010B	EPA 3050B
Chromium	2.50		0.239	mg/kg	EPA 6010B	EPA 3050B
Cobalt	1.32		0.239	mg/kg	EPA 6010B	EPA 3050B
Copper	1.64		0.478	mg/kg	EPA 6010B	EPA 3050B
Lead	1.49		0.478	mg/kg	EPA 6010B	EPA 3050B
Nickel	1.07		0.239	mg/kg	EPA 6010B	EPA 3050B
Vanadium	8.82		0.239	mg/kg	EPA 6010B	EPA 3050B
Zinc	6.19		0.957	mg/kg	EPA 6010B	EPA 3050B

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	GC 48	06/13/14	06/13/14 16:42	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	93	61-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	GC 48	06/13/14	06/13/14 16:57	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	102	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	GC 48	06/13/14	06/13/14 17:13	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	GC 48	06/13/14	06/13/14 17:30	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	86	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	GC 48	06/13/14	06/13/14 17:46	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	GC 48	06/13/14	06/13/14 18:01	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	95	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	GC 48	06/13/14	06/13/14 18:17	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.1	1.00	
C7	ND	5.1	1.00	
C8	ND	5.1	1.00	
C9-C10	ND	5.1	1.00	
C11-C12	ND	5.1	1.00	
C13-C14	ND	5.1	1.00	
C15-C16	ND	5.1	1.00	
C17-C18	ND	5.1	1.00	
C19-C20	ND	5.1	1.00	
C21-C22	ND	5.1	1.00	
C23-C24	ND	5.1	1.00	
C25-C28	ND	5.1	1.00	
C29-C32	ND	5.1	1.00	
C33-C36	ND	5.1	1.00	
C37-C40	ND	5.1	1.00	
C41-C44	ND	5.1	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	76	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	GC 48	06/13/14	06/13/14 18:49	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	GC 48	06/13/14	06/13/14 19:05	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	85	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	GC 48	06/13/14	06/13/14 19:21	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	80	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	GC 48	06/13/14	06/13/14 19:37	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	87	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	GC 48	06/13/14	06/13/14 19:53	140613B02A

Comment(s): - The total concentration includes individual carbon range concentrations (estimated), if any, below the RL reported as ND.

Parameter	Result	RL	DF	Qualifiers
C6	ND	4.9	1.00	
C7	ND	4.9	1.00	
C8	ND	4.9	1.00	
C9-C10	ND	4.9	1.00	
C11-C12	ND	4.9	1.00	
C13-C14	ND	4.9	1.00	
C15-C16	ND	4.9	1.00	
C17-C18	ND	4.9	1.00	
C19-C20	ND	4.9	1.00	
C21-C22	ND	4.9	1.00	
C23-C24	ND	4.9	1.00	
C25-C28	ND	4.9	1.00	
C29-C32	ND	4.9	1.00	
C33-C36	ND	4.9	1.00	
C37-C40	ND	4.9	1.00	
C41-C44	ND	4.9	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	89	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-15-490-953	N/A	Solid	GC 48	06/13/14	06/13/14 14:51	140613B02A

Parameter	Result	RL	DF	Qualifiers
C6	ND	5.0	1.00	
C7	ND	5.0	1.00	
C8	ND	5.0	1.00	
C9-C10	ND	5.0	1.00	
C11-C12	ND	5.0	1.00	
C13-C14	ND	5.0	1.00	
C15-C16	ND	5.0	1.00	
C17-C18	ND	5.0	1.00	
C19-C20	ND	5.0	1.00	
C21-C22	ND	5.0	1.00	
C23-C24	ND	5.0	1.00	
C25-C28	ND	5.0	1.00	
C29-C32	ND	5.0	1.00	
C33-C36	ND	5.0	1.00	
C37-C40	ND	5.0	1.00	
C41-C44	ND	5.0	1.00	
C6-C44 Total	ND	5.0	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
n-Octacosane	121	61-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	GC 1	06/12/14	06/12/14 18:50	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.48		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		84		42-126			
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	GC 29	06/12/14	06/13/14 18:58	140613L030
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.49		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		84		42-126			
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	GC 29	06/12/14	06/13/14 19:34	140613L030
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		84		42-126			
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	GC 1	06/12/14	06/12/14 20:37	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.52		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		80		42-126			
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	GC 1	06/12/14	06/12/14 21:13	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.49		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		83		42-126			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	GC 1	06/12/14	06/12/14 21:49	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		78		42-126			
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	GC 1	06/12/14	06/12/14 23:01	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.49		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		83		42-126			
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	GC 1	06/12/14	06/12/14 23:36	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.49		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		81		42-126			
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	GC 1	06/12/14	06/13/14 00:12	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.48		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		82		42-126			
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	GC 1	06/12/14	06/13/14 00:48	140612L042
Parameter		Result		RL		DF	Qualifiers
TPH as Gasoline		ND		0.48		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
1,4-Bromofluorobenzene - FID		81		42-126			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	GC 1	06/12/14	06/13/14 01:24	140612L042

Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	76	42-126	

B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	GC 1	06/12/14	06/13/14 01:59	140612L042
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	88	42-126	

Method Blank	099-14-571-1669	N/A	Solid	GC 1	06/12/14	06/12/14 13:25	140612L042
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	84	42-126	

Method Blank	099-14-571-1672	N/A	Solid	GC 29	06/13/14	06/13/14 14:11	140613L030
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Parameter	Result	RL	DF	Qualifiers
TPH as Gasoline	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
1,4-Bromofluorobenzene - FID	84	42-126	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	ICP 7300	06/13/14	06/16/14 14:33	140613L01

Parameter	Result	RL	DF	Qualifiers
Antimony	ND	0.732	0.976	
Arsenic	4.91	0.732	0.976	
Barium	26.6	0.488	0.976	
Beryllium	ND	0.244	0.976	
Cadmium	ND	0.488	0.976	
Chromium	6.92	0.244	0.976	
Cobalt	3.43	0.244	0.976	
Copper	3.95	0.488	0.976	
Lead	4.60	0.488	0.976	
Molybdenum	ND	0.244	0.976	
Nickel	3.05	0.244	0.976	
Selenium	ND	0.732	0.976	
Silver	ND	0.244	0.976	
Thallium	ND	0.732	0.976	
Vanadium	27.1	0.244	0.976	
Zinc	17.7	0.976	0.976	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	ICP 7300	06/13/14	06/16/14 14:34	140613L01
Parameter		Result	RL		DF		Qualifiers
Antimony		ND	0.714		0.952		
Arsenic		1.52	0.714		0.952		
Barium		25.2	0.476		0.952		
Beryllium		ND	0.238		0.952		
Cadmium		ND	0.476		0.952		
Chromium		3.42	0.238		0.952		
Cobalt		1.57	0.238		0.952		
Copper		1.08	0.476		0.952		
Lead		0.845	0.476		0.952		
Molybdenum		ND	0.238		0.952		
Nickel		1.30	0.238		0.952		
Selenium		ND	0.714		0.952		
Silver		ND	0.238		0.952		
Thallium		ND	0.714		0.952		
Vanadium		10.8	0.238		0.952		
Zinc		7.48	0.952		0.952		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	ICP 7300	06/13/14	06/16/14 14:36	140613L01
Parameter		Result	RL		DF		Qualifiers
Antimony		ND	0.754		1.01		
Arsenic		0.971	0.754		1.01		
Barium		6.32	0.503		1.01		
Beryllium		ND	0.251		1.01		
Cadmium		ND	0.503		1.01		
Chromium		1.73	0.251		1.01		
Cobalt		0.793	0.251		1.01		
Copper		0.907	0.503		1.01		
Lead		1.14	0.503		1.01		
Molybdenum		ND	0.251		1.01		
Nickel		0.711	0.251		1.01		
Selenium		ND	0.754		1.01		
Silver		ND	0.251		1.01		
Thallium		ND	0.754		1.01		
Vanadium		5.88	0.251		1.01		
Zinc		3.92	1.01		1.01		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	ICP 7300	06/13/14	06/16/14 14:37	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.718	0.957			
Arsenic		3.68	0.718	0.957			
Barium		66.1	0.478	0.957			
Beryllium		ND	0.239	0.957			
Cadmium		ND	0.478	0.957			
Chromium		5.51	0.239	0.957			
Cobalt		3.62	0.239	0.957			
Copper		2.19	0.478	0.957			
Lead		2.76	0.478	0.957			
Molybdenum		ND	0.239	0.957			
Nickel		2.12	0.239	0.957			
Selenium		ND	0.718	0.957			
Silver		ND	0.239	0.957			
Thallium		ND	0.718	0.957			
Vanadium		22.7	0.239	0.957			
Zinc		20.6	0.957	0.957			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	ICP 7300	06/13/14	06/16/14 14:38	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.769	1.03			
Arsenic		1.51	0.769	1.03			
Barium		25.3	0.513	1.03			
Beryllium		ND	0.256	1.03			
Cadmium		ND	0.513	1.03			
Chromium		6.93	0.256	1.03			
Cobalt		3.55	0.256	1.03			
Copper		27.1	0.513	1.03			
Lead		2.67	0.513	1.03			
Molybdenum		ND	0.256	1.03			
Nickel		7.89	0.256	1.03			
Selenium		ND	0.769	1.03			
Silver		ND	0.256	1.03			
Thallium		ND	0.769	1.03			
Vanadium		18.7	0.256	1.03			
Zinc		110	1.03	1.03			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	ICP 7300	06/13/14	06/16/14 14:40	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.746	0.995			
Arsenic		1.05	0.746	0.995			
Barium		14.6	0.498	0.995			
Beryllium		ND	0.249	0.995			
Cadmium		ND	0.498	0.995			
Chromium		3.98	0.249	0.995			
Cobalt		2.14	0.249	0.995			
Copper		5.03	0.498	0.995			
Lead		5.26	0.498	0.995			
Molybdenum		ND	0.249	0.995			
Nickel		1.69	0.249	0.995			
Selenium		ND	0.746	0.995			
Silver		ND	0.249	0.995			
Thallium		ND	0.746	0.995			
Vanadium		11.7	0.249	0.995			
Zinc		12.1	0.995	0.995			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	ICP 7300	06/13/14	06/16/14 14:46	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.758	1.01			
Arsenic		1.38	0.758	1.01			
Barium		15.9	0.505	1.01			
Beryllium		ND	0.253	1.01			
Cadmium		ND	0.505	1.01			
Chromium		3.39	0.253	1.01			
Cobalt		1.68	0.253	1.01			
Copper		3.54	0.505	1.01			
Lead		4.40	0.505	1.01			
Molybdenum		ND	0.253	1.01			
Nickel		1.43	0.253	1.01			
Selenium		ND	0.758	1.01			
Silver		ND	0.253	1.01			
Thallium		ND	0.758	1.01			
Vanadium		11.0	0.253	1.01			
Zinc		9.26	1.01	1.01			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	ICP 7300	06/13/14	06/16/14 14:47	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.750	1.00			
Arsenic		1.73	0.750	1.00			
Barium		25.7	0.500	1.00			
Beryllium		ND	0.250	1.00			
Cadmium		ND	0.500	1.00			
Chromium		2.47	0.250	1.00			
Cobalt		1.96	0.250	1.00			
Copper		3.99	0.500	1.00			
Lead		17.0	0.500	1.00			
Molybdenum		ND	0.250	1.00			
Nickel		1.43	0.250	1.00			
Selenium		ND	0.750	1.00			
Silver		ND	0.250	1.00			
Thallium		ND	0.750	1.00			
Vanadium		10.6	0.250	1.00			
Zinc		11.2	1.00	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	ICP 7300	06/13/14	06/16/14 14:48	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.761	1.02			
Arsenic		0.891	0.761	1.02			
Barium		9.04	0.508	1.02			
Beryllium		ND	0.254	1.02			
Cadmium		ND	0.508	1.02			
Chromium		2.21	0.254	1.02			
Cobalt		0.891	0.254	1.02			
Copper		4.79	0.508	1.02			
Lead		6.95	0.508	1.02			
Molybdenum		ND	0.254	1.02			
Nickel		0.907	0.254	1.02			
Selenium		ND	0.761	1.02			
Silver		ND	0.254	1.02			
Thallium		ND	0.761	1.02			
Vanadium		7.48	0.254	1.02			
Zinc		8.59	1.02	1.02			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	ICP 7300	06/13/14	06/16/14 14:50	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.746	0.995			
Arsenic		2.34	0.746	0.995			
Barium		44.6	0.498	0.995			
Beryllium		ND	0.249	0.995			
Cadmium		ND	0.498	0.995			
Chromium		8.39	0.249	0.995			
Cobalt		4.38	0.249	0.995			
Copper		4.71	0.498	0.995			
Lead		3.17	0.498	0.995			
Molybdenum		ND	0.249	0.995			
Nickel		3.47	0.249	0.995			
Selenium		ND	0.746	0.995			
Silver		ND	0.249	0.995			
Thallium		ND	0.746	0.995			
Vanadium		27.2	0.249	0.995			
Zinc		18.9	0.995	0.995			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	ICP 7300	06/13/14	06/16/14 14:51	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.769	1.03			
Arsenic		1.56	0.769	1.03			
Barium		9.90	0.513	1.03			
Beryllium		ND	0.256	1.03			
Cadmium		ND	0.513	1.03			
Chromium		3.00	0.256	1.03			
Cobalt		1.38	0.256	1.03			
Copper		1.44	0.513	1.03			
Lead		18.5	0.513	1.03			
Molybdenum		ND	0.256	1.03			
Nickel		1.07	0.256	1.03			
Selenium		ND	0.769	1.03			
Silver		ND	0.256	1.03			
Thallium		ND	0.769	1.03			
Vanadium		9.41	0.256	1.03			
Zinc		9.45	1.03	1.03			

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	ICP 7300	06/13/14	06/16/14 14:52	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.718	0.957			
Arsenic		2.13	0.718	0.957			
Barium		5.89	0.478	0.957			
Beryllium		ND	0.239	0.957			
Cadmium		ND	0.478	0.957			
Chromium		2.50	0.239	0.957			
Cobalt		1.32	0.239	0.957			
Copper		1.64	0.478	0.957			
Lead		1.49	0.478	0.957			
Molybdenum		ND	0.239	0.957			
Nickel		1.07	0.239	0.957			
Selenium		ND	0.718	0.957			
Silver		ND	0.239	0.957			
Thallium		ND	0.718	0.957			
Vanadium		8.82	0.239	0.957			
Zinc		6.19	0.957	0.957			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3050B
Method: EPA 6010B
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	097-01-002-18488	N/A	Solid	ICP 7300	06/13/14	06/16/14 14:27	140613L01
Parameter		Result	RL	DF	Qualifiers		
Antimony		ND	0.750	1.00			
Arsenic		ND	0.750	1.00			
Barium		ND	0.500	1.00			
Beryllium		ND	0.250	1.00			
Cadmium		ND	0.500	1.00			
Chromium		ND	0.250	1.00			
Cobalt		ND	0.250	1.00			
Copper		ND	0.500	1.00			
Lead		ND	0.500	1.00			
Molybdenum		ND	0.250	1.00			
Nickel		ND	0.250	1.00			
Selenium		ND	0.750	1.00			
Silver		ND	0.250	1.00			
Thallium		ND	0.750	1.00			
Vanadium		ND	0.250	1.00			
Zinc		ND	1.00	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	Mercury 05	06/17/14	06/17/14 20:34	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0820	1.00			
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	Mercury 05	06/17/14	06/17/14 20:36	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0833	1.00			
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	Mercury 05	06/17/14	06/17/14 20:38	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0781	1.00			
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	Mercury 05	06/17/14	06/17/14 20:41	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0794	1.00			
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	Mercury 05	06/17/14	06/17/14 20:43	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		0.110	0.0806	1.00			
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	Mercury 05	06/17/14	06/17/14 20:49	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0877	1.00			
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	Mercury 05	06/17/14	06/17/14 20:52	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0862	1.00			
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	Mercury 05	06/17/14	06/17/14 20:27	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0833	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 7471A Total
Method: EPA 7471A
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	Mercury 05	06/17/14	06/17/14 20:54	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0833	1.00			
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	Mercury 05	06/17/14	06/17/14 20:56	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0806	1.00			
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	Mercury 05	06/17/14	06/17/14 20:58	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0794	1.00			
B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	Mercury 05	06/17/14	06/17/14 21:00	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0820	1.00			
Method Blank	099-16-272-313	N/A	Solid	Mercury 05	06/17/14	06/17/14 20:23	140617L04
Parameter		Result	RL	DF	Qualifiers		
Mercury		ND	0.0833	1.00			

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	GC 58	06/14/14	06/16/14 17:01	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	GC 58	06/14/14	06/16/14 17:19	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	GC 58	06/14/14	06/16/14 17:37	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	88	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	GC 58	06/14/14	06/16/14 18:13	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	GC 58	06/14/14	06/16/14 18:31	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	GC 58	06/14/14	06/16/14 18:49	140614L08
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	GC 58	06/14/14	06/16/14 19:07	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	GC 58	06/14/14	06/16/14 19:25	140614L08
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	92	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	GC 58	06/14/14	06/16/14 19:43	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	85	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	GC 58	06/14/14	06/16/14 20:01	140614L08
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	101	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	GC 58	06/17/14	06/17/14 18:13	140617L02

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	78	24-168	
2,4,5,6-Tetrachloro-m-Xylene	63	25-145	

B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	GC 58	06/14/14	06/16/14 20:37	140614L08
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	119	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-535-2691	N/A	Solid	GC 58	06/14/14	06/16/14 16:25	140614L08

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

Method Blank	099-12-535-2694	N/A	Solid	GC 58	06/17/14	06/17/14 17:37	140617L02
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	101	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	GC/MS SS	06/14/14	06/16/14 17:36	140614L01

Parameter	Result	RL	DF	Qualifiers
Acenaphthene	ND	0.50	1.00	
Acenaphthylene	ND	0.50	1.00	
Aniline	ND	0.50	1.00	
Anthracene	ND	0.50	1.00	
Azobenzene	ND	0.50	1.00	
Benidine	ND	10	1.00	
Benzo (a) Anthracene	ND	0.50	1.00	
Benzo (a) Pyrene	ND	0.50	1.00	
Benzo (b) Fluoranthene	ND	0.50	1.00	
Benzo (g,h,i) Perylene	ND	0.50	1.00	
Benzo (k) Fluoranthene	ND	0.50	1.00	
Benzoic Acid	ND	2.5	1.00	
Benzyl Alcohol	ND	0.50	1.00	
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00	
Bis(2-Chloroethyl) Ether	ND	2.5	1.00	
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00	
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00	
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00	
Butyl Benzyl Phthalate	ND	0.50	1.00	
4-Chloro-3-Methylphenol	ND	0.50	1.00	
4-Chloroaniline	ND	0.50	1.00	
2-Chloronaphthalene	ND	0.50	1.00	
2-Chlorophenol	ND	0.50	1.00	
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00	
Chrysene	ND	0.50	1.00	
Di-n-Butyl Phthalate	ND	0.50	1.00	
Di-n-Octyl Phthalate	ND	0.50	1.00	
Dibenz (a,h) Anthracene	ND	0.50	1.00	
Dibenzofuran	ND	0.50	1.00	
1,2-Dichlorobenzene	ND	0.50	1.00	
1,3-Dichlorobenzene	ND	0.50	1.00	
1,4-Dichlorobenzene	ND	0.50	1.00	
3,3'-Dichlorobenzidine	ND	10	1.00	
2,4-Dichlorophenol	ND	0.50	1.00	
Diethyl Phthalate	ND	0.50	1.00	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	53	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	55	25-120	
Nitrobenzene-d5	54	33-123	
p-Terphenyl-d14	79	27-159	
Phenol-d6	66	26-122	
2,4,6-Tribromophenol	88	18-138	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	GC/MS SS	06/14/14	06/17/14 16:31	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	79	27-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	61	25-120	
Nitrobenzene-d5	63	33-123	
p-Terphenyl-d14	84	27-159	
Phenol-d6	69	26-122	
2,4,6-Tribromophenol	76	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	GC/MS SS	06/14/14	06/16/14 18:13	140614L01
Parameter		Result	RL	DF		Qualifiers	
Acenaphthene		ND	0.50	1.00			
Acenaphthylene		ND	0.50	1.00			
Aniline		ND	0.50	1.00			
Anthracene		ND	0.50	1.00			
Azobenzene		ND	0.50	1.00			
Benzidine		ND	10	1.00			
Benzo (a) Anthracene		ND	0.50	1.00			
Benzo (a) Pyrene		ND	0.50	1.00			
Benzo (b) Fluoranthene		ND	0.50	1.00			
Benzo (g,h,i) Perylene		ND	0.50	1.00			
Benzo (k) Fluoranthene		ND	0.50	1.00			
Benzoic Acid		ND	2.5	1.00			
Benzyl Alcohol		ND	0.50	1.00			
Bis(2-Chloroethoxy) Methane		ND	0.50	1.00			
Bis(2-Chloroethyl) Ether		ND	2.5	1.00			
Bis(2-Chloroisopropyl) Ether		ND	0.50	1.00			
Bis(2-Ethylhexyl) Phthalate		ND	0.50	1.00			
4-Bromophenyl-Phenyl Ether		ND	0.50	1.00			
Butyl Benzyl Phthalate		ND	0.50	1.00			
4-Chloro-3-Methylphenol		ND	0.50	1.00			
4-Chloroaniline		ND	0.50	1.00			
2-Chloronaphthalene		ND	0.50	1.00			
2-Chlorophenol		ND	0.50	1.00			
4-Chlorophenyl-Phenyl Ether		ND	0.50	1.00			
Chrysene		ND	0.50	1.00			
Di-n-Butyl Phthalate		ND	0.50	1.00			
Di-n-Octyl Phthalate		ND	0.50	1.00			
Dibenz (a,h) Anthracene		ND	0.50	1.00			
Dibenzofuran		ND	0.50	1.00			
1,2-Dichlorobenzene		ND	0.50	1.00			
1,3-Dichlorobenzene		ND	0.50	1.00			
1,4-Dichlorobenzene		ND	0.50	1.00			
3,3'-Dichlorobenzidine		ND	10	1.00			
2,4-Dichlorophenol		ND	0.50	1.00			
Diethyl Phthalate		ND	0.50	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	80	25-120	
Nitrobenzene-d5	75	33-123	
p-Terphenyl-d14	77	27-159	
Phenol-d6	89	26-122	
2,4,6-Tribromophenol	90	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	GC/MS SS	06/14/14	06/17/14 17:09	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	86	27-120		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	80	25-120	
Nitrobenzene-d5	80	33-123	
p-Terphenyl-d14	85	27-159	
Phenol-d6	77	26-122	
2,4,6-Tribromophenol	84	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	GC/MS SS	06/14/14	06/16/14 18:51	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	45	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	48	25-120	
Nitrobenzene-d5	42	33-123	
p-Terphenyl-d14	79	27-159	
Phenol-d6	63	26-122	
2,4,6-Tribromophenol	76	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	GC/MS SS	06/14/14	06/16/14 19:10	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	45	27-120		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	50	25-120	
Nitrobenzene-d5	47	33-123	
p-Terphenyl-d14	61	27-159	
Phenol-d6	54	26-122	
2,4,6-Tribromophenol	59	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	GC/MS SS	06/14/14	06/16/14 19:28	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	59	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	57	25-120	
Nitrobenzene-d5	52	33-123	
p-Terphenyl-d14	77	27-159	
Phenol-d6	70	26-122	
2,4,6-Tribromophenol	77	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	GC/MS SS	06/14/14	06/16/14 19:47	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	80	27-120		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	67	25-120	
Nitrobenzene-d5	66	33-123	
p-Terphenyl-d14	81	27-159	
Phenol-d6	79	26-122	
2,4,6-Tribromophenol	89	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	GC/MS SS	06/14/14	06/16/14 20:06	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	63	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	54	25-120	
Nitrobenzene-d5	52	33-123	
p-Terphenyl-d14	70	27-159	
Phenol-d6	62	26-122	
2,4,6-Tribromophenol	83	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	GC/MS SS	06/14/14	06/16/14 20:25	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	75	27-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	62	25-120	
Nitrobenzene-d5	62	33-123	
p-Terphenyl-d14	80	27-159	
Phenol-d6	75	26-122	
2,4,6-Tribromophenol	89	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	GC/MS SS	06/14/14	06/16/14 20:43	140614L01
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Acenaphthene		ND	0.50	1.00			
Acenaphthylene		ND	0.50	1.00			
Aniline		ND	0.50	1.00			
Anthracene		ND	0.50	1.00			
Azobenzene		ND	0.50	1.00			
Benzidine		ND	10	1.00			
Benzo (a) Anthracene		ND	0.50	1.00			
Benzo (a) Pyrene		ND	0.50	1.00			
Benzo (b) Fluoranthene		ND	0.50	1.00			
Benzo (g,h,i) Perylene		ND	0.50	1.00			
Benzo (k) Fluoranthene		ND	0.50	1.00			
Benzoic Acid		ND	2.5	1.00			
Benzyl Alcohol		ND	0.50	1.00			
Bis(2-Chloroethoxy) Methane		ND	0.50	1.00			
Bis(2-Chloroethyl) Ether		ND	2.5	1.00			
Bis(2-Chloroisopropyl) Ether		ND	0.50	1.00			
Bis(2-Ethylhexyl) Phthalate		ND	0.50	1.00			
4-Bromophenyl-Phenyl Ether		ND	0.50	1.00			
Butyl Benzyl Phthalate		ND	0.50	1.00			
4-Chloro-3-Methylphenol		ND	0.50	1.00			
4-Chloroaniline		ND	0.50	1.00			
2-Chloronaphthalene		ND	0.50	1.00			
2-Chlorophenol		ND	0.50	1.00			
4-Chlorophenyl-Phenyl Ether		ND	0.50	1.00			
Chrysene		ND	0.50	1.00			
Di-n-Butyl Phthalate		ND	0.50	1.00			
Di-n-Octyl Phthalate		ND	0.50	1.00			
Dibenz (a,h) Anthracene		ND	0.50	1.00			
Dibenzofuran		ND	0.50	1.00			
1,2-Dichlorobenzene		ND	0.50	1.00			
1,3-Dichlorobenzene		ND	0.50	1.00			
1,4-Dichlorobenzene		ND	0.50	1.00			
3,3'-Dichlorobenzidine		ND	10	1.00			
2,4-Dichlorophenol		ND	0.50	1.00			
Diethyl Phthalate		ND	0.50	1.00			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	74	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	60	25-120	
Nitrobenzene-d5	61	33-123	
p-Terphenyl-d14	74	27-159	
Phenol-d6	65	26-122	
2,4,6-Tribromophenol	82	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	GC/MS SS	06/14/14	06/16/14 21:02	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C
 Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
2-Fluorobiphenyl	76	27-120		

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	69	25-120	
Nitrobenzene-d5	64	33-123	
p-Terphenyl-d14	70	27-159	
Phenol-d6	75	26-122	
2,4,6-Tribromophenol	74	18-138	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-549-2960	N/A	Solid	GC/MS SS	06/14/14	06/16/14 12:16	140614L01
Parameter	Result	RL	DF	Qualifiers			
Acenaphthene	ND	0.50	1.00				
Acenaphthylene	ND	0.50	1.00				
Aniline	ND	0.50	1.00				
Anthracene	ND	0.50	1.00				
Azobenzene	ND	0.50	1.00				
Benzidine	ND	10	1.00				
Benzo (a) Anthracene	ND	0.50	1.00				
Benzo (a) Pyrene	ND	0.50	1.00				
Benzo (b) Fluoranthene	ND	0.50	1.00				
Benzo (g,h,i) Perylene	ND	0.50	1.00				
Benzo (k) Fluoranthene	ND	0.50	1.00				
Benzoic Acid	ND	2.5	1.00				
Benzyl Alcohol	ND	0.50	1.00				
Bis(2-Chloroethoxy) Methane	ND	0.50	1.00				
Bis(2-Chloroethyl) Ether	ND	2.5	1.00				
Bis(2-Chloroisopropyl) Ether	ND	0.50	1.00				
Bis(2-Ethylhexyl) Phthalate	ND	0.50	1.00				
4-Bromophenyl-Phenyl Ether	ND	0.50	1.00				
Butyl Benzyl Phthalate	ND	0.50	1.00				
4-Chloro-3-Methylphenol	ND	0.50	1.00				
4-Chloroaniline	ND	0.50	1.00				
2-Chloronaphthalene	ND	0.50	1.00				
2-Chlorophenol	ND	0.50	1.00				
4-Chlorophenyl-Phenyl Ether	ND	0.50	1.00				
Chrysene	ND	0.50	1.00				
Di-n-Butyl Phthalate	ND	0.50	1.00				
Di-n-Octyl Phthalate	ND	0.50	1.00				
Dibenz (a,h) Anthracene	ND	0.50	1.00				
Dibenzofuran	ND	0.50	1.00				
1,2-Dichlorobenzene	ND	0.50	1.00				
1,3-Dichlorobenzene	ND	0.50	1.00				
1,4-Dichlorobenzene	ND	0.50	1.00				
3,3'-Dichlorobenzidine	ND	10	1.00				
2,4-Dichlorophenol	ND	0.50	1.00				
Diethyl Phthalate	ND	0.50	1.00				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
Dimethyl Phthalate	ND	0.50	1.00	
2,4-Dimethylphenol	ND	0.50	1.00	
4,6-Dinitro-2-Methylphenol	ND	2.5	1.00	
2,4-Dinitrophenol	ND	2.5	1.00	
2,4-Dinitrotoluene	ND	0.50	1.00	
2,6-Dinitrotoluene	ND	0.50	1.00	
Fluoranthene	ND	0.50	1.00	
Fluorene	ND	0.50	1.00	
Hexachloro-1,3-Butadiene	ND	0.50	1.00	
Hexachlorobenzene	ND	0.50	1.00	
Hexachlorocyclopentadiene	ND	2.5	1.00	
Hexachloroethane	ND	0.50	1.00	
Indeno (1,2,3-c,d) Pyrene	ND	0.50	1.00	
Isophorone	ND	0.50	1.00	
2-Methylnaphthalene	ND	0.50	1.00	
1-Methylnaphthalene	ND	0.50	1.00	
2-Methylphenol	ND	0.50	1.00	
3/4-Methylphenol	ND	0.50	1.00	
N-Nitroso-di-n-propylamine	ND	0.50	1.00	
N-Nitrosodimethylamine	ND	0.50	1.00	
N-Nitrosodiphenylamine	ND	0.50	1.00	
Naphthalene	ND	0.50	1.00	
4-Nitroaniline	ND	0.50	1.00	
3-Nitroaniline	ND	0.50	1.00	
2-Nitroaniline	ND	0.50	1.00	
Nitrobenzene	ND	2.5	1.00	
4-Nitrophenol	ND	0.50	1.00	
2-Nitrophenol	ND	0.50	1.00	
Pentachlorophenol	ND	2.5	1.00	
Phenanthrene	ND	0.50	1.00	
Phenol	ND	0.50	1.00	
Pyrene	ND	0.50	1.00	
Pyridine	ND	0.50	1.00	
1,2,4-Trichlorobenzene	ND	0.50	1.00	
2,4,6-Trichlorophenol	ND	0.50	1.00	
2,4,5-Trichlorophenol	ND	0.50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorobiphenyl	84	27-120	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8270C
Units: mg/kg

Project: TAMT - Transit Shed 2 / 107742002

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Surrogate	Rec. (%)	Control Limits	Qualifiers
2-Fluorophenol	84	25-120	
Nitrobenzene-d5	77	33-123	
p-Terphenyl-d14	87	27-159	
Phenol-d6	84	26-122	
2,4,6-Tribromophenol	87	18-138	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-1.5	14-06-0885-1-A	06/10/14 13:36	Solid	GC/MS Q	06/12/14	06/12/14 16:07	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.1	1.00				
Bromobenzene	ND	5.1	1.00				
Bromochloromethane	ND	5.1	1.00				
Bromodichloromethane	ND	5.1	1.00				
Bromoform	ND	5.1	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	51	1.00				
n-Butylbenzene	ND	5.1	1.00				
sec-Butylbenzene	ND	5.1	1.00				
tert-Butylbenzene	ND	5.1	1.00				
Carbon Disulfide	ND	51	1.00				
Carbon Tetrachloride	ND	5.1	1.00				
Chlorobenzene	ND	5.1	1.00				
Chloroethane	ND	5.1	1.00				
Chloroform	ND	5.1	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.1	1.00				
4-Chlorotoluene	ND	5.1	1.00				
Dibromochloromethane	ND	5.1	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.1	1.00				
Dibromomethane	ND	5.1	1.00				
1,2-Dichlorobenzene	ND	5.1	1.00				
1,3-Dichlorobenzene	ND	5.1	1.00				
1,4-Dichlorobenzene	ND	5.1	1.00				
Dichlorodifluoromethane	ND	5.1	1.00				
1,1-Dichloroethane	ND	5.1	1.00				
1,2-Dichloroethane	ND	5.1	1.00				
1,1-Dichloroethene	ND	5.1	1.00				
c-1,2-Dichloroethene	ND	5.1	1.00				
t-1,2-Dichloroethene	ND	5.1	1.00				
1,2-Dichloropropane	ND	5.1	1.00				
1,3-Dichloropropane	ND	5.1	1.00				
2,2-Dichloropropane	ND	5.1	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	97	63-141		
1,2-Dichloroethane-d4	93	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-6.5	14-06-0885-2-A	06/10/14 13:48	Solid	GC/MS Q	06/12/14	06/12/14 19:10	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.1	1.00				
Bromobenzene	ND	5.1	1.00				
Bromochloromethane	ND	5.1	1.00				
Bromodichloromethane	ND	5.1	1.00				
Bromoform	ND	5.1	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	51	1.00				
n-Butylbenzene	ND	5.1	1.00				
sec-Butylbenzene	ND	5.1	1.00				
tert-Butylbenzene	ND	5.1	1.00				
Carbon Disulfide	ND	51	1.00				
Carbon Tetrachloride	ND	5.1	1.00				
Chlorobenzene	ND	5.1	1.00				
Chloroethane	ND	5.1	1.00				
Chloroform	ND	5.1	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.1	1.00				
4-Chlorotoluene	ND	5.1	1.00				
Dibromochloromethane	ND	5.1	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.1	1.00				
Dibromomethane	ND	5.1	1.00				
1,2-Dichlorobenzene	ND	5.1	1.00				
1,3-Dichlorobenzene	ND	5.1	1.00				
1,4-Dichlorobenzene	ND	5.1	1.00				
Dichlorodifluoromethane	ND	5.1	1.00				
1,1-Dichloroethane	ND	5.1	1.00				
1,2-Dichloroethane	ND	5.1	1.00				
1,1-Dichloroethene	ND	5.1	1.00				
c-1,2-Dichloroethene	ND	5.1	1.00				
t-1,2-Dichloroethene	ND	5.1	1.00				
1,2-Dichloropropane	ND	5.1	1.00				
1,3-Dichloropropane	ND	5.1	1.00				
2,2-Dichloropropane	ND	5.1	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	92	60-132		
Dibromofluoromethane	98	63-141		
1,2-Dichloroethane-d4	94	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1-9	14-06-0885-3-A	06/10/14 13:53	Solid	GC/MS Q	06/12/14	06/12/14 20:28	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	96	63-141		
1,2-Dichloroethane-d4	89	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-0.5	14-06-0885-4-A	06/10/14 14:10	Solid	GC/MS Q	06/12/14	06/12/14 20:54	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	4.9	1.00				
Bromobenzene	ND	4.9	1.00				
Bromochloromethane	ND	4.9	1.00				
Bromodichloromethane	ND	4.9	1.00				
Bromoform	ND	4.9	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	49	1.00				
n-Butylbenzene	ND	4.9	1.00				
sec-Butylbenzene	ND	4.9	1.00				
tert-Butylbenzene	ND	4.9	1.00				
Carbon Disulfide	ND	49	1.00				
Carbon Tetrachloride	ND	4.9	1.00				
Chlorobenzene	ND	4.9	1.00				
Chloroethane	ND	4.9	1.00				
Chloroform	ND	4.9	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	4.9	1.00				
4-Chlorotoluene	ND	4.9	1.00				
Dibromochloromethane	ND	4.9	1.00				
1,2-Dibromo-3-Chloropropane	ND	9.9	1.00				
1,2-Dibromoethane	ND	4.9	1.00				
Dibromomethane	ND	4.9	1.00				
1,2-Dichlorobenzene	ND	4.9	1.00				
1,3-Dichlorobenzene	ND	4.9	1.00				
1,4-Dichlorobenzene	ND	4.9	1.00				
Dichlorodifluoromethane	ND	4.9	1.00				
1,1-Dichloroethane	ND	4.9	1.00				
1,2-Dichloroethane	ND	4.9	1.00				
1,1-Dichloroethene	ND	4.9	1.00				
c-1,2-Dichloroethene	ND	4.9	1.00				
t-1,2-Dichloroethene	ND	4.9	1.00				
1,2-Dichloropropane	ND	4.9	1.00				
1,3-Dichloropropane	ND	4.9	1.00				
2,2-Dichloropropane	ND	4.9	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	4.9	1.00	
c-1,3-Dichloropropene	ND	4.9	1.00	
t-1,3-Dichloropropene	ND	4.9	1.00	
Ethylbenzene	ND	4.9	1.00	
2-Hexanone	ND	49	1.00	
Isopropylbenzene	ND	4.9	1.00	
p-Isopropyltoluene	ND	4.9	1.00	
Methylene Chloride	ND	49	1.00	
4-Methyl-2-Pentanone	ND	49	1.00	
Naphthalene	ND	49	1.00	
n-Propylbenzene	ND	4.9	1.00	
Styrene	ND	4.9	1.00	
1,1,1,2-Tetrachloroethane	ND	4.9	1.00	
1,1,2,2-Tetrachloroethane	ND	4.9	1.00	
Tetrachloroethene	ND	4.9	1.00	
Toluene	ND	4.9	1.00	
1,2,3-Trichlorobenzene	ND	9.9	1.00	
1,2,4-Trichlorobenzene	ND	4.9	1.00	
1,1,1-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloroethane	ND	4.9	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	49	1.00	
Trichloroethene	ND	4.9	1.00	
1,2,3-Trichloropropane	ND	4.9	1.00	
1,2,4-Trimethylbenzene	ND	4.9	1.00	
Trichlorofluoromethane	ND	49	1.00	
1,3,5-Trimethylbenzene	ND	4.9	1.00	
Vinyl Acetate	ND	49	1.00	
Vinyl Chloride	ND	4.9	1.00	
p/m-Xylene	ND	4.9	1.00	
o-Xylene	ND	4.9	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	4.9	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	90	60-132		
Dibromofluoromethane	99	63-141		
1,2-Dichloroethane-d4	91	62-146		
Toluene-d8	98	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-4	14-06-0885-5-A	06/10/14 14:14	Solid	GC/MS Q	06/12/14	06/12/14 21:19	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	9.9	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	9.9	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	101	63-141		
1,2-Dichloroethane-d4	96	62-146		
Toluene-d8	100	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2-6	14-06-0885-6-A	06/10/14 14:20	Solid	GC/MS Q	06/12/14	06/12/14 21:45	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.1	1.00				
Bromobenzene	ND	5.1	1.00				
Bromochloromethane	ND	5.1	1.00				
Bromodichloromethane	ND	5.1	1.00				
Bromoform	ND	5.1	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	51	1.00				
n-Butylbenzene	ND	5.1	1.00				
sec-Butylbenzene	ND	5.1	1.00				
tert-Butylbenzene	ND	5.1	1.00				
Carbon Disulfide	ND	51	1.00				
Carbon Tetrachloride	ND	5.1	1.00				
Chlorobenzene	ND	5.1	1.00				
Chloroethane	ND	5.1	1.00				
Chloroform	ND	5.1	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.1	1.00				
4-Chlorotoluene	ND	5.1	1.00				
Dibromochloromethane	ND	5.1	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.1	1.00				
Dibromomethane	ND	5.1	1.00				
1,2-Dichlorobenzene	ND	5.1	1.00				
1,3-Dichlorobenzene	ND	5.1	1.00				
1,4-Dichlorobenzene	ND	5.1	1.00				
Dichlorodifluoromethane	ND	5.1	1.00				
1,1-Dichloroethane	ND	5.1	1.00				
1,2-Dichloroethane	ND	5.1	1.00				
1,1-Dichloroethene	ND	5.1	1.00				
c-1,2-Dichloroethene	ND	5.1	1.00				
t-1,2-Dichloroethene	ND	5.1	1.00				
1,2-Dichloropropane	ND	5.1	1.00				
1,3-Dichloropropane	ND	5.1	1.00				
2,2-Dichloropropane	ND	5.1	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	90	60-132		
Dibromofluoromethane	100	63-141		
1,2-Dichloroethane-d4	94	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-2	14-06-0885-7-A	06/10/14 14:40	Solid	GC/MS Q	06/12/14	06/12/14 22:11	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.2	1.00				
Bromobenzene	ND	5.2	1.00				
Bromochloromethane	ND	5.2	1.00				
Bromodichloromethane	ND	5.2	1.00				
Bromoform	ND	5.2	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	52	1.00				
n-Butylbenzene	ND	5.2	1.00				
sec-Butylbenzene	ND	5.2	1.00				
tert-Butylbenzene	ND	5.2	1.00				
Carbon Disulfide	ND	52	1.00				
Carbon Tetrachloride	ND	5.2	1.00				
Chlorobenzene	ND	5.2	1.00				
Chloroethane	ND	5.2	1.00				
Chloroform	ND	5.2	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.2	1.00				
4-Chlorotoluene	ND	5.2	1.00				
Dibromochloromethane	ND	5.2	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.2	1.00				
Dibromomethane	ND	5.2	1.00				
1,2-Dichlorobenzene	ND	5.2	1.00				
1,3-Dichlorobenzene	ND	5.2	1.00				
1,4-Dichlorobenzene	ND	5.2	1.00				
Dichlorodifluoromethane	ND	5.2	1.00				
1,1-Dichloroethane	ND	5.2	1.00				
1,2-Dichloroethane	ND	5.2	1.00				
1,1-Dichloroethene	ND	5.2	1.00				
c-1,2-Dichloroethene	ND	5.2	1.00				
t-1,2-Dichloroethene	ND	5.2	1.00				
1,2-Dichloropropane	ND	5.2	1.00				
1,3-Dichloropropane	ND	5.2	1.00				
2,2-Dichloropropane	ND	5.2	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.2	1.00	
c-1,3-Dichloropropene	ND	5.2	1.00	
t-1,3-Dichloropropene	ND	5.2	1.00	
Ethylbenzene	ND	5.2	1.00	
2-Hexanone	ND	52	1.00	
Isopropylbenzene	ND	5.2	1.00	
p-Isopropyltoluene	ND	5.2	1.00	
Methylene Chloride	ND	52	1.00	
4-Methyl-2-Pentanone	ND	52	1.00	
Naphthalene	ND	52	1.00	
n-Propylbenzene	ND	5.2	1.00	
Styrene	ND	5.2	1.00	
1,1,1,2-Tetrachloroethane	ND	5.2	1.00	
1,1,2,2-Tetrachloroethane	ND	5.2	1.00	
Tetrachloroethene	ND	5.2	1.00	
Toluene	ND	5.2	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.2	1.00	
1,1,1-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	1.00	
Trichloroethene	ND	5.2	1.00	
1,2,3-Trichloropropane	ND	5.2	1.00	
1,2,4-Trimethylbenzene	ND	5.2	1.00	
Trichlorofluoromethane	ND	52	1.00	
1,3,5-Trimethylbenzene	ND	5.2	1.00	
Vinyl Acetate	ND	52	1.00	
Vinyl Chloride	ND	5.2	1.00	
p/m-Xylene	ND	5.2	1.00	
o-Xylene	ND	5.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.2	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	100	63-141		
1,2-Dichloroethane-d4	98	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-5	14-06-0885-8-A	06/10/14 14:50	Solid	GC/MS Q	06/12/14	06/12/14 22:36	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	9.9	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	9.9	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	60-132		
Dibromofluoromethane	98	63-141		
1,2-Dichloroethane-d4	92	62-146		
Toluene-d8	98	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3-9.5	14-06-0885-9-A	06/10/14 14:58	Solid	GC/MS Q	06/12/14	06/12/14 23:03	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	9.9	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	9.9	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	100	63-141		
1,2-Dichloroethane-d4	91	62-146		
Toluene-d8	98	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-1	14-06-0885-10-A	06/10/14 15:25	Solid	GC/MS Q	06/12/14	06/12/14 23:29	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.2	1.00				
Bromobenzene	ND	5.2	1.00				
Bromochloromethane	ND	5.2	1.00				
Bromodichloromethane	ND	5.2	1.00				
Bromoform	ND	5.2	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	52	1.00				
n-Butylbenzene	ND	5.2	1.00				
sec-Butylbenzene	ND	5.2	1.00				
tert-Butylbenzene	ND	5.2	1.00				
Carbon Disulfide	ND	52	1.00				
Carbon Tetrachloride	ND	5.2	1.00				
Chlorobenzene	ND	5.2	1.00				
Chloroethane	ND	5.2	1.00				
Chloroform	ND	5.2	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.2	1.00				
4-Chlorotoluene	ND	5.2	1.00				
Dibromochloromethane	ND	5.2	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.2	1.00				
Dibromomethane	ND	5.2	1.00				
1,2-Dichlorobenzene	ND	5.2	1.00				
1,3-Dichlorobenzene	ND	5.2	1.00				
1,4-Dichlorobenzene	ND	5.2	1.00				
Dichlorodifluoromethane	ND	5.2	1.00				
1,1-Dichloroethane	ND	5.2	1.00				
1,2-Dichloroethane	ND	5.2	1.00				
1,1-Dichloroethene	ND	5.2	1.00				
c-1,2-Dichloroethene	ND	5.2	1.00				
t-1,2-Dichloroethene	ND	5.2	1.00				
1,2-Dichloropropane	ND	5.2	1.00				
1,3-Dichloropropane	ND	5.2	1.00				
2,2-Dichloropropane	ND	5.2	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.2	1.00	
c-1,3-Dichloropropene	ND	5.2	1.00	
t-1,3-Dichloropropene	ND	5.2	1.00	
Ethylbenzene	ND	5.2	1.00	
2-Hexanone	ND	52	1.00	
Isopropylbenzene	ND	5.2	1.00	
p-Isopropyltoluene	ND	5.2	1.00	
Methylene Chloride	ND	52	1.00	
4-Methyl-2-Pentanone	ND	52	1.00	
Naphthalene	ND	52	1.00	
n-Propylbenzene	ND	5.2	1.00	
Styrene	ND	5.2	1.00	
1,1,1,2-Tetrachloroethane	ND	5.2	1.00	
1,1,2,2-Tetrachloroethane	ND	5.2	1.00	
Tetrachloroethene	ND	5.2	1.00	
Toluene	ND	5.2	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.2	1.00	
1,1,1-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloroethane	ND	5.2	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	52	1.00	
Trichloroethene	ND	5.2	1.00	
1,2,3-Trichloropropane	ND	5.2	1.00	
1,2,4-Trimethylbenzene	ND	5.2	1.00	
Trichlorofluoromethane	ND	52	1.00	
1,3,5-Trimethylbenzene	ND	5.2	1.00	
Vinyl Acetate	ND	52	1.00	
Vinyl Chloride	ND	5.2	1.00	
p/m-Xylene	ND	5.2	1.00	
o-Xylene	ND	5.2	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.2	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	60-132		
Dibromofluoromethane	99	63-141		
1,2-Dichloroethane-d4	95	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-3	14-06-0885-11-A	06/10/14 15:30	Solid	GC/MS Q	06/12/14	06/12/14 23:55	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	90	60-132		
Dibromofluoromethane	100	63-141		
1,2-Dichloroethane-d4	92	62-146		
Toluene-d8	98	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-4-5	14-06-0885-12-A	06/10/14 15:30	Solid	GC/MS Q	06/12/14	06/13/14 00:21	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	130	1.00				
Benzene	ND	5.1	1.00				
Bromobenzene	ND	5.1	1.00				
Bromochloromethane	ND	5.1	1.00				
Bromodichloromethane	ND	5.1	1.00				
Bromoform	ND	5.1	1.00				
Bromomethane	ND	26	1.00				
2-Butanone	ND	51	1.00				
n-Butylbenzene	ND	5.1	1.00				
sec-Butylbenzene	ND	5.1	1.00				
tert-Butylbenzene	ND	5.1	1.00				
Carbon Disulfide	ND	51	1.00				
Carbon Tetrachloride	ND	5.1	1.00				
Chlorobenzene	ND	5.1	1.00				
Chloroethane	ND	5.1	1.00				
Chloroform	ND	5.1	1.00				
Chloromethane	ND	26	1.00				
2-Chlorotoluene	ND	5.1	1.00				
4-Chlorotoluene	ND	5.1	1.00				
Dibromochloromethane	ND	5.1	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.1	1.00				
Dibromomethane	ND	5.1	1.00				
1,2-Dichlorobenzene	ND	5.1	1.00				
1,3-Dichlorobenzene	ND	5.1	1.00				
1,4-Dichlorobenzene	ND	5.1	1.00				
Dichlorodifluoromethane	ND	5.1	1.00				
1,1-Dichloroethane	ND	5.1	1.00				
1,2-Dichloroethane	ND	5.1	1.00				
1,1-Dichloroethene	ND	5.1	1.00				
c-1,2-Dichloroethene	ND	5.1	1.00				
t-1,2-Dichloroethene	ND	5.1	1.00				
1,2-Dichloropropane	ND	5.1	1.00				
1,3-Dichloropropane	ND	5.1	1.00				
2,2-Dichloropropane	ND	5.1	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.1	1.00	
c-1,3-Dichloropropene	ND	5.1	1.00	
t-1,3-Dichloropropene	ND	5.1	1.00	
Ethylbenzene	ND	5.1	1.00	
2-Hexanone	ND	51	1.00	
Isopropylbenzene	ND	5.1	1.00	
p-Isopropyltoluene	ND	5.1	1.00	
Methylene Chloride	ND	51	1.00	
4-Methyl-2-Pentanone	ND	51	1.00	
Naphthalene	ND	51	1.00	
n-Propylbenzene	ND	5.1	1.00	
Styrene	ND	5.1	1.00	
1,1,1,2-Tetrachloroethane	ND	5.1	1.00	
1,1,2,2-Tetrachloroethane	ND	5.1	1.00	
Tetrachloroethene	ND	5.1	1.00	
Toluene	ND	5.1	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.1	1.00	
1,1,1-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloroethane	ND	5.1	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	51	1.00	
Trichloroethene	ND	5.1	1.00	
1,2,3-Trichloropropane	ND	5.1	1.00	
1,2,4-Trimethylbenzene	ND	5.1	1.00	
Trichlorofluoromethane	ND	51	1.00	
1,3,5-Trimethylbenzene	ND	5.1	1.00	
Vinyl Acetate	ND	51	1.00	
Vinyl Chloride	ND	5.1	1.00	
p/m-Xylene	ND	5.1	1.00	
o-Xylene	ND	5.1	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.1	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	89	60-132		
Dibromofluoromethane	100	63-141		
1,2-Dichloroethane-d4	93	62-146		
Toluene-d8	100	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-796-8582	N/A	Solid	GC/MS Q	06/12/14	06/12/14 15:15	140612L031
Parameter	Result	RL	DF	Qualifiers			
Acetone	ND	120	1.00				
Benzene	ND	5.0	1.00				
Bromobenzene	ND	5.0	1.00				
Bromochloromethane	ND	5.0	1.00				
Bromodichloromethane	ND	5.0	1.00				
Bromoform	ND	5.0	1.00				
Bromomethane	ND	25	1.00				
2-Butanone	ND	50	1.00				
n-Butylbenzene	ND	5.0	1.00				
sec-Butylbenzene	ND	5.0	1.00				
tert-Butylbenzene	ND	5.0	1.00				
Carbon Disulfide	ND	50	1.00				
Carbon Tetrachloride	ND	5.0	1.00				
Chlorobenzene	ND	5.0	1.00				
Chloroethane	ND	5.0	1.00				
Chloroform	ND	5.0	1.00				
Chloromethane	ND	25	1.00				
2-Chlorotoluene	ND	5.0	1.00				
4-Chlorotoluene	ND	5.0	1.00				
Dibromochloromethane	ND	5.0	1.00				
1,2-Dibromo-3-Chloropropane	ND	10	1.00				
1,2-Dibromoethane	ND	5.0	1.00				
Dibromomethane	ND	5.0	1.00				
1,2-Dichlorobenzene	ND	5.0	1.00				
1,3-Dichlorobenzene	ND	5.0	1.00				
1,4-Dichlorobenzene	ND	5.0	1.00				
Dichlorodifluoromethane	ND	5.0	1.00				
1,1-Dichloroethane	ND	5.0	1.00				
1,2-Dichloroethane	ND	5.0	1.00				
1,1-Dichloroethene	ND	5.0	1.00				
c-1,2-Dichloroethene	ND	5.0	1.00				
t-1,2-Dichloroethene	ND	5.0	1.00				
1,2-Dichloropropane	ND	5.0	1.00				
1,3-Dichloropropane	ND	5.0	1.00				
2,2-Dichloropropane	ND	5.0	1.00				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B
 Units: ug/kg

Project: TAMT - Transit Shed 2 / 107742002

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Parameter	Result	RL	DF	Qualifiers
1,1-Dichloropropene	ND	5.0	1.00	
c-1,3-Dichloropropene	ND	5.0	1.00	
t-1,3-Dichloropropene	ND	5.0	1.00	
Ethylbenzene	ND	5.0	1.00	
2-Hexanone	ND	50	1.00	
Isopropylbenzene	ND	5.0	1.00	
p-Isopropyltoluene	ND	5.0	1.00	
Methylene Chloride	ND	50	1.00	
4-Methyl-2-Pentanone	ND	50	1.00	
Naphthalene	ND	50	1.00	
n-Propylbenzene	ND	5.0	1.00	
Styrene	ND	5.0	1.00	
1,1,1,2-Tetrachloroethane	ND	5.0	1.00	
1,1,2,2-Tetrachloroethane	ND	5.0	1.00	
Tetrachloroethene	ND	5.0	1.00	
Toluene	ND	5.0	1.00	
1,2,3-Trichlorobenzene	ND	10	1.00	
1,2,4-Trichlorobenzene	ND	5.0	1.00	
1,1,1-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloroethane	ND	5.0	1.00	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	1.00	
Trichloroethene	ND	5.0	1.00	
1,2,3-Trichloropropane	ND	5.0	1.00	
1,2,4-Trimethylbenzene	ND	5.0	1.00	
Trichlorofluoromethane	ND	50	1.00	
1,3,5-Trimethylbenzene	ND	5.0	1.00	
Vinyl Acetate	ND	50	1.00	
Vinyl Chloride	ND	5.0	1.00	
p/m-Xylene	ND	5.0	1.00	
o-Xylene	ND	5.0	1.00	
Methyl-t-Butyl Ether (MTBE)	ND	5.0	1.00	
Surrogate	Rec. (%)	Control Limits	Qualifiers	
1,4-Bromofluorobenzene	91	60-132		
Dibromofluoromethane	97	63-141		
1,2-Dichloroethane-d4	93	62-146		
Toluene-d8	99	80-120		

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3550B
Method: EPA 8015B (M)

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0858-1	Sample	Solid	GC 48	06/13/14	06/13/14 15:54	140613S02
14-06-0858-1	Matrix Spike	Solid	GC 48	06/13/14	06/13/14 15:22	140613S02
14-06-0858-1	Matrix Spike Duplicate	Solid	GC 48	06/13/14	06/13/14 15:38	140613S02

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Diesel	ND	400.0	413.7	103	414.7	104	64-130	0	0-15	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0892-4	Sample	Solid	GC 1	06/12/14	06/12/14 15:13	140612S026
14-06-0892-4	Matrix Spike	Solid	GC 1	06/12/14	06/12/14 15:51	140612S026
14-06-0892-4	Matrix Spike Duplicate	Solid	GC 1	06/12/14	06/12/14 16:27	140612S026

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	0.6447	10.00	9.802	92	9.676	90	48-114	1	0-23	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8015B (M)

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-06-0996-1	Sample	Solid	GC 29	06/12/14	06/13/14 15:59	140613S018
14-06-0996-1	Matrix Spike	Solid	GC 29	06/12/14	06/13/14 16:35	140613S018
14-06-0996-1	Matrix Spike Duplicate	Solid	GC 29	06/12/14	06/13/14 17:10	140613S018

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	ND	10.00	11.00	110	10.71	107	48-114	3	0-23	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3050B
 Method: EPA 6010B

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-3-5	Sample	Solid	ICP 7300	06/13/14	06/16/14 14:47	140613S01
B-3-5	Matrix Spike	Solid	ICP 7300	06/13/14	06/16/14 14:31	140613S01
B-3-5	Matrix Spike Duplicate	Solid	ICP 7300	06/13/14	06/16/14 14:32	140613S01

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Antimony	ND	25.00	19.17	77	18.75	75	50-115	2	0-20	
Arsenic	1.728	25.00	26.92	101	26.74	100	75-125	1	0-20	
Barium	25.74	25.00	48.26	90	63.04	149	75-125	27	0-20	3,4
Beryllium	ND	25.00	25.51	102	26.37	105	75-125	3	0-20	
Cadmium	ND	25.00	24.02	96	24.29	97	75-125	1	0-20	
Chromium	2.471	25.00	28.71	105	28.45	104	75-125	1	0-20	
Cobalt	1.962	25.00	26.89	100	27.16	101	75-125	1	0-20	
Copper	3.987	25.00	29.26	101	64.42	242	75-125	75	0-20	3,4
Lead	17.04	25.00	26.83	39	50.97	136	75-125	62	0-20	3,4
Molybdenum	ND	25.00	25.31	101	25.60	102	75-125	1	0-20	
Nickel	1.429	25.00	26.34	100	26.44	100	75-125	0	0-20	
Selenium	ND	25.00	22.32	89	23.13	93	75-125	4	0-20	
Silver	ND	12.50	13.43	107	13.40	107	75-125	0	0-20	
Thallium	ND	25.00	24.14	97	24.43	98	75-125	1	0-20	
Vanadium	10.56	25.00	36.87	105	35.42	99	75-125	4	0-20	
Zinc	11.24	25.00	36.82	102	37.24	104	75-125	1	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 7471A Total
Method: EPA 7471A

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-3-5	Sample	Solid	Mercury 05	06/17/14	06/17/14 20:27	140617S04
B-3-5	Matrix Spike	Solid	Mercury 05	06/17/14	06/17/14 20:29	140617S04
B-3-5	Matrix Spike Duplicate	Solid	Mercury 05	06/17/14	06/17/14 20:32	140617S04

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Mercury	ND	0.8350	0.7140	86	0.8148	98	71-137	13	0-14	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - Spike/Spike Duplicate

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8082

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-6.5	Sample	Solid	GC 58	06/14/14	06/16/14 17:19	140614S08
B-1-6.5	Matrix Spike	Solid	GC 58	06/14/14	06/16/14 20:55	140614S08
B-1-6.5	Matrix Spike Duplicate	Solid	GC 58	06/14/14	06/16/14 21:13	140614S08

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	90.53	91	79.34	79	50-135	13	0-20	
Aroclor-1260	ND	100.0	87.52	88	91.25	91	50-135	4	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-06-1230-3	Sample	Solid	GC 58	06/17/14	06/17/14 19:07	140617S02				
14-06-1230-3	Matrix Spike	Solid	GC 58	06/17/14	06/17/14 19:25	140617S02				
14-06-1230-3	Matrix Spike Duplicate	Solid	GC 58	06/17/14	06/17/14 19:43	140617S02				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	83.73	84	82.64	83	50-135	1	0-20	
Aroclor-1260	ND	100.0	82.61	83	97.39	97	50-135	16	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
14-06-0808-1	Sample	Solid	GC/MS SS	06/14/14	06/16/14 14:46	140614S01				
14-06-0808-1	Matrix Spike	Solid	GC/MS SS	06/14/14	06/16/14 15:05	140614S01				
14-06-0808-1	Matrix Spike Duplicate	Solid	GC/MS SS	06/14/14	06/16/14 15:24	140614S01				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Acenaphthene	ND	10.00	8.681	87	9.050	91	34-148	4	0-20	
Acenaphthylene	ND	10.00	8.382	84	8.362	84	53-120	0	0-20	
Butyl Benzyl Phthalate	ND	10.00	7.647	76	7.384	74	15-189	3	0-20	
4-Chloro-3-Methylphenol	ND	10.00	8.523	85	9.228	92	32-120	8	0-20	
2-Chlorophenol	ND	10.00	8.036	80	8.377	84	53-120	4	0-20	
1,4-Dichlorobenzene	ND	10.00	8.136	81	7.738	77	43-120	5	0-26	
Dimethyl Phthalate	ND	10.00	8.630	86	8.403	84	44-122	3	0-20	
2,4-Dinitrotoluene	ND	10.00	7.971	80	8.501	85	28-120	6	0-20	
Fluorene	ND	10.00	9.017	90	8.970	90	12-186	1	0-20	
N-Nitroso-di-n-propylamine	ND	10.00	7.883	79	8.624	86	38-140	9	0-20	
Naphthalene	30.39	10.00	82.96	526	85.61	552	20-140	3	0-20	3
4-Nitrophenol	ND	10.00	7.445	74	7.512	75	14-128	1	0-59	
Pentachlorophenol	ND	10.00	6.714	67	6.388	64	10-124	5	0-20	
Phenol	ND	10.00	8.255	83	8.379	84	22-124	1	0-20	
Pyrene	3.397	10.00	9.219	58	9.035	56	31-169	2	0-20	
1,2,4-Trichlorobenzene	ND	10.00	8.124	81	8.118	81	56-120	0	0-20	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B

Project: TAMT - Transit Shed 2 / 107742002 Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
B-1-1.5	Sample	Solid	GC/MS Q	06/12/14	06/12/14 16:07	140612S017
B-1-1.5	Matrix Spike	Solid	GC/MS Q	06/12/14	06/12/14 17:26	140612S017
B-1-1.5	Matrix Spike Duplicate	Solid	GC/MS Q	06/12/14	06/12/14 17:52	140612S017

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Benzene	ND	50.00	45.50	91	45.33	91	61-127	0	0-20	
Carbon Tetrachloride	ND	50.00	54.77	110	55.49	111	51-135	1	0-29	
Chlorobenzene	ND	50.00	47.60	95	47.74	95	57-123	0	0-20	
1,2-Dibromoethane	ND	50.00	47.45	95	46.99	94	64-124	1	0-20	
1,2-Dichlorobenzene	ND	50.00	48.05	96	49.31	99	35-131	3	0-25	
1,2-Dichloroethane	ND	50.00	42.98	86	43.43	87	80-120	1	0-20	
1,1-Dichloroethene	ND	50.00	46.74	93	47.09	94	47-143	1	0-25	
Ethylbenzene	ND	50.00	45.91	92	45.69	91	57-129	0	0-22	
Toluene	ND	50.00	46.64	93	46.83	94	63-123	0	0-20	
Trichloroethene	ND	50.00	44.55	89	44.32	89	44-158	1	0-20	
Vinyl Chloride	ND	50.00	42.65	85	42.74	85	49-139	0	0-47	
p/m-Xylene	ND	100.0	95.93	96	95.47	95	70-130	0	0-30	
o-Xylene	ND	50.00	48.65	97	48.87	98	70-130	0	0-30	
Methyl-t-Butyl Ether (MTBE)	ND	50.00	40.95	82	41.72	83	57-123	2	0-21	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3550B
 Method: EPA 8015B (M)

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-15-490-953	LCS	Solid	GC 48	06/13/14	06/13/14 15:06	140613B02A
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers	
TPH as Diesel	400.0	411.5	103	75-123		

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-1669	LCS	Solid	GC 1	06/12/14	06/12/14 14:37	140612L042
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline		10.00	9.676	97	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 5030C
Method: EPA 8015B (M)

Project: TAMT - Transit Shed 2 / 107742002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-14-571-1672	LCS	Solid	GC 29	06/13/14	06/13/14 15:23	140613L030
Parameter		Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
TPH as Gasoline		10.00	10.72	107	70-124	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3050B
 Method: EPA 6010B

Project: TAMT - Transit Shed 2 / 107742002 Page 4 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
097-01-002-18488	LCS	Solid	ICP 7300	06/13/14	06/16/14 14:29	140613L01
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers
Antimony	25.00	24.68	99	80-120	73-127	
Arsenic	25.00	23.97	96	80-120	73-127	
Barium	25.00	25.33	101	80-120	73-127	
Beryllium	25.00	24.14	97	80-120	73-127	
Cadmium	25.00	25.01	100	80-120	73-127	
Chromium	25.00	25.64	103	80-120	73-127	
Cobalt	25.00	27.14	109	80-120	73-127	
Copper	25.00	25.09	100	80-120	73-127	
Lead	25.00	24.97	100	80-120	73-127	
Molybdenum	25.00	24.94	100	80-120	73-127	
Nickel	25.00	26.38	106	80-120	73-127	
Selenium	25.00	21.58	86	80-120	73-127	
Silver	12.50	12.69	102	80-120	73-127	
Thallium	25.00	25.67	103	80-120	73-127	
Vanadium	25.00	24.83	99	80-120	73-127	
Zinc	25.00	24.65	99	80-120	73-127	

Total number of LCS compounds: 16
 Total number of ME compounds: 0
 Total number of ME compounds allowed: 1
 LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 7471A Total
 Method: EPA 7471A

Project: TAMT - Transit Shed 2 / 107742002 Page 5 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-16-272-313	LCS	Solid	Mercury 05	06/17/14	06/17/14 20:25	140617L04
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers	
Mercury	0.8350	0.8258	99	85-121		

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8082

Project: TAMT - Transit Shed 2 / 107742002 Page 6 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2691	LCS	Solid	GC 58	06/14/14	06/16/14 16:43	140614L08
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	81.78	82	50-135	
Aroclor-1260		100.0	85.32	85	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0885
Preparation: EPA 3545
Method: EPA 8082

Project: TAMT - Transit Shed 2 / 107742002 Page 7 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2694	LCS	Solid	GC 58	06/17/14	06/17/14 17:55	140617L02
<u>Parameter</u>		<u>Spike Added</u>	<u>Conc. Recovered</u>	<u>LCS %Rec.</u>	<u>%Rec. CL</u>	<u>Qualifiers</u>
Aroclor-1016		100.0	80.44	80	50-135	
Aroclor-1260		100.0	114.4	114	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8270C

Project: TAMT - Transit Shed 2 / 107742002 Page 8 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-12-549-2960	LCS	Solid	GC/MS SS	06/14/14	06/16/14 12:35	140614L01	
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers	
Acenaphthene	10.00	9.431	94	51-123	39-135		
Acenaphthylene	10.00	9.157	92	52-120	41-131		
Butyl Benzyl Phthalate	10.00	9.220	92	43-139	27-155		
4-Chloro-3-Methylphenol	10.00	8.475	85	55-121	44-132		
2-Chlorophenol	10.00	8.805	88	58-124	47-135		
1,4-Dichlorobenzene	10.00	8.316	83	42-132	27-147		
Dimethyl Phthalate	10.00	10.10	101	51-123	39-135		
2,4-Dinitrotoluene	10.00	10.03	100	51-129	38-142		
Fluorene	10.00	9.496	95	54-126	42-138		
N-Nitroso-di-n-propylamine	10.00	9.318	93	40-136	24-152		
Naphthalene	10.00	8.543	85	32-146	13-165		
4-Nitrophenol	10.00	7.608	76	24-126	7-143		
Pentachlorophenol	10.00	6.765	68	23-131	5-149		
Phenol	10.00	8.806	88	40-130	25-145		
Pyrene	10.00	8.963	90	47-143	31-159		
1,2,4-Trichlorobenzene	10.00	8.575	86	45-129	31-143		

Total number of LCS compounds: 16
 Total number of ME compounds: 0
 Total number of ME compounds allowed: 1
 LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0885
 San Diego, CA 92123-1013 Preparation: EPA 5030C
 Method: EPA 8260B

Project: TAMT - Transit Shed 2 / 107742002 Page 9 of 9

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number	
099-12-796-8582	LCS	Solid	GC/MS Q	06/12/14	06/12/14 14:15	140612L031	
Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	ME CL	Qualifiers	
Benzene	50.00	48.41	97	78-120	71-127		
Carbon Tetrachloride	50.00	58.70	117	49-139	34-154		
Chlorobenzene	50.00	51.11	102	79-120	72-127		
1,2-Dibromoethane	50.00	50.45	101	80-120	73-127		
1,2-Dichlorobenzene	50.00	52.62	105	75-120	68-128		
1,2-Dichloroethane	50.00	45.77	92	80-120	73-127		
1,1-Dichloroethene	50.00	50.37	101	74-122	66-130		
Ethylbenzene	50.00	48.63	97	76-120	69-127		
Toluene	50.00	49.42	99	77-120	70-127		
Trichloroethene	50.00	47.13	94	80-120	73-127		
Vinyl Chloride	50.00	47.31	95	68-122	59-131		
p/m-Xylene	100.0	100.2	100	75-125	67-133		
o-Xylene	50.00	51.14	102	75-125	67-133		
Methyl-t-Butyl Ether (MTBE)	50.00	43.91	88	77-120	70-127		

Total number of LCS compounds: 14
 Total number of ME compounds: 0
 Total number of ME compounds allowed: 1
 LCS ME CL validation result: Pass

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RPD: Relative Percent Difference. CL: Control Limits

Sample Analysis Summary Report

Work Order: 14-06-0885

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Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 6010B	EPA 3050B	469	ICP 7300	1
EPA 7471A	EPA 7471A Total	915	Mercury 05	1
EPA 8015B (M)	EPA 3550B	847	GC 48	1
EPA 8015B (M)	EPA 5030C	902	GC 1	2
EPA 8015B (M)	EPA 5030C	902	GC 29	2
EPA 8082	EPA 3545	842	GC 58	1
EPA 8260B	EPA 5030C	823	GC/MS Q	2
EPA 8270C	EPA 3545	449	GC/MS SS	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841
 Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Work Order: 14-06-0885

Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.



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Virendra Patel

From: Lisa Bestard [lbestard@ninyoandmoore.com]
Sent: Thursday, June 12, 2014 11:18 AM
To: Erick Ovalle
Cc: Virendra Patel
Subject: RE: Sample receipt confirmation / 14-06-0885 / TAMT - Transit Shed 2 / 107742002

Erick-
 Please use which ever time is the earliest.

Thank you,

Lisa Bestard
 Senior Project Environmental Scientist
Ninyo & Moore
 Geotechnical & Environmental Sciences Consultants
 5710 Ruffin Road
 San Diego, CA 92123
 (858) 576-1000 (x11279)
 (858) 576-9600 (Fax)
lbtestard@ninyoandmoore.com

Experience . Quality . Commitment

-----Original Message-----

From: Erick Ovalle [<mailto:ErickOvalle@eurofinsUS.com>]
Sent: Thursday, June 12, 2014 11:16 AM
To: Lisa Bestard
Cc: Virendra Patel
Subject: Sample receipt confirmation / 14-06-0885 / TAMT - Transit Shed 2 / 107742002

Sample receipt confirmation attached. Please review and advise of any changes required.

The collection time for B-4-5 written on the COC does not match the time on the container. Please advise what time we should use.

Please call with any questions or concerns.

Best Regards,
 Erick Ovalle
 Project Manager Assistant

Eurofins Calscience, Inc.
 7440 Lincoln Way
 Garden Grove, CA 92841-1427
 USA
 Phone: +1 (714) 895-5494
 Email: ErickOvalle@EurofinsUS.com

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Calscience Environmental Laboratories, Inc.

SoCal Laboratory
 7440 Lincoln Way
 Garden Grove, CA 92841-1427
 (714) 895-5494

NorCal Service Center
 5083 Commercial Circle, Suite H
 Concord, CA 94520-8577
 (925) 689-9022

CHAIN OF CUSTODY RECORD

Date 6/10/14 Page 1 of 2

LABORATORY CLIENT: <u>Ninyo + Moore</u>		CLIENT PROJECT NAME / NUMBER: <u>TAMT- Transit Shed 2</u>		P.O. NO.: <u>107742002</u>		
ADDRESS: <u>5710 Ruffin Rd</u>		PROJECT CONTACT: <u>Lisa Bestard</u>		LAB USE ONLY: <u>14-06-0885</u>		
CITY: <u>San Diego</u>		STATE: <u>CA</u>		ZIP: <u>92123</u>		
TEL: <u>858-576-1000</u>		E-MAIL: <u>lbtestard@ninyoandmoore.com</u>		COOLER RECEIPT: <u>80814 8082</u>		
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> STANDARD		COELT LOG CODE: <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		TEMP: <u> </u> °C		
SPECIAL REQUIREMENTS/ADDITIONAL COSTS MAY APPLY: <input type="checkbox"/>		RWQCB REPORTING FORMS: <input type="checkbox"/>		COELT EDF: <input type="checkbox"/>		
SPECIAL INSTRUCTIONS:						
LAB USE ONLY	SAMPLE ID	FIELD POINT NAME (FOR COELT EDF)	SAMPLING DATE	TIME	MATRIX	NO. OF CONT.
1	B-1-1.5		6/10/14	13:36	soil	1
2	B-1-6.5			13:48		
3	B-1-9			13:53		
4	B-2-0.5			14:10		
5	B-2-4			14:14		
6	B-2-6			14:20		
7	B-3-2			14:40		
8	B-3-5			14:50		
9	B-3-9.5			14:58		
10	B-4-1			15:25		
Relinquished by: (Signature) <u>[Signature]</u>		Received by: (Signature/Affiliation) <u>[Signature]</u>				
Relinquished by: (Signature) <u>[Signature]</u>		Received by: (Signature/Affiliation) <u>[Signature]</u>				
Relinquished by: (Signature) <u>[Signature]</u>		Received by: (Signature/Affiliation) <u>[Signature]</u>				
		Date: <u>6/11/14</u> Time: <u>14:20</u>				
		Date: <u>6/11/14</u> Time: <u>19:15</u>				
		Date: <u>6/11/14</u> Time: <u>19:15</u>				

WORK ORDER #: 14-06-0885

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired – list sample ID(s) and test
- ☐ Insufficient quantities for analysis – list test
- ☐ Improper container(s) used – list test
- ☐ Improper preservative used – list test
- ☐ No preservative noted on COC or label – list test & notify lab
- ☐ Sample labels illegible – note test/container type
- ☒ Sample label(s) do not match COC – Note in comments
 - ☐ Sample ID
 - ☐ Date and/or Time Collected
 - ☐ Project Information
 - ☐ # of Container(s)
 - ☐ Analysis
- ☐ Sample container(s) compromised – Note in comments
 - ☐ Water present in sample container
 - ☐ Broken
- ☐ Sample container(s) not labeled
- ☐ Air sample container(s) compromised – Note in comments
 - ☐ Flat
 - ☐ Very low in volume
 - ☐ Leaking (Not transferred - duplicate bag submitted)
 - ☐ Leaking (transferred into Calscience Tedlar® Bag*)
 - ☐ Leaking (transferred into Client's Tedlar® Bag*)
- ☐ Other:

(-B) collection time per label is 15:30

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HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments:

*Transferred at Client's request.

Initial / Date: 68/06/11/14

SOP T100_090 (06/02/14)

WORK ORDER NUMBER: 14-06-0888

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Ninyo & Moore

Client Project Name: TAMT / 107589002

Attention: Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123-1013

Virendra R Patel

Approved for release on 06/19/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

Contents

Client Project Name: TAMT / 107589002
Work Order Number: 14-06-0888

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Work Order Narrative

Work Order: 14-06-0888

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 06/11/14. They were assigned to Work Order 14-06-0888.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-06-0888
Project Name: TAMT / 107589002
PO Number:
Date/Time Received: 06/11/14 19:15
Number of Containers: 16

Attn: Lisa Bestard

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CR-1	14-06-0888-1	06/10/14 09:30	1	Solid
CR-2	14-06-0888-2	06/10/14 09:40	1	Concrete
CR-3	14-06-0888-3	06/10/14 09:50	1	Concrete
CR-4	14-06-0888-4	06/10/14 10:00	1	Concrete
CR-5	14-06-0888-5	06/10/14 10:10	1	Solid
CR-6	14-06-0888-6	06/10/14 10:20	1	Solid
CR-7	14-06-0888-7	06/10/14 10:30	1	Concrete
CR-8	14-06-0888-8	06/10/14 10:40	1	Solid
CR-9	14-06-0888-9	06/10/14 10:50	1	Concrete
CR-10	14-06-0888-10	06/10/14 11:00	1	Solid
CR-11	14-06-0888-11	06/10/14 11:10	1	Concrete
CR-12	14-06-0888-12	06/10/14 11:20	1	Concrete
B-1	14-06-0888-13	06/10/14 11:25	1	Solid
B-2	14-06-0888-14	06/10/14 11:35	1	Solid
B-3	14-06-0888-15	06/10/14 11:45	1	Solid
B-4	14-06-0888-16	06/10/14 11:55	1	Solid

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

Page 1 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-1	14-06-0888-1-AA	06/10/14 09:30	Solid	GC 31	06/16/14	06/18/14 14:47	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	39	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

CR-2	14-06-0888-2-AA	06/10/14 09:40	Concrete	GC 31	06/16/14	06/18/14 10:00	140616L11
------	-----------------	----------------	----------	-------	----------	----------------	-----------

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	82	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

Page 2 of 9

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-3	14-06-0888-3-AA	06/10/14 09:50	Concrete	GC 31	06/16/14	06/18/14 10:19	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-4	14-06-0888-4-AA	06/10/14 10:00	Concrete	GC 31	06/16/14	06/18/14 10:38	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	94	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-5	14-06-0888-5-AA	06/10/14 10:10	Solid	GC 31	06/16/14	06/18/14 10:57	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	490	1.00	
Aroclor-1221	ND	490	1.00	
Aroclor-1232	ND	490	1.00	
Aroclor-1242	ND	490	1.00	
Aroclor-1248	ND	490	1.00	
Aroclor-1254	ND	490	1.00	
Aroclor-1260	ND	490	1.00	
Aroclor-1262	ND	490	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	134	24-168	
2,4,5,6-Tetrachloro-m-Xylene	91	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-6	14-06-0888-6-AA	06/10/14 10:20	Solid	GC 31	06/16/14	06/18/14 11:16	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	24-168	
2,4,5,6-Tetrachloro-m-Xylene	74	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-7	14-06-0888-7-AA	06/10/14 10:30	Concrete	GC 31	06/16/14	06/18/14 11:35	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	108	24-168	
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-8	14-06-0888-8-AA	06/10/14 10:40	Solid	GC 31	06/16/14	06/18/14 11:55	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	74	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-9	14-06-0888-9-AA	06/10/14 10:50	Concrete	GC 31	06/16/14	06/18/14 12:14	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-10	14-06-0888-10-AA	06/10/14 11:00	Solid	GC 31	06/16/14	06/18/14 12:33	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	500	1.00	
Aroclor-1221	ND	500	1.00	
Aroclor-1232	ND	500	1.00	
Aroclor-1242	ND	500	1.00	
Aroclor-1248	ND	500	1.00	
Aroclor-1254	ND	500	1.00	
Aroclor-1260	ND	500	1.00	
Aroclor-1262	ND	500	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-11	14-06-0888-11-AA	06/10/14 11:10	Concrete	GC 31	06/16/14	06/18/14 12:52	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	77	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-12	14-06-0888-12-AA	06/10/14 11:20	Concrete	GC 31	06/16/14	06/18/14 13:11	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	99	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 06/11/14
Work Order: 14-06-0888
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-1	14-06-0888-13-AA	06/10/14 11:25	Solid	GC 31	06/16/14	06/18/14 13:30	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	68	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-2	14-06-0888-14-AA	06/10/14 11:35	Solid	GC 31	06/16/14	06/18/14 13:49	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	59	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0888
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
B-3	14-06-0888-15-AA	06/10/14 11:45	Solid	GC 31	06/16/14	06/18/14 14:08	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	49	1.00	
Aroclor-1221	ND	49	1.00	
Aroclor-1232	ND	49	1.00	
Aroclor-1242	ND	49	1.00	
Aroclor-1248	ND	49	1.00	
Aroclor-1254	ND	49	1.00	
Aroclor-1260	ND	49	1.00	
Aroclor-1262	ND	49	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	47	24-168	
2,4,5,6-Tetrachloro-m-Xylene	75	25-145	

B-4	14-06-0888-16-AA	06/10/14 11:55	Solid	GC 31	06/16/14	06/18/14 14:28	140616L11
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	30	24-168	
2,4,5,6-Tetrachloro-m-Xylene	57	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0888
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: TAMT / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-535-2695	N/A	Solid	GC 31	06/16/14	06/17/14 13:32	140616L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0888
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: TAMT / 107589002 Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
CR-11	Sample	Concrete	GC 31	06/16/14	06/18/14 12:52	140616S11				
CR-11	Matrix Spike	Concrete	GC 31	06/16/14	06/17/14 14:48	140616S11				
CR-11	Matrix Spike Duplicate	Concrete	GC 31	06/16/14	06/17/14 15:07	140616S11				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	157.3	157	134.1	134	50-135	16	0-20	3
Aroclor-1260	ND	100.0	109.5	109	92.74	93	50-135	17	0-25	

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RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS

Ninyo & Moore Date Received: 06/11/14
 5710 Ruffin Road Work Order: 14-06-0888
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: TAMT / 107589002 Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number				
099-12-535-2695	LCS	Solid	GC 31	06/16/14	06/17/14 13:51	140616L11				
Parameter	Spike Added		Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers				
Aroclor-1016	100.0		95.68	96	50-135					
Aroclor-1260	100.0		93.63	94	50-135					

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RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-06-0888

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Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3545	842	GC 31	1



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Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Glossary of Terms and Qualifiers

Work Order: 14-06-0888

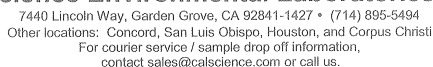
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Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.	
Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.	
A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.	



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7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



WO # / LAB USE ONLY

14-06-0888

Date 6/10/14

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LABORATORY CLIENT: Ninyo + Moore				CLIENT PROJECT NAME / NUMBER: TAMT / 107589002				P.O. NO.: _____																																																																																																																																																																																																																																																																																								
ADDRESS: 5710 Ruffin Road				PROJECT CONTACT: LISA BESTARD				SAMPLER(S): (PRINT) DAC																																																																																																																																																																																																																																																																																								
CITY: San Diego		STATE: CA		ZIP: 92123																																																																																																																																																																																																																																																																																												
TEL: 858-576-1000		E-MAIL: LBESTARD@NINYOANDMOORE.COM		REQUESTED ANALYSES																																																																																																																																																																																																																																																																																												
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01/01/14 Revision

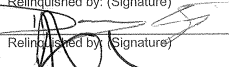
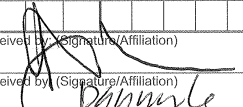
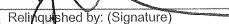
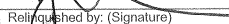
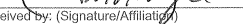


WO # / LAB USE ONLY

14-06-0888

Date 6/10/14

Page 2 of 6

LABORATORY CLIENT: NINYO & MOORE ADDRESS: 5710 Rutin Road CITY: San Diego STATE: CA ZIP: 92123 TEL: 858-576-1000 E-MAIL: LBESTARD@NINYOANDMOORE.COM TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"): <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input type="checkbox"/> 72 HR <input type="checkbox"/> 5 DAYS <input checked="" type="checkbox"/> STANDARD <input type="checkbox"/> COELT EDF GLOBAL ID LOG CODE SPECIAL INSTRUCTIONS: CRUSH AND HOMOGENIZE EACH SAMPLE				CLIENT PROJECT NAME / NUMBER: TAMT / 107589002 PROJECT CONTACT: LISA BESTARD P.O. NO.: SAMPLER(S): (PRINT) DAC														
REQUESTED ANALYSES																		
Please check box or fill in blank as needed.																		
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01/01/14 Revision



WORK ORDER #: 14-06-0808

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: NINYO & MOORE

DATE: 06/11/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.☐ Received at ambient temperature, placed on ice for transport by Courier.Ambient Temperature: ☐ Air ☐ Filter

Checked by: 671

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 671☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present Checked by: 802

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... ☒ Yes ☐ No ☐ N/ACOC document(s) received complete..... ☒ Yes ☐ No ☐ N/A☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.Sampler's name indicated on COC..... ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC..... ☒ Yes ☐ No ☐ N/ASample container(s) intact and good condition..... ☒ Yes ☐ No ☐ N/AProper containers and sufficient volume for analyses requested..... ☒ Yes ☐ No ☐ N/AAnalyses received within holding time..... ☒ Yes ☐ No ☐ N/A

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ Yes ☐ No ☒ N/AProper preservation noted on COC or sample container..... ☐ Yes ☐ No ☒ N/A☐ Unpreserved vials received for Volatiles analysisVolatile analysis container(s) free of headspace..... ☐ Yes ☐ No ☒ N/ATedlar bag(s) free of condensation..... ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☒ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® ☐ TerraCores® ☒ Plastic Bag (13) to (16)Aqueous: ☐ VOA ☐ VOAh ☐ VOAna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PBna ☐ 500PB☐ 250PB ☐ 250PBn ☐ 125PB ☐ 125PBznnna ☐ 100PJ ☐ 100PJna₂ ☐ _____ ☐ _____Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 802

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 739

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znnna: ZnAc₂+NaOH f: Filtered Scanned by: 739

June 23, 2014
Project No. 107589002

Mr. E. Javier Saunders
Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

Subject: Concrete/Asphalt Sampling
Transit Shed No. 1
Tenth Avenue Marine Terminal
San Diego, California

Dear Mr. Saunders

At the request of the San Diego Unified Port District (Port), Ninyo & Moore collected concrete and asphalt samples for analytical testing from Transit Shed No. 1 on the Tenth Avenue Marine Terminal, which is proposed for demolition (Figures 1 and 2). It is our understanding that the concrete and asphalt portions of the structure would be crushed and potentially utilized as base material on site or exported off site for reuse. The purpose of the sampling and analysis activities was to evaluate if polychlorinated biphenyls (PCBs) are present in the concrete/asphalt and provide opinions regarding the potential for reuse of the material on or off site.

CONCRETE/ASPHALT SAMPLING AND ANALYSIS

On May 15, 2014, Ninyo & Moore advanced six cores into the floor of the transit shed using a 2-inch coring drill. Three cores were in asphalt (CR-1, CR-3, and CR-6) and three cores were in concrete (CR-2, CR-4, and CR-5). Twenty four concrete/asphalt chip samples (CP-1 through CP-24) were collected from a various different surface (e.g., walls, floors, pillars, loading docks, etc.) utilizing a demolition hammer. The cores were placed into plastic bags and the chip samples were placed into laboratory supplied glass jars, the bags/jars were labeled with pertinent information and delivered to Calscience Environmental Laboratories of Garden Grove, California.

The samples were individually crushed and homogenized by the laboratory and analyzed for PCBs by United States Environmental Protection Agency test method 8082. Based on the initial laboratory results, 11 samples with the highest concentrations of total PCBs were analyzed for soluble PCBs by the synthetic precipitation leaching procedure (SPLP) to simulate conditions if the material were to be reused on site.

FINDINGS

The following summarizes the findings of the concrete/asphalt sample analytical results.

- PCBs were detected above the reporting limit in 27 of the 30 samples collected at concentrations ranging from 52 to 300 micrograms per kilogram (ug/kg).
- Aroclor-1248 was detected in 27 samples and Aroclor-1254 was detected in four samples.
- PCBs were not detected above the reporting limit in the 11 samples analyzed by the SPLP.

Copies of the analytical reports are provided as Attachment A.

OPINION

Based on the concentrations of total PCBs detected in the samples and that the using the SPLP soluble concentrations of PCBs were not detected, it is our opinion that the asphalt and concrete from Transit Shed 1, if reused on site, would not pose a significant threat to human health or the environment. If reused on site, we recommend that the concrete/asphalt be placed a minimum of 5 feet above groundwater and be protected from disturbance or erosion that would cause the concrete/asphalt to impact potentially sensitive receptors (e.g., storm water, San Diego Bay, etc). We recommend that if the material is not reused on site, it should be disposed of as non-hazardous waste at a permitted facility. The analytical data collected as part of this assessment should be sufficient to characterize the material for disposal.

Sincerely,
NINYO & MOORE



Lisa Bestard
Senior Project Environmental Scientist

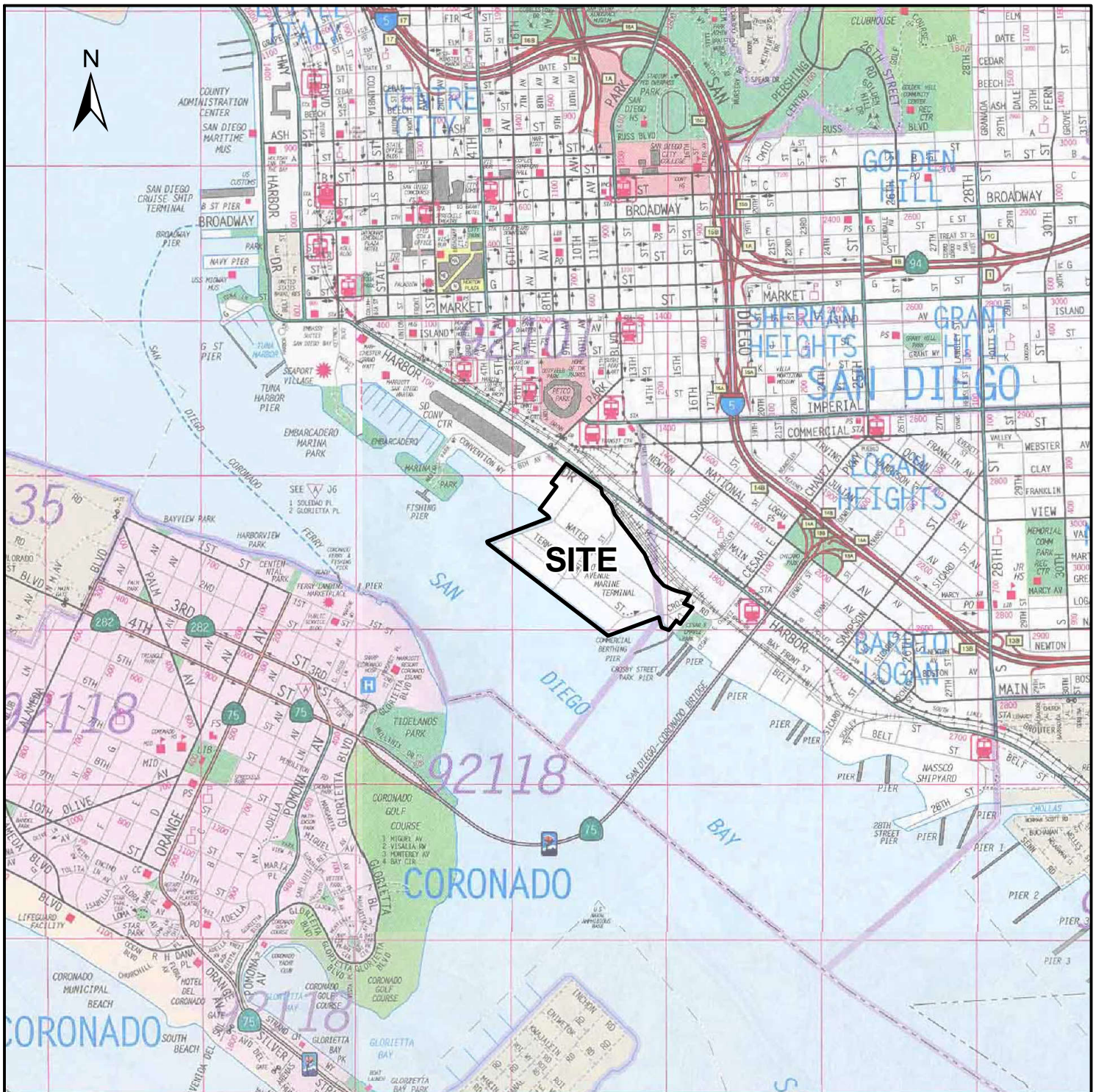


Stephan A. Beck, PG 4375
Manager, Environmental Sciences Division

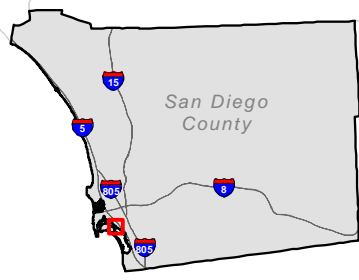
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Attachments: Figure 1 – Site Location
Figure 2 – Sample Locations
Attachment A – Laboratory Analytical Report

Distribution: (1) Addressee

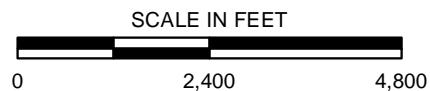


SOURCE: 2008 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY; MAP © RAND MCNALLY, R.L.07-S-129



MAP EXTENT

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE



Ninyo & Moore

SITE LOCATION

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107589002

6/14

1



LEGEND

SP-24

SAMPLE LOCATION

MAP INDEX

SOURCE: 2012 SAN DIEGO IMAGERY ACQUISITION PARTNERSHIP
(FLIGHT DATES: MAY 20 - JUNE 6, 2012)


N

SCALE IN FEET

0100200

NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

SOURCE: AERIAL PHOTO - GOOGLE EARTH, 2013.

		SAMPLE LOCATIONS	FIGURE 2	
PROJECT NO.	DATE			TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION TENTH AVENUE MARINE TERMINAL SAN DIEGO, CALIFORNIA
107589002	6/14			

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Tenth Avenue Marine Terminal
San Diego, California

June 23, 2014
Project No. 107589002

ATTACHMENT A
LABORATORY ANALYTICAL REPORT

107589002 L2.doc


Page 1 of 18



Calscience


Additional requested analyses are reported as a stand-alone report.

Supplemental Report 1



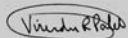
WORK ORDER NUMBER: 14-05-1360

The difference is service




AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: Ninyo & Moore
Client Project Name: 10th Ave. Marine Terminal / 107589002
Attention: Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123-1013


Approved for release on 06/11/2014 by:
Virendra Patel
Project Manager

ResultLink ▶

Email your PM ▶



Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830

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Work Order Number: 14-05-1360

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Work Order Narrative

Work Order: 14-05-1360

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Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 05/16/14. They were assigned to Work Order 14-05-1360.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.



Sample Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-05-1360
Project Name: 10th Ave. Marine Terminal / 107589002
PO Number:
Date/Time Received: 05/16/14 18:45
Number of Containers: 30

Attn: Lisa Bestard

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CP-1	14-05-1360-1	05/15/14 09:05	1	Solid
CP-2	14-05-1360-2	05/15/14 09:10	1	Solid
CP-3	14-05-1360-3	05/15/14 09:15	1	Solid
CP-4	14-05-1360-4	05/15/14 09:20	1	Solid
CP-5	14-05-1360-5	05/15/14 09:25	1	Solid
CP-6	14-05-1360-6	05/15/14 09:40	1	Solid
CP-7	14-05-1360-7	05/15/14 09:45	1	Solid
CP-8	14-05-1360-8	05/15/14 09:50	1	Solid
CP-9	14-05-1360-9	05/15/14 10:05	1	Solid
CP-10	14-05-1360-10	05/15/14 10:10	1	Solid
CP-11	14-05-1360-11	05/15/14 10:15	1	Solid
CP-12	14-05-1360-12	05/15/14 10:25	1	Solid
CP-13	14-05-1360-13	05/15/14 10:35	1	Solid
CP-14	14-05-1360-14	05/15/14 10:45	1	Solid
CP-15	14-05-1360-15	05/15/14 11:00	1	Solid
CP-16	14-05-1360-16	05/15/14 11:05	1	Solid
CP-17	14-05-1360-17	05/15/14 11:15	1	Solid
CP-18	14-05-1360-18	05/15/14 11:25	1	Solid
CP-19	14-05-1360-19	05/15/14 11:35	1	Solid
CP-20	14-05-1360-20	05/15/14 11:45	1	Solid
CP-21	14-05-1360-21	05/15/14 11:55	1	Solid
CP-22	14-05-1360-22	05/15/14 12:05	1	Solid
CP-23	14-05-1360-23	05/15/14 12:15	1	Solid
CP-24	14-05-1360-24	05/15/14 12:25	1	Solid
CR-1	14-05-1360-25	05/15/14 11:30	1	Solid
CR-2	14-05-1360-26	05/15/14 12:00	1	Solid
CR-3	14-05-1360-27	05/15/14 12:30	1	Solid
CR-4	14-05-1360-28	05/15/14 13:00	1	Solid
CR-5	14-05-1360-29	05/15/14 13:30	1	Solid
CR-6	14-05-1360-30	05/15/14 14:06	1	Solid

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Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

Page 1 of 6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-1	14-05-1360-1-AA	05/15/14 09:05	Solid	GC 58	05/27/14	06/04/14 01:34	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		81	24-168				
2,4,5,6-Tetrachloro-m-Xylene		87	25-145				
CP-2	14-05-1360-2-AA	05/15/14 09:10	Solid	GC 58	05/27/14	06/04/14 01:52	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		89	24-168				
2,4,5,6-Tetrachloro-m-Xylene		86	25-145				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-3	14-05-1360-3-A	05/15/14 09:15	Solid	GC 58	05/27/14	06/04/14 02:10	140529L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1.00	
Aroclor-1221	ND	10	1.00	
Aroclor-1232	ND	10	1.00	
Aroclor-1242	ND	10	1.00	
Aroclor-1248	ND	10	1.00	
Aroclor-1254	ND	10	1.00	
Aroclor-1260	ND	10	1.00	
Aroclor-1262	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	83	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-4	14-05-1360-4-A	05/15/14 09:20	Solid	GC 58	05/27/14	06/04/14 02:28	140529L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1.00	
Aroclor-1221	ND	10	1.00	
Aroclor-1232	ND	10	1.00	
Aroclor-1242	ND	10	1.00	
Aroclor-1248	ND	10	1.00	
Aroclor-1254	ND	10	1.00	
Aroclor-1260	ND	10	1.00	
Aroclor-1262	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-5	14-05-1360-5-A	05/15/14 09:25	Solid	GC 58	05/27/14	06/04/14 02:46	140529L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1.00	
Aroclor-1221	ND	10	1.00	
Aroclor-1232	ND	10	1.00	
Aroclor-1242	ND	10	1.00	
Aroclor-1248	ND	10	1.00	
Aroclor-1254	ND	10	1.00	
Aroclor-1260	ND	10	1.00	
Aroclor-1262	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	95	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-9	14-05-1360-9-A	05/15/14 10:05	Solid	GC 58	05/27/14	06/04/14 03:04	140529L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1.00	
Aroclor-1221	ND	10	1.00	
Aroclor-1232	ND	10	1.00	
Aroclor-1242	ND	10	1.00	
Aroclor-1248	ND	10	1.00	
Aroclor-1254	ND	10	1.00	
Aroclor-1260	ND	10	1.00	
Aroclor-1262	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	98	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-10	14-05-1360-10-A	05/15/14 10:10	Solid	GC 58	05/27/14	06/04/14 03:22	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		101	24-168				
2,4,5,6-Tetrachloro-m-Xylene		105	25-145				
CP-12	14-05-1360-12-A	05/15/14 10:25	Solid	GC 58	05/27/14	06/04/14 04:16	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		76	24-168				
2,4,5,6-Tetrachloro-m-Xylene		83	25-145				

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-14	14-05-1360-14-A	05/15/14 10:45	Solid	GC 58	05/27/14	06/04/14 03:40	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		88	24-168				
2,4,5,6-Tetrachloro-m-Xylene		96	25-145				
CP-23	14-05-1360-23-A	05/15/14 12:15	Solid	GC 58	05/27/14	06/04/14 03:58	140529L12
<u>Parameter</u>		<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qualifiers</u>		
Aroclor-1016		ND	10	1.00			
Aroclor-1221		ND	10	1.00			
Aroclor-1232		ND	10	1.00			
Aroclor-1242		ND	10	1.00			
Aroclor-1248		ND	10	1.00			
Aroclor-1254		ND	10	1.00			
Aroclor-1260		ND	10	1.00			
Aroclor-1262		ND	10	1.00			
<u>Surrogate</u>		<u>Rec. (%)</u>	<u>Control Limits</u>	<u>Qualifiers</u>			
Decachlorobiphenyl		92	24-168				
2,4,5,6-Tetrachloro-m-Xylene		103	25-145				

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082
Units: ug/L

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-616-18	N/A	Solid	GC 58	05/29/14	06/04/14 00:58	140529L12

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	10	1.00	
Aroclor-1221	ND	10	1.00	
Aroclor-1232	ND	10	1.00	
Aroclor-1242	ND	10	1.00	
Aroclor-1248	ND	10	1.00	
Aroclor-1254	ND	10	1.00	
Aroclor-1260	ND	10	1.00	
Aroclor-1262	ND	10	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	72	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

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RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

Quality Control - Spike/Spike Duplicate

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
CP-1	Sample	Solid	GC 58	05/27/14	06/04/14 01:34	140529S12
CP-1	Matrix Spike	Solid	GC 58	05/27/14	06/04/14 04:34	140529S12
CP-1	Matrix Spike Duplicate	Solid	GC 58	05/27/14	06/04/14 04:52	140529S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	20.00	17.12	86	15.06	75	50-135	13	0-25	
Aroclor-1260	ND	20.00	18.57	93	18.29	91	50-135	2	0-25	

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RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 1312
Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-616-18	LCS	Solid	GC 58	05/29/14	06/04/14 01:16	140529L12
Parameter	Spike Added		Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	20.00		17.45	87	50-135	
Aroclor-1260	20.00		16.61	83	50-135	

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RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Sample Analysis Summary Report

Work Order: 14-05-1360

Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 1312	842	GC 58	1

[Return to Contents](#)

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501

Glossary of Terms and Qualifiers

Work Order: 14-05-1360

Page 1 of 1

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Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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Calscience Environmental Laboratories, Inc.

SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

NoCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 888-9022

LABORATORY CLIENT: LISA BESTARD		LABORATORY NAME / NUMBER: 14-05-1360		WO # / LAB USE ONLY: 14-05-1360															
ADDRESS: 5710 RUFFIN ROAD		CLIENT PROJECT NAME / NUMBER: TENTH AVE MARINE TERMINAL		Date: 5/15/14															
CITY: San Diego		PROJECT CONTACT: LISA BESTARD		Page: 2 of 2															
STATE: CA		P.O. NO.: 1075890002		SAMPLER(S): (PRINT)															
ZIP: 92123																			
E-MAIL: LBESTARD@NINTYFOURMOORE.COM																			
TEL: 619-576-1000																			
TURNAROUND TIME: <input type="checkbox"/> SAME DAY <input type="checkbox"/> 24 HR <input type="checkbox"/> 48 HR <input checked="" type="checkbox"/> 72 HR <input type="checkbox"/> STANDARD																			
<input type="checkbox"/> COELT EDF <input type="checkbox"/> GLOBAL ID																			
SPECIAL INSTRUCTIONS: Lab to crush + homogenize Samples																			
LAB USE ONLY	SAMPLE ID	SAMPLING DATE	TIME	MATRIX	NO. OF CONT.	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C14)	TPH ()	BTEX / MTBE (g260) or ()	VOCs (g260)	Oxygenates (g260)	En Core / Terra Core Prep (5035)	SVOCs (g270)	Pesticides (g081)	PCBs (g082)	PNAs (g310) or (g270)	T22 Metals (g010B/747X)	Cr(VI) (7196 or 7199 or 218.6)	
1	CP-1	5/15/14	0905	C	1	Unpreserved													
2	CP-2		0910	C	1	Preserved													
3	CP-3		0915	A	1	Field Filled													
4	CP-4		0920	C	1														
5	CP-5		0925	C	1														
6	CP-6		0940	C	1														
7	CP-7		0945	C	1														
8	CP-8		0950	C	1														
9	CP-9		1005	A	1														
10	CP-10		1010	A	1														
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date: 05/16/14		Time: 1355													
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date: 05/16/14		Time: 1845													
Relinquished by: (Signature)		Received by: (Signature/Affiliation)		Date: 05/16/14		Time: 1845													

DISTRIBUTION: White with final report, Green and Yellow to Client. Please note that pages 1 and 2 of 2 of our TICs are printed on the reverse side of the Green and Yellow color copies respectively.



Science Environmental Laboratories, Inc.

SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 885-5484

NoCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date: 5/15/14
Page: 2 of 3

LABORATORY CLIENT: LISA BESTARD
ADDRESS: 5710 RUFFIN ROAD
CITY: San Diego STATE: CA ZIP: 92123
TEL: 858-576-1000 EMAIL: LBESTARD@JUNYANDMORE.COM

P.O. NO.: 107589002

SAMPLER(S): (PRINT)

PROJECT CONTACT: LISA BESTARD

CLIENT PROJECT NAME / NUMBER: TENTH AVE MARINE TERMINAL

WO # / LAB USE ONLY: 015-0306

GLOBAL ID

COELT EDF

TURNAROUND TIME: SAME DAY 24 HR 48 HR 72 HR STANDARD

SPECIAL INSTRUCTIONS: Lab to crush & homogenize Samples

LOG CODE

Field Filled

Preserved

Unpreserved

NO. OF CONT.

MATRIX

SAMPLING TIME

DATE

SAMPLE ID

LAB USE ONLY

11 CP-11 5/15/14 1015 C 1

12 CP-12 1025 A 1

13 CP-13 1035 C 1

14 CP-14 1045 A 1

15 CP-15 1100 C 1

16 CP-16 1105 C 1

17 CP-17 1115 C 1

18 CP-18 1125 A 1

19 CP-19 1135 C 1

20 CP-20 1145 C 1

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Date: 05/16/14 Time: 1355

Date: 05/16/14 Time: 1845

Date: 05/16/14 Time: 1845

Cr(VI) [7196 or 7199 or 218.6]

T22 Metals [6010B/747X]

PNAs (8310) or (8270)

PCBs (8082)

Pesticides (8081)

SVOCs (8270)

En Core / Terra Core Prep (5035)

Oxyanions (8260)

VOCs (8260)

BTEX / MTBE (8260) or ()

TPH ()

TPH (g) or GFO

TPH (d) or DRG or (C6C36) or (C6-C44)

080113 Revision

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of our TICS are printed on the reverse side of the Green and Yellow C



Science Environmental Laboratories, Inc.

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7440 Lincoln Way
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(925) 689-9022

CHAIN OF CUSTODY RECORD

Date: 5/15/14
Page: 3 of 3

LABORATORY CLIENT: LISA BESTARD
ADDRESS: 5710 RUFFIN ROAD
CITY: San Diego STATE: CA ZIP: 92123
TEL: 858-576-1000 EMAIL: LBESTARD@JUNYANDMORE.COM

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TURNAROUND TIME: SAME DAY 24 HR 48 HR 72 HR STANDARD

SPECIAL INSTRUCTIONS: Lab to crush & homogenize Samples

LOG CODE

Field Filled

Preserved

Unpreserved

NO. OF CONT.

MATRIX

SAMPLING TIME

DATE

SAMPLE ID

LAB USE ONLY

21 CP-21 5/15/14 1155 C 1

22 CP-22 1205 C 1

23 CP-23 1215 A 1

24 CP-24 1225 C 1

25 CR-1 1130 A 1

26 CR-2 1200 C 1

27 CR-3 1230 A 1

28 CR-4 1300 C 1

29 CR-5 1330 C 1

30 CR-6 1400 A 1

Relinquished by: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Date: 05/16/14 Time: 1355

Date: 05/16/14 Time: 1845

Date: 05/16/14 Time: 1845

Cr(VI) [7196 or 7199 or 218.6]

T22 Metals [6010B/747X]

PNAs (8310) or (8270)

PCBs (8082)

Pesticides (8081)

SVOCs (8270)

En Core / Terra Core Prep (5035)

Oxyanions (8260)

VOCs (8260)

BTEX / MTBE (8260) or ()

TPH ()

TPH (g) or GFO

TPH (d) or DRG or (C6C36) or (C6-C44)

080113 Revision

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of our TICS are printed on the reverse side of the Green and Yellow C

WORK ORDER #: 14-05-

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: NINYO & MOORE

DATE: 05/16/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 671

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 671

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Checked by: 863

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☐ ☒ ☐

Sample container label(s) consistent with COC..... ☒ ☐ ☐

Sample container(s) intact and good condition..... ☒ ☐ ☐

Proper containers and sufficient volume for analyses requested..... ☐ ☒ ☐

Analyses received within holding time..... ☒ ☐ ☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container..... ☐ ☐ ☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ ☐ ☒

Tedlar bag(s) free of condensation..... ☐ ☐ ☒

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☒ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☒ 2

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJ_s ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_n ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 863

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 739

Preservative: h: HCL n: HNO₃ na₂:Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂*NaOH f: Filtered Scanned by: 739

SOP T100_090 (07/31/13)



CALSCIENCE

WORK ORDER NUMBER: 14-05-1360

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Ninyo & Moore

Client Project Name: 10th Ave. Marine Terminal / 107589002

Attention: Lisa Bestard
5710 Ruffin Road
San Diego, CA 92123-1013

Virendra R. Patel

Approved for release on 05/27/2014 by:
Virendra Patel
Project Manager

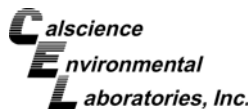


Calscience Environmental Laboratories, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.



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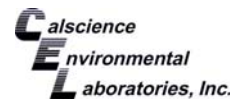
NELAP ID: 03220CA | ACLASS DoD-ELAP ID: ADE-1864 (ISO/IEC 17025:2005) | CSDLAC ID: 10109 | SCAQMD ID: 93LA0830



Contents

Client Project Name: 10th Ave. Marine Terminal / 107589002
Work Order Number: 14-05-1360

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Work Order Narrative

Work Order: 14-05-1360

Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain of Custody (COC) on 05/16/14. They were assigned to Work Order 14-05-1360.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

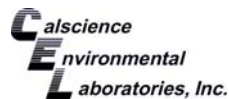
New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Return to Contents



Sample Summary

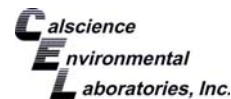
Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-05-1360
Project Name: 10th Ave. Marine Terminal / 107589002
PO Number:
Date/Time Received: 05/16/14 18:45
Number of Containers: 30

Attn: Lisa Bestard

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
CP-1	14-05-1360-1	05/15/14 09:05	1	Solid
CP-2	14-05-1360-2	05/15/14 09:10	1	Solid
CP-3	14-05-1360-3	05/15/14 09:15	1	Solid
CP-4	14-05-1360-4	05/15/14 09:20	1	Solid
CP-5	14-05-1360-5	05/15/14 09:25	1	Solid
CP-6	14-05-1360-6	05/15/14 09:40	1	Solid
CP-7	14-05-1360-7	05/15/14 09:45	1	Solid
CP-8	14-05-1360-8	05/15/14 09:50	1	Solid
CP-9	14-05-1360-9	05/15/14 10:05	1	Solid
CP-10	14-05-1360-10	05/15/14 10:10	1	Solid
CP-11	14-05-1360-11	05/15/14 10:15	1	Solid
CP-12	14-05-1360-12	05/15/14 10:25	1	Solid
CP-13	14-05-1360-13	05/15/14 10:35	1	Solid
CP-14	14-05-1360-14	05/15/14 10:45	1	Solid
CP-15	14-05-1360-15	05/15/14 11:00	1	Solid
CP-16	14-05-1360-16	05/15/14 11:05	1	Solid
CP-17	14-05-1360-17	05/15/14 11:15	1	Solid
CP-18	14-05-1360-18	05/15/14 11:25	1	Solid
CP-19	14-05-1360-19	05/15/14 11:35	1	Solid
CP-20	14-05-1360-20	05/15/14 11:45	1	Solid
CP-21	14-05-1360-21	05/15/14 11:55	1	Solid
CP-22	14-05-1360-22	05/15/14 12:05	1	Solid
CP-23	14-05-1360-23	05/15/14 12:15	1	Solid
CP-24	14-05-1360-24	05/15/14 12:25	1	Solid
CR-1	14-05-1360-25	05/15/14 11:30	1	Solid
CR-2	14-05-1360-26	05/15/14 12:00	1	Solid
CR-3	14-05-1360-27	05/15/14 12:30	1	Solid
CR-4	14-05-1360-28	05/15/14 13:00	1	Solid
CR-5	14-05-1360-29	05/15/14 13:30	1	Solid
CR-6	14-05-1360-30	05/15/14 14:06	1	Solid

Return to Contents



Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-05-1360
Project Name: 10th Ave. Marine Terminal / 107589002
Received: 05/16/14

Attn: Lisa Bestard

Page 1 of 2

Client Sample ID	Analyte	Result	Qualifiers	RL	Units	Method	Extraction
CP-1 (14-05-1360-1)	Aroclor-1248	320		50	ug/kg	EPA 8082	EPA 3545
CP-2 (14-05-1360-2)	Aroclor-1248	240		50	ug/kg	EPA 8082	EPA 3545
CP-3 (14-05-1360-3)	Aroclor-1248	250		50	ug/kg	EPA 8082	EPA 3545
CP-4 (14-05-1360-4)	Aroclor-1248	170		50	ug/kg	EPA 8082	EPA 3545
CP-5 (14-05-1360-5)	Aroclor-1248	210		50	ug/kg	EPA 8082	EPA 3545
CP-6 (14-05-1360-6)	Aroclor-1248	65		50	ug/kg	EPA 8082	EPA 3545
CP-7 (14-05-1360-7)	Aroclor-1248	120		50	ug/kg	EPA 8082	EPA 3545
CP-8 (14-05-1360-8)	Aroclor-1248	99		50	ug/kg	EPA 8082	EPA 3545
CP-9 (14-05-1360-9)	Aroclor-1248	180		50	ug/kg	EPA 8082	EPA 3545
CP-10 (14-05-1360-10)	Aroclor-1248	140		50	ug/kg	EPA 8082	EPA 3545
	Aroclor-1254	190		50	ug/kg	EPA 8082	EPA 3545
CP-11 (14-05-1360-11)	Aroclor-1248	97		50	ug/kg	EPA 8082	EPA 3545
CP-12 (14-05-1360-12)	Aroclor-1248	96		50	ug/kg	EPA 8082	EPA 3545
	Aroclor-1254	150		50	ug/kg	EPA 8082	EPA 3545
CP-13 (14-05-1360-13)	Aroclor-1248	81		50	ug/kg	EPA 8082	EPA 3545
CP-14 (14-05-1360-14)	Aroclor-1248	89		50	ug/kg	EPA 8082	EPA 3545
	Aroclor-1254	140		50	ug/kg	EPA 8082	EPA 3545
CP-15 (14-05-1360-15)	Aroclor-1248	73		50	ug/kg	EPA 8082	EPA 3545
CP-16 (14-05-1360-16)	Aroclor-1248	58		50	ug/kg	EPA 8082	EPA 3545
CP-17 (14-05-1360-17)	Aroclor-1248	55		50	ug/kg	EPA 8082	EPA 3545

* MDL is shown



Detections Summary

Client: Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Work Order: 14-05-1360
Project Name: 10th Ave. Marine Terminal / 107589002
Received: 05/16/14

Attn: Lisa Bestard

Page 2 of 2

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
CP-18 (14-05-1360-18)						
Aroclor-1248	52		50	ug/kg	EPA 8082	EPA 3545
Aroclor-1254	70		50	ug/kg	EPA 8082	EPA 3545
CP-20 (14-05-1360-20)						
Aroclor-1248	72		50	ug/kg	EPA 8082	EPA 3545
CP-21 (14-05-1360-21)						
Aroclor-1248	110		50	ug/kg	EPA 8082	EPA 3545
CP-22 (14-05-1360-22)						
Aroclor-1248	74		50	ug/kg	EPA 8082	EPA 3545
CP-23 (14-05-1360-23)						
Aroclor-1248	87		50	ug/kg	EPA 8082	EPA 3545
Aroclor-1254	110		50	ug/kg	EPA 8082	EPA 3545
CP-24 (14-05-1360-24)						
Aroclor-1248	59		50	ug/kg	EPA 8082	EPA 3545
CR-1 (14-05-1360-25)						
Aroclor-1248	57		50	ug/kg	EPA 8082	EPA 3545
CR-3 (14-05-1360-27)						
Aroclor-1248	63		50	ug/kg	EPA 8082	EPA 3545
CR-5 (14-05-1360-29)						
Aroclor-1248	120		50	ug/kg	EPA 8082	EPA 3545

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

Page 1 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-1	14-05-1360-1-AA	05/15/14 09:05	Solid	GC 58	05/22/14	05/24/14 00:05	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	320	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

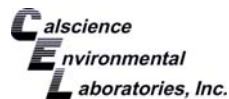
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

CP-2	14-05-1360-2-AA	05/15/14 09:10	Solid	GC 58	05/22/14	05/24/14 00:23	140522L11
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	240	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	98	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

Page 2 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-3	14-05-1360-3-AA	05/15/14 09:15	Solid	GC 58	05/22/14	05/24/14 06:04	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	250	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

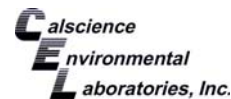
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	60	24-168	
2,4,5,6-Tetrachloro-m-Xylene	69	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-4	14-05-1360-4-AA	05/15/14 09:20	Solid	GC 58	05/22/14	05/24/14 00:41	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	170	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	24-168	
2,4,5,6-Tetrachloro-m-Xylene	83	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

Page 3 of 16

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-5	14-05-1360-5-AA	05/15/14 09:25	Solid	GC 58	05/22/14	05/24/14 05:10	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	210	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

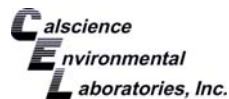
Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-6	14-05-1360-6-AA	05/15/14 09:40	Solid	GC 58	05/22/14	05/24/14 00:59	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	65	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	92	24-168	
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-7	14-05-1360-7-AA	05/15/14 09:45	Solid	GC 58	05/22/14	05/24/14 01:17	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	120	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	89	24-168	
2,4,5,6-Tetrachloro-m-Xylene	82	25-145	

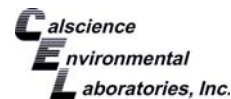
CP-8	14-05-1360-8-AA	05/15/14 09:50	Solid	GC 58	05/22/14	05/24/14 01:34	140522L11
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	99	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	102	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-9	14-05-1360-9-AA	05/15/14 10:05	Solid	GC 58	05/22/14	05/24/14 06:22	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	180	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	110	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

CP-10	14-05-1360-10-AA	05/15/14 10:10	Solid	GC 58	05/22/14	05/24/14 06:40	140522L11
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	140	50	1.00	
Aroclor-1254	190	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	312	24-168	2,7
2,4,5,6-Tetrachloro-m-Xylene	76	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-11	14-05-1360-11-AA	05/15/14 10:15	Solid	GC 58	05/22/14	05/24/14 05:28	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	97	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	142	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-12	14-05-1360-12-AA	05/15/14 10:25	Solid	GC 58	05/22/14	05/24/14 07:52	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	96	50	1.00	
Aroclor-1254	150	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	35	24-168	
2,4,5,6-Tetrachloro-m-Xylene	66	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-13	14-05-1360-13-AA	05/15/14 10:35	Solid	GC 58	05/22/14	05/24/14 05:46	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	81	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	88	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-14	14-05-1360-14-AA	05/15/14 10:45	Solid	GC 58	05/22/14	05/24/14 06:58	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	89	50	1.00	
Aroclor-1254	140	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	43	24-168	
2,4,5,6-Tetrachloro-m-Xylene	60	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-15	14-05-1360-15-AA	05/15/14 11:00	Solid	GC 58	05/22/14	05/24/14 07:16	140522L11
Parameter		Result		RL		DF	Qualifiers
Aroclor-1016		ND		50		1.00	
Aroclor-1221		ND		50		1.00	
Aroclor-1232		ND		50		1.00	
Aroclor-1242		ND		50		1.00	
Aroclor-1248		73		50		1.00	
Aroclor-1254		ND		50		1.00	
Aroclor-1260		ND		50		1.00	
Aroclor-1262		ND		50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
Decachlorobiphenyl		303		24-168		2,7	
2,4,5,6-Tetrachloro-m-Xylene		91		25-145			
CP-16	14-05-1360-16-AA	05/15/14 11:05	Solid	GC 58	05/22/14	05/24/14 01:52	140522L11
Parameter		Result		RL		DF	Qualifiers
Aroclor-1016		ND		50		1.00	
Aroclor-1221		ND		50		1.00	
Aroclor-1232		ND		50		1.00	
Aroclor-1242		ND		50		1.00	
Aroclor-1248		58		50		1.00	
Aroclor-1254		ND		50		1.00	
Aroclor-1260		ND		50		1.00	
Aroclor-1262		ND		50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
Decachlorobiphenyl		96		24-168			
2,4,5,6-Tetrachloro-m-Xylene		87		25-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 3545
Method: EPA 8082
Units: ug/kg

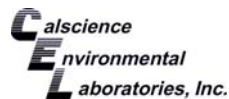
Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-17	14-05-1360-17-AA	05/15/14 11:15	Solid	GC 58	05/22/14	05/24/14 02:10	140522L11
Parameter		Result		RL		DF	Qualifiers
Aroclor-1016		ND		50		1.00	
Aroclor-1221		ND		50		1.00	
Aroclor-1232		ND		50		1.00	
Aroclor-1242		ND		50		1.00	
Aroclor-1248		55		50		1.00	
Aroclor-1254		ND		50		1.00	
Aroclor-1260		ND		50		1.00	
Aroclor-1262		ND		50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
Decachlorobiphenyl		92		24-168			
2,4,5,6-Tetrachloro-m-Xylene		86		25-145			
CP-18	14-05-1360-18-AA	05/15/14 11:25	Solid	GC 58	05/22/14	05/24/14 07:34	140522L11
Parameter		Result		RL		DF	Qualifiers
Aroclor-1016		ND		50		1.00	
Aroclor-1221		ND		50		1.00	
Aroclor-1232		ND		50		1.00	
Aroclor-1242		ND		50		1.00	
Aroclor-1248		52		50		1.00	
Aroclor-1254		70		50		1.00	
Aroclor-1260		ND		50		1.00	
Aroclor-1262		ND		50		1.00	
Surrogate		Rec. (%)		Control Limits		Qualifiers	
Decachlorobiphenyl		34		24-168			
2,4,5,6-Tetrachloro-m-Xylene		72		25-145			

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-19	14-05-1360-19-AA	05/15/14 11:35	Solid	GC 58	05/22/14	05/24/14 02:28	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	81	24-168	
2,4,5,6-Tetrachloro-m-Xylene	78	25-145	

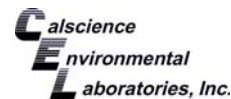
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-20	14-05-1360-20-AA	05/15/14 11:45	Solid	GC 58	05/22/14	05/24/14 02:46	140522L11

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	72	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	91	24-168	
2,4,5,6-Tetrachloro-m-Xylene	87	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-21	14-05-1360-21-AA	05/15/14 11:55	Solid	GC 31	05/22/14	05/24/14 12:41	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	110	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	96	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-22	14-05-1360-22-AA	05/15/14 12:05	Solid	GC 31	05/22/14	05/24/14 13:00	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	74	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	90	24-168	
2,4,5,6-Tetrachloro-m-Xylene	93	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CP-23	14-05-1360-23-AA	05/15/14 12:15	Solid	GC 31	05/22/14	05/24/14 13:19	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	87	50	1.00	
Aroclor-1254	110	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	158	24-168	
2,4,5,6-Tetrachloro-m-Xylene	79	25-145	

CP-24	14-05-1360-24-AA	05/15/14 12:25	Solid	GC 31	05/22/14	05/24/14 13:38	140522L03
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	59	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	113	24-168	
2,4,5,6-Tetrachloro-m-Xylene	85	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-1	14-05-1360-25-AA	05/15/14 11:30	Solid	GC 31	05/22/14	05/24/14 13:57	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	57	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	76	24-168	
2,4,5,6-Tetrachloro-m-Xylene	72	25-145	

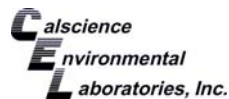
CR-2	14-05-1360-26-AA	05/15/14 12:00	Solid	GC 31	05/22/14	05/24/14 14:16	140522L03
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	73	24-168	
2,4,5,6-Tetrachloro-m-Xylene	80	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-3	14-05-1360-27-AA	05/15/14 12:30	Solid	GC 31	05/22/14	05/24/14 14:35	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	63	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	66	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

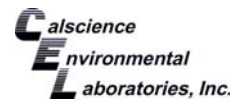
Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-4	14-05-1360-28-AA	05/15/14 13:00	Solid	GC 31	05/22/14	05/24/14 14:54	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	64	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-5	14-05-1360-29-AA	05/15/14 13:30	Solid	GC 31	05/22/14	05/24/14 15:13	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	120	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	63	24-168	
2,4,5,6-Tetrachloro-m-Xylene	90	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
CR-6	14-05-1360-30-AA	05/15/14 14:06	Solid	GC 31	05/22/14	05/24/14 15:32	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	50	24-168	
2,4,5,6-Tetrachloro-m-Xylene	73	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Analytical Report

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082
 Units: ug/kg

Project: 10th Ave. Marine Terminal / 107589002

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Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-535-2636	N/A	Solid	GC 31	05/22/14	05/22/14 14:33	140522L03

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	94	24-168	
2,4,5,6-Tetrachloro-m-Xylene	97	25-145	

Method Blank	099-12-535-2640	N/A	Solid	GC 58	05/22/14	05/23/14 19:17	140522L11
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Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	50	1.00	
Aroclor-1221	ND	50	1.00	
Aroclor-1232	ND	50	1.00	
Aroclor-1242	ND	50	1.00	
Aroclor-1248	ND	50	1.00	
Aroclor-1254	ND	50	1.00	
Aroclor-1260	ND	50	1.00	
Aroclor-1262	ND	50	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	103	25-145	

Return to Contents

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

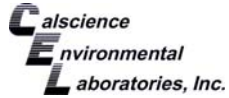
Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-05-1645-1	Sample	Solid	GC 31	05/22/14	05/22/14 14:52	140522S03
14-05-1645-1	Matrix Spike	Solid	GC 31	05/22/14	05/22/14 15:30	140522S03
14-05-1645-1	Matrix Spike Duplicate	Solid	GC 31	05/22/14	05/22/14 15:49	140522S03

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	108.6	109	104.6	105	50-135	4	0-20	
Aroclor-1260	ND	100.0	124.7	125	115.1	115	50-135	8	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - Spike/Spike Duplicate

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

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Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number				
CP-20	Sample	Solid	GC 58	05/22/14	05/24/14 02:46	140522S11				
CP-20	Matrix Spike	Solid	GC 58	05/22/14	05/24/14 03:04	140522S11				
CP-20	Matrix Spike Duplicate	Solid	GC 58	05/22/14	05/24/14 03:22	140522S11				
Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	100.0	132.3	132	141.9	142	50-135	7	0-20	3
Aroclor-1260	ND	100.0	88.22	88	105.4	105	50-135	18	0-25	

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore Date Received: 05/16/14
 5710 Ruffin Road Work Order: 14-05-1360
 San Diego, CA 92123-1013 Preparation: EPA 3545
 Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

Page 1 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number				
099-12-535-2636	LCS	Solid	GC 31	05/22/14	05/22/14 15:11	140522L03				
Parameter	Spike Added		Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers				
Aroclor-1016	100.0		90.88	91	50-135					
Aroclor-1260	100.0		91.00	91	50-135					

Return to Contents

RPD: Relative Percent Difference. CL: Control Limits



Quality Control - LCS

Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123-1013

Date Received: 05/16/14
Work Order: 14-05-1360
Preparation: EPA 3545
Method: EPA 8082

Project: 10th Ave. Marine Terminal / 107589002

Page 2 of 2

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2640	LCS	Solid	GC 58	05/22/14	05/23/14 18:59	140522L11
Parameter	Spike Added		Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	100.0		93.91	94	50-135	
Aroclor-1260	100.0		93.02	93	50-135	

[Return to Contents](#)

RPD: Relative Percent Difference. CL: Control Limits

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Sample Analysis Summary Report

Work Order: 14-05-1360

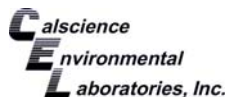
Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3545	669	GC 31	1
EPA 8082	EPA 3545	669	GC 58	1

[Return to Contents](#)

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Glossary of Terms and Qualifiers

Work Order: 14-05-1360

Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CalScience Environmental Laboratories, Inc.

SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 895-5494

NoCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 889-9022

CHAIN OF CUSTODY / RECORD

WO# / LAB USE ONLY
14-05-1360

Date: **5/15/14** Page: **1** of **2**

P.O. NO.: **107589002**

CLIENT PROJECT NAME / NUMBER:
TENTH AVE MARINE TERMINAL

SAMPLER(S): (PRINT)
LISA BESTARD

PROJECT CONTACT:
LISA BESTARD

LABORATORY CLIENT:
LISA BESTARD

ADDRESS:
5710 RUFFIN ROAD

CITY: **San Diego** STATE: **CA** ZIP: **92123**

TEL: **619-576-1000** E-MAIL: **LBESTARD@NINTVARDMORE.COM**

TURNAROUND TIME:
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ STANDARD

☐ COELT EDF ☐ GLOBAL ID

SPECIAL INSTRUCTIONS:
Lab to crush + homogenize Samples

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	TIME	NO. OF CONT.	MATRIX	Field Filled	Preserved	Unpreserved	TPH (g) or GRO	TPH (d) or DRO or (C6C36) or (C6-C14)	TPH ()	BTEX / MTBE (260) or ()	VOCs (260)	Oxygenates (260)	En Core / Terra Core Prep (5035)	SVOCs (2270)	Pesticides (8081)	PCBs (8082)	PNAs (8310) or (8270)	T22 Metals (6010B/747X)	Cr(VI) (7196 or 7199 or 218.6)
1	CP-1	5/15/14	0905	1	C																
2	CP-2		0910	1	C																
3	CP-3		0915	1	A																
4	CP-4		0920	1	C																
5	CP-5		0925	1	C																
6	CP-6		0940	1	C																
7	CP-7		0945	1	C																
8	CP-8		0950	1	C																
9	CP-9		1005	1	A																
10	CP-10		1010	1	A																
Relinquished by: (Signature)																					
Relinquished by: (Signature)																					
Relinquished by: (Signature)																					



Science Environmental Laboratories, Inc.

SoCal Laboratory
7440 Lincoln Way
Garden Grove, CA 92841-1427
(714) 885-5484

NoCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date: 5/15/14
Page: 2 of 3

LABORATORY CLIENT:
LISA BESTARD
ADDRESS: 5710 RUFFIN ROAD
CITY: San Diego STATE: CA ZIP: 92123
TEL: 619-576-1000 EMAIL: LBESTARD@JUNYANDMORE.COM
TURNAROUND TIME: ☐ 24 HR ☐ 48 HR ☒ STANDARD
☐ COELT EDF GLOBAL ID LOG CODE

CLIENT PROJECT NAME / NUMBER:
TENTH AVE MARINE TERMINAL 107589002

PROJECT CONTACT:
LISA BESTARD

REQUESTED ANALYSES

<input type="checkbox"/> SAME DAY	<input type="checkbox"/> 24 HR	<input type="checkbox"/> 48 HR	<input type="checkbox"/> 72 HR	<input checked="" type="checkbox"/> STANDARD
LOG CODE				
<div><div><input type="checkbox"/> COELT EDF</div><div>GLOBAL ID</div></div>				
SPECIAL INSTRUCTIONS: Lab to crush & homogenize Samples				
Field Filled				
Unpreserved				
Preserved				
TPH (g) or GFO				
TPH (d) or DRG or (C6C36) or (C6-C44)				
TPH ()				
BTEX / MTBE (8260) or ()				
VOCs (8260)				
Oxygenates (8260)				
En Core / Terra Core Prep (5035)				
SVOCs (8270)				
Pesticides (8081)				
PCBs (8082)				
PNAs (8310) or (8270)				
T22 Metals (6010B/747X)				
Cr(VI) (7196 or 7199 or 218.6)				

Date: 05/16/14 Time: 1355

Date: 05/16/14 Time: 1845

Date: Time:

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Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

090113 Revision

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of our TICS are printed on the reverse side of the Green and Yellow C.



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(714) 885-5484

NoCal Service Center
5063 Commercial Circle, Suite H
Concord, CA 94520-8577
(925) 689-9022

CHAIN OF CUSTODY RECORD

Date: 5/15/14
Page: 3 of 3

LABORATORY CLIENT:
LISA BESTARD
ADDRESS: 5710 RUFFIN ROAD
CITY: San Diego STATE: CA ZIP: 92123
TEL: 619-576-1000 EMAIL: LBESTARD@JUNYANDMORE.COM
TURNAROUND TIME: ☐ 24 HR ☐ 48 HR ☒ STANDARD
☐ COELT EDF GLOBAL ID LOG CODE

CLIENT PROJECT NAME / NUMBER:
TENTH AVE MARINE TERMINAL 107589002

PROJECT CONTACT:
LISA BESTARD

REQUESTED ANALYSES

<div><div><div><div><div><input type="checkbox"/></div><div>SAME DAY</div></div><div><div><input type="checkbox"/></div><div>24 HR</div></div><div><div><input type="checkbox"/></div><div>48 HR</div></div><div><div><input type="checkbox"/></div><div>72 HR</div></div></div><div><div><input type="checkbox"/></div><div>COELT EDF</div></div><div><div><input type="checkbox"/></div><div>GLOBAL ID</div></div></div><div>LOG CODE</div><div><div><div><div><div><div></div><div>STANDARD</div></div></div><div><div><div></div><div></div></div></div></div></div></div></div>										<div><div><div><div><div>TPH (g) or GFO</div><div>TPH (d) or DRG or (C6C36) or (C6-C44)</div><div>TPH ()</div><div>BTEX / MTBE (8260) or ()</div><div>VOCs (8260)</div><div>Oxygenates (8260)</div><div>En Core / Terra Core Prep (5035)</div><div>SVOCs (8270)</div><div>Pesticides (8081)</div><div>PCBs (8082)</div><div>PNAs (8310) or (8270)</div><div>T22 Metals (6010B/747X)</div><div>Cr(VI) (7196 or 7199 or 218.6)</div></div></div></div></div>									
<div><div><div><div><div><div></div><div>SPECIAL INSTRUCTIONS:</div></div><div>Lab to Crush + homogenize Samples</div></div></div></div></div>										Field Filtered		Preserved		Unpreserved					
LAB USE ONLY		SAMPLE ID		SAMPLING DATE		SAMPLING TIME		MATRIX		NO. OF CONT.									
21		CP-21		5/15/14		1155		A		1									
22		CP-22				1205		C		1									
23		CP-23				1215		A		1									
24		CP-24				1225		C		1									
25		CR-1				1130		A		1									
26		CR-2				1200		C		1									
27		CR-3				1230		A		1									
28		CR-4				1300		C		1									
29		CR-5				1330		C		1									
30		CR-6		✓		1400		A		1									

Date: 05/16/14 Time: 1355

Date: 05/16/14 Time: 1845

Date: Time:

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Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

Received by: (Signature/Affiliation)

090113 Revision

DISTRIBUTION: White with final report, Green and Yellow to Client.
Please note that pages 1 and 2 of our TICS are printed on the reverse side of the Green and Yellow C.

WORK ORDER #: 14-05-

Page 22 of 32
1 2 3 4 5 6
6/16/14

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: NINYO MOORE

DATE: 05/16/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 1.9 °C - 0.3 °C (CF) = 1.6 °C ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter

Checked by: 671

CUSTODY SEALS INTACT:

☐ Cooler ☐ _____ ☐ No (Not Intact) ☒ Not Present ☐ N/A

Checked by: 671

☐ Sample ☐ _____ ☐ No (Not Intact) ☒ Not Present

Checked by: 863

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.

☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.

Sampler's name indicated on COC..... ☐ ☒ ☐

Sample container label(s) consistent with COC..... ☒ ☐ ☐

Sample container(s) intact and good condition..... ☒ ☐ ☐

(25-133)
Proper containers and sufficient volume for analyses requested..... ☐ ☒ ☐

Analyses received within holding time..... ☒ ☐ ☐

Aqueous samples received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen..... ☐ ☐ ☒

Proper preservation noted on COC or sample container..... ☐ ☐ ☒

☐ Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... ☐ ☐ ☒

Tedlar bag(s) free of condensation..... ☐ ☐ ☒

CONTAINER TYPE:

Solid: ☐ 4ozCGJ ☒ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (____) ☐ EnCores® ☐ TerraCores® ☒ Z

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s

☐ 500AGB ☐ 500AGJ ☐ 500AGJs ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☐ 1PB ☐ 1PB_{na} ☐ 500PB

☐ 250PB ☐ 250PB_{na} ☐ 125PB ☐ 125PB_{znna} ☐ 100PJ ☐ 100PJ_{na2} ☐ _____ ☐ _____ ☐ _____

Air: ☐ Tedlar® ☐ Canister Other: ☐ _____ Trip Blank Lot#: _____ Labeled/Checked by: 863

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 739

Preservative: h: HCL n: HNO₃ na₂: Na₂S₂O₃ na: NaOH p: H₃PO₄ s: H₂SO₄ u: Ultra-pure znna: ZnAc₂*NaOH f: Filtered Scanned by: 739

**HAZARDOUS BUILDING MATERIAL
ABATEMENT SPECIFICATIONS
TENTH AVENUE MARINE TERMINAL
WAREHOUSE C AND TRANSIT SHED NO. 1
TERMINAL STREET
SAN DIEGO, CALIFORNIA**

PREPARED FOR:

Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

PREPARED BY:

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

October 29, 2013
Project No. 107589001

October 29 2013
Project No. 107589001

Mr. Daniel Lee
Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

Subject: Hazardous Building Material Abatement Specifications
Tenth Avenue Marine Terminal
Warehouse C and Transit Shed No. 1
Terminal Street
San Diego, California


Reference: Ninyo & Moore, 2013, Hazardous Building Materials Survey, Tenth Avenue Marine Terminal, Warehouse C and Transit Shed No. 1, Terminal Street, San Diego, California: dated October 3.

Dear Mr. Lee:

In accordance with Subconsultant Agreement – Harris Project No. 112064, dated August 30, 2013, Ninyo & Moore has prepared Hazardous Building Material Abatement Specifications for the above-referenced site. These specifications will serve as guidance documents to contractors for the removal/renovation and management of asbestos-containing materials, lead-containing surfaces, and items falling under the Resource Conservation and Recovery Act Universal Waste Rule for the demolition of the building located at Warehouse C and Transit Shed No. 1 at the Tenth Avenue Marine Terminal. Ninyo & Moore is pleased to be of continued service to you on this important project.

Sincerely,
NINYO & MOORE


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Distribution: (3) Addressee

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SECTION 1
ASBESTOS ABATEMENT AND REMOVAL SPECIFICATIONS

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1. SCOPE OF WORK

The scope of work for the abatement project will involve the abatement of asbestos-containing materials (ACMs) and asbestos-containing construction materials (ACCMs) prior to building demolition, as outlined in the construction contract documents. ACMs and ACCMs have been identified at the following locations at Warehouse C and Transit Shed No. 1 (subject buildings).

Table 1 – Description and Location of Asbestos-Containing Materials

ACM Location ⁽¹⁾	ACM Description
WAREHOUSE C	
Clerk Shed, trucker's restroom ceiling throughout	White/brown mastic associated with 12"x12" acoustic ceiling tile ⁽²⁾
Eastern Addition, interior and exterior corrugated metal walls throughout	Brown/white wall panel coating
Exterior perimeter concrete walls, at metal expansion joint plates	Gray expansion joint caulking
Clerk Shed, 2nd floor office ceiling throughout	Brown mastic associated with 12"x12" acoustic ceiling tile ⁽²⁾
Clerk Shed, 2nd floor rear office ceiling throughout	Brown mastic associated with 12"x12" acoustic ceiling tile ⁽²⁾
Clerk Shed, 2nd floor offices, floors throughout	9"x9" gray vinyl floor tile and associated black mastic
Clerk Shed, 2nd floor offices, walls throughout	Brown covebase mastic ⁽²⁾
Exterior fire doorways throughout	Firedoors
TRANSIT SHED NO. 1	
Exterior perimeter concrete walls, at metal expansion joint plates	White expansion joint caulking
Exterior fire doorways throughout	Firedoors
NOTES: (1) = ACM locations are based upon Ninyo & Moore's visual observations during survey activities. Materials that are uniform in color, texture, construction or application date, and/or general appearance to materials found to be asbestos-containing, should be presumed to be asbestos-containing. (2) = Material is an ACCM.	

The ACMs and ACCMs were identified during a hazardous building material survey conducted in September of 2013. Tables summarizing the type of material sampled and results are included in the referenced Hazardous Building Materials Survey report (Section 5). **It is the Contractor's responsibility to locate and quantify materials that are to be impacted by the scheduled demolition activities, as outlined in the construction contract documents prior to bid submittals, as part of the Contractor's due diligence, and prior to initiating demolition activities at the subject buildings.**

Our understanding is that the buildings have been scheduled for demolition activities. Specific Contractor responsibilities include, but are not limited to, the following activities listed below, which will be performed as part of the scope of work.

- The Contractor is responsible for the protection and decontamination of fixtures and equipment remaining in the work area, prior to, and after abatement.
- The Contractor shall furnish all labor, materials, services, insurance, equipment, and decontamination facilities to carry out the complete removal and disposal of all ACMs and ACCMs identified in these specifications that are part of the demolition project.
- Work shall be performed in accordance with all applicable regulations, codes, ordinances, and standards of governing authorities having jurisdiction and the requirements specified herein. Where applicable state or local standards are more stringent than federal standards, the Contractor shall adhere to the most stringent standards.

In addition, the Contractor shall furnish all labor, material, supervision, construction tools, and equipment necessary to perform the following work:

- Removal of all identified ACMs and ACCMs, as found in Table 1, prior to building demolition. The Contractor shall verify quantities and locations as part of the Contractor's due diligence.
- Provision and maintenance of environmental and occupational safety protective measures, equipment, and procedures at the work site, including appropriate engineering controls.
- Cleaning of the work site to completely remove all visually apparent asbestos and reduce airborne asbestos fiber concentrations.
- If, in the course of removal of ACMs and ACCMs from the site, the Contractor discovers any other ACMs and ACCMs other than those described in plans, reports, and/or specifications, the Contractor shall notify the Owner and/or Consultant in writing, and after receiving the Owner's approval, the Contractor will remove and dispose of such item(s) at the contract unit price identified by the Contractor in its bid.
- With respect to available utilities, the Contractor shall coordinate access and use of all utilities as needed for the duration of the project with the Owner. If utilities are unavailable, the Contractor will be required to provide the utilities at the Contractor's own cost.
- The Contractor shall obtain all necessary permits from the owner, the City of San Diego, San Diego Air Pollution Control District (SDAPCD), and any other authorities having jurisdiction.

- Packaging, transport, and disposal of all asbestos to a disposal site approved by the applicable federal, state, and local authorities shall be the sole responsibility of the Contractor, including any certifications or statements of non-friability required by the landfill.
- Cooperation with the Consultant with regards to air monitoring and observation of procedures.

1.1. Definitions

- “Aggressive method” means removal or disturbance of building material by sampling, abrading, grinding, or method that breaks, crumbles, or disintegrates intact ACM.
- “Amended water” means water to which surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.
- “Area sampling” means sampling of asbestos fiber concentrations which approximates the concentrations of asbestos in the theoretical breathing zone but is not actually collected in the breathing zone of an employee.
- “Asbestos” includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, actinolite, and any of these materials that has been chemically treated and/or altered.
- “ACM” means asbestos containing material; any material containing more than 1% asbestos (>1.0%).
- “ACCM” means asbestos-containing construction material; any material containing between 0.1% and 1% (0.1% to 1%) asbestos.
- “Authorized person” means any person authorized by the employer and required by work duties to be present in regulated areas.
- “Class I asbestos work” means activities involving the removal of thermal system insulation (TSI) and surfacing ACM and PACM.
- “Class II asbestos work” means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos-containing wallboard, floor tile, and sheeting, roofing and siding shingles, and construction mastics.
- “Class III asbestos work” means repair and maintenance operations where ACM, including TSI and surfacing ACM and PACM, is likely to be disturbed.
- “Clean room” means an uncontaminated room having facilities for the storage of employees’ street clothing and uncontaminated materials and equipment.

- “Closely resemble” means the major workplace conditions, which have contributed to the levels of historic asbestos exposure, are no more protective than the conditions of the current workplace.
- “Competent person” means one who is capable of identifying existing and predictable hazards in the surroundings or working conditions, which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them. In addition, for Class I and Class II work, one who is specially trained in a training course, which meets the criteria of the Environmental Protection Agency (EPA) model accreditation Plan (40 Code of Federal Regulations [CFR] 763) for project designer or supervisor, or its equivalent.
- “Consultant” shall be the independent party retained by the Owner to provide consultation and supervision services for asbestos abatement activities.
- “Critical barrier” means one or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.
- “Decontamination area” means an enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.
- “Demolition” means the wrecking or taking out of load-supporting structural member and any related razing, removing, or stripping of building materials.
- “Disturbance” means contact that releases fibers from ACM or ACCM or debris containing ACM or ACCM. This term includes activities that disrupt the matrix of ACM or ACCM, render ACM or ACCM friable, or generate visible debris. Disturbance includes cutting away small amounts of ACM and ACCM, no greater than the amount that can be contained in one standard sized glove bag or waste bag in order to access a building component. In no event shall the amount of ACM or ACCM so disturbed exceed the amount that can be contained in one glove bag or waste bag, which shall not exceed 60 inches in length and width.
- “Employee exposure” means that exposure to airborne asbestos that would occur if the employee were not using respiratory protective equipment.
- “Encapsulants” means specific materials in various forms used to chemically or physically entrap asbestos fibers in various configurations to prevent these fibers from becoming airborne. There are four types of encapsulants as follows which must comply with performance requirements as specified herein.
 - Removal Encapsulant (can be used as a wetting agent).

- Bridging Encapsulant (used to provide a tough, durable surface coating to ACM).
- Penetrating Encapsulant (used to penetrate the ACM encapsulating all asbestos fibers and prevent fiber release due to routine mechanical damage).
- Lock-Down Encapsulant (used to seal off or “lock-down” minute asbestos fibers left on surfaces from which ACM has been removed).
- “Equipment room (change room)” means a contaminated room located within the decontaminated area that is supplied with impermeable bags or containers for the disposal of contaminated protective clothing and equipment.
- “Fiber” means a particulate form of asbestos, 5 micrometers or longer, with a length to diameter ratio of at least 3 to 1.
- “Glovebag” means an impervious plastic bag-like enclosure that can be affixed around ACM, with glove-like appendages through which materials and tools can be handled.
- “High-efficiency particulate air (HEPA) filter” means a filter capable of trapping and retaining at least 99.97% of all mono-dispersed particles of 0.3 micrometer in diameter.
- “Homogenous area” means an area of surfacing material or TSI that is uniform in color, texture, and date of installation.
- “Industrial hygienist” means a professional qualified by education, training, and experience to anticipate, recognize, evaluate, and develop controls for occupational health hazards.
- “Intact” means that ACM has not crumbled, been pulverized, or otherwise deteriorated so that it is no longer likely to be bound with its matrix.
- “Modification” means a changed or altered procedure, material, or component of a control system that replaces a procedure, material or component of a required system. Omitting a procedure or component, or reducing or diminishing the stringency or strength of a material or component of the control system is not a “modification.”
- “Negative initial exposure assessment” means a demonstration by the employer that complies with the criteria in Title 8 California Code of Regulations (CCR) 1529, subsection (f)(2)(c), that employee exposure during an operation is expected to be consistently below the Permissible Exposure Limit (PEL).
- “Owner” shall refer to the Port of San Diego.
- “Presumed ACM” means thermal system insulation and surfacing material found in buildings constructed no later than 1980. The designation of material as “PACM” may be rebutted pursuant to Title 8 CCR 1529, subsection (k)(4).

- “Project Designer” means a person who has successfully completed the initial training requirements and maintained annual refreshers for the abatement project designer established by 40 U.S.C. Sec. 763.90(g).
- “Regulated area” means an area established by the employer to demarcate areas where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
- “Removal” means all operations where ACM and/or ACCM are taken out or stripped from structures or substrates, and includes demolition operations.
- “Renovation” means the modifying of an existing structure, or portion thereof.
- “Repair” means overhauling, rebuilding, reconstructing, or reconditioning of structures or substrates, including encapsulation or other repair of ACM or ACCM attached to structures or substrates.
- “Surfacing material” means material that is sprayed, troweled-on, or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing, and other purposes).
- “Surfacing ACM” means surfacing material, which contains more than 1% (>1.0%) asbestos.
- “Surfactant” means a chemical wetting agent added to water to improve penetration, thus reducing the amount of water required for a given operation or area, and enhancing the effect of the water in reducing fiber release.
- “TSI” means ACM applied to pipes, fittings, boilers, breeching, tanks, ducts, or other structural components to prevent heat loss or gain.

1.2. Notifications

Notification of asbestos abatement activities shall be provided by the Contractor as required and in accordance to all applicable federal, state, and local agencies prior to the start of abatement activities.

1.3. Quantity Takeoff

All ACM and ACCM quantities shall be determined by the bidder and no claim for additional cost will be accepted by the Owner as a result of quantities of ACMs and ACCMs to be removed.

1.4. Regulatory Compliance

All work shall be performed in compliance with pertinent laws, rules, and regulations existing at the time of the work, including but not limited to:

- General Industry Safety and Health Standards, 29 CFR Part 1910.
- Safety and Health Standards for the Construction Industry, 29 CFR Part 1926.
- The Occupational Safety and Health Standards for Asbestos, 29 CFR Parts 1910.1001 and 1926.1101.
- The EPA National Emission Standard for Hazard Air Pollutants, National Emission Standard for Asbestos, Title 40 CFR Part 61(a) and (m).
- The Occupational Safety and Health Administration (OSHA) Standards, for respiratory protection, 29 CFR Part 1910.134.
- CCR, Title 8, Section 1529, Asbestos in Construction.
- The Transportation Safety Act, Hazardous Material Transportation Act, Title 49 CFR Parts 106, 107, 171 to 179.
- The Asbestos Hazard Emergency Response Act, 40 CFR, Part 763.
- All applicable state, local regulations, and ordinances, including any regulations regarding State and/or local licenses or certificates.

Where applicable state or local regulations are more stringent than OSHA requirements or the requirements referenced herein, the Contractor shall adhere to the more stringent regulations. In addition, the Contractor warrants that he is familiar with the codes and requirements applicable to asbestos abatement work and shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work. If the Contractor observes that the Specifications or plans at variance therewith, he shall give written notice to the Owner and/or

Consultant describing such variances. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without written notice to the Owner and/or Consultant, the Contractor shall bear all costs arising there from. The Contractor's particular attention is directed to the applicable California Occupational Safety and Health Administration (Cal-OSHA) regulations found in CCR Title 8, Section 1529 and the necessity of complying with the regulations in the progress of his work. Failure or omission on the part of the Contractor, or any of its representatives, either to discover or to bring to the attention of the Owner and/or Consultant any deviation from, omission from, or noncompliance with the requirements for asbestos abatement shall not be used by the Contractor as defense for failure on its part to fulfill such requirements.

2. CONTRACTOR SUBMITTALS

2.1. Manufacturer's Product Data

- HEPA-Filtered Vacuum Equipment
- Respirators
- Surfactants
- Encapsulants

2.2. Plan for Removal and Demolition of Asbestos

The Contractor shall prepare and submit a detailed job specific plan of the work procedures to be used in the removal and demolition of materials containing asbestos at least **two weeks prior** to the start of work.

- The plan shall be prepared and signed by the Contractor and Contractor's Competent Person.
- Such plan shall include a sketch showing the location, size, and details of asbestos control areas, location and details of the change rooms, layout of change rooms, layout and location of waste container pass out airlock system, and locations of HEPA-filtered negative air equipment, if applicable.

- The plan shall also include interface of trades involved in the construction, sequencing of asbestos-related work, disposal plan, type of wetting agent and removal encapsulants to be used, respirators, protective equipment, pressure differential monitoring devices, and a detailed description of the method to be employed in order to control pollution.
- The plan shall include copies of emergency, security, and contingency plans as follows:
 - A plan to provide emergency and fire evacuation for removing workers from the work zone. A copy of this plan shall be filed with the local fire and/or ambulance unit.
 - A plan for maintaining the security of the work zone. The security plan shall provide a means of preventing accidental or unauthorized entry.
 - A contingency plan addressing emergencies, equipment failures, and barrier failure. This plan shall include telephone numbers of representatives of the Contractor to be contacted in emergencies.
- The plan shall be approved by the Owner and/or Consultant prior to the start of asbestos abatement work.
- Prior to beginning work, the Owner and/or Consultant and Contractor shall meet to discuss in detail the asbestos plan, including work procedures and safety precautions.

2.3. Administrative and Contractor Closeout Submittals

2.3.1. Notification of Equipment Rental

If rental equipment is to be used during asbestos handling and disposal, written notification concerning the intended use of the equipment will be furnished to the rental agency, with a copy to the Owner and/or Consultant.

2.3.2. Landfill Delivery Records

Within three days after delivery of ACM to the landfill, submit detailed delivery tickets and hazardous waste manifests, prepared, signed, and dated by an agent of the landfill, certifying the amount of materials delivered to the landfill.

2.3.3. Waste Disposal Site Approval

Submit the recommended waste disposal site to the Owner and/or Consultant for approval prior to the start of the project. Submit written evidence to the Owner and/or Consultant prior to disposal, that the waste disposal site is approved for asbestos disposal by the EPA and other applicable authorities. At job completion, these records shall be inserted into the job binder and transmitted to the Owner and/or Consultant.

2.3.4. Personnel Training Certificates

Prior to the Notice to Proceed, the Contractor shall submit to the Owner and/or Consultant a declaration certifying that all of the Contractor's employees have been adequately trained in accordance with CCR Title 8, Section 1529. The Contractor shall also submit proof that all personnel who will be permitted to enter contaminated work areas have been adequately trained in accordance with CCR Title 8, Section 1529 for certification as an Asbestos Worker or Supervisor for Class I and II asbestos abatement projects.

2.3.5. Medical Examination and Certification

Prior to the Notice to Proceed, the Contractor shall submit proof that all personnel who will be permitted to enter contaminated work areas have had medical examinations in accordance with CCR Title 8, Section 1529 and 29 CFR 1910.134. In addition, the Contractor shall provide a written certification signed by a licensed physician that all workers and supervisors have met or exceeded all of the medical prerequisites listed herein and in CCR Title 8, Section 1529 and 29 CFR 1910.134.

2.3.6. Testing Laboratory

The Contractor shall submit:

- The name, address, and telephone number of each testing laboratory selected for the sampling, analysis, and reporting of airborne concentrations of asbestos fibers along with evidence that each laboratory selected holds the appropriate state license and/or permits;
- Certification that each laboratory is American Industrial Hygiene Association (AIHA) accredited; and

- Persons counting the samples have been judged proficient by current inclusion on the AIHA Asbestos Analysis Registry and have successfully participated in the laboratory in the Proficiency Analytical Testing Program.

2.3.7. Personal Air Sampling Results

The Contractor shall have complete fiber counting for personal air sampling and provide results to the Owner and/or Consultant for review *within 24 hours of sample collection*. The Contractor will notify the Owner and/or Consultant immediately of any airborne levels of asbestos fibers in excess of the PEL.

2.3.8. Asbestos Disposal Quantity Report

The Contractor shall review and report to the Owner and/or Consultant, within 24 hours from the end of each work day, the amount of asbestos containing material removed during the previous day.

2.3.9. Contractor Licensing Board Asbestos Certification

Submit a copy of the Contractor's California State Contractor's Licensing Board Asbestos Certification in accordance with the California Business and Professional Code, Section 7058.5, to the Owner and/or Consultant.

2.3.10. Contractor Class C Asbestos Removal License

Submit proof that the Contractor possesses a current California Class C Asbestos Removal License to the Owner and/or Consultant.

2.3.11. Hazardous Waste Hauler License and EPA Transporter's Number

Submit proof that the Contractor's Hazardous Waste Hauler possesses a current Hazardous Waste Hauler License and EPA Transporter's Number to the Owner and/or Consultant.

2.3.12. At Job Completion

Contractor shall transmit the job binder to Owner and/or Consultant. Contents shall be as described in this section plus any additional items as designated by the Owner and/or Consultant.

2.4. Quality Assurance

- Where the methods or procedures are specified, they shall constitute the minimum measures and shall in no way relieve the Contractor of sole responsibility for the means, measures, methods, techniques, sequences, or safety measures in connection with the work.
- The removal of asbestos shall be supervised by a licensed supervisor who has experience in this field of construction and can furnish a record of satisfactory performance on at least three projects for work of comparable type and size.
- Subcontractor qualifications shall be the same in form and quantity as required for the Contractor.

3. PRODUCTS

Products to be supplied by the Contractor, include, but are not limited to, the following.

- **Polyethylene:** Polyethylene sheeting in various sizes to minimize the frequency of joints.
- **Tape:** Glass fiber or other tape capable of sealing joints of adjacent plastic sheets and for attachment of plastic sheeting to finished or unfinished surfaces of dissimilar materials under both dry and wet conditions.
- **Surfactant (Wetting Agent):** Shall consist of materials that are non-toxic and non-irritating to skin and eye, and non-carcinogenic. The wetting agent shall consist of 50% polyoxyethylene or polyglycolester and 50% polyoxyethylene ether, or the equivalent. Wetting agents shall be applied by means of an airless sprayer or equivalent.
- **Encapsulant:** Shall conform to EPA requirements, and shall contain no toxic or hazardous substances and no solvents.
- **Impermeable Containers:** Air- and water-tight, suitable to receive and retain any asbestos-containing or contaminated materials until disposal time at an approved site and labeled in accordance with applicable Cal-OSHA regulations (CCR Title 8, Section 1529). Two types of impermeable containers shall be used:

- 6-millimeter (mil) plastic bags.
- Metal or fiber drums with tightly fitting lids.
- **Warning Labels and Signs:** In conformance with applicable Cal-OSHA regulations (CCR Title 8, Section 1529).
- **Other Materials:** Provide all other materials, such as lumber, nails, and hardware that may be required to construct and dismantle the decontamination area and the barriers that isolate the work area.

4. EXECUTION

4.1. Material Handling

- Deliver materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.
- Store materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damages or contamination.
- Removal of all ACMs from the premises. Dispose of materials that become contaminated with asbestos in accordance with applicable regulatory standards.

4.2. Equipment

4.2.1. Respirators

The Contractor shall provide workers with personally issued and marked respiratory equipment approved by National Institute for Occupational Safety and Health and meeting the specifications of Cal-OSHA. This respiratory equipment shall be suitable for the asbestos exposure level in the work area according to CCR Title 8, Section 1529(i). The Contractor shall provide disposable HEPA (P100) cartridges as required, with sufficient replacement cartridges.

4.2.2. Personal Protective Equipment

The Contractor shall provide workers, the Owner and/or Consultant, and authorized visitors with sets of protective disposable clothing, head covers, gloves, eye protection,

and foot covers of sizes to properly fit individual workers and visitors whenever they are required to enter the work area. Provide access and use of the Contractor's change room. Provide a minimum of four sets per day for visitors and sufficient sets as required for workers and the Owner and/or Consultant. The personal protective equipment, both new and used, shall remain the property of the Contractor.

4.2.3. Change Rooms

Provide a temporary unit with a separate equipment room, decontamination locker room, and a clean locker room for personnel required to wear whole body protective clothing.

- Separate each room from the others and from the control area by airlocks.
- Provide two separate lockers for each asbestos worker, one in each locker room.
- Keep street clothing and street shoes in the clean locker.
- Vacuum and remove asbestos contaminated disposable protective clothing while still wearing respirators in the equipment room. Seal clothing in impermeable bags or containers for disposal.
- Do not remove disposable protective clothing in the decontamination locker room.
- Remove work clothing in the decontamination locker room.
- Tag and bag cloth work clothes for laundering and keep work shoes in the decontamination locker room.
- Do not wear work clothing between home and work.
- Provide showers with hot and cold running water.
- Locate showers between the decontamination locker room and the clean locker room, and require employees to shower before changing into street clothes.
- Shower wastewater shall be handled and disposed as asbestos-containing material or shall be filtered through a final filter of at least 0.5 micron particle size collection capability before disposal into the sanitary sewer system.
- Handle and dispose of wastewater filters as asbestos containing material.

- Clean asbestos-contaminated work clothing in accordance with CCR Title 8, Section 1529 or use disposable clothing.
- Change rooms shall be physically attached to the work area wherever feasible and required.

4.2.4. Eye Protection

Furnish goggles for personnel engaged in asbestos operation when a full-face respirator is not being used.

4.2.5. Caution Signs and Labels

Provide caution signs printed in English and Spanish at approaches to asbestos work areas. Locate signs at such distance that personnel may read the sign and take the necessary precautions before entering the work area. Provide caution labels printed in English and Spanish. Affix labels to friable asbestos materials, scrap, waste, debris, sealed impermeable bags, asbestos waste drums, and other asbestos containing products. Caution signs and labels shall conform to the requirements defined in CCR Title 8, Section 1529.

4.2.6. Fire Extinguisher

A minimum of one 4A/60BC dry chemical extinguisher shall be maintained at each of the following locations:

- At each electrical panel.
- At each corner of the work area.
- Within 5 feet of the external entry to the shower room from the work area.
- Within 5 feet of the external entry to the shower room from the "clean room."

4.3. Worker Protection

4.3.1. Contractor Responsibility

Prior to commencement of work, all workers shall be instructed and shall be knowledgeable in the appropriate procedures of personal protection and asbestos removal.

The Contractor shall be solely responsible for enforcing worker protection requirements.

4.3.2. Reporting Unusual Events

When an event of unusual and significant nature occurs at the site, Contractor shall prepare and submit a special report listing chain of events, persons participating, responses, and similar pertinent information. When such events are known or predictable in advance, advise the Owner and/or Consultant at the earliest possible date. Unusual events would include breaches of containment.

4.3.3. Reporting Accidents

If a significant accident occurs at the site or anywhere else work is in progress, the Contractor shall prepare and submit appropriate reports to the Owner. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained.

4.4. General Work Area Requirements

4.4.1. Respirators

- Workers shall always wear a respirator properly fitted on the face while in the work area.
- Workers wearing tight-fitting face pieces shall be clean-shaven to the extent that the hair does not interfere with the sealing surface of the respirator. This must be documented by a standard respirator fit test.
- The Contractor shall instruct and train workers in proper respirator use.

4.4.2. Clothing

Workers shall wear disposable, full-body coveralls and disposable head covers and footwear suitable for asbestos work in the work area.

4.5. Decontamination Unit Requirements

At all work areas, the Contractor shall set up a change room, shower, and equipment room outside the work area. Where feasible and required, the change room, shower, and equipment room will be attached to the work area. All workers without exception shall:

- Remove and properly store street clothes in the change room and put on new disposable coveralls, head covers, footwear, and cleaned respirator before entering the work area.
- Remove the disposable coveralls, head covers, and footwear in the equipment room and dispose them in an appropriate asbestos waste container. Still wearing their respirators, workers shall proceed to the showers and remove their respirators while showering with soap and tempered water. Wetted HEPA respirator cartridges shall be disposed of in appropriate asbestos containers.
- This procedure shall be followed each time a worker leaves the work area.
- Workers shall not eat, drink, smoke, or chew gum or tobacco in the work area.
- The Contractor shall provide disposable coveralls, head covering, and footwear to any official representative of the Owner who inspects the project.
- All persons entering the work area shall wear an approved respirator and disposable coveralls, head covering, and footwear.

4.6. Personal Air Monitoring

Daily personal air monitoring shall be conducted by the Contractor in order to determine the airborne concentrations of asbestos to which workers may be exposed.

4.7. Sign-In/Sign-Out Log & Daily Activity Report

- Contractor shall maintain a sign-in/sign-out log in the immediate vicinity of the change room of any decontamination area. This log shall be maintained from the time the first activity is performed involving the disturbance of asbestos-containing material until acceptance of the final air test results. All persons entering the work area, including the Contractor's workers, Owner, Consultant, and Government officials, shall be required to sign in and out each time upon entering and leaving the work area. All persons shall indicate name, time, company or agency represented, and reason for entering the work area.
- Contractor shall maintain a daily activity report describing work performed, materials and methods used, inspection(s) made, test(s) taken, and any unusual conditions or problems.
- Except for governmental inspectors having jurisdiction, no visitors shall be allowed in any work area, except as authorized by the Owner.

4.8. Housekeeping

The Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by their employees. Bags of asbestos material and other waste material shall be removed immediately at the completion of work. Maintain surfaces of the work area free of debris and keep waste from being distributed outside of the immediate work area.

4.8.1. Removal of Asbestos Waste Containers

The Contractor shall provide a waste container removal system. Asbestos waste containers shall not be removed through the change rooms. The waste container removal system shall consist of a wash-down station inside the work area, a washroom, and a waste container holding area. Provide airlocks between each area and an airlock with access to outside the work area from the holding areas. Provide caution signs as specified herein for asbestos work areas. The waste container removal system shall be a temporary unit constructed to prevent the escape of asbestos fibers from the area. The system shall be physically attached to the work area. Personnel entering the waste container removal system shall wear personal protective equipment. The system shall not be used to enter or exit the work area. Access to outside the waste container removal system shall be sealed except during the removal of asbestos waste containers. Perform cleanup of the waste container removal system as specified herein for enclosed work areas. Do not remove the waste container removal system enclosure and caution signs prior to receipt of the Consultant's clearance certification. All asbestos waste containers shall be removed from the work area daily.

4.8.2. Procedure for Disposal of Asbestos

Do not remove any asbestos-containing materials from the site without approval from the Owner. Procedure for hauling and disposal of asbestos waste shall comply with 40 CFR 61, Subpart M and CCR Title 22.

4.9. Work Area Preparation

4.9.1. Warning Signs

The Contractor will provide Warning Signs meeting regulatory requirements at each visual and physical barrier.

4.9.2. Critical Barriers

Where appropriate, the Contractor shall seal all openings with two layers of 6-mil minimum polyethylene as a containment barrier to prevent leakage of air into the outside environment or other portions of the building. Individually seal ventilation openings in walls (supply and exhaust), wall-mounted fixtures, doorways, windows, convectors, and other wall and floor openings into the work area with adhesive tape alone or with two layers of polyethylene sheeting at least 6-mil (true), taped securely in place with adhesive tape.

4.9.3. Pre-Cleaning

1. The Contractor shall pre-clean movable objects to be salvaged for the Owner within the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. The Contractor shall move such items to storage or other area as directed by the Owner.
2. The Contractor shall pre-clean immovable objects such as mechanical and electrical equipment and fixtures within the proposed work area using HEPA vacuuming equipment or wet cleaning methods as appropriate.
3. Prior to placing plastic sheeting, clean the work area(s) and immediately adjacent areas physically connected to abatement areas using HEPA vacuum equipment or wet-cleaning methods as appropriate. Do not use methods that raise dust such as broom sweeping or vacuuming with non-HEPA equipped vacuum cleaners.

4.9.4. Impermeable Drop Cloths

The contractor shall place impermeable drop cloths around the perimeters of the buildings in preparation for the removal of ACMs from the exterior walls. The drop cloths will extend a minimum of 10-feet from the base of the buildings walls. If the abatement project extends beyond one day, the drop cloths will be picked up at the end of each work day and packaged for disposal, after being cleaned of debris.

4.9.5. Containment

If necessary, the Contractor will contain work areas with two layers of 4-mil plastic sheeting on walls and ceilings, and two layers of 6-mil plastic sheeting on floors, or as otherwise directed in writing by the Consultant.

4.9.6. Decontamination Unit

The Contractor shall construct worker and waste container/equipment decontamination units in compliance with the EPA guidelines. Provide sufficient numbers of lockers in change or "clean" rooms or worker's clothing with one locker reserved for Owner and/or Consultant personnel.

4.9.7. Emergency Exits

The Contractor shall establish emergency exits and procedures for the work area, satisfactory to fire officials and provide fire extinguishers as required.

4.9.8. Work Area Maintenance

The Contractor shall ensure that impermeable drop cloths remain around the perimeter of the building and interior containment walls remain intact. Inadvertent tears in plastic shall be repaired with fiber tape and the tear covered by plastic applied with spray adhesive, overlapping the tear by 6 inches on all sides.

If, during performance of abatement work, ACM or suspect ACM is observed outside the work area perimeter, work shall stop immediately upon discovery, appropriate repairs will be made (by Contractor), and all such debris will be collected using appropriate vacuums and wet methods.

5. ASBESTOS REMOVAL

5.1. General Work Area Requirements

In a work area, the Contractor shall:

- Remove and dispose of all ACMs in accordance with the methods and procedures outlined in CCR Title 8, Section 1529.
- All asbestos removal shall be supervised by a competent person.
- Where appropriate, enclose work areas under differential air pressure for the duration of the asbestos removal and subsequent cleaning phases and until all removal areas have been air-tested and found to be in compliance with the specified final air quality clearance level as determined by the Owner and/or Consultant.
- Perform appropriate cleaning using HEPA vacuum or wet cleaning methods of all areas physically connected to areas receiving asbestos removal.
- Dispose of all contaminated or otherwise removed materials and wastes in sealed and labeled containers in an approved sanitary landfill.
- Never use high-pressure water streams to remove any type of ACM.
- After removal, all surfaces shall be wet-cleaned and HEPA vacuumed to remove residual accumulated material. After cleaning, surfaces shall appear free of visible material.
- Prior to the removal of the plastic sheeting from the wall, apply approved sealant on all concrete or wood substrates, structural steel, and piping surfaces from which the material was removed and to plastic sheeting prior to its removal.
- Following related repair work remove any remaining floor and wall plastic, including seals on openings, and dismantle worker waste container/equipment decontamination areas and leave all areas clean.
- Eating, smoking, or applying cosmetics shall not be permitted in the work areas.

5.2. Removal of OSHA Class I Materials

Removal of Class I OSHA materials is not anticipated for this project. However, if during demolition activities Class I OSHA materials are encountered, the Contractor shall notify the Owner and/or Consultant in writing. After approval by the Owner, the Contractor shall remove the Class I OSHA materials in accordance with appropriate federal, state, and local regulations. The Contractor is responsible for processing any permits with the SDAPCD, if a permit is necessary for these unanticipated materials.

Additionally, should the Contractor choose to utilize mechanical methods or other means that would or could potentially render a non-friable material friable, the Contractor shall adhere to the work practices for Class I OSHA materials in accordance with appropriate federal, state, and local regulations. The Contractor is responsible for processing any permits with the San Diego Air Pollution Control District, for the removal of materials via mechanical methods or other means that could potentially render a non-friable material friable.

5.3. Removal of OSHA Class II Materials

5.3.1. Flooring Materials and/or Mastic

The Contractor is responsible for the removal/abatement of any of the identified flooring materials, per the construction bid documents. The Contractor shall demonstrate to either the Owner or the Consultant that the flooring materials do not extend underneath any of the fixtures, cabinets, or other permanent items, in each room, where removal/abatement of asbestos-containing flooring materials is scheduled to occur.

The Contractor shall adhere to the following additional work practices regarding the removal of vinyl flooring tile and/or mastic:

- Flooring materials and/or mastic shall be removed with hand tools and, to the extent feasible, substantially intact.
- Flooring materials and/or mastic removal operations involving the use of mechanized work methods, including motorized floor buffers and mechanical chipping, shall be conducted utilizing Class I work methods.
- Low-odor, solvent-based mastic removers may be used to remove ACM mastics, provided the waste generated is managed in accordance with applicable state and federal regulations. Use of solvent-based mastic removers will be followed by a suitable rinse (as per manufacturer's recommendations) to remove any residual mastic remover.

5.4. Removal of Asbestos-Containing Construction Material

The Contractor shall adhere to the following additional work practices during the removal of ACCMs, in accordance with CCR, Title 8, Section 1529, Asbestos in Construction.

- The Contractor shall constantly apply amended water or equivalent to the ACCM, for the duration of removal.
- No visible dust or other airborne particulate matter will be generated during removal activities.
- The Contractor will place the removed ACCMs in the waste disposal container(s) as soon as practicable, but no later than the end of the work shift.
- The Worker Protection measures and General Work Area Requirements described in Sections 4.4 and 4.5 will apply during the removal of ACCMs.

The Work Area Preparation measures, as described in Section 4.10.1 - Warning Signs, are required during the removal of ACCMs. It is recommended that a disposable drop cloth be utilized during removal activities. If a drop cloth is utilized, the drop cloth will be disposed of with the removed materials as soon as practicable, but no later than the end of the work shift.

6. CLOSURE

6.1. Waste Labeling

- ACM should be placed in labeled, leak-tight containers and/or wrapping. The labels for friable ACMs shall contain all information as specified by the Occupational Safety and Health Standards of the Department of Labor, under 1926.1101(k)(2)(iii) and Title 8, Section 5229, and any local regulations.
- For temporary storage on site, ACMs shall be stored in a secured area. The area shall be demarcated with Asbestos Warning Signs.

6.2. Clearance

- Work areas and all other decontaminated areas and cleaned areas shall be considered clean when:
 - The work area passes a visual inspection by the Consultant,
 - Air testing performed by the Consultant and analyzed by Phase Contrast Microscopy (PCM) are found to be less than 0.01 fibers per cubic centimeter (f/cc) or background (to be determined by the Consultant, prior to abatement activities). PCM air samples will be analyzed in general accordance with NIOSH Method 7400.

- Areas that do not comply with the standard of cleaning for final clearance shall continue to be cleaned by and at the Contractor's expense until the specified standard is achieved as evidenced by results of air sampling tests by the Consultant. The costs of all follow-up tests necessitated by the failure of the air tests to meet the cleaning criteria, listed above, shall be borne by the Contractor; the Owner will deduct the cost of such follow-up tests from whatever moneys remain due to the Contractor. Follow-up testing shall occur within the time allotted for gross removal or all costs to the Owner of the building attributable to delayed occupancy or usage shall be borne by the Contractor.
- When the clearance is achieved, as listed above, and an inspection determines that the area has been visually decontaminated, the decontamination enclosure systems shall be removed, the area thoroughly wet cleaned, and materials from the equipment room and shower disposed of as contaminated waste. The remaining barriers between contaminated and clean areas and all seals on openings into the work area and fixtures shall be removed and disposed of as contaminated waste.

6.3. Tear Down

All plastic sheeting, tape, cleaning material, clothing, and all other disposable material used in the asbestos removal operation or items used in the work area shall be packed into sealable 6-mil plastic bags. These bags must be marked with labels as required by Cal-OSHA in CCR Title 8, Section 1529.

SECTION 2
LEAD-RELATED CONSTRUCTION SPECIFICATIONS

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1. GENERAL

1.1. Scope of Work

The scope of work for the abatement project will involve the removal and/or abatement of lead-containing surfaces (LCS), which are to be impacted by scheduled renovation and/or demolition activities, as outlined in the construction contract documents. LCS that may be potentially impacted during demolition activities at Warehouse C and Transit Shed No. 1 at TAMT are listed in the following table:

Table 1 – Building Component, Description, and Location

Lead-Containing Surface (LCS) Building Component	LCS Description (Color / Substrate)	LCS Location
WAREHOUSE C		
I-beam and brackets	Grey-white/metal	Interior I-beams throughout walls
Ceiling beam	Grey/metal	Interior ceiling throughout
Ceiling beam supports	Grey/metal	Interior ceiling throughout
Ceiling lid support	Grey/metal	Interior ceiling lid supports throughout
Fire sprinkler pipe system	Grey-red/metal	Interior ceilings and downspouts throughout
Round column	White-red/metal	Interior ceiling support columns throughout
Floor drain	Gold/metal	Interior ceiling support columns throughout
Window components	Red/metal	Trucker's restroom windows
Wall panel frame	White/metal	Eastern addition, walls throughout
Wall panel support/frame	White/metal	Eastern addition, walls throughout
I-beam and brackets	White/metal	Eastern addition, walls throughout
Round column	Red-white/metal	Eastern addition, interior ceiling support columns throughout
Roll-up door guard	Red-white/metal	Eastern addition, roll-up door
Door casing	Red/metal	Exterior fire doors throughout
Window components	Grey-white/metal	Clerk shed, 2nd floor office windows
Door casing	White/metal	Clerk shed, 2nd floor office doors
Ceiling beam	Grey/metal	Eastern addition, interior ceiling throughout
TRANSIT SHED NO. 1		
I-beam wall column	White/metal	Interior I-beams throughout walls
Ceiling beam	White/metal	Interior ceilings throughout
Ceiling beam supports	White/metal	Interior ceilings throughout
Fire sprinkler pipes throughout	Grey-red/metal	Interior ceilings and downspouts throughout
Roof ladder	Grey/metal	Bay 4, from roof of clerk shed to transit shed roof
Shelf	White/wood	Bay 4, clerk shed closet
Shelf support	White/wood	Bay 4, clerk shed closet
Handrail	Silver/metal	Bay 4, stairs to second floor of clerk shed
Stair riser	White/metal	Bay 4, stairs to second floor of clerk shed
Stair case	White/metal	Bay 4, stairs to second floor of clerk shed
Fire sprinkler pipe protector	Red/metal	Interior collision barriers throughout
Roll-up door corner protector	Grey/metal	Exterior roll-up doors throughout
Expansion joint	Silver/metal	Exterior walls throughout

Table 1 – Building Component, Description, and Location

Lead-Containing Surface (LCS) Building Component	LCS Description (Color / Substrate)	LCS Location
Round column	White/metal	Interior ceiling support columns throughout
Roll-up door numbers	White-red/concrete	Interior walls throughout
Ceiling lid support	White/metal	Interior ceiling lid supports throughout
Ramp cap	Grey-green/metal	Interior truck ramps throughout
Note that the LCS in this table are materials that meet or exceed the criteria of CDPH. LCS in this table does not necessarily identify all materials that could contain lead at concentrations less than 1.0 milligrams per square centimeter (mg/cm ²) or 5,000 milligrams per kilogram (mg/kg), which could trigger the Cal-OSHA lead in construction standard.		

The LCS were identified during a hazardous building material surveys in September 2013. Tables summarizing the type of material sampled and results are included in the referenced Hazardous Building Materials Survey report (Section 5). **It is the Contractor's responsibility to quantify materials that are to be impacted by the scheduled demolition activities, as outlined in the construction contract documents prior to bid submittals, as part of the Contractor's due diligence, and prior to initiating demolition activities at the subject site.**

Our understanding is that the buildings are scheduled for demolition. Specific contractor responsibilities include, but are not limited to the following:

- The Contractor is responsible for the protection and decontamination of fixtures and equipment remaining in the work area, prior to, and after abatement.
- The Contractor shall furnish all labor, materials, services, insurance, equipment, and decontamination facilities to carry out the complete removal and disposal of all LCS identified in these specifications that are to be impacted by the demolition project.
- Work shall be performed in accordance with all applicable regulations, codes, ordinances, and standards of governing authorities having jurisdiction and the requirements specified herein. Where applicable state or local standards are more stringent than federal standards, the Contractor shall adhere to the most stringent standards.
- The Contractor shall extend full cooperation to the Owner in all matters involving the use of the Owner's facilities. At no time shall the Contractor cause or allow there to be caused conditions that may cause risk or hazard to the general public or conditions that might impair safe use of the facility. The use of the facility's electricity, water or like utilities by the Contractor shall be coordinated through the Owner.

- The Contractor shall submit a time-line schedule, not date specific, to the Owner and/or Consultant for integration into the overall project schedule and coordinate the work with that of all other trades. Phasing and scheduling of this project will be at the discretion of the Owner and/or Consultant and shall not proceed in any area without the express consent of the Owner and/or Consultant. The Contractor shall be available within 24 hours notice for additional work or rework if after acceptance of the work it is found that full abatement was not achieved from the initial work effort as determined by the Owner and/or Consultant.

1.2. Applicability

- As defined by Title 17, California Code of Regulations (CCR), Division 1, Chapter 8, Accreditation, Certification, and Work Practices for Lead-Based Paint and Lead Hazards, “lead-based paint” means paint, other surface coatings, or items that contain an amount of lead equal to, or in excess of 1.0 milligram per square centimeter (mg/cm²) or more than 0.5% by weight.
- As per California Occupational Safety and Health Administration (Cal-OSHA) and Federal Occupational Safety and Health Administration (OSHA), whenever construction activities disturb lead in any amount, the employer must assume that employees may be exposed to lead and comply with the requirements of the “Lead in Construction Standard” Title 8 CCR, Section 1532.1.

1.3. Definitions

- “Contractor” shall refer to the contractor responsible for lead-related construction, or any disturbance of lead-containing surfaces, presumed lead containing surfaces, or any other leaded material.
- “Consultant” shall refer to Owner’s authorized representatives.
- High-efficiency particulate air (HEPA) filter shall refer to a filter capable of filtering out monodispersive particles of 0.3 microns or greater diameter from a body of air at 99.97% efficiency or greater.
- “Owner” shall refer to the Port of San Diego.
- “Project” shall refer to any lead-related construction to be carried out for the scheduled demolition of Warehouse C and Transit Shed No. 1 at the TAMT.

1.4. Codes and Standards

All work shall conform to the standards set by applicable federal, state, and local laws, regulations, ordinances, and guidelines in such form in which they exist at the time of the work on the contract and as may be required by subsequent regulations.

While many of the following standards were written for residential housing, it has become standard industry practice to apply the following standards to schools, commercial buildings and industrial settings. The following is a partial list:

- The Contractor shall comply with the requirements of the California General Industry Safety and Health Standards, and the Safety and Health Regulations for Construction, Title 8, CCR, including, but not limited to the following sections:
 - Section 5144: Respiratory Protection
 - Section 2405.4: Electrical
 - Section 1637, 1640, 1658: Scaffolding
 - Section 1513: Housekeeping
 - Section 5194: Hazard Communication
 - Section 1675: Ladders
 - Section 3215 and 3220: Egress and Emergency Plans
 - Section 1514: Personal Protective Equipment
 - Section 1519 and 3360: Sanitation
 - Section 1684, 3555, and 3556: Powered Hand Tools
 - Section 1502: Contractors Responsibilities
 - Section 1511: General Safety and Health Provisions
 - Section 1510: Safety Training and Education
 - Section 1527 and 3366: Washing Facilities
 - Section 1528: Gases, Vapors, Fumes, Dusts and Mists
 - Section 1531 and 5143: Ventilation
 - Section 3203: Injury and Illness Prevention Program
 - Section 3204: Access to Employee's Exposure and Medical Records
 - Section 6003: Accident Prevention Signs
 - Section 3221: Fire Prevention Plan
 - Section 1532.1: Construction Safety Orders, Lead
- The Contractor shall comply with the Federal Environmental Protection Agency (EPA) Regulations pertaining to handling and disposal of lead-containing materials, as well as the State of California and any local governmental agencies, which have delegated responsibility for the administration and enforcement of federal regulations.
 - 22 CCR, Section 66261

- 10 Code of Federal Regulations (CFR), Part 261
- The Contractor shall comply with all requirements of the EPA-approved landfill that is selected as the disposal site.
- The Contractor shall comply with California Title 17, Section 8.
- California Department of Public Health (CDPH) Certification of Lead-Related Construction Activities and work practices.
- The following may also apply to this project:
 - 24 CFR Parts 35, 36, 37: United States Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint (LBP) Hazards and Housing
 - American Society for Testing Materials (ASTM)
 - American National Standards Institute (ANSI)
 - ANSI Z228.2-8: Practices
- In addition to any detailed requirements of the Specification, the Contractor shall at his own cost and expense comply with all laws, ordinances, rules, regulations, and guidelines of federal, state, regional, and local authorities regarding handling and storing of lead waste material.
- All regulations by the above and other governing agencies in their most current version are applicable throughout this project. Where there is a conflict between this Specification and the cited federal, state, or local regulations or guidelines, the more restrictive or stringent requirements shall prevail. This Section refers to many requirements found in these references, but in no way is it intended to cite or reiterate all provisions therein or elsewhere. It is the Contractor's responsibility to know, understand, and abide by all such regulations, guidelines, and common practices.

2. CONTRACTOR QUALIFICATIONS AND RESPONSIBILITIES

The Owner requests that documentation be provided for all aspects of the work at the bid opening detailing the firm's qualifications on the following criteria:

- California Contractor License, granted by the California Contractors State License Board.

- All workers and supervisors assigned to this project shall have been trained in accordance with California Construction Safety Orders, 1532.1, Lead-Related Construction. The workers should be currently certified as a “Lead-Related Construction Worker,” granted by the California Department of Public Health. The on-site supervisor shall be currently certified as a “Lead-Related Construction Supervisor,” granted by the California Department of Public Health.

2.1. Document Review

Contractors shall examine all Drawings and all other Sections of the Specifications for requirements affecting the work of this Section. Questions on interpretations, omissions, and methods should be referred to the Owner and/or Consultant.

2.2. Notifications/Approvals

The Contractor shall make all applicable (in proper and timely fashion) and necessary notifications to relevant federal, state, and local authorities and shall obtain and comply with the provisions of all permits or applications required by the work specified, as well as make all required submittals required under those auspices. The Contractor shall indemnify the Owner and/or Consultant from, and pay for all claims resulting from failure to adhere to these provisions. The costs for all permits, applications, and the like, are to be assumed by the Contractor.

2.3. Fees, Permits, and Licenses

- The Contractor shall pay all licensing fees, royalties, and other costs necessary for the use of any copyrighted or patented product, design, invention, or processing the performance of the job specified in these Lead-Related Constructions Specifications. The Contractor shall be solely responsible for costs, damages, or losses resulting from any infringement of these patent rights or copyrights. The Contractor shall hold the Owner and the Consultant harmless from any costs, damages, and losses resulting from any infringement of these rights or copyrights. If the Contract Specification requests the use of any product, design, invention, or process that requires a licensing fee or royalty fee for use in the performance of the job, the Contractor shall be responsible for the fee or royalty and shall disclose the existence of such rights.

- Contractor shall be responsible for costs for all licensing requirements and notification requirements and all other fees related to the ability of the Contractor to perform the work in this section.
- The Contractor shall be responsible for securing all necessary permits for work under this Section, including hauling, removal, and disposal, fire, and materials usage, or any other permits required to perform the specified work.

2.4. Coordination/Cooperation

The Contractor shall meet with the Owner and Consultant for a pre-construction meeting prior to commencing work on the project. The meeting shall be at the facility of the Owner at a mutually convenient time and date to be determined by the Owner and Consultant. At the meeting, the Contractor shall be represented by authorized representatives and the field supervisors who shall run the project on a daily basis, and shall present evidence that all requirements for initiation of the work have been met. The minimum agenda for the meeting shall be:

- Channels of communication;
- Construction schedule, including sequence of critical work;
- Designation of responsible personnel;
- Procedures for safety, security, quality control, housekeeping, and related matters;
- Use of premises, facilities, and utilities;
- Review of "Pre-Job Submittal", as discussed in Section 3.1

3. CONTRACTOR SUBMITTALS

3.1. Pre-job Submittal

The Contractor shall submit a detailed Project Specification Work Plan composed of at least the following:

- A sketch showing the detail, location, and layout of the clean area, the dirty area (Decontamination or Decon System), and the work areas.
- The sequencing of the work.
- The timing and projected completion of the work.

- Detailed description of the method to be employed in order to control airborne and wastewater pollution.
- The type of equipment and amount of equipment available to the Contractor to be used on the project, including ventilation equipment, HEPA vacuums, etc.
- The procedures to contain, package and remove the waste from the work area and the procedures and locations of the disposal of hazardous and non-hazardous waste.
- A personal air sampling plan to include air sampling training and strategy, sampling locations, projected number of samples, and frequency, methodology, and duration of sampling.
- The type of respirators to be used, protective equipment to be used, and a respirator program.
- A safety precautions plan may include special precautions taken by the Contractor in performing their respective tasks, safety equipment to be worn by employees, frequency of safety meetings, and all other relevant functions to be performed by the Contractor, to ensure a safe workplace.
- A ventilation plan showing the types and locations of units, if needed.
- Copy of Abatement Plan as specified in Title 17, Division 1, Chapter 8, Section 36100(b).
- Any other data that enhances this work plan. Innovative ideas and/or technology are encouraged.
- In addition, the following items will be requested by the Owner and/or Consultant, either prior to or during lead-related construction activities:
 - Copies of all notifications, permits, applications, licenses and similar documentation required by federal, state, or local regulations, including, but not limited to, CDPH Form 8551, Cal-OSHA Notification, and equipment licensing and certification from the local environmental regulatory agency. Copies of the notification(s) shall be given to the Owner and/or Consultant a minimum of two days prior to the beginning of each phase or mobilization of work to disturb lead.
 - Copies of medical records, indicating that each individual has been medically cleared, via blood lead level testing, to perform work involving lead, or a notarized statement by the examining medical doctor that such examinations took place within the past 12 months for each employee to be used on the project.

- Copies of the records of a successful respirator fit testing performed by a qualified individual within the previous 12 months, for each employee to be used on this project with the employee's name on each record. NOTE: In the event employees are hired after the project start date, the Contractor shall supply the proper documentation as required at least 24 hours in advance of their start.
- Proposed respiratory protection program for employees throughout all phases of the job, including make, model, and National Institute for Occupational Safety and Health (NIOSH) approval numbers of respirators to be used.
- Written description, for the Owner's and/or Consultant's review and acceptance, of all proposed procedures, methods, or equipment to be utilized that differ from the contract specifications, including manufacturers specifications on any equipment not specified for use by this Section; in all instances, the Contractor must comply with all applicable federal, state, and local regulations.
- Proposed worker orientation plan, which at a minimum includes a description of lead hazards and abatement methodologies, a review of worker protection requirements, and the outline of safety procedures.
- Chain-of-command of responsibility at work site including names of supervisors, foremen, and competent persons, and their certificates of training, obtained within the previous 24 months.
- List of all supervisors and workers intended to be assigned to the project and copies of current CDPH Lead-Related Construction Certifications, obtained within the past 24 months.
- Proposed Emergency Plan and route of egress from work areas in case of fire or injury, including the name and phone number of nearest medical assistance center. This shall be conspicuously posted at the work site and filed with proper agencies.
- The name and address of the Contractor's blood lead testing lab, OSHA-Center for Disease Control and Prevention (CDC) listing, and Certification in California.
- The name and address of the Contractor's personal air monitoring and waste disposal load testing laboratory(ies) including certification(s) of Environmental Lead Proficiency Analytical Testing (ELPAT) accreditation for heavy metal analysis, listing of relevant experience in air and debris lead analysis, and presentation of a documented Quality Assurance and Quality Control (QA/QC) Program.
- Material Safety Data Sheets (MSDS) on all materials and chemicals to be used on the project.
- Name, address, and identification (ID) number of the hazardous waste hauler, waste transfer route, and proposed disposal site.

- Name, address, and ID number of the proposed construction debris site.
- Name, address, and ID number of hazardous disposal site. Documents must be submitted from these sites proving they are licensed to accept such waste and will accept such waste.
- Map number and evidence that the Contractor has contracted with a hauler/disposal facility must be presented at the pre-construction meeting.
- Cal-OSHA Lead Compliance Program, Title 8, Section 1532.1.
- Cal-OSHA Respiratory Protection Program, Title 8, Section 5144.
- Cal-OSHA Injury and Illness Prevention Program, Title 8, Section 3203.

3.2. Post-job Submittal

- Copies of manifests and receipts acknowledging disposal of all hazardous and non-hazardous waste material from the project showing delivery date, quantity, and appropriate signature of landfill's authorized representative.
- A notarized copy of the entry-exit logbook.
- All personal monitoring results.
- All waste characterization test results.

3.3. Substitution of Materials and/or Methods

- Any substitution in materials or methods to those specified shall be approved by the Owner and/or Consultant prior to use. Any requests for substitution shall be provided in writing to the Owner and/or Consultant. The request shall clearly state the rationale for the substitution. The contractor shall submit to the Owner and/or Consultant product data and samples of all materials to be considered as an alternate.
- Product data shall consist of manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts illustrations, MSDS, and other standard descriptive data. Submittal data shall be clearly marked to identify pertinent materials, products or models and show performance characteristics and capacities. Samples shall be of sufficient size and quantity to clearly illustrate the functional characteristics of the product or material with integrally related parts and attachment devices.
- No work shall begin, which requires submittal for approval, until the Owner and/or Consultant "approved" or "approved as noted" the submittal.

4. EXECUTION

4.1. Materials and Equipment

The work of this Section includes the furnishing of labor, materials, tools, equipment, services and incidentals necessary to complete all LCS removal/abatement activities in accordance with the plans and specifications. These plans and specifications are intended to describe, and provide for a finished and complete piece of work; work which is described by any portion of these documents shall be complete in every detail and in accordance with established trade practice, notwithstanding whether or not every item or detail necessarily involved is particularly mentioned.

4.2. Approvals and Inspections

All temporary facilities, work procedures, equipment, materials, services, and agreements must strictly adhere to and meet this Section along with EPA, OSHA, NIOSH, HUD regulations, recommendations, and guidelines, as well as any other federal, state, and local regulations. Where there exists an overlap of these regulations and guidelines, the most stringent one applies. All work performed by the Contractor is further subject to approval of the Owner, and/or Consultant.

4.3. Work Area Set Up

4.3.1. Site Safety

The Contractor is responsible for all safety at the work site. This includes, but is not limited to electrical, mechanical (tool), fire, and personnel protective safety. Safety requirements are, for the most part, common sense and sound business practice; however, the Contractor is advised that federal, state, and local regulations exist that govern safety on the work site. Therefore, in addition to the following, the Contractor is responsible for adhering to the most stringent requirements in affect by any of the following entities or these Specifications.

A primary concern in this type of work is to ensure that adequate exits exist in the event of an emergency and conversely, that adequate entrances exist for emergency personnel. The nature of this work requires sealing entrances and the extensive use of 6-millimeter (mil) polyethylene sheeting; however, the Contractor should never permanently seal (e.g., nail, bolt, hard cover) any potential escape exits and should take extra care to clearly identify potential exits and inform the workers.

4.4. Safety Regulations

The following are some applicable Federal regulations:

Occupational Safety and Health Administration (OSHA)	
29 CFR 1910	General Industry Standard
29 CFR 1910.1025	Lead Hazard Standard
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.1200	Hazard Communication Specifications for Accident Prevention
29 CFR 1910.145	Sign and Tags
29 CFR 1926	Construction Industry Standard
American National Standard (ANSI) Publications:	
Z288.2-80	Practices for Respiratory Protection

4.4.1. Signage

Prior to the preparation of a building for abatement, the Contractor shall place warning signs immediately outside all entrances and exits to the building, warning that abatement work is being conducted in the vicinity. The signs shall be in English and Spanish, and be at least 20 inches by 14 inches with bold lettering, not smaller than 2 inches tall, and read:

WARNING:

LEAD PAINT REMOVAL HAZARD
UNAUTHORIZED ENTRY PROHIBITED
NO SMOKING, EATING OR DRINKING
ALLOWED IN THE WORK AREA

4.5. Notifications

The Contractor is responsible for notifying all officials as indicated by federal, state, or local law.

4.6. Access to Work Areas

The Owner will provide specific access as required during the project to the Contractor and personnel assigned to the project. The Contractor will be responsible for the security of each and every work area or portion thereof involved in the abatement project. It will also be the Contractor's responsibility to allow only authorized personnel into the work area, and to secure all assigned entrances and exits at the end of the workday so as to prevent unauthorized entry.

The Contractor shall maintain a bound log book in which any person entering or leaving the lead abatement work area must sign and enter the dates and times of entry and departure.

Use of waste containers onsite shall be controlled under the following requirements:

- Location of waste containers onsite shall be coordinated with the Owner and Consultant.
- The waste containers shall be solid enclosed containers, lined with two layers of 6-mil polyethylene sheeting locked and secured at all times, when not in immediate use.
- The Contractor shall comply with all federal, state, and local regulations and ordinances regarding lead waste storage.
- The Contractor, Supervisor, or Worker will not allow anyone access to the building unless they have successfully completed a training program, and are wearing a properly fitted respirator, unless stated otherwise by the Consultant.

4.7. Containment

Contractor shall establish "containment" as specified in tables 8.1, 8.2, and 8.3 of the HUD guidelines, as applicable, and as per the following:

Table 2 – Interior Worksite Preparation (not including windows)

Description	Level 1	Level 2	Level 3	Level 4
Typical Applications (Hazard Controls)	Not applicable to this project.	Any interim control or abatement method disturbing between 2 and 10 square feet of painted surface per room.	Same as Level 2.	Any interim control or abatement method disturbing more than 10 square feet per room.

Table 2 – Interior Worksite Preparation (not including windows)

Description	Level 1	Level 2	Level 3	Level 4
Containment and Barrier System	Not applicable to this project.	Two layers of plastic on entire floor. Plastic sheet with primitive airlock flap on all doorways. Door secured from inside the work area need not be sealed. Children should not have access to plastic sheeting (suffocation hazard).	Two layers of plastic on entire floor. Plastic sheet with primitive airlock flap on all doorways to work areas. Doors secured from inside the work area need not be sealed. Overnight barrier should be locked or firmly secured.	Two layers of plastic on entire floor. If entire unit is being treated, cleaned, and cleared, individual room doorways need not be sealed. If only a few rooms are being treated, seal all doorways with primitive airlock flap to avoid cleaning entire building. Doors secured from inside the work area need not be sealed.
Warning Signs	Not applicable to this project.	Required at entry to room but not on building (unless exterior work is also under way).	Posted at main and secondary entryways, since occupant will not be present to answer the door.	Posted at building exterior near main and secondary entryways.
Ventilation System	Not applicable to this project.	Turned off and all vents in room sealed with plastic. Negative pressure zones (with negative air machines) are not required, unless large supplies of fresh air must be admitted into the work area to control exposure to other hazardous substances (for example, solvent vapors.)	Same as Level 2.	Same as Level 2.

Table 2 – Interior Worksite Preparation (not including windows)

Description	Level 1	Level 2	Level 3	Level 4
Furniture	Not applicable to this project.	Removed from work area. Large items that cannot be moved can be sealed with a single layer of plastic sheeting and left in work area.	Same as Level 2.	Same as Level 2
Cleanup (See Section 8 for further details)	Not applicable to this project.	HEPA vacuum, wet wash and HEPA vacuum <i>all</i> surfaces in room. Also, wet wash and HEPA vacuum floor in adjacent area(s) used as pathway to work area. Do not store debris inside building overnight; use a secure locked area.	Remove top layer or plastic from floor and discard. Keep bottom layer of plastic on floor for use on the next day. HEPA vacuum, wet wash and HEPA vacuum <i>all</i> surfaces in room. Also, wet wash and HEPA vacuum floor in adjacent area(s) used as pathway to work area. Do not store debris inside building overnight; use a secure locked area.	Full HEPA vacuum, wet wash and HEPA vacuum cycle, as detailed in Section 6.
Dust Sampling	Not applicable to this project.	Clearance only.	One sample collected outside work area every few jobs plus clearance.	Clearance only.

Table 3 – Exterior Worksite Preparation Levels (not including windows)

Description	Level 1	Level 2	Level 3
Typical Applications (Hazard Controls)	Any interim control or abatement method disturbing less than 10 square feet of exterior painted surface per building. Also includes soil control work.	Any interim control or abatement method disturbing 10 to 50 square feet of exterior painted surface per building. Also includes soil control work.	Any interim control or abatement method disturbing more than 50 square feet of exterior painted surface per building. Also includes soil control work.

Table 3 – Exterior Worksite Preparation Levels (not including windows)

Description	Level 1	Level 2	Level 3
Containment and Barrier System	One layer of plastic on ground extending 10 feet beyond the perimeter of working surfaces. Do not anchor ladder feet on top of plastic (puncture the plastic to anchor ladders securely to ground). For all other exterior plastic surfaces, protect plastic with boards to prevent puncture from falling debris, nails, etc., if necessary. Raise edges of plastic to create a basin to prevent contaminated runoff in the event of unexpected precipitation. Secure plastic to side of building with tape or other anchoring system (no gaps between plastic and building). Weight all plastic sheets down with two-by-fours or similar objects. Keep all windows within 20 feet of working surfaces closed, including windows of adjacent structures.	Same as Level 1	Same as Level 1
Signs	Post warning signs on the building and at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet).	Same as Level 1	Same as Level 1
Weather	Do not conduct work if wind speeds are greater than 20 miles per hour. Work must stop and cleanup must occur before rain begins.	Same as Level 1	Same as Level 1
Security	Erect temporary fencing or barrier tape at a 20-foot perimeter around working surfaces (or less if distance to next building or sidewalk is less than 20 feet). If an entryway is within 10 feet of working surfaces, require use of alternative entryway. If practical, install vertical containment to prevent exposure. Use a locked dumpster, covered truck or locked room to store debris before disposal.	Same as Level 1	Same as Level 1
Cleanup (See Section 8)	Do not leave debris or plastic out overnight if work is not completed. Keep all debris in secured area until final disposal.	Same as Level 1	Same as Level 1

Table 4 – Window Treatment or Replacement Worksite Preparation

Appropriate Applications	Any Window Treatment or Replacement
Containment and Barrier System	One layer of plastic sheeting on ground or floor extending 5 feet beyond perimeter of window being treated/replaced. Two layers of plastic taped to interior wall if working on window from outside; if working from the inside, tape two layers of plastic to exterior wall. If working from inside, implement a minimum Interior Worksite Preparation Level 2. Children cannot be present in an interior room where plastic sheeting is located due to suffocation hazard. Do not anchor ladder feet on top of plastic (puncture the plastic to anchor ladders securely to ground). For all other exterior plastic surfaces, protect plastic with boards to prevent puncture from falling debris, nails, etc. (if necessary). Secure plastic to side of building with tape or other anchoring system (no gaps between plastic and building). Weight all plastic sheets down with two-by-fours or similar objects. All windows in building should be kept closed. All windows in adjacent buildings that are closer than 20 feet to the work area should be kept closed.
Signs	Post warning signs on the building and at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet). If window is to be removed from inside, no exterior sign is necessary.
Security	Erect temporary fencing or barrier tape at a 20-foot perimeter around building (or less if distance to next building or sidewalk is less than 20 feet). Use a locked dumpster, covered truck or locked room to store debris before disposal.
Weather	Do not conduct work if wind speeds are greater than 20 miles per hour. Work must stop and cleanup must occur before rain begins, or work should proceed from the inside only.
Cleaning	If working from the inside, HEPA vacuum, wet wash and HEPA vacuum all interior surfaces within 10 feet of work area in all directions. If working from the exterior, no cleaning of the interior is needed, unless the containment is breached. Similarly, no cleaning is needed on the exterior if all work is done on the interior and the containment is not breached. If containment is breached, then cleaning on both sides of the window should be performed. No debris or plastic should be left out overnight if work is not completed. All debris must be kept in a secure area until final disposal.

4.7.1. Decontamination Unit

At a minimum, the Contractor shall construct a two-stage decontamination unit. This unit shall be connected to the abatement area for the decontamination of workers contaminated with lead. The decontamination unit shall consist of an equipment room, dirty room, and wash area in series. The Contractor shall ensure that employees enter and exit the work area through this unit.

- The decontamination unit shall be constructed with 6-mil polyethylene sheeting on floors, walls, and ceiling. Doors through this unit shall be constructed as described in Table 2.

4.7.2. Clean Area

The Contractor shall select a clean area outside the abatement area for the workers to change into protective equipment. This area shall contain hand washing facilities, clean cloths, storage for a HEPA vacuum, and respirator storage space. Contaminated equipment or personnel shall not be permitted in this area. The floors and walls of this area shall be covered with 6-mil polyethylene sheeting.

4.7.3. Abatement Area

The Contractor shall preclean all surfaces with a HEPA vacuum and remove any furniture, or other movable objects. All debris gathered during this clean up shall be disposed of properly.

5. PROTECTIVE PROCEDURES

5.1. Worker Protection Requirements

5.1.1. Biological Monitoring

This screening shall be performed every two months for the first six months, and every six months thereafter. In addition, the Contractor shall have a medical examination performed on each employee. This medical examination must be performed before workers begin lead contaminated work and at the termination of an employee's employment or yearly, whichever comes first. A worker shall be removed from the job whenever two blood-sampling tests average more than 25 micrograms per deciliter ($\mu\text{g}/\text{dl}$) or if a single test exceeds 30 $\mu\text{g}/\text{dl}$, and/or an increase of 10 or more $\mu\text{g}/\text{dl}$. The Contractor shall be responsible for medical surveillance and record keeping. All applicable regulations will apply.

5.1.2. Training Requirements

All workers and supervisors shall have completed a CDPH approved training course provided by an accredited training provider and be able to provide copies of their updated certification while working at the site.

5.1.3. Supervision

The Contractor shall provide one site abatement Supervisor whose responsibilities include coordination, safety, security, and execution of all phases of the lead removal project. The Supervisor shall not be used as a lead removal worker, and shall be assigned full time to the project. The Supervisor shall be fully qualified in all aspects of lead abatement practices and procedures, as well as training in relevant federal, state, and local regulatory requirements, procedures and standards, supervisory techniques, reading and interpreting lead inspection reports, and proper disposal procedures.

The Contractor shall ensure that all workers are familiar with all aspects of proper abatement practices during the performance of the work, i.e., workers are trained and prepared to do a good and careful job, and to protect themselves and present building occupants.

5.1.4. Respirators and Personal Protective Equipment (PPE)

- Personal protection, in the form of disposable coveralls and NIOSH-approved respirators, is required for all workers, supervisors, and authorized visitors entering the work area during the abatement and cleaning operations.
- Each worker shall be supplied with disposable suits every day.
- Under no circumstances will anyone entering the removal area be allowed to reuse a contaminated suit. In addition to disposable suits for the workers, the Contractor shall also supply suits for the Consultant and other personnel who are authorized to inspect the worksite. Disposable suits, such as TYVEK™ suits, and other PPE must be donned prior to entering work area. A clean area will be provided for workers to put on suits and other personal protective equipment and to store their street clothes.
- Work clothes shall consist of disposable full-body suits, head covers, gloves with cuffs extending outside the sleeves of the protective suit, boot or shoe covers, and other protection as needed. Hard hats shall be worn, as required.

- Eye protection to personnel engaged in lead operations shall be furnished when the use of a full-face respirator is not required.
- Goggles with side shields will be worn when working with a material that may splash or fragment, or if protective eye wear is specified on the MSDS for that product.
- Additional respiratory protection by supplemental filters, such as organic vapor cartridges, may be needed when handling some coating products. Consult the MSDS and obtain the proper filters as necessary.
- The Contractor shall supply workers and supervisory personnel with NIOSH-approved respirators and HEPA filters. Respiratory protection shall be implemented for all work performed by the Contractor under this Section. The respirators shall be sanitized and maintained according to the manufacturer's specifications. Disposable respirators shall not be considered acceptable under any circumstances. The Contractor will maintain on site a sufficient supply of HEPA filters to allow workers and supervisory personnel to change contaminated filters per manufacturer's recommendations or when breathing resistance is encountered. The Contractor is solely responsible for means and methods used and for compliance with applicable regulations.
- Respirators shall be individually assigned to removal workers for their exclusive use. All respiratory protection shall be provided to workers in accordance with the approved respiratory protection program, which includes all items in the Cal-OSHA Respiratory Protection Program Title 8, Section 5144. A copy of this program shall be kept at the worksite, and shall be posted in the clean area.
- Workers must perform negative and positive pressure fit tests each time a respirator is put on, whenever the respirator design so permits.
- Powered air purifying respirators (PAPR) shall be tested for adequate flow as specified by the manufacturer.
- Workers shall be given a qualitative fit test in accordance with procedures detailed in OSHA 29 CFR 1910.134, Qualitative Fit Test Protocols, for all respirators to be used on this abatement project. An appropriately administered quantitative fit test may be substituted for the qualitative fit test.
- If a question exists as to the proper selection of respirators, the Contractor may consult Cal-OSHA Tables.
- Upon leaving the active work area, cartridges must be removed and respirators cleaned in a disinfectant solution and clean water rinsed.
- Clean respirators should be stored in plastic bags when not in use.

- The Contractor shall inspect respirators daily for broken, missing, or damaged parts.
- The Contractor shall provide personal sampling to check personal exposure levels. Samples shall be taken for the duration of the work shift or for eight hours, whichever is less. Personal samples need not to be taken every day but must be taken in accordance with Title 8, Section 1532.1. Sampling will determine eight-hour Time-Weighted Averages (TWA). Results shall be provided to the Owner and Consultant within 48 hours of the sampling.
- Contractor shall comply with all Cal-OSHA and/or other applicable requirements of worker medical examinations for approval to wear respiratory protection, and shall submit documentation of such approval to the Owner.

5.2. Work Procedures

In order to avoid possible exposure to dangerous levels of lead and to prevent possible contamination of areas outside the demarcated work area, work shall follow the general guidelines listed below:

5.2.1. Work Area Entry

At no time shall a worker or other authorized personnel entering the work area go further than the Clean Area without proper respiratory protection and protective clothing.

5.2.2. Work Area Departure

The worker shall remove all gross contamination, debris, and dust from the disposable suit by completely HEPA vacuuming them before leaving work area.

5.2.3. Personal Protective Equipment

All persons leaving the work area must remove their personal protective equipment (except respirators) before leaving. Suits shall be removed "inside out" to minimize the dispersal of lead dust.

5.2.4. Equipment

All equipment used by the workers inside the work area shall be either left in the work area or thoroughly decontaminated before being removed from the area. Extra work clothing (in addition to the disposable suits supplied by the Contractor) shall be left in the clean area until the completion of work in that area. The clean area shall be cleaned of all visible debris and disposable materials daily.

5.2.5. Prohibited Activities

Under no circumstances shall workers or supervisory personnel eat, drink, smoke, chew gum, chew tobacco, or remove their respirators in the work area. To do so shall be grounds for the Owner and/or Consultant to stop all removal operations. Only in the case of life threatening emergency shall workers or supervisory personnel be allowed to remove their protective respirators while in the work area. In this situation, respirators are to be removed for as short of duration as possible.

5.2.6. Footwear

As with additional clothing, all footwear shall be left inside the clean area until the completion of the job and then shall be HEPA vacuumed or discarded as contaminated waste.

5.2.7. Shock Hazards

- The Contractor is responsible for using safe procedures to avoid electrical hazards. Power will be shut off and checked before work begins when a hazard exists.
- All extension cords and power tools used within the work area shall be attached to Ground Fault Circuit Interrupters (GFCI).

5.3. Personal Air Sampling

5.3.1. General

The Contractor is required to perform the personal air sampling activities. The results of such sampling shall be posted, provided to individual workers, and submitted to the Owner and Consultant as described herein.

5.3.2. Sampling

Samples shall be collected for the duration of the work shift. Personal air samples need not be taken every day after the first day if working conditions remain unchanged, but must be taken every time there is a change in the removal operation, either in terms of the location or the type of work. Sampling will be used to determine eight-hour TWA. The Contractor is responsible for personal air sampling.

5.3.3. Sampling Results

Air sampling results shall be transmitted to the owner and individual workers in written form no more than 48 hours after the completion of a sampling cycle. The reporting document shall list each sample's sampling time and date, personnel monitored, flow rate, sample duration, sample yield, cassette size, and analysts' name and company, and shall include an interpretation of the results. Air sample analysis results will be reported in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

5.3.4. Testing Laboratory

The Contractor's testing lab shall be ELPAT accredited for heavy metals. Contractor shall submit for the Owner's and Consultant's review and acceptance the name and address of the laboratory, certification(s) of ELPAT accreditation for heavy metal analysis, a listing of relevant experience in air lead analysis and presentation of a documented QA/QC program.

5.3.5. Air Monitoring Frequency

The air monitoring frequency for Contractor operations will be established in accordance with the requirements set forth in Title 8, Section 1532.1.

6. INSPECTIONS

In addition to various daily inspections of the lead work area and abatement practices, the Consultant will make three mandatory inspections during the work, one during each phase of removal. Each inspection must be requested by the Contractor and be performed by the Consult-

ant. The work being inspected must meet the Consultant's satisfaction before work may begin for the next phase of work. Failure on the part of the Contractor to obtain the Consultant's approval before proceeding to the next scheduled phase is regarded as a violation of these Section(s). In the event of this occurring, the Consultant will request work to be stopped and the Owner will be contacted to intervene. The three inspections are as follows:

6.1. Work Area Preparation Completed

The Contractor shall have all pre-abatement preparations of the work area complete, seek and review approval from the Consultant to proceed.

6.2. Post Removal Inspection

The Contractor shall have completed abatement and final clean-up of all visible debris, and perform final cleaning techniques of wet washing and HEPA vacuuming.

6.3. Final Clearance

The Consultant will perform final clearance wipe testing as soon as possible after final clean-up activities are completed, or as appropriate.

7. ABATEMENT PROCEDURES

7.1. Overview

The information contained in this Section indicates specific abatement procedures for designated components and general abatement procedures for non-specific components. The actual components to be abated are found in Table 1.

7.1.1. Workmanship

All LCS abatement activities shall be conducted in a professional workman-like manner. The Contractor must realize that any abatement procedure may cause damage to the substrate and/or adjacent surface if performed improperly; therefore, strict work controls are required.

7.1.2. Approval

The Contractor must receive prior approval from the Owner and Consultant before using any materials or equipment. No methods involving open flame, wire brushing, or dry scraping alone, or with the aid of flammable solvent or abrasive compound, or solvents containing methylene chloride, shall be used in removing paint.

7.1.3. Disposal

All leaded materials, residues, debris, or soil contaminated as a result of abatement, must be treated and/or disposed of in accordance with regulations and guidelines of EPA, HUD, state and local regulations and ordinances, and all other applicable agencies.

- All such materials shall be wrapped in 6-mil plastic sheeting with all edges and seams sealed or placed in 6-mil plastic bags with the top of the bags twisted so as to form a loop. The loop shall then be sealed. The bags of residue/debris shall then be further containerized in an additional 6-mil plastic bag.
- The sealing process shall include the use of a waterproof tape of sufficient strength so as to maintain the integrity of the seal.
- All components shall have all nails and/or other hardware flattened or removed prior to disposal.
- The residue/debris shall be lightly misted prior to placement for disposal.
- The residue/debris shall be carefully handled so as to prevent rupture, or in any way diminishing container integrity.
- All wastewater shall be collected and tested prior to disposal. The Contractor shall consider filtering the water through a 5-micron filter prior to testing.

7.1.4. Material and Equipment

The work of this Section, without limiting the generality thereof, includes the furnishing of labor, materials, tools, equipment, services, and incidentals necessary to complete Lead-Related Abatement in accordance with the Plans and Specifications that are intended to describe, and provide for, a finished piece of work; what is called for by any

portion of these documents shall be complete in every detail, notwithstanding whether or not every item necessarily involved is particularly mentioned.

- Polyethylene sheeting (minimum thickness of 6-mil),
- Plastic bags (minimum thickness of 6-mil),
- Waterproof tape,
- Lead Warning Signs (as required),
- Flexible duct for ventilation units (if required),
- Spray adhesive (fire retardant),
- Personal Protective Equipment (NIOSH approved respirators, eyewash stations),
- Ventilation units and exhaust fans,
- HEPA vacuums,
- Polyethylene sealer (concrete compatible),
- Lead specific cleaner,
- Fire extinguishers,
- Portable eye washes,
- All products required to perform abatement as specified,
- Other materials, tools, and equipment necessary for lead-containing surface abatement,
- MSDS for all products used (kept on site at all times).

7.1.5. Responsibilities and Supervision

The Contractor will be required to use specific abatement methodologies during the course of the work. It will be the responsibility of the Contractor to abide by all of the worker protection and safety specifications as outlined. The Contractor will be required to provide electrical service sufficient for the equipment to be used during abatement. Plumbing shall also be provided by the Contractor so that adequate services are available for washing down the areas after abatement and for personal hygiene. The Contractor will be required to have an on-site abatement Supervisor during all phases of abatement and will be required to have all employees trained that perform the actual work.

7.2. Component Removal Procedures

Abatement procedures detail both specific components and generalities of component removal. Specific components are listed in Table 1; generalities of abatement are detailed in Tables 2 through 4, and below. All resulting bundles of "containers" of removed components

and/or debris shall be carefully handled to reduce the potential of ripping, bursting, or otherwise diminishing the integrity of the bundle or "container."

- Care must be taken so that leaded materials are neither burned, made to become dusty, nor result in further exposure to workers, occupants, students, or observers.
- Care shall be taken to avoid damage to adjacent areas during the removal of components to be replaced. The Contractor shall run a utility knife around the edge (score) of the abatement substrate and the adjacent (non-abated) substrate to cut any bonding between the substrates and thereby eliminate damage.
- If components to be removed contain gross areas of loose or peeling paint, these areas shall be wet scraped or HEPA vacuum prior to removal. The paint chips shall be contained either in the HEPA vacuum or in a separate 6-mil polyethylene bag. Temporary encapsulant expressly for this purpose is also acceptable.
- Components that are removed for replacement shall be wrapped and stored for disposal, or disposed of in accordance with the applicable codes and requirements of this Section.

8. CLEAN-UP AND FINAL CLEARANCE

8.1. End of Day Cleaning

Thirty minutes prior to the end of each workday, the lead work area must be cleaned of all debris. Under no circumstances will lead clean-up be permitted when active LCS abatement work is proceeding. All interior surfaces in the work area shall be cleaned of dust and debris. Such cleaning shall include a thorough HEPA vacuuming of all affected surfaces, as determined by the consultant. Additionally, such cleanings may require the use of a lead-specific cleaner. All waste materials generated during this daily clean-up shall be disposed of as hazardous waste, unless analytical testing proves otherwise.

8.2. Equipment Cleaning

Durable equipment, such as power and hand tools, generators, and vehicles shall be cleaned prior to removal from unit undergoing abatement or the site. All equipment shall be cleaned by HEPA vacuuming and wet washing with a lead-specific cleaner.

8.3. High-Efficiency Particulate Air Vacuum

The Contractor will obtain training in the use of the HEPA vacuum from the manufacturer prior to use and submit evidence of this training to the Owner and Consultant. The Contractor shall obtain HEPA vacuum attachments, such as various size brushes, crevice tools, and angular tools to be used for varied applications and service the HEPA vacuum routinely to assure proper operation. Caution shall be used any time the HEPA vacuum is opened for filter replacement or debris removal. Operators shall wear a full set of protective clothing and equipment, including respirators, when using the HEPA vacuuming equipment or removing/replacing used filters.

8.4. Preliminary Clean-Up

Upon completion of the LCS abatement and a satisfactory visual inspection by the Owner/Consultant in a given work area, a preliminary clean-up shall be performed by the Contractor. This clean-up includes removal of any contaminated material, equipment or debris including polyethylene sheeting from the work area. The polyethylene sheeting shall first be sprayed or misted with water for dust control, the resulting abatement debris removed, and then the sheeting shall be folded in upon itself.

8.4.1. Large Debris

Large debris from demolition shall be wrapped in polyethylene sheeting at least 6 millimeters thick, sealed with heavy duty duct tape, and stored until proper disposal.

8.4.2. Small Debris

Prior to picking up or collecting small debris, the surfaces of this debris will be sprayed with a fine mist of water. The debris will be picked up, collected and placed into a single plastic bag, at least 6-mil thick. The bags shall not be overloaded, shall be securely sealed, and shall be stored in the designated area until disposal. Dry sweeping is not permitted in the work area; wet sweeping is required.

8.4.3. Sheeting

Removal of surfaces 6-mil polyethylene sheeting shall begin from upper levels. Removal of ground polyethylene sheeting shall begin at the corners and folded into the middle to contain the dust or residue. All collected polyethylene sheeting shall be placed in 6-mil polyethylene bags for proper disposal as described in this specification.

8.4.4. High-Efficiency Particulate Air Vacuuming

Once the 6-mil polyethylene sheeting is removed from the work area, cleaning shall begin with a thorough HEPA vacuuming of all surfaces, starting at the ceilings, proceeding down the walls and including window, door, and door trim and floor. The floor shall be vacuumed last, beginning at the farthest corners from the entrance to the work area. HEPA vacuuming shall again be performed as noted above, after the following wet wash.

8.4.5. Wet Wash

Contractor shall next wet wash or mop the same surfaces with a lead-specific cleaner and allow surfaces to dry. Then a second HEPA vacuuming of the surfaces will be performed by the contractor, as described above. By the conclusion of the cleaning phase, all visible dust and debris shall have been completely removed.

8.4.6. Hygiene, Cleaning Equipment and Supplies

Special attention shall be given to personal hygiene and the cleaning of supplies and/or equipment. All mop heads, sponges and rags shall be replaced or changed daily, at a minimum. Rags, mop heads or sponges may be reused if the Contractor has them cleaned via a washing system specially equipped with HEPA filtration.

8.4.7. Detergents

The Contractor shall prepare and use detergents specifically designed for lead abatement work. The manufacturer's recommended coverage will be followed. Detergent solutions should be replaced as needed.

The wastewater from the clean up shall be contained and disposed of according to all applicable federal, state, county and local regulations and guidelines. In no instance shall wastewater be disposed in storm sewers (e.g., yard inlet or street drain) or sanitary sewers (e.g., toilet, sink, or any other household/ residential/ commercial type drain system) without specific governmental approval.

8.5. Visual Inspections

The Contractor shall then request a visual inspection by the Owner and Consultant. If the area does not pass a visual inspection, the Contractor shall reclean the area.

8.6. Post Abatement Clearance

When all surfaces have passed visual inspection, wipe samples shall be performed by the Consultant. This shall be performed after the Contractor has completed the final clean up. The standards for passing a wipe test are outlined in Table 4. Should laboratory results indicate that the wipe test clearance level is exceeded, the Contractor shall re-clean the affected area, at no additional cost to the Owner, utilizing the methods specified above. Re-testing will then be performed to verify compliance with the mandated levels. The Contractor shall pay for all additional testing and provide at no additional cost, a re-cleaning of an affected area until the clearance level is achieved. The Contractor is also responsible for any additional expenses, such as relocation expenses and Consultant fees, due to failure of clearance testing.

8.7. Final Clearance

Final clearance shall take place after finish coating has been applied. Final clearance shall include visual inspection and wipe sampling as per sections 8.8. and 8.9.

8.8. Inspection/Clearance/Wipe Standards

When clean up has been completed and all surfaces have been sealed, wipe samples by the Consultant will be performed. The following standards shall be met for all “clearance” requirements:

Table 5 – Wipe Tests

Type of Abatement Procedure	Number and Location of Wipe Samples
Interior Treatments	Two wipe samples from every treated room (up to four rooms) as follows: -One interior window sill or window trough, alternating between rooms (one floor if window not present) -One floor
Exterior Treatments	Two wipe samples as follows: -At least one dust sample on a horizontal surface in part of the outdoor area. -One window trough sample on each floor where exterior work was performed

Other applicable areas may also have wipe samples taken, at the discretion of the Consultant in conformance with the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing.

Clearance shall be achieved once the laboratory results of the dust wipe samples meet the clearance standards, as described in Chapter 15 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing and California Code of Regulations, Title 17, Division 1, Chapter 8, and per the following table:

Table 6 – Wipe Standards

Location	Standards for Passing a Wipe Test	
	CDPH	EPA (Federal)
Interior floors	$\leq 40 \mu\text{g}/\text{ft}^2$	$\leq 40 \mu\text{g}/\text{ft}^2$
Interior window sills/surfaces	$\leq 250 \mu\text{g}/\text{ft}^2$	$\leq 250 \mu\text{g}/\text{ft}^2$
Exterior horizontal window and floors	$\leq 400 \mu\text{g}/\text{ft}^2$	$\leq 400 \mu\text{g}/\text{ft}^2$
NOTE: $\mu\text{g}/\text{ft}^2$ = Lead concentration in micrograms per square foot.		

8.9. Retests

Should laboratory results indicate that the wipe test clearance level is exceeded, the Contractor shall re-clean the affected area, at no additional cost to the Owner, utilizing the methods specified above. Retesting will then be performed to verify compliance with the mandated levels. The Contractor shall pay for all additional testing and Consultant fees, and provide at no additional cost a re-cleaning of an affected area until the clearance level is achieved.

9. DISPOSAL OF WASTE MATERIAL

9.1. Caution Note for Contractors

All materials, whether hazardous or non-hazardous, shall be disposed in accordance with all laws and the provisions of this section and all applicable federal, state, county or local regulations and guidelines. It shall be the sole responsibility of the Contractor to assure compliance with all laws and regulations relating to this disposal.

9.2. General Applicability

The Contractor shall contact the regional EPA, state, and local authorities to determine LCS debris disposal requirements.

The requirements of Resource Conservation and Recovery Act (RCRA) shall be complied with as well as California solid waste plan requirements. During abatement, the Contractor shall not leave debris on the property, incinerate debris, dump waste by the road or in an unauthorized dumpster, or introduce lead-contaminated water into storm or sanitary sewers.

9.3. Hazardous Waste Tests

In order to determine whether the wastes are classified as non-hazardous solid or hazardous waste as defined under the RCRA, the Toxicity Characteristic Leaching Procedure (TCLP) must be performed. Representative samples shall be required of all material to be disposed.

If any of these samples are above the TCLP regulatory limits, the Contractor shall dispose of all of that type of material as hazardous waste.

- The Contractor shall further meet the requirements of the State of California, as per Title 22, CCR 66261 and other related regulations. This will include, if applicable, other waste testing, such as Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC).
- All costs associated with disposal of all of the above materials as non-hazardous waste (general demolition) and hazardous waste shall be included in the Contractor's Base Bid Price.

- The Contractor shall submit written manifest to Owner prior to removing any waste from site and shall submit complete manifest to Owner after waste is disposed of classification, the following documents are made applicable and part of this Section: 40 CFR 241, -257, -261, -262, and 49 CFR 172, -173, -178, and -179, Department of Transportation (DOT) Regulations.

9.4. Disposal Requirements

The following materials will be disposed of by the Contractor as hazardous waste in accordance with this section. All costs associated with the disposal of these materials as hazardous waste shall be included in the Contractor's Base Bid Price.

- All paint chips and paint chip debris.
- Lead-containing materials exceeding TCLP regulatory requirements.

The following materials, individually and at a minimum, shall be tested by the Contractor and results made available to Owner and Consultant, to determine whether or not they are to be considered hazardous. All costs associated with the testing and proper disposal of the below mentioned materials shall be included in the Contractor's Base Bid Price.

- Wastewater used to decontaminate.
- Rags, sponges, mops, HEPA filters, respirator cartridges, and other materials used for abatement and clean-up and containment.
- Other LCS abatement derived waste.

9.5. Disposal of Non-Hazardous Contaminated Solid Waste

The following procedures shall be followed for the disposal of all non-hazardous materials.

- The Contractor shall place all non-hazardous contaminated materials in 6-mil polyethylene bags that are airtight and puncture resistant. Pieces of wood or other types of substrates that do not fit into plastic bags shall be wrapped and labeled "DANGER, LEAD DUST."
- The Contractor shall place all disposable cleaning materials, such as sponges, mop heads, filters, disposable clothing in 6-mil plastic bags and seal.

- The Contractor shall clean surfaces and equipment and bag large debris. The Contractor shall then remove plastic sheeting and tape from covered surfaces. Prior to removing the plastic sheeting, the Contractor shall lightly mist the sheeting in order to keep dust down and fold inward to form tight bundles to bag for disposal. The Contractor shall place all plastic sheeting in 6-mil thick plastic bags and seal. Any bags shall be labeled "DANGER, LEAD DUST."
- The Contractor shall bag and seal vacuum bags and filters in 6-mil thick plastic bags.
- The Contractor shall place all contaminated clothing or work area clothing used during abatement, in 6-mil thick plastic bags for disposal prior to leaving the work area.
- The Contractor shall contain and properly dispose of all liquid waste, including lead-dust-contaminated wastewater.
- The Contractor shall HEPA vacuum the exterior of all liquid waste containers, prior to removing the waste containers from the work area, and wet wipe the containers to ensure that there is no residual contamination. Containers shall then be moved out of the work area into the designated storage area.
- The Contractor shall ensure that all waste is transported in covered vehicles to a landfill, or lined landfill, if available, in accordance with applicable DOT and EPA Regulations.
- The Contractor shall submit to the Owner and Consultant for approval, the waste transfer procedure and route, and shall comply with all EPA and DOT regulations concerning hazardous and non-hazardous waste removal and transportation.

9.6. Disposal of Hazardous Waste

The following procedures shall be followed for disposal of all material as hazardous waste:

- The Contractor and transporting Contractor will be required to comply with the RCRA and with all applicable state and local regulations.
- The Contractor shall comply with all EPA regulations.
- The Contractor shall be prepared for disposal as follows:
 - Packaged and sealed in containers approved under 49 CFR 173,-178, and -199.
 - Containers shall be numbered to correspond to the seal number, labeled with the type of materials, date it was filled and sealed, seal number, and weight of sealed container in addition to the information required under 49 CFR 172.

- A log shall be prepared at time of filling, identifying each numbered container and the information from above. A copy of this log shall be turned over to the Consultant within three working days after the containers are filled.
- Name, location, and telephone number of the disposal site used. A copy of the sites state and locally issued license, and a signed agreement that they will accept the hazardous lead waste, shall be provided to the Consultant.
- Name, address, and telephone number of any waste subcontractors used. Provide copies of licenses and signed agreements to the Consultant.
- Submit copies of the Hazardous Waste Manifest as required by these specifications.
- Waste Transportation: All hazardous waste shall be transported by a certified hazardous waste transporter. The Contractor shall require the certified hazardous waste transporter to follow RCRA and DOT regulations.
- Prior to the removal of any hazardous waste, the below listed information must be received in writing by the Consultant and Owner for their review and approval. Once approval is received by the Contractor from the Consultant and Owner, the waste may be transported as required.
 - Quantity of Hazardous Waste.
 - Type of Waste Materials.
 - Method of Containerizing Waste or Waste Treatment and appropriate licensing, certification and regulatory approvals.
 - Proposed Waste Hauler and Disposal Route.
 - Proposed Waste Disposal Site or Landfill.
- Receipts from the Waste Hauler and waste disposal site or landfill must be received and approved by Owner and Consultant as per regulation.

9.7. Storage Requirements

Any item found to be hazardous, by way of testing, shall be kept in a secured area or lockable and DOT-approved container, that is inaccessible to all persons other than abatement personnel. All hazardous waste shall be labeled "Hazardous Waste" and a date that the contractor began to collect waste in that container. All hazardous and non-hazardous waste shall be kept in totally

and completely separate containers. Until TCLP testing proves an item to be non-hazardous, all items shall be considered hazardous and stored in a secured area or lockable container.

9.8. Regulations

The contractor will be required to comply with the RCRA and/or any other applicable federal, state, or county law, regulation and/or guidelines, whichever is most stringent.

9.9. Emergencies Procedures

Contractors shall keep and properly maintain a suitable fire extinguisher(s) on site; have an immediate means of communication with a regulatory agency in the event of an emergency; keep a list of phone numbers of regulatory agencies on site, make sure all employees know how to deal with all types of accidents, make one person who is always on site the emergency coordinator to ensure that emergency procedures are carried out in the event an emergency arises; and keep and maintain a "right to know" manual that is in an easily accessible location and in an area that is known to all employees.

SECTION 3
UNIVERSAL WASTE RULE REMOVAL SPECIFICATIONS

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1. SCOPE OF WORK

The scope of work for the abatement project will involve the removal, transport, and disposal of any items and/or materials falling under the Resource Conservation and Recovery Act (RCRA) Universal Hazardous Waste Rule (UWR) and materials potentially containing polychlorinated biphenyls (PCBs), which are to be removed prior to building demolition, as outlined in the construction contract documents.

1.1. Overview

- All work shall be supervised by experienced persons trained, knowledgeable, and qualified in the techniques of UWR/PCB abatement, handling of UWR/PCB waste and UWR/PCB-contaminated materials, and cleaning of UWR/PCB-contaminated areas.
- The Contractor shall provide and maintain environmental and occupational safety protective measures, equipment, and procedures at the work site.
- With respect to available utilities, the Contractor shall coordinate access and use of all utilities as needed for the duration of the project with the Owner. If utilities are unavailable, the Contractor will be required to provide the utilities at the Contractor's own cost.
- The Contractor shall furnish all labor, materials, services, insurance, equipment, decontamination facilities, and waste characterization of all potential UWR/PCB materials in order to carry out the complete removal, transport, and disposal of all UWR/PCB identified in these specifications that are part of the demolition project.
- The Contractor shall furnish all labor, materials, services, insurance, equipment, decontamination facilities, and waste characterization of all potentially hazardous PCB-containing materials in order to carry out the complete removal, transport, and disposal of all potentially PCB-containing materials identified in these specifications that are part of the demolition project.
- Work shall be performed in accordance with all applicable regulations, codes, ordinances, and standards of governing authorities having jurisdiction and the requirements specified herein. Where applicable state or local standards are more stringent than federal standards, the Contractor shall adhere to the most stringent standards.

1.2. Universal Hazardous Waste Rule (UWR) Scope of Work

The Contractor's Scope of Work for UWR includes, but is not limited to, the following:

- Removal and disposal/recycling of potentially mercury-containing fluorescent light tubes from light fixtures;
- Removal and disposal/recycling of potentially mercury-containing switches from thermostats;
- Removal and disposal/recycling of potentially tritium-containing exit signs;
- Removal and disposal/recycling of potentially Freon™-containing air conditioning units and refrigeration systems;
- Removal and disposal/recycling of lead/acid batteries;
- Removal and disposal/recycling of any building material falling under the UWR as described in Ninyo & Moore's Hazardous Building Materials Survey (Section 5 of the Project Specifications);
- Placement of all contaminated items generated as a result of work activities and clean up in approved storage containers;
- Marking and labeling of all UWR materials and items for storage and disposal/recycling purposes;
- Transport of all UWR, items, and containers to a disposal facility and/or to an approved and off-site processing site for recycling;
- Preparing manifests, bills of lading, and all other required documentation for transportation, processing, and disposal of UWR for signature by the Owner.

1.3. Polychlorinated Biphenyls (PCB) Waste Scope of Work

The Contractor's Scope of Work for PCBs includes, but is not limited to, the following:

- Removal of all potentially PCB-containing ballasts from light fixtures. All light fixtures are to be visually inspected, prior to removal or retrofitting, to determine if they contain PCBs. Those ballasts marked as "No PCBs" or "PCB Free" shall be considered as such. Those ballasts that are unmarked shall be considered PCB-containing and properly handled.
- Removal of all potentially PCB-oils, residues, and rinsates from pad-mounted electrical transformers.
- Proper cleanup and disposal of light fixtures if ballast oils have breached its container;

- Placement and proper packaging of all PCB or PCB-contaminated items generated as a result of work activities and clean up in approved storage containers;
- Proper packaging includes the use of an approved absorbent to contain any leaks that may occur during transportation to the disposal facility;
- Marking and labeling of all PCB materials and/or PCB-contaminated items for storage and disposal purposes;
- Transportation of all PCB materials, PCB-contaminated items, and disposal containers to an on-site storage facility, a disposal facility, and to an approved and permitted off-site processing site for draining and/or flushing prior to disposal and recycling;
- Labeling and record keeping in accordance with all applicable local, state, and federal regulations;
- Incineration or recycling of PCB and PCB-contaminated fluids (and solids, if preferred by the Contractor) and land filling of contaminated solids only as authorized by 40 Code of Federal Regulations (CFR) 761 and facilities approved by the United States Environmental Protection Agency (USEPA) and all other applicable regulatory agencies for such purposes;
- Prepare manifests and all other documentation for transportation, processing, and disposal of PCB wastes for signature by the Owner.

1.4. Quality Assurance

Since the work described herein includes the handling and disposal of highly toxic substances and materials requiring special expertise, the Contractor shall meet the following specific qualifications:

- **Single Party Responsibility:** The Contractor performing the work shall be responsible for, and accomplish, all UWR and PCB-related work activities.
- **License Requirements:** The Contractor or agent performing work for the Contractor must be currently licensed by the State of California Department of Public Health for the transporting, handling, and hauling of extremely hazardous wastes, including UWRs and PCB-related wastes.

- **Qualifications Statement:** The Contractor shall provide a Statement of Qualifications for review by the Owner or the Owner's Representative. The statement will provide sufficient data and information to prove to the satisfaction of the Owner that the Contractor performing the work described herein is fully experienced in the handling, storage, and transport of UWR, UWR-contaminated articles, and PCB-related wastes.

1.5. Submittals

The Contractor performing the work described herein will develop, together with applicable subcontractors, a site specific work plan. This work plan, at a minimum, will specify procedures, products and materials for the containment of the regulated work area (where appropriate), removal of UWR and PCB-containing/contaminated liquids and solids, decontamination of equipment and disposal of equipment that contained UWR and PCBs, waste storage containers, spill clean up, personnel decontamination, emergency contact numbers and procedures, first aid treatment, and temporary on-site storage procedures. This work plan will include the names and day-time phone numbers of all key personnel, the location of all required on-site documentation and emergency equipment, and delineation of the work area. A generalized, "boiler-plate" type of plan will not be accepted.

- Prior to the start of work, the Contractor will submit a complete list of all the materials and equipment proposed for use in the work. The list shall include such items as protective clothing, respiratory protection, absorbents, solvents, waste storage containers, item containers, and all appurtenances. A current Material Safety Data Sheet (MSDS) will be submitted for each item for which a MSDS is available. For items which a MSDS is not available, the Contractor will submit the name of the manufacturer, brand name, and catalog/serial number for each item.
- Prior to the start of work, the Contractor will submit the Work Plan, Hazardous Waste Permits (where applicable), Qualifications Statement, Hazardous Waste Haulers License Number, USEPA Identification Number, Certification of Disposal (where applicable), Accidental Spills Contingency Plan, and Routing of Equipment to be removed.

1.6. Regulatory Compliance

All work shall be performed in compliance with pertinent laws, rules, and regulations existing at the time of the work, including but not limited to:

- Standards for UWR, 40 CFR Part 273.

- California Code of Regulations (CRR), Title 8, Division 1, Chapter 4.
- CCR, Title 22, Division 4.5.
- California Health and Safety Code, Division 20.
- The Occupational Safety and Health Administration (OSHA) Standards, for respiratory protection, 29 CFR Part 1910.134.
- The Transportation Safety Act, Hazardous Material Transportation Act, Title 49 CFR Parts 106, 107, 171-179.
- All applicable state, local regulations, and ordinances, including any regulations regarding State and/or local licenses or certificates.
- Where applicable state or local regulations are more stringent than OSHA requirements or the requirements referenced herein, the Contractor shall adhere to the more stringent regulations.
- The Contractor warrants that he is familiar with the codes and requirements applicable to UWR and PCB work and shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work. If the Contractor observes that the Specifications or plans at variance therewith, he shall give written notice to the Owner and/or Consultant describing such variances. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without written notice to the Owner and/or Consultant, the Contractor shall bear all costs arising there from. Failure or omission on the part of the Contractor, or any of its representatives, either to discover or to bring to the attention of the Owner and/or Consultant any deviation from, omission from, or noncompliance with the requirements for asbestos abatement shall not be used by the Contractor as defense for failure on its part to fulfill such requirements.

2. PRODUCTS

2.1. Storage Containers

- All UWR/PCB fluids and UWR/PCB-contaminated fluids, including flush and cleaning solvents and mixtures, shall be stored in sealed Department of Transportation (DOT) 17E closed top drums or other waste container approved for the storage of these materials.
- For the purposes of these specifications, PCB-contaminated fluids are defined as containing more than 5 but less than 500 parts per million (ppm). PCB fluids are defined as containing PCBs in concentration of 500 ppm or greater. Flush solvents shall be assumed to contain more than 500 ppm PCBs.

- All UWR/PCB soil wastes and items used in the course of work, such as rags, absorbents, and protective clothing, shall be stored in sealed DOT 17C open type drums or other waster container approved for the storage of these materials.
- Any UWR/PCB article container, other than approved DOT drums described above, that is intended for the storage, shall be submitted to the Owner or Owner's Representative for approval.

2.2. Solvents, Cleaning Agents, and Absorbents

- An appropriate solvent in which UWR are shown to be soluble in will be selected. An appropriate solvent in which PCBs are shown to be at least 5% soluble, by weight, will be selected. Solvents specified by the USEPA include: kerosene, diesel fuel, terpene hydrocarbons, and a mixture of terpene hydrocarbons and terpene alcohols. Care should be taken to limit the complexity of the waste stream. In all cases where solvents are used in the course of work, proper ventilation shall be provided by the Contractor to insure that the resulting fumes/vapors are not dispersed to occupied building areas either as a result of natural convection or via air intakes for building ventilation systems. The manufacturer's recommendations for applications and requirements for California Occupational Safety and Health Administration (Cal-OSHA) shall be strictly observed.
- An appropriate cleaning agent in which UWR are shown to be soluble in will be selected. An appropriate cleaning agent in which PCBs are shown to be at least 5% soluble, by weight, will be selected. Care should be taken to limit the complexity of the waste stream. Numerous non-toxic cleaning agents, shown to meet or exceed the solubility standard, are commercially available. In all cases where cleaning agents are used in the course of work, proper ventilation shall be provided by the Contractor to ensure that the resulting fumes/vapors are not dispersed to occupied building areas either as a result of natural convection or via air intakes for building ventilation systems. The manufacturer's recommendations for applications and requirements for Cal-OSHA shall be strictly observed.
- Safestep, as manufactured by Andesite of California, Inc. or functional equivalent, approved by the Owner's Representative, will be used as an absorbent.

3. SAFETY PROCEDURES AND WORKER PROTECTION

3.1. General Precautions

- The Contractor shall take all precautions and measures required to protect employees, inspection personnel, the Owner's Representative, and the general public from exposure to UWR/PCB solids, liquids, and vapors.

- All personnel authorized for entry into the work areas shall be instructed in the proper procedures for working with or around electrical hazards and UWR/PCB-containing/contaminated materials.
- All electrical equipment, upon which UWR/PCB-related activities are to be performed, shall be de-energized, locked out/tagged out, and permanently disconnected from any power source prior to the commencement of work.
- Consumption of food or tobacco products shall not be permitted in any of the work areas where UWR/PCB materials, volatile solvents, or other hazardous materials are present. In addition, no open flames shall be permitted in these areas. Signage to this effect will be posted at each entry and exit from the work areas.

3.2. Work Area Protection and Demarcation

- Prior to commencing any UWR/PCB-related work activities, the Contractor will provide barricades, roping, and warning signs to clearly identify and effectively guard against unauthorized entry into the work area.
 - At a minimum, barricades may consist of yellow sawhorses, set end-to-end.
 - Ropes are to be yellow in color and supported by the use of weighted bottom pipe type supports.
 - Warning signs shall be suspended from the rope and placed at intervals of approximately 10 feet. Warning signs for the work area shall be approximately 18 inches square, with a yellow background and black lettering. Signs shall read “DANGER - KEEP OUT - TOXIC CHEMICAL WORK AREA”.
- The Contractor will place barricades in order to maintain a minimum of 25 feet from all perimeters of the work being conducted to the barricades, where feasible.
- All equipment, such as tools and containers, shall be confined to the work area until the work is complete, containers are sealed, and equipment has been properly decontaminated and safely stored for transport.

3.3. Personal Protective Clothing, Equipment, and Personal Protective Procedures

- At all times when UWR/PCB fluids or mixtures in any volume are not sealed in drums, containers, or electrical equipment, workers shall wear the following:
 - Gloves impermeable to both UWR/PCB and the clean up agent in use.
 - Disposable coverall, impermeable to both UWR/PCB and the clean up agent in use.

- Appropriate eye protection to ensure that eyes are protected from liquid splatter or exposure to concentrated vapors or fumes.
- If appropriate, respiratory protection appropriate for the concentration of the hazardous material(s) present and atmosphere present. If utilized, supplied air must meet the requirements for Grade D air, at a minimum.
- The Contractor shall provide protective clothing, eye protection, and breathing apparatus, as required for authorized inspection personnel, the Owner, and/or the Owner's Representative upon request.
- The UWR/PCB work area shall not be left unattended from the start of work activities until all UWR/PCB and incidentals have been sealed in approved containers. If immediate transportation to a UWR/PCB storage facility or disposal facility is not feasible, the work area must be secured in a manner approved by the Owner or Owner's Representative.
- During work procedures and at all times when UWR/PCB-containing/contaminated fluids in any volume are not sealed in drums, containers, or electrical equipment, all personnel entering the work area must don protective clothing and equipment. Upon exiting the work area, all disposable protective clothing shall be stored in appropriate waste storage drums and sealed, for subsequent transportation to the on-site storage facility or disposal facility.
- Workers with cuts or scratches shall cover these wounds sufficiently to prevent accidental contact with hazardous materials with the regulated work area, prior to entering the regulated work area. Similarly, workers who incur accidental minor cuts or scratches in the course of work activities will immediately leave the work area, cleanse the wound with a medical grade soap, and seal the wound before returning to the work area.

4. EXECUTION

4.1. Spill Clean up, Containerization, and Marking

4.1.1. Clean up of Work Area, UWR/PCB, and Spills

- After the last UWR/PCB-containing light ballast has been removed and all fluids and solids have been cleaned from the fixture, all tools and equipment used in the work shall be decontaminated and properly stored for future use.
- All tools that have come into contact with UWR/PCBs at any concentration will be thoroughly double washed/rinsed with an appropriate cleaning agent, wiped cleaned, and properly stored.

- At a minimum, all exterior surfaces of equipment that may have come into contact with UWR/PCBs or contaminated solids or fluids either during the course of work activities or due to past leaks will be double washed/rinsed with an appropriate cleaning agent and wiped clean.
- All metal surfaces and surfaces with impermeable liners which have come into contact with UWR/PCBs or UWR/PCB mixtures in the course of work or as a result of past leaks shall be thoroughly cleaned using a combinations of absorbents and solvents or cleaning agents. Minimum cleaning requirements for these surfaces will include the removal of bulk material and two rinses with the cleaning agent for the affected surfaces. The work area shall be effectively ventilated during operations such that vapors used during decontamination and cleaning are not vented to occupied building areas. Upon completion of UWR/PCB-related activities, if fumes or vapors are still present in levels that could impede breathing or be considered toxic under state and/or National Institute of Occupational Safety and Health (NIOSH) standards, the Contractor will provide additional ventilation to accelerate drying. If needed, auxiliary breathing apparatus may only be used by personnel trained in the use of this equipment and experienced in conducting UWR/PCB-related work while wearing such apparatus, which can impede safe work practices.
- The USEPA, Region IX, regards soil, asphalt, wood, cement, and concrete as porous materials that absorb UWR/PCBs. Where practical, these materials must be removed when they are within the spill or contamination boundary.
- Completion of decontamination activities shall be inspected by the Contractor's Environmental Monitor, by collecting an appropriate number and type of samples for the specific UWR and/or PCBs and surfaces. The Contractor is responsible for all cost associated with spill clean up and oversight.

4.1.2. Containerization and Marking

- All liquids generated as a result of work activities and clean up operation shall be placed in appropriate work containers and the containers sealed.
- All solids, such as absorbents, rags, disposable clothing, soil, and other incidentals, shall be placed in appropriate work containers and the containers sealed.
- All drums and items containers utilized shall be permanently marked as to the specific contents and dated. In addition, each drum and container shall be marked with the standard Environmental Protection Agency (EPA), UWR or PCB label, as appropriate (40 CFR 273) and Hazardous Waste label (40 CFR 262).

4.2. Handling and Transportation to Storage Facilities

- All closed and open top drums must be permanently sealed and marked prior to loading on the transport vehicle. Filled drums shall be loaded onto the transport vehicle by the following methods:
 - By a hoist or lift truck capable of utilizing a two-point drum lifter,
 - By a hoist or lift truck provided with a band-around type drum lifter, or
 - By a lift truck lifting the drums from underneath by a pallet attached to the drum by a banding arrangement.
- The drums shall not be lifted by:
 - Any rope, chain, or cloth slings tied about the drum,
 - Placement of drums on bare fork lift trucks,
 - Forcing drums between the forks of a lift truck, or
 - Any commercial drum lifter exerting force on the sides of the drums.
- All drums and containers shall be secured to the transport vehicle to prevent movement while in transit.

4.3. Transportation to the Storage Facility

4.3.1. General

- All UWR/PCB items and all drums containing liquids, solids, and incidentals shall be transported to an off-site UWR/PCB-approved and permitted recycling/disposal facility.
- The Contractor performing this section of the work shall be licensed for the transport and hauling of extremely hazardous waste. The Contractor shall provide a route plan, which clearly identifies the routes that he proposes to follow while transporting UWR/PCB items from the various work sites to off-site facilities.
- A minimum of two operators shall be in attendance at all times with UWR/PCB items are being transported, loaded, and unloaded.

4.3.2. General Provisions

- The specifications in the following sections apply to each motor carrier engaged in the transportation of hazardous materials by a motor vehicle that must be marked or placarded in accordance with DOT 177.

- These specifications include each officer or employee of the carrier who performs supervisory duties related to the transportation of UWR, PCBs, or hazardous materials and each person who operates and who is in charge of motor vehicle(s) transporting UWR, PCBs, or hazardous materials.

4.3.3. Compliance with Federal Motor Carrier Safety Rules

A motor carrier driver or other person must comply with the rules when he/she is transporting UWR, PCBs, or other hazardous materials by a motor vehicle, which must be marked or placarded in accordance with DOT 177.

4.3.4. State and Local Laws, Ordinances, and Regulations

Every motor vehicle transporting or storing items containing UWR, PCBs, or other hazardous materials must be operated and parked in compliance with the law, ordinances, and regulations of the state jurisdiction of which it is being operated in, unless they are at variance with specific regulations of the DOT, which are applicable to the operation of that vehicle and impose a more stringent obligation or restraint.

4.3.5. Attendance and Surveillance of Motor Vehicles

- A motor vehicle, which contains UWR, PCBs, or other hazardous materials and is located on a public street, highway, or shoulder of a public highway, must be attended by its driver. However, the vehicle need not be attended while its driver is performing other duties, which are necessary to his/her duties as operator of that vehicle.
- A motor vehicle is attended when the person in charge of the vehicle is on the vehicle, awake, or within 100 feet of the vehicle and has it within his/her unobstructed field of view.
- A qualified representative of a motor carrier is a person who
 - Has been designated by the carrier to attend the vehicle;
 - Is aware of the nature of the UWR, PCBs, or other hazardous material contained in the vehicle he/she attends;
 - Has been instructed in the procedures he/she must follow in the case of an emergency; and
 - Is authorized to move the vehicle and has the means and ability to do so.

- A motor vehicle that contains UWR, PCBs, or other hazardous materials must not be parked on or within 5 feet of the traveled portion of a public street or highway except for brief periods when the necessities of operation require the vehicle to be parked and make it impractical to stop the vehicle in any other place.

4.3.6. Routes

Unless there is no practical alternative, a motor vehicle that contains UWR, PCBs, or other hazardous materials must be operated over routes which do not go through or near heavily populated areas, places where crowds are assembled, tunnels, narrow streets, or alleys. Operating convenience is not a basis for determining whether it is practical to operate a motor vehicle in a certain area.

4.3.7. Fire/Open Flames/Smoking

- A motor vehicle containing hazardous materials must not be operated near an open flame, unless its driver has first taken precautions to ascertain that the vehicle can safely pass the fire without stopping.
- A motor vehicle containing hazardous materials must not be parked within 300 feet of an open fire.
- No person may smoke or carry a lighted cigarette, cigar, or pipe, on or within 25 feet of any Contractor's vehicle that contains flammable materials (flushing solvents), or an empty tank motor vehicle that has been used to transport flammable materials.

4.3.8. Fueling

When a motor vehicle containing hazardous materials is being fueled, its engine must not be operating and a person must in control of the fueling process at the point where the fuel tank is filled.

4.3.9. Tires

- If a motor vehicle containing UWR, PCBs, or other hazardous materials is equipped with dual tires on any axle, its driver must stop the vehicle in a safe location at least once every two hours or every 100 miles of travel, whichever is less, and must examine the tires. The driver is also required to check the tires at the beginning of each trip and each time the vehicle is parked.

- If, as a result of the examination described above or otherwise, a tire is found to be flat, leaking, or improperly inflated, the driver must cause the tire to be repaired, replaced, or properly inflated before the vehicle is driven. However, the vehicle can be driven to the nearest safe place to perform the required repair, replacement, or inflation. If, as a result of an examination a tire is found to be overheated, the tire will be removed and placed a safe distance from the vehicle. The driver shall not operate the vehicle until the cause of the overheating is corrected.

4.3.10. Binding and Tie-down

- If a motor vehicle transports UWR, PCBs, or other hazardous materials, all containers must be properly secured in place to ensure that no equipment items or containers can come loose or unsafely placed into the transport vehicle. This may include chaining, roping, strapping, or winching. The driver of the vehicle must stop the vehicle in a safe location at least once during each two hours or 100 miles traveled, whichever is less, and inspect the contents of the shipment. At the time of inspection, if any form of binding is found to be loose, the driver shall immediately take action to remedy the situation for safe transportation.
- An equipment, drums, or other items carried in an open, flatbed, or stake type truck shall be covered with a tarp to protect it from the elements.

4.3.11. Hazardous Waste Instruction and Documentation

A motor carrier that transports “Hazardous Waste” must furnish the driver of each motor vehicle the following documents:

- A copy of these specifications.
- A document containing instructions on procedures to followed in the case of an accident or delay. The documents must include the names and telephone numbers of the people to be contacted, the types of hazardous wastes being transported, and the precautions taken in emergencies, such as fires, accidents, or leakages.
- Manifest and permit documents described in these specifications and required for waste transport.

4.3.12. Marking of Vehicles

A motor vehicle being operated must be marked if that vehicle is:

- Transporting UWR, PCBs, or hazardous materials of a kind that require the vehicle be marked or placarded in accordance with DOT 177 and;

- Commercial vehicles must display the name or trade name of the carrier operating the vehicle. These vehicles must display markings that designate the carrier as being a commercial vehicle “for hire”.

4.4. UWR/PCB Disposal

The contractor shall treat and dispose of all collected UWR/PCB wastes collected and generated during the execution of the scope of work described in Section 1 of these specifications.

- Except as may be otherwise specifically directed by the Owner or Owner’s Representative, the Contractor shall treat and dispose of all waste UWR/PCB materials as governed by 40 CFR 273, California State Regulations, local regulations, and subsequent amendments.
 - All UWR fluids, flushing fluids, and other UWR contaminants shall be disposed of by incineration or recycling at a facility approved for such use by the USEPA, and all other controlling regulatory agencies and bodies of the state, county, and municipality of that’s facility’s location. If the Contractor so elects, solid UWR wastes may also be incinerated, as suitable and allowed for this type of disposal.
 - All PCB fluids, flushing fluids, waste oils, and other fluid contaminants whose total PCB content is equal to or greater than 5 ppm (and are therefore restricted to this mode of thermal destruction) shall be disposed of by incineration or recycling at a facility approved for such use by the USEPA, and all other controlling regulatory agencies and bodies of the state, county, and municipality of that’s facility’s location. If the Contractor so elects, solid PCB wastes may also be incinerated, as suitable and allowed for this type of disposal.
- All UWR/PCB wastes generated as part of these operations will likewise be disposed of by the Contractor in a legal manner and the disposal will be included as part of the Contractor’s bid.
- The Contractor shall not sell, transfer, or recover any material from the wastes received from the Owner with their prior written consent.

4.5. Manifests and Records

- The Contractor shall provide the Owner with a compliance certificate verifying that all wastes received by it have been properly treated and disposed.

- The Contractor shall provide the Owner with copies of all manifests, permits, or other documents currently in effect relating to the specific UWR/PCB wastes to be transported, treated, and disposed of herein, except as otherwise stated in this section. The Contractor shall also promptly furnish the Owner copies of all new or renewal permits or other documents applicable to this project as soon as the Contractor receives them.
- As the waste generator, the Owner will sign the complete waste manifests, upon approval, for all UWR/PCB items/wastes generated during the course of this project. These manifests will accompany the waste loads to disposal and be properly completed by the hauler and disposal agent, as required under federal and state hazardous waste management statutes. The final manifest shall be returned to the Owner by registered mail within the designated time period under federal statutes.
- The project shall not be considered complete nor will the Owner issue final payment until the Owner receives certifications of incineration (for fluids) and/or recycling.

4.6. Placement in Storage and Records

4.6.1. Unloading and Placement in Storage

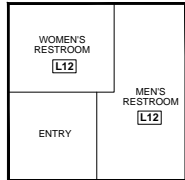
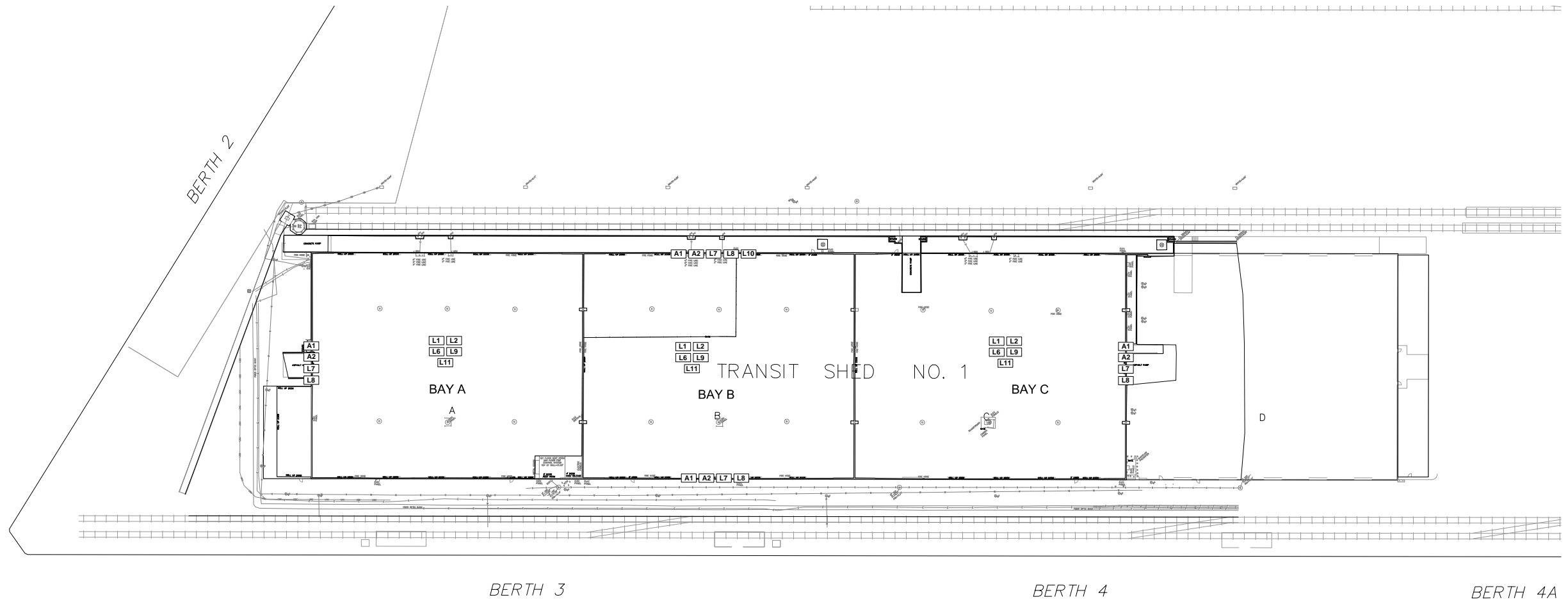
- Transport vehicles will be unloaded utilizing the same equipment and methods as for loading (Section 4.2).
- Drums and other storage containers will be placed in a storage facilities in locations designated by the Owner or Owner's Representative.
- Drums shall be placed on pallets of sufficient strength to withstand double stacking. Drums shall not be stacked at the time at the time of storage, unless space is limited as determined by the Owner or Owner's Representative. Where stacking of drums is necessary, pallets shall be placed between the drum layers.
- Ample clearance space will be provided around other storage containers in order to facilitate future inspections.
- Immediately following the unloading of the UWR/PCB transport vehicle, the cargo area shall be inspected to check for any fluid leaks. If any fluids are found, the source of the leaking drum or other storage container shall be identified and sealed.
- The contaminated cargo area shall be thoroughly washed/rinsed clean with absorbents, solvents, and liquid cleaners. Cleaning agents, solvents, and solids shall be place in proper drums for disposal.

4.6.2. Records

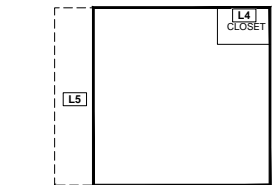
Upon completion of all UWR/PCB-related work activities, the Contractor shall provide a complete record of all activities and storage data to the Owner or Owner's Representative for the UWR/PCBs removed during the course of the project. The record shall include the following:

- Name of the firm performing the work of this section and technician in charge.
- Number and size of drums and other storage containers.
- Weight in kilograms or gallons of content for each drum or other storage container.
- Date placed in storage.

SECTION 4
PROJECT DRAWINGS –
WAREHOUSE C AND TRANSIT SHED NO. 1



1ST FLOOR RESTROOM



2ND FLOOR OFFICE

TRANSIT SHED NO. 1 - CLERK SHED
SCALE: 1=10'

LEGEND	
A1	ASBESTOS CONTAINING EXPANSION JOINT CAULKING
A2	ASBESTOS CONTAINING FIRE DOORS
A3	ASBESTOS CONTAINING CEILING TILE MASTIC
A4	ASBESTOS CONTAINING WALL PANEL COATING
A5	ASBESTOS CONTAINING VINYL FLOOR TILE AND ASSOCIATED MASTIC
A6	ASBESTOS CONTAINING COVEBASE MASTIC
L1	LEAD CONTAINING CEILING, WALL BEAMS AND SUPPORTS
L2	LEAD CONTAINING FIRE SPRINKLER PIPES
L3	LEAD CONTAINING ROOF LADDER
L4	LEAD CONTAINING SHELF COMPONENTS
L5	LEAD CONTAINING STAIR COMPONENTS
L6	LEAD CONTAINING FIRE SPRINKLER PROTECTORS
L7	LEAD CONTAINING ROLL-UP DOOR CORNER GUARDS
L8	LEAD CONTAINING EXPANSION JOINT PLATES
L9	LEAD CONTAINING ROUND COLUMNS
L10	LEAD CONTAINING ROLL-UP DOOR NUMBERS
L11	LEAD CONTAINING TRUCK RAMP CAPS
L12	LEAD CONTAINING FLOOR PLATES AND DRAINS
L13	LEAD CONTAINING WALL BEAMS AND SUPPORTS
L14	LEAD CONTAINING FIRE DOOR CASINGS
L15	LEAD CONTAINING WINDOW COMPONENTS
L16	LEAD CONTAINING DOOR CASING

PROGRESS REVIEW
OCTOBER 2013
NOT FOR CONSTRUCTION

SPEC. NO.	SPEC. NO.	WBS NO.	WBS-NO
PROJECT ENGINEER	--		
CONTRACTOR			
CONSTRUCTION STARTED			
CONSTRUCTION COMPLETED			
COST		INSPECTOR	

REVISIONS	DATE	APPROVED

**San Diego Unified
Port District
San Diego, California**

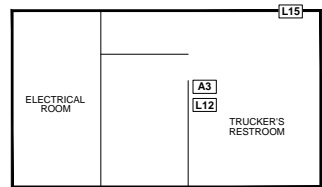
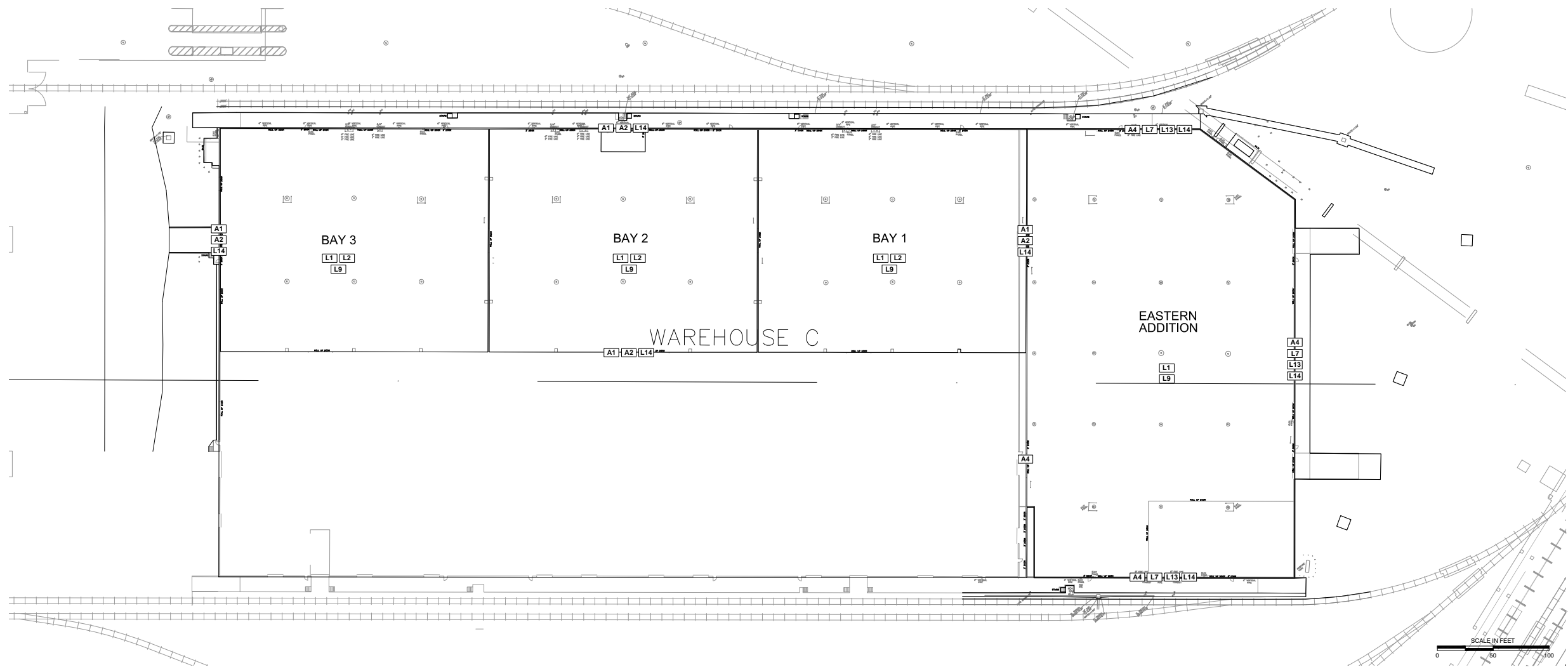


DESIGNED (NAME)
DRAWN ALEX BALANE
CHECKED (NAME)

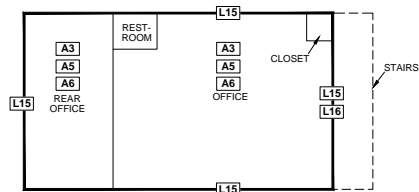
APPROVAL RECOMMENDED
APPROVED
APPROVED-BY

SAN DIEGO, CALIFORNIA	
TENTH AVENUE MARINE TERMINAL PHASE II DEMOLITION TRANSIT SHED #1, BAY 'A', 'B' AND 'C'	
ABATEMENT SPECIFICATION SHEET	

S1	
* DATUM * MEAN LOWER LOW WATER	
DATE	October 24, 2013
SHEET	OF 41
DRAWING NO.	REV.



1ST FLOOR RESTROOM



2ND FLOOR OFFICE

WAREHOUSE C - CLERK SHED
SCALE: 1=10'

LEGEND	
A1	ASBESTOS CONTAINING EXPANSION JOINT CAULKING
A2	ASBESTOS CONTAINING FIRE DOORS
A3	ASBESTOS CONTAINING CEILING TILE MASTIC
A4	ASBESTOS CONTAINING WALL PANEL COATING
A5	ASBESTOS CONTAINING VINYL FLOOR TILE AND ASSOCIATED MASTIC
A6	ASBESTOS CONTAINING COVEBASE MASTIC
L1	LEAD CONTAINING CEILING, WALL BEAMS AND SUPPORTS
L2	LEAD CONTAINING FIRE SPRINKLER PIPES
L3	LEAD CONTAINING ROOF LADDER
L4	LEAD CONTAINING SHELF COMPONENTS
L5	LEAD CONTAINING STAIR COMPONENTS
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L14	LEAD CONTAINING FIRE DOOR CASINGS
L15	LEAD CONTAINING WINDOW COMPONENTS
L16	LEAD CONTAINING DOOR CASING

PROGRESS REVIEW
OCTOBER 2013
NOT FOR CONSTRUCTION

SPEC. NO.	SPEC. NO.	WBS NO.	WBS-NO	<div>San Diego Unified Port District San Diego, California</div> <div></div>		DESIGNED (NAME)	APPROVAL RECOMMENDED	SAN DIEGO, CALIFORNIA		S2	
REFERENCES						DRAWN ALEX BALANE	APPROVED	TENTH AVENUE MARINE TERMINAL PHASE II DEMOLITION WAREHOUSE C, BAY '1', '2', '3' AND EASTERN ADDITION		* DATUM * MEAN LOWER LOW WATER	
PROJECT ENGINEER						CHECKED (NAME)	APPROVED	ABATEMENT SPECIFICATION SHEET		DATE October 28, 2013	
CONTRACTOR										SHEET 41	
CONSTRUCTION STARTED										DRAWING NO.	
CONSTRUCTION COMPLETED										REV.	
COST											
INSPECTOR											
REVISIONS											
DATE											
APPROVED											

SECTION 5
HAZARDOUS BUILDING MATERIALS SURVEY REPORT

**HAZARDOUS BUILDING MATERIALS SURVEY
TENTH AVENUE MARINE TERMINAL
WAREHOUSE C AND TRANSIT SHED NO. 1
TERMINAL STREET
SAN DIEGO, CALIFORNIA**

PREPARED FOR:

Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

PREPARED BY:

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
5710 Ruffin Road
San Diego, California 92123

October 3, 2013
Project No. 107589001

October 3, 2013
Project No. 107589001

Mr. Daniel Lee
Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

Subject: Hazardous Building Materials Survey
Tenth Avenue Marine Terminal
Warehouse C and Transit Shed No. 1
Terminal Street
San Diego, California

Reference: Ninyo & Moore, 2012, Asbestos-Containing Material Status Report, District-Operated Facility, Tenth Avenue Marine Terminal, San Diego, California: dated October 24.

Dear Mr. Lee:

In accordance with Subconsultant Agreement – Harris Project No. 112064.06, dated August 30, 2013, Ninyo & Moore has performed a hazardous building materials survey of Bays C-8, C-10, C-12, C-13, and C-14 of Warehouse C and Bays A, B, and C of Transit Shed No. 1 at the Tenth Avenue Marine Terminal. The attached report presents our methodology, findings, conclusions and recommendations regarding the hazardous building materials at the site.

We appreciate the opportunity to be of service to you on this important project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Senior Staff Environmental Scientist


Stephen J. Waide, CIH, CSP
Principal Environmental Scientist

NJC/SJW/mmd

Distribution: (1) Addressee (via e-mail)

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Figure 1 – Site Location

Figure 2 – Site Plan

Figure 3 – Sample Location – Transit Shed No. 1 and Warehouse C, ACM & PCB

Figure 4 – Sample Location – Transit Shed No.1 and Warehouse C, LCS

Figure 5 – Sample Location – Transit Shed No. 1, Clerk Shed

Figure 6 – Sample Location – Warehouse C, Clerk Shed

Tables

Table 1 – Asbestos Survey Results

Table 2 – Summary of Asbestos-Containing Materials

Table 3 – XRF Data Sheet

Table 4 – Summary of Lead-Containing Surfaces

Table 5 – Summary of Other Potential Hazardous Building Materials

Appendices

Appendix A – Asbestos-Containing Material Status Report, 2012

Appendix B – Suspect Asbestos-Containing Materials Sampling Protocol

Appendix C – Laboratory Analytical Report and Chain-of-Custody Records

Appendix D – XRF Testing Methodology

Appendix E – CDPH Form 8552 - Lead Hazard Evaluation Report

1. INTRODUCTION

Ninyo & Moore was retained by Harris & Associates (Harris) on behalf of the San Diego Unified Port District (SDUPD) in order to conduct a hazardous building materials survey for Bays C-8, C-10, C-12, and the Eastern Addition (Bays C-13 and C-14) of Warehouse C and the remainder of Transit Shed No. 1 (Bays A, B, and C) (hereinafter referred to as the subject buildings). Bays C-8, C-10, and C-12 in Warehouse C are referred to as Bays 3, 2, and 1, respectively, in the figures and tables of this report, while Bays C-13 and C-14 are referred to as the Eastern Addition. Bays A, B, and C in Transit Shed No. 1 are referred to as Bays 3, 2, and 1, respectively, in the figures and tables of this report. The subject buildings are located along Terminal Street, within the boundaries of Tenth Avenue Marine Terminal, in the city and county of San Diego, California (Figure 1). Our services included the performance of an asbestos-containing materials (ACM) survey, a lead-containing surfaces (LCS) survey, and visual identification and quantification of building materials potentially falling under the California Department of Toxic Substances Control (DTSC) Universal Waste Rule (UWR) and other potential hazardous building materials. For the purposes of this assessment, LCS refers to both lead-based paint, as defined by the California Department of Public Health (CDPH) and U.S. Department of Housing and Urban Development (HUD), and other potential lead-containing materials, including, but not limited to, ceramic tile and porcelain bathroom fixtures.

The survey was performed in accordance with established guidelines for the assessment of ACM and LCS, and is based upon conditions of the subject buildings at the time of the surveying/assessment activities.

2. OBJECTIVE AND SCOPE OF SERVICES

The purpose of this study is to provide information regarding the current site conditions to assist Harris in implementing site improvement projects. We understand that the subject buildings will be demolished. Our scope of work performed for the study is identified below.

- Reviewed the previously prepared asbestos status report for the subject buildings, to determine if all potential suspect ACM have been previously evaluated.

- After review of the previously prepared asbestos survey, prepared a sampling and assessment plan for each of the subject buildings.
- Conducted a visual reconnaissance of the readily accessible areas of the subject buildings to document homogeneous areas and locate suspect ACM, LCS, building materials potentially falling under the UWR, and other potential hazardous building materials.
- Inspected each of the subject buildings for the presence or absence of previously identified ACMs.
- Collected 96 suspect ACM samples and submitted them to an independent laboratory for analysis of asbestos content. Samples were analyzed via the Environmental Protection Agency (EPA) recommended method of polarized light microscopy (PLM) in accordance with EPA Test Method 600/R-93/116 July 93.
- Collected 301 x-ray fluorescence (XRF) readings of potential LCS.
- Visually documented and quantified building materials potentially falling under the UWR, including, but not limited to non-incandescent light bulbs, mercury-containing thermostat triggers, batteries, and electronic devices. Other potentially hazardous building materials, including, but not limited to, potential polychlorinated biphenyl (PCB)-containing light ballasts, potential tritium-containing exit signs, and potential FreonTM-containing air conditioning units and refrigerators, were noted, if observed.
- Collected six samples of caulking material and submitted them to an independent laboratory for analysis of PCB content via EPA Methods 3540C/8082A.
- Prepared sample location maps showing locations from which suspect ACM samples were collected, locations of XRF readings of lead concentrations in excess of 1.0 milligram per square centimeter (mg/cm²), and caulking samples.
- Prepared this report presenting our data and summarizing our conclusions and recommendations regarding ACM, LCS, and other potential hazardous building materials for the subject buildings.

3. SITE DESCRIPTION

Bays 2, 3, and 4 of Transit Shed No. 1 are all approximately 48,000 square-foot bays. Transit Shed No. 1 is an approximately 30-foot tall, concrete tilt-up building with steel I-beam framing. The interior of Transit Shed No. 1 is paved with asphalt. The Clerk Shack is a two-story structure located in the southwest corner of Bay 4. The Clerk Shack shares the south and east walls of Bay 4 and the remaining walls are constructed of either concrete masonry units or wood framing covered with either plaster or stucco. Floor finishes included vinyl floor tile, exposed concrete, and terrazzo.

Bays 1, 2, and 3 of Warehouse C are all approximately 48,000 square-foot bays. This northern half of Warehouse C is an approximately 30-foot tall, concrete tilt-up building with steel I-beam framing. The interior of Warehouse C is paved with asphalt. The Clerk Shack is a two-story structure located in the northeast portion of Bay 2. The Clerk Shack shares the north wall of Bay 2 and the remaining walls are constructed of either concrete masonry units or wood framing covered with either plaster or stucco. Floor finishes included vinyl floor tile, exposed concrete, and terrazzo.

The Eastern Addition of Warehouse C, which consists of Bay C-13 and C-14, is approximately 96,000 square feet. The Eastern Addition of Warehouse C is an approximately 30-foot tall, steel I-beam framed structure with corrugated metal panel walls. The interior of the Eastern Addition is paved with asphalt.

4. PHYSICAL LIMITATIONS

Survey activities were limited to the aboveground structures. Underground utilities, such as suspect cementitious water lines or suspect insulated/coated gas or electrical lines were not assessed during survey activities.

Other physical limitations, such as inaccessible rooms, were not encountered during survey activities. However, since non-destructive sampling techniques were used, there is a possibility that additional suspect materials and/or surfaces may be encountered in inaccessible areas (e.g., interstitial wall and ceiling spaces and canopy soffits) during building demolition. For instance, untested thermal system insulation may be present within wall and ceiling cavities and behind plumbing and heating fixtures (e.g., sinks, boilers, and radiators). Suspect materials and/or surfaces encountered during building demolition that have not been assessed either may be assumed to be asbestos and/or lead-containing and handled accordingly, or may be sampled and analyzed to assess whether they are asbestos and/or lead-containing.

5. SAMPLE COLLECTION AND ANALYSES

In September 2013, the subject buildings were assessed for the presence of ACM, LCS, and other potential hazardous building materials. The ACM and LCS surveys followed EPA guidelines, or industry standards, within the limitations of the scope of this assessment. Survey activities are discussed below.

5.1. Asbestos Survey

Ninyo & Moore reviewed SDUPD records to obtain information on the materials sampled in the subject buildings to date. Ninyo & Moore's objective was to collect samples of any suspect ACM observed in the subject buildings that had not previously been sampled, or that had not adequately been sampled.

The supplemental asbestos survey was performed under the supervision of a State of California Certified Asbestos Consultant. Survey activities included:

- A preliminary visual assessment and bulk sampling of suspect ACMs that had not been previously evaluated.
- Bulk sampling of previously identified, low content ACMs for further evaluation of the asbestos content.
- An inspection of each of the subject buildings to determine if previously identified ACM(s) were present or had potentially been removed/abated.

Representative samples of suspect and previously identified ACMs were collected after a determination of homogeneous sampling areas (areas in which the materials are uniform in color, texture, construction or application date, and general appearance). Material type, location, condition, and friability were noted for each homogeneous area. A total of 96 samples of suspect and previously identified ACMs were collected, using EPA-recommended sampling procedures (Appendix B).

The suspect ACM samples were delivered to EMSL Analytical, Inc. (EMSL) of San Diego, California for analysis. EMSL is accredited in the National Voluntary Laboratory Accreditation Program for bulk asbestos fiber analysis. The samples were analyzed for the presence

and quantification of asbestos fibers, using PLM with dispersion staining, in accordance with EPA Method 600/R-93/116 July 93. Because of material layering, of the 96 samples, 114 separate PLM analyses were performed. The lower limit of reliable detection for asbestos using the PLM method is approximately 1% by weight. Currently, the EPA and the State of California stipulate that materials containing greater than 1% asbestos constitute an ACM and the State of California stipulates that a material containing greater than 0.1% asbestos constitutes an asbestos-containing construction material (ACCM).

Based on the initial PLM results, eight samples of materials initially found to be containing less than 10% asbestos were further analyzed or “point-counted” in accordance with a subsection of EPA Method 600/R-93/116 July 93 to re-quantify the asbestos content. Point count results are indicated with a “PT” adjacent to the analytical results in Tables 1 and 2.

Building materials that were sampled and analyzed for the presence of asbestos are presented in the attached Table 1 and Appendix A, and the locations from which bulk asbestos samples were collected are shown on Figures 3 through 5. Locations and types of building materials found to be asbestos-containing in this survey are summarized in Table 2. Copies of the laboratory analytical report and chain-of-custody records are presented in Appendix C.

5.2. Lead-Containing Surfaces Survey

For the purposes of this assessment, LCS refers to both lead-based paint, as defined by CDPH and HUD, and other potential lead-containing materials, including, but not limited to, ceramic tile and porcelain bathroom fixtures.

The testing was conducted by a CDPH-certified Lead Inspector/Assessor using a portable NITON XLP 300A XRF spectrum analyzer in accordance with accepted environmental science and engineering practices for renovation projects. The testing methodology utilized is presented in Appendix D. A total of 301 XRF readings (including calibrations) were collected from representative building component combinations (e.g., combinations of room, building component, and substrate). Components that were tested for the presence of lead are presented in the attached Table 3. The XRF testing orientation (A, B, C, and D wall ori-

entations) utilized during the testing and locations of XRF assays in excess of 1.0 mg/cm² are depicted on Figures 3 through 5. Locations and types of building materials found to be lead-containing are summarized in Table 4. A copy of CDPH form 8552 “Lead Hazard Evaluation Report” for the subject building is included in Appendix E.

5.3. Other Potential Hazardous Building Materials

Ninyo & Moore performed a visual assessment and quantification of building materials potentially falling under the UWR, including, but not limited to non-incandescent light bulbs, mercury-containing thermostat triggers, batteries, and electronic devices. Other potentially hazardous building materials, including, but not limited to, potential PCB-containing light ballasts, potential tritium-containing exit signs, and potential Freon™-containing air conditioning units and refrigerators, were noted, if observed. In accordance with the scope of work, positive identification of the suspect hazardous material, via analytical testing, was not performed. Building materials potentially falling under the UWR are summarized in Table 5.

5.4. Potential PCB-Containing Caulking

In accordance with the scope of work, samples of potential PCB-containing caulking were collected. Six samples of caulking material were collected from Transit Shed No. 1 and the north side of Warehouse C. Three samples (samples PCB-001, PCB-002, and PCB-003) were collected from the expansion joint wall seams of Transit Shed No.1 and three samples (samples PCB-004, PCB-005, and PCB-006) were collected from the expansion joint wall seams from the north side of Warehouse C. The samples were collected using a clean utility knife and the samples were placed in re-sealable plastic bags and appropriately labeled. The locations from which the samples were collected are depicted on Figures 5 and 6.

The samples were shipped overnight under chain of custody procedures, via Federal Express, to EMSL in Cinnaminson, New Jersey. EMSL is accredited through the National Environmental Laboratory Accreditation Conference (NELAC) for PCB analysis. The samples were prepared for analysis by USEPA Test Method 3540C and analyzed by USEPA Test Method 8082A for PCB content. A copy of the laboratory analytical report is included in Appendix C.

6. FINDINGS AND RECOMMENDATIONS

The findings of these surveys are based on our visual observations and analysis of suspect building materials. Our findings are presented below.

6.1. Asbestos

Based on the previously prepared ACM status report and on the analytical results of the bulk samples collected during the survey, ACMs and ACCMs are located at the subject buildings. ACMs and ACCMs are summarized in Table 2.

Materials, which were not sampled as part of this assessment, that are uniform in color, texture, construction or application date, and/or general appearance to materials found to be asbestos-containing, should be presumed to be asbestos-containing.

The identified ACMs and ACCMs should not be disturbed. Prior to demolition activities that could potentially disturb these materials, a licensed asbestos abatement contractor should remove the ACMs and ACCMs in accordance with federal, state and local regulations. **It is the contractor's responsibility to confirm ACM and ACCM locations and quantities prior to bid submittals and initiating demolition activities for the subject buildings.**

Should additional suspect materials, not sampled or assessed in this report, be uncovered during building demolition: (a) samples of suspect materials should be collected for laboratory analysis, and all activities that may impact the materials should cease until laboratory analytical results are reviewed; or (b) the materials should be assumed to be asbestos-containing and handled as such. Note that any work involving the disturbance of materials containing asbestos should be performed using appropriate work practices, and be conducted by, and under the supervision of, properly trained, experienced, and certified personnel.

6.2. Lead-Containing Surfaces

Based on the results of the XRF assays collected during the survey, surfaces containing concentrations of lead greater than or equal to 1.0 mg/cm^2 or 0.5%, by weight, were identified at each of the subject buildings. Surfaces with a lead content exceeding the regulatory standard for lead in surface coatings are summarized in Table 4.

In addition, surfaces with a lead content between 0.5 and 1.0 mg/cm^2 were also identified at the subject buildings and are depicted in italicized text in Table 3. To comply with City of San Diego Ordinance 19732, “lead-safe work practices”, as described in the ordinance, should be used when these surfaces are disturbed during demolition activities.

The identified LCSs should be handled by an appropriately licensed contractor in accordance with all federal, state, and local regulations. Prior to demolition activities, a licensed contractor, using CDPH-certified personnel, should perform the LCS abatement in accordance with local, state, and federal regulations. **It is the contractor’s responsibility to confirm LCS quantities and locations prior to bid submittals and initiating demolition activities for the subject buildings.** The Contractor is also responsible for waste characterization for all materials removed from the subject buildings.

Please note that disturbing surfaces containing lead concentrations below the LCS criteria, as defined by CDPH and HUD, (e.g., lead concentrations less than 1.0 mg/cm^2 or 0.5%, by weight) may trigger the California Occupational Safety and Health Administration lead in construction standard (e.g., Title 8, California Code of Regulations [CCR] Section 1532.1). In addition, please note that LCS condition was based upon Ninyo & Moore’s visual observations during survey activities and, as some of the identified LCS are located on the exterior of the subject buildings, LCS conditions may deteriorate prior to demolition activities.

Should suspect surfaces, not sampled or assessed in this report, be uncovered during building demolition: (a) samples of suspect surfaces should be collected for laboratory analysis and/or XRF testing of the suspect surfaces, and all activities that impact the suspect surfaces should cease until laboratory analytical results are reviewed and/or XRF testing results be-

come available; or (b) the surfaces should be assumed to contain concentrations of lead greater than or equal to 1.0 mg/cm² or 0.5%, by weight, and handled as such.

6.3. Other Potential Hazardous Building Materials

A visual assessment and quantification of UWR and other potential hazardous building materials that could be impacted by demolition activities was performed. Other potential hazardous building materials observed at the subject buildings are summarized in Table 5.

Prior to demolition activities that could potentially disturb these materials, building materials falling under the UWR and other potential hazardous building materials should be removed and properly recycled or disposed by a licensed contractor in accordance with federal, state and local regulations. **It is the contractor's responsibility to confirm miscellaneous hazardous building materials quantities and locations present prior to bid submittals and initiating demolition activities for the subject buildings.** The Contractor is also responsible for waste characterization for all materials removed from the subject buildings.

6.4. PCB-Containing Caulking

Aroclor 1254 was detected in samples PCB-001 and PCB-003 at 1.4 milligrams per kilogram (mg/kg) and 0.86 mg/kg. Other PCBs were not detected in these samples. In addition, PCBs were not detected above the reporting limit in samples PCB-002, PCB-004, PCB-005, and PCB-006. A copy of the laboratory results is included in Appendix B.

PCBs were detected in the caulking samples (samples PCB-001 and PCB-003) collected from the expansion joint wall seams of Transit Shed No. 1. Based on the limited sampling conducted during this assessment, the concentrations of PCBs detected in the collected samples would categorize the samples as a "waste." However, the detected concentrations of PCBs are generally below the maximum concentrations of PCBs for disposal at municipal landfills, as detailed in CCR, Title 22, §66261.24. Additionally, the Demolition Contractor is responsible for waste characterization and disposal for all materials removed from the subject buildings.

7. LIMITATIONS

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited sampling and chemical analysis. Further assessment of potential adverse environmental impacts may be accomplished by conducting a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the areas evaluated. However, if additional suspect building materials are encountered during demolition activities, these materials should be sampled by qualified personnel, and analyzed for content prior to further disturbance. **In addition, please note that quantities of impacted building materials are approximate. It is the contractor's responsibility to confirm quantities present.**

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

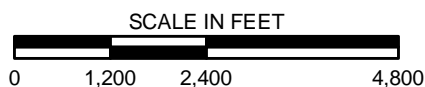
The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory that is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results. Please note the laboratory analytical report states "Due to the magnification limitations inherent in PLM, asbestos fibers below the resolution capability of PLM may not be

detected. Samples reported as <1% or none detected may require additional testings by transmission electron microscopy to confirm asbestos quantities.”

Our findings, opinions, and recommendations are based on an analysis of the observed site conditions. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject building or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.



SOURCE: 2008 Thomas Guide for San Diego County, Street Guide and Directory; Map © Rand McNally, R.L.07-S-129



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

SITE LOCATION

FIGURE

PROJECT NO.

DATE

10TH AVENUE MARINE TERMINAL
TERMINAL STREET
SAN DIEGO, CALIFORNIA

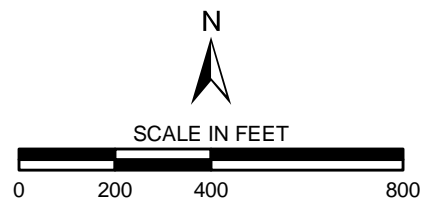
107589001

10/13

1



SOURCE: Aerial Imagery - Photo Date: Feb 11, 2010, ESRI, icubed, USDA FSA, USGS, AEX, GeoEye, Getmapping, Aerogrid, IGP.



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

SITE PLAN

FIGURE

PROJECT NO.

DATE

10TH AVENUE MARINE TERMINAL
TERMINAL STREET
SAN DIEGO, CALIFORNIA

107589001

10/13

2



DOLE FACILITY

WAREHOUSE B

WAREHOUSE C

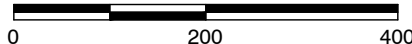
EASTERN
ADDITION

TRANSIT SHED NO. 2

AS 014
AS 019
C 003
AS 049
AS 018
AS 016
AS 015
AS 044
AS 020
AS 021
AS 017
AS 010
C 001
AS 048
AS 013
AS 008
AS 012
AS 003
AS 004
AS 047
AS 002
AS 001
AS 006
AS 007
AS 005
AS 011
AS 045
AS 009
C 002
AS 046

AS 070
AS 061
AS 059
AS 062
AS 060
AS 057
C 005
AS 058
AS 055
AS 072
C 004
AS 068
AS 071
AS 079
AS 066
AS 065
AS 074
AS 051
AS 075
AS 050
AS 067
AS 052
AS 076
AS 078
AS 077
AS 080
BAY
BAY 2
BAY 1
WAREHOUSE C

SCALE IN FEET



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

LEGEND

- AS 080 ASBESTOS SAMPLE
- ▲ AS 062 ASBESTOS ROOF SAMPLE
- ◆ C 006 POLYCHLORINATED BIPHENYLS

Ninyo & Moore

PROJECT NO

DATE

10000001

1010

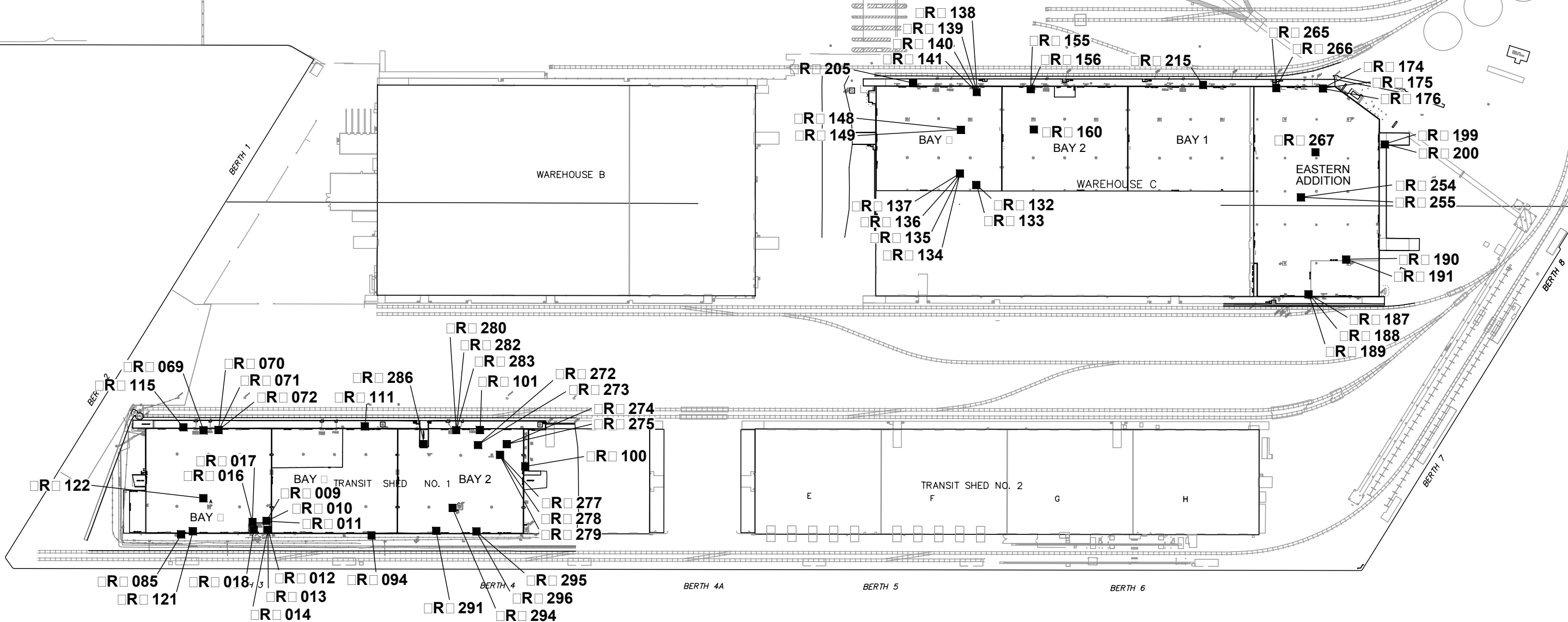
SAMPLE LOCATIONS
TRANSIT SHED NO. 1 AND AREHOUSE C -
INTERIOR AND ROOF SAMPLES
10T AGENE MARINE TERMINAL
TERMINAL STREET
SAN DIEGO CALIFORNIA

FIGURE

3



DOLE FACILITY



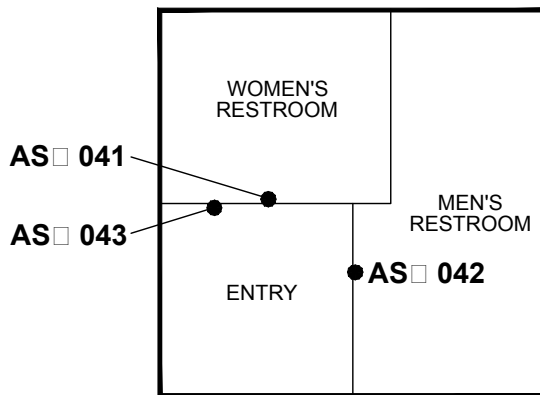
A
D
C
XRF ORIENTATION



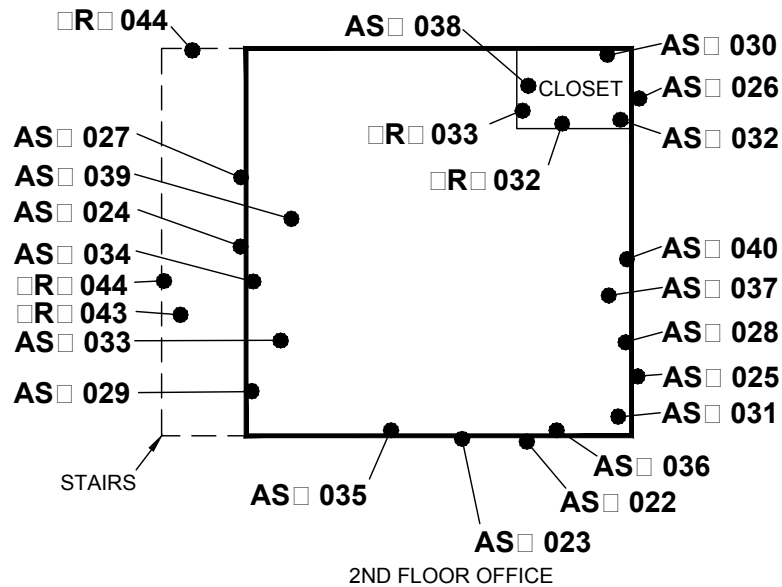
NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

LEGEND	
■	R 296 XRF ASSAY IN EXCESS OF 1.0 mg/cm ²

Ninyo & Moore		SAFETY LOCATIONS	FILE
PROJECT NO.	DATE	TRANSIT SHED NO. 1 AND AREHOUSE C - EXTERIOR AND ROOF SAMPLES	
10000001	10/1	10TH AVENUE MARINE TERMINAL TERMINAL STREET SAN DIEGO CALIFORNIA	
			4



1ST FLOOR RESTROOM



2ND FLOOR OFFICE

LEGEND	
● AS 042	ASBESTOS SAMPLE
■ R 044	XRF ASSAY IN EXCESS OF 1.0 mg/cm ²



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ningo & Moore

**SALE LOCATIONS
TRANSIT SHED NO. 1 - CLERK SHED**

FIGURE

PROJECT NO.

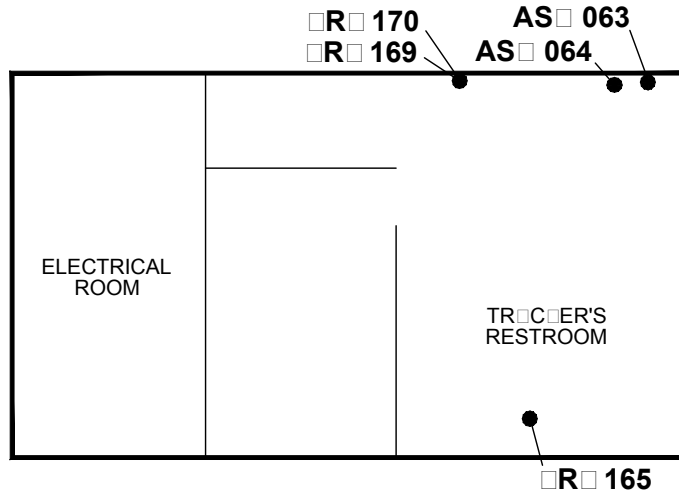
DATE

10TH AVENUE MARINE TERMINAL
TERMINAL STREET
SAN DIEGO, CALIFORNIA

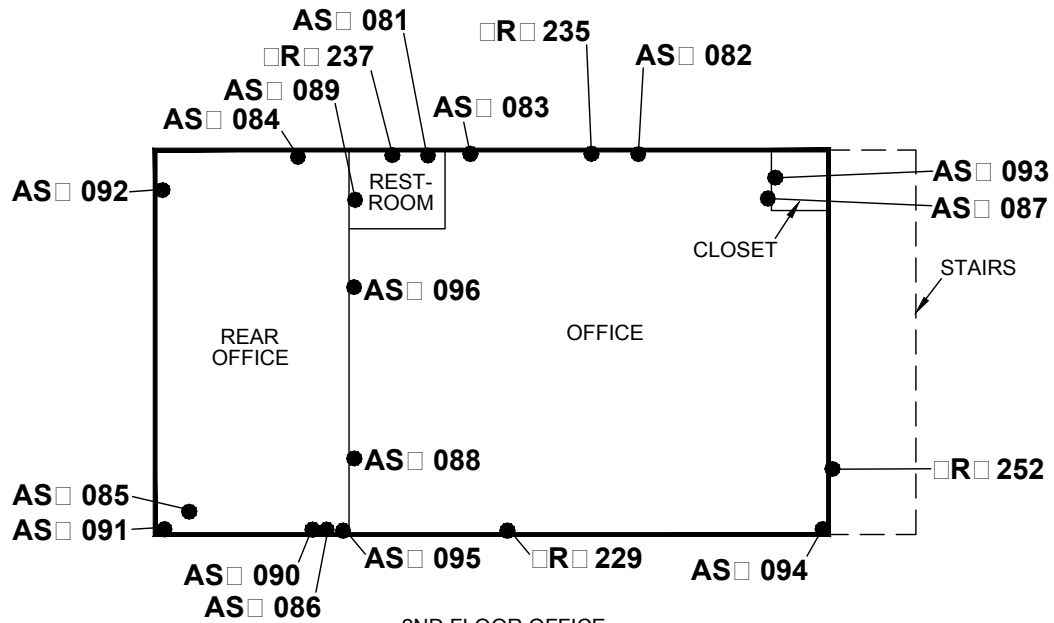
10000001

10/1/

5



1ST FLOOR RESTROOM

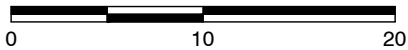


2ND FLOOR OFFICE

LEGEND

- AS 096 ASBESTOS SAMPLE
- R 252 XRF ASSAY IN EXCESS OF 1.0 mg/cm²

SCALE IN FEET



NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE

Ningo & Moore

SALE LOCATIONS
AREHOSE C - CLERK SHED

FIGURE

PROJECT NO

DATE

10TH AVENUE MARINE TERMINAL
TERMINAL STREET
SAN DIEGO CALIFORNIA

6

10000001

10/10

Table 1 – Asbestos Survey Results

Sample No.	Bldg. No.	Bay	Room No.	Sample Location	Sample Description	Approx. Quantity ⁽¹⁾	Friable Y/N	Condition	Asbestos Content
ASB-001	TS1	2	Roof	South middle roof	Black roof system	--	N/A	N/A	ND
ASB-002	TS1	2	Roof	East middle roof	Gray/black roof core	--	N/A	N/A	ND
ASB-003	TS1	2	Roof	Northeast corner wall	Black roof penetration mastic	--	N/A	N/A	ND
ASB-004	TS1	2	Roof	Northeast hatch	Black roof penetration mastic	--	N/A	N/A	ND
ASB-005	TS1	2	Roof	Northwest parapet wall	Gray/black parapet wall core	--	N/A	N/A	ND
ASB-006	TS1	2	Roof	Southwest hatch	Silver roof hatch paint	--	N/A	N/A	ND
ASB-007	TS1	2	Roof	Southwest railing	Black roof penetration mastic	--	N/A	N/A	ND
ASB-008	TS1	3	Roof	Central roof	Black roof system	--	N/A	N/A	ND
ASB-009	TS1	3	Roof	Northwest roof	Gray/black roof core	--	N/A	N/A	ND
ASB-010	TS1	3	Roof	Northwest corner wall	Black roof penetration mastic	--	N/A	N/A	ND
ASB-011	TS1	3	Roof	Southwest hatch	Black roof penetration mastic	--	N/A	N/A	ND
ASB-012	TS1	3	Roof	South middle wall	Gray/black parapet wall core	--	N/A	N/A	ND
ASB-013	TS1	3	Roof	Northeast hatch	Silver roof hatch paint	--	N/A	N/A	ND
ASB-014	TS1	3	Roof	Northwest rail	Black roof penetration mastic	--	N/A	N/A	ND
ASB-015	TS1	4	Roof	Northwest roof	Black roof system	--	N/A	N/A	ND
ASB-016	TS1	4	Roof	West middle roof	Black roof core	--	N/A	N/A	ND
ASB-017	TS1	4	Roof	Southwest corner	Black roof penetration mastic	--	N/A	N/A	ND
ASB-018	TS1	4	Roof	Southwest vent cover	Black roof penetration mastic	--	N/A	N/A	ND
ASB-019	TS1	4	Roof	Southeast wall	Gray/black roof core	--	N/A	N/A	ND
ASB-020	TS1	4	Roof	Southwest hatch vent	Silver roof hatch paint	--	N/A	N/A	ND
ASB-021	TS1	4	Roof	Southwest rail	Black roof penetration mastic	--	N/A	N/A	ND
ASB-022	TS1	4	Clerk shed	2nd floor, south middle exterior window	Gray window putty	--	N/A	N/A	ND
ASB-023	TS1	4	Clerk shed	2nd floor, southwest exterior window	Gray window putty	--	N/A	N/A	ND
ASB-024	TS1	4	Clerk shed	2nd floor, northwest exterior window	Gray window putty	--	N/A	N/A	ND
ASB-025	TS1	4	Clerk shed	2nd floor, southeast exterior wall	White stucco	--	N/A	N/A	ND
ASB-026	TS1	4	Clerk shed	2nd floor, northeast exterior wall	Gray stucco	--	N/A	N/A	ND
ASB-027	TS1	4	Clerk shed	2nd floor, northwest exterior wall	Gray stucco	--	N/A	N/A	ND
ASB-028	TS1	4	Clerk shed	2nd floor, southeast interior wall	White plaster	--	N/A	N/A	ND
ASB-029	TS1	4	Clerk shed	2nd floor, southwest interior wall	White plaster	--	N/A	N/A	ND

Table 1 – Asbestos Survey Results

Sample No.	Bldg. No.	Bay	Room No.	Sample Location	Sample Description	Approx. Quantity ⁽¹⁾	Friable Y/N	Condition	Asbestos Content
ASB-030	TS1	4	Clerk shed	2nd floor, northeast interior closet wall	White plaster	--	N/A	N/A	ND
ASB-031	TS1	4	Clerk shed	2nd floor, southeast interior	White ceiling plaster	--	N/A	N/A	ND
ASB-032	TS1	4	Clerk shed	2nd floor, northeast interior	White ceiling plaster	--	N/A	N/A	ND
ASB-033	TS1	4	Clerk shed	2nd floor, southwest interior ceiling	White ceiling plaster	--	N/A	N/A	ND
ASB-034	TS1	4	Clerk shed	2nd floor, west middle interior window	White window putty	--	N/A	N/A	ND
ASB-035	TS1	4	Clerk shed	2nd floor, southwest interior window	White window putty	--	N/A	N/A	ND
ASB-036	TS1	4	Clerk shed	2nd floor, southeast interior window	White window putty	--	N/A	N/A	ND
ASB-037	TS1	4	Clerk shed	2nd floor, east middle interior	9"x9" beige vinyl floor tile	--	N/A	N/A	ND
ASB-037A	TS1	4	Clerk shed	2nd floor, east middle interior floor	Black/yellow mastic associated with ASB-037	--	N/A	N/A	ND
ASB-038	TS1	4	Clerk shed	2nd floor, northeast interior floor	9"x9" beige vinyl floor tile	--	N/A	N/A	ND
ASB-038A	TS1	4	Clerk shed	2nd floor, northeast interior floor	Black/yellow mastic associated with ASB-037	--	N/A	N/A	ND
ASB-039	TS1	4	Clerk shed	2nd floor, northwest interior floor	9"x9" tan vinyl floor tile	--	N/A	N/A	ND
ASB-039A	TS1	4	Clerk shed	2nd floor, northwest interior floor	Black mastic associated with ASB-	--	N/A	N/A	ND
ASB-040	TS1	4	Clerk shed	2nd floor, east middle interior wall	Tan covebase mastic, layer 1	--	N/A	N/A	ND
ASB-040A	TS1	4	Clerk shed	2nd floor, east middle interior wall	Brown covebase mastic, layer 2	--	N/A	N/A	ND
ASB-041	TS1	4	WRR	South middle wall	White drywall	--	N/A	N/A	ND
ASB-042	TS1	4	MRR	West middle wall	White drywall	--	N/A	N/A	ND
ASB-043	TS1	4	Hall	Northwest wall	White drywall	--	N/A	N/A	ND
ASB-044	TS1	4	Exterior	Southwest wall	White expansion joint caulking	1,800 LF	N	Good	3% chrysotile
ASB-045	TS1	3	Exterior	South middle wall	White expansion joint caulking	See ASB-044	N	Good	3% chrysotile
ASB-046	TS1	2	Exterior	Southeast wall	White expansion joint caulking	See ASB-044	N	Good	3% chrysotile
ASB-047	TS1	2	Exterior	Northeast wall	White expansion joint caulking	See ASB-044	N	Good	3% chrysotile
ASB-048	TS1	3	Exterior	North middle wall	White expansion joint caulking	See ASB-044	N	Good	2% chrysotile
ASB-049	TS1	4	Exterior	Northwest wall	White expansion joint caulking	See ASB-044	N	Good	2% chrysotile
ASB-050	C	EA	Roof	North central roof	Roof assembly - tan insulation	--	N/A	N/A	ND
ASB-050A	C	EA	Roof	North central roof	Roof assembly - black roofing	--	N/A	N/A	ND

Table 1 – Asbestos Survey Results

Sample No.	Bldg. No.	Bay	Room No.	Sample Location	Sample Description	Approx. Quantity ⁽¹⁾	Friable Y/N	Condition	Asbestos Content
ASB-051	C	EA	Roof	North middle edge roof	Black roof penetration mastic	--	N/A	N/A	ND
ASB-052	C	EA	Roof	South east roof	Black parapet wall core	--	N/A	N/A	ND
ASB-053	C	3	Roof	Central roof	Gray/black roof core	--	N/A	N/A	ND
ASB-054	C	3	Roof	Southwest roof	Black roof penetration mastic	--	N/A	N/A	ND
ASB-055	C	3	Roof	Northwest corner roof	Gray/black parapet wall core	--	N/A	N/A	ND
ASB-056	C	2	Roof	Southeast roof	Black roof core	--	N/A	N/A	ND
ASB-057	C	2	Roof	North middle roof	Black roof penetration mastic	--	N/A	N/A	ND
ASB-058	C	2	Roof	Northwest corner roof	Silver parapet wall mastic	--	N/A	N/A	ND
ASB-059	C	1	Roof	North central roof	Black roof core	--	N/A	N/A	ND
ASB-060	C	1	Roof	Southeast roof	Black roof penetration mastic	--	N/A	N/A	ND
ASB-061	C	1	Roof	Northwest corner roof	Gray/black parapet wall core	--	N/A	N/A	ND
ASB-062	C	1	Roof	Southwest roof	Gray/black roof penetration mastic	--	N/A	N/A	ND
ASB-063	C	2	Trucker's RR	Northeast ceiling	12"x12" tan/white acoustic ceiling tile	--	N/A	N/A	ND
ASB-064	C	2	Trucker's RR	Northeast ceiling	White mastic associated with ASB-063	500 SF	N	Good	0.30% anthophyllite (PT)
ASB-065	C	EA	Interior	Northeast wall	Brown/white wall coating	27,000 SF	N	Fair	15% chrysotile
ASB-066	C	EA	Interior	Southwest wall	Brown/white wall coating	See ASB-065	N	Fair	15% chrysotile
ASB-067	C	EA	Interior	South wall	Brown/white wall coating	See ASB-065	N	Fair	15% chrysotile
ASB-068	C	1	Exterior	Northeast loading dock	Black sealant	--	N/A	N/A	ND
ASB-069	C	2	Exterior	Northeast loading dock	Black sealant	--	N/A	N/A	ND
ASB-070	C	3	Exterior	Northeast loading dock	Black sealant	--	N/A	N/A	ND
ASB-071	C	1	Exterior	Northeast wall	Gray expansion joint sealant	1,800 SF	N	Good	4% chrysotile
ASB-072	C	2	Exterior	Northeast wall	Gray expansion joint sealant	See ASB-072	N	Good	4% chrysotile
ASB-073	C	3	Exterior	Northeast wall	Gray expansion joint sealant	See ASB-072	N	Good	3% chrysotile
ASB-074	C	EA	Exterior	Northeast wall	Brown/white wall coating	See ASB-065	N	Fair	10% chrysotile
ASB-075	C	EA	Exterior	South wall	Brown/white wall coating	See ASB-065	N	Fair	12% chrysotile
ASB-076	C	EA	Exterior	Southwest wall	Brown/white wall coating	See ASB-065	N	Fair	10% chrysotile
ASB-077	C	EA	Exterior	North wall	Brown/white wall coating	See ASB-065	N	Fair	15% chrysotile
ASB-078	C	EA	Exterior	Northeast window	White window putty	--	N/A	N/A	ND
ASB-079	C	EA	Exterior	Northeast window	White window putty	--	N/A	N/A	ND
ASB-080	C	EA	Exterior	Northeast window	White window putty	--	N/A	N/A	ND
ASB-081	C	2	Clerk shed	2nd floor, office, restroom ceiling	12"x12" tan/white acoustic ceiling tile	--	N/A	N/A	ND

Table 1 – Asbestos Survey Results

Sample No.	Bldg. No.	Bay	Room No.	Sample Location	Sample Description	Approx. Quantity ⁽¹⁾	Friable Y/N	Condition	Asbestos Content
ASB-081A	C	2	Clerk shed	2nd floor, office, restroom ceiling	Brown mastic associated with ASB-081	400 SF	N	Good	0.40% anthophyllite (PT)
ASB-082	C	2	Clerk shed	2nd floor, office, northeast ceiling	12"x12" brown/white acoustic ceiling tile	--	N/A	N/A	ND
ASB-082A	C	2	Clerk shed	2nd floor, office, northeast ceiling	Brown mastic associated with ASB-082	See ASB-081A	N	Good	0.30% anthophyllite (PT)
ASB-083	C	2	Clerk shed	2nd floor, office, north ceiling	12"x12" brown/white acoustic ceiling tile	--	N/A	N/A	ND
ASB-083A	C	2	Clerk shed	2nd floor, office, north ceiling	Brown mastic associated with ASB-083	See ASB-081A	N	Good	0.30% anthophyllite (PT)
ASB-084	C	2	Clerk shed	2nd floor, rear office, northeast ceiling	12"x12" white/beige acoustic ceiling tile	--	N/A	N/A	ND
ASB-084A	C	2	Clerk shed	2nd floor, rear office, northeast ceiling	Brown mastic associated with ASB-084	300 SF	N	Good	0.50% anthophyllite (PT)
ASB-085	C	2	Clerk shed	2nd floor, rear office, southwest ceiling	12"x12" beige acoustic ceiling tile	--	N/A	N/A	ND
ASB-085A	C	2	Clerk shed	2nd floor, rear office, southwest ceiling	Brown mastic associated with ASB-085	See ASB-084A	N	Good	0.30% anthophyllite (PT)
ASB-086	C	2	Clerk shed	2nd floor, rear office, south ceiling	12"x12" white/beige acoustic ceiling tile	--	N/A	N/A	ND
ASB-086A	C	2	Clerk shed	2nd floor, rear office, south ceiling	Brown mastic associated with ASB-086	See ASB-084A	N	Good	0.20% anthophyllite (PT)
ASB-087	C	2	Clerk shed	2nd floor, office wall	White plaster - finish coat	--	N/A	N/A	ND
ASB-087A	C	2	Clerk shed	2nd floor, office wall	Beige plaster - base coat	--	N/A	N/A	ND
ASB-088	C	2	Clerk shed	2nd floor, office wall	White plaster - finish coat	--	N/A	N/A	ND
ASB-088A	C	2	Clerk shed	2nd floor, office wall	Beige plaster - base coat	--	N/A	N/A	ND
ASB-089	C	2	Clerk shed	2nd floor, restroom wall	White plaster - finish coat	--	N/A	N/A	ND
ASB-089A	C	2	Clerk shed	2nd floor, restroom wall	Beige plaster - base coat	--	N/A	N/A	ND
ASB-090	C	2	Clerk shed	2nd floor, rear office, southwest	White drywall	--	N/A	N/A	ND
ASB-091	C	2	Clerk shed	2nd floor, rear office, southwest	White drywall	--	N/A	N/A	ND
ASB-092	C	2	Clerk shed	2nd floor, rear office, northeast	White drywall	--	N/A	N/A	ND
ASB-093	C	2	Clerk shed	2nd floor, office closet floor	9"x9" gray vinyl floor tile	700 SF	N	Good	4% chrysotile

Table 1 – Asbestos Survey Results

Sample No.	Bldg. No.	Bay	Room No.	Sample Location	Sample Description	Approx. Quantity ⁽¹⁾	Friable Y/N	Condition	Asbestos Content
ASB-093A	C	2	Clerk shed	2nd floor, office closet floor	Black mastic associated with ASB-093	700 SF	N	Good	5% chrysotile
25.5	C	2	Clerk shed	2nd floor, office, southwest floor	9"x9" gray vinyl floor tile	See ASB-093	N	Good	3% chrysotile
ASB-094A	C	2	Clerk shed	2nd floor, office, southwest floor	Black mastic associated with ASB-094	See ASB-093A	N	Good	5% chrysotile
ASB-095	C	2	Clerk shed	2nd floor, office, south floor	9"x9" gray vinyl floor tile	See ASB-093	N	Good	4% chrysotile
ASB-095A	C	2	Clerk shed	2nd floor, office, south floor	Black mastic associated with ASB-095	See ASB-093A	N	Good	5% chrysotile
ASB-096	C	2	Clerk shed	2nd floor, office, northwest wall	Black covebase	--	N/A	N/A	ND
ASB-096A	C	2	Clerk shed	2nd floor, office, northwest wall	Brown covebase mastic	150 LF	N	Good	0.40% anthophyllite (PT)

NOTES:

Bulk asbestos sample analysis via USEPA 600/R-93/116 method using polarized light microscopy, unless otherwise noted.

⁽¹⁾ = Material quantities are approximate and are not intended to be used or interpreted as actual quantities. It is the contractor's responsibility to confirm material quantities prior to bid submittals and initiating renovation and/or demolition activities at the site.

EA = Eastern Addition

LF = Linear feet

SF = Square feet

N/A = Not applicable

ND = None detected

(PT) = 1,000 point, point-count results

TS1 = Transit Shed No. 1

Table 2 – Summary of Asbestos-Containing Materials

Sample No.(s)	ACM Location ⁽¹⁾	ACM Description	Approx. Quantity ⁽²⁾	Friable Y/N	Condition	Asbestos Content
TRANSIT SHED NO. 1						
ASB-044, ASB-045, ASB-046, ASB-047, ASB-048, and ASB-049	Exterior perimeter concrete walls, at metal expansion joint plates	White expansion joint caulking	1,800 SF	N	Fair	2-3% chrysotile
WAREHOUSE C						
ASB-064	Clerk Shed, trucker's restroom ceiling throughout	White/brown mastic associated with 12"x12" acoustic ceiling tile	500 SF	N	Good	0.30% anthophyllite (PT)
ASB-065, ASB-066, ASB-067, ASB-074, ASB-075, ASB-076, and ASB-077	Eastern Addition, interior and exterior corrugated metal walls throughout	Brown/white wall panel coating	27,000 SF	N	Fair	10-15% chrysotile
ASB-071, ASB-072, and ASB-073	Exterior perimeter concrete walls, at metal expansion joint plates	Gray expansion joint caulking	1,800 SF	N	Fair	3-4% chrysotile
ASB-081A, ASB-082A, and ASB-083A	Clerk Shed, 2nd floor office ceiling throughout	Brown mastic associated with 12"x12" acoustic ceiling tile	500 SF	N	Good	0.30-0.40% anthophyllite (PT)
ASB-084A, ASB-085A, and ASB-086A	Clerk Shed, 2nd floor rear office ceiling throughout	Brown mastic associated with 12"x12" acoustic ceiling tile	200 SF	N	Good	0.20-0.50% anthophyllite (PT)
ASB-093, ASB-094, and ASB-095	Clerk Shed, 2nd floor offices, floors throughout	9"x9" gray vinyl floor tile	700 SF	N	Good	3-4% chrysotile
ASB-093A, ASB-094A, and ASB-095A	Clerk Shed, 2nd floor offices, floors throughout	Black mastic associated with 9"x9" gray vinyl floor tile	700 SF	N	Good	5% chrysotile
ASB-096	Clerk Shed, 2nd floor offices, walls throughout	Brown covebase mastic	150 LF	N	Good	0.40% anthophyllite (PT)

Table 2 – Summary of Asbestos-Containing Materials

Sample No.(s)	ACM Location ⁽¹⁾	ACM Description	Approx. Quantity ⁽²⁾	Friable Y/N	Condition	Asbestos Content
Additional materials identified in Asbestos-Containing Material Status Report (2012)						
TRANSIT SHED NO. 1						
N/A	Exterior	Firedoor	16 EA	Y	Good	Material is presumed ACM.
WAREHOUSE C						
N/A	Exterior warehouse door	Firedoor	29 EA	N	Good	Material is presumed ACM.

NOTES:

⁽¹⁾ = ACM locations are based upon Ninyo & Moore's visual observations during survey activities. Materials that are uniform in color, texture, construction or application date, and/or general appearance to materials found to be asbestos-containing, should be presumed to be asbestos-containing.

⁽²⁾ = **Material quantities are approximate and are not intended to be used or interpreted as actual quantities. It is the contractor's responsibility to confirm material quantities prior to bid submittals and initiating renovation and/or demolition activities at the site.**

EA = Each

LF = Linear feet

SF = Square feet

(PT) = 1,000 point, point count results

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
1	--	--	--	--	Shutter Calibration					--	--	NA	--
2	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
3	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
4	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
5	TS1	4	Roof	--	Exterior	Parapet cap	Metal	Intact	Grey	NEG	--	0.00	0.02
6	TS1	4	Roof	--	Exterior	Parapet cap	Metal	Intact	Grey	NEG	--	0.00	0.02
7	TS1	3	Roof	--	Exterior	Hatch	Metal	Intact	Silver	NEG	--	0.00	0.02
8	TS1	3	Roof	--	Exterior	Hatch	Metal	Intact	Silver	NEG	--	0.05	0.09
9	TS1	4	1	C	Interior	I-beam wall column	Metal	Intact	White	POS	2,400 LF	14.10	8.90
10	TS1	4	1	C	Interior	I-beam ceiling	Metal	Intact	White	POS	17,400 LF	22.40	17.30
11	TS1	4	1	C	Interior	I-beam ceiling bracket	Metal	Intact	White	POS	See Reading No. 10	17.70	15.70
12	TS1	4	1	--	Interior	Ceiling beam	Metal	Intact	White	POS	See Reading No. 10	18.50	16.10
13	TS1	4	1	--	Interior	Ceiling beam support diagonal	Metal	Intact	White	POS	12,600 LF	16.90	15.30
14	TS1	4	1	--	Interior	Ceiling beam support horizontal	Metal	Intact	White	POS	See Reading No. 13	28.40	20.70
15	TS1	4	1	--	Interior	Ceiling lid support	Metal	Intact	Grey	NEG	--	0.02	0.04
16	TS1	4	1	--	Interior	Fire sprinkler pipe 2"	Metal	Intact	Grey	POS	9,000 LF	3.60	2.10
17	TS1	4	1	--	Interior	Fire sprinkler pipe 4"	Metal	Intact	White	POS	See Reading No. 16	4.50	2.60
18	TS1	4	1	C	Interior	Roof ladder	Metal	Fair	Grey	POS	20 LF	4.50	2.50
19	TS1	4	1	C	Interior	Downspout	Metal	Fair	White	NEG	--	0.05	0.09
20	TS1	4	1	--	Interior	Ceiling	Drywall	Intact	White	NEG	--	0.03	0.06
21	TS1	4	2	A	Clerk shed	Wall	Plaster	Intact	White	NEG	--	0.09	0.17
22	TS1	4	2	A	Clerk shed	Window casing	Metal	Intact	White	NEG	--	0.01	0.04
23	TS1	4	2	A	Clerk shed	Window sash	Metal	Intact	White	NEG	--	0.09	0.24
24	TS1	4	2	A	Clerk shed	Window sill	Metal	Intact	White	NEG	--	0.01	0.02
25	TS1	4	2	B	Clerk shed	Door	Metal	Intact	White	NEG	--	0.04	0.09
26	TS1	4	2	B	Clerk shed	Door casing	Metal	Intact	White	NEG	--	0.01	0.05
27	TS1	4	2	C	Clerk shed	Wall	Concrete	Intact	White	NEG	--	0.08	0.90
28	TS1	4	2	C	Clerk shed	Window sill	Metal	Intact	White	NEG	--	0.28	0.49

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity ⁽¹⁾	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
29	TS1	4	2	C	Clerk shed	Window sash	Metal	Intact	White	NEG	--	0.22	0.40
30	TS1	4	2	A	Clerk shed - closet	Door	Metal	Intact	White	NEG	--	0.00	0.02
31	TS1	4	2	A	Clerk shed - closet	Door casing	Metal	Intact	White	NEG	--	0.00	0.02
32	TS1	4	2	C	Clerk shed - closet	Shelf	Wood	Intact	White	POS	15 LF	1.40	0.30
33	TS1	4	2	C	Clerk shed - closet	Shelf support	Wood	Intact	White	POS	20 LF	1.30	0.30
34	TS1	4	2	--	Clerk shed	Ceiling	Plaster	Intact	White	NEG	--	0.00	0.02
35	TS1	4	2	B	Clerk shed - exterior	Wall	Stucco	Intact	Grey	NEG	--	0.01	0.02
36	TS1	4	2	D	Clerk shed - exterior	Wall	Stucco	Intact	Grey	NEG	--	0.00	0.02
37	TS1	4	2	D	Clerk shed - exterior	Door	Metal	Intact	White	NEG	--	0.00	0.02
38	TS1	4	2	D	Clerk shed - exterior	Door casing	Metal	Intact	White	NEG	--	0.01	0.06
39	TS1	4	2	D	Clerk shed - exterior	Window casing	Metal	Peeling	Green	NEG	--	0.30	0.29
40	TS1	4	2	D	Clerk shed - exterior	Window sash	Metal	Peeling	Green	NEG	--	0.40	0.40
41	TS1	4	2	D	Clerk shed - exterior	Handrail	Metal	Peeling	Silver	POS	40 LF	4.40	2.80
42	TS1	4	2	A	Clerk shed - exterior	Stair landing	Concrete	Peeling	White	NEG	--	0.01	0.02
43	TS1	4	2	A	Clerk shed - exterior	Stair riser	Concrete	Peeling	White	POS	100 SF	5.70	3.40
44	TS1	4	2	A	Clerk shed - exterior	Stair case	Concrete	Peeling	White	POS	100 SF	5.50	3.40
45	TS1	4	1	A	Men's restroom	Wall	Drywall	Intact	White	NEG	--	0.00	0.02
46	TS1	4	1	A	Men's restroom	Wall	Ceramic tile	Intact	Blue	NEG	--	0.01	0.05

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity ⁽¹⁾	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
47	TS1	4	1	B	Men's restroom	Door	Wood	Intact	White	NEG	--	0.00	0.02
48	TS1	4	1	B	Men's restroom	Door casing	Metal	Intact	White	NEG	--	0.00	0.02
49	TS1	4	1	B	Men's restroom	Stall wall	Laminate	Intact	Grey	NEG	--	0.00	0.02
50	TS1	4	1	B	Men's restroom	Stall door	Laminate	Intact	Grey	NEG	--	0.00	0.02
51	TS1	4	1	C	Men's restroom	Wall	Concrete	Intact	White	NEG	--	0.04	0.06
52	TS1	4	1	C	Men's restroom	Wall	Terrazo	Intact	Green	NEG	--	0.00	0.02
53	TS1	4	1	C	Men's restroom	Window casing	Metal	Intact	White	NEG	--	0.00	0.02
54	TS1	4	1	--	Men's restroom	Ceiling	Concrete	Intact	White	NEG	--	0.03	0.09
55	TS1	4	1	--	Men's restroom	Sprinkler pipe	Metal	Intact	White	NEG	--	0.03	0.07
56	TS1	4	1	D	Women's restroom	Wall	Concrete	Intact	White	NEG	--	0.03	0.08
57	TS1	4	1	D	Women's restroom	Wall	Terrazo	Intact	Green	NEG	--	0.00	0.02
58	TS1	4	1	A	Women's restroom	Stall wall	Laminate	Intact	Grey	NEG	--	0.00	0.02
59	TS1	4	1	A	Women's restroom	Stall door	Laminate	Intact	Grey	NEG	--	0.01	0.05
60	TS1	4	1	B	Women's restroom	Wall	Drywall	Intact	White	NEG	--	0.00	0.02
61	TS1	4	1	B	Women's restroom	Wall	Ceramic tile	Intact	Blue	NEG	--	0.02	0.07
62	TS1	4	1	C	Women's restroom	Door	Wood	Intact	White	NEG	--	0.00	0.02
63	TS1	4	1	C	Women's restroom	Door casing	Metal	Intact	White	NEG	--	0.00	0.02

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
64	TS1	4	1	C	Restroom entry	Door	Metal	Intact	White	NEG	--	0.00	0.02
65	TS1	4	1	C	Restroom entry	Door casing	Metal	Intact	White	NEG	--	0.01	0.03
66	TS1	4	1	A	Interior	Roll-up door	Metal	Intact	Red	NEG	--	0.01	0.03
67	TS1	4	1	A	Interior	Roll-up door casing-track	Metal	Intact	Red	NEG	--	0.00	0.02
68	TS1	4	1	A	Interior	Roll-up door bracket	Metal	Intact	Red	NEG	--	0.00	0.02
69	TS1	4	1	A	Interior	I-beam wall column	Metal	Intact	White	POS	See Reading No. 9	12.70	8.40
70	TS1	4	1	A	Interior	Fire sprinkler pipe 6"	Metal	Intact	Red	POS	See Reading No. 16	5.70	4.50
71	TS1	4	1	A	Interior	Fire sprinkler pipe 2"	Metal	Intact	Red	POS	See Reading No. 16	7.20	4.80
72	TS1	4	1	A	Interior	Fire sprinkler pipe protector	Metal	Intact	Red	POS	600 LF	10.10	9.00
73	TS1	4	1	B	Interior	Wall - fire stripe	Concrete	Intact	White	NEG	--	0.18	0.09
74	TS1	4	1	B	Interior	Wall - fire stripe	Concrete	Intact	Red	NEG	--	0.22	0.09
75	TS1	4	1	B	Interior	Roll-up fire door track	Metal	Intact	Silver	NEG	--	0.09	0.22
76	TS1	4	1	B	Interior	Roll-up fire door bracket	Metal	Intact	Silver	NEG	--	0.08	0.20
77	TS1	4	1	B	Interior	Roll-up fire door protector	Metal	Intact	Silver	NEG	--	0.03	0.05
78	TS1	4	1	D	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
79	TS1	4	1	D	Exterior	Door casing	Metal	Intact	Red	NEG	--	0.00	0.02
80	TS1	4	1	D	Exterior	Wall	Metal	Intact	White	NEG	--	0.02	0.07
81	TS1	4	1	D	Exterior	Roll-up door	Metal	Intact	White	NEG	--	0.10	0.14
82	TS1	4	1	D	Exterior	Roll-up door casing	Metal	Intact	White	NEG	--	0.16	0.16
83	TS1	4	1	C	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.00	0.02
84	TS1	4	1	C	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
85	TS1	4	1	C	Exterior	Roll-up door corner protector	Metal	Intact	Grey	POS	300 LF	4.10	2.30
86	TS1	4	1	C	Exterior	Downspout	Metal	Intact	Grey	NEG	--	0.08	0.08
87	TS1	4	1	C	Exterior	Life ring	Wood	Peeling	Yellow	NEG	--	0.07	0.14
88	TS1	4	1	C	Exterior	Ladder box	Wood	Intact	White	NEG	--	0.00	0.02
89	TS1	4	1	C	Exterior	Wall vent	Metal	Peeling	Red	NEG	--	0.29	0.31
90	TS1	3	1	C	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.02

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
91	TS1	3	1	C	Exterior	Door casing	Metal	Intact	Red	NEG	--	0.00	0.02
92	TS1	3	1	C	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.00	0.02
93	TS1	3	1	C	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
94	TS1	3	1	C	Exterior	Roll-up door corner protector	Metal	Intact	Grey	POS	See Reading No. 85	5.40	4.20
95	TS1	3	1	C	Exterior	Expansion joint	Metal	Intact	Grey	NEG	--	0.50	0.40
96	TS1	3	1	B	Exterior	Roll-up door track	Metal	Intact	Silver	NEG	--	0.13	0.19
97	TS1	3	1	B	Exterior	Roll-up door corner protector	Metal	Peeling	Silver	NEG	--	0.03	0.06
98	TS1	3	1	B	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.00	0.03
99	TS1	3	1	B	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
100	TS1	3	1	B	Exterior	Roll-up door corner	Metal	Intact	Grey	POS	See Reading No. 85	5.10	3.90
101	TS1	3	1	A	Exterior	Expansion joint	Metal	Intact	Silver	POS	1,800 LF	1.90	0.80
102	TS1	3	1	A	Exterior	Downspout	Metal	Intact	Silver	NEG	--	0.03	0.05
103	TS1	3	1	A	Exterior	Handrail	Metal	Intact	Red	NEG	--	0.01	0.04
104	TS1	3	1	A	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
105	TS1	3	1	A	Exterior	Door casing	Metal	Intact	Red	NEG	--	0.00	0.02
106	TS1	3	1	A	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
107	TS1	3	1	A	Exterior	Door casing	Metal	Intact	Red	NEG	--	0.00	0.02
108	TS1	3	1	A	Exterior	Expansion joint	Metal	Intact	Silver	NEG	--	0.70	0.20
109	TS1	3	1	A	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.00	0.02
110	TS1	3	1	A	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
111	TS1	3	1	A	Exterior	Roll-up door corner	Metal	Intact	Grey	POS	See Reading No. 85	7.60	5.50
112	TS1	3	1	A	Exterior	Expansion joint	Metal	Intact	Silver	NEG	--	0.60	0.30
113	TS1	4	1	A	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.03	0.13
114	TS1	4	1	A	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
115	TS1	4	1	A	Exterior	Roll-up door corner	Metal	Intact	Grey	POS	See Reading No. 85	5.00	3.40
116	TS1	4	1	A	Interior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
117	TS1	4	1	A	Interior	Door casing	Metal	Intact	Red	NEG	--	0.00	0.02
118	TS1	4	1	A	Interior	Roll-up door	Metal	Intact	Grey	NEG	--	0.00	0.02
119	TS1	4	1	A	Interior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
120	TS1	4	1	A	Interior	Roll-up door bracket	Metal	Intact	Black	NEG	--	0.02	0.10
121	TS1	4	1	A	Interior	I-beam column	Metal	Intact	White	POS	See Reading No. 9	15.10	9.20
122	TS1	4	1	--	Interior	Round column	Metal	Intact	White	POS	1,350 SF	16.10	14.80
123	TS1	4	1	--	Interior	Round column base	Concrete	Intact	White	NEG	--	0.01	0.02
124	TS1	4	1	--	Interior	Floor stripe	Concrete	Intact	White	NEG	--	0.01	0.02
125	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
126	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.00	0.10
127	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.00	0.10
128	--	--	--	--	Shutter Calibration					--	--	NA	--
129	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
130	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
131	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
132	C	3	1	--	Interior	I-beam	Metal	Intact	Grey	POS	2,400 LF	16.20	9.70
133	C	3	1	--	Interior	I-beam bracket	Metal	Intact	Grey	POS	See Reading No. 132	10.80	7.90
134	C	3	1	--	Interior	Ceiling beam	Metal	Intact	Grey	POS	17,400 LF	8.60	5.80
135	C	3	1	--	Interior	Ceiling beam support vertical	Metal	Intact	Grey	POS	12,600 LF	9.90	6.80
136	C	3	1	--	Interior	Ceiling beam support diagonal	Metal	Intact	Grey	POS	See Reading No. 135	7.40	4.60
137	C	3	1	--	Interior	Ceiling lid support	Metal	Intact	Grey	POS	10,000 LF	10.10	7.40
138	C	3	1	--	Interior	Fire sprinkler pipe 4"	Metal	Intact	Grey	POS	9,000 LF	10.10	8.50
139	C	3	1	--	Interior	Fire sprinkler pipe 2"	Metal	Intact	Grey	POS	See Reading No. 138	9.40	7.00
140	C	3	1	--	Interior	Fire sprinkler pipe bracket	Metal	Intact	Grey	POS	See Reading No. 138	9.20	7.30
141	C	3	1	--	Interior	Fire sprinkler pipe 1"	Metal	Intact	Black	POS	See Reading No. 138	9.40	6.50
142	C	3	1	--	Interior	Ceiling lid	Drywall	Intact	Grey	NEG	--	0.00	0.02
143	C	3	1	D	Interior	Roll-up door	Metal	Intact	Grey	NEG	--	0.03	0.14
144	C	3	1	D	Interior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.01	0.02
145	C	3	1	D	Interior	Roll-up door bracket	Metal	Intact	Grey	NEG	--	0.05	0.15
146	C	3	1	D	Interior	Door	Metal	Intact	Red	NEG	--	0.00	0.02

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity ⁽¹⁾	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
147	C	3	1	D	Interior	Door casing	Metal	Intact	Red	NEG	--	0.25	0.68
148	C	3	1	--	Interior	Round column	Metal	Intact	White	POS	1,350 LF	18.90	16.90
149	C	3	1	--	Interior	Round column	Metal	Intact	Red	POS	See Reading No. 148	17.00	15.40
150	C	3	1	--	Interior	Round column base	Concrete	Intact	Grey	NEG	--	0.01	0.02
151	C	2	1	A	Interior	Roof access ladder	Metal	Intact	Silver	NEG	--	0.04	0.14
152	C	2	1	A	Interior	Roof access ladder handrail	Metal	Intact	Silver	NEG	--	0.00	0.02
153	C	2	1	A	Interior	Clerk shack ladder	Metal	Intact	Silver	NEG	--	0.04	0.06
154	C	2	1	A	Interior	Clerk shack ladder bracket	Metal	Intact	Silver	NEG	--	0.03	0.05
155	C	2	1	A	Interior	Fire sprinkler pipe 6"	Metal	Intact	Red	POS	See Reading No. 138	10.10	6.40
156	C	2	1	A	Interior	Fire sprinkler pipe 4"	Metal	Intact	Red	POS	See Reading No. 138	13.30	8.80
157	C	2	1	A	Interior	Fire sprinkler pipe 2"	Metal	Intact	Red	NEG	--	0.05	0.07
158	C	2	1	A	Interior	Fire sprinkler pipe protector	Metal	Intact	Red	NEG	--	0.17	0.13
159	C	2	1	A	Interior	Wall	Concrete	Intact	Grey	NEG	--	0.01	0.02
160	C	2	1	A	Interior	Wall column	Metal	Intact	White	POS	See Reading No. 132	16.00	14.60
161	C	TRR	1	B	Interior	Wall	Terrazo	Intact	White	NEG	--	0.00	0.02
162	C	TRR	1	B	Interior	Door	Metal	Intact	Red	NEG	--	0.27	0.16
163	C	TRR	1	B	Interior	Door casing	Metal	Intact	Red	NEG	--	0.15	0.20
164	C	TRR	1	B	Interior	Sink	Terrazo	Intact	Brown	NEG	--	0.02	0.05
165	C	TRR	1	C	Interior	Floor drain	Metal	Intact	Gold	POS	3 EA ⁽¹⁾	15.40	9.00
166	C	TRR	1	B	Interior	Bench	Wood	Intact	Green	NEG	--	0.00	0.02
167	C	TRR	1	D	Interior	Toilet	Porcelain	Intact	White	NEG	--	0.01	0.04

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity ⁽¹⁾	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
168	C	TRR	1	D	Interior	Urinal	Porcelain	Intact	White	NEG	--	0.00	0.03
169	C	TRR	1	A	Interior	Window casing	Metal	Intact	Red	POS	50 LF	1.20	0.20
170	C	TRR	1	A	Interior	Window sash	Metal	Intact	Red	POS	See Reading No. 169	2.20	1.20
171	C	EA	1	A	Interior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
172	C	EA	1	A	Interior	Door casing	Metal	Intact	Red	NEG	--	0.03	0.11
173	C	EA	1	A	Interior	Wall panel	Metal	Intact	White	NEG	--	0.50	0.50
174	C	EA	1	A	Interior	Wall panel frame	Metal	Intact	White	POS	9,750 LF	15.00	9.30
175	C	EA	1	A	Interior	Wall panel support	Metal	Intact	White	POS	7,500 LF	24.60	19.60
176	C	EA	1	A	Interior	I-beam wall column	Metal	Intact	White	POS	See Reading No. 174	13.70	8.80
177	C	EA	1	A	Interior	Collision barrier 4" pipe	Metal	Intact	Red	NEG	--	0.30	0.19
178	C	EA	1	B	Interior	Roll-up door	Metal	Intact	White	NEG	--	0.06	0.13
179	C	EA	1	B	Interior	Roll-up door track	Metal	Intact	White	NEG	--	0.19	0.31
180	C	EA	1	B	Interior	Roll-up door bracket	Metal	Intact	White	NEG	--	0.22	0.30
181	C	EA	1	B	Interior	Wall	Metal	Intact	White	NEG	--	0.50	0.20
182	C	EA	1	B	Interior	Fire sprinkler pipe 6"	Metal	Intact	White	NEG	--	0.70	0.30
183	C	EA	1	C	Interior	Fire sprinkler pipe 6"	Metal	Intact	Red	NEG	--	0.70	0.30
184	C	EA	1	C	Interior	Fire sprinkler pipe 2"	Metal	Intact	Red	NEG	--	0.40	0.20
185	C	EA	1	C	Interior	Fire sprinkler pipe collision barrier	Metal	Intact	Red	NEG	--	0.19	0.14
186	C	EA	1	C	Interior	Wall panel	Metal	Intact	White	NEG	--	0.50	0.40
187	C	EA	1	C	Interior	Wall panel frame	Metal	Intact	White	POS	See Reading No. 175	25.40	19.40
188	C	EA	1	C	Interior	Wall panel support	Metal	Intact	White	POS	See Reading No. 175	17.80	16.30
189	C	EA	1	C	Interior	I-beam wall column	Metal	Intact	White	POS	1,600 LF	10.10	7.70
190	C	EA	1	--	Interior	Round column	Metal	Intact	Red	POS	900 LF	8.00	5.70
191	C	EA	1	--	Interior	Round column	Metal	Intact	White	POS	See Reading No. 190	9.70	7.60
192	C	EA	1	--	Interior	Round column collision barrier	Metal	Intact	Red	NEG	--	0.30	0.17

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
193	C	EA	1	A	Interior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
194	C	EA	1	A	Interior	Door casing	Metal	Intact	Red	NEG	--	0.04	0.16
195	C	EA	1	A	Interior	Wall	Metal	Intact	White	NEG	--	0.09	0.17
196	C	EA	1	A	Interior	Wall trim	Metal	Intact	White	NEG	--	0.28	0.44
197	C	EA	1	A	Interior	Downspout	Metal	Peeling	White	NEG	--	0.27	0.37
198	C	EA	1	B	Interior	Wall corner protector	Metal	Fair	Red	NEG	--	0.70	0.30
199	C	EA	1	B	Interior	Roll-up door casing	Metal	Fair	Red	POS	60 LF	12.40	8.20
200	C	EA	1	B	Interior	Roll-up door casing	Metal	Fair	White	POS	See Reading No. 199	9.10	5.90
201	C	EA	1	B	Interior	Roll-up door track	Metal	Peeling	Red	NEG	--	0.12	0.12
202	C	EA	1	B	Interior	Roll-up door bracket	Metal	Intact	White	INCOM	--	0.50	0.70
203	C	EA	1	B	Interior	Roll-up door bracket	Metal	Intact	White	NEG	--	0.30	0.28
204	C	3	1	A	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.02
205	C	3	1	A	Exterior	Door casing	Metal	Intact	Red	POS	320 LF	4.40	3.20
206	C	3	1	A	Exterior	Expansion joint	Metal	Intact	Silver	NEG	--	0.09	0.23
207	C	3	1	A	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.13	0.18
208	C	3	1	A	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.21	0.41
209	C	3	1	A	Exterior	Roll-up door corner barrier	Metal	Intact	Grey	NEG	--	0.13	0.25
210	C	3	1	A	Exterior	Handrail	Metal	Intact	Red	NEG	--	0.04	0.08
211	C	2	1	A	Exterior	Wall	Concrete	Intact	Grey	NEG	--	0.02	0.02
212	C	2	1	A	Exterior	Wall barrier	Metal	Intact	Grey	NEG	--	0.16	0.37
213	C	2	1	A	Exterior	Expansion joint	Metal	Intact	Grey	NEG	--	0.24	0.71
214	C	2	1	A	Exterior	Door	Metal	Intact	Red	NEG	--	0.27	0.20
215	C	2	1	A	Exterior	Door casing	Metal	Intact	Red	POS	See Reading No. 205	7.80	6.00
216	C	2	1	A	Exterior	Roll-up door	Metal	Intact	Grey	NEG	--	0.04	0.11
217	C	2	1	A	Exterior	Roll-up door track	Metal	Intact	Grey	NEG	--	0.00	0.02
218	C	2	1	A	Exterior	Roll-up door corner	Metal	Intact	Grey	NEG	--	0.10	0.13
219	C	1	1	A	Exterior	Wall	Concrete	Intact	Grey	NEG	--	0.00	0.02
220	C	1	1	A	Exterior	Wall barrier	Metal	Intact	Grey	NEG	--	0.11	0.26
221	C	1	1	A	Exterior	Door	Metal	Intact	Red	NEG	--	0.00	0.03
222	C	1	1	A	Exterior	Door casing	Metal	Intact	Red	NEG	--	0.60	0.30
223	C	1	1	A	Exterior	Expansion joint	Metal	Intact	Grey	NEG	--	0.17	0.43
224	C	1	1	A	Exterior	Roll-up door corner	Metal	Intact	Grey	NEG	--	0.07	0.11

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
225	C	CS	2	B	Interior	Door	Metal	Intact	Blue	NEG	--	0.09	0.14
226	C	CS	2	B	Interior	Door casing	Metal	Intact	Blue	NEG	--	0.30	0.49
227	C	CS	2	B	Interior	Wall	Plaster	Intact	Blue	NEG	--	0.00	0.02
228	C	CS	2	C	Interior	Window casing	Metal	Intact	Grey	NEG	--	0.18	0.29
229	C	CS	2	C	Interior	Window sash	Metal	Intact	Grey	POS	480 SF	1.40	0.30
230	C	CS	2	C	Interior	Window sill	Metal	Intact	Grey	NEG	--	0.50	0.40
231	C	CS	2	D	Interior	Door	Wood	Intact	Grey	NEG	--	0.05	0.10
232	C	CS	2	D	Interior	Door casing	Wood	Intact	Grey	NEG	--	0.08	0.14
233	C	CS	2	A	Interior	Wall	Concrete	Intact	Blue	NEG	--	0.02	0.03
234	C	CS	2	A	Interior	Window casing	Metal	Peeling	White	NEG	--	0.80	0.20
235	C	CS	2	A	Interior	Window sash	Metal	Peeling	White	POS	See Reading No. 229	2.00	1.00
236	C	CS	2	A	Bathroom	Wall	Concrete	Intact	Blue	NEG	--	0.05	0.04
237	C	CS	2	A	Bathroom	Window casing	Metal	Intact	White	POS	See Reading No. 229	1.40	0.30
238	C	CS	2	A	Bathroom	Window sash	Metal	Intact	White	NEG	--	0.90	0.10
239	C	CS	2	C	Bathroom	Door	Metal	Intact	Blue	NEG	--	0.40	0.40
240	C	CS	2	C	Bathroom	Door casing	Metal	Intact	Blue	NEG	--	0.40	0.40
241	C	CS	2	C	Bathroom	Wall	Plaster	Intact	Blue	NEG	--	0.01	0.03
242	C	CS	2	D	Bathroom	Sink	Porcelain	Intact	White	NEG	--	0.01	0.03
243	C	CS	2	D	Bathroom	Toilet	Porcelain	Intact	White	NEG	--	0.02	0.09
244	C	CS	2	C	Office	Window casing	Wood	Intact	Grey	NEG	--	0.12	0.25
245	C	CS	2	C	Office	Window sash	Metal	Intact	Grey	INCOM	--	1.00	0.10
246	C	CS	2	C	Office	Window sash	Metal	Intact	Grey	NEG	--	0.13	0.18
247	C	CS	2	C	Office	Window sill	Metal	Intact	Grey	NEG	--	0.18	0.29
248	C	CS	2	D	Office	Wall	Drywall	Intact	Grey	NEG	--	0.02	0.06
249	C	CS	2	D	Stairwell	Wall	Plaster	Intact	Grey	NEG	--	0.03	0.02
250	C	CS	2	D	Stairwell	Handrail	Metal	Intact	White	NEG	--	0.13	0.23
251	C	CS	2	B	Stairwell	Door	Metal	Peeling	White	NEG	--	0.26	0.17
252	C	CS	2	B	Stairwell	Door casing	Metal	Peeling	White	POS	120 LF	8.80	7.00
253	C	CS	2	B	Stairwell	Wall	Concrete	Intact	White	NEG	--	0.01	0.02
254	C	EA	1	--	Interior	I-beam	Metal	Intact	Grey	POS	11,600 LF	3.60	2.30
255	C	EA	1	--	Interior	I-beam bracket	Metal	Intact	Grey	POS	See Reading No. 254	13.10	8.40

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
256	C	EA	1	--	Interior	Ceiling beam	Metal	Intact	Grey	NEG	--	0.14	0.18
257	C	EA	1	--	Interior	Ceiling beam	Metal	Intact	Grey	NEG	--	0.14	0.17
258	C	EA	1	--	Interior	Ceiling beam support vertical	Metal	Intact	Grey	NEG	--	0.12	0.18
259	C	EA	1	--	Interior	Ceiling beam support diagonal	Metal	Intact	Grey	NEG	--	0.05	0.08
260	C	EA	1	--	Interior	Ceiling	Metal	Intact	Grey	NEG	--	0.08	0.14
261	C	EA	1	--	Interior	Fire sprinkler pipe 6"	Metal	Intact	Grey	NEG	--	0.19	0.22
262	C	EA	1	--	Interior	Fire sprinkler pipe 4"	Metal	Intact	Grey	NEG	--	0.01	0.03
263	C	EA	1	--	Interior	Fire sprinkler pipe 2"	Metal	Intact	Grey	NEG	--	0.09	0.28
264	C	EA	1	--	Interior	Fire sprinkler pipe 1"	Metal	Intact	Grey	NEG	--	0.08	0.15
265	C	EA	1	A	Interior	I-beam wall column	Metal	Intact	White	POS	See Reading No. 189	10.70	7.90
266	C	EA	1	--	Interior	I-beam wall column bracket	Metal	Intact	White	POS	See Reading No. 189	20.70	17.30
267	C	EA	1	--	Interior	Ceiling beam	Metal	Intact	White	POS	See Reading No. 254	12.60	8.50
268	--		--	--	Shutter Calibration					--	--	NA	--
269	--		--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
270	--		--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
271	--		--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10
272	TS1	3	1	--	Interior	Ceiling beam support diagonal	Metal	Fair	White	POS	See Reading No. 13	17.40	15.80
273	TS1	3	1	--	Interior	Ceiling beam support vertical	Metal	Fair	White	POS	See Reading No. 13	7.40	4.90
274	TS1	3	1	--	Interior	Ceiling lid beam	Metal	Fair	White	POS	See Reading No. 10	17.90	16.20
275	TS1	3	1	--	Interior	Ceiling lid beam support	Metal	Fair	White	POS	10,000 LF	14.00	8.90
276	TS1	3	1	--	Interior	Ceiling	Drywall	Fair	White	NEG	--	0.03	0.11
277	TS1	3	1	--	Interior	Fire sprinkler pipe 6"	Metal	Fair	Grey	POS	See Reading No. 16	6.10	4.00
278	TS1	3	1	--	Interior	Fire sprinkler pipe 4"	Metal	Fair	Grey	POS	See Reading No. 16	8.40	6.70

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity (1)	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
279	TS1	3	1	--	Interior	Fire sprinkler pipe 2"	Metal	Fair	Grey	POS	See Reading No. 16	10.10	7.10
280	TS1	3	1	A	Interior	Fire sprinkler pipe 6"	Metal	Fair	Red	POS	See Reading No. 16	2.80	1.30
281	TS1	3	1	A	Interior	Fire sprinkler pipe 4"	Metal	Fair	Red	NEG	--	0.12	0.24
282	TS1	3	1	A	Interior	Fire sprinkler pipe 2"	Metal	Fair	Red	POS	See Reading No. 16	8.40	6.60
283	TS1	3	1	A	Interior	Fire sprinkler pipe barrier	Metal	Fair	Red	POS	See Reading No. 72	9.50	7.40
284	TS1	3	1	A	Interior	Door	Metal	Fair	Red	NEG	--	0.00	0.02
285	TS1	3	1	A	Interior	Door casing	Metal	Fair	Red	NEG	--	0.00	0.02
286	TS1	3	1	A	Interior	Ramp cap	Metal	Peeling	Grey	POS	250 LF	5.40	3.30
287	TS1	3	1	A	Interior	Floor striping	Concrete	Fair	White	NEG	--	0.03	0.03
288	TS1	3	1	C	Interior	Roll-up door	Metal	Fair	Red	NEG	--	0.02	0.08
289	TS1	3	1	C	Interior	Roll-up door track	Metal	Fair	Red	NEG	--	0.00	0.02
290	TS1	3	1	C	Interior	Roll-up door bracket	Metal	Fair	Red	NEG	--	0.01	0.04

Table 3 – XRF Data Sheet

Reading No.	Building	Bay	Floor	Side	Room / Area	Source / Component	Substrate	Condition	Color	Results (Pos/Neg)	Approx. Quantity ⁽¹⁾	Lead Reading (mg/cm ²)	Precision (+/- mg/cm ²)
291	TS1	3	1	C	Interior	Wall column	Metal	Fair	White	POS	See Reading No. 9	6.10	3.80
292	TS1	3	1	C	Interior	Fire sprinkler pipe 2"	Metal	Fair	White	NEG	--	0.01	0.03
293	TS1	3	1	C	Interior	Round column	Metal	Peeling	White	NEG	--	0.03	0.06
294	TS1	3	1	C	Interior	Round column	Metal	Peeling	Red	POS	See Reading No. 122	6.50	4.40
295	TS1	3	1	C	Interior	Roll-up door numbers	Concrete	Fair	White	POS	100 SF	17.40	15.40
296	TS1	3	1	C	Interior	Roll-up door numbers	Concrete	Fair	Red	POS	See Reading No. 295	8.50	5.60
297	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.00	0.10
298	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.00	0.10
299	--	--	--	--	Standard Calibration 1.04 +/- 0.06 mg/cm ²					POS	--	1.10	0.10

NOTES:

XRF assays were collected using a portable NITON XLp 300A XRF spectrum analyzer.

⁽¹⁾ = **Surface quantities are approximate and are not intended to be used or interpreted as actual quantities. It is the contractor's responsibility to confirm material quantities prior to bid submittals and initiating renovation and/or demolition activities at the site.**

RR = restroom

TS1 = Transit Shed No. 1

TRR = Trucker's Restroom

EA = Eastern Addition

CS = Clerk Shed

POS = Positive

NEG = Negative

INCOM = Incomplete

EA⁽¹⁾ = Each

LF = Linear feet

mg/cm² = milligrams per square centimeter

Table 4 – Summary of Lead-Containing Surfaces ⁽¹⁾

Reading No.(s)	Room / Area ⁽²⁾	Source / Component	Substrate	Condition	Color(s)	Lead Reading(s) (mg/cm ²)	Approximate Quantity ⁽³⁾
TRANSIT SHED NO. 1							
9, 69, 121, and 291	Interior I-beams throughout walls	I-beam wall column	Metal	Intact	White	6.10-22.40	2,400 LF
10, 11, 12, and 274	Interior ceilings throughout	Ceiling beam	Metal	Intact	White	15.70-18.50	17,400 LF
13, 14, 272, and 273	Interior ceilings throughout	Ceiling beam supports	Metal	Fair	White	7.40-28.40	12,600 LF
16, 17, 70, 71, 277, 278, 279, 280, and 282	Interior ceilings and downspouts throughout	Fire sprinkler pipes throughout	Metal	Fair	Grey/Red	2.80-10.10	9,000 LF
18	Bay 4, from roof of clerk shed to transit shed roof	Roof ladder	Metal	Fair	Grey	4.50	20 LF
32	Bay 4; clerk shed closet	Shelf	Wood	Intact	White	1.40	15 LF
33	Bay 4; clerk shed closet	Shelf support	Wood	Intact	White	1.30	20 LF
41	Bay 4, stairs to second floor of clerk shed	Handrail	Metal	Peeling	Silver	4.40	40 LF
43	Bay 4, stairs to second floor of clerk shed	Stair riser	Concrete	Peeling	White	5.70	100 SF
44	Bay 4, stairs to second floor of clerk shed	Stair case	Concrete	Peeling	White	5.50	100 SF
72 and 283	Interior collision barriers throughout	Fire sprinkler pipe protector	Metal	Fair	Red	9.50-10.10	600 LF
85, 94, 100, 111, and 115	Exterior roll-up doors throughout	Roll-up door corner protector	Metal	Intact	Grey	4.10-7.60	300 LF
101	Exterior walls throughout	Expansion joint	Metal	Fair	Silver	1.90	1,800 LF
122 and 294	Interior ceiling support columns throughout	Round column	Metal	Intact	White	6.50-16.10	1,350 LF
295 and 296	Interior walls throughout	Roll-up door numbers	Concrete	Fair	White/Red	8.50-17.40	100 SF
275	Interior ceiling lid supports throughout	Ceiling lid support	Metal	Fair	White	14.00	10,000 LF
286	Interior truck ramps throughout	Ramp cap	Metal	Peeling	Grey/Green	5.40	250 LF
WAREHOUSE C							
132, 133, and 160	Interior I-beams throughout walls	I-beam and brackets	Metal	Intact	Grey/White	10.80-16.20	2,400 LF
134	Interior ceiling throughout	Ceiling beam	Metal	Intact	Grey	8.60	17,400 LF
135 and 136	Interior ceiling throughout	Ceiling beam supports	Metal	Intact	Grey	7.40-9.90	12,600 LF
137	Interior ceiling lid supports throughout	Ceiling lid support	Metal	Intact	Grey	10.10	10,000 LF
138, 139, 140, 141, 155, and 156	Interior ceilings and downspouts throughout	Fire sprinkler pipe system	Metal	Intact	Grey/Red	9.20-13.30	9,000 LF
148 and 149	Interior ceiling support columns throughout	Round column	Metal	Intact	White/ Red	17.00-18.90	1,350 LF
165	Trucker's restroom floor	Floor drain	Metal	Intact	Gold	15.40	3 EA

Table 4 – Summary of Lead-Containing Surfaces ⁽¹⁾

Reading No.(s)	Room / Area ⁽²⁾	Source / Component	Substrate	Condition	Color(s)	Lead Reading(s) (mg/cm ²)	Approximate Quantity ⁽³⁾
169 and 170	Trucker's restroom windows	Window components	Metal	Intact	Red	1.20-2.20	50 LF
174 and 176	Eastern addition, walls throughout	Wall panel frame	Metal	Intact	White	13.70-15.00	9,750 LF
175, 187, and 188	Eastern addition, walls throughout	Wall panel support/frame	Metal	Intact	White	17.80-25.40	7,500 LF
189, 265, and 266	Eastern addition, walls throughout	I-beam and brackets	Metal	Intact	White	10.10-20.70	1,600 LF
190 and 191	Eastern addition, interior ceiling support columns throughout	Round column	Metal	Intact	Red/White	8.00-9.70	900 LF
199 and 200	Eastern addition, roll-up door	Roll-up door guard	Metal	Fair	Red/White	9.10-12.40	60 LF
205 and 215	Exterior fire doors throughout	Door casing	Metal	Intact	Red	4.40-7.80	320 LF
229, 235, and 237	Clerk shed, 2nd floor office windows	Window components	Metal	Fair	Grey/ White	1.40-2.00	480 SF
252	Clerk shed, 2nd floor office doors	Door casing	Metal	Peeling	White	8.80	120 LF
254, 255, and 267	Eastern addition, interior ceiling throughout	Ceiling beam	Metal	Intact	Grey	3.60-13.10	11,600 LF

NOTES:

⁽¹⁾ = Note that the LCS in this table are materials that meet or exceed the criteria of CDPH. LCS in this table does not necessarily identify all materials that could contain lead at concentrations less than 1.0 mg/cm² or 5,000 milligrams per kilogram (mg/kg), which could trigger the Cal-OSHA lead in construction standard.

⁽²⁾ = LCS locations are based upon Ninyo & Moore's visual observations during survey activities.

⁽³⁾ = **Surface quantities are approximate and are not intended to be used or interpreted as actual quantities. It is the contractor's responsibility to confirm material quantities prior to bid submittals and initiating renovation and/or demolition activities at the site.**

EA = Each

LF = Linear feet

SF = Square feet

mg/cm² = milligrams per square centimeter

Table 5 – Summary of Other Potential Hazardous Building Materials

Material Location	Fluorescent Light Tubes	Fluorescent Light Ballasts	Non-Incandescent Lights	Smoke Detectors	Mercury Thermostats and Switches	A/C Units	Tritium-Powered Exit Signs	Freon Refrig. Systems	Wet Transformers	Cooling Towers	Lead Acid Batteries	Halon Fire Suppression Systems	Other
Warehouse C	26	13	21	--	--	--	6	--	3	--	--	--	--
Transit Shed No. 1	864	576	41	--	--	--	15	--	3	--	--	--	--

NOTES:

Material quantities are approximate and are not intended to be used or interpreted as actual quantities. It is the contractor's responsibility to confirm material quantities prior to bid submittals and initiating renovation and/or demolition activities at subject site.

A/C = Air Conditioning



October 24, 2012
Project No. 105776029

Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report
District-Operated Facility
Tenth Avenue Marine Terminal
San Diego, California
RFS No. 20

APPENDIX A

ASBESTOS-CONTAINING MATERIAL STATUS REPORT, 2012

In accordance with your Request For Services (RFS) No. 44, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the Port of San Diego's District-Operated Facilities (DOFs) located at the Tenth Avenue Marine Terminal in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port of San Diego (Port) in employee notification and in implementation of the Port's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES/FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the annual assessment of the Tenth Avenue Marine Terminal DOFs, conducted in March 2012. The assessment is conducted annually under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that asbestos surveys were completed for the Tenth Avenue Marine Terminal DOFs prior to initiation of the annual asbestos survey status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. ACMs are located at the Tenth Avenue Marine Terminal DOF, as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, and 2009 ACM status

surveys and are summarized in Table 1. Some changes from the prior assessments were noted. As part of the Jacobs design team, Ninyo & Moore updated the hazardous building materials surveys for Bay D of Transit Shed No. 1 and Headhouse No. 1 in 2011. Asbestos-containing materials, including sealant around the door/window assembly of Headhouse No. 1 and gasket material on the exterior of Bay D, were encountered. As Headhouse No. 2 and Transit Shed No. 2 were constructed at the same time as Headhouse No. 1 and Transit Shed No. 1, these materials should be presumed to be asbestos-containing. Similar gasket material was also observed on the exterior of Warehouse B and should also be presumed to be asbestos-containing. For further details of changes in conditions, please refer to Table 1.

During a review of the initial asbestos survey of Transit Shed No. 2, the roofing materials, parapet sheeting, and roof mastic were listed as a presumed ACM. No records of sampling of the roofing materials has been found in our review of prior asbestos surveys and annual status reporting. The north half of the roof of Transit Shed No. 2 was replaced approximately 12 years ago and is of similar composition to the non-ACM roofing materials found on the roof of Transit Shed No. 1. The roofing materials found on the south half of Transit Shed No. 2 should continue to be treated as presumed asbestos-containing, until sampling and analysis of the materials has been performed.

RECOMMENDATIONS

Since ACMs have been identified at the Tenth Avenue Marine Terminal DOFs, the following recommendations and precautions are provided:

- The roofing materials on the south half of Transit Shed No. 2, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.

- Suspect ACMs, not previously identified but with that have potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to renovation or demolition activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

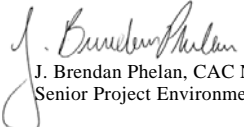
LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


J. Brendan Phelan, CAC No. 06-3948
Senior Project Environmental Scientist
JBP/SJW/gg


Stephen J. Waide, CH, CSP, CIEC, CMC
Principal Environmental Scientist

Attachment: Table 1 – Annual Assessment of ACM Condition
Distribution: (1) Addressee

Tenth Avenue Marine Terminal
San Diego, California

October 24, 2012
Project No. 105776029

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/L/FEA)	Frable (Y/N)	ACM Condition	Comments/Change in Condition
Head House No. 1, 602 - 668 Terminal Street					
Room 602	Mastic associated with 12"x12" floor tile	400 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 608	Mastic associated with 12"x12" floor tile	300 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 614	Mastic associated with 12"x12" floor tile	300 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 620	Drywall	180 SF	--	--	See below
Room 620	Drywall	230 SF	--	--	See below
Room 620	Drywall	330 SF	--	--	See below
Room 626	Mastic associated with 12"x12" floor tile	400 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 632	Mastic associated with 12"x12" floor tile	300 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 638	Mastic associated with 12"x12" floor tile	300 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 644	Mastic associated with 12"x12" floor tile	400 SF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Room 648	9" black floor tile and mastic	150 SF	N	Good	No change.
Room 650	9" black floor tile and mastic	200 SF	N	Good	No changes observed. Underneath carpet.
Assistant mgr., Room 656 small office	9" gray floor tile and mastic	60 SF	N	Good	No changes observed. Underneath carpet.
Room 656	9" gray floor tile and mastic	260 SF	N	Good	No changes observed. Underneath carpet.
Room 656	9" gray floor tile and mastic	20 SF	N	Good	No changes observed. Underneath carpet.
Storage, Room 662	9" gray floor tile and mastic	55 SF	N	Good	No changes observed. Underneath carpet.
Room 662	9" gray floor tile and mastic	350 SF	N	Good	No changes observed. Underneath carpet.
Room 668	9" gray floor tile and mastic	55 SF	N	Good	No changes observed. Underneath carpet.
Room 674	9" gray floor tile and mastic	180 SF	N	Good	No changes observed. Underneath carpet.
Room 680	Drywall	330 SF	--	--	See below
Room 680	9" gray floor tile and mastic	180 SF	N	Good	No changes observed. Underneath carpet.
Room 680	Drywall mud	100 SF	--	--	See below
Room 686	9" gray floor tile and mastic	280 SF	N	Good	No changes observed. Underneath carpet.
Room 692	9" gray floor tile and mastic	230 SF	N	Good	No changes observed. Underneath carpet.
Women's restroom	9" gray floor tile and mastic	50 SF	--	--	Presumed abated. Ceramic tile observed.
Men's restroom	9" gray floor tile and mastic	50 SF	--	--	Presumed abated. Ceramic tile observed.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
1 st Floor exterior, around edges of door/window assembly	Red/beige door and window sealant	500 LF	N	Good	0.2 - 0.4% chrysotile (PT). No changes observed. Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Interstitial walls of Rooms 602, 608, 614, 626, 632, 638, 644, 650, 656, 662, 668, 674, 680, 686, and 692	Tan joint compound	3,500 SF	Y	Good	0.20% chrysotile (PT). No changes observed. Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Head house No. 1.

NOTES:
Information presented in red italicized text depicts updated location, building, friability, or condition.
ACM = Asbestos-containing materials
VFT = Vinyl floor tile
SF = Square feet
LF = Linear feet
EA = Each

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Transit Shed No. 1, 602 - 668 Terminal Street					
Clerk shack (south)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (south)	Plaster	2,000 SF	Y	Good	0.20% chrysotile (PT). No changes observed. Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Clerk shack (north)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (north)	Plaster	2,000 SF	Y	Good	Material presumed to be ACCM, based on sampling of Clerk Shack (south) during HBMS survey conducted in 2011 for demolition of Head House No. 1.
Roof	Silver paint on roof hatches	300 SF	Y	Damaged	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Exterior	Gray and black expansion joint gasket	2,400 LF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Exterior	Fire doors	16 EA	Y	Good	Material is presumed ACM.

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Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Head House No. 2, 601 - 692 Terminal Street					
Room 601	9" gray floor tile and mastic	200 SF	N	Good	No changes observed. gray tile observed under carpet.
Room 601, East storage closet	9" gray floor tile and mastic	20 SF	N	Good	No changes observed.
Room 607	9" gray floor tile and mastic	150 SF	N	Good	No changes observed. gray tile observed under carpet.
Front office (Rooms 615 & 623)	9" black floor tile and mastic	110 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 627	9" black floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 633	9" black floor tile and mastic	230 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 639	9" gray floor tile and mastic	200 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 645	9" gray floor tile and mastic	150 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 651	9" gray floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 657	9" gray floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet. Rooms 651, 657, and 663 have been merged together.
Room 663	9" gray floor tile and mastic	570 SF	--	--	
Room 663, storage	9" gray floor tile and mastic	50 SF	--	--	Storage room and tile removed. Bare concrete observed under carpet.
Room 663, men's restroom	9" gray floor tile and mastic	24 SF	--	--	Material presumed abated. Ceramic tile observed.
Room 669	9" black floor tile and mastic	205 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 675	9" floor tile and mastic	200 SF	N	Good	Material observed underneath carpet. Presumed to be asbestos-containing
Room 681	9" floor tile and mastic	500 SF	N	Good	Material observed underneath carpet. Presumed to be asbestos-containing
Room 687	9" gray floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
1" Floor exterior, around edges of door/window assembly	Red/beige door and window sealant	500 LF	N	Good	Material found to be ACCM during HBMS survey conducted in 2011 for Head house No. 1. Material is presumed to be asbestos-containing.

NOTES:

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VFT = Vinyl floor tile

SF = Square feet

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EA = Each

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Transit Shed No. 2, 601 - 692 Terminal Street					
Clerk Shack (north)	9" beige floor tile and mastic	360 SF	N	Good	No changes observed.
Clerk Shack (south) storage	9" beige floor tile and mastic	20 SF	N	Minor damage	No changes observed.
Entrance to building (storage)	Fire doors	13 EA	N	Good	No changes observed.
Roof (South Half)	Built-up roofing	9,800 SF	N	Good	No changes observed. North half of roof replaced approximately 12 years ago. Material is presumed to be asbestos-containing.
Roof (South Half)	Flashing mastic	2,000 SF	N	Good	No changes observed. North half of roof replaced approximately 12 years ago. Material is presumed to be asbestos-containing.
Roof (South Half)	Penetration mastic	2,000 SF	N	Good	No changes observed. North half of roof replaced approximately 12 years ago. Material is presumed to be asbestos-containing.
Mezzanine offices (Room 687)	Joint compound	1,000 SF	N	Good	No change.
Exterior	Gray and black expansion joint gasket	2,400 LF	N	0	Similar material found to be ACM for Transit Shed No. 1 during HBMS survey conducted in 2011 and should be presumed to be asbestos-containing.

NOTES:

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SF = Square feet

LF = Linear feet

EA = Each

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Frangible (Y/N)	ACM Condition	Comments/Change in Condition
Warehouse B, 802 Terminal Street					
Restroom <i>(Storage Room)</i>	Drywall joint compound	65 SF	<i>Y</i>	Good	No changes observed.
Locker room 2	12" white floor tile and mastic	600 SF	N	Minor	Inaccessible during inspection. No changes presumed.
Locker room 2	Drywall joint compound	65 SF	<i>Y</i>	Good	Inaccessible during inspection. No changes presumed.
<i>Harborside Refueled Services</i> (north side of building at Dole operations warehouse)	12" white floor tile and mastic	1,450 SF	N	Good	12"x12" white tile under light gray 12"x12" floor tile.
	Locker room	Plaster			
	1st floor and 2nd floor offices	Plaster	<i>Y</i>	Good	No changes observed. Room no longer in use.
	North Offices, 1st floor	5,800 SF	<i>Y</i>	Good	No changes observed
	South offices, 1st floor	840 SF	N	Good	No changes observed
<i>North offices, 2nd floor IT Room</i>					
	Plaster	225	<i>Y</i>	Good	No changes observed.
<i>North offices, 2nd floor IT Room</i>					
	9" gray floor tile and mastic	15 SF	N	Good	No changes observed.
<i>North</i> Men's restroom	Plaster	1,100 SF	<i>Y</i>	Good	No changes observed
	Lunch room	Plaster	<i>Y</i>	Good	No changes observed
Lunch room	9" green floor tile <i>and mastic</i>	1,800 SF	N	Good	No changes observed; most tile is covered with carpet.
Heater room (Sewer Lift Sta. 9)	Transite floor	1 EA	N	Good	Insulated transite floor either removed or enclosed in wooden box.
Heater room (Sewer Lift Sta. 9)	Vibration damper	10 SF	--	--	Abated. Black rubber gasket replacement observed.
Heater room (Sewer Lift Sta. 9)	Transite	1 LF	N	Good	Mostly removed, with residual material remaining.
Entrances to building	Firedoor	<i>11 EA</i>	N	Good	No changes observed. <i>Material is presumed ACM.</i>
Exterior	Gray and black expansion joint gasket	2,200 LF	N	Good	<i>Similar material found to be ACM for Transit Shed No. 1 during HBMS survey conducted in 2011 and should be presumed to be asbestos-containing.</i>

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each

105776029 T.3.b

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Ninjo & Moore

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Frangible (Y/N)	ACM Condition	Comments/Change in Condition
Warehouse C, 1150 Terminal Street					
Exterior warehouse door	Firedoor	29 EA	N	Good	No changes observed. <i>Material is presumed ACM.</i>
Upper office (south)	<i>9" gray, green, and beige floor tiles and associated mastic</i>	400 SF	N	Good	No changes observed.
Upper office (south)	Wall and ceiling plaster	5,600 SF	N	Good	No change. Material located in entry hall, office, and adjacent restroom.
Upper office (north)	<i>9" gray and beige floor tiles and mastic</i>	400 SF	N	Good	No changes observed.
<i>Exterior walls</i>	Brown/beige corrugated panel coating	18,000 SF	N	Good	No changes observed.

NOTES:

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ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each

105776029 T.3.b

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APPENDIX B

SUSPECT ASBESTOS-CONTAINING MATERIALS SAMPLING PROTOCOL

SUSPECT ASBESTOS-CONTAINING MATERIALS SAMPLING PROTOCOL

Personal Protection Equipment

Inhalation of asbestos fibers during asbestos survey poses a serious health and safety hazard, the use of personal protection equipment (PPE) by building inspectors is recommended during sampling activities. Our building inspectors generally wear a respirator (either a full- or half-face mask) equipped with high-efficiency disposable filter cartridges. If utilized, full-face masks will also prevent eye irritation from dust, fibers, and debris released during sampling activities. When necessary, disposable clothing is worn during sampling activities. Our building inspectors utilize plastic bags to handle the disposal of drop cloths, protective clothing, wet cloths, and debris.

Sampling Equipment

Our building inspectors will need various tools and materials to accomplish their sampling tasks, including those listed below:

- a ladder to access areas and a flash light to aid visibility,
- airtight, sampling containers (e.g., resealable plastic bags),
- a plastic spray bottle, filled with amended water, to wet the material to be sampled,
- plastic drop cloths to spread beneath the area to be sampled,
- a utility knife, linoleum cutter, or other tool appropriate for collecting samples,
- a caulking gun and compound for filling holes once a sample has been extracted,
- spray acrylic or adhesive to encapsulate the small areas from which samples were collected,
- duct tape for repairing thermal system insulation jackets,
- cloths and cleaner for decontaminating tools,
- a vacuum cleaner equipped with high efficiency particulate air (HEPA) filters, when necessary,
- indelible ink pen for labeling sample containers, and
- camera for photographic documentation, and
- Chain-of-Custody documentation forms.

Sampling Procedures

ACMs are divided into three categories: Surfacing materials, Thermal System Insulation (TSI), and Miscellaneous materials. The procedures for sampling these three types of materials are as follows:

Surfacing Materials

1. Select a location where the material has been previously damaged or a low profile area.
2. Spread a plastic drop cloth on the floor and set up other equipment, (e.g., ladder).
3. Put on protective equipment (respirator at all times when sampling friable material and protective clothing, when needed).
4. Moisten area where sample is to be collected (spray the area with amended water).
5. Collect sample using a clean knife or other tool appropriate to cut out or scrape off a small piece of the material. Care is taken to ensure that all layers of material are collected, without disturbing any adjacent material.
6. Place the sample in the labeled container and tightly seal it.
7. Wipe the exterior of the container with a wet wipe to remove any residue which may have adhered to the container it during sampling.
8. Clean tools with wet wipes and vacuum area with a HEPA vacuum to clean all debris.
9. Fill hole with caulking compound or appropriate filler (to minimize subsequent fiber release and for appearance).
10. Label container with its sample identification number and fill out location and type of material being sampled on a Chain-of-Custody documentation form.
11. Mark the location and sample identification number on the sample location map.
12. Repeat the above steps at each sample location. Place sample containers in plastic bags.
13. Discard protective clothing, rags, and drop cloth in a plastic bag.

Thermal System Insulation

Sampling TSI follows the same procedural sequence as laid out above. Obtain samples from exposed or damaged areas, if possible. However, random sampling will require sampling of some intact material. Sampling holes can be patched with plastic spackling, caulk, or fibrous glass.

Miscellaneous Materials

Sampling miscellaneous materials follows the same procedural sequence as laid out above, making sure that a cross section of the materials have been obtained.

Forwarding Samples to Laboratory

The samples are transferred, using standard chain-of-custody procedures, to a laboratory accredited in the National Voluntary Laboratory Accreditation Program (NVLAP), for bulk asbestos fiber analysis. The samples are analyzed using polarized light microscopy with dispersion staining (PLM/ds) for the presence and quantification of asbestos fibers, in general accordance with either United States Environmental Protection Agency (USEPA) Method 600/M4-82-020 or USEPA Method 600/R-93/116. The lower limit of reliable detection for asbestos using the PLM/ds method is approximately 1% by volume. California regulations require certain worker protection standards and have certain contractor requirements for disturbing those materials having an asbestos content of greater than one tenth of 1% (0.1%).

TAMT, Terminal Street
San Diego, California

October 3, 2013
Project No. 107589001

APPENDIX C

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY RECORDS

**EMSL Analytical, Inc.**

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EMSL Order: 431302516
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CustomerPO:
ProjectID:

Attn: **Nicolas Carpenter
Ninyo & Moore
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San Diego, CA 92123

Project: 107589001

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
1 431302516-0001	ROOF SYSTEM	Black Fibrous Homogeneous	7% Glass	93% Non-fibrous (other)	None Detected	
2 431302516-0002	ROOF CORE	Gray/Black Non-Fibrous Homogeneous	2% Glass	98% Non-fibrous (other)	None Detected	
3 431302516-0003	ROOF WALL PENETRATION MASTIC	Black Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected	
4 431302516-0004	HATCH PENETRATION W/ MASTIC	Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected	
5 431302516-0005	WALL CORE	Gray/Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (other)	None Detected	
6 431302516-0006	HATCH PAINT	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
7 431302516-0007	RAILING W/ MASTIC	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected	
8 431302516-0008	ROOF SYSTEM	Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (other)	None Detected	

Analyst(s)
Rebecca Luu (53)

Michelle LaVallee, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-0, CA ELAP 2713

Initial report from 09/23/2013 11:02:03

Test Report PLM-7.28.9 Printed: 9/23/2013 11:02:03 AM

1

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Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
9 431302516-0009	ROOF CORE	Gray/Black Fibrous Homogeneous	7% Glass	93% Non-fibrous (other)	None Detected	
10 431302516-0010	ROOF WALL PENETRATION MASTIC	Black Non-Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected	
11 431302516-0011	HATCH PENETRATION MASTIC	Black Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (other)	None Detected	
12 431302516-0012	WALL CORE	Gray/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
13 431302516-0013	HATCH PAINT	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
14 431302516-0014	RAILING MASTIC	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected	
15 431302516-0015	ROOF SYSTEM	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected	
16 431302516-0016	ROOF CORE	Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (other)	None Detected	

Analyst(s)
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Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
17 431302516-0017	ROOF WALL PENETRATION MASTIC	Black Non-Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
18 431302516-0018	HATCH VENT PENETRATION MASTIC	Black Non-Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (other)	None Detected
19 431302516-0019	WALL CORE	Gray/Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
20 431302516-0020	HATCH VENT PAINT	Silver Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
21 431302516-0021	RAILING MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
22 431302516-0022	WINDOW PUTTY	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
23 431302516-0023	WINDOW PUTTY	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
24 431302516-0024	WINDOW PUTTY	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
25 431302516-0025	STUCCO WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
26 431302516-0026	STUCCO WALL	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
27 431302516-0027	STUCCO WALL	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
28 431302516-0028	INTERIOR PLASTER WALLS	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
29 431302516-0029	INTERIOR PLASTER WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
30 431302516-0030	INTERIOR PLASTER WALL	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
31 431302516-0031	PLASTER CEILING	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
32 431302516-0032	PLASTER CEILING	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-0, CA ELAP 2713

Initial report from 09/23/2013 11:02:03

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Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
33 431302516-0033	PLASTER CEILING	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
34 431302516-0034	WINDOW PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
35 431302516-0035	WINDOW PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
38 431302516-0038	WINDOW PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
37A 431302516-0037	FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
37B 431302516-0037A	MASTIC	Black/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected
38A 431302516-0038	FLOOR TILE	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
38B 431302516-0038A	MASTIC	Black/Yellow Non-Fibrous Heterogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-0, CA ELAP 2713

Initial report from 09/23/2013 11:02:03

Test Report PLM-7.28.9 Printed: 9/23/2013 11:02:03 AM

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Project: 107589001

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
39A 431302516-0039	FLOOR TILE	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
39B 431302516-0039A	MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
40A 431302516-0040	GLUE 1	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
40B 431302516-0040A	GLUE 2	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
41 431302516-0041	DRYWALL WALLS	White Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
42 431302516-0042	DRYWALL WALLS	White Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
43 431302516-0043	DRYWALL WALLS	White Non-Fibrous Homogeneous	<1% Glass	100% Non-fibrous (other)	None Detected
44 431302516-0044	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile

Analyst(s)

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-0, CA ELAP 2713

Initial report from 09/23/2013 11:02:03

Test Report PLM-7.28.9 Printed: 9/23/2013 11:02:03 AM

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Project: 107589001

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/17/13 4:15 PM
Analysis Date: 9/23/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
45 431302516-0045	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
46 431302516-0046	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
47 431302516-0047	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
48 431302516-0048	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
49 431302516-0049	EXPANSION JOINT CAULKING	White Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile

Analyst(s)

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-Q, CA ELAP 2713

Initial report from 09/23/2013 11:02:03

Test Report PLM-7.28.9 Printed: 9/23/2013 11:02:03 AM

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Project: TAMT-Construction Storage 107589001

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Received: 09/19/13 8:45 AM
Analysis Date: 9/24/2013
Collected:

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos % Type
			% Fibrous	% Non-Fibrous	
50A 431302544-0001	INSULATION	Tan Fibrous Homogeneous	15% Cellulose	5% Perlite 80% Non-fibrous (other)	None Detected
50B 431302544-0001A	ROOFING	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
51 431302544-0002	ROOF PENETRATION MASTIC	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
52 431302544-0003	ROOF SIDE WALL	Black Fibrous Homogeneous	7% Glass	93% Non-fibrous (other)	None Detected
53 431302544-0004	ROOF CORE	Gray/Black Fibrous Homogeneous	5% Glass 8% Cellulose	87% Non-fibrous (other)	None Detected
54 431302544-0005	ROOF PENETRATION MASTIC	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
55 431302544-0006	ROOF SIDE WALL	Gray/Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
56 431302544-0007	ROOF CORE	Black Non-Fibrous Homogeneous	8% Glass	92% Non-fibrous (other)	None Detected

Analyst(s)

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Received: 09/19/13 8:45 AM
Analysis Date: 9/24/2013
Collected:

Project: TAMT-Construction Storage 107589001

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
57 431302544-0008	ROOF PENETRATION MASTIC	Black Non-Fibrous Homogeneous	10% Cellulose 5% Glass	85% Non-fibrous (other)	None Detected	
58 431302544-0009	ROOF SIDE WALL	Silver Non-Fibrous Homogeneous	5% Glass 8% Cellulose	87% Non-fibrous (other)	None Detected	
59 431302544-0010	ROOF CORE	Black Fibrous Homogeneous	8% Glass	92% Non-fibrous (other)	None Detected	
60 431302544-0011	ROOF PENETRATION MASTIC	Black Non-Fibrous Homogeneous	8% Cellulose 5% Min. Wool	87% Non-fibrous (other)	None Detected	
61 431302544-0012	ROOF SIDE WALL	Gray/Black Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
62 431302544-0013	ROOF RAILING	Gray/Black Non-Fibrous Homogeneous	5% Glass 10% Cellulose	85% Non-fibrous (other)	None Detected	
63 431302544-0014	CEILING TILE	Tan/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected	
64 431302544-0015	CEILING MASTIC	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite	

Analyst(s)

Rebecca Lou (61)

Michelle LaVallee, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200855-0, CA ELAP 2713

Initial report from 09/25/2013 10:40:59

Test Report PLM-7.28.9 Printed: 9/25/2013 10:40:59 AM

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**EMSL Analytical, Inc.**

7916 Convey Court, Building 4, Suite A, San Diego, CA 92111
Phone/Fax: 858-499-1303 / (858) 499-1304
http://www.EMSL.com sandiegolab@emsl.com

EMSL Order: 431302544
CustomerID: 32NIN63
CustomerPO:
ProjectID:

Attn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin Road

San Diego, CA 92123

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/19/13 8:45 AM
Analysis Date: 9/24/2013
Collected:

Project: TAMT-Construction Storage 107589001

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
65 431302544-0016	WALL COATING	Brown/White Fibrous Homogeneous	3% Cellulose	82% Non-fibrous (other)	15% Chrysotile	
66 431302544-0017	WALL COATING	Brown/White Fibrous Homogeneous	2% Cellulose	83% Non-fibrous (other)	15% Chrysotile	
67 431302544-0018	WALL COATING	Brown/White Fibrous Homogeneous	3% Cellulose	82% Non-fibrous (other)	15% Chrysotile	
88 431302544-0019	LOADING DOCK SEALANT	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
69 431302544-0020	LOADING DOCK SEALANT	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
70 431302544-0021	LOADING DOCK SEALANT	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected	
71 431302544-0022	EXPANSION JOINT SEALANT	Gray Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile	
72 431302544-0023	EXPANSION JOINT SEALANT	Gray Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile	

Analyst(s)

Rebecca Lutz (61)

Michelle LaVallee, Laboratory Manager
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Collected:

San Diego, CA 92123

Project: TAMT-Construction Storage 107589001

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
73 431302544-0024	EXPANSION JOINT SEALANT	Gray Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile
74 431302544-0025	WALL COATING	Brown/White Fibrous Homogeneous	2% Cellulose	88% Non-fibrous (other)	10% Chrysotile
75 431302544-0026	WALL COATING	Brown/White Fibrous Homogeneous	2% Cellulose	86% Non-fibrous (other)	12% Chrysotile
76 431302544-0027	WALL COATING	Brown/White Fibrous Homogeneous	3% Cellulose	87% Non-fibrous (other)	10% Chrysotile
77 431302544-0028	WALL COATING	Brown/White Fibrous Homogeneous	2% Cellulose	83% Non-fibrous (other)	15% Chrysotile
78 431302544-0029	EXT WIND PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
79 431302544-0030	EXT WIND PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
80 431302544-0031	EXT WIND PUTTY	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Rebecca Luu (61)

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San Diego, CA 92123

Project: TAMT-Construction Storage 107589001

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
81A 431302544-0032	CEILING TILE	Tan/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
81B 431302544-0032A	MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite
82A 431302544-0033	CEILING TILE	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
82B 431302544-0033A	MASTIC	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite
83A 431302544-0034	CEILING TILE	Brown/White Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
83B 431302544-0034A	MASTIC	Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite
84A 431302544-0035	CEILING TILE	White/Belge Fibrous Homogeneous	30% Cellulose 5% Glass	10% Perlite 55% Non-fibrous (other)	None Detected
84B 431302544-0035A	MASTIC	Brown Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Anthophyllite

Analyst(s)

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San Diego, CA 92123

Project: TAMT-Construction Storage 107589001

**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
85A 431302544-0036	CEILING TILE	Beige Fibrous Homogeneous	30% Cellulose 5% Glass	10% Perlite 55% Non-fibrous (other)	None Detected
85B 431302544-0036A	MASTIC	Brown Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Anthophyllite
86A 431302544-0037	CEILING TILE	White/Beige Fibrous Homogeneous	30% Cellulose 10% Glass	15% Perlite 45% Non-fibrous (other)	None Detected
86B 431302544-0037A	MASTIC	Brown Non-Fibrous Homogeneous		98% Non-fibrous (other)	2% Anthophyllite
87A 431302544-0038	FINISH COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
87B 431302544-0038A	BASE COAT	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
88A 431302544-0039	FINISH COAT	White Non-Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
88B 431302544-0039A	BASE COAT	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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**Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using
Polarized Light Microscopy**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
89A 431302544-0040	FINISH COAT	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
89B 431302544-0040A	BASE COAT	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
90 431302544-0041	DRYWALL	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
91 431302544-0042	DRYWALL	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
92 431302544-0043	DRYWALL	White Fibrous Homogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
93A 431302544-0044	FLOOR TILE	Gray Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile
93B 431302544-0044A	MASTIC	Black Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
94A 431302544-0045	FLOOR TILE	Gray Non-Fibrous Homogeneous		97% Non-fibrous (other)	3% Chrysotile

Analyst(s)

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San Diego, CA 92123

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Analysis Date: 9/24/2013
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Project: **TAMT-Construction Storage 107589001**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
94B 431302544-0045A	MASTIC	Black Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
95A 431302544-0046	FLOOR TILE	Gray Non-Fibrous Homogeneous		96% Non-fibrous (other)	4% Chrysotile
95B 431302544-0046A	MASTIC	Black Non-Fibrous Homogeneous		95% Non-fibrous (other)	5% Chrysotile
95A 431302544-0047	COVE BASE	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
96B 431302544-0047A	GLUE	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Anthophyllite

Analyst(s)

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Samples analyzed by EMSL Analytical, Inc. San Diego, CA NVLAP Lab Code 200865-0, CA ELAP 2713

Initial report from 09/25/2013 10:40:59

Test Report PLM-7.28.9 Printed: 9/25/2013 10:40:59 AM

THIS IS THE LAST PAGE OF THE REPORT.

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Sheet 1 of 1

ASBESTOS BULK SAMPLE DATA SHEET

Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (858) 576-1000 Fax: (858) 576-9600		Project Name: TAMT - Construction Storage Project No.: 107589001 Project Manager: NJC Site Address: TAMT San Diego, CA		Sampled By: NUC/BKF Date Sampled: 9/17/2013	Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9980
CHAIN OF CUSTODY INFORMATION:					
Relinquished By: (signature) 		Company: Ninyo & Moore	Date: 9/17/13	Time (24 hr):	Received By: (signature)
Sample ID	Building Number	Room Number	Sample Location		
ASB-001	T52	Roof	Roof Bay #2 South Wall		
ASB-002			Roof Bay #2 East Middle		
ASB-003			Roof Bay #2 NE corner		
ASB-004			Roof Bay #2 NE Hatch		
ASB-005			Roof Bay #2 NW		
ASB-006			Roof Bay #2 SW Hatch		
ASB-007			Roof Bay #2 SW Wall		
ASB-008			Roof Bay #3 Center		
ASB-009			Roof Bay #3 NW		
ASB-010			Roof Bay #3 NW corner		
ASB-011			Roof Bay #3 SW Hatch		
ASB-012			Roof Bay #3 South Wall		
ASB-013			Roof Bay #3 NE Hatch		
ASB-014			Roof Bay #3 NW		
ASB-015			Roof Bay #4 NW		
Sample Description		Quantity (SF/LF/E)	Frangible (Y/N)	Condition	
Roof System / Blk					
Roof Core / Blk Hatch					
Roof Wall / Blk Hatch					
Hatch / Blk Hatch					
Wall Core / Hatch					
Hatch / Hatch					
Roofing / Plastic / Blk					
Roof System / Blk					
Roof Core / Blk Hatch					
Hatch / Blk Hatch					
Hatch / Blk Hatch					
Hatch / Blk Hatch					
Roofing / Plastic / Blk					
Roof System / Blk					

Asbestos Samples

ASBESTOS BULK SAMPLE DATA SHEET

Ninyo & Moore		Project Name : TAMT - Construction Storage		Sampled By: NUC/BKF		Laboratory: LA Testing	
5710 Ruffin Road		Project No.: 107589001		Date Sampled: 9/17/2013		520 Mission Street	
San Diego, CA 92123		Project Manager: NJC				South Pasadena, CA 91030	
Tel: (659) 576-1000		Site Address: TAMT				Tel: (323) 254-9980	
Fax: (659) 576-9900		San Diego, CA					

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time (24 hr.)	Received By: (sign/print)	Laboratory
-------------------------------	---------	------	---------------	---------------------------	------------

B-54' Beam (F&S)	Ninyo & Moore	9/17/13						
Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition	
ASB-016	TS2	Roof	Roof Bay #4	Roof Core / Blk				
ASB-017			Roof Bay #4	Roof Penetration / Blk				
ASB-018			Roof Bay #4	Roof Penetration / Blk				
ASB-019			Roof Bay #4	Roof Core / Blk				
ASB-020			Roof Bay #4	Roof Core / Blk				
ASB-021			Roof Bay #4	Roof Penetration / Blk				
ASB-022	Bay 4		Second Floor Exterior NW	Window Patch / Green				
ASB-023			Second Floor Exterior NW	Window Patch / Green				
ASB-024			Second Floor Exterior NW	Window Patch / Green				
ASB-025			Second Floor Exterior NW	Stucco Wall / Gray				
ASB-026			Second Floor Exterior NW	Stucco Wall / Gray				
ASB-027			Second Floor Exterior NW	Stucco Wall / Gray				
ASB-028			Second Floor Interior	Interior Wall / White				
ASB-029			Second Floor Interior	Interior Wall / White				
ASB-030			Second Floor Interior	Interior Wall / White				

Asbestos Samples

ASBESTOS BULK SAMPLE DATA SHEET

Ninyo & Moore		Project Name : TAMT - Construction Storage		Sampled By: NUC/BKF		Laboratory: LA Testing	
5710 Ruffin Road		Project No.: 107589001		Date Sampled: 9/17/2013		520 Mission Street	
San Diego, CA 92123		Project Manager: NJC				South Pasadena, CA 91030	
Tel: (659) 576-1000		Site Address: TAMT				Tel: (323) 254-9980	
Fax: (659) 576-9900		San Diego, CA					

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time (24 hr.)	Received By: (sign/print)	Laboratory
-------------------------------	---------	------	---------------	---------------------------	------------

<i>B. J. Bannister</i>	Ninyo & Moore	9/17/13					
Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition
ASB-031	TS2	Bay 4	Second Floor Interior Office	Plaster Ceiling / w/ht			
ASB-032			Second Floor Interior Office	Plaster Ceiling / w/ht			
ASB-033			Second Floor Interior Office	Plaster Ceiling / w/ht			
ASB-034			Second Floor Interior Office	Window Patches / w/ht			
ASB-035			Second Floor Interior Office	Window Patches / w/ht			
ASB-036			Second Floor Interior Office	Window Patches / w/ht			
ASB-037			Second Floor Interior Office	9x9 VFT w/patch / Bay w/ht			
ASB-038			Second Floor Interior Office	9x9 VFT w/patch / Bay w/ht			
ASB-039			Second Floor Interior Office	9x9 VFT w/patch / Bay w/ht			
ASB-040			Second Floor Interior Office	COVER / w/ht			
ASB-041			First Floor INTERIOR R/R	DRYWALL WALLS / w/ht			
ASB-042			First Floor INTERIOR R/R	DRYWALL WALLS / w/ht			
ASB-043			First Floor INTERIOR R/R	DRYWALL WALLS / w/ht			
ASB-044			Bay # 4 EXTERIOR SW	EXPOSED JOINT CRACKING w/ht			
ASB-045			Bay # 3 EXTERIOR SW	EXPOSED JOINT CRACKING w/ht			

Asbestos Samples

ASBESTOS BULK SAMPLE DATA SHEET

5-day TAT

Sheet 4 of 7

Ninyo & Moore
 5710 Ruffin Road
 San Diego, CA 92123
 Tel: (619) 576-1000
 Fax: (619) 576-9900

Project Name : TAIT - Construction Storage
Project No.: 107589001
Project Manager: NJC
Site Address: TAIT
 San Diego, CA

Sampled By: NJC/BKF
Date Sampled: 9/17/2013

Laboratory:
 LA Testing
 520 Mission Street
 South Pasadena, CA 91030
 Tel: (323) 254-9960

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print) *Nic Carpenter* Company *Ninyo & Moore* Date *9/18/13* Time (24 hr.) *8:35AM* Received By: (sign/print) *GP* Laboratory

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition
ASB-046	RS-2	Bay 2	exterior	Expansion Joint Sealing Int			
ASB-047	Bay 2	exterior	Expansion Joint Sealing Int				
ASB-048	Bay 3	exterior	Expansion Joint Sealing Int				
ASB-049	Bay 4	exterior	Expansion Joint Sealing Int				
ASB-050	Warehouse Roof	exterior	Roof Core / Int				
ASB-051			Roof	Roof			
ASB-052			Roof	Roof			
ASB-053			Bay 3 Roof	Roof Core / Int			
ASB-054				Roof			
ASB-055				Roof			
ASB-056			Bay 2 Roof	Roof Core / Int			
ASB-057				Roof			
ASB-058				Roof			
ASB-059			Bay 1 Roof	Roof Core / Int			
ASB-060				Roof			

Asbestos Sample.xls

ASBESTOS BULK SAMPLE DATA SHEET

Sheet 5 of 7

Ninyo & Moore
 5710 Ruffin Road
 San Diego, CA 92123
 Tel: (619) 576-1000
 Fax: (619) 576-9900

Project Name : TAIT - Construction Storage
Project No.: 107589001
Project Manager: NJC
Site Address: TAIT
 San Diego, CA

Sampled By: NJC/BKF
Date Sampled: 9/17/2013

Laboratory:
 LA Testing
 520 Mission Street
 South Pasadena, CA 91030
 Tel: (323) 254-9960

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print) *Nic Carpenter* Company *Ninyo & Moore* Date *9/18/13* Time (24 hr.) *8:35AM* Received By: (sign/print) *GP* Laboratory

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition
ASB-061	Warehouse	Roof	Bay 1 Roof	Roof side wall / Int			
ASB-062				Roof			
ASB-063			Truckers Restroom	ceiling tile 1x1			
ASB-064				ceiling tile 1x1			
ASB-065			Eastern Addition	Wall coating NE			
ASB-066				Wall coating SN			
ASB-067				Wall coating S			
ASB-068			NE Landing Dock	Loading Dock Sealant NE			
ASB-069				Loading Dock Sealant NE			
ASB-070				Loading Dock Sealant NE			
ASB-071				Expansion Joint Sealant NE			
ASB-072				Expansion Joint Sealant NE			
ASB-073				Expansion Joint Sealant NE			
ASB-074			Eastern Addition	Wall Coating NE			
ASB-075				Wall Coating S			

Asbestos Sample.xls

ASBESTOS BULK SAMPLE DATA SHEET

Sheet 6 of 7

Ninyo & Moore
 5710 Ruffin Road
 San Diego, CA 92123
 Tel: (658) 576-1000
 Fax: (658) 576-9900

Project Name : TAMT - Construction Storage
Project No.: 107589001
Project Manager: NJC
Site Address: TAMT
 San Diego, CA

Sampled By: NJC/BKF
Date Sampled: 9/17/2013

Laboratory:
 LA Testing
 520 Mission Street
 South Pasadena, CA 91030
 Tel: (323) 254-9960

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time (24 hr.)	Received By: (sign/print)	Laboratory
<i>Brian J. Bannister</i>	Ninyo & Moore	9/18/13		<i>JP</i>	

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Frangible (Y/N)	Condition
ASB-076	✓	✓	Exterior	Wall east of SW			
ASB-077	✓	✓	Exterior	Wall east of SW			
ASB-078	✓	✓	Exterior	Ext. window party wall NE			
ASB-079	✓	✓	✓	✓			
ASB-080	✓	✓	✓	✓			
ASB-081	✓	✓	Second Floor	12x12 ceiling tiles large square to match			
ASB-082	✓	✓	Second Floor	✓			
ASB-083	✓	✓	Second Floor	✓			
ASB-084	✓	✓	Second Floor	12x12 ceiling tiles signed / marked			
ASB-085	✓	✓	Second Floor	✓			
ASB-086	✓	✓	Second Floor	✓			
ASB-087	✓	✓	Second Floor	Plaster walls / ceiling tiles			
ASB-088	✓	✓	Second Floor	✓			
ASB-089	✓	✓	Second Floor	✓			
ASB-090	✓	✓	Second Floor	Dayton's / Blue			

Asbestos Samples.xls

ASBESTOS BULK SAMPLE DATA SHEET

Sheet 7 of 7

Ninyo & Moore
 5710 Ruffin Road
 San Diego, CA 92123
 Tel: (658) 576-1000
 Fax: (658) 576-9900

Project Name : TAMT - Construction Storage
Project No.: 107589001
Project Manager: NJC
Site Address: TAMT
 San Diego, CA

Sampled By: NJC/BKF
Date Sampled: 9/17/2013

Laboratory:
 LA Testing
 520 Mission Street
 South Pasadena, CA 91030
 Tel: (323) 254-9960

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time (24 hr.)	Received By: (sign/print)	Laboratory
<i>Brian J. Bannister</i>	Ninyo & Moore	9/18/13		<i>JP</i>	

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Frangible (Y/N)	Condition
ASB-091	✓	✓	Second Floor	Dayton's / Blue			
ASB-092	✓	✓	Second Floor	✓			
ASB-093	✓	✓	Second Floor	9x9 VFT / plastic / paint / tiles			
ASB-094	✓	✓	Second Floor	✓			
ASB-095	✓	✓	Second Floor	✓			
ASB-096	✓	✓	Second Floor	Cove base w/ glue / silk			
ASB-098	✓	✓	✓	✓			
ASB-099	✓	✓	✓	✓			
ASB-100	✓	✓	✓	✓			
ASB-101	✓	✓	✓	✓			
ASB-102	✓	✓	✓	✓			
ASB-103	✓	✓	✓	✓			
ASB-104	✓	✓	✓	✓			
ASB-105	✓	✓	✓	✓			

Asbestos Samples.xls



EMSL Analytical, Inc.
7916 Convey Court, Building 4, Suite A, San Diego, CA 92111
Phone/Fax: 858-499-1303 / (858) 499-1304
<http://www.EMSL.com> sandiegolab@emsl.com

EMSL Order: 431302544
CustomerID: 32NIN63
CustomerPO:
ProjectID:

Attn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin Road

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/30/13 3:01 PM
Analysis Date: 10/1/2013
Collected:

San Diego, CA 92123

Project: TAMT-Construction Storage 107589001

**Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation
using the 1,000 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
064 431302544-0048	CEILING MASTIC	Brown Non-Fibrous Homogeneous		99.70% Non-fibrous (other)	0.30% Anthophyllite
081A 431302544-0049	MASTIC	Brown Non-Fibrous Homogeneous		99.60% Non-fibrous (other)	0.40% Anthophyllite
082A 431302544-0050	MASTIC	Brown Non-Fibrous Homogeneous		99.70% Non-fibrous (other)	0.30% Anthophyllite
083A 431302544-0051	CEILING TILE	Brown Non-Fibrous Homogeneous		99.70% Non-fibrous (other)	0.30% Anthophyllite
084A 431302544-0052	CEILING TILE	Brown Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	0.50% Anthophyllite
085A 431302544-0053	CEILING TILE	Brown Non-Fibrous Homogeneous		99.70% Non-fibrous (other)	0.30% Anthophyllite
096A 431302544-0054	CEILING TILE	Brown Non-Fibrous Homogeneous		99.80% Non-fibrous (other)	0.20% Anthophyllite

Analyst(s)

Rebecca Luu (R)

Michelle LaVallee, Laboratory Manager
or other approved signatory

Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.1%. EMSL Analytical, Inc. suggests that samples reported as <0.1% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval EMSL Analytical, Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical, Inc. bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical, Inc. liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAP unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Samples analyzed by EMSL Analytical, Inc. San Diego, CA

Initial report from 10/01/2013 14:14:12

Test Report PLMPTC-7.25.0 Printed: 10/1/2013 2:15:11 PM



EMSL Analytical, Inc.
7916 Convey Court, Building 4, Suite A, San Diego, CA 92111
Phone/Fax: 858-499-1303 / (858) 499-1304
<http://www.EMSL.com> sandiegolab@emsl.com

EMSL Order: 431302544
CustomerID: 32NIN63
CustomerPO:
ProjectID:

Attn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin Road

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/30/13 3:01 PM
Analysis Date: 10/1/2013
Collected:

San Diego, CA 92123

Project: TAMT-Construction Storage 107589001

**Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation
using the 1,000 Point Count Procedure**

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
096A 431302544-0055	GLUE	Brown Non-Fibrous Homogeneous		99.60% Non-fibrous (other)	0.40% Anthophyllite

Analyst(s)

Rebecca Luu (R)

Michelle LaVallee, Laboratory Manager
or other approved signatory

Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.1%. EMSL Analytical, Inc. suggests that samples reported as <0.1% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval EMSL Analytical, Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical, Inc. bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical, Inc. liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAP unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Samples analyzed by EMSL Analytical, Inc. San Diego, CA

Initial report from 10/01/2013 14:14:12

Test Report PLMPTC-7.25.0 Printed: 10/1/2013 2:15:11 PM

THIS IS THE LAST PAGE OF THE REPORT.

ASBESTOS BULK SAMPLE DATA SHEET

5-day TAT

#431302544

Project Name : Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (658) 576-1000 Fax: (658) 576-9900		TAMT - Construction Storage 107589001 NJC TAMT San Diego, CA		Sampled By: NJC/BKF		Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9960	
Site Address:		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013	

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

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Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

ASBESTOS BULK SAMPLE DATA SHEET

#431302544

Project Name : Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (658) 576-1000 Fax: (658) 576-9900		TAMT - Construction Storage 107589001 NJC TAMT San Diego, CA		Sampled By: NJC/BKF		Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9960	
Site Address:		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013	

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

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Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/L/E)	Friable (Y/N)	Condition
ASB-046	RS2	Bay 2	exterior	expansion joint caulking	whit		
ASB-047	Bay 2	exterior	expansion joint caulking	whit			
ASB-048	Bay 3	exterior	expansion joint caulking	whit			
ASB-049	Bay 4	exterior	expansion joint caulking	whit			
ASB-050	Warehouse	Roof	Roof	Roof Core - Whit			
ASB-051				Roof			
ASB-052				Roof			
ASB-053				Roof			
ASB-054				Roof			
ASB-055				Roof			
ASB-056				Roof			
ASB-057				Roof			
ASB-058				Roof			
ASB-059				Roof			
ASB-060				Roof			

Asbestos Sample.xls

ASBESTOS BULK SAMPLE DATA SHEET

#431302544

Project Name : Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (658) 576-1000 Fax: (658) 576-9900		TAMT - Construction Storage 107589001 NJC TAMT San Diego, CA		Sampled By: NJC/BKF		Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9960	
Site Address:		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013		Date Sampled: 9/17/2013	

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

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Relinquished By: (signature) Received By: (signature)

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Relinquished By: (signature) Received By: (signature)

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Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Relinquished By: (signature) Received By: (signature)

Company Date Time (24 hr)

Ninyo & Moore 9/18/13

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/L/E)	Friable (Y/N)	Condition
ASB-061	C	Roof	Bay-1 Roof	Roof side wall / whit			
ASB-062				Roof			
ASB-063				Roof			
ASB-064				Roof			
ASB-065				Roof			
ASB-066				Roof			
ASB-067				Roof			
ASB-068				Roof			
ASB-069				Roof			
ASB-070				Roof			
ASB-071				Roof			
ASB-072				Roof			
ASB-073				Roof			
ASB-074				Roof			
ASB-075				Roof			

Asbestos Sample.xls

#431302544

Sheet 6 of 7

ASBESTOS BULK SAMPLE DATA SHEET

Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (619) 576-1000 Fax: (619) 576-9900		Project Name : TAMT - Construction Storage		Sampled By: NUC/BKF		Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9990	
Project No.: 107589001		Project Manager: NUC		Date Sampled: 9/17/2013			
Site Address: TAMT San Diego, CA							

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time: (24 hr.)	Received By: (sign/print)	Laboratory
<i>Brian J. Bannister</i>	Ninyo & Moore	9/19/13		<i>GF</i>	

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition
ASB-076	Embarcadero	Easton Expansion					
ASB-077			Exterior	Nail over-sig SW			
ASB-078			↓	Wall coating N			
ASB-079			Exterior of Bldg	Ext. window w/ty left HE			
ASB-080			↓				
ASB-081		Clerk Shop	Second Floor R.R.	10x12 ceiling large tiled w/ chokes for waste			
ASB-082			Second Floor R.R.	↓			
ASB-083			Second Floor R.R.	↓			
ASB-084			Second Floor R.R.	12x12 ceiling / steel w/ waste			
ASB-085			Second Floor R.R.	↓			
ASB-086			Second Floor R.R.	↓			
ASB-087			Second Floor R.R.	↓			
ASB-088			Second Floor R.R.	Plaster walls / soffits			
ASB-089			Second Floor R.R.	↓			
ASB-090			Second Floor R.R.	Dayroom alcove / alcove			

Asbestos Sample.xls

#431302544

Sheet 7 of 7

ASBESTOS BULK SAMPLE DATA SHEET

Ninyo & Moore 5710 Ruffin Road San Diego, CA 92123 Tel: (619) 576-1000 Fax: (619) 576-9900		Project Name : TAMT - Construction Storage		Sampled By: NUC/BKF		Laboratory: LA Testing 520 Mission Street South Pasadena, CA 91030 Tel: (323) 254-9990	
Project No.: 107589001		Project Manager: NUC		Date Sampled: 9/17/2013			
Site Address: TAMT San Diego, CA							

CHAIN OF CUSTODY INFORMATION:

Relinquished By: (sign/print)	Company	Date	Time: (24 hr.)	Received By: (sign/print)	Laboratory
<i>Brian J. Bannister</i>	Ninyo & Moore	9/19/13		<i>GF</i>	

Sample ID	Building Number	Room Number	Sample Location	Sample Description	Quantity (SF/LF/E)	Friable (Y/N)	Condition
ASB-091		Clerk office	Second Floor R.R.	DAYROOM			
ASB-092			Second Floor R.R.	↓			
ASB-093			Second Floor R.R.	↓			
ASB-094			Second Floor R.R.	9x9 VFT of mastic / wall			
ASB-095			Second Floor R.R.	↓			
ASB-096			Second Floor R.R.	↓			
ASB-098			Second Floor R.R.	CONCRETE / alcove			
ASB-099							
ASB-100							
ASB-101							
ASB-102							
ASB-103							
ASB-104							
ASB-105							

Asbestos Sample.xls

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone: (856) 303-2500 Fax: (856) 858-4571 Email: jsmith@emsl.com

Attn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin Road

10/1/2013

San Diego, CA 92123Phone: (858) 576-1000
Fax: (858) 576-9600

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 9/25/2013. The results are tabulated on the attached data pages for the following client designated project:

107589001

The reference number for these samples is EMSL Order #011304691. Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact me at (856) 303-2500.

Reviewed and Approved By:

Julie Smith - Laboratory Director



The test results contained within this report meet the requirements of NELAP and/or the specific certification program that is applicable, unless otherwise noted.
NELAP Certifications: NJ 03036, NY 10872, PA 68-00367

The samples associated with this report were received in good condition unless otherwise noted. This report relates only to those items tested as received by the laboratory. The QC data associated with the sample results meet the recovery and precision requirements established by the NELAP, unless specifically indicated. All results for soil samples are reported on a dry weight basis, unless otherwise noted. This report may not be reproduced except in full and without written approval by EMSL Analytical, Inc.

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 858-4571
http://www.EMSL.com jsmith@emsl.comAttn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin RoadPhone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/25/13 10:10 AM**San Diego, CA 92123**Project: **107589001**EMSL Order: 011304691
CustomerID: 32NIN63
CustomerPO:
ProjectID:**Analytical Results**

Client Sample Description		PCM-001			Collected:		9/24/2013	Lab ID: 0001	
		Expansion Joint Caulking, Transit Shed 2					2:30:00 PM		
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst	
3540C/8082A	Aroclor-1016	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1221	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1232	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1242	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1248	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1254	1.4	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1260	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1262	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1268	ND	0.97	mg/Kg	9/26/2013	AB	9/27/2013	EH	
Client Sample Description		PCM-002			Collected:		9/24/2013	Lab ID: 0002	
		Expansion Joint Caulking, Transit Shed 2					2:30:00 PM		
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst	
3540C/8082A	Aroclor-1016	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1221	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1232	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1242	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1248	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1254	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1260	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1262	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1268	ND	0.79	mg/Kg	9/26/2013	AB	9/27/2013	EH	
Client Sample Description		PCM-003			Collected:		9/24/2013	Lab ID: 0003	
		Expansion Joint Caulking, Transit Shed 2					2:30:00 PM		
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst	
3540C/8082A	Aroclor-1016	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1221	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1232	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1242	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1248	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1254	0.86	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1260	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1262	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	
3540C/8082A	Aroclor-1268	ND	0.64	mg/Kg	9/26/2013	AB	9/27/2013	EH	

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
<http://www.EMSL.com> jamlth@emsl.com

EMSL Order: 011304691
CustomerID: 32NIN63
CustomerPO:
ProjectID:

Attn: **Nicolas Carpenter**
Ninyo & Moore
5710 Ruffin Road

Phone: (858) 576-1000
Fax: (858) 576-9600
Received: 09/25/13 10:10 AM

San Diego, CA 92123

Project: 107589001

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077
Phone/Fax: (856) 303-2500 / (856) 858-4571
<http://www.EMSL.com> jamlth@emsl.com

EMSL Order: 011304691
CustomerID: 32NIN63
CustomerPO:
ProjectID:

Definitions:

ND - indicates that the analyte was not detected at the reporting limit
RL - Reporting Limit

Analytical Results

Client Sample Description		PCM-004			Collected:	9/24/2013	Lab ID:	0004
		Expansion Joint Caulking, Warehouse C			2:30:00 PM			
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1221	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1232	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1242	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1248	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1254	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1260	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1262	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1268	ND	0.86	mg/Kg	9/26/2013	AB	9/27/2013	EH
Client Sample Description		PCM-005			Collected:	9/24/2013	Lab ID:	0005
		Expansion Joint Caulking, Warehouse C			2:30:00 PM			
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1221	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1232	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1242	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1248	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1254	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1260	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1262	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1268	ND	0.70	mg/Kg	9/26/2013	AB	9/27/2013	EH
Client Sample Description		PCM-006			Collected:	9/24/2013	Lab ID:	0006
		Expansion Joint Caulking, Warehouse C			2:30:00 PM			
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
3540C/8082A	Aroclor-1016	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1221	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1232	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1242	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1248	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1254	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1260	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1262	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH
3540C/8082A	Aroclor-1268	ND	0.55	mg/Kg	9/26/2013	AB	9/27/2013	EH



Chain of Custody
EMSL Order Number *(Lab Use Only):*

011304691

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-0262

Company: <u>Ninjo & Moore</u>		EMSL-Bill to: <input type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note Instructions in Comments**	
Street: <u>5710 Ruffin Rd.</u>		Third Party Billing requires written authorization from third party	
City: <u>San Diego</u>	State/Province: <u>CA</u>	Zip/Postal Code: <u>92123</u>	Country: <u>USA</u>
Report To (Name): <u>Nicolas Carpenter</u>		Telephone #: <u>858-576-1000</u>	
Email Address: <u>ncarpenter@ninjoandmoore.com</u>		Fax #: <u>858-576-9600</u>	Purchase Order:
Project Name/Number: <u>107584001</u>		Please Provide Results: <input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Mail	
U.S. State Samples Taken:		Connecticut Samples: <input checked="" type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check

<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour	<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour	<input checked="" type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
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*For RUSH TAT's Please Call Ahead to Confirm Lab Hours and Availability. Not all TAT options are valid for every test.
Materials Science and IAQ TATs are in Business Days rather than Hours (i.e. 24 Hour = End of Next Business Day)

Asbestos

PCM - Air <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ 8hr. TWA TEM - Air 14-4.5hr TAT(AHERA ONLY) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	PLM - Bulk <input type="checkbox"/> PLM EPA 800/R-93/116 <input type="checkbox"/> PLM EPA NOB (<1%) <input type="checkbox"/> NYS 1981 (friable-NY) <input type="checkbox"/> NYS 198.8 (non-friable-NY) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/ Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> EPA Reg. 1 Screening Protocol (Qualitative)
TEM - Water Fibers $\geq 10\mu m$ <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe-ASTM D8490	Other:

Lead (Pb)

Flame Atomic Absorption <input type="checkbox"/> Chips SW846-7000B or AOAC 974.02 <input type="checkbox"/> Soil SW846-7000B/7420 <input type="checkbox"/> Air NIOSH 2082 <input type="checkbox"/> Wastewater SM 3111B or SW846-7000B/7420 <input type="checkbox"/> ASTM Wipe SW846-7000B/7420 <input type="checkbox"/> Non-ASTM Wipe SW846-7000B/7420 <input type="checkbox"/> TCLP SW846-1311/7420/SM 3111B		ICP <input type="checkbox"/> Air NIOSH 7300 Modified <input type="checkbox"/> non ASTM Wipe SW846-6010B or C <input type="checkbox"/> ASTM Wipe SW846-6010B or C <input type="checkbox"/> Soil SW846-6010 B or C <input type="checkbox"/> Waste Water SW846-6010B or C <input type="checkbox"/> TCLP SW846-6010B or C		Other: <input type="checkbox"/>	
Graphite Furnace Atomic Absorption <input type="checkbox"/> Soil SW846-7421 <input type="checkbox"/> Air NIOSH 7105 <input type="checkbox"/> Wastewater EPA 200.9 <input type="checkbox"/> Drinking Water EPA 200.9		<input type="checkbox"/> Common Particle ID (large particles) <input type="checkbox"/> Full Particle ID (environmental dust) <input type="checkbox"/> Basic Material ID (solids) <input type="checkbox"/> Advanced Material ID <input type="checkbox"/> Physical Testing (Tensile, Compression) <input type="checkbox"/> Combustion-by-products (soot, char, etc.) <input type="checkbox"/> X-Ray Fluorescence (elem. analysis) <input type="checkbox"/> X-Ray Diffraction (Crystalline Part.) <input type="checkbox"/> MMVF's (Fibrous glass, RCF's) <input type="checkbox"/> Particle Size (sieve/microscopy/laser)			

Microbiology

<p>Wine and Bulk Samples</p> <p><input type="checkbox"/> Mold & Fungi – Direct Examination</p> <p><input type="checkbox"/> Mold & Fungi Culture (Genus Only)</p> <p><input type="checkbox"/> Mold & Fungi Culture (Genus & Species)</p> <p><input type="checkbox"/> Bacterial Count & ID (Up to Three Types)</p> <p><input type="checkbox"/> Bacterial Count & ID (Up to Five Types)</p> <p><input type="checkbox"/> MRSA</p> <p><input type="checkbox"/> <i>Pseudomonas aeruginosa</i></p>	<p>Air Samples</p> <p><input type="checkbox"/> Mold & Fungi (Spore Trap)</p> <p><input type="checkbox"/> Mold & Fungi Culture (Genus Only)</p> <p><input type="checkbox"/> Mold & Fungi (Genus & Species)</p> <p><input type="checkbox"/> Bacterial Culture & ID (Up to Three Types)</p> <p><input type="checkbox"/> Bacterial Culture & ID (Up to Five Types)</p> <p><input type="checkbox"/> Endotoxin Testing</p> <p>Real Time Q-PCR (See Analytical Guide for Code)</p> <p>Code:</p> <p>Legionella</p> <p><input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4</p> <p>Other: <input type="checkbox"/></p>	<p><input type="checkbox"/> Petrographic Examination</p> <p>Other: <u>7 PCB's in can/k</u></p> <p>IAQ</p> <p>Nuisance Dust NIOSH <input type="checkbox"/> 0500 <input type="checkbox"/> 0600</p> <p>Airborne Dust <input type="checkbox"/> PM10 <input type="checkbox"/> TSP</p> <p>Silica Analysis: <input type="checkbox"/> All Species</p> <p>Silica Analysis – Single Species</p> <p><input type="checkbox"/> Alpha Quartz <input type="checkbox"/> Cristobalite <input type="checkbox"/> Tridymite</p> <p><input type="checkbox"/> HVAC Efficiency</p> <p><input type="checkbox"/> Carbon Black</p> <p><input type="checkbox"/> Airborne Oil Mist</p> <p>Radon Testing: Call for Kit and COC</p> <p>Other: <input type="checkbox"/></p>
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**Comments/Special Instructions:

Client Sample #s	PCM-001 to PCM-006	Total # of Samples:	6
Relinquished (Client):	Date: 9/24/13	Time:	15:48
Received (Lab):	Date: 9/25/13	Time:	10:04

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

Controlled Document-OneChain-R3-11/0/2011 *Samples received in plastic bags at 23°C. 9/25 -TA*



EMBL ANALYTICAL INC.

Chain of Custody
EMSL Order Number *(Lab Use Only)*:

011304691

EMSL ANALYTICAL, INC.
200 ROUTE 130 NORTH
CINNAMINSON, NJ 08077
PHONE: (800) 220-3675
FAX: (856) 786-0262

[illegible]

Analysis Completed in Accordance with EMSL's Terms and Conditions located in the Analytical Price Guide

APPENDIX D

XRF TESTING METHODOLOGY

XRF TESTING METHODOLOGY

To assess the painted surfaces for future contractor worker safety, x-ray fluorescence (XRF) testing technologies were utilized. The testing was conducted in general accordance with the following regulation: *Title 17, California Code of Regulations, Division 1, Chapter 8, Accreditation Certification, and Work Practice in Lead Related Construction, Section 36000.*

After a visual assessment, accessible painted surfaces were screened for lead content with a NITON XLp 300A XRF spectrum analyzer. XRF readings were taken using the standard paint mode. Standard paint mode measurements have no predetermined testing length, and automatically adjust to account for various types of substrates and material's densities. In the standard paint mode, the NITON 300A XLp XRF collects an XRF assay until either a K-shell or L-shell result is indicated as either positive or negative, compared to the threshold level based on the current precision of the test. Correction for paint matrix and substrate effects is performed automatically by the XRF analyzer.

XRF readings were made on testing combinations in all room equivalents in an effort to test typical materials that are representative of the room equivalent. Testing combinations were tested non-destructively by holding the shutter of the XRF against the surface being tested. At each XRF assay location, the trigger is depressed to open the shutter, and one reading was made using the standard paint testing mode. Results of each assay were recorded in the memory of the XRF spectrum analyzer and downloaded via the software provided by the manufacturer. In addition, the results of each assay were read and recorded on the XRF Data Sheet field data sheet.

The XRF testing orientation is depicted on the attached sample location maps. The "A" direction was initially assigned to the direction of the street, and the subsequent directions ("B", "C", and "D") were assigned clockwise from the "A" direction. Should the subject site be located on the corner of two streets, the "A" direction is assigned to the direction of the street address of the subject site.

To ensure that the XRF equipment was working properly, various quality control tests were performed before, during, and after the on-site work. At the beginning of the work day, three start up validation measurements were made in the K and L calibration mode, using the calibration check standard associated with the particular XRF that was used. This painted standard contains a known quantity of lead and allows the XRF operator to determine whether the instrument is functioning within acceptable tolerance ranges for accuracy and precision, as determined by the manufacturer. Calibration checks were generally collected on the red 1.06 mg/cm² and/or yellow 1.57 mg/cm² Standard Reference Material (SRM) paint film, developed by the National Institute of Standards and Technology (NIST).

In addition to the three start up tests, calibration readings are collected between each building, after four hours, and at the completion of XRF testing. Results of each calibration reading were recorded within the memory of the XRF spectrum analyzer and on the XRF Data Sheet. The quality control tests taken during testing at the subject site were within the acceptable performance range prescribed by the XRF equipment manufacturer. Documentation of the quality control calibration check is included in the XRF Data Sheet, Table 3.

TAMT, Terminal Street
San Diego, California

October 3, 2013
Project No. 107589001

State of California—Health and Human Services Agency

California Department of Public Health

LEAD HAZARD EVALUATION REPORT

Section 1 — Date of Lead Hazard Evaluation 9/18/2013

Section 2 — Type of Lead Hazard Evaluation (Check one box only)

☒ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____

Section 3 — Structure Where Lead Hazard Evaluation Was Conducted

Address (number, street, apartment (if applicable)) 602 Terminal Street, Transit Shed No. 1		City San Diego	County San Diego	Zip Code 92118
Construction date (year) of structure 1950's	Type of structure <input type="checkbox"/> Multi-unit building <input type="checkbox"/> Single family dwelling <input type="checkbox"/> School or daycare <input checked="" type="checkbox"/> Other Warehouse	Children living in structure? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't Know		

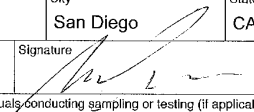
Section 4 — Owner of Structure (if business/agency, list contact person)

Name Port of San Diego, Yeshi Mulugeta		Telephone number 619-686-6200	
Address (number, street, apartment (if applicable)) P.O. Box 120488	City San Diego	State CA	Zip Code 92112

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☒ Intact lead-based paint detected ☒ Deteriorated lead-based paint detected
☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name Nicolas J. Carpenter		Telephone number 858-576-1000	
Address (number, street, apartment (if applicable)) 5710 Ruffin Road	City San Diego	State CA	Zip Code 92123
CDPH certification number 19280	Signature 	Date 10/2/2013	

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

- A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector
Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:
California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

CDPH 8552 (6/07)

APPENDIX E CDPH FORM 8552 - LEAD HAZARD EVALUATION REPORT

LEAD HAZARD EVALUATION REPORT**Section 1 — Date of Lead Hazard Evaluation** 9/19/2013**Section 2 — Type of Lead Hazard Evaluation (Check one box only)**☒ Lead Inspection ☐ Risk assessment ☐ Clearance Inspection ☐ Other (specify) _____**Section 3 — Structure Where Lead Hazard Evaluation Was Conducted**

Address (number, street, apartment (if applicable)) 602 Terminal Street, Warehouse C		City San Diego	County San Diego	Zip Code 92118
Construction date (year) of structure 1950's	Type of structure <input type="checkbox"/> Multi-unit building <input type="checkbox"/> School or daycare <input type="checkbox"/> Single family dwelling <input checked="" type="checkbox"/> Other, Warehouse	Children living in structure? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Don't Know		

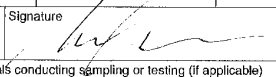
Section 4 — Owner of Structure (if business/agency, list contact person)

Name Port of San Diego, Yeshi Mulugeta		Telephone number 619-686-6200	
Address (number, street, apartment (if applicable)) P.O. Box 120488	City San Diego	State CA	Zip Code 92112

Section 5 — Results of Lead Hazard Evaluation (check all that apply)

☐ No lead-based paint detected ☒ Intact lead-based paint detected ☒ Deteriorated lead-based paint detected
☐ No lead hazards detected ☐ Lead-contaminated dust found ☐ Lead-contaminated soil found ☐ Other _____

Section 6 — Individual Conducting Lead Hazard Evaluation

Name Nicolas J. Carpenter		Telephone number 858-576-1000	
Address (number, street, apartment (if applicable)) 5710 Ruffin Road	City San Diego	State CA	Zip Code 92123
CDPH certification number 19280	Signature 	Date 10/2/2013	

Name and CDPH certification number of any other individuals conducting sampling or testing (if applicable)

Section 7 — Attachments

- A. A foundation diagram or sketch of the structure indicating the specific locations of each lead hazard or presence of lead-based paint;
B. Each testing method, device, and sampling procedure used;
C. All data collected, including quality control data, laboratory results, including laboratory name, address, and phone number.

First copy and attachments retained by inspector

Second copy and attachments retained by owner

Third copy only (no attachments) mailed or faxed to:

California Department of Public Health
Childhood Lead Poisoning Prevention Branch Reports
850 Marina Bay Parkway, Building P, Third Floor
Richmond, CA 94804-6403
Fax: (510) 620-5656

October 2, 2013
Project No. 107589002

Mr. Daniel Lee
Harris & Associates
750 B Street, Suite 1800
San Diego, California 92101

Subject: Pre-Characterization Sampling
Transit Shed No. 1 and Warehouse C Demolition
Tenth Avenue Marine Terminal
San Diego, California

Dear Mr. Lee:

At the request of the San Diego Unified Port District (Port), Ninyo & Moore collected soil samples for analytical testing from Transit Shed No. 1 and a portion of Warehouse C on the Tenth Avenue Marine Terminal (TAMT), which are proposed for demolition (Figures 1 and 2). The structures were constructed on elevated building pads that were created using undocumented fill material. It is our understanding that the undocumented fill material would be excavated and disposed of off site as part of the demolition of the overlying structures. The purpose of the pre-characterization soil sampling and analysis activities was to evaluate the footprint of the planned removal area for constituents of potential concern (COPCs) that have been found during previous subsurface projects at TAMT. It is our understanding that the footprint of the removal area is to be considered as one waste stream.

Based on the elevation changes due to removal of the built-up foundations of the subject buildings, we estimate that up to 36,000 tons of export may be generated from Transit Shed No. 1, up to 39,000 tons may be generated from the north bays of Warehouse C (North Bays), and up to 25,000 tons may be generated from the east addition to Warehouse C (East Addition). Based on conversations with Republic Services (landfill operator), the analytical data and approved waste profile for the Otay Landfill (45311312389) from the previous assessment performed for the demolition of Bay D of Transit Shed No. 1 (now demolished) can be utilized if the generator

(i.e., Port) issues written confirmation that the site usage has not changed since the prior assessment was conducted. Based on the estimated volume of soil proposed to be generated during the demolition of Transit Shed No. 1 and portions of Warehouse C, Republic Services requested that 30 additional soil samples be collected and analyzed from the proposed demolition areas.

DRILLING, SOIL SAMPLING, AND ANALYSIS

On September 16, 2013, Ninyo & Moore advanced 13 direct push borings to depths ranging from 3.5 to 6 feet below ground surface (Figures 3 and 4). Five borings were advanced in both Transit Shed No. 1 and the North Bays and three borings were advanced in the East Addition. Three soil samples were collected from each boring at a randomly selected depths. Soil samples were collected with a 2-inch inside-diameter sampler lined with an acetate sleeve, 4 feet in length. The acetate sleeves were cut and the desired sampling interval retrieved, covered with Teflon™ sheeting, and sealed on both ends with plastic caps. Soil samples were labeled with pertinent information, placed into coolers containing ice, and delivered to Advanced Technology Laboratories of Signal Hill, California.

Thirty of the 39 soil samples collected (11 collected from Transit Shed No. 1, 12 collected from the North Bays, and seven collected from the East Addition) were randomly selected to be analyzed for total petroleum hydrocarbons (TPH) gasoline (TPH-g) and TPH-extended range C8-C40 (TPH-e) by United States Environmental Protection Agency (EPA) Method 8015M, Title 22 Metals by EPA Method 6010B/7471A, organochlorine pesticides (OCPs) by EPA Method 8081A, volatile organic compounds (VOCs) by EPA Method 8260B, and semi-volatile organic compounds (SVOCs) by EPA Method 8270C.

FINDINGS

The following summarizes the findings of the soil sample analytical results.

- Lead was detected at a concentration of 94 milligrams per kilogram (mg/kg) in sample B9-1.0 located in the North Bays. Other metals were not detected at concentrations at or exceeding the trigger limit for analysis of soluble lead by the State or Federal standard.

- TPH-e was detected in three samples (B11-3.0, B11-5.5, and B12-6.0) collected in the East Addition at concentrations of 220, 2,200, and 400 mg/kg, respectively. TPH-g was not detected in the soil samples analyzed.
- The OCPs 4,4'-dichlorodiphenyldichloroethylene (DDE) and 4,4'-dichlorodiphenyltrichloroethane (DDT) were detected in two samples (B12-4.0 and B13-0.5) in the East Addition at maximum concentrations of 13 and 7.1 micrograms per kilogram (ug/kg), respectively.
- The OCPs chlordane, gamma-chlordane, and alpha-chlordane were detected in samples collected from the East Addition at maximum concentrations of 29, 3.2, and 2.6 ug/kg, respectively. Chlordane was detected in three samples (B12-4.0, B13-0.5, and B13-2.0), gamma-chlordane was detected in two samples (B12-4.0 and B13-3.5), and alpha-chlordane was detected in one sample (B13-0.5).
- VOCs and SVOCs were not detected in the samples analyzed.

A copy of the analytical report is provided as Attachment A.

WASTE CHARACTERIZATION

The contaminants of concern detected in the soil samples collected included lead, TPH-e, and OCPs. The previously approved waste profile (45311312389) for Bay D of Transit Shed No. 1 was for diesel-impacted soil only; therefore, if the soil excavated from the removal of the remaining bays of Transit Shed No. 1, the North Bays, and East Addition is considered one waste stream, it would not be consistent with the existing profile and would require a separate waste profile be generated. It should be noted that the concentrations of contaminants detected in the soil samples collected only from with the remaining bays of Transit Shed No. 1 (B1 through B5) is consistent with the waste profile 45311312389, but the number of additional samples collected as part of this assessment is not sufficient to add the additional estimated volume of material to be generated during the demolition (i.e., 36,000 tons). Based discussions with Republic Services, 30 additional samples would be required and only 11 additional samples were analyzed from Transit Shed No. 1 as part of this evaluation.

Assuming that the material is considered one waste stream, the concentrations of contaminants detected in the material would classify the material as a non-hazardous waste. The concentration of lead in one soil sample (B9-1.0 at 94 mg/kg) exceeds the trigger limit for analysis of soluble lead for the State of California; however, the 80% upper confidence limit for lead in all of the samples analyzed was calculated as approximately 10.5 mg/kg; therefore, the material is considered non-hazardous for lead. A copy of the statistical analysis worksheet is provided in Attachment B.

Sincerely,
NINYO & MOORE



Lisa Bestard
Senior Project Environmental Scientist

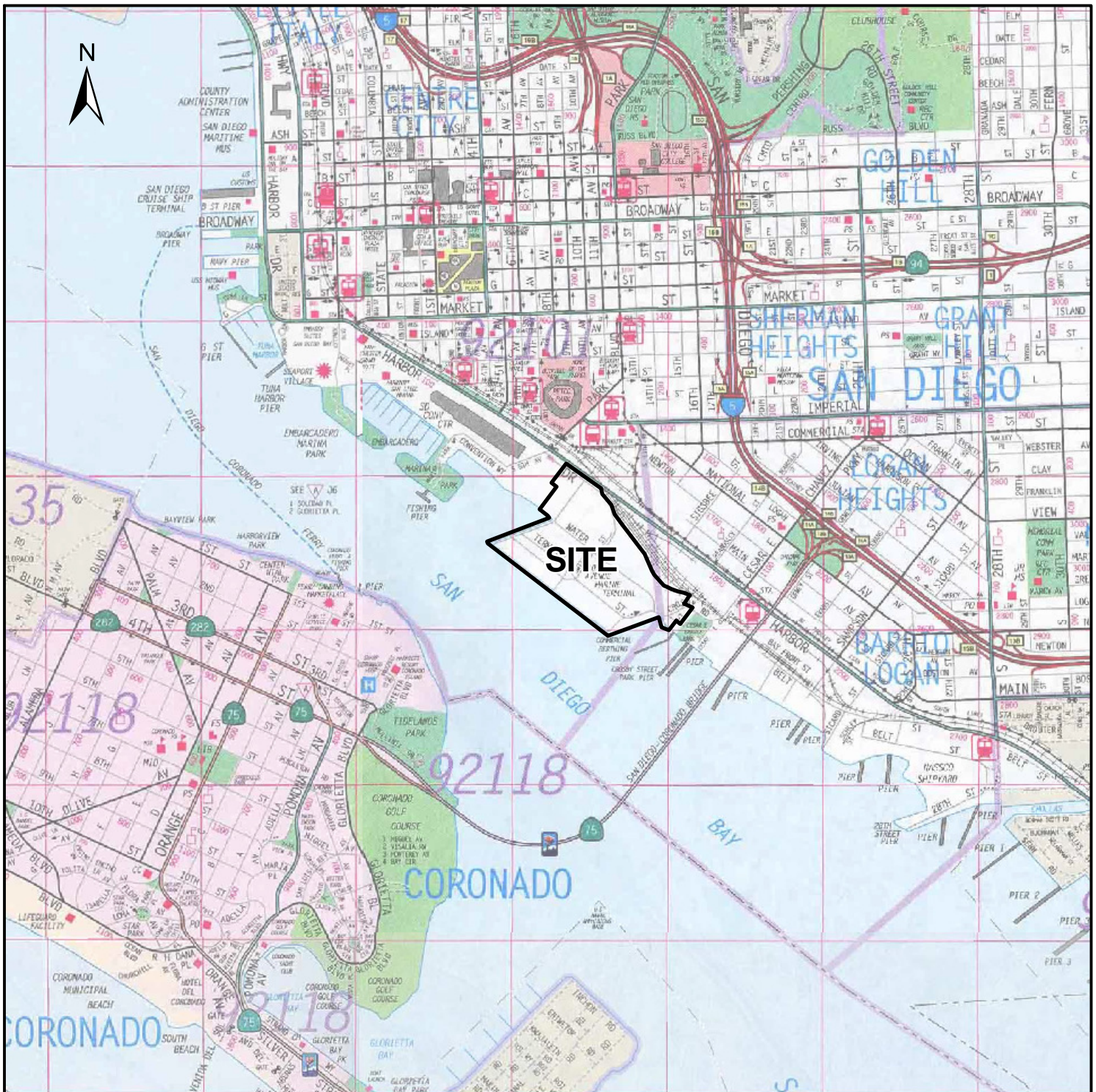


Stephan A. Beck, PG 4375
Manager, Environmental Sciences Division

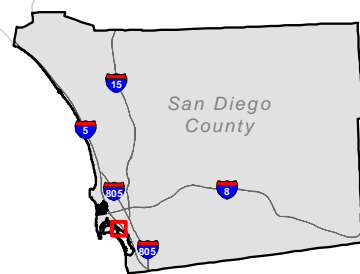
LB/SB/gg

Attachments: Figure 1 – Site Location
Figure 2 – Site Plan
Figure 3 – Transit Shed No. 1 Boring Locations
Figure 4 – Warehouse C Boring Locations
Attachment A – Laboratory Analytical Report
Attachment B – Statistical Analysis Worksheet

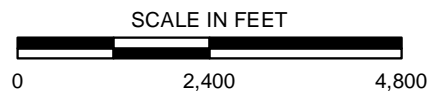
Distribution: (1) Addressee



SOURCE: 2008 THOMAS GUIDE FOR SAN DIEGO COUNTY, STREET GUIDE AND DIRECTORY; MAP © RAND MCNALLY, R.L.07-S-129



MAP EXTENT



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore

SITE LOCATION

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107589002

10/13

1



SOURCE: IMAGE COURTESY OF USGS STATE OF MICHIGAN

LEGEND

--- TAMT BOUNDARY

SCALE IN FEET



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

SITE PLAN

FIGURE

PROJECT NO.

DATE

TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

107589002

10/13

2



SOURCE: AERIAL PHOTO - GOOGLE EARTH, 2013.

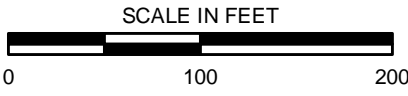
LEGEND

B-5
 BORING LOCATION

MAP INDEX



SOURCE: IMAGE COURTESY OF USGS STATE OF MICHIGAN



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ningo & Moore

PROJECT NO.	DATE
107589002	10/13

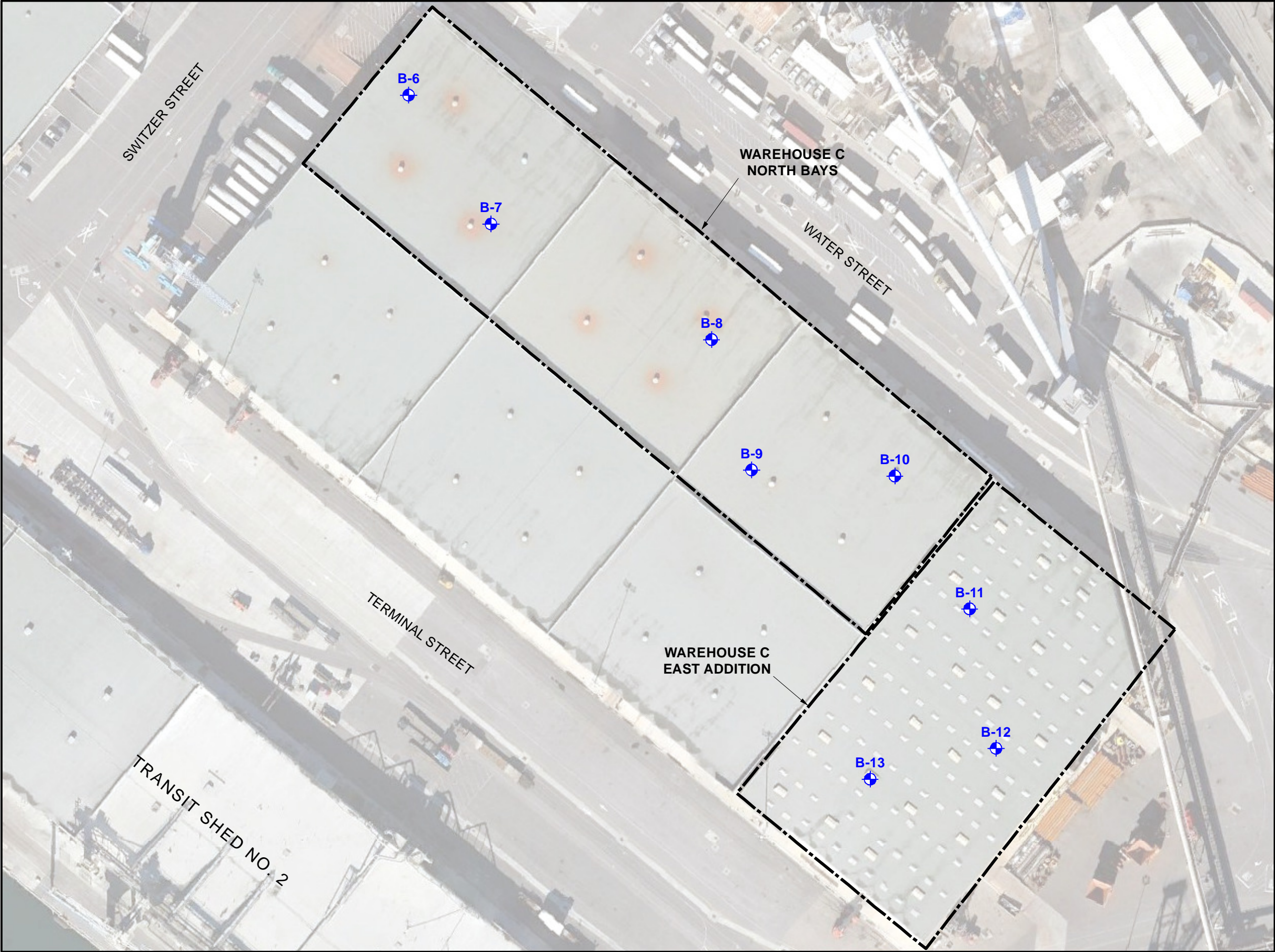
TRANSIT SHED NO. 1 BORING LOCATIONS

TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE

3

3_107589002_TS1_BLMxd 9/30/2013 5:30:22 PM JDL



SOURCE: AERIAL PHOTO - GOOGLE EARTH, 2013.

LEGEND

B-13
 BORING LOCATION

MAP INDEX



SOURCE: IMAGE COURTESY OF USGS STATE OF MICHIGAN



NOTE: DIRECTIONS, DIMENSIONS AND LOCATIONS ARE APPROXIMATE.

Ningo & Moore

PROJECT NO.	DATE
107589002	10/13

WAREHOUSE C BORING LOCATIONS

TRANSIT SHED NO. 1 AND WAREHOUSE C DEMOLITION
TENTH AVENUE MARINE TERMINAL
SAN DIEGO, CALIFORNIA

FIGURE

4

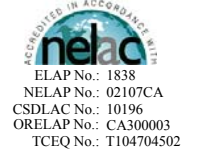
Tenth Avenue Marine Terminal
San Diego, California

October 2, 2013
Project No. 107589002



September 24, 2013

Lisa Bestard
Ninyo & Moore
5710 Ruffin Road
San Diego, CA 92123
Tel: (858) 576-1000
Fax: (858) 576-9600



Re: ATL Work Order Number : 1302866
Client Reference : TAMT, 107589002

Enclosed are the results for sample(s) received on September 17, 2013 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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www.atlglobal.com



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0.5	1302866-01	Soil	9/16/13 8:02	9/17/13 11:50
B1-3.5	1302866-03	Soil	9/16/13 8:05	9/17/13 11:50
B2-2.5	1302866-04	Soil	9/16/13 8:25	9/17/13 11:50
B2-4.5	1302866-06	Soil	9/16/13 8:20	9/17/13 11:50
B3-3.5	1302866-08	Soil	9/16/13 8:31	9/17/13 11:50
B3-5.0	1302866-09	Soil	9/16/13 8:31	9/17/13 11:50
B4-1.0	1302866-10	Soil	9/16/13 8:41	9/17/13 11:50
B4-2	1302866-11	Soil	9/16/13 8:41	9/17/13 11:50
B5-1	1302866-13	Soil	9/16/13 8:52	9/17/13 11:50
B5-3.5	1302866-14	Soil	9/16/13 8:52	9/17/13 11:50
B5-4.5	1302866-15	Soil	9/16/13 8:52	9/17/13 11:50
B6-1	1302866-16	Soil	9/16/13 9:06	9/17/13 11:50
B6-4.5	1302866-18	Soil	9/16/13 9:06	9/17/13 11:50
B7-0.5	1302866-19	Soil	9/16/13 9:13	9/17/13 11:50
B7-2.0	1302866-20	Soil	9/16/13 9:13	9/17/13 11:50
B7-4.0	1302866-21	Soil	9/16/13 9:13	9/17/13 11:50
B8-0.5	1302866-22	Soil	9/16/13 9:53	9/17/13 11:50
B8-3.0	1302866-23	Soil	9/16/13 9:53	9/17/13 11:50
B8-4.0	1302866-24	Soil	9/16/13 9:53	9/17/13 11:50
B9-1.0	1302866-26	Soil	9/16/13 10:01	9/17/13 11:50
B9-4.5	1302866-27	Soil	9/16/13 10:01	9/17/13 11:50
B10-1	1302866-28	Soil	9/16/13 10:10	9/17/13 11:50
B10-3.5	1302866-30	Soil	9/16/13 10:10	9/17/13 11:50
B13-0.5	1302866-31	Soil	9/16/13 10:23	9/17/13 11:50
B13-2.0	1302866-32	Soil	9/16/13 10:23	9/17/13 11:50
B13-4.5	1302866-33	Soil	9/16/13 10:23	9/17/13 11:50
B12-4.0	1302866-35	Soil	9/16/13 10:32	9/17/13 11:50
B12-6.0	1302866-36	Soil	9/16/13 10:32	9/17/13 11:50
B11-3.0	1302866-37	Soil	9/16/13 10:42	9/17/13 11:50
B11-5.5	1302866-39	Soil	9/16/13 10:42	9/17/13 11:50



Certificate of Analysis

Ninyo & Moore
5710 Ruffin Road
San Diego , CA 92123

Project Number : TAMT, 107589002
Report To : Lisa Bestard
Reported : 09/24/2013

CASE NARRATIVE

Sample Receiving/General Comments:

All samples were collected 09/16/13 as indicated on sample container labels.

Pages 2 to 4 of the COC listed TPH (C4-C80) 8015 M, however page 1 has TPH (C8-C40) 8015M. Per client, follow breakdown listed on page 1 of the COC.



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Arsenic	3.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Barium	37	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Chromium	9.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Cobalt	1.8	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Copper	2.8	2.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Lead	3.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Nickel	1.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Vanadium	15	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	
Zinc	16	1.0	NA	1	B310334	09/19/2013	09/20/13 13:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.15	0.10	NA	1	B310360	09/20/2013	09/23/13 14:37	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 09:47	
Surrogate: 4-Bromofluorobenzene	104 %		54 - 150		B310313	09/19/2013	09/19/13 09:47	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:21	
Surrogate: p-Terphenyl	99.8 %		55 - 153		B310342	09/19/2013	09/20/13 00:21	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 16:51	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 16:51	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 16:51	
Surrogate: Decachlorobiphenyl	93.0 %		32 - 113		B310351	09/20/2013	09/20/13 16:51	
Surrogate: Tetrachloro-m-xylene	78.2 %		32 - 101		B310351	09/20/2013	09/20/13 16:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:22	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:22	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:22	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:22	
Surrogate: 1,2-Dichloroethane-d4	117 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: 4-Bromofluorobenzene	91.1 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: Dibromofluoromethane	122 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	
Surrogate: Toluene-d8	105 %	70 - 130			B310280	09/18/2013	09/18/13 11:22	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 17:40	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 17:40	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 17:40	
Surrogate: 1,2-Dichlorobenzene-d4	81.2 %	48 - 113			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2,4,6-Tribromophenol	93.2 %	14 - 162			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Chlorophenol-d4	82.1 %	40 - 117			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Fluorobiphenyl	93.2 %	52 - 126			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 2-Fluorophenol	78.5 %	26 - 124			B310349	09/20/2013	09/20/13 17:40	
Surrogate: 4-Terphenyl-d14	95.0 %	36 - 163			B310349	09/20/2013	09/20/13 17:40	
Surrogate: Nitrobenzene-d5	80.6 %	42 - 118			B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-0.5

Lab ID: 1302866-01

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	79.8 %	29 - 124			B310349	09/20/2013	09/20/13 17:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Arsenic	2.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Barium	5.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:37	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Chromium	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Cobalt	1.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Vanadium	8.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	
Zinc	4.4	1.0	NA	1	B310334	09/19/2013	09/20/13 13:38	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.25	0.10	NA	1	B310360	09/20/2013	09/23/13 14:39	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:03	
Surrogate: 4-Bromofluorobenzene	97.9 %	54 - 150			B310313	09/19/2013	09/19/13 10:03	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	



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Lab ID: 1302866-03

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:38	
Surrogate: <i>p</i> -Terphenyl	118 %		55 - 153		B310342	09/19/2013	09/20/13 00:38	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:04	
Surrogate: Decachlorobiphenyl	105 %		32 - 113		B310351	09/20/2013	09/20/13 17:04	
Surrogate: Tetrachloro-m-xylene	94.9 %		32 - 101		B310351	09/20/2013	09/20/13 17:04	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:40	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:40	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:40	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:40	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: 4-Bromofluorobenzene	92.1 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 11:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:08	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:08	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:08	

Surrogate: 1,2-Dichlorobenzene-d4	80.0 %	48 - 113	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2,4,6-Tribromophenol	89.6 %	14 - 162	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Chlorophenol-d4	79.5 %	40 - 117	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Fluorobiphenyl	87.2 %	52 - 126	B310349	09/20/2013	09/20/13 18:08
Surrogate: 2-Fluorophenol	77.1 %	26 - 124	B310349	09/20/2013	09/20/13 18:08
Surrogate: 4-Terphenyl-d14	90.0 %	36 - 163	B310349	09/20/2013	09/20/13 18:08
Surrogate: Nitrobenzene-d5	77.7 %	42 - 118	B310349	09/20/2013	09/20/13 18:08



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B1-3.5

Lab ID: 1302866-03

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	76.7 %	29 - 124	B310349	09/20/2013	09/20/13 18:08
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Arsenic	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Barium	6.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Chromium	2.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Cobalt	1.3	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	
Vanadium	9.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:41	
Zinc	4.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:42	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:45	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:19	
Surrogate: 4-Bromofluorobenzene	93.1 %		54 - 150		B310313	09/19/2013	09/19/13 10:19	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 00:55	
Surrogate: p-Terphenyl	107 %		55 - 153		B310342	09/19/2013	09/20/13 00:55	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
4,4'-DDE	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
4,4'-DDT	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Aldrin	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
alpha-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
alpha-Chlordane	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
beta-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Chlordane	ND	26	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
delta-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Dieldrin	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan I	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan II	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endosulfan sulfate	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin aldehyde	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Endrin ketone	ND	6.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
gamma-BHC	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
gamma-Chlordane	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Heptachlor	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Heptachlor epoxide	ND	3.0	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Methoxychlor	ND	15	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Toxaphene	ND	150	NA	1	B310367	09/23/2013	09/23/13 15:05	D3
Surrogate: Decachlorobiphenyl	98.6 %		32 - 113		B310367	09/23/2013	09/23/13 15:05	
Surrogate: Tetrachloro-m-xylene	97.2 %		32 - 101		B310367	09/23/2013	09/23/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 11:59	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 11:59	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 11:59	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 11:59	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: 4-Bromofluorobenzene	93.5 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	
Surrogate: Toluene-d8	105 %	70 - 130			B310280	09/18/2013	09/18/13 11:59	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 18:35	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 18:35	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 18:35	
Surrogate: 1,2-Dichlorobenzene-d4	70.4 %	48 - 113			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2,4,6-Tribromophenol	85.1 %	14 - 162			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Chlorophenol-d4	70.9 %	40 - 117			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Fluorobiphenyl	78.6 %	52 - 126			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 2-Fluorophenol	68.3 %	26 - 124			B310349	09/20/2013	09/20/13 18:35	
Surrogate: 4-Terphenyl-d14	85.1 %	36 - 163			B310349	09/20/2013	09/20/13 18:35	
Surrogate: Nitrobenzene-d5	70.8 %	42 - 118			B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-2.5

Lab ID: 1302866-04

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	69.2 %	29 - 124			B310349	09/20/2013	09/20/13 18:35	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Arsenic	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Barium	5.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:45	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Chromium	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Cobalt	1.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Lead	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Vanadium	8.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	
Zinc	5.0	1.0	NA	1	B310334	09/19/2013	09/20/13 13:46	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:47	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 10:35	
Surrogate: 4-Bromofluorobenzene	100 %	54 - 150			B310313	09/19/2013	09/19/13 10:35	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	



Certificate of Analysis

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Client Sample ID B2-4.5

Lab ID: 1302866-06

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:12	
Surrogate: <i>p</i> -Terphenyl	126 %		55 - 153		B310342	09/19/2013	09/20/13 01:12	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
4,4'-DDT [2C]	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:18	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:18	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:18	
Surrogate: Decachlorobiphenyl	92.1 %		32 - 113		B310351	09/20/2013	09/20/13 17:18	
Surrogate: Tetrachloro-m-xylene	75.7 %		32 - 101		B310351	09/20/2013	09/20/13 17:18	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:17	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:17	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:17	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:17	

Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130	B310280	09/18/2013	09/18/13 12:17
Surrogate: 4-Bromofluorobenzene	92.7 %	70 - 130	B310280	09/18/2013	09/18/13 12:17
Surrogate: Dibromofluoromethane	126 %	70 - 130	B310280	09/18/2013	09/18/13 12:17
Surrogate: Toluene-d8	107 %	70 - 130	B310280	09/18/2013	09/18/13 12:17



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:03	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:03	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:03	

Surrogate: 1,2-Dichlorobenzene-d4 78.2 % 48 - 113 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2,4,6-Tribromophenol 90.1 % 14 - 162 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Chlorophenol-d4 79.0 % 40 - 117 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Fluorobiphenyl 88.3 % 52 - 126 B310349 09/20/2013 09/20/13 19:03

Surrogate: 2-Fluorophenol 75.7 % 26 - 124 B310349 09/20/2013 09/20/13 19:03

Surrogate: 4-Terphenyl-d14 96.1 % 36 - 163 B310349 09/20/2013 09/20/13 19:03

Surrogate: Nitrobenzene-d5 75.5 % 42 - 118 B310349 09/20/2013 09/20/13 19:03



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B2-4.5

Lab ID: 1302866-06

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 76.3 % 29 - 124 B310349 09/20/2013 09/20/13 19:03



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:50	
Arsenic	2.6	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Barium	4.9	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:49	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Chromium	2.2	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Cobalt	1.3	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:50	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Vanadium	10	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	
Zinc	4.3	0.99	NA	1	B310334	09/19/2013	09/20/13 13:50	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:49	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:17	
Surrogate: 4-Bromofluorobenzene	107 %		54 - 150		B310313	09/19/2013	09/19/13 11:17	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:28	
Surrogate: p-Terphenyl	108 %		55 - 153		B310342	09/19/2013	09/20/13 01:28	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:31	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:31	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:31	
Surrogate: Decachlorobiphenyl	101 %		32 - 113		B310351	09/20/2013	09/20/13 17:31	
Surrogate: Tetrachloro-m-xylene	89.7 %		32 - 101		B310351	09/20/2013	09/20/13 17:31	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:36	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:36	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:36	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:36	
Surrogate: 1,2-Dichloroethane-d4	119 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: 4-Bromofluorobenzene	89.6 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	
Surrogate: Toluene-d8	103 %	70 - 130			B310280	09/18/2013	09/18/13 12:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:30	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:30	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:30	
Surrogate: 1,2-Dichlorobenzene-d4	89.5 %	48 - 113			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2,4,6-Tribromophenol	93.4 %	14 - 162			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Chlorophenol-d4	87.2 %	40 - 117			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Fluorobiphenyl	88.0 %	52 - 126			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 2-Fluorophenol	87.8 %	26 - 124			B310349	09/20/2013	09/20/13 19:30	
Surrogate: 4-Terphenyl-d14	93.4 %	36 - 163			B310349	09/20/2013	09/20/13 19:30	
Surrogate: Nitrobenzene-d5	76.3 %	42 - 118			B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-3.5

Lab ID: 1302866-08

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	83.6 %	29 - 124			B310349	09/20/2013	09/20/13 19:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Arsenic	2.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Barium	5.2	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Chromium	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Cobalt	1.3	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	
Vanadium	9.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:53	
Zinc	4.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:51	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:33	
Surrogate: 4-Bromofluorobenzene	87.0 %	54 - 150			B310313	09/19/2013	09/19/13 11:33	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 01:45	
Surrogate: <i>p</i> -Terphenyl	102 %		55 - 153		B310342	09/19/2013	09/20/13 01:45	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:44	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:44	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:44	
Surrogate: Decachlorobiphenyl	99.5 %		32 - 113		B310351	09/20/2013	09/20/13 17:44	
Surrogate: Tetrachloro-m-xylene	89.9 %		32 - 101		B310351	09/20/2013	09/20/13 17:44	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 12:54	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 12:54	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 12:54	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 12:54	
Surrogate: 1,2-Dichloroethane-d4	124 %	70 - 130			B310280	09/18/2013	09/18/13 12:54	
Surrogate: 4-Bromofluorobenzene	93.4 %	70 - 130			B310280	09/18/2013	09/18/13 12:54	
Surrogate: Dibromofluoromethane	132 %	70 - 130			B310280	09/18/2013	09/18/13 12:54	S1
Surrogate: Toluene-d8	107 %	70 - 130			B310280	09/18/2013	09/18/13 12:54	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 19:56	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 19:56	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 19:56	

Surrogate: 1,2-Dichlorobenzene-d4 88.1 % 48 - 113 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2,4,6-Tribromophenol 98.1 % 14 - 162 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Chlorophenol-d4 88.8 % 40 - 117 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Fluorobiphenyl 99.8 % 52 - 126 B310349 09/20/2013 09/20/13 19:56

Surrogate: 2-Fluorophenol 83.1 % 26 - 124 B310349 09/20/2013 09/20/13 19:56

Surrogate: 4-Terphenyl-d14 103 % 36 - 163 B310349 09/20/2013 09/20/13 19:56

Surrogate: Nitrobenzene-d5 85.1 % 42 - 118 B310349 09/20/2013 09/20/13 19:56



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B3-5.0

Lab ID: 1302866-09

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 86.3 % 29 - 124 B310349 09/20/2013 09/20/13 19:56



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Arsenic	3.1	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Barium	53	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Chromium	9.7	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Cobalt	28	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Copper	3.9	2.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Lead	3.5	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Molybdenum	1.6	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Nickel	5.9	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Vanadium	15	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	
Zinc	27	1.0	NA	1	B310334	09/19/2013	09/20/13 13:56	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:53	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 11:49	
Surrogate: 4-Bromofluorobenzene	96.2 %		54 - 150		B310313	09/19/2013	09/19/13 11:49	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:02	
Surrogate: p-Terphenyl	117 %		55 - 153		B310342	09/19/2013	09/20/13 02:02	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
4,4'-DDE	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
4,4'-DDT	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Aldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
alpha-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
alpha-Chlordane	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
beta-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Chlordane	ND	17	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
delta-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Dieldrin	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan I	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan II	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endosulfan sulfate	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin aldehyde	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Endrin ketone	ND	4.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
gamma-BHC	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
gamma-Chlordane	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Heptachlor	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Heptachlor epoxide	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Methoxychlor	ND	10	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Toxaphene	ND	100	NA	1	B310351	09/20/2013	09/20/13 20:51	D3
Surrogate: Decachlorobiphenyl	98.6 %		32 - 113		B310351	09/20/2013	09/20/13 20:51	
Surrogate: Tetrachloro-m-xylene	85.9 %		32 - 101		B310351	09/20/2013	09/20/13 20:51	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:13	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:13	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:13	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:13	
Surrogate: 1,2-Dichloroethane-d4	125 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: 4-Bromofluorobenzene	89.7 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	
Surrogate: Toluene-d8	103 %	70 - 130			B310280	09/18/2013	09/18/13 13:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:24	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:24	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:24	
Surrogate: 1,2-Dichlorobenzene-d4	74.1 %	48 - 113			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2,4,6-Tribromophenol	86.9 %	14 - 162			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Chlorophenol-d4	75.6 %	40 - 117			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Fluorobiphenyl	86.4 %	52 - 126			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 2-Fluorophenol	71.9 %	26 - 124			B310349	09/20/2013	09/20/13 20:24	
Surrogate: 4-Terphenyl-d14	98.7 %	36 - 163			B310349	09/20/2013	09/20/13 20:24	
Surrogate: Nitrobenzene-d5	73.2 %	42 - 118			B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-1.0

Lab ID: 1302866-10

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	73.0 %	29 - 124			B310349	09/20/2013	09/20/13 20:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:00	
Arsenic	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Barium	6.2	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 13:59	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Chromium	1.9	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Cobalt	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:00	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Vanadium	6.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	
Zinc	3.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:00	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:55	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:05	
Surrogate: 4-Bromofluorobenzene	97.0 %	54 - 150			B310313	09/19/2013	09/19/13 12:05	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:19	
Surrogate: <i>p</i> -Terphenyl	104 %		55 - 153		B310342	09/19/2013	09/20/13 02:19	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 17:58	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 17:58	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 17:58	
Surrogate: Decachlorobiphenyl	96.4 %		32 - 113		B310351	09/20/2013	09/20/13 17:58	
Surrogate: Tetrachloro-m-xylene	83.4 %		32 - 101		B310351	09/20/2013	09/20/13 17:58	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:32	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:32	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:32	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:32	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310280	09/18/2013	09/18/13 13:32	
Surrogate: 4-Bromofluorobenzene	91.6 %	70 - 130			B310280	09/18/2013	09/18/13 13:32	
Surrogate: Dibromofluoromethane	126 %	70 - 130			B310280	09/18/2013	09/18/13 13:32	
Surrogate: Toluene-d8	106 %	70 - 130			B310280	09/18/2013	09/18/13 13:32	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 20:52	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 20:52	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 20:52	

Surrogate: 1,2-Dichlorobenzene-d4	87.2 %	48 - 113	B310349	09/20/2013	09/20/13 20:52
Surrogate: 2,4,6-Tribromophenol	81.3 %	14 - 162	B310349	09/20/2013	09/20/13 20:52
Surrogate: 2-Chlorophenol-d4	91.9 %	40 - 117	B310349	09/20/2013	09/20/13 20:52
Surrogate: 2-Fluorobiphenyl	92.4 %	52 - 126	B310349	09/20/2013	09/20/13 20:52
Surrogate: 2-Fluorophenol	87.4 %	26 - 124	B310349	09/20/2013	09/20/13 20:52
Surrogate: 4-Terphenyl-d14	95.7 %	36 - 163	B310349	09/20/2013	09/20/13 20:52
Surrogate: Nitrobenzene-d5	73.6 %	42 - 118	B310349	09/20/2013	09/20/13 20:52



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B4-2

Lab ID: 1302866-11

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	85.4 %	29 - 124	B310349	09/20/2013	09/20/13 20:52
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Arsenic	1.2	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Barium	5.4	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Chromium	3.3	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Cobalt	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	
Vanadium	6.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:04	
Zinc	3.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:05	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310360	09/20/2013	09/23/13 14:57	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:21	
Surrogate: 4-Bromofluorobenzene	93.8 %		54 - 150		B310313	09/19/2013	09/19/13 12:21	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:36	
Surrogate: p-Terphenyl	103 %		55 - 153		B310342	09/19/2013	09/20/13 02:36	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:11	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:11	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:11	
Surrogate: Decachlorobiphenyl	107 %		32 - 113		B310351	09/20/2013	09/20/13 18:11	
Surrogate: Tetrachloro-m-xylene	84.7 %		32 - 101		B310351	09/20/2013	09/20/13 18:11	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 13:52	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 13:52	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 13:52	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 13:52	
Surrogate: 1,2-Dichloroethane-d4	124 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: 4-Bromofluorobenzene	92.8 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	
Surrogate: Toluene-d8	106 %	70 - 130			B310280	09/18/2013	09/18/13 13:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:19	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:19	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:19	
Surrogate: 1,2-Dichlorobenzene-d4	79.7 %	48 - 113			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2,4,6-Tribromophenol	75.5 %	14 - 162			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Chlorophenol-d4	84.9 %	40 - 117			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Fluorobiphenyl	87.6 %	52 - 126			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 2-Fluorophenol	79.8 %	26 - 124			B310349	09/20/2013	09/20/13 21:19	
Surrogate: 4-Terphenyl-d14	94.4 %	36 - 163			B310349	09/20/2013	09/20/13 21:19	
Surrogate: Nitrobenzene-d5	69.2 %	42 - 118			B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-1

Lab ID: 1302866-13

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	79.0 %	29 - 124			B310349	09/20/2013	09/20/13 21:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Arsenic	1.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Barium	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:07	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Chromium	1.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Cobalt	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Lead	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Nickel	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Vanadium	7.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	
Zinc	7.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:08	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.12	0.10	NA	1	B310360	09/20/2013	09/23/13 14:59	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:37	
Surrogate: 4-Bromofluorobenzene	91.0 %	54 - 150			B310313	09/19/2013	09/19/13 12:37	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 02:52	
Surrogate: <i>p</i> -Terphenyl	120 %		55 - 153		B310342	09/19/2013	09/20/13 02:52	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:24	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:24	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:24	
Surrogate: Decachlorobiphenyl	102 %		32 - 113		B310351	09/20/2013	09/20/13 18:24	
Surrogate: Tetrachloro-m-xylene	89.0 %		32 - 101		B310351	09/20/2013	09/20/13 18:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:10	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:10	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:10	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:10	
Surrogate: 1,2-Dichloroethane-d4	128 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: 4-Bromofluorobenzene	90.9 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: Dibromofluoromethane	129 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	
Surrogate: Toluene-d8	105 %		70 - 130		B310280	09/18/2013	09/18/13 14:10	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 21:46	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 21:46	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 21:46	

Surrogate: 1,2-Dichlorobenzene-d4 87.7 % 48 - 113 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2,4,6-Tribromophenol 85.3 % 14 - 162 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Chlorophenol-d4 92.3 % 40 - 117 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Fluorobiphenyl 95.6 % 52 - 126 B310349 09/20/2013 09/20/13 21:46

Surrogate: 2-Fluorophenol 88.2 % 26 - 124 B310349 09/20/2013 09/20/13 21:46

Surrogate: 4-Terphenyl-d14 103 % 36 - 163 B310349 09/20/2013 09/20/13 21:46

Surrogate: Nitrobenzene-d5 75.2 % 42 - 118 B310349 09/20/2013 09/20/13 21:46



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-3.5

Lab ID: 1302866-14

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 86.9 % 29 - 124 B310349 09/20/2013 09/20/13 21:46



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:12	
Arsenic	1.1	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Barium	4.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:11	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Chromium	1.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Cobalt	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:12	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Vanadium	6.6	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	
Zinc	4.0	0.99	NA	1	B310334	09/19/2013	09/20/13 14:12	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	1.1	0.10	NA	1	B310364	09/20/2013	09/23/13 15:08	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 12:53	
Surrogate: 4-Bromofluorobenzene	107 %		54 - 150		B310313	09/19/2013	09/19/13 12:53	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:09	
Surrogate: p-Terphenyl	107 %		55 - 153		B310342	09/19/2013	09/20/13 03:09	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:38	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:38	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:38	
Surrogate: Decachlorobiphenyl	103 %		32 - 113		B310351	09/20/2013	09/20/13 18:38	
Surrogate: Tetrachloro-m-xylene	83.8 %		32 - 101		B310351	09/20/2013	09/20/13 18:38	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:29	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:29	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:29	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:29	
Surrogate: 1,2-Dichloroethane-d4	128 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	
Surrogate: 4-Bromofluorobenzene	89.4 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	S1
Surrogate: Toluene-d8	102 %	70 - 130			B310280	09/18/2013	09/18/13 14:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Ben-zidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:13	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:13	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:13	
Surrogate: 1,2-Dichlorobenzene-d4	105 %	48 - 113			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2,4,6-Tribromophenol	97.3 %	14 - 162			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Chlorophenol-d4	110 %	40 - 117			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Fluorobiphenyl	112 %	52 - 126			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 2-Fluorophenol	104 %	26 - 124			B310349	09/20/2013	09/20/13 22:13	
Surrogate: 4-Terphenyl-d14	117 %	36 - 163			B310349	09/20/2013	09/20/13 22:13	
Surrogate: Nitrobenzene-d5	88.9 %	42 - 118			B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B5-4.5

Lab ID: 1302866-15

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	102 %	29 - 124			B310349	09/20/2013	09/20/13 22:13	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Arsenic	7.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Barium	130	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Chromium	2.7	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Cobalt	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Copper	4.3	2.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Lead	4.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Molybdenum	1.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Nickel	2.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:23	
Vanadium	6.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	
Zinc	22	1.0	NA	1	B310334	09/19/2013	09/20/13 14:22	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.21	0.10	NA	1	B310364	09/20/2013	09/23/13 15:16	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:09	
Surrogate: 4-Bromofluorobenzene	82.4 %	54 - 150			B310313	09/19/2013	09/19/13 13:09	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Lab ID: 1302866-16

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:26	
Surrogate: <i>p</i> -Terphenyl	103 %		55 - 153		B310342	09/19/2013	09/20/13 03:26	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 18:51	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 18:51	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 18:51	
Surrogate: Decachlorobiphenyl	94.8 %		32 - 113		B310351	09/20/2013	09/20/13 18:51	
Surrogate: Tetrachloro-m-xylene	88.4 %		32 - 101		B310351	09/20/2013	09/20/13 18:51	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 14:47	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 14:47	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 14:47	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 14:47	
Surrogate: 1,2-Dichloroethane-d4	125 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	
Surrogate: 4-Bromofluorobenzene	89.7 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	
Surrogate: Dibromofluoromethane	130 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 14:47	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 22:40	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 22:40	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 22:40	

Surrogate: 1,2-Dichlorobenzene-d4	99.6 %	48 - 113	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2,4,6-Tribromophenol	92.8 %	14 - 162	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Chlorophenol-d4	106 %	40 - 117	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Fluorobiphenyl	106 %	52 - 126	B310349	09/20/2013	09/20/13 22:40
Surrogate: 2-Fluorophenol	99.4 %	26 - 124	B310349	09/20/2013	09/20/13 22:40
Surrogate: 4-Terphenyl-d14	108 %	36 - 163	B310349	09/20/2013	09/20/13 22:40
Surrogate: Nitrobenzene-d5	84.6 %	42 - 118	B310349	09/20/2013	09/20/13 22:40



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-1

Lab ID: 1302866-16

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	97.7 %	29 - 124	B310349	09/20/2013	09/20/13 22:40
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:26	
Arsenic	2.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Barium	32	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Beryllium	ND	2.0	NA	2	B310334	09/19/2013	09/20/13 14:50	D5
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Chromium	8.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Cobalt	3.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Copper	30	2.0	NA	1	B310334	09/19/2013	09/20/13 14:26	
Lead	5.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Nickel	4.1	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Vanadium	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	
Zinc	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:26	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.14	0.10	NA	1	B310364	09/20/2013	09/23/13 15:18	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:25	
Surrogate: 4-Bromofluorobenzene	109 %		54 - 150		B310313	09/19/2013	09/19/13 13:25	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:43	
Surrogate: p-Terphenyl	101 %		55 - 153		B310342	09/19/2013	09/20/13 03:43	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:04	
Surrogate: Decachlorobiphenyl	108 %		32 - 113		B310351	09/20/2013	09/20/13 19:04	
Surrogate: Tetrachloro-m-xylene	94.2 %		32 - 101		B310351	09/20/2013	09/20/13 19:04	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:05	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:05	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:05	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:05	
Surrogate: 1,2-Dichloroethane-d4	135 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	S1
Surrogate: 4-Bromofluorobenzene	91.7 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	
Surrogate: Dibromofluoromethane	134 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	S1
Surrogate: Toluene-d8	106 %	70 - 130			B310280	09/18/2013	09/18/13 15:05	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benizidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:07	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:07	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:07	
Surrogate: 1,2-Dichlorobenzene-d4	77.9 %	48 - 113			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2,4,6-Tribromophenol	88.1 %	14 - 162			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Chlorophenol-d4	84.0 %	40 - 117			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Fluorobiphenyl	95.6 %	52 - 126			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 2-Fluorophenol	78.2 %	26 - 124			B310349	09/20/2013	09/20/13 23:07	
Surrogate: 4-Terphenyl-d14	104 %	36 - 163			B310349	09/20/2013	09/20/13 23:07	
Surrogate: Nitrobenzene-d5	71.2 %	42 - 118			B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B6-4.5

Lab ID: 1302866-18

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	78.6 %	29 - 124			B310349	09/20/2013	09/20/13 23:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Arsenic	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Barium	110	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Chromium	2.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Cobalt	2.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Copper	3.7	2.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Lead	5.8	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Nickel	2.1	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:30	
Vanadium	5.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	
Zinc	20	1.0	NA	1	B310334	09/19/2013	09/20/13 14:29	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:20	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 13:41	
Surrogate: 4-Bromofluorobenzene	102 %	54 - 150			B310313	09/19/2013	09/19/13 13:41	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B7-0.5

Lab ID: 1302866-19

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 03:59	
Surrogate: <i>p</i> -Terphenyl	119 %		55 - 153		B310342	09/19/2013	09/20/13 03:59	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:17	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:17	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:17	
Surrogate: Decachlorobiphenyl	73.1 %		32 - 113		B310351	09/20/2013	09/20/13 19:17	
Surrogate: Tetrachloro-m-xylene	67.0 %		32 - 101		B310351	09/20/2013	09/20/13 19:17	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:24	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:24	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:24	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:24	
Surrogate: 1,2-Dichloroethane-d4	128 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	
Surrogate: 4-Bromofluorobenzene	93.0 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	
Surrogate: Dibromofluoromethane	131 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	S1
Surrogate: Toluene-d8	108 %		70 - 130		B310280	09/18/2013	09/18/13 15:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/20/13 23:35	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/20/13 23:35	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/20/13 23:35	

Surrogate: 1,2-Dichlorobenzene-d4	58.5 %	48 - 113	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2,4,6-Tribromophenol	66.3 %	14 - 162	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Chlorophenol-d4	61.3 %	40 - 117	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Fluorobiphenyl	69.0 %	52 - 126	B310349	09/20/2013	09/20/13 23:35
Surrogate: 2-Fluorophenol	56.9 %	26 - 124	B310349	09/20/2013	09/20/13 23:35
Surrogate: 4-Terphenyl-d14	83.3 %	36 - 163	B310349	09/20/2013	09/20/13 23:35
Surrogate: Nitrobenzene-d5	52.9 %	42 - 118	B310349	09/20/2013	09/20/13 23:35



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-0.5

Lab ID: 1302866-19

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	58.0 %	29 - 124			B310349	09/20/2013	09/20/13 23:35	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:33	
Arsenic	1.3	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Barium	22	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:32	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Chromium	6.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Cobalt	2.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Copper	3.6	2.0	NA	1	B310334	09/19/2013	09/20/13 14:33	
Lead	1.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Nickel	2.4	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Vanadium	15	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	
Zinc	12	0.99	NA	1	B310334	09/19/2013	09/20/13 14:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.10	0.10	NA	1	B310364	09/20/2013	09/23/13 15:22	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 14:00	
Surrogate: 4-Bromofluorobenzene	92.0 %		54 - 150		B310313	09/19/2013	09/19/13 14:00	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	



Certificate of Analysis

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Client Sample ID B7-2.0

Lab ID: 1302866-20

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:16	
Surrogate: p-Terphenyl	101 %		55 - 153		B310342	09/19/2013	09/20/13 04:16	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:31	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:31	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:31	
Surrogate: Decachlorobiphenyl	101 %		32 - 113		B310351	09/20/2013	09/20/13 19:31	
Surrogate: Tetrachloro-m-xylene	94.1 %		32 - 101		B310351	09/20/2013	09/20/13 19:31	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 15:42	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 15:42	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 15:42	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 15:42	
Surrogate: 1,2-Dichloroethane-d4	128 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: 4-Bromofluorobenzene	92.7 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: Dibromofluoromethane	129 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	
Surrogate: Toluene-d8	107 %	70 - 130			B310280	09/18/2013	09/18/13 15:42	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:02	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:02	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:02	
Surrogate: 1,2-Dichlorobenzene-d4	92.6 %	48 - 113			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2,4,6-Tribromophenol	91.3 %	14 - 162			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Chlorophenol-d4	97.8 %	40 - 117			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Fluorobiphenyl	103 %	52 - 126			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 2-Fluorophenol	92.7 %	26 - 124			B310349	09/20/2013	09/21/13 00:02	
Surrogate: 4-Terphenyl-d14	104 %	36 - 163			B310349	09/20/2013	09/21/13 00:02	
Surrogate: Nitrobenzene-d5	82.7 %	42 - 118			B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-2.0

Lab ID: 1302866-20

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	90.6 %	29 - 124			B310349	09/20/2013	09/21/13 00:02	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:37	
Arsenic	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Barium	14	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Beryllium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:36	
Cadmium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Chromium	2.5	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Cobalt	1.0	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Copper	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:37	
Lead	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Molybdenum	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Nickel	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Selenium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Silver	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Thallium	ND	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Vanadium	8.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	
Zinc	5.7	0.99	NA	1	B310334	09/19/2013	09/20/13 14:37	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	NA	1	B310364	09/20/2013	09/23/13 15:24	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 14:16	
Surrogate: 4-Bromofluorobenzene	97.1 %	54 - 150			B310313	09/19/2013	09/19/13 14:16	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:33	
Surrogate: <i>p</i> -Terphenyl	104 %		55 - 153		B310342	09/19/2013	09/20/13 04:33	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:44	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:44	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:44	
Surrogate: Decachlorobiphenyl	95.6 %		32 - 113		B310351	09/20/2013	09/20/13 19:44	
Surrogate: Tetrachloro-m-xylene	87.1 %		32 - 101		B310351	09/20/2013	09/20/13 19:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:01	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 16:01	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:01	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:01	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	
Surrogate: 4-Bromofluorobenzene	91.9 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	
Surrogate: Dibromofluoromethane	133 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	S1
Surrogate: Toluene-d8	107 %	70 - 130			B310280	09/18/2013	09/18/13 16:01	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/21/13 00:29	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/21/13 00:29	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/21/13 00:29	

Surrogate: 1,2-Dichlorobenzene-d4	83.7 %	48 - 113	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2,4,6-Tribromophenol	84.0 %	14 - 162	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Chlorophenol-d4	87.9 %	40 - 117	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Fluorobiphenyl	91.8 %	52 - 126	B310349	09/20/2013	09/21/13 00:29
Surrogate: 2-Fluorophenol	82.4 %	26 - 124	B310349	09/20/2013	09/21/13 00:29
Surrogate: 4-Terphenyl-d14	106 %	36 - 163	B310349	09/20/2013	09/21/13 00:29
Surrogate: Nitrobenzene-d5	71.2 %	42 - 118	B310349	09/20/2013	09/21/13 00:29



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B7-4.0

Lab ID: 1302866-21

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	80.6 %	29 - 124	B310349	09/20/2013	09/21/13 00:29
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Arsenic	6.9	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Barium	140	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Beryllium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:40	
Cadmium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Chromium	3.0	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Cobalt	11	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Copper	5.5	2.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Lead	5.5	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Molybdenum	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Nickel	3.4	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Selenium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Silver	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Thallium	ND	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Vanadium	7.6	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	
Zinc	23	1.0	NA	1	B310334	09/19/2013	09/20/13 14:41	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.13	0.10	NA	1	B310364	09/20/2013	09/23/13 15:26	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:16	
Surrogate: 4-Bromofluorobenzene	102 %		54 - 150		B310313	09/19/2013	09/19/13 15:16	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 04:50	
Surrogate: p-Terphenyl	106 %		55 - 153		B310342	09/19/2013	09/20/13 04:50	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 21:04	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 21:04	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 21:04	
Surrogate: Decachlorobiphenyl	80.7 %		32 - 113		B310351	09/20/2013	09/20/13 21:04	
Surrogate: Tetrachloro-m-xylene	86.7 %		32 - 101		B310351	09/20/2013	09/20/13 21:04	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,1-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dibromoethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,3-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
2,2-Dichloropropane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
2-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
4-Chlorotoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
4-Isopropyltoluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Benzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromodichloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromoform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Bromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Carbon disulfide	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Carbon tetrachloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chlorobenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloroethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloroform	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Chloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Di-isopropyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dibromochloromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dibromomethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Dichlorodifluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl Acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl Ether	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Ethylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Freon-113	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Hexachlorobutadiene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Isopropylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
m,p-Xylene	ND	10	NA	1	B310280	09/18/2013	09/18/13 16:19	
Methylene chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
MTBE	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
n-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
n-Propylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Naphthalene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
o-Xylene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
sec-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Styrene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Amyl methyl ether	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Butanol	ND	100	NA	1	B310280	09/18/2013	09/18/13 16:19	
tert-Butylbenzene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Tetrachloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Toluene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Trichloroethene	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Trichlorofluoromethane	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Vinyl acetate	ND	50	NA	1	B310280	09/18/2013	09/18/13 16:19	
Vinyl chloride	ND	5.0	NA	1	B310280	09/18/2013	09/18/13 16:19	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	
Surrogate: 4-Bromofluorobenzene	88.1 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	
Surrogate: Dibromofluoromethane	134 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310280	09/18/2013	09/18/13 16:19	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:09	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:09	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:09	
Surrogate: 1,2-Dichlorobenzene-d4	81.1 %	48 - 113			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2,4,6-Tribromophenol	96.9 %	14 - 162			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Chlorophenol-d4	84.1 %	40 - 117			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Fluorobiphenyl	84.0 %	52 - 126			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 2-Fluorophenol	84.5 %	26 - 124			B310349	09/20/2013	09/23/13 12:09	
Surrogate: 4-Terphenyl-d14	98.5 %	36 - 163			B310349	09/20/2013	09/23/13 12:09	
Surrogate: Nitrobenzene-d5	76.8 %	42 - 118			B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-0.5

Lab ID: 1302866-22

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	80.0 %	29 - 124			B310349	09/20/2013	09/23/13 12:09	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Arsenic	1.8	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Barium	23	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Chromium	7.6	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Cobalt	2.9	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Copper	3.3	2.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Lead	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Nickel	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Vanadium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	
Zinc	12	1.0	NA	1	B310354	09/20/2013	09/20/13 17:54	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.18	0.10	NA	1	B310364	09/20/2013	09/23/13 15:32	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:32	
Surrogate: 4-Bromofluorobenzene	89.1 %	54 - 150			B310313	09/19/2013	09/19/13 15:32	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	



Certificate of Analysis

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Lab ID: 1302866-23

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:07	
Surrogate: <i>p</i> -Terphenyl	97.0 %		55 - 153		B310342	09/19/2013	09/20/13 05:07	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 19:57	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 19:57	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 19:57	
Surrogate: Decachlorobiphenyl	95.0 %		32 - 113		B310351	09/20/2013	09/20/13 19:57	
Surrogate: Tetrachloro-m-xylene	89.5 %		32 - 101		B310351	09/20/2013	09/20/13 19:57	



Certificate of Analysis

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Lab ID: 1302866-23

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	



Certificate of Analysis

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Lab ID: 1302866-23

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:20	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:20	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:20	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:20	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: 4-Bromofluorobenzene	92.8 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: Dibromofluoromethane	124 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 11:20	



Certificate of Analysis

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Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	



Certificate of Analysis

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Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 12:36	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 12:36	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 12:36	

Surrogate: 1,2-Dichlorobenzene-d4	86.1 %	48 - 113	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2,4,6-Tribromophenol	104 %	14 - 162	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Chlorophenol-d4	89.1 %	40 - 117	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Fluorobiphenyl	89.1 %	52 - 126	B310349	09/20/2013	09/23/13 12:36
Surrogate: 2-Fluorophenol	89.3 %	26 - 124	B310349	09/20/2013	09/23/13 12:36
Surrogate: 4-Terphenyl-d14	104 %	36 - 163	B310349	09/20/2013	09/23/13 12:36
Surrogate: Nitrobenzene-d5	83.6 %	42 - 118	B310349	09/20/2013	09/23/13 12:36



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-3.0

Lab ID: 1302866-23

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	84.2 %	29 - 124	B310349	09/20/2013	09/23/13 12:36
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Arsenic	1.3	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Barium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:58	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Chromium	2.6	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Cobalt	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Copper	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Lead	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Nickel	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Vanadium	8.8	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	
Zinc	3.9	1.0	NA	1	B310354	09/20/2013	09/20/13 17:59	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	1.3	0.10	NA	1	B310364	09/20/2013	09/23/13 15:34	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 15:48	
Surrogate: 4-Bromofluorobenzene	102 %		54 - 150		B310313	09/19/2013	09/19/13 15:48	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	



Certificate of Analysis

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Lab ID: 1302866-24

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:23	
Surrogate: p-Terphenyl	99.2 %		55 - 153		B310342	09/19/2013	09/20/13 05:23	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/23/13 08:39	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/23/13 08:39	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/23/13 08:39	
Surrogate: Decachlorobiphenyl	96.5 %		32 - 113		B310351	09/20/2013	09/23/13 08:39	
Surrogate: Tetrachloro-m-xylene	91.2 %		32 - 101		B310351	09/20/2013	09/23/13 08:39	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:39	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:39	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:39	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:39	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: Dibromofluoromethane	126 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	
Surrogate: Toluene-d8	105 %	70 - 130			B310298	09/19/2013	09/19/13 11:39	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:03	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:03	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:03	
Surrogate: 1,2-Dichlorobenzene-d4	74.5 %	48 - 113			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2,4,6-Tribromophenol	94.2 %	14 - 162			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Chlorophenol-d4	77.8 %	40 - 117			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Fluorobiphenyl	77.7 %	52 - 126			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 2-Fluorophenol	77.9 %	26 - 124			B310349	09/20/2013	09/23/13 13:03	
Surrogate: 4-Terphenyl-d14	97.3 %	36 - 163			B310349	09/20/2013	09/23/13 13:03	
Surrogate: Nitrobenzene-d5	72.4 %	42 - 118			B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B8-4.0

Lab ID: 1302866-24

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	74.7 %	29 - 124			B310349	09/20/2013	09/23/13 13:03	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Arsenic	4.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Barium	53	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:01	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Chromium	6.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Cobalt	3.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Copper	6.0	2.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Lead	94	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Nickel	2.9	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Vanadium	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	
Zinc	18	1.0	NA	1	B310354	09/20/2013	09/20/13 18:02	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	0.12	0.10	NA	1	B310364	09/20/2013	09/23/13 15:36	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310313	09/19/2013	09/19/13 16:04	
Surrogate: 4-Bromofluorobenzene	110 %	54 - 150			B310313	09/19/2013	09/19/13 16:04	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	



Certificate of Analysis

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Lab ID: 1302866-26

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310342	09/19/2013	09/20/13 05:40	
Surrogate: <i>p</i> -Terphenyl	118 %		55 - 153		B310342	09/19/2013	09/20/13 05:40	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 20:24	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 20:24	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 20:24	
Surrogate: Decachlorobiphenyl	92.7 %		32 - 113		B310351	09/20/2013	09/20/13 20:24	
Surrogate: Tetrachloro-m-xylene	82.3 %		32 - 101		B310351	09/20/2013	09/20/13 20:24	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 11:57	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 11:57	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 11:57	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 11:57	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: 4-Bromofluorobenzene	91.0 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: Dibromofluoromethane	127 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 11:57	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,2-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,3-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
1,4-Dichlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4,5-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4,6-Trichlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dichlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dimethylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dinitrophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,4-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2,6-Dinitrotoluene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Chloronaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Chlorophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Methylnaphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
2-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
3-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Bromophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chloro-3-methylphenol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chloroaniline	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Methylphenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Nitroaniline	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
4-Nitrophenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Acenaphthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Acenaphthylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzidine (M)	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(a)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(a)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(b)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(g,h,i)perylene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzo(k)fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Benzoic acid	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-chloroethyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Butylbenzylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Chrysene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Di-n-butylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Di-n-octylphthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dibenz(a,h)anthracene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dibenzofuran	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Diethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Dimethyl phthalate	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Fluoranthene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Fluorene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorobutadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachlorocyclopentadiene	ND	660	NA	1	B310349	09/20/2013	09/23/13 13:30	
Hexachloroethane	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Isophorone	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
N-Nitrosodiphenylamine	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Naphthalene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Nitrobenzene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pentachlorophenol	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	
Phenanthrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Phenol	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pyrene	ND	330	NA	1	B310349	09/20/2013	09/23/13 13:30	
Pyridine	ND	1600	NA	1	B310349	09/20/2013	09/23/13 13:30	

Surrogate: 1,2-Dichlorobenzene-d4	78.4 %	48 - 113	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2,4,6-Tribromophenol	94.9 %	14 - 162	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Chlorophenol-d4	80.9 %	40 - 117	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Fluorobiphenyl	80.6 %	52 - 126	B310349	09/20/2013	09/23/13 13:30
Surrogate: 2-Fluorophenol	81.2 %	26 - 124	B310349	09/20/2013	09/23/13 13:30
Surrogate: 4-Terphenyl-d14	94.5 %	36 - 163	B310349	09/20/2013	09/23/13 13:30
Surrogate: Nitrobenzene-d5	76.1 %	42 - 118	B310349	09/20/2013	09/23/13 13:30



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-1.0

Lab ID: 1302866-26

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	77.8 %	29 - 124			B310349	09/20/2013	09/23/13 13:30	
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:11	
Arsenic	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Barium	27	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Beryllium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Cadmium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Chromium	11	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Cobalt	3.7	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Copper	7.3	2.0	NA	1	B310354	09/20/2013	09/20/13 18:11	
Lead	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Molybdenum	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Nickel	4.6	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Selenium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Silver	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Thallium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Vanadium	25	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	
Zinc	23	0.99	NA	1	B310354	09/20/2013	09/20/13 18:11	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:38	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:27	
Surrogate: 4-Bromofluorobenzene	101 %		54 - 150		B310345	09/20/2013	09/20/13 04:27	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	



Certificate of Analysis

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Lab ID: 1302866-27

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:07	
Surrogate: p-Terphenyl	108 %		55 - 153		B310343	09/19/2013	09/20/13 17:07	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
4,4'-DDE	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
4,4'-DDT	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Aldrin	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
alpha-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
alpha-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
beta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Chlordane	ND	8.5	NA	1	B310351	09/20/2013	09/20/13 20:37	
delta-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Dieldrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan I	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan II	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endosulfan sulfate	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin aldehyde	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Endrin ketone	ND	2.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
gamma-BHC	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
gamma-Chlordane	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Heptachlor	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Heptachlor epoxide	ND	1.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Methoxychlor	ND	5.0	NA	1	B310351	09/20/2013	09/20/13 20:37	
Toxaphene	ND	50	NA	1	B310351	09/20/2013	09/20/13 20:37	
Surrogate: Decachlorobiphenyl	105 %		32 - 113		B310351	09/20/2013	09/20/13 20:37	
Surrogate: Tetrachloro-m-xylene	87.8 %		32 - 101		B310351	09/20/2013	09/20/13 20:37	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:16	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:16	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:16	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:16	
Surrogate: 1,2-Dichloroethane-d4	126 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: 4-Bromofluorobenzene	90.6 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: Dibromofluoromethane	128 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 12:16	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 14:52	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 14:52	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 14:52	
Surrogate: 1,2-Dichlorobenzene-d4	66.9 %	48 - 113			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2,4,6-Tribromophenol	95.7 %	14 - 162			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Chlorophenol-d4	71.3 %	40 - 117			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Fluorobiphenyl	77.2 %	52 - 126			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 2-Fluorophenol	70.9 %	26 - 124			B310361	09/20/2013	09/23/13 14:52	
Surrogate: 4-Terphenyl-d14	98.4 %	36 - 163			B310361	09/20/2013	09/23/13 14:52	
Surrogate: Nitrobenzene-d5	67.5 %	42 - 118			B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B9-4.5

Lab ID: 1302866-27

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	72.1 %	29 - 124			B310361	09/20/2013	09/23/13 14:52	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Arsenic	8.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Barium	130	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Chromium	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Cobalt	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Copper	3.9	2.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Lead	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Nickel	2.6	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Vanadium	8.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	
Zinc	19	1.0	NA	1	B310354	09/20/2013	09/20/13 18:14	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:40	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:43	
Surrogate: 4-Bromofluorobenzene	98.2 %	54 - 150			B310345	09/20/2013	09/20/13 04:43	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:24	
Surrogate: <i>p</i> -Terphenyl	107 %		55 - 153		B310343	09/19/2013	09/20/13 17:24	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 16:38	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 16:38	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 16:38	
Surrogate: Decachlorobiphenyl	82.2 %		32 - 113		B310367	09/23/2013	09/23/13 16:38	
Surrogate: Tetrachloro-m-xylene	98.2 %		32 - 101		B310367	09/23/2013	09/23/13 16:38	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:34	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:34	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:34	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:34	
Surrogate: 1,2-Dichloroethane-d4	121 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: 4-Bromofluorobenzene	93.5 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	
Surrogate: Toluene-d8	108 %	70 - 130			B310298	09/19/2013	09/19/13 12:34	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,2-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,3-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
1,4-Dichlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4,5-Trichlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4,6-Trichlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dichlorophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dimethylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dinitrophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,4-Dinitrotoluene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2,6-Dinitrotoluene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Chloronaphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Chlorophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Methylnaphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Methylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
2-Nitrophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
3,3'-Dichlorobenzidine	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
3-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4,6-Dinitro-2-methylphenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Bromophenyl-phenylether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chloro-3-methylphenol	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chloroaniline	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Chlorophenyl-phenylether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Methylphenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Nitroaniline	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
4-Nitrophenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Acenaphthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Acenaphthylene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzidine (M)	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(a)anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(a)pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(b)fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(g,h,i)perylene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzo(k)fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Benzoic acid	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-chloroethoxy)methane	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-Chloroethyl)ether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-chloroisopropyl)ether	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
bis(2-ethylhexyl)phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Butylbenzylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Chrysene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Di-n-butylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Di-n-octylphthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dibenz(a,h)anthracene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dibenzofuran	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Diethyl phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Dimethyl phthalate	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Fluoranthene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Fluorene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorobutadiene	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachlorocyclopentadiene	ND	3300	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Hexachloroethane	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Indeno(1,2,3-cd)pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Isophorone	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
N-Nitroso-di-n propylamine	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
N-Nitrosodiphenylamine	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Naphthalene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Nitrobenzene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pentachlorophenol	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Phenanthrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Phenol	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pyrene	ND	1600	NA	5	B310361	09/20/2013	09/23/13 17:24	D1
Pyridine	ND	8200	NA	5	B310361	09/20/2013	09/23/13 17:24	D1

Surrogate: 1,2-Dichlorobenzene-d4	73.8 %	48 - 113	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2,4,6-Tribromophenol	84.4 %	14 - 162	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Chlorophenol-d4	79.1 %	40 - 117	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Fluorobiphenyl	81.5 %	52 - 126	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 2-Fluorophenol	76.8 %	26 - 124	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: 4-Terphenyl-d14	93.6 %	36 - 163	B310361	09/20/2013	09/23/13 17:24	D1
Surrogate: Nitrobenzene-d5	76.3 %	42 - 118	B310361	09/20/2013	09/23/13 17:24	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-1

Lab ID: 1302866-28

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	77.0 %	29 - 124	B310361	09/20/2013	09/23/13 17:24	D1
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Arsenic	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Barium	35	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Chromium	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Cobalt	4.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Copper	6.4	2.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Lead	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Nickel	5.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Vanadium	35	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	
Zinc	29	1.0	NA	1	B310354	09/20/2013	09/20/13 18:17	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:42	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 04:59	
Surrogate: 4-Bromofluorobenzene	96.2 %		54 - 150		B310345	09/20/2013	09/20/13 04:59	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:41	
Surrogate: p-Terphenyl	112 %		55 - 153		B310343	09/19/2013	09/20/13 17:41	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 15:19	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:19	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:19	
Surrogate: Decachlorobiphenyl	75.5 %		32 - 113		B310367	09/23/2013	09/23/13 15:19	
Surrogate: Tetrachloro-m-xylene	89.9 %		32 - 101		B310367	09/23/2013	09/23/13 15:19	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 12:53	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 12:53	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 12:53	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 12:53	
Surrogate: 1,2-Dichloroethane-d4	132 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	S1
Surrogate: 4-Bromofluorobenzene	91.3 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	S1
Surrogate: Toluene-d8	103 %	70 - 130			B310298	09/19/2013	09/19/13 12:53	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:20	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:20	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 15:20	
Surrogate: 1,2-Dichlorobenzene-d4	73.7 %	48 - 113			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2,4,6-Tribromophenol	96.0 %	14 - 162			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Chlorophenol-d4	76.6 %	40 - 117			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Fluorobiphenyl	81.6 %	52 - 126			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 2-Fluorophenol	76.2 %	26 - 124			B310361	09/20/2013	09/23/13 15:20	
Surrogate: 4-Terphenyl-d14	98.6 %	36 - 163			B310361	09/20/2013	09/23/13 15:20	
Surrogate: Nitrobenzene-d5	74.9 %	42 - 118			B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B10-3.5

Lab ID: 1302866-30

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	75.0 %	29 - 124			B310361	09/20/2013	09/23/13 15:20	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Arsenic	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Barium	68	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:26	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Chromium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Cobalt	4.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Copper	4.4	2.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Lead	8.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Nickel	3.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Vanadium	40	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	
Zinc	36	1.0	NA	1	B310354	09/20/2013	09/20/13 18:27	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:44	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:15	
Surrogate: 4-Bromofluorobenzene	95.3 %	54 - 150			B310345	09/20/2013	09/20/13 05:15	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	



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Lab ID: 1302866-31

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 17:58	
Surrogate: <i>p</i> -Terphenyl	109 %		55 - 153		B310343	09/19/2013	09/20/13 17:58	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
4,4'-DDE	13	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
4,4'-DDT	7.1	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
alpha-Chlordane	2.6	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Chlordane	29	8.5	NA	1	B310367	09/23/2013	09/23/13 15:32	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
gamma-Chlordane [2C]	3.2	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:32	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:32	
Surrogate: Decachlorobiphenyl	71.8 %		32 - 113		B310367	09/23/2013	09/23/13 15:32	
Surrogate: Tetrachloro-m-xylene	85.5 %		32 - 101		B310367	09/23/2013	09/23/13 15:32	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:12	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:12	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:12	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:12	
Surrogate: 1,2-Dichloroethane-d4	133 %	70 - 130			B310298	09/19/2013	09/19/13 13:12	S1
Surrogate: 4-Bromofluorobenzene	91.6 %	70 - 130			B310298	09/19/2013	09/19/13 13:12	
Surrogate: Dibromofluoromethane	132 %	70 - 130			B310298	09/19/2013	09/19/13 13:12	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 13:12	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benazidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 15:47	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 15:47	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 15:47	

Surrogate: 1,2-Dichlorobenzene-d4 73.4 % 48 - 113 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2,4,6-Tribromophenol 99.2 % 14 - 162 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Chlorophenol-d4 76.5 % 40 - 117 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Fluorobiphenyl 84.2 % 52 - 126 B310361 09/20/2013 09/23/13 15:47

Surrogate: 2-Fluorophenol 76.1 % 26 - 124 B310361 09/20/2013 09/23/13 15:47

Surrogate: 4-Terphenyl-d14 98.8 % 36 - 163 B310361 09/20/2013 09/23/13 15:47

Surrogate: Nitrobenzene-d5 73.8 % 42 - 118 B310361 09/20/2013 09/23/13 15:47



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-0.5

Lab ID: 1302866-31

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5 76.0 % 29 - 124 B310361 09/20/2013 09/23/13 15:47



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Arsenic	2.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Barium	45	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:29	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Chromium	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Cobalt	4.9	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Copper	3.8	2.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Lead	16	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Nickel	3.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Vanadium	38	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	
Zinc	27	1.0	NA	1	B310354	09/20/2013	09/20/13 18:30	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:46	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:31	
Surrogate: 4-Bromofluorobenzene	96.5 %		54 - 150		B310345	09/20/2013	09/20/13 05:31	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	



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Lab ID: 1302866-32

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:14	
Surrogate: p-Terphenyl	113 %		55 - 153		B310343	09/19/2013	09/20/13 18:14	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Chlordane	14	8.5	NA	1	B310367	09/23/2013	09/23/13 15:45	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:45	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:45	
Surrogate: Decachlorobiphenyl	104 %		32 - 113		B310367	09/23/2013	09/23/13 15:45	
Surrogate: Tetrachloro-m-xylene	99.9 %		32 - 101		B310367	09/23/2013	09/23/13 15:45	



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Client Sample ID B13-2.0

Lab ID: 1302866-32

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl Acetate	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl Ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:30	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:30	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Vinyl acetate	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:30	
Surrogate: 1,2-Dichloroethane-d4	123 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: 4-Bromofluorobenzene	93.3 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: Dibromofluoromethane	125 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	
Surrogate: Toluene-d8	108 %	70 - 130			B310298	09/19/2013	09/19/13 13:30	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 16:14	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 16:14	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 16:14	
Surrogate: 1,2-Dichlorobenzene-d4	71.8 %	48 - 113			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2,4,6-Tribromophenol	95.7 %	14 - 162			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Chlorophenol-d4	76.7 %	40 - 117			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Fluorobiphenyl	82.5 %	52 - 126			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 2-Fluorophenol	75.5 %	26 - 124			B310361	09/20/2013	09/23/13 16:14	
Surrogate: 4-Terphenyl-d14	96.7 %	36 - 163			B310361	09/20/2013	09/23/13 16:14	
Surrogate: Nitrobenzene-d5	74.5 %	42 - 118			B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-2.0

Lab ID: 1302866-32

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	75.4 %	29 - 124			B310361	09/20/2013	09/23/13 16:14	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Arsenic	2.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Barium	31	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Chromium	11	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Cobalt	3.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Copper	3.6	2.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Lead	4.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Nickel	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	
Vanadium	33	1.0	NA	1	B310354	09/20/2013	09/20/13 18:32	
Zinc	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:33	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:48	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 05:47	
Surrogate: 4-Bromofluorobenzene	95.5 %	54 - 150			B310345	09/20/2013	09/20/13 05:47	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Lab ID: 1302866-33

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:31	
Surrogate: <i>p</i> -Terphenyl	108 %		55 - 153		B310343	09/19/2013	09/20/13 18:31	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 15:58	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 15:58	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 15:58	
Surrogate: Decachlorobiphenyl	88.1 %		32 - 113		B310367	09/23/2013	09/23/13 15:58	
Surrogate: Tetrachloro-m-xylene	88.2 %		32 - 101		B310367	09/23/2013	09/23/13 15:58	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 13:49	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 13:49	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 13:49	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 13:49	
Surrogate: 1,2-Dichloroethane-d4	130 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: 4-Bromofluorobenzene	91.7 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: Dibromofluoromethane	129 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 13:49	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dichlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dinitrophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
3-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4,6-Dinitro-2-methylphenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Nitroaniline	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzidine (M)	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Benzoic acid	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 13:57	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pentachlorophenol	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 13:57	
Pyridine	ND	1600	NA	1	B310361	09/20/2013	09/23/13 13:57	

Surrogate: 1,2-Dichlorobenzene-d4 69.0 % 48 - 113 B310361 09/20/2013 09/23/13 13:57
Surrogate: 2,4,6-Tribromophenol 96.2 % 14 - 162 B310361 09/20/2013 09/23/13 13:57
Surrogate: 2-Chlorophenol-d4 72.4 % 40 - 117 B310361 09/20/2013 09/23/13 13:57
Surrogate: 2-Fluorobiphenyl 76.7 % 52 - 126 B310361 09/20/2013 09/23/13 13:57
Surrogate: 2-Fluorophenol 71.6 % 26 - 124 B310361 09/20/2013 09/23/13 13:57
Surrogate: 4-Terphenyl-d14 95.8 % 36 - 163 B310361 09/20/2013 09/23/13 13:57
Surrogate: Nitrobenzene-d5 68.5 % 42 - 118 B310361 09/20/2013 09/23/13 13:57



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B13-4.5

Lab ID: 1302866-33

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	71.1 %	29 - 124			B310361	09/20/2013	09/23/13 13:57	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:35	
Arsenic	1.9	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Barium	44	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Beryllium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Cadmium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Chromium	11	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Cobalt	4.3	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Copper	3.3	2.0	NA	1	B310354	09/20/2013	09/20/13 18:35	
Lead	3.4	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Molybdenum	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Nickel	3.2	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Selenium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Silver	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Thallium	ND	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Vanadium	35	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	
Zinc	23	0.99	NA	1	B310354	09/20/2013	09/20/13 18:35	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:50	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:03	
Surrogate: 4-Bromofluorobenzene	110 %		54 - 150		B310345	09/20/2013	09/20/13 06:03	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C18-C28	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C36-C40	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10	NA	1	B310343	09/19/2013	09/20/13 18:48	
Surrogate: p-Terphenyl	104 %		55 - 153		B310343	09/19/2013	09/20/13 18:48	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
4,4'-DDE	2.5	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
4,4'-DDT [2C]	2.3	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Chlordane	14	8.5	NA	1	B310367	09/23/2013	09/23/13 16:51	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
gamma-Chlordane [2C]	1.0	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 16:51	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 16:51	
Surrogate: Decachlorobiphenyl	80.8 %		32 - 113		B310367	09/23/2013	09/23/13 16:51	
Surrogate: Tetrachloro-m-xylene	98.7 %		32 - 101		B310367	09/23/2013	09/23/13 16:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:07	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 14:07	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:07	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:07	
Surrogate: 1,2-Dichloroethane-d4	129 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	
Surrogate: 4-Bromofluorobenzene	91.1 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	
Surrogate: Dibromofluoromethane	131 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	S1
Surrogate: Toluene-d8	104 %	70 - 130			B310298	09/19/2013	09/19/13 14:07	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,2-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,3-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
1,4-Dichlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4,5-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4,6-Trichlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dichlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dimethylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dinitrophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,4-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2,6-Dinitrotoluene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Chloronaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Chlorophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Methylnaphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
2-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
3,3'-Dichlorobenzidine	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
3-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4,6-Dinitro-2-methylphenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Bromophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chloro-3-methylphenol	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chloroaniline	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Chlorophenyl-phenylether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Methylphenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Nitroaniline	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
4-Nitrophenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Acenaphthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Acenaphthylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzidine (M)	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(a)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(a)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(b)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(g,h,i)perylene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzo(k)fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Benzoic acid	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-chloroethoxy)methane	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-Chloroethyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-chloroisopropyl)ether	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
bis(2-ethylhexyl)phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Butylbenzylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Chrysene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Di-n-butylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Di-n-octylphthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dibenz(a,h)anthracene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dibenzofuran	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Diethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Dimethyl phthalate	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Fluoranthene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Fluorene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorobutadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachlorocyclopentadiene	ND	660	NA	1	B310361	09/20/2013	09/23/13 17:51	
Hexachloroethane	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Indeno(1,2,3-cd)pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Isophorone	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
N-Nitroso-di-n propylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
N-Nitrosodiphenylamine	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Naphthalene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Nitrobenzene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pentachlorophenol	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Phenanthrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Phenol	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pyrene	ND	330	NA	1	B310361	09/20/2013	09/23/13 17:51	
Pyridine	ND	1700	NA	1	B310361	09/20/2013	09/23/13 17:51	
Surrogate: 1,2-Dichlorobenzene-d4	73.7 %	48 - 113			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2,4,6-Tribromophenol	94.6 %	14 - 162			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Chlorophenol-d4	78.3 %	40 - 117			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Fluorobiphenyl	82.7 %	52 - 126			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 2-Fluorophenol	78.1 %	26 - 124			B310361	09/20/2013	09/23/13 17:51	
Surrogate: 4-Terphenyl-d14	98.3 %	36 - 163			B310361	09/20/2013	09/23/13 17:51	
Surrogate: Nitrobenzene-d5	76.0 %	42 - 118			B310361	09/20/2013	09/23/13 17:51	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-4.0

Lab ID: 1302866-35

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	76.5 %	29 - 124			B310361	09/20/2013	09/23/13 17:51	



Certificate of Analysis

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San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Arsenic	8.3	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Barium	100	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Chromium	5.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Cobalt	3.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Copper	4.8	2.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Lead	5.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Nickel	4.0	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Vanadium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	
Zinc	19	1.0	NA	1	B310354	09/20/2013	09/20/13 18:38	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:56	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:19	
Surrogate: 4-Bromofluorobenzene	99.2 %	54 - 150			B310345	09/20/2013	09/20/13 06:19	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C18-C28	47	10	NA	1	B310343	09/19/2013	09/20/13 19:21	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
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Client Sample ID B12-6.0

Lab ID: 1302866-36

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	160	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C36-C40	190	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
T/R Hydrocarbons: C8-C40 Total (HS)	400	10	NA	1	B310343	09/19/2013	09/20/13 19:21	
Surrogate: p-Terphenyl	113 %		55 - 153		B310343	09/19/2013	09/20/13 19:21	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 18:10	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 18:10	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 18:10	
Surrogate: Decachlorobiphenyl	54.6 %		32 - 113		B310367	09/23/2013	09/23/13 18:10	
Surrogate: Tetrachloro-m-xylene	81.0 %		32 - 101		B310367	09/23/2013	09/23/13 18:10	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,1-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dibromoethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,3-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
2,2-Dichloropropane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
2-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
4-Chlorotoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
4-Isopropyltoluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Benzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromodichloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromoform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Bromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Carbon disulfide	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Carbon tetrachloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chlorobenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloroethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloroform	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Chloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Di-isopropyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dibromochloromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dibromomethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Dichlorodifluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl Acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl Ether	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Ethylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Freon-113	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Hexachlorobutadiene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Isopropylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
m,p-Xylene	ND	10	NA	1	B310298	09/19/2013	09/19/13 14:26	
Methylene chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
MTBE	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
n-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
n-Propylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Naphthalene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
o-Xylene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
sec-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Styrene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Amyl methyl ether	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Butanol	ND	100	NA	1	B310298	09/19/2013	09/19/13 14:26	
tert-Butylbenzene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Tetrachloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Toluene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Trichloroethene	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Trichlorofluoromethane	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Vinyl acetate	ND	50	NA	1	B310298	09/19/2013	09/19/13 14:26	
Vinyl chloride	ND	5.0	NA	1	B310298	09/19/2013	09/19/13 14:26	
Surrogate: 1,2-Dichloroethane-d4	130 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: Dibromofluoromethane	130 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	
Surrogate: Toluene-d8	105 %	70 - 130			B310298	09/19/2013	09/19/13 14:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,2-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,3-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
1,4-Dichlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4,5-Trichlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4,6-Trichlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dichlorophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dimethylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dinitrophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,4-Dinitrotoluene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2,6-Dinitrotoluene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Chloronaphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Chlorophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Methylnaphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Methylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
2-Nitrophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
3,3'-Dichlorobenzidine	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
3-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4,6-Dinitro-2-methylphenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Bromophenyl-phenylether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chloro-3-methylphenol	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chloroaniline	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Chlorophenyl-phenylether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Methylphenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Nitroaniline	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
4-Nitrophenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Acenaphthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Acenaphthylene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzidine (M)	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(a)anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(a)pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(b)fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(g,h,i)perylene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzo(k)fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Benzoic acid	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-chloroethoxy)methane	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-Chloroethyl)ether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-chloroisopropyl)ether	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
bis(2-ethylhexyl)phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Butylbenzylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Chrysene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Di-n-butylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Di-n-octylphthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dibenz(a,h)anthracene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dibenzofuran	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Diethyl phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Dimethyl phthalate	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Fluoranthene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Fluorene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorobutadiene	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachlorocyclopentadiene	ND	33000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Hexachloroethane	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Indeno(1,2,3-cd)pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Isophorone	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
N-Nitroso-di-n propylamine	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
N-Nitrosodiphenylamine	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Naphthalene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Nitrobenzene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pentachlorophenol	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Phenanthrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Phenol	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pyrene	ND	16000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1
Pyridine	ND	82000	NA	50	B310361	09/20/2013	09/23/13 18:18	D1

Surrogate: 1,2-Dichlorobenzene-d4	72.0 %	48 - 113	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2,4,6-Tribromophenol	52.0 %	14 - 162	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Chlorophenol-d4	65.0 %	40 - 117	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Fluorobiphenyl	68.5 %	52 - 126	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 2-Fluorophenol	65.0 %	26 - 124	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: 4-Terphenyl-d14	78.0 %	36 - 163	B310361	09/20/2013	09/23/13 18:18	D1
Surrogate: Nitrobenzene-d5	64.5 %	42 - 118	B310361	09/20/2013	09/23/13 18:18	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B12-6.0

Lab ID: 1302866-36

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	57.5 %	29 - 124	B310361	09/20/2013	09/23/13 18:18	D1
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Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Arsenic	17	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Barium	130	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Chromium	7.6	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Cobalt	100	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Copper	5.1	2.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Lead	4.4	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Nickel	13	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Vanadium	16	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	
Zinc	23	1.0	NA	1	B310354	09/20/2013	09/20/13 18:41	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 15:58	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:35	
Surrogate: 4-Bromofluorobenzene	94.2 %		54 - 150		B310345	09/20/2013	09/20/13 06:35	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C18-C28	21	10	NA	1	B310343	09/19/2013	09/20/13 19:04	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

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Lab ID: 1302866-37

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	92	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C36-C40	110	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
T/R Hydrocarbons: C8-C40 Total (HS)	220	10	NA	1	B310343	09/19/2013	09/20/13 19:04	
Surrogate: p-Terphenyl	120 %		55 - 153		B310343	09/19/2013	09/20/13 19:04	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 17:30	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 17:30	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 17:30	
Surrogate: Decachlorobiphenyl	72.8 %		32 - 113		B310367	09/23/2013	09/23/13 17:30	
Surrogate: Tetrachloro-m-xylene	94.8 %		32 - 101		B310367	09/23/2013	09/23/13 17:30	



Certificate of Analysis

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5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,1-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dibromoethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,3-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
2,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
2-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
4-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
4-Isopropyltoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Benzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromodichloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromoform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Bromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Carbon disulfide	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Carbon tetrachloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloroform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Chloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Di-isopropyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dibromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dibromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Dichlorodifluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl Acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl Ether	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Ethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Freon-113	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Hexachlorobutadiene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Isopropylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
m,p-Xylene	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:26	
Methylene chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
MTBE	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
n-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
n-Propylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Naphthalene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
o-Xylene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
sec-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Styrene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Amyl methyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Butanol	ND	100	NA	1	B310338	09/20/2013	09/20/13 10:26	
tert-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Tetrachloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Toluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Trichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Trichlorofluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Vinyl acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:26	
Vinyl chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:26	
Surrogate: 1,2-Dichloroethane-d4	114 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: 4-Bromofluorobenzene	95.5 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: Dibromofluoromethane	118 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	
Surrogate: Toluene-d8	104 %	70 - 130			B310338	09/20/2013	09/20/13 10:26	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,2-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,3-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
1,4-Dichlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4,5-Trichlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4,6-Trichlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dichlorophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dimethylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dinitrophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,4-Dinitrotoluene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2,6-Dinitrotoluene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Chloronaphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Chlorophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Methylnaphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Methylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
2-Nitrophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
3,3'-Dichlorobenzidine	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
3-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4,6-Dinitro-2-methylphenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Bromophenyl-phenylether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chloro-3-methylphenol	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chloroaniline	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Chlorophenyl-phenylether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Methylphenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Nitroaniline	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
4-Nitrophenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Acenaphthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Acenaphthylene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzidine (M)	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(a)anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(a)pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(b)fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(g,h,i)perylene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzo(k)fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Benzoic acid	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroethoxy)methane	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroethyl)ether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-chloroisopropyl)ether	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
bis(2-ethylhexyl)phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Butylbenzylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Chrysene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Di-n-butylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Di-n-octylphthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dibenz(a,h)anthracene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dibenzofuran	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Diethyl phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Dimethyl phthalate	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Fluoranthene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Fluorene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorobutadiene	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachlorocyclopentadiene	ND	6600	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Hexachloroethane	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Indeno(1,2,3-cd)pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Isophorone	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
N-Nitroso-di-n propylamine	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
N-Nitrosodiphenylamine	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Naphthalene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Nitrobenzene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pentachlorophenol	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Phenanthrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Phenol	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pyrene	ND	3300	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Pyridine	ND	16000	NA	10	B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 1,2-Dichlorobenzene-d4	63.4 %	48 - 113			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2,4,6-Tribromophenol	60.8 %	14 - 162			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Chlorophenol-d4	63.2 %	40 - 117			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Fluorobiphenyl	63.9 %	52 - 126			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 2-Fluorophenol	62.2 %	26 - 124			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: 4-Terphenyl-d14	70.5 %	36 - 163			B310361	09/20/2013	09/23/13 18:45	D1
Surrogate: Nitrobenzene-d5	62.7 %	42 - 118			B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-3.0

Lab ID: 1302866-37

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Surrogate: Phenol-d5	59.8 %	29 - 124			B310361	09/20/2013	09/23/13 18:45	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Title 22 Metals by ICP-AES EPA 6010B

Analyst: SB

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Antimony	ND	2.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Arsenic	8.2	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Barium	59	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Beryllium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:43	
Cadmium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Chromium	4.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Cobalt	2.1	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Copper	4.5	2.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Lead	4.7	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Molybdenum	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Nickel	3.5	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Selenium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Silver	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Thallium	ND	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Vanadium	14	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	
Zinc	22	1.0	NA	1	B310354	09/20/2013	09/20/13 18:44	

Mercury by AA (Cold Vapor) EPA 7471A

Analyst: VV

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Mercury	ND	0.10	NA	1	B310364	09/20/2013	09/23/13 16:00	

Gasoline Range Organics by EPA 8015B (Modified)

Analyst: DP

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Gasoline Range Organics	ND	1.0	NA	1	B310345	09/20/2013	09/20/13 06:52	
Surrogate: 4-Bromofluorobenzene	91.0 %	54 - 150			B310345	09/20/2013	09/20/13 06:52	

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C8-C10	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C10-C18	ND	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C18-C28	270	10	NA	1	B310343	09/19/2013	09/20/13 19:38	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
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Client Sample ID B11-5.5

Lab ID: 1302866-39

Hydrocarbon Chain Distribution by EPA 8015B (Modified)

Analyst: CR

Analyte	Result (mg/kg)	PQL (mg/kg)	MDL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
T/R Hydrocarbons: C28-C36	930	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C36-C40	990	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
T/R Hydrocarbons: C8-C40 Total (HS)	2200	10	NA	1	B310343	09/19/2013	09/20/13 19:38	
Surrogate: p-Terphenyl	104 %		55 - 153		B310343	09/19/2013	09/20/13 19:38	

Organochlorine Pesticides by EPA 8081

Analyst: PIL

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
4,4'-DDE	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
4,4'-DDT	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Aldrin	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
alpha-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
alpha-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
beta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Chlordane	ND	8.5	NA	1	B310367	09/23/2013	09/23/13 18:23	
delta-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Dieldrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan I	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan II	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endosulfan sulfate	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin aldehyde	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Endrin ketone	ND	2.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
gamma-BHC	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
gamma-Chlordane	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Heptachlor	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Heptachlor epoxide	ND	1.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Methoxychlor	ND	5.0	NA	1	B310367	09/23/2013	09/23/13 18:23	
Toxaphene	ND	50	NA	1	B310367	09/23/2013	09/23/13 18:23	
Surrogate: Decachlorobiphenyl	60.0 %		32 - 113		B310367	09/23/2013	09/23/13 18:23	
Surrogate: Tetrachloro-m-xylene	86.8 %		32 - 101		B310367	09/23/2013	09/23/13 18:23	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,1,1,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,1-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,2,2-Tetrachloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1,2-Trichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,1-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,3-Trichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,3-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,4-Trichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2,4-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dibromo-3-chloropropane	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dibromoethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,2-Dichloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3,5-Trimethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,3-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
1,4-Dichlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
2,2-Dichloropropane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
2-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
4-Chlorotoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
4-Isopropyltoluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Benzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromodichloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromoform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Bromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Carbon disulfide	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Carbon tetrachloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chlorobenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloroethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloroform	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Chloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
cis-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Volatile Organic Compounds by EPA 8260

Analyst: TP

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
cis-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Di-isopropyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dibromochloromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dibromomethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Dichlorodifluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl Acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl Ether	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethyl tert-butyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Ethylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Freon-113	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Hexachlorobutadiene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Isopropylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
m,p-Xylene	ND	10	NA	1	B310338	09/20/2013	09/20/13 10:44	
Methylene chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
MTBE	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
n-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
n-Propylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Naphthalene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
o-Xylene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
sec-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Styrene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Amyl methyl ether	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Butanol	ND	100	NA	1	B310338	09/20/2013	09/20/13 10:44	
tert-Butylbenzene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Tetrachloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Toluene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
trans-1,2-Dichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
trans-1,3-Dichloropropene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Trichloroethene	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Trichlorofluoromethane	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Vinyl acetate	ND	50	NA	1	B310338	09/20/2013	09/20/13 10:44	
Vinyl chloride	ND	5.0	NA	1	B310338	09/20/2013	09/20/13 10:44	
Surrogate: 1,2-Dichloroethane-d4	116 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: 4-Bromofluorobenzene	91.4 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: Dibromofluoromethane	121 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	
Surrogate: Toluene-d8	104 %	70 - 130			B310338	09/20/2013	09/20/13 10:44	



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
1,2,4-Trichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,2-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,3-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
1,4-Dichlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4,5-Trichlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4,6-Trichlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dichlorophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dimethylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dinitrophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,4-Dinitrotoluene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2,6-Dinitrotoluene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Chloronaphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Chlorophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Methylnaphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Methylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
2-Nitrophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
3,3'-Dichlorobenzidine	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
3-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4,6-Dinitro-2-methylphenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Bromophenyl-phenylether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chloro-3-methylphenol	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chloroaniline	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Chlorophenyl-phenylether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Methylphenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Nitroaniline	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
4-Nitrophenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Acenaphthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Acenaphthylene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzidine (M)	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(a)anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(a)pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(b)fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(g,h,i)perylene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzo(k)fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Benzoic acid	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Benzyl alcohol	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-chloroethoxy)methane	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-Chloroethyl)ether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-chloroisopropyl)ether	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
bis(2-ethylhexyl)phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Butylbenzylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Chrysene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Di-n-butylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Di-n-octylphthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dibenz(a,h)anthracene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dibenzofuran	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Diethyl phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Dimethyl phthalate	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Fluoranthene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Fluorene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorobutadiene	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachlorocyclopentadiene	ND	13000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Hexachloroethane	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Indeno(1,2,3-cd)pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Isophorone	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
N-Nitroso-di-n propylamine	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
N-Nitrosodiphenylamine	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Naphthalene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Nitrobenzene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pentachlorophenol	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Phenanthrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Phenol	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pyrene	ND	6600	NA	20	B310361	09/20/2013	09/23/13 19:13	D1
Pyridine	ND	33000	NA	20	B310361	09/20/2013	09/23/13 19:13	D1

Surrogate: 1,2-Dichlorobenzene-d4	74.2 %	48 - 113	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2,4,6-Tribromophenol	70.0 %	14 - 162	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Chlorophenol-d4	74.8 %	40 - 117	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Fluorobiphenyl	73.4 %	52 - 126	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 2-Fluorophenol	72.2 %	26 - 124	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: 4-Terphenyl-d14	84.0 %	36 - 163	B310361	09/20/2013	09/23/13 19:13	D1
Surrogate: Nitrobenzene-d5	70.2 %	42 - 118	B310361	09/20/2013	09/23/13 19:13	D1



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Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Client Sample ID B11-5.5

Lab ID: 1302866-39

Semivolatile Organic Compounds by EPA 8270C

Analyst: BB

Analyte	Result (ug/kg)	PQL (ug/kg)	MDL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
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Surrogate: Phenol-d5	71.4 %	29 - 124	B310361	09/20/2013	09/23/13 19:13	D1
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Ninyo & Moore	Project Number : TAMT, 107589002
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San Diego , CA 92123	Reported : 09/24/2013

QUALITY CONTROL SECTION

Title 22 Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310334 - EPA 3050B

Blank (B310334-BLK1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	ND	2.0		NR
Arsenic	ND	1.0		NR
Barium	ND	1.0		NR
Beryllium	ND	1.0		NR
Cadmium	ND	1.0		NR
Chromium	ND	1.0		NR
Cobalt	ND	1.0		NR
Copper	ND	2.0		NR
Lead	ND	1.0		NR
Molybdenum	ND	1.0		NR
Nickel	ND	1.0		NR
Selenium	ND	1.0		NR
Silver	ND	1.0		NR
Thallium	ND	1.0		NR
Vanadium	ND	1.0		NR
Zinc	ND	1.0		NR

LCS (B310334-BS1)

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	51.5772	2.0	50.0000	103	80 - 120
Arsenic	48.8957	1.0	50.0000	97.8	80 - 120
Barium	53.3421	1.0	50.0000	107	80 - 120
Beryllium	55.3400	1.0	50.0000	111	80 - 120
Cadmium	49.6980	1.0	50.0000	99.4	80 - 120
Chromium	53.3932	1.0	50.0000	107	80 - 120
Cobalt	51.2052	1.0	50.0000	102	80 - 120
Copper	53.2264	2.0	50.0000	106	80 - 120
Lead	50.8354	1.0	50.0000	102	80 - 120
Molybdenum	51.7994	1.0	50.0000	104	80 - 120
Nickel	51.2376	1.0	50.0000	102	80 - 120
Selenium	46.5933	1.0	50.0000	93.2	80 - 120
Silver	48.0620	1.0	50.0000	96.1	80 - 120
Thallium	51.6678	1.0	50.0000	103	80 - 120
Vanadium	53.1200	1.0	50.0000	106	80 - 120
Zinc	46.1231	1.0	50.0000	92.2	80 - 120

Matrix Spike (B310334-MS1)

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	108.478	2.0	125.000	ND	86.8	21 - 109
Arsenic	113.144	1.0	125.000	1.16458	89.6	55 - 102
Barium	177.434	1.0	125.000	58.0390	95.5	40 - 130
Beryllium	120.063	1.0	125.000	ND	96.1	60 - 104



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310334 - EPA 3050B (continued)

Matrix Spike (B310334-MS1) - Continued

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Cadmium	112.156	1.0	125.000	0.166052	89.6	52 - 100
Chromium	126.836	1.0	125.000	8.45136	94.7	53 - 113
Cobalt	119.348	1.0	125.000	3.87709	92.4	53 - 104
Copper	128.879	2.0	125.000	5.03628	99.1	51 - 122
Lead	115.964	1.0	125.000	2.74322	90.6	51 - 106
Molybdenum	116.374	1.0	125.000	0.305245	92.9	55 - 103
Nickel	118.205	1.0	125.000	4.59159	90.9	48 - 112
Selenium	104.976	1.0	125.000	ND	84.0	53 - 104
Silver	114.526	1.0	125.000	ND	91.6	61 - 109
Thallium	111.267	1.0	125.000	ND	89.0	44 - 103
Vanadium	136.039	1.0	125.000	15.9844	96.0	55 - 115
Zinc	123.151	1.0	125.000	13.8392	87.4	24 - 130

Matrix Spike Dup (B310334-MSD1)

Source: 1302789-02

Prepared: 9/19/2013 Analyzed: 9/20/2013

Antimony	101.499	2.0	125.000	ND	81.2	21 - 109	6.65	20
Arsenic	108.193	1.0	125.000	1.16458	85.6	55 - 102	4.47	20
Barium	170.125	1.0	125.000	58.0390	89.7	40 - 130	4.21	20
Beryllium	116.665	1.0	125.000	ND	93.3	60 - 104	2.87	20
Cadmium	108.280	1.0	125.000	0.166052	86.5	52 - 100	3.52	20
Chromium	122.444	1.0	125.000	8.45136	91.2	53 - 113	3.52	20
Cobalt	114.904	1.0	125.000	3.87709	88.8	53 - 104	3.79	20
Copper	124.281	2.0	125.000	5.03628	95.4	51 - 122	3.63	20
Lead	184.532	1.0	125.000	2.74322	145	51 - 106	45.6	20
Molybdenum	111.522	1.0	125.000	0.305245	89.0	55 - 103	4.26	20
Nickel	114.368	1.0	125.000	4.59159	87.8	48 - 112	3.30	20
Selenium	100.316	1.0	125.000	ND	80.3	53 - 104	4.54	20
Silver	107.966	1.0	125.000	ND	86.4	61 - 109	5.90	20
Thallium	106.032	1.0	125.000	ND	84.8	44 - 103	4.82	20
Vanadium	131.051	1.0	125.000	15.9844	92.1	55 - 115	3.73	20
Zinc	119.591	1.0	125.000	13.8392	84.6	24 - 130	2.93	20

Batch B310354 - EPA 3050B

Blank (B310354-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

Antimony	ND	2.0		NR
Arsenic	ND	1.0		NR
Barium	ND	1.0		NR
Beryllium	ND	1.0		NR
Cadmium	ND	1.0		NR
Chromium	ND	1.0		NR
Cobalt	ND	1.0		NR



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310354 - EPA 3050B (continued)

Blank (B310354-BLK1) - Continued

		Prepared: 9/20/2013 Analyzed: 9/20/2013	
Copper	ND	2.0	NR
Lead	ND	1.0	NR
Molybdenum	ND	1.0	NR
Nickel	ND	1.0	NR
Selenium	ND	1.0	NR
Silver	ND	1.0	NR
Thallium	ND	1.0	NR
Vanadium	ND	1.0	NR
Zinc	ND	1.0	NR

LCS (B310354-BS1)

LCS (B310354-B51)				Prepared: 9/20/2013 Analyzed: 9/20/2013	
Antimony	48.5102	2.0	50.0000	97.0	80 - 120
Arsenic	47.6414	1.0	50.0000	95.3	80 - 120
Barium	50.6666	1.0	50.0000	101	80 - 120
Beryllium	53.3400	1.0	50.0000	107	80 - 120
Cadmium	47.8618	1.0	50.0000	95.7	80 - 120
Chromium	51.1508	1.0	50.0000	102	80 - 120
Cobalt	49.1739	1.0	50.0000	98.3	80 - 120
Copper	50.1964	2.0	50.0000	100	80 - 120
Lead	49.1440	1.0	50.0000	98.3	80 - 120
Molybdenum	48.5251	1.0	50.0000	97.1	80 - 120
Nickel	48.2867	1.0	50.0000	96.6	80 - 120
Selenium	45.2714	1.0	50.0000	90.5	80 - 120
Silver	49.0676	1.0	50.0000	98.1	80 - 120
Thallium	49.9585	1.0	50.0000	99.9	80 - 120
Vanadium	50.2103	1.0	50.0000	100	80 - 120
Zinc	44.8607	1.0	50.0000	89.7	80 - 120

Matrix Spike (B310354-MS1)

Matrix Spike (B310354-MS1)		Source: 1302866-26		Prepared: 9/20/2013 Analyzed: 9/20/2013		
Antimony	97.2508	2.0	125.000	ND	77.8	21 - 109
Arsenic	104.816	1.0	125.000	4.27784	80.4	55 - 102
Barium	144.113	1.0	125.000	53.3006	72.6	40 - 130
Beryllium	108.760	1.0	125.000	ND	87.0	60 - 104
Cadmium	100.676	1.0	125.000	0.199326	80.4	52 - 100
Chromium	115.174	1.0	125.000	6.74174	86.7	53 - 113
Cobalt	107.174	1.0	125.000	3.15541	83.2	53 - 104
Copper	120.657	2.0	125.000	6.01669	91.7	51 - 122
Lead	139.965	1.0	125.000	93.5743	37.1	51 - 106
Molybdenum	103.996	1.0	125.000	0.288232	83.0	55 - 103
Nickel	104.603	1.0	125.000	2.86028	81.4	48 - 112
Selenium	96.9225	1.0	125.000	ND	77.5	53 - 104
Silver	109.044	1.0	125.000	ND	87.2	61 - 109

M1



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Title 22 Metals by ICP-AES EPA 6010B - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310354 - EPA 3050B (continued)

Matrix Spike (B310354-MS1) - Continued

Matrix Spike (B310354-MS1) - Continued		Source: 1302866-26		Prepared: 9/20/2013 Analyzed: 9/20/2013	
Thallium	97.9396	1.0	125.000	ND	78.4 44 - 103
Vanadium	137.353	1.0	125.000	22.4544	91.9 55 - 115
Zinc	118.002	1.0	125.000	17.7426	80.2 24 - 130

Matrix Spike Dup (B310354-MSD1)

Matrix Spike Dup (B310354-MSD1)		Source: 1302866-26		Prepared: 9/20/2013 Analyzed: 9/20/2013					
Antimony	106.424	2.0	125.000	ND	85.1	21 - 109	9.01	20	M1, R
Arsenic	116.078	1.0	125.000	4.27784	89.4	55 - 102	10.2	20	
Barium	151.670	1.0	125.000	53.3006	78.7	40 - 130	5.11	20	
Beryllium	114.889	1.0	125.000	ND	91.9	60 - 104	5.48	20	
Cadmium	103.966	1.0	125.000	0.199326	83.0	52 - 100	3.22	20	
Chromium	121.016	1.0	125.000	6.74174	91.4	53 - 113	4.95	20	
Cobalt	110.248	1.0	125.000	3.15541	85.7	53 - 104	2.83	20	
Copper	131.308	2.0	125.000	6.01669	100	51 - 122	8.45	20	
Lead	358.735	1.0	125.000	93.5743	212	51 - 106	87.7	20	
Molybdenum	111.512	1.0	125.000	0.288232	89.0	55 - 103	6.98	20	
Nickel	108.494	1.0	125.000	2.86028	84.5	48 - 112	3.65	20	
Selenium	105.948	1.0	125.000	ND	84.8	53 - 104	8.90	20	
Silver	118.951	1.0	125.000	ND	95.2	61 - 109	8.69	20	
Thallium	103.603	1.0	125.000	ND	82.9	44 - 103	5.62	20	
Vanadium	143.354	1.0	125.000	22.4544	96.7	55 - 115	4.28	20	
Zinc	123.576	1.0	125.000	17.7426	84.7	24 - 130	4.61	20	

M1, R



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Ninyo & Moore	Project Number : TAMT, 107589002
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Mercury by AA (Cold Vapor) EPA 7471A - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310360 - EPA 7471

Blank (B310360-BLK1)				Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	ND	0.10			NR				
LCS (B310360-BS1)				Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	0.874058	0.10	0.833333		105	80 - 120			
Matrix Spike (B310360-MS1)		Source: 1302860-22		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	1.01192	0.10	0.833333	0.140113	105	70 - 130			
Matrix Spike Dup (B310360-MSD1)		Source: 1302860-22		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	1.02507	0.10	0.833333	0.140113	106	70 - 130	1.29	20	
Post Spike (B310360-PS1)		Source: 1302860-22		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	0.006890		5.00000E-3	0.001681	104	85 - 115			

Batch B310364 - EPA 7471

Blank (B310364-BLK1)				Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	ND	0.10			NR				
LCS (B310364-BS1)				Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	0.859024	0.10	0.833333		103	80 - 120			
Matrix Spike (B310364-MS1)		Source: 1302866-15		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	2.46037	0.20	0.819672	1.13233	162	70 - 130		M1	
Matrix Spike Dup (B310364-MSD1)		Source: 1302866-15		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	2.51272	0.20	0.819672	1.13233	168	70 - 130	2.11	20	M1
Post Spike (B310364-PS1)		Source: 1302866-15		Prepared: 9/20/2013 Analyzed: 9/23/2013					
Mercury	0.018881		5.00000E-3	0.013588	106	85 - 115			



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310313 - GCVOAS

Blank (B310313-BLK1)				Prepared: 9/19/2013 Analyzed: 9/19/2013					
Gasoline Range Organics	ND	1.0			NR				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.1878		0.200000		93.9	54 - 150			
LCS (B310313-BS1)				Prepared: 9/19/2013 Analyzed: 9/19/2013					
Gasoline Range Organics	4.69500	1.0	5.00000		93.9	70 - 130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.2174		0.200000		109	54 - 150			
LCS Dup (B310313-BSD1)				Prepared: 9/19/2013 Analyzed: 9/19/2013					
Gasoline Range Organics	5.06400	1.0	5.00000		101	70 - 130	7.56	20	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.1878		0.200000		93.9	54 - 150			
Matrix Spike (B310313-MS1)		Source: 1302866-01		Prepared: 9/19/2013 Analyzed: 9/19/2013					
Gasoline Range Organics	3.65400	1.0	5.00000	ND	73.1	42 - 125			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.1887		0.200000		94.3	54 - 150			
Matrix Spike Dup (B310313-MSD1)		Source: 1302866-01		Prepared: 9/19/2013 Analyzed: 9/19/2013					
Gasoline Range Organics	3.52300	1.0	5.00000	ND	70.5	42 - 125	3.65	20	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.1724		0.200000		86.2	54 - 150			

Batch B310345 - GCVOAS

Blank (B310345-BLK1)				Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	ND	1.0			NR				
<i>Surrogate: 4-Bromofluorobenzene</i>	0.1867		0.200000		93.3	54 - 150			
LCS (B310345-BS1)				Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	4.52700	1.0	5.00000		90.5	70 - 130			
<i>Surrogate: 4-Bromofluorobenzene</i>	0.2096		0.200000		105	54 - 150			
LCS Dup (B310345-BSD1)				Prepared: 9/20/2013 Analyzed: 9/20/2013					
Gasoline Range Organics	4.57900	1.0	5.00000		91.6	70 - 130	1.14	20	
<i>Surrogate: 4-Bromofluorobenzene</i>	0.2204		0.200000		110	54 - 150			



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Ninyo & Moore	Project Number : TAMT, 107589002
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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310345 - GCVOAS (continued)

Matrix Spike (B310345-MS1)	Source: 1302866-27		Prepared: 9/20/2013 Analyzed: 9/20/2013						
Gasoline Range Organics	3.69800	1.0	5.00000	ND	74.0	42 - 125			
Surrogate: 4-Bromofluorobenzene	0.2041		0.200000		102	54 - 150			



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Gasoline Range Organics by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310345 - GCVOAS (continued)

Matrix Spike Dup (B310345-MSD1)	Source: 1302866-27		Prepared: 9/20/2013 Analyzed: 9/20/2013						
Gasoline Range Organics	3.53900	1.0	5.00000	ND	70.8	42 - 125	4.39	20	
Surrogate: 4-Bromofluorobenzene	0.2336		0.200000		117	54 - 150			



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Ninyo & Moore	Project Number : TAMT, 107589002
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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO

Blank (B310342-BLK1)		Prepared: 9/19/2013 Analyzed: 9/20/2013							
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: <i>p</i> -Terphenyl	63.22		80.0000		79.0	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

LCS (B310342-BS1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
DRO	1213.72	10	1000.00		121	65 - 151			
Surrogate: <i>p</i> -Terphenyl	79.69		80.0000		99.6	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

Matrix Spike (B310342-MS1)		Source: 1302866-20		Prepared: 9/19/2013 Analyzed: 9/19/2013	
DRO	1232.88	10	1000.00	ND	123 45 - 168
Surrogate: <i>p</i> -Terphenyl	86.59		80.0000		108 55 - 153



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310342 - GCSEMI_DRO (continued)

Matrix Spike Dup (B310342-MSD1)		Source: 1302866-20		Prepared: 9/19/2013 Analyzed: 9/20/2013	
DRO	1133.16	10	1000.00	ND	113 45 - 168 8.43 20
Surrogate: <i>p</i> -Terphenyl	77.31		80.0000		96.6 55 - 153



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO

Blank (B310343-BLK1)		Prepared: 9/19/2013 Analyzed: 9/20/2013							
T/R Hydrocarbons: C8-C10	ND	10			NR				
T/R Hydrocarbons: C10-C18	ND	10			NR				
T/R Hydrocarbons: C18-C28	ND	10			NR				
T/R Hydrocarbons: C28-C36	ND	10			NR				
T/R Hydrocarbons: C36-C40	ND	10			NR				
T/R Hydrocarbons: C8-C40 Total (HS)	ND	10			NR				
Surrogate: <i>p</i> -Terphenyl	103.5		80.0000		129	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

LCS (B310343-BS1)		Prepared: 9/19/2013 Analyzed: 9/20/2013							
DRO	1238.64	10	1000.00		124	65 - 151			
Surrogate: <i>p</i> -Terphenyl	75.72		80.0000		94.6	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

Matrix Spike (B310343-MS1)		Source: 1302866-30		Prepared: 9/19/2013 Analyzed: 9/20/2013					
DRO	1275.10	10	1000.00	ND	128	45 - 168			
Surrogate: p-Terphenyl	90.14		80.0000		113	55 - 153			



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Hydrocarbon Chain Distribution by EPA 8015B (Modified) - Quality Control (cont'd)

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310343 - GCSEMI_DRO (continued)

Matrix Spike Dup (B310343-MSD1)		Source: 1302866-30		Prepared: 9/19/2013 Analyzed: 9/20/2013					
DRO	1146.61	10	1000.00	ND	115	45 - 168	10.6	20	
Surrogate: p-Terphenyl	75.45		80.0000		94.3	55 - 153			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST

Blank (B310351-BLK1) Prepared: 9/20/2013 Analyzed: 9/20/2013

4,4'-DDD	ND	2.0			NR				
4,4'-DDD [2C]	ND	2.0			NR				
4,4'-DDE	ND	2.0			NR				
4,4'-DDE [2C]	ND	2.0			NR				
4,4'-DDT	ND	2.0			NR				
4,4'-DDT [2C]	ND	2.0			NR				
Aldrin	ND	1.0			NR				
Aldrin [2C]	ND	1.0			NR				
alpha-BHC	ND	1.0			NR				
alpha-BHC [2C]	ND	1.0			NR				
alpha-Chlordane	ND	1.0			NR				
alpha-Chlordane [2C]	ND	1.0			NR				
beta-BHC	ND	1.0			NR				
beta-BHC [2C]	ND	1.0			NR				
Chlordane	ND	8.5			NR				
Chlordane [2C]	ND	8.5			NR				
delta-BHC	ND	1.0			NR				
delta-BHC [2C]	ND	1.0			NR				
Dieldrin	ND	2.0			NR				
Dieldrin [2C]	ND	2.0			NR				
Endosulfan I	ND	1.0			NR				
Endosulfan I [2C]	ND	1.0			NR				
Endosulfan II	ND	2.0			NR				
Endosulfan II [2C]	ND	2.0			NR				
Endosulfan sulfate	ND	2.0			NR				
Endosulfan Sulfate [2C]	ND	2.0			NR				
Endrin	ND	2.0			NR				
Endrin [2C]	ND	2.0			NR				
Endrin aldehyde	ND	2.0			NR				
Endrin aldehyde [2C]	ND	2.0			NR				
Endrin ketone	ND	2.0			NR				
Endrin ketone [2C]	ND	2.0			NR				
gamma-BHC	ND	1.0			NR				
gamma-BHC [2C]	ND	1.0			NR				
gamma-Chlordane	ND	1.0			NR				
gamma-Chlordane [2C]	ND	1.0			NR				
Heptachlor	ND	1.0			NR				
Heptachlor [2C]	ND	1.0			NR				
Heptachlor epoxide	ND	1.0			NR				
Heptachlor epoxide [2C]	ND	1.0			NR				
Methoxychlor	ND	5.0			NR				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Blank (B310351-BLK1) - Continued Prepared: 9/20/2013 Analyzed: 9/20/2013

Methoxychlor [2C]	ND	5.0			NR				
Toxaphene	ND	50			NR				
Toxaphene [2C]	ND	50			NR				
Surrogate: Decachlorobiphenyl	14.86	16.6667			89.2	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	15.40	16.6667			92.4	32 - 113			
Surrogate: Tetrachloro-m-xylene	13.88	16.6667			83.3	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	13.91	16.6667			83.5	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

LCS (B310351-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
4,4'-DDT	12.4017	2.0	16.6667	74.4	60 - 108				
4,4'-DDT [2C]	11.2232	2.0	16.6667	67.3	60 - 108				
Aldrin	10.5763	1.0	16.6667	63.5	57 - 111				
Aldrin [2C]	10.5418	1.0	16.6667	63.3	57 - 111				
Dieldrin	10.8425	2.0	16.6667	65.1	61 - 106				
Dieldrin [2C]	10.9713	2.0	16.6667	65.8	61 - 106				
Endrin	12.9078	2.0	16.6667	77.4	57 - 97				
Endrin [2C]	12.6122	2.0	16.6667	75.7	57 - 97				
gamma-BHC	10.7478	1.0	16.6667	64.5	61 - 109				
gamma-BHC [2C]	10.6107	1.0	16.6667	63.7	61 - 109				
Heptachlor	17.5612	1.0	16.6667	105	58 - 115				
Heptachlor [2C]	16.5775	1.0	16.6667	99.5	58 - 115				
Surrogate: Decachlorobiphenyl	10.97		16.6667	65.8	32 - 113				
Surrogate: Decachlorobiphenyl [2C]	11.30		16.6667	67.8	32 - 113				
Surrogate: Tetrachloro-m-xylene	9.780		16.6667	58.7	32 - 101				
Surrogate: Tetrachloro-m-xylene [2C]	10.05		16.6667	60.3	32 - 101				



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Matrix Spike (B310351-MS1)		Source: 1302866-01		Prepared: 9/20/2013 Analyzed: 9/20/2013					
4,4'-DDT	20.9887	2.0	16.6667	ND	126	26 - 133			
4,4'-DDT [2C]	21.1528	2.0	16.6667	ND	127	26 - 133			
Aldrin	16.8517	1.0	16.6667	ND	101	38 - 119			
Aldrin [2C]	18.7565	1.0	16.6667	ND	113	38 - 119			
Dieldrin	16.8808	2.0	16.6667	ND	101	30 - 120			
Dieldrin [2C]	18.7238	2.0	16.6667	ND	112	30 - 120			
Endrin	20.8803	2.0	16.6667	ND	125	30 - 114			M1
Endrin [2C]	21.8052	2.0	16.6667	ND	131	30 - 114			M1
gamma-BHC	17.1290	1.0	16.6667	ND	103	31 - 122			
gamma-BHC [2C]	19.0453	1.0	16.6667	ND	114	31 - 122			
Heptachlor	28.3068	1.0	16.6667	ND	170	38 - 123			M1
Heptachlor [2C]	30.9740	1.0	16.6667	ND	186	38 - 123			M1
Surrogate: Decachlorobiphenyl	16.93		16.6667		102	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	14.30		16.6667		85.8	32 - 113			
Surrogate: Tetrachloro-m-xylene	15.66		16.6667		94.0	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	16.75		16.6667		100	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310351 - GCSEMI_PCB/PEST (continued)

Matrix Spike Dup (B310351-MSD1)		Source: 1302866-01		Prepared: 9/20/2013 Analyzed: 9/20/2013					
4,4'-DDT	21.6670	2.0	16.6667	ND	130	26 - 133	3.18	20	
4,4'-DDT [2C]	21.2828	2.0	16.6667	ND	128	26 - 133	0.613	20	
Aldrin	17.0675	1.0	16.6667	ND	102	38 - 119	1.27	20	
Aldrin [2C]	18.9610	1.0	16.6667	ND	114	38 - 119	1.08	20	
Dieldrin	17.0330	2.0	16.6667	ND	102	30 - 120	0.897	20	
Dieldrin [2C]	18.9000	2.0	16.6667	ND	113	30 - 120	0.936	20	
Endrin	21.4367	2.0	16.6667	ND	129	30 - 114	2.63	20	M1
Endrin [2C]	22.2753	2.0	16.6667	ND	134	30 - 114	2.13	20	M1
gamma-BHC	17.4285	1.0	16.6667	ND	105	31 - 122	1.73	20	
gamma-BHC [2C]	19.2900	1.0	16.6667	ND	116	31 - 122	1.28	20	
Heptachlor	29.1840	1.0	16.6667	ND	175	38 - 123	3.05	20	M1
Heptachlor [2C]	31.7883	1.0	16.6667	ND	191	38 - 123	2.59	20	M1
Surrogate: Decachlorobiphenyl	16.45		16.6667			98.7	32 - 113		
Surrogate: Decachlorobiphenyl [2C]	14.64		16.6667			87.9	32 - 113		
Surrogate: Tetrachloro-m-xylene	15.74		16.6667			94.4	32 - 101		
Surrogate: Tetrachloro-m-xylene [2C]	16.82		16.6667			101	32 - 101		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST

Blank (B310367-BLK1)		Prepared: 9/23/2013 Analyzed: 9/23/2013							
4,4'-DDD	ND	2.0							NR
4,4'-DDD [2C]	ND	2.0							NR
4,4'-DDE	ND	2.0							NR
4,4'-DDE [2C]	ND	2.0							NR
4,4'-DDT	ND	2.0							NR
4,4'-DDT [2C]	ND	2.0							NR
Aldrin	ND	1.0							NR
Aldrin [2C]	ND	1.0							NR
alpha-BHC	ND	1.0							NR
alpha-BHC [2C]	ND	1.0							NR
alpha-Chlordane	ND	1.0							NR
alpha-Chlordane [2C]	ND	1.0							NR
beta-BHC	ND	1.0							NR
beta-BHC [2C]	ND	1.0							NR
Chlordane	ND	8.5							NR
Chlordane [2C]	ND	8.5							NR
delta-BHC	ND	1.0							NR
delta-BHC [2C]	ND	1.0							NR
Dieldrin	ND	2.0							NR
Dieldrin [2C]	ND	2.0							NR
Endosulfan I	ND	1.0							NR
Endosulfan I [2C]	ND	1.0							NR
Endosulfan II	ND	2.0							NR
Endosulfan II [2C]	ND	2.0							NR
Endosulfan sulfate	ND	2.0							NR
Endosulfan Sulfate [2C]	ND	2.0							NR
Endrin	ND	2.0							NR
Endrin [2C]	ND	2.0							NR
Endrin aldehyde	ND	2.0							NR
Endrin aldehyde [2C]	ND	2.0							NR
Endrin ketone	ND	2.0							NR
Endrin ketone [2C]	ND	2.0							NR
gamma-BHC	ND	1.0							NR
gamma-BHC [2C]	ND	1.0							NR
gamma-Chlordane	ND	1.0							NR
gamma-Chlordane [2C]	ND	1.0							NR
Heptachlor	ND	1.0							NR
Heptachlor [2C]	ND	1.0							NR
Heptachlor epoxide	ND	1.0							NR
Heptachlor epoxide [2C]	ND	1.0							NR
Methoxychlor	ND	5.0							NR



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Blank (B310367-BLK1) - Continued

		Prepared: 9/23/2013 Analyzed: 9/23/2013	
Methoxychlor [2C]	ND	5.0	NR
Toxaphene	ND	50	NR
Toxaphene [2C]	ND	50	NR
Surrogate: Decachlorobiphenyl	12.95	16.6667	77.7 32 - 113
Surrogate: Decachlorobiphenyl [2C]	12.56	16.6667	75.3 32 - 113
Surrogate: Tetrachloro-m-xylene	13.37	16.6667	80.2 32 - 101
Surrogate: Tetrachloro-m-xylene [2C]	13.18	16.6667	79.1 32 - 101



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

LCS (B310367-BS1)

LCS (B310367-BS1)			Prepared: 9/23/2013 Analyzed: 9/23/2013		
4,4'-DDT	14.6780	2.0	16.6667	88.1	60 - 108
4,4'-DDT [2C]	14.3712	2.0	16.6667	86.2	60 - 108
Aldrin	14.9100	1.0	16.6667	89.5	57 - 111
Aldrin [2C]	13.9212	1.0	16.6667	83.5	57 - 111
Dieldrin	13.5493	2.0	16.6667	81.3	61 - 106
Dieldrin [2C]	13.9295	2.0	16.6667	83.6	61 - 106
Endrin	15.1307	2.0	16.6667	90.8	57 - 97
Endrin [2C]	15.1868	2.0	16.6667	91.1	57 - 97
gamma-BHC	15.1337	1.0	16.6667	90.8	61 - 109
gamma-BHC [2C]	14.9720	1.0	16.6667	89.8	61 - 109
Heptachlor	17.2137	1.0	16.6667	103	58 - 115
Heptachlor [2C]	17.3708	1.0	16.6667	104	58 - 115
Surrogate: Decachlorobiphenyl	14.03		16.6667	84.2	32 - 113
Surrogate: Decachlorobiphenyl [2C]	14.53		16.6667	87.2	32 - 113
Surrogate: Tetrachloro-m-xylene	13.98		16.6667	83.9	32 - 101
Surrogate: Tetrachloro-m-xylene [2C]	14.86		16.6667	89.2	32 - 101



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Matrix Spike (B310367-MS1)		Source: 1302866-32		Prepared: 9/23/2013 Analyzed: 9/23/2013					
4,4'-DDT	18.5592	2.0	16.6667	ND	111	26 - 133			
4,4'-DDT [2C]	17.8810	2.0	16.6667	ND	107	26 - 133			
Aldrin	14.5413	1.0	16.6667	ND	87.2	38 - 119			
Aldrin [2C]	14.9472	1.0	16.6667	ND	89.7	38 - 119			
Dieldrin	15.8587	2.0	16.6667	ND	95.2	30 - 120			
Dieldrin [2C]	16.0840	2.0	16.6667	ND	96.5	30 - 120			
Endrin	19.4693	2.0	16.6667	ND	117	30 - 114			M1
Endrin [2C]	15.5763	2.0	16.6667	ND	93.5	30 - 114			
gamma-BHC	15.3837	1.0	16.6667	ND	92.3	31 - 122			
gamma-BHC [2C]	14.9732	1.0	16.6667	ND	89.8	31 - 122			
Heptachlor	19.5465	1.0	16.6667	ND	117	38 - 123			
Heptachlor [2C]	19.4722	1.0	16.6667	ND	117	38 - 123			
Surrogate: Decachlorobiphenyl	13.69		16.6667		82.1	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	13.42		16.6667		80.5	32 - 113			
Surrogate: Tetrachloro-m-xylene	14.07		16.6667		84.4	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	14.16		16.6667		84.9	32 - 101			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310367 - GCSEMI_PCB/PEST (continued)

Matrix Spike Dup (B310367-MSD1)		Source: 1302866-32		Prepared: 9/23/2013 Analyzed: 9/23/2013					
4,4'-DDT	21.3490	2.0	16.6667	ND	128	26 - 133	14.0	20	
4,4'-DDT [2C]	21.1698	2.0	16.6667	ND	127	26 - 133	16.8	20	
Aldrin	15.9995	1.0	16.6667	ND	96.0	38 - 119	9.55	20	
Aldrin [2C]	17.4592	1.0	16.6667	ND	105	38 - 119	15.5	20	
Dieldrin	17.6730	2.0	16.6667	ND	106	30 - 120	10.8	20	
Dieldrin [2C]	19.2018	2.0	16.6667	ND	115	30 - 120	17.7	20	
Endrin	22.1153	2.0	16.6667	ND	133	30 - 114	12.7	20	M1
Endrin [2C]	18.7513	2.0	16.6667	ND	113	30 - 114	18.5	20	
gamma-BHC	16.9963	1.0	16.6667	ND	102	31 - 122	9.96	20	
gamma-BHC [2C]	17.9573	1.0	16.6667	ND	108	31 - 122	18.1	20	
Heptachlor	21.9193	1.0	16.6667	ND	132	38 - 123	11.4	20	M1
Heptachlor [2C]	24.0395	1.0	16.6667	ND	144	38 - 123	21.0	20	M1, R
Surrogate: Decachlorobiphenyl	15.54		16.6667		93.2	32 - 113			
Surrogate: Decachlorobiphenyl [2C]	16.50		16.6667		99.0	32 - 113			
Surrogate: Tetrachloro-m-xylene	15.44		16.6667		92.6	32 - 101			
Surrogate: Tetrachloro-m-xylene [2C]	16.43		16.6667		98.6	32 - 101			



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Volatile Organic Compounds by EPA 8260 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS

Blank (B310280-BLK1) Prepared: 9/18/2013 Analyzed: 9/18/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Blank (B310280-BLK1) - Continued Prepared: 9/18/2013 Analyzed: 9/18/2013

Dichlorodifluoromethane	ND	5.0		NR
Ethyl Acetate	ND	50		NR
Ethyl Ether	ND	50		NR
Ethyl tert-butyl ether	ND	5.0		NR
Ethylbenzene	ND	5.0		NR
Freon-113	ND	5.0		NR
Hexachlorobutadiene	ND	5.0		NR
Isopropylbenzene	ND	5.0		NR
m,p-Xylene	ND	10		NR
Methylene chloride	ND	5.0		NR
MTBE	ND	5.0		NR
n-Butylbenzene	ND	5.0		NR
n-Propylbenzene	ND	5.0		NR
Naphthalene	ND	5.0		NR
o-Xylene	ND	5.0		NR
sec-Butylbenzene	ND	5.0		NR
Styrene	ND	5.0		NR
tert-Amyl methyl ether	ND	5.0		NR
tert-Butanol	ND	100		NR
tert-Butylbenzene	ND	5.0		NR
Tetrachloroethene	ND	5.0		NR
Toluene	ND	5.0		NR
trans-1,2-Dichloroethene	ND	5.0		NR
trans-1,3-Dichloropropene	ND	5.0		NR
Trichloroethene	ND	5.0		NR
Trichlorofluoromethane	ND	5.0		NR
Vinyl acetate	ND	50		NR
Vinyl chloride	ND	5.0		NR
Surrogate: 1,2-Dichloroethane-d4	57.72	50.0000	115	70 - 130
Surrogate: 4-Bromofluorobenzene	46.94	50.0000	93.9	70 - 130
Surrogate: Dibromofluoromethane	59.51	50.0000	119	70 - 130
Surrogate: Toluene-d8	51.60	50.0000	103	70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

LCS (B310280-BS1)	Prepared: 9/18/2013 Analyzed: 9/18/2013								
1,1-Dichloroethene	48.7200	5.0	50.0000	97.4	70 - 130				
Benzene	104.380	5.0	100.000	104	70 - 130				
Chlorobenzene	55.0800	5.0	50.0000	110	70 - 130				
MTBE	48.4100	5.0	50.0000	96.8	70 - 130				
Toluene	108.520	5.0	100.000	109	70 - 130				
Trichloroethene	51.4100	5.0	50.0000	103	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	54.31		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.99		50.0000	100	70 - 130				
Surrogate: Dibromofluoromethane	57.64		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.55		50.0000	107	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

LCS Dup (B310280-BSD1)	Prepared: 9/18/2013 Analyzed: 9/18/2013								
1,1-Dichloroethene	47.7500	5.0	50.0000	95.5	70 - 130	2.01	20		
Benzene	107.010	5.0	100.000	107	70 - 130	2.49	20		
Chlorobenzene	55.3000	5.0	50.0000	111	70 - 130	0.399	20		
MTBE	50.9200	5.0	50.0000	102	70 - 130	5.05	20		
Toluene	107.730	5.0	100.000	108	70 - 130	0.731	20		
Trichloroethene	52.2200	5.0	50.0000	104	70 - 130	1.56	20		
Surrogate: 1,2-Dichloroethane-d4	53.82		50.0000	108	70 - 130				
Surrogate: 4-Bromofluorobenzene	48.90		50.0000	97.8	70 - 130				
Surrogate: Dibromofluoromethane	57.19		50.0000	114	70 - 130				
Surrogate: Toluene-d8	51.92		50.0000	104	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Matrix Spike (B310280-MS1)	Source: 1302865-01			Prepared: 9/18/2013 Analyzed: 9/18/2013					
1,1-Dichloroethene	45.3800	5.0	50.0000	ND	90.8	70 - 130			
Benzene	107.980	5.0	100.000	ND	108	70 - 130			
Chlorobenzene	62.3900	5.0	50.0000	ND	125	70 - 130			
MTBE	50.3200	5.0	50.0000	ND	101	70 - 130			
Toluene	121.100	5.0	100.000	ND	121	70 - 130			
Trichloroethene	55.7700	5.0	50.0000	ND	112	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	51.92		50.0000		104	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.06		50.0000		102	70 - 130			
Surrogate: Dibromofluoromethane	55.94		50.0000		112	70 - 130			
Surrogate: Toluene-d8	53.87		50.0000		108	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310280 - MSVOAS (continued)

Matrix Spike Dup (B310280-MSD1)	Source: 1302865-01			Prepared: 9/18/2013 Analyzed: 9/18/2013					
1,1-Dichloroethene	46.9300	5.0	50.0000	ND	93.9	70 - 130	3.36	20	
Benzene	104.880	5.0	100.000	ND	105	70 - 130	2.91	20	
Chlorobenzene	57.9700	5.0	50.0000	ND	116	70 - 130	7.34	20	
MTBE	50.7200	5.0	50.0000	ND	101	70 - 130	0.792	20	
Toluene	109.370	5.0	100.000	ND	109	70 - 130	10.2	20	
Trichloroethene	54.5300	5.0	50.0000	ND	109	70 - 130	2.25	20	
Surrogate: 1,2-Dichloroethane-d4	52.65		50.0000		105	70 - 130			
Surrogate: 4-Bromofluorobenzene	49.30		50.0000		98.6	70 - 130			
Surrogate: Dibromofluoromethane	55.93		50.0000		112	70 - 130			
Surrogate: Toluene-d8	52.13		50.0000		104	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS

Blank (B310298-BLK1)

Prepared: 9/19/2013 Analyzed: 9/19/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Blank (B310298-BLK1) - Continued

Prepared: 9/19/2013 Analyzed: 9/19/2013

Dichlorodifluoromethane	ND	5.0		NR
Ethyl Acetate	ND	50		NR
Ethyl Ether	ND	50		NR
Ethyl tert-butyl ether	ND	5.0		NR
Ethylbenzene	ND	5.0		NR
Freon-113	ND	5.0		NR
Hexachlorobutadiene	ND	5.0		NR
Isopropylbenzene	ND	5.0		NR
m,p-Xylene	ND	10		NR
Methylene chloride	ND	5.0		NR
MTBE	ND	5.0		NR
n-Butylbenzene	ND	5.0		NR
n-Propylbenzene	ND	5.0		NR
Naphthalene	ND	5.0		NR
o-Xylene	ND	5.0		NR
sec-Butylbenzene	ND	5.0		NR
Styrene	ND	5.0		NR
tert-Amyl methyl ether	ND	5.0		NR
tert-Butanol	ND	100		NR
tert-Butylbenzene	ND	5.0		NR
Tetrachloroethene	ND	5.0		NR
Toluene	ND	5.0		NR
trans-1,2-Dichloroethene	ND	5.0		NR
trans-1,3-Dichloropropene	ND	5.0		NR
Trichloroethene	ND	5.0		NR
Trichlorofluoromethane	ND	5.0		NR
Vinyl acetate	ND	50		NR
Vinyl chloride	ND	5.0		NR
Surrogate: 1,2-Dichloroethane-d4	57.11	50.0000	114	70 - 130
Surrogate: 4-Bromofluorobenzene	48.14	50.0000	96.3	70 - 130
Surrogate: Dibromofluoromethane	57.74	50.0000	115	70 - 130
Surrogate: Toluene-d8	52.64	50.0000	105	70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

LCS (B310298-BS1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
1,1-Dichloroethene	46.7200	5.0	50.0000	93.4	70 - 130				
Benzene	102.210	5.0	100.000	102	70 - 130				
Chlorobenzene	54.1500	5.0	50.0000	108	70 - 130				
MTBE	47.7400	5.0	50.0000	95.5	70 - 130				
Toluene	103.760	5.0	100.000	104	70 - 130				
Trichloroethene	49.8200	5.0	50.0000	99.6	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	56.52		50.0000	113	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.54		50.0000	99.1	70 - 130				
Surrogate: Dibromofluoromethane	57.95		50.0000	116	70 - 130				
Surrogate: Toluene-d8	53.25		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

LCS Dup (B310298-BSD1)		Prepared: 9/19/2013 Analyzed: 9/19/2013							
1,1-Dichloroethene	46.8600	5.0	50.0000	93.7	70 - 130	0.299	20		
Benzene	105.000	5.0	100.000	105	70 - 130	2.69	20		
Chlorobenzene	54.8600	5.0	50.0000	110	70 - 130	1.30	20		
MTBE	49.1500	5.0	50.0000	98.3	70 - 130	2.91	20		
Toluene	106.670	5.0	100.000	107	70 - 130	2.77	20		
Trichloroethene	49.5500	5.0	50.0000	99.1	70 - 130	0.543	20		
Surrogate: 1,2-Dichloroethane-d4	54.67		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	50.12		50.0000	100	70 - 130				
Surrogate: Dibromofluoromethane	57.62		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.25		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Matrix Spike (B310298-MS1)	Source: 1302866-23			Prepared: 9/19/2013 Analyzed: 9/19/2013					
1,1-Dichloroethene	39.7300	5.0	50.0000	ND	79.5	70 - 130			
Benzene	84.6700	5.0	100.0000	ND	84.7	70 - 130			
Chlorobenzene	42.4900	5.0	50.0000	ND	85.0	70 - 130			
MTBE	40.8700	5.0	50.0000	ND	81.7	70 - 130			
Toluene	87.6900	5.0	100.0000	ND	87.7	70 - 130			
Trichloroethene	42.0700	5.0	50.0000	ND	84.1	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	61.33		50.0000		123	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.28		50.0000		103	70 - 130			
Surrogate: Dibromofluoromethane	58.40		50.0000		117	70 - 130			
Surrogate: Toluene-d8	53.17		50.0000		106	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310298 - MSVOAS (continued)

Matrix Spike Dup (B310298-MSD1)	Source: 1302866-23			Prepared: 9/19/2013 Analyzed: 9/19/2013					
1,1-Dichloroethene	40.7800	5.0	50.0000	ND	81.6	70 - 130	2.61	20	
Benzene	86.1100	5.0	100.0000	ND	86.1	70 - 130	1.69	20	
Chlorobenzene	48.7300	5.0	50.0000	ND	97.5	70 - 130	13.7	20	
MTBE	40.0300	5.0	50.0000	ND	80.1	70 - 130	2.08	20	
Toluene	93.3900	5.0	100.0000	ND	93.4	70 - 130	6.30	20	
Trichloroethene	44.7500	5.0	50.0000	ND	89.5	70 - 130	6.17	20	
Surrogate: 1,2-Dichloroethane-d4	60.16		50.0000		120	70 - 130			
Surrogate: 4-Bromofluorobenzene	51.19		50.0000		102	70 - 130			
Surrogate: Dibromofluoromethane	58.70		50.0000		117	70 - 130			
Surrogate: Toluene-d8	53.11		50.0000		106	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS

Blank (B310338-BLK1)

Prepared: 9/20/2013 Analyzed: 9/20/2013

1,1,1,2-Tetrachloroethane	ND	5.0		NR
1,1,1-Trichloroethane	ND	5.0		NR
1,1,2,2-Tetrachloroethane	ND	5.0		NR
1,1,2-Trichloroethane	ND	5.0		NR
1,1-Dichloroethane	ND	5.0		NR
1,1-Dichloroethene	ND	5.0		NR
1,1-Dichloropropene	ND	5.0		NR
1,2,3-Trichloropropane	ND	5.0		NR
1,2,3-Trichlorobenzene	ND	5.0		NR
1,2,4-Trichlorobenzene	ND	5.0		NR
1,2,4-Trimethylbenzene	ND	5.0		NR
1,2-Dibromo-3-chloropropane	ND	10		NR
1,2-Dibromoethane	ND	5.0		NR
1,2-Dichlorobenzene	ND	5.0		NR
1,2-Dichloroethane	ND	5.0		NR
1,2-Dichloropropane	ND	5.0		NR
1,3,5-Trimethylbenzene	ND	5.0		NR
1,3-Dichlorobenzene	ND	5.0		NR
1,3-Dichloropropane	ND	5.0		NR
1,4-Dichlorobenzene	ND	5.0		NR
2,2-Dichloropropane	ND	5.0		NR
2-Chlorotoluene	ND	5.0		NR
4-Chlorotoluene	ND	5.0		NR
4-Isopropyltoluene	ND	5.0		NR
Benzene	ND	5.0		NR
Bromobenzene	ND	5.0		NR
Bromochloromethane	ND	5.0		NR
Bromodichloromethane	ND	5.0		NR
Bromoform	ND	5.0		NR
Bromomethane	ND	5.0		NR
Carbon disulfide	ND	5.0		NR
Carbon tetrachloride	ND	5.0		NR
Chlorobenzene	ND	5.0		NR
Chloroethane	ND	5.0		NR
Chloroform	ND	5.0		NR
Chloromethane	ND	5.0		NR
cis-1,2-Dichloroethene	ND	5.0		NR
cis-1,3-Dichloropropene	ND	5.0		NR
Di-isopropyl ether	ND	5.0		NR
Dibromochloromethane	ND	5.0		NR
Dibromomethane	ND	5.0		NR



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Blank (B310338-BLK1) - Continued

Prepared: 9/20/2013 Analyzed: 9/20/2013

Dichlorodifluoromethane	ND	5.0			NR
Ethyl Acetate	ND	50			NR
Ethyl Ether	ND	50			NR
Ethyl tert-butyl ether	ND	5.0			NR
Ethylbenzene	ND	5.0			NR
Freon-113	ND	5.0			NR
Hexachlorobutadiene	ND	5.0			NR
Isopropylbenzene	ND	5.0			NR
m,p-Xylene	ND	10			NR
Methylene chloride	ND	5.0			NR
MTBE	ND	5.0			NR
n-Butylbenzene	ND	5.0			NR
n-Propylbenzene	ND	5.0			NR
Naphthalene	ND	5.0			NR
o-Xylene	ND	5.0			NR
sec-Butylbenzene	ND	5.0			NR
Styrene	ND	5.0			NR
tert-Amyl methyl ether	ND	5.0			NR
tert-Butanol	ND	100			NR
tert-Butylbenzene	ND	5.0			NR
Tetrachloroethene	ND	5.0			NR
Toluene	ND	5.0			NR
trans-1,2-Dichloroethene	ND	5.0			NR
trans-1,3-Dichloropropene	ND	5.0			NR
Trichloroethene	ND	5.0			NR
Trichlorofluoromethane	ND	5.0			NR
Vinyl acetate	ND	5.0			NR
Vinyl chloride	ND	5.0			NR
Surrogate: 1,2-Dichloroethane-d4	57.19		50.0000		114 70 - 130
Surrogate: 4-Bromofluorobenzene	46.57		50.0000		93.1 70 - 130
Surrogate: Dibromofluoromethane	59.00		50.0000		118 70 - 130
Surrogate: Toluene-d8	51.78		50.0000		104 70 - 130



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

LCS (B310338-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,1-Dichloroethene	45.9800	5.0	50.0000	92.0	70 - 130				
Benzene	104.940	5.0	100.000	105	70 - 130				
Chlorobenzene	54.4400	5.0	50.0000	109	70 - 130				
MTBE	46.2500	5.0	50.0000	92.5	70 - 130				
Toluene	108.800	5.0	100.000	109	70 - 130				
Trichloroethene	48.5300	5.0	50.0000	97.1	70 - 130				
Surrogate: 1,2-Dichloroethane-d4	55.36		50.0000	111	70 - 130				
Surrogate: 4-Bromofluorobenzene	48.93		50.0000	97.9	70 - 130				
Surrogate: Dibromofluoromethane	57.51		50.0000	115	70 - 130				
Surrogate: Toluene-d8	53.16		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

LCS Dup (B310338-BSD1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,1-Dichloroethene	44.1200	5.0	50.0000	88.2	70 - 130	4.13	20		
Benzene	105.310	5.0	100.000	105	70 - 130	0.352	20		
Chlorobenzene	60.5900	5.0	50.0000	121	70 - 130	10.7	20		
MTBE	48.3200	5.0	50.0000	96.6	70 - 130	4.38	20		
Toluene	109.650	5.0	100.000	110	70 - 130	0.778	20		
Trichloroethene	48.9700	5.0	50.0000	97.9	70 - 130	0.903	20		
Surrogate: 1,2-Dichloroethane-d4	54.37		50.0000	109	70 - 130				
Surrogate: 4-Bromofluorobenzene	49.80		50.0000	99.6	70 - 130				
Surrogate: Dibromofluoromethane	56.52		50.0000	113	70 - 130				
Surrogate: Toluene-d8	52.89		50.0000	106	70 - 130				



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Matrix Spike (B310338-MS1)	Source: 1302866-37			Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,1-Dichloroethene	43.0800	5.0	50.0000	ND	86.2	70 - 130			
Benzene	90.9200	5.0	100.0000	ND	90.9	70 - 130			
Chlorobenzene	47.9400	5.0	50.0000	ND	95.9	70 - 130			
MTBE	46.2100	5.0	50.0000	ND	92.4	70 - 130			
Toluene	91.9400	5.0	100.0000	ND	91.9	70 - 130			
Trichloroethene	45.5800	5.0	50.0000	ND	91.2	70 - 130			
Surrogate: 1,2-Dichloroethane-d4	55.26		50.0000		111	70 - 130			
Surrogate: 4-Bromofluorobenzene	50.18		50.0000		100	70 - 130			
Surrogate: Dibromofluoromethane	56.32		50.0000		113	70 - 130			
Surrogate: Toluene-d8	52.51		50.0000		105	70 - 130			



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Volatile Organic Compounds by EPA 8260 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310338 - MSVOAS (continued)

Matrix Spike Dup (B310338-MSD1)	Source: 1302866-37			Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,1-Dichloroethene	42.5500	5.0	50.0000	ND	85.1	70 - 130	1.24	20	
Benzene	93.5200	5.0	100.0000	ND	93.5	70 - 130	2.82	20	
Chlorobenzene	46.3300	5.0	50.0000	ND	92.7	70 - 130	3.42	20	
MTBE	45.3500	5.0	50.0000	ND	90.7	70 - 130	1.88	20	
Toluene	93.3000	5.0	100.0000	ND	93.3	70 - 130	1.47	20	
Trichloroethene	44.5100	5.0	50.0000	ND	89.0	70 - 130	2.38	20	
Surrogate: 1,2-Dichloroethane-d4	56.03		50.0000		112	70 - 130			
Surrogate: 4-Bromofluorobenzene	50.54		50.0000		101	70 - 130			
Surrogate: Dibromofluoromethane	56.94		50.0000		114	70 - 130			
Surrogate: Toluene-d8	52.83		50.0000		106	70 - 130			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI

Blank (B310349-BLK1) Prepared: 9/20/2013 Analyzed: 9/20/2013

1,2,4-Trichlorobenzene	ND	330		NR					
1,2-Dichlorobenzene	ND	330		NR					
1,3-Dichlorobenzene	ND	330		NR					
1,4-Dichlorobenzene	ND	330		NR					
2,4,5-Trichlorophenol	ND	330		NR					
2,4,6-Trichlorophenol	ND	330		NR					
2,4-Dichlorophenol	ND	1600		NR					
2,4-Dimethylphenol	ND	330		NR					
2,4-Dinitrophenol	ND	1600		NR					
2,4-Dinitrotoluene	ND	330		NR					
2,6-Dinitrotoluene	ND	330		NR					
2-Chloronaphthalene	ND	330		NR					
2-Chlorophenol	ND	330		NR					
2-Methylnaphthalene	ND	330		NR					
2-Methylphenol	ND	330		NR					
2-Nitroaniline	ND	1600		NR					
2-Nitrophenol	ND	330		NR					
3,3'-Dichlorobenzidine	ND	660		NR					
3-Nitroaniline	ND	1600		NR					
4,6-Dinitro-2-methylphenol	ND	1600		NR					
4-Bromophenyl-phenylether	ND	330		NR					
4-Chloro-3-methylphenol	ND	660		NR					
4-Chloroaniline	ND	660		NR					
4-Chlorophenyl-phenylether	ND	330		NR					
4-Methylphenol	ND	330		NR					
4-Nitroaniline	ND	1600		NR					
4-Nitrophenol	ND	330		NR					
Acenaphthene	ND	330		NR					
Acenaphthylene	ND	330		NR					
Anthracene	ND	330		NR					
Benzidine (M)	ND	1600		NR					
Benzo(a)anthracene	ND	330		NR					
Benzo(a)pyrene	ND	330		NR					
Benzo(b)fluoranthene	ND	330		NR					
Benzo(g,h,i)perylene	ND	330		NR					
Benzo(k)fluoranthene	ND	330		NR					
Benzoic acid	ND	1600		NR					
Benzyl alcohol	ND	660		NR					
bis(2-chloroethoxy)methane	ND	330		NR					
bis(2-Chloroethyl)ether	ND	330		NR					
bis(2-chloroisopropyl)ether	ND	330		NR					



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Blank (B310349-BLK1) - Continued Prepared: 9/20/2013 Analyzed: 9/20/2013

bis(2-ethylhexyl)phthalate	ND	330		NR					
Butylbenzylphthalate	ND	330		NR					
Chrysene	ND	330		NR					
Di-n-butylphthalate	ND	330		NR					
Di-n-octylphthalate	ND	330		NR					
Dibenz(a,h)anthracene	ND	330		NR					
Dibenzofuran	ND	330		NR					
Diethyl phthalate	ND	330		NR					
Dimethyl phthalate	ND	330		NR					
Fluoranthene	ND	330		NR					
Fluorene	ND	330		NR					
Hexachlorobenzene	ND	330		NR					
Hexachlorobutadiene	ND	660		NR					
Hexachlorocyclopentadiene	ND	660		NR					
Hexachloroethane	ND	330		NR					
Indeno(1,2,3-cd)pyrene	ND	330		NR					
Isophorone	ND	330		NR					
N-Nitroso-di-n-propylamine	ND	330		NR					
N-Nitrosodiphenylamine	ND	330		NR					
Naphthalene	ND	330		NR					
Nitrobenzene	ND	330		NR					
Pentachlorophenol	ND	1600		NR					
Phenanthrene	ND	330		NR					
Phenol	ND	330		NR					
Pyrene	ND	330		NR					
Pyridine	ND	1600		NR					
Surrogate: 1,2-Dichlorobenzene-d4	2313	3333.33		69.4	48 - 113				
Surrogate: 2,4,6-Tribromophenol	2850	3333.33		85.5	14 - 162				
Surrogate: 2-Chlorophenol-d4	2312	3333.33		69.4	40 - 117				
Surrogate: 2-Fluorobiphenyl	2609	3333.33		78.3	52 - 126				
Surrogate: 2-Fluorophenol	2266	3333.33		68.0	26 - 124				
Surrogate: 4-Terphenyl-d14	3081	3333.33		92.4	36 - 163				
Surrogate: Nitrobenzene-d5	2297	3333.33		68.9	42 - 118				
Surrogate: Phenol-d5	2269	3333.33		68.1	29 - 124				



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

LCS (B310349-BS1)		Prepared: 9/20/2013 Analyzed: 9/20/2013							
1,2,4-Trichlorobenzene	3260.00	330	3333.33		97.8	62 - 101			
1,4-Dichlorobenzene	2924.00	330	3333.33		87.7	58 - 93			
2,4-Dinitrotoluene	3910.67	330	3333.33		117	67 - 133			
2-Chlorophenol	3073.33	330	3333.33		92.2	63 - 100			
4-Chloro-3-methylphenol	3496.33	660	3333.33		105	70 - 120			
4-Nitrophenol	3607.33	330	3333.33		108	55 - 137			
Acenaphthene	3525.33	330	3333.33		106	73 - 112			
N-Nitroso-di-n propylamine	3291.67	330	3333.33		98.8	56 - 114			
Pentachlorophenol	3869.33	1600	3333.33		116	61 - 125			
Phenol	3088.67	330	3333.33		92.7	61 - 106			
Pyrene	4236.67	330	3333.33		127	66 - 122			L5
Surrogate: 1,2-Dichlorobenzene-d4	2985		3333.33		89.6	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3476		3333.33		104	14 - 162			
Surrogate: 2-Chlorophenol-d4	2941		3333.33		88.2	40 - 117			
Surrogate: 2-Fluorobiphenyl	3272		3333.33		98.2	52 - 126			
Surrogate: 2-Fluorophenol	2675		3333.33		80.3	26 - 124			
Surrogate: 4-Terphenyl-d14	3177		3333.33		95.3	36 - 163			
Surrogate: Nitrobenzene-d5	2821		3333.33		84.6	42 - 118			
Surrogate: Phenol-d5	2805		3333.33		84.1	29 - 124			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Matrix Spike (B310349-MS1)		Source: 1302866-08		Prepared: 9/20/2013 Analyzed: 9/20/2013					
1,2,4-Trichlorobenzene	2683.00	330	3333.33	ND	80.5	52 - 111			
1,4-Dichlorobenzene	2440.33	330	3333.33	ND	73.2	47 - 101			
2,4-Dinitrotoluene	3728.33	330	3333.33	ND	112	66 - 134			
2-Chlorophenol	2461.33	330	3333.33	ND	73.8	55 - 107			
4-Chloro-3-methylphenol	3176.33	660	3333.33	ND	95.3	64 - 129			
4-Nitrophenol	3454.67	330	3333.33	ND	104	56 - 144			
Acenaphthene	3259.00	330	3333.33	ND	97.8	63 - 121			
N-Nitroso-di-n propylamine	2671.00	330	3333.33	ND	80.1	45 - 123			
Pentachlorophenol	4052.00	1600	3333.33	ND	122	51 - 144			
Phenol	2562.00	330	3333.33	ND	76.9	50 - 116			
Pyrene	4114.33	330	3333.33	ND	123	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	2457		3333.33		73.7	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3459		3333.33		104	14 - 162			
Surrogate: 2-Chlorophenol-d4	2423		3333.33		72.7	40 - 117			
Surrogate: 2-Fluorobiphenyl	2955		3333.33		88.7	52 - 126			
Surrogate: 2-Fluorophenol	2266		3333.33		68.0	26 - 124			
Surrogate: 4-Terphenyl-d14	3174		3333.33		95.2	36 - 163			
Surrogate: Nitrobenzene-d5	2408		3333.33		72.2	42 - 118			
Surrogate: Phenol-d5	2386		3333.33		71.6	29 - 124			



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Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310349 - MSSEMI (continued)

Matrix Spike Dup (B310349-MSD1)	Source: 1302866-08		Prepared: 9/20/2013 Analyzed: 9/20/2013						
1,2,4-Trichlorobenzene	2913.67	330	3333.33	ND	87.4	52 - 111	8.24	20	
1,4-Dichlorobenzene	2553.67	330	3333.33	ND	76.6	47 - 101	4.54	20	
2,4-Dinitrotoluene	3505.00	330	3333.33	ND	105	66 - 134	6.18	20	
2-Chlorophenol	2672.67	330	3333.33	ND	80.2	55 - 107	8.23	20	
4-Chloro-3-methylphenol	3150.33	660	3333.33	ND	94.5	64 - 129	0.822	20	
4-Nitrophenol	3233.33	330	3333.33	ND	97.0	56 - 144	6.62	20	
Acenaphthene	3256.67	330	3333.33	ND	97.7	63 - 121	0.0716	20	
N-Nitroso-di-n propylamine	2835.33	330	3333.33	ND	85.1	45 - 123	5.97	20	
Pentachlorophenol	3699.33	1600	3333.33	ND	111	51 - 144	9.10	20	
Phenol	2752.67	330	3333.33	ND	82.6	50 - 116	7.18	20	
Pyrene	3921.33	330	3333.33	ND	118	65 - 127	4.80	20	
Surrogate: 1,2-Dichlorobenzene-d4	2644		3333.33		79.3	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3207		3333.33		96.2	14 - 162			
Surrogate: 2-Chlorophenol-d4	2644		3333.33		79.3	40 - 117			
Surrogate: 2-Fluorobiphenyl	3098		3333.33		92.9	52 - 126			
Surrogate: 2-Fluorophenol	2453		3333.33		73.6	26 - 124			
Surrogate: 4-Terphenyl-d14	2972		3333.33		89.2	36 - 163			
Surrogate: Nitrobenzene-d5	2647		3333.33		79.4	42 - 118			
Surrogate: Phenol-d5	2593		3333.33		77.8	29 - 124			



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San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI

Blank (B310361-BLK1)	Prepared: 9/20/2013 Analyzed: 9/23/2013								
1,2,4-Trichlorobenzene	ND	330							NR
1,2-Dichlorobenzene	ND	330							NR
1,3-Dichlorobenzene	ND	330							NR
1,4-Dichlorobenzene	ND	330							NR
2,4,5-Trichlorophenol	ND	330							NR
2,4,6-Trichlorophenol	ND	330							NR
2,4-Dichlorophenol	ND	1600							NR
2,4-Dimethylphenol	ND	330							NR
2,4-Dinitrophenol	ND	1600							NR
2,4-Dinitrotoluene	ND	330							NR
2,6-Dinitrotoluene	ND	330							NR
2-Chloronaphthalene	ND	330							NR
2-Chlorophenol	ND	330							NR
2-Methylnaphthalene	ND	330							NR
2-Methylphenol	ND	330							NR
2-Nitroaniline	ND	1600							NR
2-Nitrophenol	ND	330							NR
3,3'-Dichlorobenzidine	ND	660							NR
3-Nitroaniline	ND	1600							NR
4,6-Dinitro-2-methylphenol	ND	1600							NR
4-Bromophenyl-phenylether	ND	330							NR
4-Chloro-3-methylphenol	ND	660							NR
4-Chloroaniline	ND	660							NR
4-Chlorophenyl-phenylether	ND	330							NR
4-Methylphenol	ND	330							NR
4-Nitroaniline	ND	1600							NR
4-Nitrophenol	ND	330							NR
Acenaphthene	ND	330							NR
Acenaphthylene	ND	330							NR
Anthracene	ND	330							NR
Benzidine (M)	ND	1600							NR
Benzo(a)anthracene	ND	330							NR
Benzo(a)pyrene	ND	330							NR
Benzo(b)fluoranthene	ND	330							NR
Benzo(g,h,i)perylene	ND	330							NR
Benzo(k)fluoranthene	ND	330							NR
Benzoic acid	ND	1600							NR
Benzyl alcohol	ND	660							NR
bis(2-chloroethoxy)methane	ND	330							NR
bis(2-Chloroethyl)ether	ND	330							NR
bis(2-chloroisopropyl)ether	ND	330							NR



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Blank (B310361-BLK1) - Continued

Prepared: 9/20/2013 Analyzed: 9/23/2013

bis(2-ethylhexyl)phthalate	ND	330		NR					
Butylbenzylphthalate	ND	330		NR					
Chrysene	ND	330		NR					
Di-n-butylphthalate	ND	330		NR					
Di-n-octylphthalate	ND	330		NR					
Dibenz(a,h)anthracene	ND	330		NR					
Dibenzofuran	ND	330		NR					
Diethyl phthalate	ND	330		NR					
Dimethyl phthalate	ND	330		NR					
Fluoranthene	ND	330		NR					
Fluorene	ND	330		NR					
Hexachlorobenzene	ND	330		NR					
Hexachlorobutadiene	ND	660		NR					
Hexachlorocyclopentadiene	ND	660		NR					
Hexachloroethane	ND	330		NR					
Indeno(1,2,3-cd)pyrene	ND	330		NR					
Isophorone	ND	330		NR					
N-Nitroso-di-n propylamine	ND	330		NR					
N-Nitrosodiphenylamine	ND	330		NR					
Naphthalene	ND	330		NR					
Nitrobenzene	ND	330		NR					
Pentachlorophenol	ND	1600		NR					
Phenanthrene	ND	330		NR					
Phenol	ND	330		NR					
Pyrene	ND	330		NR					
Pyridine	ND	1600		NR					

Surrogate: 1,2-Dichlorobenzene-d4	2384	3333.33	71.5	48 - 113
Surrogate: 2,4,6-Tribromophenol	2961	3333.33	88.8	14 - 162
Surrogate: 2-Chlorophenol-d4	2495	3333.33	74.8	40 - 117
Surrogate: 2-Fluorobiphenyl	2553	3333.33	76.6	52 - 126
Surrogate: 2-Fluorophenol	2546	3333.33	76.4	26 - 124
Surrogate: 4-Terphenyl-d14	3447	3333.33	103	36 - 163
Surrogate: Nitrobenzene-d5	2343	3333.33	70.3	42 - 118
Surrogate: Phenol-d5	2444	3333.33	73.3	29 - 124



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

LCS (B310361-BS1)

Prepared: 9/20/2013 Analyzed: 9/23/2013

1,2,4-Trichlorobenzene	2582.33	330	3333.33	77.5	62 - 101
1,4-Dichlorobenzene	2403.33	330	3333.33	72.1	58 - 93
2,4-Dinitrotoluene	3543.67	330	3333.33	106	67 - 133
2-Chlorophenol	2606.00	330	3333.33	78.2	63 - 100
4-Chloro-3-methylphenol	3125.33	660	3333.33	93.8	70 - 120
4-Nitrophenol	3050.33	330	3333.33	91.5	55 - 137
Acenaphthene	2956.33	330	3333.33	88.7	73 - 112
N-Nitroso-di-n propylamine	2728.33	330	3333.33	81.8	56 - 114
Pentachlorophenol	3712.33	1600	3333.33	111	61 - 125
Phenol	2647.67	330	3333.33	79.4	61 - 106
Pyrene	3570.33	330	3333.33	107	66 - 122
Surrogate: 1,2-Dichlorobenzene-d4	2377		3333.33	71.3	48 - 113
Surrogate: 2,4,6-Tribromophenol	3227		3333.33	96.8	14 - 162
Surrogate: 2-Chlorophenol-d4	2498		3333.33	74.9	40 - 117
Surrogate: 2-Fluorobiphenyl	2621		3333.33	78.6	52 - 126
Surrogate: 2-Fluorophenol	2423		3333.33	72.7	26 - 124
Surrogate: 4-Terphenyl-d14	3104		3333.33	93.1	36 - 163
Surrogate: Nitrobenzene-d5	2360		3333.33	70.8	42 - 118
Surrogate: Phenol-d5	2472		3333.33	74.2	29 - 124



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Matrix Spike (B310361-MS1)	Source: 1302866-33			Prepared: 9/20/2013 Analyzed: 9/23/2013					
1,2,4-Trichlorobenzene	2910.00	330	3333.33	ND	87.3	52 - 111			
1,4-Dichlorobenzene	2686.00	330	3333.33	ND	80.6	47 - 101			
2,4-Dinitrotoluene	3786.67	330	3333.33	ND	114	66 - 134			
2-Chlorophenol	2899.67	330	3333.33	ND	87.0	55 - 107			
4-Chloro-3-methylphenol	3396.33	660	3333.33	ND	102	64 - 129			
4-Nitrophenol	3201.00	330	3333.33	ND	96.0	56 - 144			
Acenaphthene	3221.33	330	3333.33	ND	96.6	63 - 121			
N-Nitroso-di-n propylamine	2896.00	330	3333.33	ND	86.9	45 - 123			
Pentachlorophenol	4099.67	1600	3333.33	ND	123	51 - 144			
Phenol	2917.33	330	3333.33	ND	87.5	50 - 116			
Pyrene	3746.00	330	3333.33	ND	112	65 - 127			
Surrogate: 1,2-Dichlorobenzene-d4	2717		3333.33		81.5	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3448		3333.33		103	14 - 162			
Surrogate: 2-Chlorophenol-d4	2847		3333.33		85.4	40 - 117			
Surrogate: 2-Fluorobiphenyl	2999		3333.33		90.0	52 - 126			
Surrogate: 2-Fluorophenol	2760		3333.33		82.8	26 - 124			
Surrogate: 4-Terphenyl-d14	3308		3333.33		99.2	36 - 163			
Surrogate: Nitrobenzene-d5	2646		3333.33		79.4	42 - 118			
Surrogate: Phenol-d5	2779		3333.33		83.4	29 - 124			



Certificate of Analysis

Ninyo & Moore	Project Number : TAMT, 107589002
5710 Ruffin Road	Report To : Lisa Bestard
San Diego , CA 92123	Reported : 09/24/2013

Semivolatile Organic Compounds by EPA 8270C - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B310361 - MSSEMI (continued)

Matrix Spike Dup (B310361-MSD1)	Source: 1302866-33			Prepared: 9/20/2013 Analyzed: 9/23/2013					
1,2,4-Trichlorobenzene	2913.33	330	3333.33	ND	87.4	52 - 111	0.114	20	
1,4-Dichlorobenzene	2765.67	330	3333.33	ND	83.0	47 - 101	2.92	20	
2,4-Dinitrotoluene	3728.67	330	3333.33	ND	112	66 - 134	1.54	20	
2-Chlorophenol	2955.33	330	3333.33	ND	88.7	55 - 107	1.90	20	
4-Chloro-3-methylphenol	3338.67	660	3333.33	ND	100	64 - 129	1.71	20	
4-Nitrophenol	3212.67	330	3333.33	ND	96.4	56 - 144	0.364	20	
Acenaphthene	3203.67	330	3333.33	ND	96.1	63 - 121	0.550	20	
N-Nitroso-di-n propylamine	2913.00	330	3333.33	ND	87.4	45 - 123	0.585	20	
Pentachlorophenol	4134.00	1600	3333.33	ND	124	51 - 144	0.834	20	
Phenol	2937.33	330	3333.33	ND	88.1	50 - 116	0.683	20	
Pyrene	3775.33	330	3333.33	ND	113	65 - 127	0.780	20	
Surrogate: 1,2-Dichlorobenzene-d4	2818		3333.33		84.5	48 - 113			
Surrogate: 2,4,6-Tribromophenol	3442		3333.33		103	14 - 162			
Surrogate: 2-Chlorophenol-d4	2903		3333.33		87.1	40 - 117			
Surrogate: 2-Fluorobiphenyl	2962		3333.33		88.9	52 - 126			
Surrogate: 2-Fluorophenol	2842		3333.33		85.3	26 - 124			
Surrogate: 4-Terphenyl-d14	3357		3333.33		101	36 - 163			
Surrogate: Nitrobenzene-d5	2639		3333.33		79.2	42 - 118			
Surrogate: Phenol-d5	2809		3333.33		84.3	29 - 124			

CHAIN OF CUSTODY RECORD

Page 2 of 4

Instructions: Complete all shaded areas.

For Laboratory Use Only		ATLCC-Ver. 2010/07/15	
Method of Transport	Sample Conditions Upon Receipt	Condition	Y N
<input type="checkbox"/> Direct	<input type="checkbox"/> ATL	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 2. OF SAMPLES MATCH CQC
<input type="checkbox"/> FedEx	<input type="checkbox"/> Onsite	<input type="checkbox"/> 3. HEADSPACE (VIA)	<input type="checkbox"/> 4. PRESERVED
<input type="checkbox"/> UPS	<input type="checkbox"/> Other	<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLER TEMP. REC'D
<input type="checkbox"/> Other		<input type="checkbox"/> 7. SEALED	<input type="checkbox"/> 8. COOLER TEMP. REC'D

Company: Ningpo 3 Moore	Address: 5710 Puffer Rd	City: San Diego	State: CA	Zip: 92123
Attn: Lisa Bestard	Email: lbestard@NingpoandMoore.com			
Company: Ningpo 3 Moore	Address: 5710 Puffer Rd	City: San Diego	State: CA	Zip: 92123
Attn: Lisa Bestard	Email: lbestard@NingpoandMoore.com			

Project Name: TMT	Quote No: 107589002	Special Instructions/Comments: Hold analysis and samples please
Project No: 107589002	PO #: 107589002	
Sampler: BMC		
Lab No.	Sample ID / Location	Sample Description
1 130256C-11	B4-2	0841
2 130256C-12	B4-3	0841
3 130256C-13	B5-1	0852
4 130256C-14	B5-3.5	0852
5 130256C-15	B5-4.5	0852
6 130256C-16	B6-1	0906
7 130256C-17	B6-3.5	0906
8 130256C-18	B6-4.5	0906
9 130256C-19	B7-6.5	0913
10 130256C-20	B7-2.0	0913

Encircle or Write Requested Analysis	Encircle or Write Requested Analysis	Encircle or Write Requested Analysis
8081(G)anchochone (Pesticides)	8081(G)anchochone (Pesticides)	8081(G)anchochone (Pesticides)
8082(PCBs)	8082(PCBs)	8082(PCBs)
8083(G)anchochone (Pesticides)	8083(G)anchochone (Pesticides)	8083(G)anchochone (Pesticides)
8084(G)anchochone (Pesticides)	8084(G)anchochone (Pesticides)	8084(G)anchochone (Pesticides)
8085(G)anchochone (Pesticides)	8085(G)anchochone (Pesticides)	8085(G)anchochone (Pesticides)
8086(G)anchochone (Pesticides)	8086(G)anchochone (Pesticides)	8086(G)anchochone (Pesticides)
8087(G)anchochone (Pesticides)	8087(G)anchochone (Pesticides)	8087(G)anchochone (Pesticides)
8088(G)anchochone (Pesticides)	8088(G)anchochone (Pesticides)	8088(G)anchochone (Pesticides)
8089(G)anchochone (Pesticides)	8089(G)anchochone (Pesticides)	8089(G)anchochone (Pesticides)
8090(G)anchochone (Pesticides)	8090(G)anchochone (Pesticides)	8090(G)anchochone (Pesticides)
8091(G)anchochone (Pesticides)	8091(G)anchochone (Pesticides)	8091(G)anchochone (Pesticides)
8092(G)anchochone (Pesticides)	8092(G)anchochone (Pesticides)	8092(G)anchochone (Pesticides)
8093(G)anchochone (Pesticides)	8093(G)anchochone (Pesticides)	8093(G)anchochone (Pesticides)
8094(G)anchochone (Pesticides)	8094(G)anchochone (Pesticides)	8094(G)anchochone (Pesticides)
8095(G)anchochone (Pesticides)	8095(G)anchochone (Pesticides)	8095(G)anchochone (Pesticides)
8096(G)anchochone (Pesticides)	8096(G)anchochone (Pesticides)	8096(G)anchochone (Pesticides)
8097(G)anchochone (Pesticides)	8097(G)anchochone (Pesticides)	8097(G)anchochone (Pesticides)
8098(G)anchochone (Pesticides)	8098(G)anchochone (Pesticides)	8098(G)anchochone (Pesticides)
8099(G)anchochone (Pesticides)	8099(G)anchochone (Pesticides)	8099(G)anchochone (Pesticides)
8100(G)anchochone (Pesticides)	8100(G)anchochone (Pesticides)	8100(G)anchochone (Pesticides)

CHAIN OF CUSTODY RECORD

Page 3 of 4

Instructions: Complete all shaded areas.

For Laboratory Use Only		ATLCC-Ver. 2010/07/15	
Method of Transport	Sample Conditions Upon Receipt	Condition	Y N
<input type="checkbox"/> Direct	<input type="checkbox"/> ATL	<input type="checkbox"/> 1. CHILLED	<input type="checkbox"/> 2. OF SAMPLES MATCH CQC
<input type="checkbox"/> FedEx	<input type="checkbox"/> Onsite	<input type="checkbox"/> 3. HEADSPACE (VIA)	<input type="checkbox"/> 4. PRESERVED
<input type="checkbox"/> UPS	<input type="checkbox"/> Other	<input type="checkbox"/> 5. CONTAINER INTACT	<input type="checkbox"/> 6. COOLER TEMP. REC'D
<input type="checkbox"/> Other		<input type="checkbox"/> 7. SEALED	<input type="checkbox"/> 8. COOLER TEMP. REC'D

Company: Ningpo 3 Moore	Address: 5710 Puffer Rd	City: San Diego	State: CA	Zip: 92123
Attn: Lisa Bestard	Email: lbestard@NingpoandMoore.com			
Company: Ningpo 3 Moore	Address: 5710 Puffer Rd	City: San Diego	State: CA	Zip: 92123
Attn: Lisa Bestard	Email: lbestard@NingpoandMoore.com			

Project Name: TMT	Quote No: 107589002	Special Instructions/Comments: Hold analysis and samples please
Project No: 107589002	PO #: 107589002	
Sampler: BMC		
Lab No.	Sample ID / Location	Sample Description
1 130256C-21	B7-4.0	0913
2 130256C-22	B8-0.5	0913
3 130256C-23	B8-3.0	0913
4 130256C-24	B8-4.0	0913
5 130256C-25	B9-0.5	1001
6 130256C-26	B9-1.0	1001
7 130256C-27	B9-4.5	1001
8 130256C-28	B10-1	1010
9 130256C-29	B10-3	1010
10 130256C-30	B10-3.5	1010

Encircle or Write Requested Analysis	Encircle or Write Requested Analysis	Encircle or Write Requested Analysis
8081(G)anchochone (Pesticides)	8081(G)anchochone (Pesticides)	8081(G)anchochone (Pesticides)
8082(PCBs)	8082(PCBs)	8082(PCBs)
8083(G)anchochone (Pesticides)	8083(G)anchochone (Pesticides)	8083(G)anchochone (Pesticides)
8084(G)anchochone (Pesticides)	8084(G)anchochone (Pesticides)	8084(G)anchochone (Pesticides)
8085(G)anchochone (Pesticides)	8085(G)anchochone (Pesticides)	8085(G)anchochone (Pesticides)
8086(G)anchochone (Pesticides)	8086(G)anchochone (Pesticides)	8086(G)anchochone (Pesticides)
8087(G)anchochone (Pesticides)	8087(G)anchochone (Pesticides)	8087(G)anchochone (Pesticides)
8088(G)anchochone (Pesticides)	8088(G)anchochone (Pesticides)	8088(G)anchochone (Pesticides)
8089(G)anchochone (Pesticides)	8089(G)anchochone (Pesticides)	8089(G)anchochone (Pesticides)
8090(G)anchochone (Pesticides)	8090(G)anchochone (Pesticides)	8090(G)anchochone (Pesticides)
8091(G)anchochone (Pesticides)	8091(G)anchochone (Pesticides)	8091(G)anchochone (Pesticides)
8092(G)anchochone (Pesticides)	8092(G)anchochone (Pesticides)	8092(G)anchochone (Pesticides)
8093(G)anchochone (Pesticides)	8093(G)anchochone (Pesticides)	8093(G)anchochone (Pesticides)
8094(G)anchochone (Pesticides)	8094(G)anchochone (Pesticides)	8094(G)anchochone (Pesticides)
8095(G)anchochone (Pesticides)	8095(G)anchochone (Pesticides)	8095(G)anchochone (Pesticides)
8096(G)anchochone (Pesticides)	8096(G)anchochone (Pesticides)	8096(G)anchochone (Pesticides)
8097(G)anchochone (Pesticides)	8097(G)anchochone (Pesticides)	8097(G)anchochone (Pesticides)
8098(G)anchochone (Pesticides)	8098(G)anchochone (Pesticides)	8098(G)anchochone (Pesticides)
8099(G)anchochone (Pesticides)	8099(G)anchochone (Pesticides)	8099(G)anchochone (Pesticides)
8100(G)anchochone (Pesticides)	8100(G)anchochone (Pesticides)	8100(G)anchochone (Pesticides)

CHAIN OF CUSTODY RECORD

Pg 4 of 4

ADVANCED TECHNOLOGY LABORATORIES		P.O.#: 107589002 Quote #: 705		FOR LABORATORY USE ONLY:	
3275 Walnut Ave., Signal Hill, CA 90755 Tel: (562) 989-4045 • Fax: (562) 989-4040		Logged By: <i>AVC</i> Date: <i>9/16</i>		Sample Condition Upon Receipt 1. CHILLED Y <input type="checkbox"/> N <input type="checkbox"/> 4. SEALED Y <input type="checkbox"/> N <input type="checkbox"/> 2. HEADSPACE (VOA) Y <input type="checkbox"/> N <input type="checkbox"/> 5. # OF SPLS MATCH DOC Y <input type="checkbox"/> N <input type="checkbox"/> 3. CONTAINER INTACT Y <input type="checkbox"/> N <input type="checkbox"/> 6. PRESERVED Y <input type="checkbox"/> N <input type="checkbox"/>	
Client: <i>Ningy Moore</i> Attn: <i>Lisa Redford</i>		Address: <i>5700 Ruffin Rd</i> City: <i>San Diego</i> State: <i>CA</i> Zip Code: <i>92123</i>		TEL: <i>858-570-1000</i> FAX: <i>858-570-9800</i>	
Project Name: <i>1AWJ</i>		Project #: <i>107589002</i> Sample: <i>Brown Contaminant</i>		(Printed Name)	
Relinquished by: (Signature and Printed Name) <i>Lisa Redford</i>		Date: <i>9/14/13</i> Time: <i>1:50</i>		Received by: (Signature and Printed Name) <i>Lisa Redford</i>	
Relinquished by: (Signature and Printed Name) <i>Lisa Redford</i>		Date: <i>9/14/13</i> Time: <i>1:50</i>		Date: <i>9/14/13</i> Time: <i>1:50</i>	
Relinquished by: (Signature and Printed Name) <i>Lisa Redford</i>		Date: <i>9/14/13</i> Time: <i>1:50</i>		Date: <i>9/14/13</i> Time: <i>1:50</i>	
I hereby authorize ATL to perform the work indicated below: Project Mgr / Submitter:		Send Report To: Attn: <i>Lisa Redford</i>		Special Instructions/Comments: <i>Held additional samples please</i>	
Signature _____ Date _____		Attn: _____			
First Name _____		Co: _____			
Address: <i>5700 Ruffin Rd</i>		City: <i>SD</i> State: <i>CA</i> Zip: <i>92123</i>			
Circle or Add Analysis(es) Requested		Circle or Add Analysis(es) Requested			
801A (Pesticides)		801A (Pesticides)			
801B (PCBs)		801B (PCBs)			
801C (VOCs)		801C (VOCs)			
801D (SVOCs)		801D (SVOCs)			
801E (PAHs)		801E (PAHs)			
801F (PCDD/Fs)		801F (PCDD/Fs)			
801G (PCB/PAHs)		801G (PCB/PAHs)			
801H (PCB/PAHs)		801H (PCB/PAHs)			
801I (PCB/PAHs)		801I (PCB/PAHs)			
801J (PCB/PAHs)		801J (PCB/PAHs)			
801K (PCB/PAHs)		801K (PCB/PAHs)			
801L (PCB/PAHs)		801L (PCB/PAHs)			
801M (PCB/PAHs)		801M (PCB/PAHs)			
801N (PCB/PAHs)		801N (PCB/PAHs)			
801O (PCB/PAHs)		801O (PCB/PAHs)			
801P (PCB/PAHs)		801P (PCB/PAHs)			
801Q (PCB/PAHs)		801Q (PCB/PAHs)			
801R (PCB/PAHs)		801R (PCB/PAHs)			
801S (PCB/PAHs)		801S (PCB/PAHs)			
801T (PCB/PAHs)		801T (PCB/PAHs)			
801U (PCB/PAHs)		801U (PCB/PAHs)			
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802B (PCBs)		802B (PCBs)			
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808X (PCB/PAHs)		808X (PCB/PAHs)			
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808Z (PCB/PAHs)		808Z (PCB/PAHs)			

Tenth Avenue Marine Terminal
San Diego, California

Attachment B
Project No. 107589002

TOTAL LEAD				
SAMPLE ID	RESULT	VALUE	UNIT	DL
B1-0.5	3.2	3.2	mg/kg	1.0
B1-3.5	ND	1	mg/kg	1.0
B2-2.5	ND	1	mg/kg	1.0
B2-4.5	1.0	1	mg/kg	1.0
B3-3.5	ND	1	mg/kg	1.0
B3-5.0	ND	1	mg/kg	1.0
B4-1.0	3.5	3.5	mg/kg	1.0
B4-2	ND	1	mg/kg	1.0
B5-1	ND	1	mg/kg	1.0
B5-3.5	ND	1	mg/kg	1.0
B5-4.5	ND	0.99	mg/kg	0.99
B6-1	4.8	4.8	mg/kg	1.0
B6-4.5	5.7	5.7	mg/kg	0.99
B7-0.5	5.8	5.8	mg/kg	1.0
B7-2.0	1.5	1.5	mg/kg	1.0
B7-4.0	ND	0.99	mg/kg	0.99
B8-0.5	5.5	5.5	mg/kg	1.0
B8-3.0	ND	1	mg/kg	1.0
B8-4.0	ND	1	mg/kg	1.0
B9-1.0	94	94	mg/kg	1.0
B9-4.5	3.4	3.4	mg/kg	0.99
B10-1	4.0	4	mg/kg	1.0
B10-3.5	3.0	3	mg/kg	1.0
B11-3.0	4.4	4.4	mg/kg	1.0
B11-5.5	4.7	4.7	mg/kg	1.0
B12-4.0	3.4	3.4	mg/kg	0.99
B12-6.0	5.1	5.1	mg/kg	1.0
B13-0.5	8.5	8.5	mg/kg	1.0
B13-2.0	16	16	mg/kg	1.0
B13-4.5	4.4	4.4	mg/kg	1.0

Total Lead Statistics Worksheet	
Count (n)	30
Mean	6.43
Variance	283.28
Standard Deviation	16.83
Degrees of Freedom	29
Standard Error of the Mean	3.07
T value	1.311
80% Upper Confidence Limit	10.46

Notes:

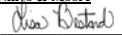
mg/kg - milligram per kilogram

ND - Concentrations equal to or less than the reporting limit. Value used was equal to the reporting limit

Preparer's Name: Lisa Bestard

Title of Preparer: Senior Project Environmental Scientist

Company: Ninyo & Moore

Signature: 

Date: 9/25/13

January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos Survey Status Reports
District-Operated Facilities
San Diego County, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared Asbestos Survey Status Reports of designated District-Operated Facilities (DOFs), located in San Diego County, California. The objective of the preparation of these reports is to gain information regarding site conditions to assist the San Diego Unified Port District (Port District) in employee notification and the implementation of the Port's Operations and Maintenance Program.

The attached reports present a compilation of information obtained from our review of existing documents, and from our on-site observations obtained during the most recent periodic asbestos-containing material (ACM) assessments of the DOFs. The assessments are conducted periodically by the Port's Certified Asbestos Consultant, to comply with local, state, and federal asbestos notification requirements. The attached Table 1 provides a complete listing of the DOFs, as well as the assessed ACM's location, quantity, friability, condition, and any changes from the previous periodic ACM assessment. Please note that since the initiation of the asbestos survey status reporting in 1999, the following DOF facilities have been demolished: G Street Mole Pier Restroom, J Street Southbay Substation, Building 1 and Warehouse A at the Tenth Avenue Marine Terminal, General Services, and the Broadway Pier Barge Office. However, in the event that you choose to maintain historical records of these facilities, and for the sake of consistency, the appendices for these facilities have been reserved.

We appreciate the opportunity to be of service to you on this important project.

Sincerely,
NINYO & MOORE



Nicolas J. Carpenter
Project Environmental Scientist



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachments: Table 1 – Annual Assessment of ACM Condition
National City Marine Terminal Asbestos-Containing Material Status Report
Tenth Avenue Marine Terminal Asbestos-Containing Material Status Report
Broadway Pier Asbestos-Containing Material Status Report
B Street Cruise Asbestos-Containing Material Status Report
Imperial Beach Bait Shop Asbestos-Containing Material Status Report
Embarcadero Marina Park Asbestos-Containing Material Status Report
Harbor Police Department Asbestos-Containing Material Status Report
Chula Vista Marina Asbestos-Containing Material Status Report
Spanish Landing Asbestos-Containing Material Status Report
Crosby Park Asbestos-Containing Material Status Report
Tidelands Park Asbestos-Containing Material Status Report
Harbor Drive Facility Asbestos-Containing Material Status Report
J Street South Bay Substation Asbestos-Containing Material Status Report
Old Police Station/Impound Office Asbestos-Containing Material Status Report
Port Administration Building Asbestos-Containing Material Status Report
The Annex Supplemental Asbestos-Containing Material Status Report
Pepper Park Supplemental Asbestos-Containing Material Status Report
G Street Mole Pier Restroom Asbestos-Containing Material Status Report
Harbor Police Headquarters Asbestos-Containing Material Status Report
General Services Facility Asbestos-Containing Material Status Report
World Trade Center Asbestos-Containing Material Status Report
420 and 520 Marina Parkway Demolition Status Report

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
National City Marine Terminal - 2500 Terminal Avenue					
Mechanical room	Container crane, brake lining	--	--	--	Removed from facility.
Mechanical room roof	Container crane, roof mastic patching	--	--	--	Removed from facility
Wharfing's office	9"x9" off-white floor tile	720 SF	N	Good	No changes observed. Tile assumed present under carpet and is exposed in the restroom.
Wharfing's office	Mastic associated with 9"x9" off-white floor tile	720 SF	N	Good	Inaccessible during inspection. No damage to material presumed.
Wharfing's office	Built-up roofing	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Wharfing's office	Roof penetration mastic	10 SF	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly
Lumber yard	Built up roof	600 SF	N	Good	Material is present and in good condition. Material is presumed to be asbestos-containing.
Transit shed restroom	Built up roofing	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Transit shed restroom	Roof penetration mastic	Unknown	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly
Guard shack roof	Roof penetration mastic	Unknown	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Tenth Avenue Marine Terminal					
Head House No. 1, 602 - 668 Terminal Street					
Room 602	Mastic associated with 12"x12" floor tile	400 SF	--	--	Building demolished 2013.
Room 608	Mastic associated with 12"x12" floor tile	300 SF	--	--	Building demolished 2013.
Room 614	Mastic associated with 12"x12" floor tile	300 SF	--	--	Building demolished 2013.
Room 620	Drywall	180 SF	--	--	Building demolished 2013
Room 620	Drywall	230 SF	--	--	Building demolished 2013
Room 620	Drywall	330 SF	--	--	Building demolished 2013
Room 626	Mastic associated with 12"x12" floor tile	400 SF	--	--	Building demolished 2013.
Room 632	Mastic associated with 12"x12" floor tile	300 SF	--	--	Building demolished 2013.
Room 638	Mastic associated with 12"x12" floor tile	300 SF	--	--	Building demolished 2013.
Room 644	Mastic associated with 12"x12" floor tile	400 SF	--	--	Building demolished 2013.

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Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Room 648	9" black floor tile and mastic	150 SF	--	--	Building demolished 2013
Room 650	9" black floor tile and mastic	200 SF	--	--	Building demolished 2013
Assistant mgr., Room 656 small office	9" gray floor tile and mastic	60 SF	--	--	Building demolished 2013.
Room 656	9" gray floor tile and mastic	260 SF	--	--	Building demolished 2013
Room 656	9" gray floor tile and mastic	20 SF	--	--	Building demolished 2013
Storage, Room 662	9" gray floor tile and mastic	55 SF	--	--	Building demolished 2013
Room 662	9" gray floor tile and mastic	350 SF	--	--	Building demolished 2013
Room 668	9" gray floor tile and mastic	55 SF	--	--	Building demolished 2013
Room 674	9" gray floor tile and mastic	180 SF	--	--	Building demolished 2013
Room 680	Drywall	330 SF	--	--	Building demolished 2013
Room 680	9" gray floor tile and mastic	180 SF	--	--	Building demolished 2013
Room 680	Drywall mud	100 SF	--	--	Building demolished 2013
Room 686	9" gray floor tile and mastic	280 SF	--	--	Building demolished 2013
Room 692	9" gray floor tile and mastic	230 SF	--	--	Building demolished 2013
Women's restroom	9" gray floor tile and mastic	50 SF	--	--	Building demolished 2013
Men's restroom	9" gray floor tile and mastic	50 SF	--	--	Building demolished 2013
1 st Floor exterior, around edges of door/window assembly	Red/beige door and window sealant	500 LF	--	--	Building demolished 2013.
Interstitial walls of Rooms 602, 608, 614, 626, 632, 638, 644, 650, 656, 662, 668, 674, 680, 686, and 692	Tan joint compound	3,500 SF	--	--	Building demolished 2013.
Transit Shed No. 1, 602 - 668 Terminal Street					
Clerk shack (south)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (south)	Plaster	2,000 SF	Y	Good	0.20% chrysotile (PT). No changes observed. Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Clerk shack (north)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (north)	Plaster	2,000 SF	Y	Good	Material presumed to be ACCM, based on sampling of Clerk Shack (south) during HBMS survey conducted in 2011 for demolition of Head House No. 1.
Roof	Silver paint on roof hatches	300 SF	Y	Damaged	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Exterior	Gray and black expansion joint gasket	2,400 LF	N	Good	Material found to be ACM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Exterior	Fire doors	16 EA	Y	Good	Material is presumed ACM.

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Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Head House No. 2, 601 - 692 Terminal Street					
Room 601	9" gray floor tile and mastic	200 SF	N	Good	No changes observed; gray tile observed under carpe
Room 601, East storage closet	9" gray floor tile and mastic	20 SF	N	Good	No changes observed.
Room 607	9" gray floor tile and mastic	150 SF	N	Good	No changes observed; gray tile observed under carpe
Front office (Rooms 615 & 623)	9" black floor tile and mastic	110 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 627	9" black floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 633	9" black floor tile and mastic	230 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 639	9" gray floor tile and mastic	200 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 645	9" gray floor tile and mastic	150 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 651	9" gray floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet. Rooms 651, 657, and 663 have been merged together.
Room 657	9" gray floor tile and mastic	340 SF	--	--	
Room 663	9" gray floor tile and mastic	570 SF	--	--	
Room 663, storage	9" gray floor tile and mastic	50 SF	--	--	Storage room and tile removed. Bare concrete observed under carpet.
Room 663, men's restroom	9" gray floor tile and mastic	24 SF	--	--	Material presumed abated. Ceramic tile observed
Room 669	9" black floor tile and mastic	205 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
Room 675	9" floor tile and mastic	200 SF	N	Good	Material observed underneath carpet. Presumed to be asbestos-containing
Room 681	9" floor tile and mastic	500 SF	N	Good	Material observed underneath carpet. Presumed to be asbestos-containing
Room 687	9" gray floor tile and mastic	340 SF	--	--	Material presumed abated. Bare concrete observed under carpet.
1 st Floor exterior, around edges of door/window assembly	Red/beige door and window sealant	500 LF	N	Good	Material found to be ACCM during HBMS survey conducted in 2011 for Head house No. 1. Material is presumed to be asbestos-containing.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Transit Shed No. 2, 601 - 692 Terminal Street					
Clerk shack (south)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (south)	Plaster	2,000 SF	Y	Good	0.20% chrysotile (PT). No changes observed. Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Head house No. 1.
Clerk shack (north)	9" beige floor tile and mastic	360 SF	N	Good	No change.
Clerk shack (north)	Plaster	2,000 SF	Y	Good	Material presumed to be ACCM, based on sampling of Clerk Shack (south) during HBMS survey conducted in 2011 for demolition of Head House No. 1.
Roof	Silver paint on roof hatches	300 SF	Y	Damaged	Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Headhouse No. 1. Headhouse No. 1 and Bay D demolished in 2013
Exterior	Gray and black expansion joint gasket	2,400 LF	N	Good	Material found to be ACCM during HBMS survey conducted in 2011 for demolition of Headhouse No. 1. Headhouse No. 1 and Bay D demolished in 2013
Exterior	Fire doors	16 EA	Y	Good	Material is presumed ACCM.
Warehouse B, 802 Terminal Street					
Restroom (Storage Room)	Drywall joint compound	65 SF	Y	Good	No changes observed.
Locker room 2	12" white floor tile and mastic	600 SF	N	Minor	Inaccessible during inspection. No changes presumed.
Locker room 2	Drywall joint compound	65 SF	Y	Good	Inaccessible during inspection. No changes presumed.
Harborside Refrigerated Services (north side of building at Dole operations warehouse)	12" white floor tile and mastic	1,450 SF	N	Good	12"x12" white tile under light gray 12"X 12" floor tile.
Locker room	Plaster	2,000 SF	Y	Good	No changes observed. Room no longer in use.
1st floor and 2nd floor office:	Plaster	5,800 SF	Y	Good	No changes observed
North Offices, 1st floor	9" green floor tile and mastic	840 SF	N	Good	No changes observed
South offices, 1st Floor	9" green floor tile and mastic	840 SF	N	Good	No changes observed
North offices, 2nd Floor IT Room	Plaster	225	Y	Good	No changes observed.
North offices, 2nd Floor IT Room	9" gray floor tile and mastic	15 SF	N	Good	No changes observed.
North Men's restroom	Plaster	1,100 SF	Y	Good	No changes observed
Lunch room (2nd floor, south offices)	Plaster	2,700 SF	Y	Good	No changes observed
Lunch room (2nd floor, south offices)	9" green floor tile and mastic	1,800 SF	N	Good	No changes observed; most tile is covered with carpet.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Heater room (Sewer Lift Sta. 9)	Transite floor	1 EA	N	Good	Insulated transite floor either removed or enclosed in wooden box.
Heater room (Sewer Lift Sta. 9)	Vibration damper	10 SF	--	--	Abated. Black rubber gasket replacement observed.
Heater room (Sewer Lift Sta. 9)	Transite	1 LF	N	Good	Mostly removed, with residual material remaining.
Entrances to building	Firedoor	11 EA	N	Good	No changes observed. Material is presumed ACM
Exterior	Gray and black expansion joint gasket	2,200 LF	N	Good	Similar material found to be ACM for Transit Shed No. 1 during HBMS survey conducted in 2011 and should be presumed to be asbestos-containing.
Warehouse C, 1150 Terminal Street					
Exterior warehouse door	Firedoor	29 EA	N	Good	No changes observed. Material is presumed ACM.
Upper office (south)	9" gray, green, and beige floor tiles and associated mastic	400 SF	N	Good	No changes observed.
Upper office (south)	Wall and ceiling plaster	5,600 SF	N	Good	No change. Material located in entry hall, office, and adjacent restroom.
Upper office (north)	9" gray and beige floor tiles and mastic	400 SF	N	Good	No changes observed.
Exterior walls	Brown/beige corrugated panel coating	18,000 SF	N	Good	No changes observed.
Broadway Pier (Barge Office)					
Electric room	Drywall joint compound	10 SF	--	--	Building demolished 2005.
Lower lobby	Stucco exterior/interior	60 SF	--	--	Building demolished 2005
Exterior overhang	Stucco exterior/interior	890 SF	--	--	Building demolished 2005
Conference Area (2nd floor)	12" brown floor tile and mastic	636 SF	--	--	Building demolished 2005
Storage closet (2nd floor)	12" brown floor tile and mastic	48 SF	--	--	Building demolished 2005
Lobby (2nd floor)	Drywall joint compound	60 SF	--	--	Building demolished 2005
North office (2nd floor)	Drywall joint compound	35 SF	--	--	Building demolished 2005
North office (2nd floor)	12" brown floor tile and mastic	132 SF	--	--	Building demolished 2005
Women's restroom (2nd floor)	Drywall joint compound	10 SF	--	--	Building demolished 2005
Women's restroom (2nd floor)	12" brown floor tile and mastic	20 SF	--	--	Building demolished 2005
Men's restroom (2nd floor)	Drywall joint compound	10 SF	--	--	Building demolished 2005

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Men's restroom (2nd floor)	12" brown floor tile and mastic	20 SF	--	--	Building demolished 2005
Janitors closet (2nd floor)	Yellow linoleum	16 SF	--	--	Building demolished 2005
Women's restroom (2nd floor)	Yellow linoleum	40 SF	--	--	Building demolished 2005
Men's restroom (2nd floor)	Yellow linoleum	40 SF	--	--	Building demolished 2005
Roof	Roof material	2,000 SF	--	--	Building demolished 2005
Roof	Roof mastic	50 SF	--	--	Building demolished 2005
Roof	Roof mastic	50 SF	--	--	Building demolished 2005.
B Street, Cruise Terminal, 1140 N. Harbor Drive					
Cruise ship terminal roof	Black and silver/black roof mastic	6,000 SF	--	--	5-10% chrysotile. Roof was removed and replaced in March 2012.
Crew center trailer roof	Black/silver and gray/black roof mastic	300 SF	N	Good	3-5% chrysotile. No changes observed.
Section A	Fire doors	1 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Section A, restroom	Fire doors	3 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Section C, restroom	Fire doors	3 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Roof	Built-up felt sheeting roof	118,800 SF	--	--	Material was found to be non-ACM in 2005. Roof was removed and replaced in March 2012
Roof	Black/grey penetration/flushing mastic	200 SF	--	--	Roof was removed and replaced in March 2012
Roof	Brown felt sheeting	600 SF	--	--	Material was found to be non-ACM in 2005. Roof was removed and replaced in March 2012
Imperial Beach (Bait Shop)					
Roof	Roof mastic	10 SF	N	Good	No changes observed. Encapsulated with sealant.
Embarcadero Marina Park					
Storage	North restroom, fire door	2 EA	N	Good	No changes observed. Presumed to be asbestos-containing.
Storage	South restroom, fire door	2 EA	N	Good	No changes observed. Presumed to be asbestos-containing.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Harbor Police Department Building and Mooring Office, 1401 Shelter Island Drive					
Police/Mooring Building, Women's restroom entrance	9" red floor tile and mastic	20 SF	N	Good	12"x12" blue VFT observed. 9" beige VFT presumed present underneath
Police/Mooring Building, Chief's office	9" red floor tile and mastic	130 SF	--	--	Now Lieutenant's office. Red tile not observed. Concrete under carpet
Police/Mooring Building, Roof penetrations	Roofing mastic	30 SF	N	Good	No change
Police/Mooring Building, Harbor Police Dispatch, North office	9" red floor tile and mastic	300 SF	--	--	Now Homeland Security. Red tile not observed. Concrete under carpet
Police/Mooring Building, Center	9" red floor tile and mastic	309 SF	N	Good	12"x12" blue VFT observed. 9" beige VFT presumed present underneath
Police/Mooring Building, Intoxication room south	9" red floor tile and mastic	500 SF	N	Good	Red tile observed under carpet in storage area
Police/Mooring Building, Homeland Security	9" red floor tile and mastic	250 SF	--	--	Red tile not observed. Concrete under carpet
Shelter Island Public Restrooms, Windows	Window glazing	2 SF	--	--	Building demolished.
Shelter Island Public Restrooms, Storage	Black pipe wrap	10 LF	--	--	Building demolished.
Police Officer locker	Locker room building, 12" beige speckled floor tile and mastic	312 SF	N	Good	12"x12" blue VFT observed. 12" beige VFT presumed present underneath.
Dive Team Locker	Locker room building, 12" beige speckled floor tile and mastic	240 SF	N	Good	No changes observed
Roof penetrations	Locker room building, black roofing mastic	5 SF	N	Good	No changes observed
Storage closet	Locker room building, 9" tan floor tile and mastic	6 SF	N	Good	No changes observed
Spanish Landing					
Janitor storage	West restroom #1, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly
Janitor storage	East restroom #3, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly
Janitor storage	Center restroom #2, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly

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Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Crosby Park - 1847 Water Street					
Exterior of building	Cafeteria, exterior stucco	710 SF	N	Minor damage	<1% chrysotile. Peeling paint and exposed vapor barrier observed.
Exterior of building	Restroom, exterior stucco	865 SF	N	Good	<1% chrysotile. No changes observed.
Harbor Drive Facility, 2320 Harbor Drive					
Roof	Coast guard office, roofing felt	300 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Roof	Coast guard, roofing felt	300 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Pipe Area	Coast guard restroom, fire door	1 EA	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Old Police Station and Impound Office, 801 Harbor Drive					
Basement, service tunnel	Aircell pipe insulation	7500 LF	Y	Sig. damage	Unoccupied, not updated 2012
Basement, boiler room	White-block pipe insulation	150 LF	Y	Sig. damage	Unoccupied, not updated 2012
Basement, boiler room	Hard-pack pipe fitting insulation	21 EA	Y	Good	Unoccupied, not updated 2012
Basement, boiler room	White-block tank insulation	220 SF	Y	Sig. damage	Unoccupied, not updated 2012
Mezzanine, pipe chase	Aircell pipe insulation	200 SF	Y	Good	Unoccupied, not updated 2012
Exterior wall	Exterior stucco	20000 SF	N	Minor	Unoccupied, not updated 2012
1st floor, hallway	Drywall	240 SF	Y	Good	Unoccupied, not updated 2012
1st floor, office	9" burgundy floor tile and mastic	8800 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	12" dark brown floor tile	210 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	12" speckled gray floor tile and mastic	450 SF	N	Good	Unoccupied, not updated 2012
1st floor, hallway	Hard-pack pipe fitting insulation	3 EA	Y	Good	Unoccupied, not updated 2012
1st floor, office	9" brown floor tile and mastic	970 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	Drywall	2800 SF	Y	Good	Unoccupied, not updated 2012
1st floor, office	Drywall mud	800 SF	Y	Good	Unoccupied, not updated 2012
1st floor, office	Dark brown baseboard and mastic	310 LF	N	Damaged	Unoccupied, not updated 2012
1st floor, office	9" white floor tile and mastic	815 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	12" black floor tile and mastic	280 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	9" tan floor tile and mastic	400 SF	N	Good	Unoccupied, not updated 2012
1st floor, office	Brown and gray linoleum	25 SF	Y	Good	Unoccupied, not updated 2012
1st floor, pipe chase	Hard-pack pipe fitting insulation	10 EA	Y	Good	Unoccupied, not updated 2012
1st floor, restroom close	Hard-pack pipe fitting insulation	4 EA	Y	Good	Unoccupied, not updated 2012
1st floor, utility room	12" speckled gray floor tile and mastic	200 SF	Y	Good	Unoccupied, not updated 2012
1st floor, women's restroom	Hard-pack pipe fitting insulation	1 EA	Y	Good	Unoccupied, not updated 2012
1st floor, men's restroom	Hard-pack pipe fitting insulation	1 EA	Y	Good	Unoccupied, not updated 2012
1st floor, work room	9" brown floor tile and mastic	900 SF	N	Good	Unoccupied, not updated 2012
1st floor, work room	Drywall	600 SF	Y	Good	Unoccupied, not updated 2012
1st floor, work room	Drywall mud	180 SF	Y	Good	Unoccupied, not updated 2012
1st floor, work room	Brown linoleum	900 SF	Y	Good	Unoccupied, not updated 2012

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Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
1st floor, storage	Drywall	200 SF	Y	Good	Unoccupied, not updated 2012
1st floor, storage	Drywall mud	60 SF	Y	Good	Unoccupied, not updated 2012
1st floor, break room	12" speckled gray floor tile and mastic	1200 SF	Y	Good	Unoccupied, not updated 2012
1st floor, break room	Drywall	500 SF	Y	Good	Unoccupied, not updated 2012
1st floor, break room	Drywall mud	150 SF	Y	Good	Unoccupied, not updated 2012
1st floor, kitchen	9" burgundy floor tile and mastic	300 SF	N	Damaged	Unoccupied, not updated 2012
1st floor, kitchen	Hard-pack pipe fitting insulation	6 EA	Y	Good	Unoccupied, not updated 2012
1st floor, recreation room	Drywall	300 SF	Y	Good	Unoccupied, not updated 2012
1st floor, recreation room	Drywall mud	90 SF	Y	Good	Unoccupied, not updated 2012
1st floor, recreation room	9" brown floor tile and mastic	2100 SF	N	Good	Unoccupied, not updated 2012
1st floor, recreation room	12" speckled gray floor tile and mastic	100 SF	N	Good	Unoccupied, not updated 2012
1st floor, observation room	9" brown floor tile and mastic	85 SF	N	Good	Unoccupied, not updated 2012
1st floor, court varc	Corrugated Transite	150 SF	N	Good	Unoccupied, not updated 2012
1st floor, cell block 4	White-block pipe insulation	10 LF	Y	Good	Unoccupied, not updated 2012
1st floor, cell block 4	Drywall	100 SF	Y	Good	Unoccupied, not updated 2012
1st floor, cell block 4	Drywall mud	30 SF	Y	Good	Unoccupied, not updated 2012
1st floor, pipe chase	Aircell pipe insulation	150 LF	Y	Damaged	Unoccupied, not updated 2012
1st floor, cell block 2	Hard-pack pipe fitting insulation	13 EA	Y	Good	Unoccupied, not updated 2012
1st floor, SWAT room	9" brown floor tile and mastic	600 SF	N	Good	Unoccupied, not updated 2012
1st floor, cell block 2	Hard-pack pipe fitting insulation	5 EA	Y	Good	Unoccupied, not updated 2012
1st floor, cell block 2B	9" brown floor tile and mastic	40 SF	N	Good	Unoccupied, not updated 2012
1st floor, cell block 2	Hard-pack pipe fitting insulation	12 EA	Y	Good	Unoccupied, not updated 2012
1st floor, cell block 1	Hard-pack pipe fitting insulation	10 EA	Y	Good	Unoccupied, not updated 2012
1st floor, restroom	12" speckled gray floor tile and mastic	35 SF	N	Good	Unoccupied, not updated 2012
1st floor, check-in area	12" speckled gray floor tile and mastic	400SF	N	Good	Unoccupied, not updated 2012
1st floor, graphics	Drywall	600 SF	Y	Good	Unoccupied, not updated 2012
1st floor, storage	Hard-pack pipe fitting insulation	46 EA	Y	Damaged	Unoccupied, not updated 2012
2nd floor, office	9" lt. brown floor tile and mastic	300 SF	N	Good	Unoccupied, not updated 2012
2nd floor, office	9" burgundy floor tile and mastic	200 SF	N	Good	Unoccupied, not updated 2012
2nd floor, pipe chase	Hard-pack pipe fitting insulation	9 EA	N	Good	Unoccupied, not updated 2012
2nd floor, stairwel	9" brown floor tile and mastic	25 SF	N	Good	Unoccupied, not updated 2012
2nd floor, dark room	9" black floor tile and mastic	100 SF	N	Good	Unoccupied, not updated 2012
2nd floor, storage close	9" black floor tile and mastic	40 SF	N	Good	Unoccupied, not updated 2012
2nd floor, office	12" speckled gray floor tile and mastic	100 SF	N	Good	Unoccupied, not updated 2012
2nd floor, laboratory	Black laboratory table top	100 SF	N	Good	Unoccupied, not updated 2012
2nd floor, laboratory	Hard-pack pipe fitting insulation	10 EA	Y	Good	Unoccupied, not updated 2012
2nd floor, hallway	Drywall	700 SF	Y	Good	Unoccupied, not updated 2012
2nd floor, laboratory	Drywall	150 SF	Y	Good	Unoccupied, not updated 2012
2nd floor, telephone room	Drywall	440 SF	Y	Good	Unoccupied, not updated 2012

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
2nd floor, restroom	9" green floor tile and mastic	440 SF	N	Good	Unoccupied, not updated 2012
2nd floor, storage close	9" green floor tile and mastic	40 SF	N	Good	Unoccupied, not updated 2012
2nd floor, dressing room	12" speckled gray floor tile and mastic	450 SF	N	Good	Unoccupied, not updated 2012
2nd floor, cafeteria	12" speckled gray floor tile and mastic	1,840 SF	N	Good	Unoccupied, not updated 2012
2nd floor, cafeteria	Drywall	400 SF	N	Good	Unoccupied, not updated 2012
2nd floor, cafeteria	Hard-pack pipe fitting insulation	3 EA	Y	Good	Unoccupied, not updated 2012
2nd floor, vestibule	Drywall	100 SF	Y	Good	Unoccupied, not updated 2012
2nd floor, property room	9" brown floor tile and mastic	180 SF	N	Good	Unoccupied, not updated 2012
2nd floor, changing room	9" brown floor tile and mastic	150 SF	N	Good	Unoccupied, not updated 2012
2nd floor, gymnasium	Hard-pack pipe fitting insulation	14 EA	Y	Good	Unoccupied, not updated 2012
2nd floor, classroom	Sprayed-on acoustic ceiling material	1,820 SF	Y	Good	Unoccupied, not updated 2012
2nd floor, classroom	Firedoor	1 EA	N	Good	Unoccupied, not updated 2012
2nd floor, stairwel	Hard-pack pipe fitting insulation	1 EA	Y	Good	Unoccupied, not updated 2012
2nd floor, stairwel	12" speckled gray floor tile and mastic	20 SF	N	Good	Unoccupied, not updated 2012
2nd floor, office	9" brown floor tile and mastic	800 SF	N	Good	Unoccupied, not updated 2012
2nd floor, laboratory	Brown sheet flooring	1,000 SF	Y	Damaged	Unoccupied, not updated 2012
Roof	Built-up roofing material (brown gravel)	16,000 SF	N	Good	Unoccupied, not updated 2012
Ducts on roof	Gray mastic	50 SF	N	Good	Unoccupied, not updated 2012
Roof flashing	Black flashing mastic	8,000 SF	N	Good	Unoccupied, not updated 2012
Roof penetrations	Black and silver penetration mastic	20 SF	N	Good	Unoccupied, not updated 2012
Roof	Built-up roofing material (gray gravel)	21,300 SF	N	Good	Unoccupied, not updated 2012
Roof flashing	Gray flashing mastic	8,000 SF	N	Good	Unoccupied, not updated 2012
Roof	Asphalt sheet roofing	24,000 SF	N	Good	Unoccupied, not updated 2012
Roof parapet	Gray roofing felt	8,600 SF	N	Good	Unoccupied, not updated 2012
Roof	Hard-pack pipe fitting insulation	452 EA	Y	Damaged	Unoccupied, not updated 2012
Roof	Transite exhaust flue	10 LF	N	Good	Unoccupied, not updated 2012
Impound Office					
Exterior H.V.A.C.	Pipe elbow insulator	12 EA	Y	Damaged	Unoccupied, not updated 2012
Exterior walls	Stucco	2,300 SF	N	Damaged	Unoccupied, not updated 2012
Office	Plaster	2,300 SF	N	Minor	Unoccupied, not updated 2012
Office ceiling	Sprayed-on acoustic ceiling material	7,800 SF	Y	Minor	Unoccupied, not updated 2012
Office floor	9" floor tile and mastic	7,800 SF	N	Good	Unoccupied, not updated 2012
Entrance to office	Fire doors	3 EA	Y	Damaged	Unoccupied, not updated 2012
Roof	Roofing material	1,800 SF	N	Good	Unoccupied, not updated 2012
Roof at penetration	Roof mastic	1 SF	N	Good	Unoccupied, not updated 2012

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Unified Port District Administration Building, 3165 Pacific Highway					
Elevator equipment room	Elevator Brake Lining/Pac	4 SF	N	Good	No change.
Basement					
Maintenance	12" brown and black marbled floor tile	800 SF	N	Good	Minor wear to tile surface observed.
Boiler room and throughout basement	Fire door	20 EA	N	Good	No changes observed. Material is presumed ACM that separates sections of the basement.
Men's restroom hallway	12" brown and black marbled floor tile	75 SF	N	Good	No changes observed.
1st floor					
Storage (located in corridor between phone room and training room.)	12" beige with grey marbled floor tile	150 SF	N	Good	No change observed. Brown with yellow tile removed. Now tiled with by 12"x12" gray VFT.
Telephone room	12" brown and black marbled floor tile	200 SF	N	Good	Minor wear to tile surface observed.
2nd floor					
Human Resources	12" brown and black marbled floor tile	400 SF	N	Good	No change assumed. Presumed present under multi-colored carpet. 12" blue VFT observed in Copy Room.
Human Resources	12" brown and black marbled floor tile	See above	N	Good	No change. Tile assumed under multi-colored carpet. 12" blue VFT observed in Copy Room.
Copy Room (Kitchen)	12" brown and black marbled floor tile	130 SF	N	Good	Now the kitchen. Tiled over with 12"x12" gray VFT.
Electrical room, by cafeteria	12" brown and black marbled floor tile	100 SF	N	Good	Two tiles were broken to drill through floor for electrical conduit.
Duct shaft (Fan Room)	12" brown and black marbled floor tile	--	--	--	Bare concrete observed
Elevator shaft					
Elevator shaft (by roof)	Aircell pipe insulation	20 LF	--	--	Non-ACM fiberglass pipe insulation observed
7th floor					
Main Restroom (east hall)	Dark brown floor tile	100 SF	N	Good	No change assumed. Presumed present under 12"x12" blue VFT.
Director restroom	12" brown and black marbled floor tile	200 SF	N	Good	No change assumed. Presumed present under 12"x12" beige VFT.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Roof					
Roof	Built-up roof	20,000 SF	--	--	Grey roll-out roof sheeting reportedly installed in 2002. Old roof assembly removed.
Roof	Gray flashing mastic	1,000 SF	--	--	Reportedly removed with roof assembly in 2002
Roof	Black roofing mastics and adhesives	700 SF	--	--	Material not observed. Reportedly removed with roof assembly in 2002.
Upper Roof	Built-up roof	5,000 SF	--	--	Grey roll-out roof sheeting reportedly installed in 2002. Old roof assembly removed.
The Annex, 3165 Pacific Highway					
Phone closet, supervisor's room, janitor's closet, storage	12" x 12" yellow floor tile and mastic	250 SF	Y	Good	Majority of material abated in 2002, remnant mastic may be under carpet. Yellow VFT observed in Janitor's closet and in kitchens.
Roof	Roofing material	7,700 SF	N	Fair	Some soft spots and bubbles filled with water observed on roof.
Roof	Roofing mastic	200 SF	N	Good	No changes observed.
Pepper Park Restroom					
Roof	Penetration mastic	5 SF	--	--	Material reportedly removed; new sheet metal roof observed.
Roof	Asphalt sheet roofing	450 SF	--	--	Material reportedly removed; new sheet metal roof observed.
Roof	Gray roof mastic	30 SF	--	--	Material reportedly removed; new sheet metal roof observed.
Harbor Police Headquarters, 3380 N. Harbor Drive					
Roof	Roof felt built-up roofing	5,600 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Roof	Black roofing mastic	260 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Roof	Gray Parapet Sheeting	440 SF	N	Good	Material not observed on the lower north roof in our 2009 inspection. New parapet sheeting observed.
Roof	Gray Felt Sheeting	2,100 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
General Services Facility (formerly Maintenance Facility), 825 E. Harbor Drive					
Entry	Maintenance building, 12" white with brown	90 SF	--	--	Building demolished 2003
General office	Maintenance building, white acoustic spray ceiling	1,100 SF	--	--	Building demolished 2003
General office	Maintenance building, drywall joint compound	50 SF	--	--	Building demolished 2003
General office	Maintenance building, 12" white with brown	1,100 SF	--	--	Building demolished 2003
Office corridor	Maintenance building, 12" white with brown	125 SF	--	--	Building demolished 2003
Office corridor	Maintenance building, white acoustic spray ceiling	125 SF	--	--	Building demolished 2003
Office corridor	Maintenance building, drywall joint compound	25 SF	--	--	Building demolished 2003
Workshop	Maintenance building, 12" white with brown	70 SF	--	--	Building demolished 2003
Office A	Maintenance building, 12" white with brown	300 SF	--	--	Building demolished 2003
Office A	Maintenance building, white acoustic spray ceiling	300 SF	--	--	Building demolished 2003
Men's ofc. restroom	Maintenance building, 12" white with brown	15 SF	--	--	Building demolished 2003
Women's ofc. restroom	Maintenance building, 12" white with brown	25 SF	--	--	Building demolished 2003
Office F	Maintenance building, white acoustic spray ceiling	300 SF	--	--	Building demolished 2003
Office G	Maintenance building, 12" white with brown	220 SF	--	--	Building demolished 2003
Office A	Maintenance building, 12" white with brown	250 SF	--	--	Building demolished 2003
Office D	Maintenance building, 12" white with brown	125 SF	--	--	Building demolished 2003
Office C	Maintenance building, 12" white with brown	160 SF	--	--	Building demolished 2003
Office B	Maintenance building, 12" white with brown	300 SF	--	--	Building demolished 2003
Office E	Maintenance building, 12" white with brown	220 SF	--	--	Building demolished 2003
Carpenter shop	Maintenance building, drywall joint compound	200 SF	--	--	Building demolished 2003
Carpenter brk.	Maintenance building, 12" off-white floor tile	120 SF	--	--	Building demolished 2003
Carpenter brk.	Maintenance building, drywall compound	45 SF	--	--	Building demolished 2003
Rear office	Maintenance building, 9" brown floor tile	360 SF	--	--	Building demolished 2003
Rear lockers	Maintenance building, 9" brown floor tile	200 SF	--	--	Building demolished 2003
Auto shop	Maintenance building, 9" brown floor tile	120 SF	--	--	Building demolished 2003
Main loft	Maintenance building, equipment pad	90 SF	--	--	Building demolished 2003
Lunch room	Maintenance building, 12" off-white floor tile	450 SF	--	--	Building demolished 2003
Exterior windows	Maintenance car wash building, window glazing	150 SF	--	--	Building demolished 2003
Roof	Maintenance car wash building, roof material	500 SF	--	--	Building demolished 2003

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Ninjo & Moore

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
World Trade Center, San Diego (formerly Training and Organization Development Building) - 2980 Pacific Highway					
Exterior surface	Exterior stucco	9,400 SF	N	Damaged	Property rented to SDCRAA, not updated 2012.
1st floor offices	9"x 9" white floor tile/mastic	4,000 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Conference room	Drywall joint compound	40 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Corridor	Drywall joint compound	110 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Specialists office	Drywall joint compound	20 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Media room	Drywall joint compound	60 SF	N	Good	Property rented to SDCRAA, not updated 2012.
1st floor lobby	9"x 9" white floor tile/mastic	380 SF	N	Good	Property rented to SDCRAA, not updated 2012.
1st floor conference room	Carpet mastic	N/A	N/A	N/A	Asbestos not detected
Training room	Plaster	610 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Corridor (1st floor)	Plaster	1,220 SF	N	Damaged	Property rented to SDCRAA, not updated 2012.
Adm. storage	Plaster	110 SF	N	Good	Property rented to SDCRAA, not updated 2012.
2nd floor storage, restrooms, and stairs landings	9"x 9" white floor tile	200 SF	N	Fair	Property rented to SDCRAA, not updated 2012.
2nd floor office	Black mastic associated with 9"x9" white floor tile	3,600 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Roof	Roof mastic	60 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof parapet sheeting	250 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof felt	140 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof mastic	5 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof, center	Black roof core - 1st layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 2nd layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 3rd layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 4th layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 1st layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 2nd layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 3rd layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 4th layer	N/A	N/A	N/A	Asbestos not detected
West main roof, west end at drain	Silver penetration mastic - 1st layer	100 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof, west end at drain	Black penetration mastic - 2nd layer	100 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof enter hatch	Silver paint - 1st layer	50 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof enter hatch	Black penetration mastic - 2nd layer	50 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof 6" conduit east end	Black tar	N/A	N/A	N/A	Asbestos not detected

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing material

VFT = Vinyl floor tile

SF = Square feet

LF = Linear feet

EA = Each

107876001 T DOT.xls

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Ninjo & Moore



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
National City Marine Terminal
2500 Terminal Avenue
National City, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the National City Marine Terminal in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and ACM status reports, and from our observations during the periodic assessment of the National City Marine Terminal DOF, conducted in March 2012. The assessment is conducted periodically under the supervision of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that asbestos surveys were completed for the National City Marine Terminal DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. ACMs are located at the National City Marine Terminal DOF, as indicated in these reports. In addition, select suspect material samples were collected during limited asbestos sampling by

2500 Terminal Avenue
National City, California

January 28, 2015
Project No. 107876001

Winzler & Kelly in 2006. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1. Minor changes from the prior assessments are described below.

The Lumber Yard Restroom Building was noted in our 2009 status survey as presumed to have been demolished. However, based on our conversations with Ms. Rita Smith, the Wharfinger for the National City Marine Terminal, the Lumber Yard Restroom Building was not demolished; the building was observed during our 2012 inspection of the facility.

During the preparation of this Asbestos-Containing Material Status Survey report, Ninyo & Moore reviewed the initial asbestos survey of the facility; our findings are presented below:

- According to the initial asbestos survey, the floor tile mastic, associated with the asbestos containing 9-inch by 9-inch floor tile found in the Wharfinger's Office building, had been found to contain 3% chrysotile asbestos. This material has been incorporated into this ACM status survey.
- Based on the initial asbestos survey, the built-up roofing material and roof penetration mastic on the Wharfinger's Office building were presumed to be asbestos-containing. No records of sampling of the built-up roofing material and roof penetration mastic has been found in our review of prior asbestos surveys and periodic status reporting. These materials should be presumed to be asbestos-containing, until sampling and analysis of the materials has been performed.
- Based on the initial asbestos survey, the built-up roofing material and roof penetration mastic on the Transit Shed Restroom Building were presumed to be asbestos-containing. No records of sampling of the built-up roofing material and roof penetration mastic has been found in our review of prior asbestos surveys and periodic status reporting. These materials should be presumed to be asbestos-containing, until sampling and analysis of the materials has been performed.

RECOMMENDATIONS

Since ACMs have been identified at the National City Marine Terminal DOF, the following recommendations and precautions are provided:

- The built-up roofing materials and roof penetration mastic, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to renovation or demolition activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE



Nicolas J. Carpenter
Project Environmental Scientist



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
National City Marine Terminal - 2500 Terminal Avenue					
Mechanical room	Container crane, brake lining	--	--	--	Removed from facility.
Mechanical room roof	Container crane, roof mastic patching	--	--	--	Removed from facility.
Wharfinger's office	9"x9" off-white floor tile	720 SF	N	Good	No changes observed. Tile assumed present under carpet and is exposed in the restroom.
Wharfinger's office	Mastic associated with 9"x9" off-white floor tile	720 SF	N	Good	Inaccessible during inspection. No damage to material presumed.
Wharfinger's office	Built-up roofing	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Wharfinger's office	Roof penetration mastic	10 SF	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Lumber yard	Built up roof	600 SF	N	Good	Material is present and in good condition. Material is presumed to be asbestos-containing.
Transit shed restroom	Built up roofing	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Transit shed restroom	Roof penetration mastic	Unknown	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly.
Guard shack roof	Roof penetration mastic	Unknown	N	Good	Material found to be ACM during limited asbestos sampling conducted in 2006 by Winzler & Kelly.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

VFT = Vinyl floor tile

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report
District-Operated Facility
Tenth Avenue Marine Terminal
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of San Diego Unified Port District's (Port District) District Operated Facility (DOF) located at the Tenth Avenue Marine Terminal in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES/FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Tenth Avenue Marine Terminal DOFs, conducted in March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that asbestos surveys were completed for the Tenth Avenue Marine Terminal DOFs prior to initiation of the periodic asbestos survey status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. ACMs are located at the Tenth Avenue Marine Terminal DOF, as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1. Some changes from the prior assessments were noted. As part of the Jacobs design team, Ninyo & Moore updated the hazardous building materials surveys for Bay D of Transit Shed No. 1 and Headhouse No. 1 in 2011. Asbestos-containing materials, including sealant around the door/window assembly of Headhouse No. 1 and gasket material on the exterior of Bay D, were encountered. As Headhouse No. 2 and Transit Shed No. 2 were constructed at the same time as Headhouse No. 1 and Transit Shed No. 1, these materials should be presumed to be asbestos-containing. Similar gasket material was also observed on the exterior of Warehouse B and should also be presumed to be asbestos-containing. Bay D and Headhouse No. 1 of Transit Shed No. 1 have been demolished since the previous ACM status survey in 2012. For further details of changes in conditions, please refer to Table 1.

During a review of the initial asbestos survey of Transit Shed No. 2, the roofing materials, parapet sheeting, and roof mastic were listed as a presumed ACM. No records of sampling of the roofing materials have been found in our review of prior asbestos surveys and periodic status reporting. The north half of the roof of Transit Shed No. 2 was replaced approximately 12 years ago and is of similar composition to the non-ACM roofing materials found on the roof of Transit Shed No. 1. The roofing materials found on the south half of Transit Shed No. 2 should continue to be treated as presumed asbestos-containing, until sampling and analysis of the materials has been performed.

RECOMMENDATIONS

Since ACMs have been identified at the Tenth Avenue Marine Terminal DOFs, the following recommendations and precautions are provided:

- The roofing materials on the south half of Transit Shed No. 2, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but with that have potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to renovation or demolition activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.


LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

We appreciate the opportunity to be of service to you on this project.


Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

Tenth Avenue Marine Terminal
San Diego, California

January 28, 2015
Project No. 107876001

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Head House No. 1, 602 - 668 Terminal Street					
Room 602	Mastic associated with 12"x12" floor tile	400 SF	-	-	Building demolished 2013.
Room 608	Mastic associated with 12"x12" floor tile	300 SF	-	-	Building demolished 2013.
Room 614	Mastic associated with 12"x12" floor tile	300 SF	-	-	Building demolished 2013.
Room 620	Drywall	180 SF	-	-	Building demolished 2013.
Room 620	Drywall	230 SF	-	-	Building demolished 2013.
Room 620	Drywall	330 SF	-	-	Building demolished 2013.
Room 626	Mastic associated with 12"x12" floor tile	400 SF	-	-	Building demolished 2013.
Room 632	Mastic associated with 12"x12" floor tile	300 SF	-	-	Building demolished 2013.
Room 638	Mastic associated with 12"x12" floor tile	300 SF	-	-	Building demolished 2013.
Room 644	Mastic associated with 12"x12" floor tile	400 SF	-	-	Building demolished 2013.
Room 648	9" black floor tile and mastic	150 SF	-	-	Building demolished 2013.
Room 650	9" black floor tile and mastic	200 SF	-	-	Building demolished 2013.
Assistant mgr., Room 656 small office	9" gray floor tile and mastic	60 SF	-	-	Building demolished 2013.
Room 656	9" gray floor tile and mastic	260 SF	-	-	Building demolished 2013.
Room 656	9" gray floor tile and mastic	20 SF	-	-	Building demolished 2013.
Storage, Room 662	9" gray floor tile and mastic	55 SF	-	-	Building demolished 2013.
Room 662	9" gray floor tile and mastic	350 SF	-	-	Building demolished 2013.
Room 668	9" gray floor tile and mastic	55 SF	-	-	Building demolished 2013.
Room 674	9" gray floor tile and mastic	180 SF	-	-	Building demolished 2013.
Room 680	Drywall	330 SF	-	-	Building demolished 2013.
Room 680	9" gray floor tile and mastic	180 SF	-	-	Building demolished 2013.
Room 680	Drywall mud	100 SF	-	-	Building demolished 2013.
Room 686	9" gray floor tile and mastic	280 SF	-	-	Building demolished 2013.
Room 692	9" gray floor tile and mastic	230 SF	-	-	Building demolished 2013.
Women's restroom	9" gray floor tile and mastic	50 SF	-	-	Building demolished 2013.
Men's restroom	9" gray floor tile and mastic	50 SF	-	-	Building demolished 2013.
1 st Floor exterior, around edges of door/window assembly	Red/beige door and window sealant	500 LF	-	-	Building demolished 2013.
Interstitial walls of Rooms 602-698, 614, 626, 632, 638, 644, 650, 656, 662, 668, 674, 680, 686, and 692	Tan joint compound	3,500 SF	-	-	Building demolished 2013.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

VFT = Vinyl floor tile

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Broadway Pier Barge Office
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at Broadway Pier Barge Office in San Diego, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Broadway Pier Barge Office DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. This facility has subsequently been demolished, circa 2005. While the Broadway Pier Barge Office DOF has been demolished, this appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

As the Broadway Pier Barge Office DOF has been demolished, there are no recommendations for this property at the current time.

Broadway Pier Barge Office
San Diego, California

January 28, 2015
Project No. 107876001


LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
B Street Cruise Terminal
1140 North Harbor Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) B Street Cruise Terminal District-Operated Facility (DOF), located in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and ACM status reports, and from our observations during the periodic assessment of the B Street Cruise Terminal DOF, conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

1140 North Harbor Drive
San Diego, California

January 28, 2015
Project No. 107876001

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the B Street Cruise Terminal DOF prior to initiation of the periodic asbestos survey status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1.

In 2005, Ninyo & Moore conducted a hazardous building materials survey of this facility, which included a supplemental asbestos survey. ACMs that were listed in the O&M program were re-sampled and re-analyzed for the presence of asbestos. Asbestos was not detected in the roofing materials, which were listed in the O&M program. During a review of the initial asbestos survey of the facility, the roofing material was listed as a presumed ACM. No records of sampling of the roofing material were found in our review of prior asbestos surveys and annual status reporting. Thus, the roofing materials have been removed from the annual ACM status report. The ACM roof penetration mastic on the Cruise Ship Terminal roof was being removed at the time of the 2012 status report survey. No other significant changes for the other ACMs from the prior assessments were noted.

During a review of the initial asbestos survey of the facility, the fire doors were listed as a presumed ACM. No records of sampling of the fire doors have been found in our review of prior asbestos surveys and periodic status reporting. This material should continue to be treated as presumed asbestos-containing, until sampling and analysis of the material has been performed.

RECOMMENDATIONS

Since ACMs have been identified at the B Street Cruise Terminal DOF, the following recommendations and precautions are provided:

- The fire doors, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.

- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

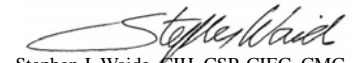
Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Senior Staff Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
B Street, Cruise Terminal, 1140 N. Harbor Drive					
Cruise ship terminal roof	Black and silver/black roof mastic	6,000 SF	--	--	5-10% chrysotile. Roof was removed and replaced in March 2012.
Crew center trailer roof	Black/silver and gray/black roof mastic	300 SF	N	Good	3-5% chrysotile. No changes observed.
Section A	Fire doors	1 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Section A, restroom	Fire doors	3 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Section C, restroom	Fire doors	3 EA	Y	Good	No changes observed. Presumed to be asbestos-containing.
Roof	Built-up felt sheeting roof	118,800 SF	--	--	Material was found to be non-ACM in 2005. Roof was removed and replaced in March 2012.
Roof	Black/grey penetration/flashings mastic	200 SF	--	--	Roof was removed and replaced in March 2012.
Roof	Brown felt sheeting	600 SF	--	--	Material was found to be non-ACM in 2005. Roof was removed and replaced in March 2012.

NOTES:

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ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 20, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Imperial Beach Bait Shop
Imperial Beach, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) Imperial Beach Bait Shop District-Operated Facility (DOF), located in Imperial Beach, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and ACM status reports, and from our observations during the periodic asbestos-containing materials (ACMs) assessment of the Imperial Beach Bait Shop DOF conducted during February 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey report was completed for the Imperial Beach Bait Shop DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey reports were presented as an attachment to our 1999 periodic assessment letter report. ACMs are located at the Imperial Beach Pier Bait Shop DOF, as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2009, and 2012 ACM status surveys and are summarized in Table 1. No significant changes from the prior assessments were noted.

During a review of the initial asbestos survey of the facility, the roof mastic was listed as a presumed ACM. No records of sampling of the roof mastic has been found in our review of prior asbestos surveys and periodic status reporting. This material should continue to be treated as presumed asbestos-containing, until sampling and analysis of the material has been performed.

RECOMMENDATIONS

Since ACMs have been identified in the Imperial Beach Bait Shop DOF, the following recommendations and precautions are provided:

- The roof mastic, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb this materials in order to confirm that the material is asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:

- ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
- Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Senior Staff Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Imperial Beach (Bait Shop)					
Roof	Roof mastic	10 SF	N	Good	No changes observed. Encapsulated with sealant.

NOTES:
Information presented in red italicized text depicts updated location, building, friability, or condition.
ACM = Asbestos-containing materials
SF = Square feet
LF = Linear feet
EA = Each

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1 of 1

Ninyo & Moore



January 23, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Embarcadero Marina Park
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's Embarcadero Marina Park District-Operated Facility (DOF), located in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our previous review of existing documents, and from our observations during the periodic assessment of the Embarcadero Marina Park DOF conducted during August 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Embarcadero Marina Park DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs are located at the Embarcadero Marina Park DOF, as indicated in these reports. The ACMs

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were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1. No significant changes from the prior assessments were noted.

During a review of the initial asbestos survey of the facility, the fire doors were listed as a presumed ACM. No records of sampling of the fire doors have been found in our review of prior asbestos surveys and periodic status reporting. These materials should continue to be treated as presumed asbestos-containing, until sampling and analysis of the material has been performed.

RECOMMENDATIONS

Since ACMs have been identified in the Embarcadero Marina Park DOF, the following recommendations and precautions are provided:

- The fire doors, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Embarcadero Marina Park					
Storage	North restroom, fire door	2 EA	N	Good	No changes observed. Presumed to be asbestos-containing.
Storage	South restroom, fire door	2 EA	N	Good	No changes observed. Presumed to be asbestos-containing.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each

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1 of 1

Ninyo & Moore



January 28, 2015
Project No. 107876001

Ms. Melissa Daily
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Harbor Police Department and Mooring Office
1401 Shelter Island Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) known as the Harbor Police Department/Mooring Office, located at 1401 Shelter Island Drive in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES/FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and ACM status reports, and from our observations during the periodic assessment of the Harbor Police Department and Mooring Office DOF conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Harbor Police Department and Mooring Office DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our

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1999 ACM status report. ACMs are located in the Harbor Police Department and Mooring Office, as indicated in this report. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 periodic assessment of ACM condition surveys and are summarized in Table 1. Minor changes have taken place at this facility since the 2003 assessment. The public restrooms were demolished. 9"x9" red vinyl floor tile has presumably been abated in the Chief's office (currently the Lieutenant's office) and the dispatch offices (which is now occupied by Homeland Security), as bare concrete was observed underneath the existing carpeting. 12"x12" blue vinyl floor tile was observed in the south locker room, the center of the mooring office, and in the entrance to the women's restroom instead of the 9"x9" red or 12"x12" beige vinyl floor tile, which are presumed present underneath the 12"x12" blue vinyl floor tile. Please refer to the attached Table 1 for further details of changed conditions at this facility.

RECOMMENDATIONS

Since ACMs have been identified in the Harbor Police Department and Mooring Office, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Frangible (Y/N)	ACM Condition	Comments/Change in Condition
Harbor Police Department Building and Mooring Office, 1401 Shelter Island Drive					
Police/Mooring Building, Women's restroom entrance	9" red floor tile and mastic	20 SF	N	Good	12"x12" blue VFT observed, 9" beige VFT presumed present underneath
Police/Mooring Building, Chief's office	9" red floor tile and mastic	130 SF	--	--	Now Lieutenant's office. Red tile not observed. Concrete under carpet
Police/Mooring Building, Roof penetrations	Roofing mastic	30 SF	N	Good	No change
Police/Mooring Building, Harbor Police Dispatch, North office	9" red floor tile and mastic	300 SF	--	--	Now Homeland Security. Red tile not observed. Concrete under carpet
Police/Mooring Building, Center	9" red floor tile and mastic	309 SF	N	Good	12"x12" blue VFT observed, 9" beige VFT presumed present underneath
Police/Mooring Building, Intoxication room south	9" red floor tile and mastic	500 SF	N	Good	Red tile observed under carpet in storage area
Police/Mooring Building, Homeland Security	9" red floor tile and mastic	250 SF	--	--	Red tile not observed. Concrete under carpet
Shelter Island Public Restrooms, Windows	Window glazing	2 SF	--	--	Building demolished.
Shelter Island Public Restrooms, Storage	Black pipe wrap	10 LF	--	--	Building demolished.
Police Officer locker	Locker room building, 12" beige speckled floor tile and mastic	312 SF	N	Good	12"x12" blue VFT observed, 12" beige VFT presumed present underneath.
Dive Team Locker	Locker room building, 12" beige speckled floor tile and mastic	240 SF	N	Good	No changes observed
Roof penetrations	Locker room building, black roofing mastic	5 SF	N	Good	No changes observed
Storage closet	Locker room building, 9" tan floor tile and mastic	6 SF	N	Good	No changes observed

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Marina and Bayside Park
Chula Vista, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the Marina and Bayside Park in Chula Vista, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Chula Vista Marina and Bayside Park DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs have not been identified at the Chula Vista Marina and Bayside Park DOF to date. As such, a site visit was not conducted during the 2012 periodic assessment of DOFs. This appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

Since ACMs have not been identified at the Chula Vista Marina and Bayside Park DOF, no recommendations are provided regarding asbestos management or notification.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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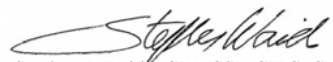
We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Spanish Landing
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District Operated-Facility (DOF) located at the Spanish Landing in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and asbestos status reports, and from our observations during the periodic assessment of the Spanish Landing DOF conducted in February 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey report was completed for the Spanish Landing DOF prior to initiation of the annual ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 periodic assessment letter report. ACMs are located in the Spanish Landing DOF, as indicated in this report. The ACMs were

observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status survey and are summarized in Table 1. No significant changes from the prior assessments were noted.

During a review of the initial asbestos survey of the facility, the fire doors were listed as a presumed ACM. A sample of one fire door core was collect by Winzler & Kelly in 2006 and was found to not contain any asbestos. These materials should no longer be treated as asbestos-containing.

RECOMMENDATIONS

As the fire doors at the Spanish Landing janitor's storage building DOF has been found to not contain any asbestos, there are no recommendations for this property at the current time.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE



Nicolas J. Carpenter
Project Environmental Scientist



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Spanish Landing					
Janitor storage	West restroom #1, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Wenzler & Kelly;
Janitor storage	East restroom #3, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Wenzler & Kelly;
Janitor storage	Center restroom #2, fire doors	--	--	--	Material found to not contain asbestos during limited asbestos sampling conducted in 2006 by Wenzler & Kelly;

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Cesar Chavez Park (formerly Crosby Park)
1847 Water Street
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District Operated-Facility (DOF) located in Cesar Chavez Park (formerly Crosby Park), at 1847 Water Street in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Cesar Chavez Park DOF conducted during February 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Cesar Chavez Park DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs are lo-

cated at the Cesar Chavez Park DOF, as indicated in this report. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1.

Minor deterioration of exterior stucco on the Cafeteria Building, causing peeling paint and exposure of underlying vapor barrier, was previously observed. No other significant changes from the prior assessments were noted.

RECOMMENDATIONS

Since ACMs have been identified in the Cesar Chavez Park DOF, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If

additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Crosby Park - 1847 Water Street					
Exterior of building	Cafeteria, exterior stucco	710 SF	N	Minor damage	<1% chrysotile. Peeling paint and exposed vapor barrier observed.
Exterior of building	Restroom, exterior stucco	865 SF	N	Good	<1% chrysotile. No changes observed.

NOTES:

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ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Tidelands Park (formerly Coronado Park)
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the Tidelands Park (formerly Coronado Park) located in Coronado, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Tidelands Park DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. The facility was also re-surveyed in 2001. At the time of the 2001 survey, ACMs had not been identified at the Tidelands Park DOF. As such, a site visit was not conducted during the 2012 periodic assessment of DOFs. This appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

Since ACMs have not been identified at the Tidelands DOF, no recommendations are provided regarding asbestos management or notification.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Harbor Drive Facility
2320 Harbor Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) known as the Harbor Drive Facility, located at 2320 Harbor Drive in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and asbestos status reports, and from our observations during the periodic assessment of the Harbor Drive Facility conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Harbor Drive Facility prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs are located at the Harbor Drive Facility, as indicated in this report. The ACMs were observed during

the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1. No significant changes from the prior assessments were noted.

During a review of the initial asbestos survey of the facility, the roofing materials and fire doors were listed as a presumed ACM. No records of sampling of the roofing materials or fire doors has been found in our review of prior asbestos surveys and periodic status reporting. These materials should continue to be treated as presumed asbestos-containing, until sampling and analysis of the materials has been performed.

RECOMMENDATIONS

Since ACMs have been identified in the Harbor Drive Facility, the following recommendations and precautions are provided:

- The roofing materials and fire doors, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIM, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Harbor Drive Facility, 2320 Harbor Drive					
Roof	Coast guard office, roofing felt	300 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Roof	Coast guard, roofing felt	300 SF	N	Good	No changes observed. Material is presumed to be asbestos-containing.
Pipe Area	Coast guard restroom, fire door	1 EA	N	Good	No changes observed. Material is presumed to be asbestos-containing.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
J Street South Bay Substation
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the J Street South Bay Substation in San Diego, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the J Street South Substation DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. This facility was subsequently demolished in 2000. While the J Street South Bay Substation has been demolished, this appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

As the J Street South Bay Substation DOF has been demolished, there are no recommendations for this property at the current time.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.


We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Senior Staff Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Old Police Station and Impound Office
801 Harbor Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-214, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) for the Old Police Station and Impound Office, located at 801 Harbor Drive in San Diego, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Old Police Station and Impound Office DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs are located at the Old Police Station and Impound Office DOF, as indicated in this report. The ACMs were observed during the 1999, 2000, 2001, 2002, and 2003 ACM status reports and are summarized in Table 1. No inspection was conducted in 2009.

RECOMMENDATIONS

Since ACMs have been identified at the Old Police Station and Impound Office, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but with the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE



Nicolas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Port of San Diego Administration Building
3165 Pacific Highway
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) known as the Administration Building, located at 3165 Pacific Highway, in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES/FINDINGS

The attached report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Administration Building DOF conducted in March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

3165 Pacific Highway
San Diego, California

January 28, 2015
Project No. 107876001

Our review of prior surveys and status reports indicated that six asbestos survey reports were completed for the Administration Building DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. ACMs are located in the Administration Building, as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009 and 2012. ACM status surveys and are summarized in Table 1. Notable changes include gray roll-out roof materials observed where the ACM built-up roofing materials had been reportedly abated in 2002, fiber-glass pipe insulation was observed where Aircell pipe insulation was previously reported, and the color of asbestos-containing 12"x12" brown floor tile with yellow stain has been altered to 12"x12" brown and black marbled floor tile.

RECOMMENDATIONS

Since ACMs have been identified in the Administration Building DOF, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port District O&M program.
- Suspect ACMs, not previously identified but have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Unified Port District Administration Building, 3165 Pacific Highway					
Basement					
Elevator equipment room	Elevator Brake Lining/Pad	4 SF	N	Good	No change.
Maintenance	12" brown and black marbled floor tile	800 SF	N	Good	Minor wear to tile surface observed.
Boiler room and throughout basement	Fire door	20 EA	N	Good	No changes observed. Material is presumed ACM that separates sections of the basement.
Men's restroom hallway	12" brown and black marbled floor tile	75 SF	N	Good	No changes observed.
1st floor					
Storage (located in corridor between phone room and training room.)	12" beige with grey marbled floor tile	150 SF	N	Good	No change observed. Brown with yellow tile removed. Now tiled with by 12"x12" gray VFT.
Telephone room	12" brown and black marbled floor tile	200 SF	N	Good	Minor wear to tile surface observed.
2nd floor					
Human Resources	12" brown and black marbled floor tile	400 SF	N	Good	No change assumed. Presumed present under multi-colored carpet. 12" blue VFT observed in Copy Room.
Human Resources	12" brown and black marbled floor tile	See above	N	Good	No change. Tile assumed under multi-colored carpet. 12" blue VFT observed in Copy Room.
Copy Room (Kitchen)	12" brown and black marbled floor tile	130 SF	N	Good	Now the kitchen. Tiled over with 12"x12" gray VFT.
Electrical room, by cafeteria	12" brown and black marbled floor tile	100 SF	N	Good	Two tiles were broken to drill through floor for electrical conduit.
Duct shaft (Fan Room)	12" brown and black marbled floor tile	--	--	--	Bare concrete observed.
Elevator shaft					
Elevator shaft (by roof)	Aircell pipe insulation	20 LF	--	--	Non-ACM fiberglass pipe insulation observed.
7th floor					
Main Restroom (east hall)	Dark brown floor tile	100 SF	N	Good	No change assumed. Presumed present under 12"x12" blue VFT.
Director restroom	12" brown and black marbled floor tile	200 SF	N	Good	No change assumed. Presumed present under 12"x12" beige VFT.

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
Roof	Built-up roof	20,000 SF	--	--	Grey roll-out roof sheeting reportedly installed in 2002. Old roof assembly removed.
	Gray flashing mastic	1,000 SF	--	--	Reportedly removed with roof assembly in 2002.
	Black roofing mastics and adhesives	700 SF	--	--	Material not observed. Reportedly removed with roof assembly in 2002.
	Built-up roof	5,000 SF	--	--	Grey roll-out roof sheeting reportedly installed in 2002. Old roof assembly removed.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
The Annex Building
3165 Pacific Highway
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) known as the Annex Building, located at 3165 Pacific Highway, in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES/FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Annex Building conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that six asbestos surveys were completed for the Annex Building prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. ACMs are located in the Annex Building, as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1.

The 12"x12" yellow floor tile and mastic was reportedly abated in 2002, but was still observed in the Janitor's Closet and Kitchens during this ACM status survey. The roofing materials were in fair condition with some bubbles filled with water, soft spots, and delamination observed. No significant changes from the prior assessments were noted for the roof penetration mastic.

RECOMMENDATIONS

Since ACMs have been identified in the Annex Building, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS


Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
The Annex, 3165 Pacific Highway					
Phone closet, supervisor's room, janitor's closet, storage	12" x 12" yellow floor tile and mastic	250 SF	Y	Good	Majority of material abated in 2002, remnant mastic may be under carpet. Yellow VFT observed in Janitor's closet and in kitchens.
Roof	Roofing material	7,700 SF	N	Fair	Some soft spots and bubbles filled with water observed on roof.
Roof	Roofing mastic	200 SF	N	Good	No changes observed.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Pepper Park Restroom
National City, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) known as the Pepper Park Restroom, located in National City, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Pepper Park Restroom DOF conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Pepper Park Restroom prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1.

The ACM roofing materials were not observed and appeared to have been removed, as a new sheet metal roof was observed during this ACM status survey.

RECOMMENDATIONS

Since ACMs appear to have been removed from the roof of the Pepper Park Restroom DOF, no recommendations are provided regarding asbestos management or notification.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE



Nicolas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee



Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
G Street Mole Pier Restrooms
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the G Street Mole Pier Restroom in San Diego, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the G Street Mole Pier Restroom DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs have not been identified at the G Street Mole Pier Restroom DOF to date. As such, a site visit was not conducted during the 2012 periodic assessment of DOFs. This appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

Since ACMs have not been identified at the G Street Mole Pier Restroom DOF, no recommendations are provided regarding asbestos management or notification.

G Street Mole Pier Restrooms
San Diego, California

January 28, 2015
Project No. 107876001

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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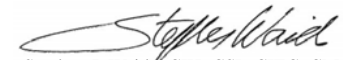
We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Harbor Police Headquarters
3380 North Harbor Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District Operated Facility (DOF) known as the Harbor Police Headquarters, located at 3380 North Harbor Drive in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and in implementation of the Port District's Operations and Maintenance (O&M) Program.

SURVEY ACTIVITIES AND FINDINGS

This letter report presents a compilation of information obtained from our review of prior asbestos surveys and status reports, and from our observations during the periodic assessment of the Harbor Police Headquarters DOF conducted during March 2012. The assessment is conducted periodically under the direction of the Port's Certified Asbestos Consultant to comply with local, state, and federal asbestos notification requirements.

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the Harbor Police Headquarters DOF prior to initiation of the annual ACM status reporting in 1999. The prior asbestos survey was presented as an attachment to our 1999 ACM status report.

3380 North Harbor Drive
San Diego, California

January 28, 2015
Project No. 107876001

ACMs are located at the Harbor Police Headquarters DOF, as indicated in this report. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status reports and are summarized in Table 1. No significant changes from the prior assessments were observed, with the following exception. During our 2009 inspection of the facility, Ninyo & Moore observed that the gray parapet sheeting had been removed from the parapet walls for the lower north roof of the building. New parapet sheeting was observed on the parapet walls for the lower north roof in our 2012 inspection and should be presumed to be asbestos-containing.

During a review of the initial asbestos survey of the facility, the roofing materials were listed as a presumed ACM. No records of sampling of the roofing materials has been found in our review of prior asbestos surveys and annual status reporting. These materials should continue to be treated as presumed asbestos-containing, until sampling and analysis of the materials has been performed.

RECOMMENDATIONS

Since ACMs have been identified at the Harbor Police Headquarters, the following recommendations and precautions are provided:

- The roofing materials, which have been presumed to be asbestos-containing, should be sampled prior to any repair, renovation, or demolition activities that could disturb these materials in order to confirm that the materials are asbestos-containing.
- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If materials are identified through laboratory analysis as asbestos-containing, the materials should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:

- ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and,
- Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.


Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
Former General Services Facility
825 East Harbor Drive
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at the General Services Facility in San Diego, California.

FINDINGS

Our review of prior surveys and status reports indicated that an asbestos survey was completed for the General Services DOF prior to initiation of the periodic ACM status reporting in 1999. The prior asbestos surveys were presented as an attachment to our 1999 ACM status report. This facility was subsequently demolished in 2003. While the General Services DOF has been demolished, this appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

As the General Services DOF has been demolished, there are no recommendations for this property at the current time.

LIMITATIONS

Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicholas J. Carpenter
Project Environmental Scientist

NJC/SJW/gg

Distribution: (1) Addressee


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

825 East Harbor Drive
San Diego, California

January 28, 2015
Project No. 107876001

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Friable (Y/N)	ACM Condition	Comments/Change in Condition
General Services Facility (formerly Maintenance Facility), 825 East Harbor Drive					
Entry	Maintenance building, 12" white with brown	90 SF	--	--	Building demolished 2003.
General office	Maintenance building, white acoustic spray	1,100 SF	--	--	Building demolished 2003.
General office	Maintenance building, drywall joint compound	50 SF	--	--	Building demolished 2003.
General office	Maintenance building, 12" white with brown	1,100 SF	--	--	Building demolished 2003.
Office corridor	Maintenance building, 12" white with brown	125 SF	--	--	Building demolished 2003.
Office corridor	Maintenance building, white acoustic spray	125 SF	--	--	Building demolished 2003.
Office corridor	Maintenance building, drywall joint compound	25 SF	--	--	Building demolished 2003.
Workshop	Maintenance building, 12" white with brown	70 SF	--	--	Building demolished 2003.
Office A	Maintenance building, 12" white with brown	300 SF	--	--	Building demolished 2003.
Office A	Maintenance building, white acoustic spray	300 SF	--	--	Building demolished 2003.
Men's ofc. restroom	Maintenance building, 12" white with brown	15 SF	--	--	Building demolished 2003.
Women's ofc. restroom	Maintenance building, 12" white with brown	25 SF	--	--	Building demolished 2003.
Office F	Maintenance building, white acoustic spray	300 SF	--	--	Building demolished 2003.
Office G	Maintenance building, 12" white with brown	270 SF	--	--	Building demolished 2003.
Office A	Maintenance building, 12" white with brown	250 SF	--	--	Building demolished 2003.
Office D	Maintenance building, 12" white with brown	125 SF	--	--	Building demolished 2003.
Office C	Maintenance building, 12" white with brown	160 SF	--	--	Building demolished 2003.
Office B	Maintenance building, 12" white with brown	300 SF	--	--	Building demolished 2003.
Office E	Maintenance building, 12" white with brown	220 SF	--	--	Building demolished 2003.
Carpenter shop	Maintenance building, drywall joint compound	200 SF	--	--	Building demolished 2003.
Carpenter bkr.	Maintenance building, 12" off-white floor tile	120 SF	--	--	Building demolished 2003.
Carpenter bkr.	Maintenance building, drywall compound	45 SF	--	--	Building demolished 2003.
Rear office	Maintenance building, 9" brown floor tile	360 SF	--	--	Building demolished 2003.
Rear lockers	Maintenance building, 9" brown floor tile	200 SF	--	--	Building demolished 2003.
Auto shop	Maintenance building, 9" brown floor tile	120 SF	--	--	Building demolished 2003.
Main loft	Maintenance building, equipment pad	90 SF	--	--	Building demolished 2003.
Lunch room	Maintenance building, 12" off-white floor tile	450 SF	--	--	Building demolished 2003.
Exterior windows	Maintenance car wash building, window	150 SF	--	--	Building demolished 2003.
Roof	Maintenance car wash building, roof material	500 SF	--	--	Building demolished 2003.

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing materials

SF = Square feet

LF = Linear feet

EA = Each

January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
World Trade Center
2980 Pacific Highway
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF), at the World Trade Center (the former Training and Organization Development Building) located at 2980 Pacific Highway in San Diego, California. The objective of this report is to provide information regarding current site conditions to assist the Port District in employee notification and the implementation of the Port District's Operations and Maintenance (O&M) program.

SURVEY ACTIVITIES/FINDINGS

As the World Trade Center building is currently rented to the San Diego County Regional Airport Authority, a site visit was not conducted during the 2012 periodic assessment of DOFs. This appendix has been retained in the ACM status reports in the event that historical information regarding ACMs at the property is required.

Our review of prior surveys and status reports indicated that an asbestos survey report was completed for the World Trade Center, San Diego Building DOF prior to initiation of the periodic ACM status reporting in 1999. This prior asbestos survey was presented as an attachment to our 1999 ACM status report. ACMs are located in the World Trade Center, San Diego Building DOF,

2980 Pacific Highway
San Diego, California

January 28, 2015
Project No. 107876001

as indicated in these reports. The ACMs were observed during the 1999, 2000, 2001, 2002, 2003, 2009, and 2012 ACM status surveys and are summarized in Table 1.

RECOMMENDATIONS

Since ACMs have been identified in the World Trade Center DOF, the following recommendations and precautions are provided:

- Applicable laws and regulations should be followed, including those provisions requiring notification to building renovation and demolition contractors of the presence of asbestos, and the management of these ACMs under the existing Port O&M program.
- Suspect ACMs, not previously identified but that have the potential to be disturbed by building renovation and/or demolition activities, should be sampled prior to disturbance. If the materials are identified through laboratory analysis as ACM, the material should be removed prior to construction activities. A qualified California Division of Occupational Safety and Health Certified Asbestos Consultant should be retained to assist in the selection of a licensed asbestos abatement contractor, and to provide oversight of the asbestos abatement work.
- The following immediate precautions should be taken prior to any repair, renovation or demolition activities that would involve ACMs:
 - ACMs should not be disturbed (scraped, cut, broken, sawed, sanded, drilled, etc.) and should be monitored for deterioration that may release asbestos fibers; and
 - Federal, state, and local regulations should be followed for the removal and disposal of ACMs.

LIMITATIONS

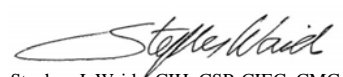
Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Table 1 – Annual Assessment of ACM Condition

Distribution: (1) Addressee

2980 Pacific Highway
San Diego, California

January 28, 2015
Project No. 107876001

Table 1 - Annual Assessment of ACM Condition

Location	Identified ACM	Quantity (SF/LF/EA)	Frangible (Y/N)	ACM Condition	Comments/Change in Condition
World Trade Center, San Diego formerly Training and Organization Development Building - 2980 Pacific Highway					
Exterior surface	Exterior stucco	9,400 SF	N	Damaged	Property rented to SDCRAA, not updated 2012.
1st floor offices	9"x 9" white floor tile/mastic	4,000 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Conference room	Drywall joint compound	40 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Corridor	Drywall joint compound	110 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Specialists office	Drywall joint compound	20 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Media room	Drywall joint compound	60 SF	N	Good	Property rented to SDCRAA, not updated 2012.
1st floor lobby	9"x 9" white floor tile/mastic	380 SF	N	Good	Property rented to SDCRAA, not updated 2012.
1st floor conference room	Carpet mastic	N/A	N/A	N/A	Asbestos not detected
Training room	Plaster	610 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Corridor (1st floor)	Plaster	1,220 SF	N	Damaged	Property rented to SDCRAA, not updated 2012.
Adm. storage	Plaster	110 SF	N	Good	Property rented to SDCRAA, not updated 2012.
2nd floor storage, restrooms, and stairs landings	9"x 9" white floor tile	200 SF	N	Fair	Property rented to SDCRAA, not updated 2012.
2nd floor office	Black mastic associated with 9"x9" white floor tile	3,600 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Roof	Roof mastic	60 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof parapet sheeting	250 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof felt	140 SF	N	Good	Property rented to SDCRAA, not updated 2012.
Patio	Roof mastic	5 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof, center	Black roof core - 1st layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 2nd layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 3rd layer	N/A	N/A	N/A	Asbestos not detected
West main roof, center	Black roof core - 4th layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 1st layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 2nd layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 3rd layer	N/A	N/A	N/A	Asbestos not detected
East high roof, west end	Black roof core - 4th layer	N/A	N/A	N/A	Asbestos not detected
West main roof, west end at drain	Silver penetration mastic - 1st layer	100 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof, west end at drain	Black penetration mastic - 2nd layer	100 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof enter hatch	Silver paint - 1st layer	50 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof enter hatch	Black penetration mastic - 2nd layer	50 SF	N	Good	Property rented to SDCRAA, not updated 2012.
West main roof 6" conduit east end	Black tar	N/A	N/A	N/A	Asbestos not detected

NOTES:

Information presented in red italicized text depicts updated location, building, friability, or condition.

ACM = Asbestos-containing material;

SF = Square feet

LF = Linear feet

EA = Each



January 28, 2015
Project No. 107876001

Ms. Melissa Dailey
Port of San Diego
P.O. Box 120488
San Diego, California 92112

Subject: Asbestos-Containing Material Status Report, District-Operated Facility
420 and 520 Marina Parkway
San Diego, California
Agreement No. 188-2014

Dear Ms. Dailey:

In accordance with your Agreement No. 188-2014, Ninyo & Moore has prepared an Asbestos-Containing Material (ACM) Status Report of the San Diego Unified Port District's (Port District) District-Operated Facility (DOF) at 420 and 520 Marina Parkway in San Diego, California.

FINDINGS

Our review of a prior survey indicated that an asbestos survey was completed for the DOF in 2006. The prior asbestos survey is presented as an attachment to this ACM status report. This facility was subsequently demolished in 2006. While the DOF located at 420 and 520 Marina Parkway has been demolished, this appendix has been retained in the ACM status report in the event that historical information regarding ACMs at the property is required.

RECOMMENDATIONS

As the 420 and 520 Marina Parkway DOF has been demolished, there are no recommendations for this property at the current time.

420 and 520 Marina Parkway
San Diego, California

January 28, 2015
Project No. 107876001

LIMITATIONS

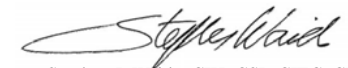
Ninyo & Moore's opinions regarding the observed building materials, as presented in this letter report, are based on the limited information supplied by the client and our previous site reconnaissance. It should be noted that Ninyo & Moore's visual assessment was not invasive in nature. If additional suspect materials are encountered during building renovation and/or demolition activities, these materials should be sampled for asbestos content, prior to any disturbance.

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We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE


Nicolas J. Carpenter
Project Environmental Scientist


Stephen J. Waide, CIH, CSP, CIEC, CMC
Principal Environmental Scientist

NJC/SJW/gg

Attachment: Pre-Demolition Hazardous Building Materials Survey Report (Winzler & Kelly, 2006)

Distribution: (1) Addressee

**PRE-DEMOLITION HAZARDOUS
BUILDING MATERIAL SURVEY REPORT**

Project Site:
**CHULA VISTA RV PARK FACILITIES AND
FORMER ASF INDUSTRIES (BUILDINGS 910, 911 AND 912)
420 and 520 Marina Parkway
Chula Vista, California 91910**

Prepared For:
**Mr. Lawrence McCauley
San Diego Unified Port District
P.O. Box 488
San Diego, CA 92112**

Prepared By:
**WINZLER & KELLY CONSULTING ENGINEERS
4180 Ruffin Road, Suite 115
San Diego, CA 92123
(858) 244-0440**

Winzler & Kelly Project Number: 1009505002.77100

September 12, 2006



**TABLE OF CONTENTS –
LIMITED LEAD TESTING REPORT**

SECTION 1 - EXECUTIVE SUMMARY

SECTION 2 - MAIN BODY OF REPORT

APPENDIX A - CERTIFICATIONS

APPENDIX B - LEAD TESTING ORIENTATION MAPS

APPENDIX C - XRF DATA TABLE

AMERISCI

INVOICE

REMIT AmeriSci Los Angeles
TO: ATTN: ACCOUNTS RECEIVABLE
13635 Genito Road
Midlothian, Virginia 23112
TEL: (804) 763-0002
FAX: (804) 763-0493

AmeriSci Los Angeles

24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

BILLED TO: Winzler & Kelly Consulting Engineers / San Di
Attn: Steve Reese
4180 Ruffin Road
Suite 115
San Diego, CA 92123

<u>Invoice No.</u> 906081341	<u>Invoice Date</u> 08/17/06	<u>Client No.</u> 91709
<u>P.O.#</u>		<u>Terms</u> Net 30 Days
<u>Client Job No.</u> 1009505001.77010	<u>Client Job Name</u> Port Of SD	
<u>Client Job Description</u> RV Park / 420 Marina Pkwy (Report Amended 8/15/2006)		

Quantity	Analytical Procedure	Unit Price	Amount
38	PLM 3 day	\$6.00	\$228.00
40	PLM Layered Samples 3 day	\$6.00	\$240.00
A 1.5% finance charge will be added to invoices over 30 days		INVOICE TOTAL	\$468.00

PLEASE REMIT AmeriSci Los Angeles
ATTN: ACCOUNTS RECEIVABLE
TO: 13635 Genito Road
Midlothian, Virginia 23112
TEL: (804) 763-0002
FAX: (804) 763-0493

(Detach and Return with Payment)

<u>Client No.</u> 91709	<u>Client Name</u> Winzler & Kelly Consulting Engineers / San Diego	
<u>Invoice No.</u> 906081341	<u>Invoice Date</u> 08/17/06	<u>Invoice Amount</u> \$468.00
AMOUNT PAID:		

Winzler and Kelly
Consulting Engineers

XRF LEAD DATA TABLE

Chula Vista RV Park and RSF Industries Bldgs 910 (C), 911 (B), and 912 (A)

Reading No	Component	Substrate	Side	Condition	Color	Site	Bldg	Room	Results	Lead (mg/cm ²)
1				SHUTTER CAL						16.88
2				CALIBRATE					Positive	1
3				CALIBRATE					Positive	1.2
4				CALIBRATE					Positive	1.1
5	WINDOW	WOOD	D	INTACT	BROWN	RV Park	Main Bldg	Exterior	Negative	0
6	WINDOW trim	WOOD	D	INTACT	BROWN/black	RV Park	Main Bldg	Exterior	Negative	0
7	WINDOW trim	WOOD	D	INTACT	black	RV Park	Main Bldg	Exterior	Negative	0
8	roof	METAL	D	INTACT	BLUE	RV Park	Main Bldg	Exterior	Negative	0
9	DOOR frame	METAL	C	INTACT	black	RV Park	Main Bldg	Exterior	Negative	0
10	DOOR	METAL	C	INTACT	black	RV Park	Main Bldg	Exterior	Negative	0
11	DOOR jamb	METAL	C	INTACT	WHITE	RV Park	Main Bldg	Interior	Negative	0
12	WALL	DRYWALL	D	INTACT	WHITE	RV Park	Main Bldg	Interior	Negative	0
13										10.35
14	DOOR frame	METAL	C	INTACT	WHITE	RV Park	Main Bldg	Interior	Negative	0
15	WINDOW frame	WOOD	D	INTACT	GREEN	RV Park	Main Bldg	Interior	Negative	0
16	DOOR	WOOD	C	INTACT	BROWN	RV Park	Main Bldg	Interior	Negative	0
17	WALL	WOOD	A	INTACT	WHITE	RV Park	Main Bldg	Interior	Negative	0
18	FLOOR	CONCRETE	O	INTACT	gray	RV Park	Main Bldg	Interior	Negative	0
19	WALL	WOOD	D	INTACT	BROWN	RV Park	Game Rm	Exterior	Negative	0
20	WINDOW	WOOD	D	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
21	DOOR frame	METAL	D	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
22	DOOR	WOOD	D	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
23	roof	METAL	B	INTACT	BLUE	RV Park	Game Rm	Exterior	Negative	0
24	hand rail	WOOD	B	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
25	DOOR	METAL	B	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
26	stripe	CONCRETE	B	INTACT	YELLOW	RV Park	Game Rm	Exterior	Negative	0.01
27	stripe	CONCRETE	B	INTACT	BLUE	RV Park	Game Rm	Exterior	Negative	0
28	stripe	CONCRETE	A	INTACT	RED	RV Park	Game Rm	Exterior	Negative	0.01
29	down drain	METAL	A	INTACT	BROWN	RV Park	Game Rm	Exterior	Negative	0
30	fence	WOOD	B	INTACT	black	RV Park	Game Rm	Exterior	Negative	0
31	TREAD	DRYWALL	D	INTACT	WHITE	RV Park	Game Rm	Interior	Negative	0
32	WINDOW	WOOD	D	INTACT	WHITE	RV Park	Game Rm	Interior	Negative	0
33	DOOR frame	METAL	D	INTACT	WHITE	RV Park	Game Rm	Interior	Negative	0
34	DOOR jam	METAL	D	INTACT	WHITE	RV Park	Game Rm	Interior	Negative	0
35	WALL	WOOD	D	INTACT	WHITE	RV Park	Game Rm	Interior	Negative	0
36	beam	WOOD	ceiling	INTACT	BROWN	RV Park	Game Rm	Interior	Negative	0
37	fence	METAL	A	INTACT	black	RV Park	Outside	Pool	Negative	0
38	WALL	WOOD	B	INTACT	BROWN	RV Park	Club Rm	Exterior	Negative	0
39	WALL trim	WOOD	B	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
40	DOOR frame	METAL	B	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
41	DOOR	WOOD	B	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
42	DOOR	WOOD	B	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
43	WALL	CERAMIC	O	INTACT	BROWN	RV Park	women rr	Exterior	Negative	0.01
44	WALL	CERAMIC	C	INTACT	WHITE	RV Park	women rr	Exterior	LBS	9.9
45	roof	METAL	B	INTACT	BLUE	RV Park	Club Rm	Exterior	Negative	0
46	DOOR	METAL	D	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
47	DOOR	WOOD	D	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
48	WINDOW frame	WOOD	D	INTACT	black	RV Park	Club Rm	Exterior	Negative	0
49	WALL	DRYWALL	C	INTACT	WHITE	RV Park	Club Rm	Interior	Negative	-0.26
50	DOOR	WOOD	A	INTACT	BROWN	RV Park	Club Rm	Interior	Negative	0
51	DOOR frame	METAL	A	INTACT	WHITE	RV Park	Club Rm	Interior	Negative	0
52	beam	WOOD	O	INTACT	BROWN	RV Park	Club Rm	Interior	Negative	0
53	WINDOW trim	WOOD	A	INTACT	WHITE	RV Park	Club Rm	Interior	Negative	0
54	fence	WOOD	A	INTACT	WHITE	RV Park	Club Rm	et area fenc	Negative	0
55	WALL	CONCRETE	D	INTACT	gray	RV Park	Club Rm	propane	Negative	0
56	stripe	CONCRETE	C	INTACT	GREEN	RV Park	Club Rm	Exterior	Negative	0.01
57	WALL	WOOD	A	INTACT	BROWN	RV Park	South RR	Exterior	Negative	0
58	DOOR	WOOD	A	INTACT	black	RV Park	South RR	Exterior	Negative	0
59	DOOR	METAL	A	INTACT	black	RV Park	South RR	Exterior	Negative	0
60	DOOR frame	METAL	A	INTACT	black	RV Park	South RR	Exterior	Negative	0
61	WALL	CERAMIC	C	INTACT	WHITE	RV Park	South RR	Interior	LBS	9.9
62	FLOOR	tile	O	INTACT	BROWN	RV Park	South RR	Interior	Negative	0.01
63	roof	METAL	A	INTACT	BLUE	RV Park	South RR	so rr ext	Negative	0
64	roof	METAL	A	INTACT	BLUE	RV Park	South RR	so rr ext	Negative	0
65	WALL	stucco	C	INTACT	BEIGE	RV Park		so bar b q	Negative	0
66	WALL	WOOD	D	INTACT	RED	RV Park		so horse sho	Negative	0
67	guardrail so	WOOD	D	INTACT	WHITE	RV Park		so horse sho	Negative	0
68	street light	METAL	O	INTACT	black	RV Park		so horse sho	Negative	0
69	street sign	WOOD	O	INTACT	black	RV Park		so horse sho	Negative	0

08/17/06 1

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XRF LEAD DATA TABLE

Chula Vista RV Park and RSF Industries Bldgs 910 (C), 911 (B), and 912 (A)

Reading No	Component	Substrate	Side	Condition	Color	Site	Bldg	Room	Results	Lead (mg/cm ²)
70	trashcan	WOOD	0	INTACT	black	RV Park		northeast corr	Negative	0
71	pole	METAL	A	INTACT	BLUE	RV Park		northeast corr	Negative	0.02
72	WALL	WOOD	A	INTACT	BROWN	RV Park	North RR	Interior	Negative	0
73	DOOR frame	METAL	A	INTACT	black	RV Park	North RR	Interior	Negative	0
74	DOOR	METAL	A	INTACT	black	RV Park	North RR	Interior	Negative	0
75	DOOR	WOOD	A	INTACT	black	RV Park	North RR	Interior	Negative	0
76	FLOOR	tile	A	INTACT	BROWN	RV Park	North RR	Interior	Negative	0
77	WALL	CERAMIC	A	INTACT	WHITE	RV Park	North RR	Interior	LBS	10
78	rr stall	METAL	B	INTACT	BLUE	RV Park	North RR	Interior	Negative	0
79	WALL	DRYWALL	C	INTACT	WHITE	RV Park	North RR	Interior	Negative	0
80	roof	METAL	A	INTACT	BLUE	RV Park	North RR	Exterior	Negative	0
81	stripe	street	D	INTACT	WHITE	RV Park	Club Rm	Exterior	Negative	0.01
82	fire hydrant	METAL	D	INTACT	YELLOW	RV Park	Club Rm	Exterior	LBP	4.9
83			CALIBRATE						Positive	1
84			CALIBRATE						Positive	1.1
85			CALIBRATE						Positive	1.1
86			SHUTTER CAL						Positive	10.8
87			CALIBRATE						Positive	1.1
88			CALIBRATE						Positive	1
89			CALIBRATE						Positive	1
90	DOOR FRAME	METAL	A	POOR	BROWN	ASF Industries	Bldg 912 (A)	Exterior	LBP	2.1
91	DOOR	METAL	A	POOR	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
92	DRAINSPOUT	METAL	A	INTACT	PINK	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
93	CONC BATH	CONCRETE	D	POOR	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
94	DOOR	METAL	D	POOR	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
95	DOOR FRAME	METAL	D	POOR	PINK	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.09
96	DOOR FRAME	METAL	C	POOR	PINK	ASF Industries	Bldg 912 (A)	Exterior	LBP	14.7
97	DOOR	METAL	C	POOR	PINK	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
98	PARKING BALLAD	METAL	C	POOR	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	LBP	5.3
99	FIRE HYDRANT	METAL	C	POOR	PINK	ASF Industries	Bldg 912 (A)	Exterior	LBP	1.7
100	ROOF LADDER	METAL	B	POOR	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
101	PRK STRIP	CONCRETE	B	POOR	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	LCSC	0.8
102	CART CHARGER	CONCRETE	A	POOR	RED	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
103	ROLL DOOR FRAME	METAL	A	POOR	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	LBP	2.7
104	ROLL DOOR	METAL	A	POOR	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
105	DOOR	METAL	A	POOR	GRAY	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
106	DOOR FRAME	METAL	A	POOR	BROWN	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
107	SLIDING DOOR	WOOD	D	INTACT	BROWN	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.03
108	DRAINSPOUT	METAL	D	INTACT	PINK	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
109	CONDUIT COV	METAL	D	INTACT	BEIGE	ASF Industries	Bldg 912 (A)	Exterior	LCSC	0.24
110	RACK	METAL	D	INTACT	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
111	BALLARD	METAL	C	INTACT	YELLOW	ASF Industries	Bldg 912 (A)	Exterior	LBP	1.2
112	PIPE	METAL	C	INTACT	RED	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
113	FIRE HYD	METAL	C	INTACT	RED	ASF Industries	Bldg 912 (A)	Exterior	LBP	1.4
114	LADDER	METAL	B	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
115	WALL	CONCRETE	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
116	COLUMN	METAL	0	INTACT	RED	ASF Industries	Bldg 911 (B)	Interior	LCSC	0.25
117	WALL	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 911 (B)	Interior	Negative	0.07
118	DOOR frame	WOOD	A	INTACT	BEIGE	ASF Industries	Bldg 911 (B)	Interior	Negative	0.01
119	DOOR	WOOD	A	INTACT	BEIGE	ASF Industries	Bldg 911 (B)	Interior	Negative	0.01
120	WALL	CERAMIC	B	INTACT	BEIGE	ASF Industries	Bldg 911 (B)	Interior	Negative	0.06
121	WALL	CONCRETE	C	INTACT	gray	ASF Industries	Bldg 911 (B)	Interior	Negative	0
122	rail	CONCRETE	C	INTACT	YELLOW	ASF Industries	Bldg 911 (B)	Interior	Negative	0
123	floor	CONCRETE	C	INTACT	YELLOW	ASF Industries	Bldg 911 (B)	Interior	Negative	0
124	beam	CONCRETE	C	INTACT	RED	ASF Industries	Bldg 911 (B)	Interior	Negative	0
125	WINDOW	WOOD	C	INTACT	RED	ASF Industries	Bldg 911 (B)	Interior	Negative	0
126	WALL	stucco	C	INTACT	tan	ASF Industries	Bldg 911 (B)	Interior	Negative	0
127	DOOR frame	METAL	C	INTACT	RED	ASF Industries	Bldg 911 (B)	Interior	Negative	0
128	DOOR	METAL	C	INTACT	RED	ASF Industries	Bldg 911 (B)	Interior	Negative	0
129	fire hyd	METAL	D	INTACT	RED	ASF Industries	Bldg 910 (C)	Exterior	LCSC	0.18
130	fire hyd	METAL	D	INTACT	RED	ASF Industries	Bldg 910 (C)	Exterior	LCSC	0.12
131	ballard	METAL	D	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Exterior	LBP	22.2
132	DOOR	METAL	D	INTACT	gray	ASF Industries	Bldg 910 (C)	Exterior	LBP	2.5
133	DOOR frame	METAL	D	INTACT	BROWN	ASF Industries	Bldg 910 (C)	Exterior	LBP	20.8
134	WALL	CONCRETE	D	INTACT	PINK	ASF Industries	Bldg 910 (C)	Exterior	LCSC	0.4
135	rollup door	METAL	D	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Exterior	Negative	0
136	rollup door frame	METAL	D	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Exterior	Negative	0.01
137	conc bath	CONCRETE	D	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Exterior	Negative	0.01
138	conduit cov	METAL	D	INTACT	BEIGE	ASF Industries	Bldg 910 (C)	Exterior	LCSC	0.11

XRF LEAD DATA TABLE

Chula Vista RV Park and RSF Industries Bldgs 910 (C), 911 (B), and 912 (A)

Reading No	Component	Substrate	Side	Condition	Color	Site	Bldg	Room	Results	Lead (mg/cm ²)
139	pipe	METAL	C	INTACT	RED	ASF Industries	Bldg 910 (C)	Exterior	Negative	0
140	drain spout	METAL	C	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Exterior	Negative	0.02
141	drain spout	METAL	C	INTACT	PINK	ASF Industries	Bldg 910 (C)	Exterior	Negative	0
142	ladder	METAL	B	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Exterior	Negative	0
143	DOOR	METAL	A	INTACT	gray	ASF Industries	Bldg 910 (C)	Exterior	Negative	0
144	beam	METAL	D	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Interior	LCSC	0.19
145	beam	METAL	D	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Interior	LCSC	0.21
146	WALL	CONCRETE	D	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Interior	Negative	0
147	DOOR	WOOD	D	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Interior	Negative	0
148	DOOR	METAL	C	INTACT	gray	ASF Industries	Bldg 910 (C)	Interior	Negative	0
149	WALL	WOOD	C	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Interior	Negative	0.01
150	DOOR frame	WOOD	C	INTACT	WHITE	ASF Industries	Bldg 910 (C)	Interior	Negative	0.01
151	self	WOOD	B	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Interior	Negative	0
152	light post	CONCRETE	0	INTACT	YELLOW	ASF Industries	Bldg 910 (C)	Interior	Negative	0.02
153			CALIBRATE						Positive	1.1
154			CALIBRATE						Positive	1.1
155			CALIBRATE						Positive	1.1
156			SHUTTER CAL						Positive	11.87
157			CALIBRATE						Positive	1.1
158			CALIBRATE						Positive	1
159			CALIBRATE						Positive	1.1
160	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 912 (A)	Roof	Negative	0.01
161	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 912 (A)	Roof	Negative	0.01
162	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 912 (A)	Roof	Negative	0.01
163	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 910 (C)	Roof	Negative	0
164	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 910 (C)	Roof	Negative	0
165	air vent	METAL	0	POOR	PINK	ASF Industries	Bldg 910 (C)	Roof	Negative	0
166	RAIL	METAL	0	POOR	YELLOW	ASF Industries	Bldg 910 (C)	Roof	LBP	2.4
167			CALIBRATE						Positive	1
168			CALIBRATE						Positive	1.1
169			CALIBRATE						Positive	1
170			CALIBRATE						Positive	1.1
171			CALIBRATE						Positive	1.1
172			CALIBRATE						Positive	1.1
173	DOOR	METAL	B	INTACT	GRAY	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
174	DOORFRAME	WOOD	B	INTACT	RED	ASF Industries	Bldg 912 (A)	Exterior	LCSC	0.5
175	WALL	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	-0.02
176	WALL	WOOD	D	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
177	BASEBOARD	WOOD	D	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
178	BASEBOARD	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
179	BASEBOARD	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.04
180	CONDUIT	METAL	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
181	CONDUIT	METAL	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0
182	DOOR	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.01
183	DOORFRAME	WOOD	A	INTACT	WHITE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.05
184	DOORFRAME	WOOD	A	INTACT	BEIGE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.09
185	DOOR	WOOD	A	INTACT	BEIGE	ASF Industries	Bldg 912 (A)	Exterior	Negative	0.05
186	WALL	WOOD	B	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
187	WALL	WOOD	C	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
188	BASEBOARD	WOOD	C	INTACT	BEIGE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
189	FLOOR	CONCRETE		INTACT	BEIGE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.01
190	FLOOR	CONCRETE		INTACT	BEIGE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
191	SINK	PORCELAIN	B	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.02
192	SINK	PORCELAIN	B	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.03
193	URINAL	PORCELAIN	LEFT	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.03
194	TOILET	PORCELAIN	LEFT	INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.03
195	STALL WALL	PLASTIC	C	INTACT	BLUE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
196	STALL WALL	PLASTIC	C	INTACT	BLUE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
197	STALL WALL HINGE	METAL	C	INTACT	BLUE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
198	STALL WALL HINGE	METAL	C	INTACT	BLUE	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.4
199	FLOOR DRAIN	METAL		INTACT	BLACK	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
200	CEILING	WOOD		INTACT	BLACK	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.3
201	CEILING	WOOD		INTACT	BLACK	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.4
202	CEILING	DRYWALL		INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.11
203	CEILING	DRYWALL		INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.03
204	CEILING GRID	MINIBLIND		INTACT	WHITE	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.07
205	POLE	METAL		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.28
206	POLE	METAL		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.21
207	POLE	METAL		INTACT	RED	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.28

XRF LEAD DATA TABLE

Chula Vista RV Park and RSF Industries Bldgs 910 (C), 911 (B), and 912 (A)

Reading No	Component	Substrate	Side	Condition	Color	Site	Bldg	Room	Results	Lead (mg/cm ²)
208	POLE	METAL		INTACT	RED	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.23
209	FLOORSTRIPE	CONCRETE		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.4
210	FLOORSTRIPE	CONCRETE		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	LCSC	0.4
211	FLOOR	CONCRETE		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0
212	FLOOR	WOOD		INTACT	YELLOW	ASF Industries	Bldg 912 (A)	MEN RR	Negative	0.02
213			CALIBRATE						Positive	1.1
214			CALIBRATE						Positive	1.1
215			CALIBRATE						Positive	1.2

Notes:

XRF - X-ray fluorescence spectrum analyzer

mg/cm² - milligrams per square centimeter

LCSC - Lead-Containing Surface Coating (8 CCR 1532.1) lead present from 0.10 to 0.99 mg/cm²

LBP - Lead-Based Paint (17 CCR 35001 et. seq.), lead is present at 1.00 mg/cm² or greater

LBS - Lead-Bearing Substance, lead is present at 1.00 mg/cm² or greater



AmeriSci Los Angeles

24416 SOUTH MAIN STREET • SUITE 308
CARSON, CA 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

August 15, 2006

Winzler & Kelly Consulting Engineers / San Di
Attn: Steve Reese
4180 Ruffin Road
Suite 115
San Diego, CA 92123

RE: Winzler & Kelly Consulting Engineers / San Di
Job Number 905081341
P.O. # 1009505001.77010
1009505001.77010; Port Of SD; RV Park / 420 Marina Pkwy (Report Amended 8/15/2006)

Dear Steve Reese:

Enclosed are the results for polarized light microscopy analysis (PLM) of the following Winzler & Kelly Consulting Engineers / San Di samples received at AmeriSci on Thursday, August 10, 2006, for a 3 day turnaround:

01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78

The 78 samples contained in Ziplock Bags were shipped to AmeriSci via Federal Express. These samples were prepared and analyzed according to the EPA Interim Method (EPA 600/M4-82-020 per 40 CFR 763, subpt F, App. A). The samples were evaluated for homogeneity by low power stereomicroscopy. Asbestos fibers were identified by PLM and dispersion staining through the determination of the required optical properties including: morphology, color, pleochroism, refractive indices, birefringence, extinction and sign of elongation. The required analytical information, analysis results, analyst signature and laboratory identification is contained in the Analyst's Report.

This report relates ONLY to the sample analysis expressed as percent asbestos. AmeriSci assumes no responsibility for customer supplied data such as "sample type", "location", or "area sampled". This report must not be used to claim product endorsement by AmeriSci, NVLAP or any agency of the U. S. Government. The National Institute of Standards and Technology Accreditation requirements, mandates that this report must not be reproduced, except in full without the written approval of the laboratory. This report may contain specific data not covered by NVLAP or ELAP accreditations respectively, if so identified in relevant footnotes.

AmeriSci appreciates this opportunity to serve your organization. Please contact us for any further assistance or with any questions.

Sincerely,

Mary S. David
Customer Service



AmeriSci Los Angeles
24416 S. Main Street, Ste 308
Carson, California 90745
TEL: (310) 834-4868 • FAX: (310) 834-4772

PLM Bulk Asbestos Report

Winzler & Kelly Consulting
Engineers / San Di
Attn: Steve Reese
4180 Ruffin Road
Suite 115
San Diego, CA 92123

Date Received 08/10/06 **AmeriSci Job No.** 906081341
Date Examined 08/11/06 **P.O. #** 1009505001.77010
Page 1 of 23
RE 1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
01 A	906081341-01.1 Location: Club House South E Closet / 12"x12" Floor Tile / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Calcite 100 %			
01 A	906081341-01.2 Location: Club House South E Closet / 12"x12" Floor Tile / Tan	Yes	3 % (by CVES) by John Lopez on 08/11/06
Description: Tan/Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97 %			
02 A	906081341-02.1 Location: Club House South West Closet / 12"x12" Floor Tile / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Calcite 100 %			
02 A	906081341-02.2 Location: Club House South West Closet / 12"x12" Floor Tile / Tan	Yes	4 % (by CVES) by John Lopez on 08/11/06
Description: Black / Tan, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
03 A	906081341-03.1 Location: CH N Door Way / 12"x12" Floor Tile / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Calcite 100 %			

See Reporting notes on last page

AmeriSci Job #: 906081341

Client Name: Winzler & Kelly Consulting Engineers / San Di

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PLM Bulk Asbestos Report

1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
03 A	906081341-03.2 Location: CH N Door Way / 12"x12" Floor Tile / Tan	Yes	3 % (by CVES) by John Lopez on 08/11/06
Description: Black / Tan, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97 %			
04 B	906081341-04.1 Location: CH SE Closet / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
04 B	906081341-04.2 Location: CH SE Closet / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 7 %, Non-fibrous 93 %			
05 B	906081341-05.1 Location: CH SW Closet / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
05 B	906081341-05.2 Location: CH SW Closet / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
06 B	906081341-06.1 Location: CH N Door Way / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
Pkw (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
06 B	906081341-06.2 Location: CH N Door Way / Baseboard/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow / White, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
07 C	906081341-07.1 Location: Club House West Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Calcite 100 % Comment:			
07 C	906081341-07.2 Location: Club House West Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 6 %, Fibrous glass 4 %, Gypsum 90 %			
07 C	906081341-07.3 Location: Club House West Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 10 %, Fibrous glass 3 %, Non-fibrous 87 %			
08 C	906081341-08.1 Location: Club House East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 2 %, Calcite 98 %			
08 C	906081341-08.2 Location: Club House East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 8 %, Gypsum 92 %			

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Pkw (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
08 C	906081341-08.3 Location: Club House East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 10 %, Non-fibrous 90 %			
09 C	906081341-09.1 Location: CH S Phone Booth / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Calcite 100 %			
09 C	906081341-09.2 Location: CH S Phone Booth / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Drywall Asbestos Types: Other Material: Fibrous glass 3 %, Gypsum 97 %			
09 C	906081341-09.3 Location: CH S Phone Booth / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Composite Asbestos Types: Other Material: Cellulose 3 %, Fibrous glass 2 %, Non-fibrous 95 %			
10 D	906081341-10 Location: CH Suspended Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Beige, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Mineral Wool 60 %, Non-fibrous 40 %			
11 D	906081341-11 Location: CH Suspended Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Beige, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 4 %, Mineral Wool 55 %, Non-fibrous 41 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
12 D	906081341-12 Location: CH Suspended Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Beige, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Mineral Wool 45 %, Non-fibrous 55 %			
13 E	906081341-13 Location: CH Duct Above Ceiling / H.V.A.C Tape / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Off-White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 85 %, Non-fibrous 15 %			
14 E	906081341-14 Location: CH Mechanical Air Duct / H.V.A.C Tape / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Off-White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 90 %, Non-fibrous 10 %			
15 E	906081341-15 Location: CH Mechanical Air Duct / H.V.A.C Tape / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Off-White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 90 %, Non-fibrous 10 %			
16 C	906081341-16.1 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 3 %, Calcite 97 %			
16 C	906081341-16.2 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 30 %, Gypsum 70 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
16 C	906081341-16.3 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 25 %, Non-fibrous 75 %			
17 C	906081341-17.1 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Calcite 100 %			
17 C	906081341-17.2 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 3 %, Gypsum 82 %			
17 C	906081341-17.3 Location: CH Mechanical Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 5 %, Non-fibrous 80 %			
18 F	906081341-18 Location: CH Above Ceiling / Insulation / Yellow	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 100 %			
19 F	906081341-19 Location: CH Water Tank / Insulation / Yellow	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow/Brown, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 8 %, Fibrous glass 92 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
20 F	906081341-20 Location: CH Above Ceiling / Insulation / Yellow	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 100 %			
21 G	906081341-21 Location: CH Roof Above Mech. Area / Roof Penetration Mastic / Silver/Blk	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Silver/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 4 %, Non-fibrous 96 %			
22 G	906081341-22 Location: CH Roof Above Mech. Area / Roof Penetration Mastic / Silver/Blk	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Silver/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
23 G	906081341-23 Location: CH Roof Above Mech. Area / Roof Penetration Mastic / Silver/Blk	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Silver/Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 4 %, Non-fibrous 96 %			
24 H	906081341-24 Location: CH Roof Over Mech. Room / Built Up Roofing Mat'l / Tar/Gravel	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 6 %, Fibrous glass 6 %, Non-fibrous 88 %			
25 H	906081341-25 Location: CH Roof Over Mech. Room / Built Up Roofing Mat'l / Tar/Gravel	No	NAD (by CVES) by John Lopez on 08/11/06
Description: , Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Fibrous glass 7 %, Non-fibrous 93 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
26 H	906081341-26 Location: CH Roof Over Covered Walkway / Built Up Roofing Mat'l / Tar/Gravel	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black / Pink, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 5 %, Fibrous glass 7 %, Non-fibrous 88 %			
27 I	906081341-27 Location: CH Metal Roof / Sealant / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Calcite 100 %			
28 J	906081341-28 Location: CH Ducts On Roof / H.V.A.C Tape / Silver	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Silver, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
29 K	906081341-29 Location: CH Parapit Wall / Parapit Roofing Mat'l / Blk/Wht	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 25 %, Fibrous glass 10 %, Non-fibrous 65 %			
30 L	906081341-30.1 Location: CH Storage Room Floor / 12"x12" Brown Floor Tile/Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Light Brown, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Calcite 100 %			
30 L	906081341-30.2 Location: CH Storage Room Floor / 12"x12" Brown Floor Tile/Mastic / Brown	Yes	3 % (by CVES) by John Lopez on 08/11/06
Description: Tan/Black, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 3.0 % Other Material: Non-fibrous 97 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
31 L	906081341-31 Location: CH Storage Room Floor / 12x12 Brown Floor Tile/Mastic / Brown	Yes	7 % (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Chrysotile 7.0 % Other Material: Non-fibrous 93 %			
32 M	906081341-32.1 Location: CH Storage Room / Baseboard/Mastic / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
32 M	906081341-32.2 Location: CH Storage Room / Baseboard/Mastic / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Wollastonite 3 %, Non-fibrous 97 %			
33 N	906081341-33 Location: So. Restroom Picnic Area (Bar B-Q) / Stucco / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
34 N	906081341-34 Location: So. R.R. Picnic Area, Fireplace / Stucco / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Cellulose 2 %, Non-fibrous 98 %			
35 N	906081341-35 Location: So. R.R. Picnic Area, Bench / Stucco / Tan	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Homogeneous, Non-Fibrous, Cementitious, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
36 O	906081341-36.1 Location: So. R.R. Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 4 %, Calcite 96 %			
36 O	906081341-36.2 Location: So. R.R. Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/White, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 80 %, Gypsum 20 %			
36 O	906081341-36.3 Location: So. R.R. Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 35 %, Non-fibrous 65 %			
37 O	906081341-37.1 Location: So. R.R. Water Heater Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Calcite 100 %			
37 O	906081341-37.2 Location: So. R.R. Water Heater Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 30 %, Gypsum 70 %			
37 O	906081341-37.3 Location: So. R.R. Water Heater Room Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 25 %, Non-fibrous 75 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
38 O	906081341-38.1 Location: So. R.R Womens R.R Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
38 O	906081341-38.2 Location: So. R.R Womens R.R Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Beige, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 3 %, Gypsum 82 %			
38 O	906081341-38.3 Location: So. R.R Womens R.R Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White / Beige, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 15 %, Fibrous glass 4 %, Non-fibrous 81 %			
39 P	906081341-39 Location: Laundry Room Floor / Sheet Flooring / Brown	Yes	20 % (by CVES) by John Lopez on 08/11/06
Description: Brown/Grey, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Chrysotile 20.0 % Other Material: Non-fibrous 80 %			
40 P	906081341-40.1 Location: Laundry Room Floor / Sheet Flooring / Brown	Yes	15 % (by CVES) by John Lopez on 08/11/06
Description: Brown/Grey, Heterogeneous, Fibrous, Sheet Flooring Asbestos Types: Chrysotile 15.0 % Other Material: Non-fibrous 85 %			
40 P	906081341-40.2 Location: Laundry Room Floor / Sheet Flooring / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan/Grey, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
41 P	906081341-41 Location: Laundry Room Floor / Sheet Flooring / Brown	Yes	20 % (by CVES) by John Lopez on 08/11/06
Description: Brown/Grey, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Chrysotile 20.0 % Other Material: Non-fibrous 80 %			
42 Q	906081341-42.1 Location: N. R.R Women's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 4 %, Calcite 96 %			
42 Q	906081341-42.2 Location: N. R.R Women's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/White, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 80 %, Gypsum 20 %			
42 Q	906081341-42.3 Location: N. R.R Women's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 45 %, Non-fibrous 55 %			
43 Q	906081341-43.1 Location: No. R.R Water Heater Rm Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
43 Q	906081341-43.2 Location: No. R.R Water Heater Rm Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/White, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 75 %, Gypsum 25 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
43 Q	906081341-43.3 Location: No. R.R Water Heater Rm Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 15 %, Non-fibrous 85 %			
44 Q	906081341-44.1 Location: No. R.R Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
44 Q	906081341-44.2 Location: No. R.R Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 80 %, Gypsum 20 %			
44 Q	906081341-44.3 Location: No. R.R Men's R.R. Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 40 %, Non-fibrous 60 %			
45 R	906081341-45 Location: Main Bldg Ceiling / 2'x4' Clg. Panel / Ruff	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Beige, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Mineral Wool 55 %, Non-fibrous 45 %			
46 R	906081341-46 Location: Main Bldg Ceiling / 2'x4' Clg. Panel / Smooth	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Beige/ White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 10 %, Mineral Wool 30 %, Non-fibrous 60 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
47 R	906081341-47 Location: Main Bldg Ceiling / 2'x4' Clg. Panel / Smooth	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Beige/ White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 8 %, Mineral Wool 35 %, Non-fibrous 57 %			
48 S	906081341-48.1 Location: Main Bldg East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Off-White, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Calcite 100 %			
48 S	906081341-48.2 Location: Main Bldg East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 45 %, Gypsum 55 %			
48 S	906081341-48.3 Location: Main Bldg East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 35 %, Non-fibrous 65 %			
49 S	906081341-49.1 Location: Main Bldg South Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 60 %, Calcite 40 %			
49 S	906081341-49.2 Location: Main Bldg South Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 40 %, Gypsum 60 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
49 S	906081341-49.3 Location: Main Bldg South Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 55 %, Non-fibrous 45 %			
50 S	906081341-50 Location: Main Bldg North Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 20 %, Calcite 80 % Comment: No Drywall in Sample.			
51 T	906081341-51.1 Location: Main Bldg South Wall / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
51 T	906081341-51.2 Location: Main Bldg South Wall / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Cream, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
52 T	906081341-52.1 Location: Main Bldg South East Corner / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
52 T	906081341-52.2 Location: Main Bldg South East Corner / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Cream, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 2 %, Non-fibrous 98 %			

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53 T	906081341-53.1 Location: Main Bldg North Wall / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Non-fibrous 100 %			
53 T	906081341-53.2 Location: Main Bldg North Wall / Base Board Mastic / Black	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Heterogeneous, Fibrous, Mastic Asbestos Types: Other Material: Cellulose 4 %, Non-fibrous 96 %			
54 U	906081341-54.1 Location: Main Bldg North Hallway Door / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			
54 U	906081341-54.2 Location: Main Bldg North Hallway Door / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Yellow/Clear, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
55 U	906081341-55.1 Location: Main Bldg South Wall / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			
55 U	906081341-55.2 Location: Main Bldg South Wall / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Clear, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			

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Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
56 U	906081341-56.1 Location: Main Bldg North East Wall / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Calcite 100 %			
56 U	906081341-56.2 Location: Main Bldg North East Wall / 12"x12" Floor Tile / Gray	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Clear/Yellow, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 2 %, Non-fibrous 98 %			
57 V	906081341-57.1 Location: MB North Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
57 V	906081341-57.2 Location: MB North Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
58 V	906081341-58.1 Location: MB East Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
58 V	906081341-58.2 Location: MB East Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 2 %, Non-fibrous 98 %			

See Reporting notes on last page

PLM Bulk Asbestos Report

1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
59 V	906081341-59.1 Location: MB West Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
59 V	906081341-59.2 Location: MB West Hallway Door / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Brown/White, Heterogeneous, Fibrous, Mastic Asbestos Types: Other Material: Cellulose 3 %, Wollastonite 2 %, Non-fibrous 95 %			
60 W	906081341-60 Location: Game Room East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 25 %, Fibrous glass 3 %, Gypsum 72 % Comment: No Joint Compound with Sample.			
61 W	906081341-61.1 Location: Game Room North Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Heterogeneous, Fibrous, Joint Compound Asbestos Types: Other Material: Cellulose 6 %, Non-fibrous 94 %			
61 W	906081341-61.2 Location: Game Room North Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 30 %, Gypsum 70 %			
61 W	906081341-61.3 Location: Game Room North Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Composite Asbestos Types: Other Material: Cellulose 25 %, Non-fibrous 75 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
Pkw (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
62 W	906081341-62 Location: Game Room East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Brown, Heterogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 40 %, Gypsum 60 % Comment: No Joint Compound with Sample.			
63 X	906081341-63.1 Location: 12"x12" Floor Tile / Game Room North Wall / Blue	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Blue, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Calcite 100 %			
63 X	906081341-63.2 Location: 12"x12" Floor Tile / Game Room North Wall / Blue	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Black / Tan, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
64 X	906081341-64.1 Location: Game Room East Wall / 12"x12" Floor Tile / Blue	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Blue, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			
64 X	906081341-64.2 Location: Game Room East Wall / 12"x12" Floor Tile / Blue	Yes	4 % (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 4.0 % Other Material: Non-fibrous 96 %			
65 X	906081341-65.1 Location: Game Room South Wall / 12"x12" Floor Tile / Blue	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Blue, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
Pkw (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
65 X	906081341-65.2 Location: Game Room South Wall / 12"x12" Floor Tile / Blue	Yes	5 % (by CVES) by John Lopez on 08/11/06
Description: Black, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Chrysotile 5.0 % Other Material: Non-fibrous 95 %			
66 Y	906081341-66.1 Location: Game Room North Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Calcite 100 %			
66 Y	906081341-66.2 Location: Game Room North Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Cream / Tan, Heterogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 8 %, Non-fibrous 92 %			
67 Y	906081341-67.1 Location: Game Room South Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			
67 Y	906081341-67.2 Location: Game Room South Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Cream / Brown, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Cellulose 3 %, Non-fibrous 97 %			
68 Y	906081341-68.1 Location: Game Room South Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Grey, Homogeneous, Non-Fibrous, Baseboard Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
68 Y	906081341-68.2 Location: Game Room South Wall / Base Board Mastic / Brown	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Cream, Homogeneous, Non-Fibrous, Bulk Material Asbestos Types: Other Material: Wollastonite 3 %, Non-fibrous 97 %			
69 Z	906081341-69 Location: Pool Room West Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White / Tan, Homogeneous, Fibrous, Drywall Asbestos Types: Other Material: Cellulose 6 %, Fibrous glass 4 %, Gypsum 90 % Comment: No Joint Compound in Sample.			
70 Z	906081341-70 Location: Pool Wall North Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Grey, Homogeneous, Non-Fibrous, Joint Compound Asbestos Types: Other Material: Non-fibrous 100 % Comment: No Drywall in Sample.			
71 Z	906081341-71 Location: Pool Room East Wall / Drywall/Joint Compound / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3 %, Fibrous glass 6 %, Gypsum 91 % Comment: No Joint Compound in Sample.			
72 AA	906081341-72 Location: Game Room Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Beige/ White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3 %, Mineral Wool 40 %, Non-fibrous 57 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
73 AA	906081341-73 Location: Game Room Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Beige/ White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Cellulose 3 %, Mineral Wool 35 %, Non-fibrous 62 %			
74 AA	906081341-74 Location: Game Room Ceiling / 12"x12" Ceiling Tile / White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Beige/ White, Homogeneous, Fibrous, Bulk Material Asbestos Types: Other Material: Mineral Wool 40 %, Non-fibrous 60 %			
75	906081341-75.1 Location: Up Stair GR / Floor Tile 12"x12" / Black & White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Black, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Calcite 100 %			
75	906081341-75.2 Location: Up Stair GR / Floor Tile 12"x12" / Black & White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: Tan/Yellow, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			
76	906081341-76.1 Location: Up Stair GR / Floor Tile 12"x12" / Black & White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Black, Homogeneous, Non-Fibrous, Cementitious, Floor Tile Asbestos Types: Other Material: Calcite 100 %			
76	906081341-76.2 Location: Up Stair GR / Floor Tile 12"x12" / Black & White	No	NAD (by CVES) by John Lopez on 08/11/06
Description: White/Tan, Homogeneous, Non-Fibrous, Mastic Asbestos Types: Other Material: Non-fibrous 100 %			

See Reporting notes on last page

PLM Bulk Asbestos Report1009505001.77010; Port Of SD; RV Park / 420 Marina
PkwY (Report Amended 8/15/2006)

Client No. / HGA	Lab No.	Asbestos Present	Total % Asbestos
77	906081341-77	Yes	15 %

Location: Up Stair Game Room RR / Sheet Flooring / Brown

(by CVES)

by John Lopez
on 08/11/06

Description: Light Brown / White, Heterogeneous, Fibrous, Bulk Material

Asbestos Types: Chrysotile 15.0 %

Other Material: Non-fibrous 85 %

78	906081341-78	Yes	20 %
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Location: Up Stair Game Room RR / Sheet Flooring / Brown

(by CVES)

by John Lopez
on 08/11/06

Description: Light Brown / White, Heterogeneous, Fibrous, Bulk Material

Asbestos Types: Chrysotile 20.0 %

Other Material: Non-fibrous 80 %

Reporting Notes:

Analyzed By: John Lopez; Date Analyzed: 8/11/2006

*NAD = no asbestos detected; Detection Limit <1%; Reporting Limits: CVES = 1%, 400 Pt Ct = 0.25%, 1000 Pt Ct = 0.1%; NA = not analyzed; NA/PS = not analyzed / positive stop; PLM (polarized light microscopy) Bulk Asbestos Analysis by EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab #200346-0, CA ELAP lab #2322); Note: PLM is not consistently reliable in detecting asbestos in floor coverings and similar NOB materials. TEM is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos-containing in New York State (also see EPA Advisory for floor tile, FR 59, 146, 38970, 8/1/94). NIST Accreditation requirements mandate that this report must not be reproduced except in full with the approval of the laboratory. This PLM report relates ONLY to the items tested.

Reviewed By:

906081341

Asbestos Bulk Sample LogWINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client:

Date: 7-20-06

Location:

Port of SD
RV Park 420 Marina Hwy Project Number: 1009505001-77010

Collected By:

J. Sheerman

CAC or SST No:

972324

Sample No.	Sample Location	Homo Area ID	Material	Description	Quantity (SFLF)
01	club house south E closet	A	12x12" floor tile	tan	
02	club house south west closet	L			
03	CH N Door way	L			
04	CH SE closet	B	Baseboard/mastic	brown	
05	CH SW closet	L			
06	CH N Door way	L			
07	club house - west wall	C	drywall/joint compound	white	
08	club house - east wall	L			
09	CH S. Phone booth	L			
10	CH, suspended ceiling	D	12x12" ceiling tile	white	

Analytical Method:

PLM

Turnaround Time:

Same Day 24hr

3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1.

Signature

Mga.

Title

7/20/06

Inclusive Dates

2.

Signature

Title

8/10/06 @ 1005

Inclusive Dates

3.

Signature

Title

Inclusive Dates

Page 1 of

906081341

Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD

Date: 7-20-06

Location: RV Park 420 marina Pkwy Project Number: 1009505001.77010

Collected By: J. Sherman

CAC or SST No: 972324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SF/LF)
11	CH, suspended ceiling	D	12x12 ceiling tile	white	
12	CH, suspended ceiling	↓	↓	↓	
13	CH, duct above ceiling	E	H.V.A.C tape	white	
14	CH, mechanical air duct	↓	↓	↓	
15	CH, mechanical air duct	↓	↓	↓	
16	CH, mechanical room wall	C	drywall/plasterboard	white	
17	CH, mechanical room wall	C	↓	↓	
18	CH, above ceiling	F	insulation	yellow	
19	CH, water tank	↓	↓	↓	
20	CH, above ceiling	↓	↓	↓	

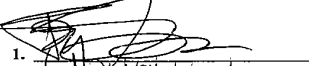
Analytical Method: PLM

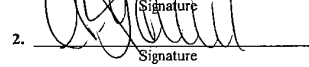
Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1.  Signature

2.  Signature

3. _____ Signature

Mgr. Title

_____ Title

_____ Title

7/20/06 Inclusive Dates

8/10/06 @ 1005 Inclusive Dates

_____ Inclusive Dates

Page 2 of _____

906081341

Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD

Date: 7-20-06

Location: RV Park 420 marina Pkwy Project Number: 1009505001.77010

Collected By: J. Sherman

CAC or SST No: 972324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SF/LF)
21	CH, roof above mech. area	G	roof penetration mastic	silver/blk.	
22	↓	↓	↓	↓	
23	↓	↓	↓	↓	
24	CH, roof over mech. room	H	built up roofing mat'l.	tar/gravel	
25	↓	↓	↓	↓	
26	CH, roof over covered walkway	↓	↓	↓	
27	CH, metal roof	I	sealant	tan	
28	CH, ducts on roof	J	H.V.A.C tape	silver	
29	CH, parapit wall	K	parapit roofing mat'l.	blk/wht.	
30	CH, storage room floor	L	12x12 brown floor tile/mastic	Brown	

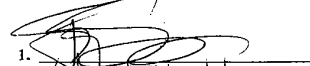
Analytical Method: PLM

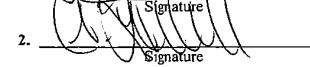
Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1.  Signature

2.  Signature

3. _____ Signature

Mgr. Title

_____ Title

_____ Title

7/20/06 Inclusive Dates

8/10/06 @ 1005 Inclusive Dates

_____ Inclusive Dates

Page 3 of _____

906081341

Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD

Date: 7-20-06

Location: RV Park 420 marina pkwy Project Number: 1009505001.77010

Collected By: J. Sherman

CAC or SST No: 97-2324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SFLP)
31	CH, storage room floor	L	12x12 brown floor tile/mosaic	brown	
32	CH, storage room	M	baseboard/mosaic	tan	
33	So. restroom (Bar picnic area B-2)	N	stucco	tan	
34	So. r.r. picnic area, fireplace	↓	↓	↓	
35	So. r.r., picnic area, bench	↓	↓	↓	
36	So. r.r., men's r.r. wall	O	drywall/joint compound	white	
37	So. r.r., water heater room wall	↓	↓	↓	
38	So. r.r., women's r.r. wall	↓	↓	↓	
39	Laundry room floor	P	sheet flooring	brown	
40	↓	P	↓	↓	

Analytical Method:


PLM

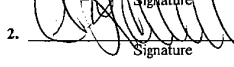
Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1.  Signature Title Inclusive Dates 7/20/06

2.  Signature Title Inclusive Dates 8/10/06 @ 1005

3. _____ Signature Title Inclusive Dates

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Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD

Date: 7-20-06

Location: RV Park 420 marina pkwy Project Number: 1009505001.77010

Collected By: J. Sherman

CAC or SST No: 97-2324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SFLP)
41	Laundry room floor	P	sheet flooring	brown	
42	No. r.r., women's r.r. wall	Q	drywall/joint compound	white	
43	No. r.r., water heater room wall	↓	↓	↓	
44	No. r.r., men's r.r. wall	↓	↓	↓	
45	Main Bldg. ceiling	R	2'x4' cly. panel	Reft	
46	↓	↓	2'x4' cly. panel	smooth	
47	↓	↓	2'x4' cly. panel	smooth	
48	Main Bldg - east wall	S	drywall/joint compound	white	
49	Main Bldg - south wall	↓	↓	↓	
50	Main Bldg - north wall	↓	↓	↓	

Analytical Method:


PLM

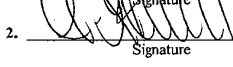
Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1.  Signature Title Inclusive Dates 7/20/06

2.  Signature Title Inclusive Dates 8/10/06 @ 1005

3. _____ Signature Title Inclusive Dates

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Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD Date: 7.20.06
 Location: RV Park 420 marina Pkwy Project Number: 1009505001, 77010
 Collected By: J. Sherman CAC or SST No: 972324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SP/LP)
51	main B/DG south wall	BT	Base Board mastic	2 Buck Brown	
52	main B/DG south east corner	↓	↓	↓	
53	main B/DG north wall	↓	↓	↓	
54	main B/DG North Hallway Door	U	12" x 12" Floor Tile	Gray	
55	main B/DG south wall	↓	↓	↓	
56	main B/DG north east wall	↓	↓	↓	
57	main B/DG North Hallway door	V	Base Board mastic	Brown	
58	main B/DG East Hallway door	↓	↓	↓	
59	main B/DG west Hallway door	↓	↓	↓	
60	Game Room east wall	W	drywall/joint compound	white	

Analytical Method: PLM

Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1. [Signature] Title _____ Inclusive Dates _____
 2. [Signature] Title _____ Inclusive Dates 8/10/06 @ 1005
 3. _____ Title _____ Inclusive Dates _____

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906081341

Asbestos Bulk Sample Log

WINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441

Client: Port of SD Date: 7.20.06
 Location: RV Park 420 marina Pkwy Project Number: 1009505001, 77010
 Collected By: J. Sherman CAC or SST No: 972324

Sample No.	Sample Location	Homo Area I.D.	Material	Description	Quantity (SP/LP)
61	Game Room north wall	W	Drywall/joint compound	white	
62	Game Room east wall	↓	↓	↓	
63	12" x 12" Floor Tile	X	Game Room north wall	Blue	
64	Game Room east wall	↓	12" x 12" Floor Tile	↓	
65	Game Room south wall	↓	↓	↓	
66	Game Room North wall	Y	Base Board mastic	Brown	
67	Game Room south wall	↓	↓	↓	
68	Game Room south wall	↓	↓	↓	
69	Pool Room west wall	Z	Drywall/joint compound	white	
70	Pool Room north wall	↓	↓	↓	

Analytical Method: PLM

Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1. [Signature] Title _____ Inclusive Dates _____
 2. [Signature] Title _____ Inclusive Dates 8/10/06 @ 1005
 3. _____ Title _____ Inclusive Dates _____

Page 7 of _____

906081341

Asbestos Bulk Sample LogWINZLER & KELLY
CONSULTING ENGINEERS4180 Ruffin Road, Suite 115
San Diego, CA 92123Phone: (858) 244-0440
Fax: (858) 244-0441Client: Port of SDDate: 7-20-06Location: RV Park 420 marina PKwy Project Number: 1009505001.77010Collected By: J. Stenver CAC or SST No: 972724

Sample No.	Sample Location	Home Area I.D.	Material	Description	Quantity (SF/LF)
71	Pool Room east wall	Z	drywall/joint compound	white	
72	same room ceiling	AA	12" x 12" tile ceiling	white	
73	↓	↓	↓	↓	
74	↓	↓	↓	↓	
75	up stair GR		Floor Tile 12" x 12"	Black & white	
76	up stair GR		↓	↓	
77	up stair same room RR		short Flooring	Brown	
78	↓		↓	↓	
79	↓		↓	↓	
80	↓		↓	↓	

Analytical Method:

PLM

Turnaround Time:

Same Day 24hr 3 day

Sample Receiver: Winzler & Kelly Consulting Engineers - 4180 Ruffin Rd., #115, San Diego, CA 92123

CHAIN OF CUSTODY:

1. [Signature] Title _____ Inclusive Dates 8/10/06
 2. [Signature] Title _____ Inclusive Dates 8/10/06
 3. _____ Title _____ Inclusive Dates _____

Page 8 of 8**EXECUTIVE SUMMARY**

At the request of the San Diego Unified Port District, Winzler & Kelly Consulting Engineers (Winzler & Kelly) performed limited lead testing services of the roll-up fire doors (designated Numbers 1 through 26) of the Transit Shed No. 1, Transit Shed No. 2, and Warehouse "C" located at the Tenth Avenue Marine Terminal in the city and county of San Diego, California.

The testing was conducted to identify and sample representative building components for the presence of lead-containing surface coatings (LCSCs) and lead-based paint (LBP).

The results of the limited lead testing indicate that LCSCs are present at Transit Shed No. 1, LCSCs and LBP are present at Warehouse C, and no LCSCs or LBP were present at Transit Shed No. 2.

The following table lists the LCSCs and LBP identified from the limited lead testing, including the location and the estimated total quantity of the identified LCSCs and LBP:

TRANSIT SHED NO. 1 TENTH AVENUE MARINE TERMINAL			
MATERIAL/COMPONENT DESCRIPTION	LOCATION	CONDITION	ESTIMATED TOTAL QUANTITY (SF/LF/EA)
Lead-Containing Surface Coatings (Color/Substrate):			
Gray/Metal	Fire Door No. 2	Solid/Intact	1 Each
Gray/Metal	Fire Door No. 5	Solid/Intact	1 Each
Gray/Metal	Fire Door No. 6	Solid/Intact	1 Each
Notes: SF = square feet LF = linear feet EA = each Lead-Containing Surface Coatings = 0.10 to 0.99 milligrams per square centimeter (mg/cm ²) of lead present (8 California Code of Regulations [CCR] 1532.1). Fire door No. 3 was not tested because it was inaccessible but is not considered LCSC or LBP based on the results of the adjacent and similar fire door No. 4.			

WAREHOUSE C TENTH AVENUE MARINE TERMINAL			
MATERIAL/COMPONENT DESCRIPTION	LOCATION	CONDITION	ESTIMATED TOTAL QUANTITY (SF/LF/EA)
Lead-Based Paint (Color/Substrate):			
Pink/Metal	Fire Door Jamb No. 23	Solid/Intact	1 Each
Pink/Metal	Fire Door Jamb No. 24	Solid/Intact	1 Each
Pink/Metal	Fire Door Jamb No. 25	Solid/Intact	1 Each
Pink/Metal	Fire Door Jamb No. 26	Solid/Intact	1 Each

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WAREHOUSE C TENTH AVENUE MARINE TERMINAL			
MATERIAL/COMPONENT DESCRIPTION	LOCATION	CONDITION	ESTIMATED TOTAL QUANTITY (SF/LF/EA)
Lead-Containing Surface Coatings (Color/Substrate):			
Pink/Metal	Fire Door No. 23	Solid/Intact	1 Each
Pink/Metal	Fire Door No. 24	Peeling	1 Each
Pink/Metal	Fire Door No. 25	Solid/Intact	1 Each
Pink/Metal	Fire Door No. 26	Solid/Intact	1 Each
Notes: SF = square feet LF = linear feet EA = each Lead-Based Paint = 1.00 milligrams per square centimeter (mg/cm ²) of lead or greater is present, as defined by 17 California Code of Regulations (CCR) 35001. Lead-Containing Surface Coatings = 0.10 to 0.99 mg/cm ² of lead present (8 CCR 1532.1). Fire doors Nos. 17 and 26 were not tested because they were inaccessible. Fire door No. 17 is not considered LCSC or LBP based on the results of the adjacent and similar fire door No. 18. Fire door No. 26 is considered LCSC based on the results of the adjacent and similar fire door No. 25. The fire door jambs tested for nos. 24 and 25 were considered homogenous for fire door jambs nos. 23 and 26.			

Notification to employees and contractors working within the building should be made in accordance with the California Health and Safety Code, Section 25915 *et seq.* and Proposition 65.

All construction activities involving potential and identified lead-containing surface coatings should be conducted in accordance with Title 8, California Code of Regulations, Section 1532.1 and 29 Code of Federal Regulations 1926.62.

In addition, all construction activities involving identified lead-based paints must be conducted in accordance with Title 17, California Code of Regulations, Division 1, Chapter 8, Sections 35001 through 36100, which proscribes the use of California Department of Health Services (Cal/DHS)-certified workers, work practices, and other requirements.

Written notification to California Occupational Safety and Health Administration (Cal/OSHA) must be accomplished should LBP activities involve more than 100 square or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Notification to the Cal/OSHA must be accomplished 24 hours prior to the initiation of such activities. Proper written notification to Cal/DHS *may* be required, depending upon the nature of the abatement activity.


Proper waste characterization and disposal of lead-contaminated debris should be conducted in accordance with Title 22 of the California Code of Regulations and the California Health and Safety Code, Section 25157.8.

Any welding, cutting or heating of interior metal surfaces, containing toxic (lead, cadmium, etc.) surface coatings, should be conducted in accordance with 29 CFR 1926.354. This regulation requires surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of

at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.

Should materials similar to those identified in this report or, other forms of suspect hazardous materials are present, maintenance personnel/contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel.

Report prepared for the San Diego Unified Port District by:



Jerry R. Sherman
 Hazardous Materials Division Manager
 DHS Lead Inspector/Assessor #5809

Stephen S. Reese
 Project Coordinator
 DHS Lead Inspector-Assessor/Project Monitor #13938



INTRODUCTION

At the request of the San Diego Unified Port District, Winzler & Kelly Consulting Engineers (Winzler & Kelly) performed limited lead testing services of the roll-up fire doors (designated Numbers 1 through 26) of the Transit Shed No. 1, Transit Shed No. 2, and Warehouse "C" located at the Tenth Avenue Marine Terminal in the city and county of San Diego, California.

The testing was conducted to identify and sample representative building components for the presence of lead-containing surface coatings (LCSCs) and lead-based paint (LBP).

The limited lead testing was conducted on September 7 and 8, 2005, by Mr. Stephen Reese. Project oversight and report review was conducted by Mr. Jerry Sherman. Mr. Reese is a California Department of Health Services (Cal/DHS)-certified Lead Inspector/Assessor and Project Monitor. Mr. Sherman is a Cal/DHS-certified Lead Inspector/Assessor. Mr. Reese and Mr. Sherman have received Hazardous Waste Operations and Emergency Response (HAZWOPER) training in accordance with 8 California Code of Regulations (CCR) 5194. Copies of certifications can be found in Appendix A of this document.

Building Description

The lead testing was limited to the roll-up fire doors Nos. 1 through 26 and adjacent door components of the Transit Shed No. 1, Transit Shed No. 2, and Warehouse "C" located at the Tenth Avenue Marine Terminal, which consisted of metal fire doors and components. Fire doors Nos. 3, 17, and 26 were not tested because they were not accessible but were considered homogenous to their adjacent and similar fire doors.

METHODOLOGY

Lead-Containing Surface Coatings (LCSCs) and Lead-Based Paint (LBP) - Analytical Methodology

Potential LCSCs/LBP were identified via visual identification. The representative, suspect surface coatings were then measured on-site through the use of a NITON XL x-ray fluorescence (XRF) spectrum analyzer, in accordance with the requirements of the manufacturer's performance characteristics sheet (PCS) for this instrument.

For purposes of this testing, and in accordance with Title 8 of the California Code of Regulations, Section 1532.1 (8 CCR 1532.1) and Title 17 of the California Code of Regulations, Section 35001 et. seq., the XRF measurement data results were interpreted as follows:

1. Positive LBP results (lead-based paint present) were determined when analytical results revealed a lead concentration of 1.00 milligrams per square centimeter (mg/cm^2) or greater.
2. Positive LCSCs results (lead-containing surface coating present) were determined when analytical results revealed a lead concentration of 0.10 to 0.99 mg/cm^2 .
3. Negative results (lead-containing surface coatings/lead-based paint not present) were determined when analytical results revealed a lead concentration of less than 0.10 mg/cm^2 which is below the analytical sensitivity of the XRF measurement methodology.



RESULTS

Lead-Containing Surface Coatings/Lead-Based Paints (LCSCs/LBPs)

A total of 52 XRF measurements were collected associated with the limited lead testing from the Transit Shed No. 1, Transit Shed No. 2, and Warehouse "C" at the Tenth Avenue Marine Terminal. The XRF measurement results for this testing indicated that the following building components and respective surface coatings were considered LCSCs and had lead concentrations, in excess of the level for compliance with trigger activities, as defined in 8 CCR 1532.1:

Transit Shed No. 1

- Gray/Metal at Fire Doors Nos. 2, 5, and 6

Warehouse C

- Pink/Metal at Fire Doors Nos. 23, 24, 25, and 26

The XRF measurement results for this survey indicated that the following building components and respective surface coatings had lead concentrations defining them as LBP, in accordance with 17 CCR 35001:

Warehouse

- Pink/Metal at Door Jambs of Fire Doors Nos. 23, 24, 25, and 26

Lead testing orientation maps can be found in Appendix B of this report. Individual XRF measurement results can be found in Appendix C of this report.

CONCLUSIONS/RECOMMENDATIONS

Lead-Containing Surface Coatings/Lead-Based Paint (LCSCs/LBP)

The limited LCSCs/LBP testing revealed that building components coated with LCSCs and/or LBP are present in certain areas of Transit Shed No.1 and Warehouse C at the Tenth Avenue Marine Terminal, which may be impacted by the impending demolition and/or renovation activities. At present there are no state or federal Occupational Safety and Health Administration (OSHA) regulations dealing with mandatory abatement following the identification of lead-containing materials prior to disturbance. However, in 1993 OSHA has promulgated legislation (29 CFR 1926.62 and 8 CCR 1532.1) entitled "Lead Exposure in the Construction Industry" which deals with worker exposure to lead. This legislation requires that any job which may potentially expose workers to any concentration of lead be monitored to determine workers eight-hour time weighted average (TWA) exposure to lead. Prior to conducting activities which may generate a lead exposure, subject workers must be properly fitted with respiratory protection and protective clothing until personal eight-hour TWA results reveal exposures within acceptable levels.

All activities involving potential and identified lead-containing surfaces should be conducted in accordance with Title 8, California Code of Regulations, Section 1532.1 and 29 CFR 1926.62. In addition, all activities involving identified lead-based paints must be conducted in accordance with Title 17, California Code of Regulations, Division 1, Chapter 8, Sections 35001 through 36100, which proscribes the use of Cal/DHS-certified workers, work practices, and other requirements.



Written notification to Cal/OSHA must be accomplished should LBP activities involve more than 100 square or 100 linear feet of removal in accordance with the requirements of 8 CCR 1532.1. Notification to the Cal/OSHA must be accomplished 24 hours prior to the initiation of such activities. Proper written notification to Cal/DHS *may* be required, depending upon the nature of the abatement activity.

Proper waste characterization and disposal of lead-containing materials and lead-contaminated debris should be conducted in accordance with Title 22 of the California Code of Regulations and the California Health and Safety Code, Section 25157.8.

Any welding, cutting or heating of metal surfaces containing surface coatings should be conducted in accordance with 29 CFR 1926.354. This regulation requires surfaces covered with toxic preservatives, and in enclosed areas, be stripped of all toxic coatings for a distance of at least 4 inches, in all directions, from the area of heat application prior to the initiation of such heat application.

Should materials similar to those identified in this report or, other forms of suspect hazardous materials be present or identified, maintenance personnel/contractors should be instructed to immediately cease work activities which may initiate an exposure episode, and notify the appropriate management personnel.

Appendix K

Noise Calculations (Revised)

Noise Level Calculations

Dry Bulk Cold Storage

Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Plan: facilities construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
300		-15.6	0.0	0.0	77	73
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600	x	-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Level Calculations

Dry Bulk Cold Storage

Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Plan			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	81	1	81.0
Vacuum/Conveyor Pump	76	1	76.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			89
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	89	89
100		-6.0	0.0	0.0	83	83
200		-12.0	0.0	0.0	77	77
300		-15.6	0.0	0.0	73	73
400		-18.1	0.0	0.0	71	71
500		-20.0	0.0	0.0	69	69
600		-21.6	0.0	0.0	67	67
700		-22.9	0.0	0.0	66	66
800		-24.1	0.0	0.0	65	65
900		-25.1	0.0	0.0	64	64
1,000		-26.0	0.0	0.0	63	63
1,200		-27.6	0.0	0.0	61	61
1,400		-28.9	0.0	0.0	60	60
1,600	x	-30.1	0.0	-4.5	54	54
1,800		-31.1	0.0	-4.5	53	53
2,000		-32.0	0.0	-4.5	52	52
2,100		-32.5	0.0	-4.5	52	52
2,500		-34.0	0.0	-4.5	51	51

Calculations based on FTA 2006.

Noise Level Calculations

Transit Sheds

Receiver	1	Cesar Chavez Park	1,200 ft
Receiver	2	Monarch School	2,200 ft
Receiver	3	Residences - Newton Avenue	2,600 ft
Receiver	4	Residences - Sigsbee Row	2,600 ft
Receiver	5	Hilton Bayfront Hotel	800 ft
Receiver	6	Bayfront Park	900 ft
Receiver	7	Embarcadero Marina Park	1,200 ft
Receiver	8	Coronado on the Bay Apts.	2,100 ft
Receiver	9	Perkins Elementary School	2,200 ft
Receiver	10	Mercado Apartments	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project: transit shed demolition			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
300		-15.6	0.0	0.0	75	71
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600	x	-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Level Calculations

Rail yard

Receiver	1	Cesar Chavez Park	500 ft
Receiver	2	Monarch School	1,300 ft
Receiver	3	Residences - Newton Avenue	1,300 ft
Receiver	4	Residences - Sigsbee Row	1,600 ft
Receiver	5	Hilton Bayfront Hotel	2,800 ft
Receiver	6	Bayfront Park	3,100 ft
Receiver	7	Embarcadero Marina Park	4,200 ft
Receiver	8	Coronado on the Bay Apts.	4,600 ft
Receiver	9	Perkins Elementary School	1,500 ft
Receiver	10	Mercado Apartments	2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
300		-15.6	0.0	0.0	72	63
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600	x	-30.1	0.0	-4.5	53	44
1,800		-31.1	0.0	-4.5	52	43
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
300		-15.6	0.0	0.0	77	73
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400	x	-28.9	0.0	-4.5	59	55
1,600		-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	81	1	81.0
Vacuum/Conveyor Pump	76	1	76.0
Gantry Crane - Combined Loading measured source level	85	2	88.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			89
All Sources Combined - Leq sound level (dBA) at 50 feet =			90
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	89	90
100		-6.0	0.0	0.0	83	84
200		-12.0	0.0	0.0	77	78
300		-15.6	0.0	0.0	73	75
400		-18.1	0.0	0.0	71	72
500		-20.0	0.0	0.0	69	70
600		-21.6	0.0	0.0	67	69
700		-22.9	0.0	0.0	66	68
800		-24.1	0.0	0.0	65	66
900		-25.1	0.0	0.0	64	65
1,000		-26.0	0.0	0.0	63	64
1,200		-27.6	0.0	0.0	61	63
1,400	x	-28.9	0.0	-4.5	56	57
1,600		-30.1	0.0	-4.5	54	56
1,800		-31.1	0.0	-4.5	53	55
2,000		-32.0	0.0	-4.5	52	54
2,100		-32.5	0.0	-4.5	52	54
2,500		-34.0	0.0	-4.5	51	52

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Transit Sheds	1,200 ft
Receiver	2	Monarch School	2,200 ft	
Receiver	3	Residences - Newton Avenue	2,600 ft	
Receiver	4	Residences - Sigsbee Row	2,600 ft	
Receiver	5	Hilton Bayfront Hotel	800 ft	
Receiver	6	Bayfront Park	900 ft	
Receiver	7	Embarcadero Marina Park	1,200 ft	
Receiver	8	Coronado on the Bay Apts.	2,100 ft	
Receiver	9	Perkins Elementary School	2,200 ft	
Receiver	10	Mercado Apartments	3,000 ft	

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
300		-15.6	0.0	0.0	75	71
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400	x	-28.9	0.0	-4.5	58	54
1,600		-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Rail yard

Receiver	1	Cesar Chavez Park	500 ft
Receiver	2	Monarch School	1,300 ft
Receiver	3	Residences - Newton Avenue	1,300 ft
Receiver	4	Residences - Sigsbee Row	1,600 ft
Receiver	5	Hilton Bayfront Hotel	2,800 ft
Receiver	6	Bayfront Park	3,100 ft
Receiver	7	Embarcadero Marina Park	4,200 ft
Receiver	8	Coronado on the Bay Apts.	4,600 ft
Receiver	9	Perkins Elementary School	1,500 ft
Receiver	10	Mercado Apartments	2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
300		-15.6	0.0	0.0	72	63
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200	x	-27.6	0.0	-4.5	56	47
1,300		-28.3	0.0	-4.5	55	46
1,600		-30.1	0.0	-4.5	53	44
1,800		-31.1	0.0	-4.5	52	43
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
300		-15.6	0.0	0.0	77	73
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600	x	-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500	x	-34.0	0.0	-6.0	53	49

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	81	1	81.0
Vacuum/Conveyor Pump	76	1	76.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			89
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	89	89
100		-6.0	0.0	0.0	83	83
200		-12.0	0.0	0.0	77	77
300		-15.6	0.0	0.0	73	73
400		-18.1	0.0	0.0	71	71
500		-20.0	0.0	0.0	69	69
600		-21.6	0.0	0.0	67	67
700		-22.9	0.0	0.0	66	66
800		-24.1	0.0	0.0	65	65
900		-25.1	0.0	0.0	64	64
1,000		-26.0	0.0	0.0	63	63
1,200		-27.6	0.0	0.0	61	61
1,400		-28.9	0.0	0.0	60	60
1,600	x	-30.1	0.0	-4.5	54	54
1,800		-31.1	0.0	-4.5	53	53
2,000		-32.0	0.0	-4.5	52	52
2,100		-32.5	0.0	-4.5	52	52
2,500	x	-34.0	0.0	-6.0	49	49

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Transit Sheds	1,200 ft
Receiver	2	Monarch School		2,200 ft
Receiver	3	Residences - Newton Avenue		2,600 ft
Receiver	4	Residences - Sigsbee Row		2,600 ft
Receiver	5	Hilton Bayfront Hotel		800 ft
Receiver	6	Bayfront Park		900 ft
Receiver	7	Embarcadero Marina Park		1,200 ft
Receiver	8	Coronado on the Bay Apts.		2,100 ft
Receiver	9	Perkins Elementary School		2,200 ft
Receiver	10	Mercado Apartments		3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
300		-15.6	0.0	0.0	75	71
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600	x	-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
300		-15.6	0.0	0.0	72	63
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000	x	-26.0	0.0	-4.5	57	48
1,200		-27.6	0.0	-4.5	56	47
1,300		-28.3	0.0	-4.5	55	46
1,600		-30.1	0.0	-4.5	53	44
1,800		-31.1	0.0	-4.5	52	43
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400	x	-28.9	0.0	-4.5	59	55
1,600		-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500	x	-34.0	0.0	-6.0	53	49

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	81	1	81.0
Vacuum/Conveyor Pump	76	1	76.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			89
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	89	89
100		-6.0	0.0	0.0	83	83
200		-12.0	0.0	0.0	77	77
250		-14.0	0.0	0.0	75	75
400		-18.1	0.0	0.0	71	71
500		-20.0	0.0	0.0	69	69
600		-21.6	0.0	0.0	67	67
700		-22.9	0.0	0.0	66	66
800		-24.1	0.0	0.0	65	65
900		-25.1	0.0	0.0	64	64
1,000		-26.0	0.0	0.0	63	63
1,200		-27.6	0.0	0.0	61	61
1,400	x	-28.9	0.0	-4.5	56	56
1,600		-30.1	0.0	-4.5	54	54
1,800		-31.1	0.0	-4.5	53	53
2,000		-32.0	0.0	-4.5	52	52
2,100		-32.5	0.0	-4.5	52	52
2,500	x	-34.0	0.0	-6.0	49	49

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600		-30.1	0.0	0.0	61	57
2,000	x	-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200	x	-27.6	0.0	-4.5	56	47
1,300		-28.3	0.0	-4.5	55	46
1,600		-30.1	0.0	-4.5	53	44
1,800		-31.1	0.0	-4.5	52	43
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600	x	-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
250		-14.0	0.0	0.0	74	74
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400		-28.9	0.0	0.0	59	59
1,600	x	-30.1	0.0	-4.5	53	53
1,800		-31.1	0.0	-4.5	52	52
2,000		-32.0	0.0	-4.5	51	51
2,100		-32.5	0.0	-4.5	51	51
2,500		-34.0	0.0	-4.5	50	50

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600	x	-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600	x	-30.1	0.0	-4.5	53	44
1,700		-30.6	0.0	-4.5	53	44
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600	x	-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
250		-14.0	0.0	0.0	74	74
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400		-28.9	0.0	0.0	59	59
1,600	x	-30.1	0.0	-4.5	53	53
1,800		-31.1	0.0	-4.5	52	52
2,000		-32.0	0.0	-4.5	51	51
2,100		-32.5	0.0	-4.5	51	51
2,500		-34.0	0.0	-4.5	50	50

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600	x	-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project			
Air brake test	88	0.12	78.8
	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600	x	-30.1	0.0	-4.5	53	44
1,700		-30.6	0.0	-4.5	53	44
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,100		-35.8	0.0	-4.5	48	38

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600	x	-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
250		-14.0	0.0	0.0	74	74
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400		-28.9	0.0	0.0	59	59
1,600	x	-30.1	0.0	-4.5	53	53
1,800		-31.1	0.0	-4.5	52	52
2,000		-32.0	0.0	-4.5	51	51
2,100		-32.5	0.0	-4.5	51	51
2,500		-34.0	0.0	-4.5	50	50

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600	x	-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project	88	0.12	78.8
Air brake test	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600	x	-30.1	0.0	-4.5	53	44
1,700		-30.6	0.0	-4.5	53	44
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
4,200		-38.5	0.0	-4.5	45	36

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600		-30.1	0.0	0.0	62	58
1,800		-31.1	0.0	0.0	61	57
2,000		-32.0	0.0	0.0	61	56
2,100		-32.5	0.0	0.0	60	56
2,500		-34.0	0.0	0.0	59	55

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
250		-14.0	0.0	0.0	74	74
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400		-28.9	0.0	0.0	59	59
1,600		-30.1	0.0	0.0	58	58
1,800		-31.1	0.0	0.0	57	57
2,000		-32.0	0.0	0.0	56	56
2,100		-32.5	0.0	0.0	56	56
2,500		-34.0	0.0	0.0	54	54

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600		-30.1	0.0	0.0	61	57
2,000		-32.0	0.0	0.0	59	55
2,100		-32.5	0.0	0.0	59	55
2,600		-34.3	0.0	0.0	57	53
3,000		-35.6	0.0	0.0	55	51

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project			
Air brake test	88	0.12	78.8
	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600		-30.1	0.0	0.0	58	49
1,700		-30.6	0.0	0.0	57	48
2,000		-32.0	0.0	0.0	56	47
2,800		-35.0	0.0	0.0	53	44
4,600		-39.3	0.0	0.0	49	40

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
300		-15.6	0.0	0.0	77	73
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400	x	-28.9	0.0	-4.5	59	55
1,600		-30.1	0.0	-4.5	58	54
1,800		-31.1	0.0	-4.5	57	53
2,000		-32.0	0.0	-4.5	56	52
2,100		-32.5	0.0	-4.5	56	52
2,500		-34.0	0.0	-4.5	54	50

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
300		-15.6	0.0	0.0	72	72
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400	x	-28.9	0.0	-4.5	55	55
1,600		-30.1	0.0	-4.5	53	53
1,800		-31.1	0.0	-4.5	52	52
2,000		-32.0	0.0	-4.5	51	51
2,100		-32.5	0.0	-4.5	51	51
2,500		-34.0	0.0	-4.5	50	50

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School
Receiver	10	Mercado Apartments

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft
3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
300		-15.6	0.0	0.0	75	71
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400	x	-28.9	0.0	-4.5	58	54
1,600		-30.1	0.0	-4.5	56	52
2,000		-32.0	0.0	-4.5	54	50
2,200		-32.9	0.0	-4.5	54	50
2,600		-34.3	0.0	-4.5	52	48
3,000		-35.6	0.0	-4.5	51	47

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project			
Air brake test	88	0.12	78.8
	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
300		-15.6	0.0	0.0	72	63
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200	x	-27.6	0.0	-4.5	56	47
1,500		-29.5	0.0	-4.5	54	45
1,600		-30.1	0.0	-4.5	53	44
1,800		-31.1	0.0	-4.5	52	43
2,000		-32.0	0.0	-4.5	51	42
2,800		-35.0	0.0	-4.5	49	39
3,000		-35.6	0.0	-4.5	48	39

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction			
Backhoe	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Compactor	80	0.2	73.0
Large Crane	88	0.5	85.0
Front End Loader	80	0.4	76.0
Roller	74	0.5	71.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			93
All Sources Combined - Leq sound level (dBA) at 50 feet =			89
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	93	89
100		-6.0	0.0	0.0	87	83
200		-12.0	0.0	0.0	81	76
250		-14.0	0.0	0.0	79	75
400		-18.1	0.0	0.0	74	70
500		-20.0	0.0	0.0	73	69
600		-21.6	0.0	0.0	71	67
700		-22.9	0.0	0.0	70	66
800		-24.1	0.0	0.0	68	64
900		-25.1	0.0	0.0	67	63
1,000		-26.0	0.0	0.0	67	63
1,200		-27.6	0.0	0.0	65	61
1,400		-28.9	0.0	0.0	64	60
1,600		-30.1	0.0	0.0	62	58
1,800		-31.1	0.0	0.0	61	57
2,000		-32.0	0.0	0.0	61	56
2,200		-32.9	0.0	0.0	60	56
2,500		-34.0	0.0	0.0	59	55

Calculations based on FTA 2006.

Noise Calculations

			Dry Bulk	Cold Storage
Receiver	1	Cesar Chavez Park	500	2,100 ft
Receiver	2	Monarch School	1,600	2,400 ft
Receiver	3	Residences - Newton Avenue	2,000	3,400 ft
Receiver	4	Residences - Sigsbee Row	2,100	2,800 ft
Receiver	5	Hilton Bayfront Hotel	2,000	800 ft
Receiver	6	Bayfront Park	2,200	900 ft
Receiver	7	Embarcadero Marina Park	3,000	1,200 ft
Receiver	8	Coronado on the Bay Apts.	3,500	2,100 ft
Receiver	9	Perkins Elementary School	1,600	2,700 ft
Receiver	10	Mercado Apartments	2,200	3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation			
Gantry Crane - Combined Loading measured source level	85	1	85.0
Vacuum/Conveyor Compressor	0	1	0.0
Vacuum/Conveyor Pump	0	1	0.0
Gantry Crane - Combined Loading measured source level	85	1	85.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			88
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	88
100		-6.0	0.0	0.0	82	82
200		-12.0	0.0	0.0	76	76
250		-14.0	0.0	0.0	74	74
400		-18.1	0.0	0.0	70	70
500		-20.0	0.0	0.0	68	68
600		-21.6	0.0	0.0	66	66
700		-22.9	0.0	0.0	65	65
800		-24.1	0.0	0.0	64	64
900		-25.1	0.0	0.0	63	63
1,000		-26.0	0.0	0.0	62	62
1,200		-27.6	0.0	0.0	60	60
1,400		-28.9	0.0	0.0	59	59
1,600		-30.1	0.0	0.0	58	58
1,800		-31.1	0.0	0.0	57	57
2,000		-32.0	0.0	0.0	56	56
2,200		-32.9	0.0	0.0	55	55
2,500		-34.0	0.0	0.0	54	54

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park
Receiver	2	Monarch School
Receiver	3	Residences - Newton Avenue
Receiver	4	Residences - Sigsbee Row
Receiver	5	Hilton Bayfront Hotel
Receiver	6	Bayfront Park
Receiver	7	Embarcadero Marina Park
Receiver	8	Coronado on the Bay Apts.
Receiver	9	Perkins Elementary School

Transit Sheds

1,200 ft
2,200 ft
2,600 ft
2,600 ft
800 ft
900 ft
1,200 ft
2,100 ft
2,200 ft

Receiver 10 Mercado Apartments 3,000 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Construction - Project			
Backhoe Loader	85	0.4	81.0
Hydraulic Hammer	88	0.4	84.0
Front End Loader	85	0.4	81.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			10
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			91
All Sources Combined - Leq sound level (dBA) at 50 feet =			87
Effective Height (Hs+Hr)/2 =			7.5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	91	87
100		-6.0	0.0	0.0	85	81
200		-12.0	0.0	0.0	79	75
250		-14.0	0.0	0.0	77	73
400		-18.1	0.0	0.0	73	69
500		-20.0	0.0	0.0	71	67
600		-21.6	0.0	0.0	69	65
700		-22.9	0.0	0.0	68	64
800		-24.1	0.0	0.0	67	63
900		-25.1	0.0	0.0	66	62
1,000		-26.0	0.0	0.0	65	61
1,200		-27.6	0.0	0.0	63	59
1,400		-28.9	0.0	0.0	62	58
1,600		-30.1	0.0	0.0	61	57
2,000		-32.0	0.0	0.0	59	55
2,200		-32.9	0.0	0.0	58	54
2,600		-34.3	0.0	0.0	57	53
3,000		-35.6	0.0	0.0	55	51

Calculations based on FTA 2006.

Noise Calculations

Receiver	1	Cesar Chavez Park	Rail yard	500 ft
Receiver	2	Monarch School		1,300 ft
Receiver	3	Residences - Newton Avenue		1,300 ft
Receiver	4	Residences - Sigsbee Row		1,600 ft
Receiver	5	Hilton Bayfront Hotel		2,800 ft
Receiver	6	Bayfront Park		3,100 ft
Receiver	7	Embarcadero Marina Park		4,200 ft
Receiver	8	Coronado on the Bay Apts.		4,600 ft
Receiver	9	Perkins Elementary School		1,500 ft
Receiver	10	Mercado Apartments		2,400 ft

Source Data	Maximum Sound Level (dBA)	Utilization Factor	Leq Sound Level (dBA)
Operation - Project			
Air brake test	88	0.12	78.8
	0	1	0.0
	0	1	0.0
	0	1	0.0
Average Height of Sources - Hs (ft) =			5
Average Height of Receiver - Hr (ft.) =			5
Ground Type (soft or hard) =			hard
Calculated Data:			
All Sources Combined - Lmax sound level (dBA) at 50 feet =			88
All Sources Combined - Leq sound level (dBA) at 50 feet =			79
Effective Height (Hs+Hr)/2 =			5
Ground factor (G) =			0.00

Distance Between Source and Receiver (ft.)	Building Row	Geometric Attenuation (dB)	Ground Effect Attenuation (dB)	Building Row Attenuation (dB)	Calculated Lmax Sound Level (dBA)	Calculated Leq Sound Level (dBA)
50		0.0	0.0	0.0	88	79
100		-6.0	0.0	0.0	82	73
200		-12.0	0.0	0.0	76	67
250		-14.0	0.0	0.0	74	65
400		-18.1	0.0	0.0	70	61
500		-20.0	0.0	0.0	68	59
600		-21.6	0.0	0.0	66	57
700		-22.9	0.0	0.0	65	56
800		-24.1	0.0	0.0	64	55
900		-25.1	0.0	0.0	63	54
1,000		-26.0	0.0	0.0	62	53
1,200		-27.6	0.0	0.0	60	51
1,300		-28.3	0.0	0.0	60	50
1,600		-30.1	0.0	0.0	58	49
1,700		-30.6	0.0	0.0	57	48
2,000		-32.0	0.0	0.0	56	47
2,400		-33.6	0.0	0.0	54	45
4,600		-39.3	0.0	0.0	49	40

Calculations based on FTA 2006.

Attachment 4
Attachment to California Department of Transportation
Comment Letter

TCIF PORT ACCESS IMPROVEMENT PROJECTS

32ND STREET

SUPPLEMENTAL ENGINEERING REPORT



Prepared by
**CALIFORNIA DEPARTMENT
OF TRANSPORTATION
DISTRICT 11**



Prepared for
**SAN DIEGO ASSOCIATION
OF GOVERNMENTS**



Prepared for
**UNIFIED PORT
OF SAN DIEGO**



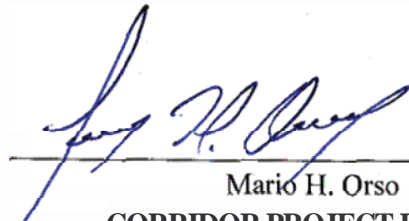
11-SD-15
TCIF
11-293210
(E-FIS) 1100000374
October 2, 2012

SUBMITTED BY:

 10.8.12

Jacqueline Appleton-Deane
PROJECTMANAGER
TRADE CORRIDOR IMPROVEMENT FUND

APPROVED BY:

 10-15-12

Mario H. Orso
CORRIDOR PROJECT DIRECTOR
TRADE CORRIDOR IMPROVEMENT FUND

1. Introduction

The Unified Port of San Diego (UPSD) (also referred to as “Port”), in cooperation with the California Department of Transportation (Caltrans) District 11 and the San Diego Association of Governments (SANDAG), propose improvements in the area of 32 nd Street and Harbor Drive in the City of San Diego, in San Diego County (**Attachment A**). The improvements will provide more efficient truck access to and from the interstate freeway systems, Interstate 5 (I-5) and State Route 15 (SR-15), and the Port of San Diego Marine Terminals. The estimated total cost of the build alternative is \$84.8 million dollars including support, capital and right of way costs (**Attachment F**). This project has been assigned the Project Development Processing Category 4A for Projects that do require substantial new right of way and increases traffic capacity. The preliminary study phase of this project is in part funded by UPSD and Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) funds. It was eligible for Trade Corridor Improvement funds (TCIF), Proposition 1B. However through the course of the initial phase of study it was determined that the requirement to begin construction by December 2013 did not allow adequate time to complete the environmental and design phases of the project. Therefore this document will provide a basis which the sponsoring agencies can solicit funding from other sources.

Table 1: Project Description

Project Limits (Dist., Co., Rte., PM)	11-SD-15 PM 0.4
Number of Alternatives:	2
Support for PA&ED	\$3.2 million
Capital Construction Cost	\$ 63.2 million
Right of Way Cost	\$15.3 million
Funding Source:	UPSD, SAFETEA-LU, *
Number of Structures:	3
Anticipated Environmental Determination or Document:	Mitigated Negative Declaration/ Environmental Assessment with Finding of No Significant Impact
Legal Description	In San Diego County in San Diego from Main Street to Harbor Drive
Project Development Category	Category 4A

*Subsequent funding sources will be pursued

This Supplemental Engineering Report (SER) examines proposed improvements in the area of 32nd Street and Harbor Drive in San Diego within the vicinity of the National City Marine Terminal (NCMT), Naval Base San Diego (NBSD), Tenth Avenue Marine Terminal (TAMT), The National Steel and Shipbuilding Company (NASSCO) and various other Port businesses collectively known as the “*Working Waterfront*” (**Attachment A**). This project is one of five locations scoped in the original Project Study Report, titled *Freeway Access Study* (2007) prepared under the direction of the Unified Port of San Diego (UPSD). The purpose of this report is to update the scope and cost of the original PSR in preparation for the next phase of the project – Project Approval and Environmental Document (PA&ED). This document will provide the project sponsors with a phasing plan of the preferred alternative so that different funding scenarios can be pursued. This report presents an overview of the operations, impacts, and feasibility of proposed improvements to the transportation of goods, circulation of local streets and the security of Federal resources.

The build alternative in this SER proposes improvements including: direct connectors to and from Harbor Drive and I-15 (via Wabash Boulevard) at 32nd Street, a bridge at Vesta Street, crossing over Harbor Drive, to connect the Dry and Wet side of NBSD, various intersection improvements including; I-15 ramps/Main Street, Main Street/Vesta Street, 32nd Street/Harbor Drive, and I-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road (**Attachment B, C, D, E**).

The project area is bounded by San Diego Bay to the west, I-5 to the east, the TAMT to the north, and the NBSD and NCMT to the South. The project area is composed of highly diverse types of land uses, including maritime, business, residential, government, railroad and trolley. Other project stakeholders include: NBSD, NASSCO, UPSD, City of San Diego, Burlington Northern Santa Fe Railway (BNSF), Metropolitan Transit System (MTS), and SANDAG.

2. Background

Project History

The Port serves as a transshipment facility for San Diego, Orange, Riverside, San Bernardino and Imperial Counties, in addition to northern Baja California, Arizona and other points east of California. Marine cargo arriving at the marine terminals leaves by a combination of truck and rail, depending upon the commodity and destination. The trucks carry cargo to the Port from various locations for export as well as carrying cargo imported into the Ports to its final destination or to distribution centers where it may be further divided for delivery. The surrounding roadway network is critical for Port operations. Poor road access can make the marine terminals less competitive with other ports and contribute to increase traffic congestion, truck idling, air emissions and noise. The Port of San Diego's two marine terminals are vital components to San Diego's "*Working Waterfront*", which includes maritime operators, ship builders, and other commercial and industrial businesses. Ensuring adequate capacity for connections between these marine terminals and the regional freeway system is a vital economic need. The lack of a direct freeway truck route to the Marine Terminals requires trucks to use streets passing through the southern portion of Barrio Logan. Concerns regarding the impacts of truck traffic on the community led to the Barrio Logan Truck Study, conducted under the direction of the Port and the City of San Diego in 2004. Through a series of meetings with the Community, City, and Port representatives, it was determined that Harbor Drive to 32nd Street was the preferred long-term access route for trucks to the regional freeway system. Stakeholder involvement efforts continued with the formation of a Technical Advisory Committee for the Freeway Access Study, consisting of the Port, City of San Diego, National City, NBSD, BNSF, MTS, Caltrans, and SANDAG. Four public meetings were held in association with that effort, participants felt improvements along the designated truck route would attract truck traffic and deter them from choosing routes through residential neighborhoods and on streets not designed for the increased truck loads.

The Port initiated a Clean Air Program to identify and control local Port-related sources of air pollution. In 2006, to generate a baseline data for the Program, the Port commissioned an Air Emissions Inventory to identify the sources of air pollutants coming from Port operations. The

inventory found the two main Port-related contributors to air pollution were ocean-going vessels and trucks that move goods to and from the Port.

The Freeway Access Study, dated October 25, 2007, was completed under the direction of the UPSD in collaboration with SANDAG, Caltrans and NBSD. This study examined the access to existing freeway systems from the *Working Waterfront*. It includes the following maritime facilities:

- Tenth Avenue Marine Terminal (TAMT)
- The National Steel and Ship Building Company (NASSCO)
- Naval Base San Diego (NBSD)
- National City Marine Terminal (NCMT)

A Project Study Report (Project Development Support) (PSR (PDS)) document, dated November 21, 2007, was completed by Caltrans in order to apply for the Trade Corridor Improvement Fund (TCIF) - \$3.1 billion - Port Infrastructure, Security and Air Quality component of the California State Proposition 1B (the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act approved by voters in November 2006 authorizing \$19.925 billion of state general obligation bonds to fund transportation projects). Five locations for improvements, including this project, were included as part of the TCIF Proposal/Application for the San Diego/Border Region – Port of San Diego Freeway Access Improvements.

In January 2008, SANDAG and UPSD submitted the TCIF project nomination application to the CTC and four of the five freeway-access projects in the vicinity of the *Working Waterfront* were selected to receive this funding:

1. 32nd Street improvements
2. 10th Avenue improvements
3. Civic Center Drive improvements
4. Bay Marina Drive improvements

The fifth project, which proposed improvements on 28th Street, was not approved for the TCIF funding.

The 32nd Street alternative presented in the initial PSR (PDS) was to construct a Direct Access Ramp (DAR) type of elevated structure so vehicles could directly access Harbor Drive to and from SR-15. While this alternative would alleviate the congested at the area intersections it would also preclude access to and from SR-15 at 32nd Street and Wabash Boulevard. This alternative also had significant right-of-way impacts and environmental impacts to NBSD and surrounding businesses, and did not provide for optimum internal base circulation, because of the severed gate access to Wabash Blvd and 32nd Street. It was determined that other alternatives would be studied.

Existing Facilities

Harbor Drive is a four-lane arterial that encircles San Diego Bay. It starts at Rosecrans Street in the Point Loma peninsula (City of San Diego) and terminates at I-5 (Civic Center Drive) in the City of National City. Harbor Drive provides access to the cruise ship terminals and is the only arterial providing access to San Diego International Airport. Portions of Harbor Drive are part of the Bay Shore Bikeway and as such inherently attract bicycle users. It is also the main truck route connecting the waterfront businesses and NBSD to I-5 and SR-15.

State Route (SR) 15 (which turns into Interstate 15) is used by the majority of truck traffic serving the Port facilities. This route runs north through Riverside County, into Nevada and up to the Canadian Border. It has junctions with major east-west trucking routes such as I-8 and I-10. I-5 is used less frequently than SR-15 but does carry a portion of truck traffic. I-5 is a major north-south eight-lane freeway that serves the coastal portion of San Diego County. I-5 originates at the US-Mexican border and continues north through Los Angeles and ultimately to the Canadian Border. It is the only State highway serving the major growth corridor from metropolitan San Diego to Orange County.

32nd Street is a four lane arterial north/south arterial beginning at NBSD and terminating at SR-94, as a continuous roadway. Wabash Boulevard is essentially the extension of the termini of

SR-15 and Norman Scott Road is the ingress and egress for gate 43 at NBSD. The intersection of these roads make up a five-legged intersection with split phasing at three approaches.

The naval operations at NBSD have significant influence on traffic operations; 30,000 vehicles enter NBSD daily. While the base has multiple gates for ingress and egress there is no direct access between the wet and dry sides of the base. Therefore traffic that is internal to the base spills onto arterial facilities thus compounding congestion generated by local traffic as well as freight and goods movements to the Port. The Naval Facilities Engineering Command Southwest Division is charged with the approving requests for access to Navy property. All alternatives adjacent to or within NBSD will be required to comply with Department of Defense Minimum Antiterrorism Standards for Buildings (UFC 4-010-01). The standards provide a level of protection against terrorist attacks for all inhabited DOD buildings where no known threat of terrorist activity currently exists. Barrio Logan is located east of Downtown San Diego and is bordered by National City and NBSD to the southeast, I-5 to the northeast, and the UPSD and Bay on the southwest. Barrio Logan was part of the Logan Heights neighborhood, one of the first communities to develop in the San Diego region. When Logan Heights was bisected by the construction of I-5 in 1963, the community was divided into two distinct neighborhoods. Since then the two communities maintain a strong cultural and social bond. Barrio Logan has been influenced by its proximity to the industrial operations of the bay front, railroad, and military, and consequently, represents an environment of mixed residential and industrial activities. Barrio Logan's particular land use mix is unique to the region, with its collection of maritime and service industrial uses; single family and multi-family residential uses; local oriented and chain retail uses; and open space and community facilities. The land use pattern reflects past City of San Diego direction and policies to concentrate industry and employment generating uses in the community. As a result, incompatible uses where residential, industrial, commercial and institutional abutting one another is common.

In 1991 the City of San Diego adopted the Barrio Logan Redevelopment Area 133-acres along the eastern side of San Diego Bay. Major redevelopment objectives include eliminating blight while preserving the neighborhood's distinctive character and promoting development that enhances the community's cultural and ethnic qualities. In 1991 the City of San Diego adopted

the Barrio Logan Redevelopment Area - 133-acres along the eastern side of San Diego Bay. Major redevelopment objectives include eliminating blight while preserving the neighborhood's distinctive character and promoting development that enhances the community's cultural and ethnic qualities. In 2008, the City of San Diego, in conjunction with the Barrio Logan community, began preparing a comprehensive update of the Barrio Logan Community Plan. The Port's two marine terminals are vital components to San Diego's "*Working Waterfront*", which includes maritime operators, ship builders, and other commercial and industrial businesses. Ensuring adequate capacity for connections between these marine terminals and the regional freeway system is a vital economic need. The lack of a direct freeway truck route to the Marine Terminals requires trucks to use streets passing through the southern portion of Barrio Logan. Concerns regarding the impacts of truck traffic on the community led to the Barrio Logan Truck Study, conducted under the direction of the Port and the City of San Diego in 2004. Through a series of meetings with the Community, City, and Port representatives, it was determined that Harbor Drive to 32nd Street was the preferred long-term access route for trucks to the regional freeway system. Stakeholder involvement efforts continued with the formation of a Technical Advisory Committee for the Freeway Access Study, consisting of the Port, City of San Diego, National City, NBSD, BNSF, MTS, Caltrans, and SANDAG. Along with four public meetings also held in association with that effort, participants felt improvements along the designated truck route would attract truck traffic and deter them from choosing routes through residential neighborhoods and on streets not designed for the increased truck loads.

Community Interaction

SANDAG and Caltrans have coordinated with the UPSD, NBSD and local communities during the development of this project. On August 12, 2009, a presentation of all four TCIF - Port Access Improvement Projects was given to the Barrio Logan Stakeholder committee. Prior to this meeting, four public meetings were held in 2006 and 2007 during the development of the Freeway Access Study. These meetings were held in Barrio Logan, a San Diego community, in an open house format, providing members of the public the opportunity to receive information as well as provide comments on the projects. Community comments for the 32nd Street and Harbor Drive project were supportive and are accessible in their entirety in the Freeway Access Study.

During the development of this document, additional meetings were held between Caltrans and other major stakeholders including:

- Naval Base San Diego (NBSD)
- Port Commissioners
- California Public Utilities Commission (CPUC)
- Metropolitan Transit System (MTS)
- City of National City
- City of San Diego Barrio Logan Planner
- Community Stake Holder Meetings

The project's scope and major design features were presented at each of these meetings and open discussions were held in regards to the project. The majority of the comments received dealt with enhancing goods movement in the area, improving level of service and traffic volumes on the local roadways, and avoiding environmental and other impacts to the surrounding businesses and residents. These factors will be taken into account during the following project stages.

3. Need and Purpose

Problems, Deficiencies, and Justification

The Port of San Diego Marine Terminals are a vital component of San Diego's Working Waterfront. As the City of San Diego has grown around the waterfront, coupled with increased Port activity, trucks traveling to and from the Port are impacting adjacent communities, schools, passenger transit centers and rail lines and will continue to, diminish the Level of Service (LOS) at intersections along this route. Harbor Drive/32nd Street is the primary route for traffic (including freight vehicles) traveling between the terminals and SR-15 and 28th Street is the primary route for traffic to access I-5. Based on traffic analysis results for the year 2009, 32nd Street/Norman Scott Road intersection within the project limits is operating at an acceptable LOS (F) for AM and PM peak hours.

Purpose

The primary purpose of this project is to provide more efficient truck access to the inter-regional and interstate freeway systems, thus improving goods movement to and from these systems to the Port of San Diego Marine terminals. This will be accomplished primarily by the proposed phased improvements. The Vesta Street Bridge will provide internal base circulation for the Navy and thereby relieve congestion to the five-legged intersection with I-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road thereby reducing travel times and improve security concerns related to NBSD. The 32nd Street grade-separation improvements will create additional benefits by providing a direct connection to the SR-15 freeway system and thereby avoiding the MTS trolley lines and the five-legged intersection. The project will reduce impacts related to air quality and noise and create more efficient truck access and therefore have a positive impact on surrounding neighborhoods.

4. Regional and System Planning

State Planning

The project conforms to the State Implementation Plan and no adverse regional air quality impact would occur as a result of project implementation.

Regional Planning

Caltrans and SANDAG, San Diego's regional transportation planning agency, conduct corridor system planning and management in the San Diego region. SANDAG is responsible for the preparation of Regional Transportation Plans (RTP) and Regional Transportation Improvement Program (RTIP) reports. It is also responsible to identify the appropriate associated air quality analysis for projects in the San Diego area. This project is part of the 2030 San Diego RTP: Pathways for the Future, adopted on November 30, 2007 and the Final 2008 RTIP, through Amendment 22, adopted by SANDAG on July 25, 2008. The U.S. Department of Transportation made a finding of conformity for the 2008 RTIP and a conformity re-determination for the 2030 RTP on November 17, 2008.

The Goods Movement Action Plan (GMAP) component of the RTP took a systems approach and also looked beyond the San Diego region to link transportation and land use planning across our

borders with Orange, Riverside, and Imperial Counties and Baja California, Mexico. This project would implement a key element of the maritime improvements listed in the GMAP (improve freeway access to/from NCMT) and is further supported by the California Marine and Inter-modal Transportation System Advisory Council (CALMITSAC) report dated January 2006.

The Central I-5 Corridor Study, completed in June 2003, was conducted by SANDAG and Caltrans, and included a primary focus on the enhancement of mobility throughout the corridor and, specifically, on the I-5 freeway. A primary recommendation of this plan was to improve access to I-5 from the interchanges near Port facilities in the cities of San Diego, National City, and Chula Vista. The I-5 Corridor is a major route for the movement of goods and people throughout the region, and this project is consistent with this objective by enhancing access to and from the freeway for freight traffic as well as all vehicular traffic. This project will accommodate the increase of future truck traffic, which is primarily due to the continued cargo growth at the marine terminals, as well as meet the broader goal of maintaining the economic vitality and viability of the *Working Waterfront* by providing for the transportation needs of major industrial users.

Local Planning

This project is also consistent with the National City 2007 Five-Year Strategic Plan, which supports the improvement and enhancement of 32nd Street & Harbor Drive and adjacent areas.

The Bayshore Bikeway Project is a proposed 24-mile bicycle facility around San Diego Bay. In 2006 SANDAG approved The Bayshore Bikeway Plan dated March 17, 2006. The route consists of approximately 12 miles of on-street sections designated as either bicycle lanes or bicycle routes. (**Attachment H**) Segments 3 and 4 of the ten segment project run along Harbor Drive through the 32nd Street project. Both segments consist of north and south bicycle lanes on Harbor Drive and a separate bicycle path with a landscape buffer along the east side of Harbor Drive.

Improvements along Harbor Drive are not precluded but there are weaving areas at the ingress and egress points of the connector ramps for bicyclist to negotiate. The Bikeway project has not addressed how to widen the Chollas Creek Bridge and mitigate the impacts to the widening. Burlington Northern Santa Fe railway right of way is impacted along with NASSCO parking and the Chollas Creek. Harbor Drive on either side of the Chollas Creek Bridge has a wider median, wider shoulders and wider sidewalk. The bridge drains runoff directly into the Creek from openings in the deck. The City of San Diego has attached a 12-inch steel pipe waterline along the west side of the bridge and SDG&E has an oil line attached to the east side of the bridge. The existing Chollas Creek Bridge was constructed in 1955. A benefit/cost analysis would help determine if widening a 56 year old bridge to bring up to standard road widths and accommodate bicycles is cost effective relative to the remaining bridge life. Although this project does not preclude the bike path, the design of the two projects should be closely coordinated during the next phase.

5. Traffic

Traffic Operations Existing Traffic

A preliminary traffic investigation was conducted in 2009. The following Table provides a summary of the traffic conditions for the existing intersections in the study area. Traffic to or from the TAMT currently accesses SR-15 via 32nd Street and Harbor Drive, crossing the BNSF railroad and San Diego MTS trolley tracks at grade. This route includes crossing a five-legged intersection with SR-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road (NBSD gate 43). Considerable delays are experienced at these intersections due to high traffic volumes coupled with insufficient storage capacity especially at the SR-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road intersection. These delays are anticipated to increase as the volume of goods movement in this area increases.

TABLE 2: EXISTING INTERSECTION LOS AND DELAY

Study Intersection		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
1	32 nd Street/Harbor Drive	25	C	40	D
2	32 nd Street/Norman Scott Road	117	F	125	F
3	32 nd Street/ Main Street	23	C	40	D
4	Main Street/SR-15 off-ramp	22	C	17	C

Delay is expressed in seconds per vehicle

This intersection is operating at LOS F for the AM and PM peak period.

The 2000 Highway Capacity Manual describes an average delay of 80 seconds per vehicle at an interchange as the maximum acceptable delay (LOS E). While reducing delay is an important consideration of any project, it should not be the only criteria used to determine which alternatives will be selected for further study. The study area has ten intersections adjacent to NBSD property. Any proposed design alternatives will be reviewed by Naval Facilities Engineering Command (NAVFAC) to ensure that they meet the Navy's requirements for Anti Terrorism and Force Protection (ATFP). The PA&ED phase will address ATFP concerns, which could incur additional costs to the project. Vesta Street Bridge would be expected to result in significant changes to adjacent roadway traffic circulation due to Naval Base traffic diversion to the recently opened gate 29 at Vesta Street and Main Street, then onto Vesta Street Bridge. The changes in traffic circulation would result in the reduction of traffic volumes at the primary gates and existing roadways connecting the "wet" and "dry" sides of the base, improving internal Naval Base traffic operations. Naval Base traffic making an internal (wet-dry) trip would have a continuously secure environment and result in travel time savings, as drivers would not be required to proceed through gate security procedures for internal trips.

Accident Analysis

Arterial accident data from 2007 through 2010 period are summarized in this section (Table 3). The analysis is divided into various types of accidents at intersections based on the City of San Diego's Traffic Accident/Location Analysis Report that was provided to Caltrans. Five intersection locations were analyzed; the majority of the accidents were 'Right Angle' and 'Rear End'. The 'Right Angle' can be attributed to high volume of vehicles compounded by signal violations and the 'Rear End' accidents can be attributed to the close proximity of traffic signals coupled with high volumes. The improvements being proposed will work to alleviate these types of accidents by reducing the traffic volumes through the intersection.

TABLE 3: CITY OF SAN DIEGO – ACCIDENT DATA

JANUARY 01, 2007 TO JULY 31, 2010

Intersection/Location	Type	Total # of Accidents
I-15 ramps (Wabash Boulevard)/32 nd Street/Norman Scott Road	Rear-end	4
	Right-angle	15
	Head-on	2
	Pedestrian	4
Main St/ Vesta St Harbor Dr/ Vesta St	Rear-end	2
	Right-angle	2
	Run-off Rd	1
	Rear-end	1
	Right-angle	1
	Side-swipe	1
	Hit Fixed Object	1
Harbor Dr/ 32 nd St	Rear-end	3
	Right-angle	6
	Run-off Rd	1
Harbor Dr/ Belt St	None	None

6. Alternatives

The Alternatives subsequent phasing plan has been developed with consideration of stakeholder interest, cost, benefits and impacts to both the local community and freeway access.

The original California Transportation Commission (CTC) approved concept for 32nd Street provided for a grade separation over the railroad tracks at the 32nd Street/Harbor Drive intersection, and eliminated the five-legged intersection of Norman Scott Road/32nd Street/SR-15/Wabash Blvd, providing direct access to SR-15 from Harbor Drive. The total project cost was estimated at \$118,460,000. A more detailed study showed that subsequent improvements, the Vesta Street Bridge coupled with other operational improvements, needed to be included in the project. This led to more studies of directional connectors. The conclusion is the Build Alternative which includes; directional connectors, intersection improvements and the Vesta Street Bridge. The study also concluded that this alternative could be phased and the phasing plan is included as part of the alternative analysis.

ALTERNATIVE 1 – THE “NO BUILD” ALTERNATIVE

This alternative does not address the Purpose and Need of the project. It does not improve the circulation of local traffic nor improves access from the *Working Waterfront* to I-5 and SR-15.

ALTERNATIVE 2 – DIRECT CONNECTOR RAMPS/VESTA STREET BRIDGE

This alternative includes direct connectors from SR-15 to Harbor Drive, A bridge at Vesta Street over Harbor Drive and operational improvements, described in more detail below. The cost estimate is \$84,800,000 including capital and support costs (this estimate is not escalated since the construction year is unknown), see **Attachment F** for more details regarding the estimate. The benefit of this alternative when compared to the alternative studied previously in the PSR (PDS) is that the intersection at SR-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road is not eliminated but traffic can also directly access SR-15. It has been determined that the alternative could be constructed in phases and that substantial benefits would be realized from the initial phases. Because the funding is unknown at this time and the project sponsor is interested in a plan that is flexible, the alternative is being presented as a phased plan. The

phasing plan was developed in conjunction with preliminary traffic studies to provide the optimum cost benefit. It should be noted that it would be advantageous to construct the phases in order. Therefore when described, it is assumed that a phase includes all the work of the preceding phases. The approach to complete the phases of Alternative 2 in order should be studied further during the Project Approval and Environmental Document (PA&ED) phase.

PHASE I: VESTA STREET BRIDGE and OPERATIONAL IMPROVEMENTS

This proposal includes a grade-separated structure along Vesta Street over Harbor Drive providing an internal connection between NBSD's "wet" and "dry" side. This improvement will have a positive effect on the I-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road intersection by relieving the five-legged intersection of internal base traffic

Operational improvements are proposed at the following locations as part of this phase:

- Off-ramp widening at SR-15/Main Street
- Main Street/Vesta Street intersection (Gate 29) improvements
 - Include opening Gate 29 on the south leg of Vesta Street at the intersection with Main Street
 - Providing a right-turn pocket lane along EB Main Street to serve traffic exiting SR-15 at Main Street and entering NBSD
 - Extending the left-turn pocket lane along WB Main Street to serve traffic entering NBSD
 - Providing a left-turn pocket lane along NB Vesta Street and a shared through-right lane
- Providing a left-turn pocket lane along SB Vesta Street,
- Pavement rehabilitation at 32nd Street/Harbor Drive intersection

This phase lessens the delays at area intersections and reduces impacts to the existing facilities and to the local community when compared to the no build alternative. The preliminary traffic study (**Attachment G**) shows that the Level of Service at the I-15 ramps (Wabash Boulevard)/32nd Street/Norman Scott Road intersection, as well as internal circulation of the

NBSD, are improved with phase 1 for existing traffic and design year traffic as summarized on Table 4.

The preliminary traffic study indicates that the Vesta Street Bridge/Operational improvements will result in a significant improvement in traffic conditions for a 20-year design. Based on the information provided, indications are that if constructed and environmentally cleared as a stand-alone project, it would be Categorical Exempt under CEQA. The total estimated cost of this alternative is \$ 40.2 million (**Attachment F**), including capital and support costs (this estimate is in current \$ and is not escalated since construction year is unknown).

TABLE 4: EXISTING INTERSECTION LOS AND DELAY for the 2035

Phase 1

Intersection		AM Peak Hour				PM Peak Hour			
		No Build		Build		No Build		Build	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	32 nd Street/Harbor Drive	27	C	23	C	42	D	32	C
2	32 nd Street/Norman Scott Road	85	F	52	D	106	F	54	D
3	32 nd Street/ Main Street	26	C	25	C	36	D	34	C
4	Main Street/SR-15 off-ramp	20	C	21	C	22	C	24	C

PHASE II: “EN” CONNECTOR RAMP (NB SR-15 CONNECTOR)

This phase proposes a single grade separated connector ramp providing direct access from SB Harbor Drive to NB SR-15 over the BNSF and MTS railroad tracks, bypassing the intersection at 32nd Street/Wabash Blvd/Norman Scott Road. The connector ramp relieves congestion and improves air quality with better truck movement between the TAMT and State Highway System. The cost estimate for this phase is \$36.5 million.

A recent Traffic Technical Memorandum indicated that a single connector ramp from SB Harbor to NB SR-15 and the Phase 1 improvements listed above would meet an appropriate LOS for year 2036.

TABLE 5: EXISTING INTERSECTION LOS AND DELAY for the 2036

Phase 1 + Phase 2

Intersection		AM Peak Hour				PM Peak Hour			
		No Build		Build		No Build		Build	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	32 nd Street/Harbor Drive	28	C	23	C	48	D	33	C
2	32 nd Street/Norman Scott Road	88	F	49	D	105	F	43	D
3	32 nd Street/ Main Street	27	C	23	C	46	D	35	C
4	Main Street/SR-15 off-ramp	20	C	23	C	22	C	21	C

These two phases together would have a lower environmental impact by reducing the overall footprint, parking impacts to NASSCO and associated impacts to Chollas Creek than the entire alternative. Based on the information provided, if phase 1 and 2 were constructed as one project it would require a Mitigated Negative Declaration/Environmental Assessment with Finding of No Significant Impact

PHASE III: SW CONNECTOR RAMP (SB SR-15 CONNECTOR)

This phase is proposed to complete the connector ramp concept by building the second connector ramp providing direct access from SB SR-15 to NB Harbor Drive over the BNSF and MTS railroad tracks, bypassing the five-legged interchange at 32nd Street/Wabash Blvd/Norman Scott Road and also the existing railroad grade crossing. The cost of this phase is \$26.4 million including capital and support costs (this estimate is in current \$ and is not escalated since construction year is unknown). See **Attachment F** for more details regarding the estimate. The connector ramp improves congestion and air quality with better truck movement from the State Highway System to the TAMT. Approximately 85 on-street NASSCO parking spots will be

eliminated along NB Harbor Drive to accommodate the SW connector ramp. The construction of the second connector ramp will be dictated by the traffic needs coupled with funding availability. A traffic analysis was not done for this alternative. However, since the Phase 1 and Phase 2 improvements show that the traffic is within a reasonable LOS for a 20 year design than it is logical to conclude that this Phase would only serve to further improve the LOS at the area of the intersections.

ANALYSIS OF PROPOSAL

TABLE 6: STRUCTURE MODIFICATIONS

Structure Name	Type	Condition	Comments
Vesta Street Bridge	Cast-in-place / prestressed concrete box girder	New	Outrigger Bent to avoid existing underground utility corridor Max span to avoid impacts to BNSF and MTS R/W
32 nd Street / Wabash Blvd @ Harbor Drive Overhead	Precast Prestressed Concrete Deck Panel	New	Start Bridge 800 ft west of 32 nd Street End Bridge 500 ft east of 32 nd Street Possibly 23 Columns Over BNSF and Trolley Line Over 32 nd Street and Norman Scott Intersection Chollas Creek in vicinity

Environmental Issues

The proposed project is scoped as a Study or Focused Initial Study with Negative Declaration or Mitigated ND/Environmental Assessment with Finding of No Significant Impact (IS/EA) for the entire build alternative (**Attachment I**). Coordination with The Department of the Navy is expected and shall be done as early as possible to determine lead agency for NEPA and CEQA. The Permits possibly required are as follows; Section 404 (Nationwide), Section 401 Water Quality Permit, Section 10 Rivers and Harbors, Coastal Development Permit, Magnusin-Stevens Act, Section 7 Consultation and 1602 Streambed Alteration.

The proposed project lies within the Coastal Zone, within the jurisdiction of the Port, regulated by the San Diego Unified Port District Master Plan, and the U.S. Government (Navy).

Environmental personnel should coordinate with SDUPD in order to obtain a Coastal Development Permit. The California Coastal Plan (Subregion 11) designates the Barrio Logan area as a “community with special qualities of greater than local significance.” The designation reflects the community’s opportunities for low-and moderate-income housing, and its cultural and historical heritage as a Chicano community as well as the importance of the tidelands that serve as a major industrial economic engine for the region.

Chollas Creek is the natural watershed that carries storm water from the cities of Lemon Grove and La Mesa, where its four branches begin, through many of San Diego’s neighborhoods and into Barrio Logan, where the creek empties into the San Diego Bay. Over several decades, it has been plagued by pollution, illegal dumping and the destruction of natural habitats. Chollas Creek was determined to be a navigable water of the U.S. The Barrio Logan community does not have any natural open space land. Given the community’s location, land use mix, and barriers to the waterfront, opportunities for natural open space sites in Barrio Logan are limited, particularly sites that are connected to the residential population. Chollas Creek offers the most significant opportunity to provide natural open space that is accessible to Barrio Logan residents.

Air Quality Conformity

This project is classified as an “Intersection Channelization” project, which makes it exempt from all regional emission’s analyses per Title 40 CFR Section 93.127, Table 3. An Air Quality Analysis qualitatively analyzed carbon monoxide (CO) impacts. According to the CO Protocol, the proposed project is considered satisfactory and no further CO analysis is required.

The project will not cause or contribute to new localized CO, PM_{2.5}*, PM₁₀**, or Mobile Source Air Toxic’s (MSAT) violations nor increase the frequency or severity of any existing exceedences.

* PM_{2.5}: Particulate Matter (2.5 microns or less)

** PM₁₀: Particulate Matter (10 microns or less)

Title VI Considerations

Provisions have been made for low mobility groups by proposing the installation of standard sidewalks and curb ramps within the State's right-of-way in order to allow pedestrians with wheelchairs to maintain access.

Erosion Control and Storm Water Pollution Prevention

California Regional Water Quality Control Board determined that Caltrans along with other stakeholders to the Chollas Creek watershed convey urban storm water containing diazinon and metals into the Chollas Creek waters. The condition of pollution in the Chollas Creek led to the development of a Total Maximum Daily Load (TMDL) for diazinon in Chollas Creek in 2002. The TMDL was amended to the Basin Plan upon United States Environmental Protection Agency (USEPA) approval in November 2003. The Regional Board is preparing a Basin Plan amendment to establish the TMDL for dissolved metals in Chollas Creek.

There will be temporary and permanent erosion control provided on this project. A Storm Water Data Report (SWDR) has been initiated and will be prepared for this project during the PA&ED phase that will describe the construction related and permanent storm water Best Management Practices (BMPs).

On July 15, 1999, State Water Resources Control Board, SWRCB, adopted Order 99-06 DWQ, National Pollutant Discharge Elimination System (NPDES) Permit for Storm Water Discharges from the State of California Department of Transportation (Caltrans) properties, facilities and activities. This project will be designed in conformance with the NPDES Permit requirements and Appendix E of the Caltrans Project Planning and Design Guide (PPDG) within Caltrans right of way. The project will minimize the potential short-term impacts to water quality during construction by the use of construction site BMPs. Funds will be allocated for these BMPs based on Appendix F of the PPDG, dated May 2007, and are covered under the work item Construction Site Management (074016).

Right of Way

The project scope and schedule of right of way appraisal and acquisition will in large part rely on who will maintain and operate the facilities after construction. Caltrans right of way begins at SR-15 where Wabash Blvd ends just past the Main Street Bridge. The majority of the improvements occur outside of Caltrans right of way. There will be permanent and temporary impacts to the City of San Diego, BNSF, MTS, and NBSD right of way. See **Attachment C** for proposed R/W.

Vesta Street Bridge will be constructed within the U.S. Navy right of way and will be transferred to the U.S. Navy after construction. A portion of Vesta Street Bridge spans air space over BNSF railroad and MTS tracks. MTS parcels will be impacted by bridge supports and steel pole supports for high voltage lines adjustments. During the next phase of project development, any impacts to impacts to MTS Trolley will need to be evaluated along with easements for new and existing utilities.

Utilities

Within the project area, underground facilities consist of gas, fuel, electrical, water, and sewer and communication lines. Overhead facilities are electrical transmission and distribution lines carried on both wood poles and double steel lattice towers, and communication lines.

Where bridges are proposed, height considerations of the overhead electrical facilities may dictate undergrounding. Caltrans has met with SDG&E to discuss the high voltage transmission lines that run parallel to the MTS trolley tracks. Both Connector Bridges and Vesta Street Bridge will cross these lines. All of the lines will have to be elevated to 28-ft minimum distance above the bridge deck. A steel utility pole would have to be installed at least 25-ft from the edge of the bridge deck, the pole would provide supports to elevate the lines in accordance with PUC clearances. These are significant transmission facilities and would require the project implementer to coordinate with SDG&E and **California Public Utilities Commission (CPUC)**. Construction windows to work around these lines would be limited to off-peak demand periods such as the fall and winter months.

An SDG&E electric sub-station located on NBSD adjacent to gate 29 on Harbor Drive is now online. While clear of the proposed construction on Harbor Drive, it can be anticipated that future Vesta Street Bridge will cross 132Kv overhead transmission lines that end at the sub-station. These lines running parallel to the east side of Harbor Drive will also have to be raised above the bridge deck with steel poles as described above.

A 1-ft diameter steel water line runs parallel to Harbor Drive and is attached to the western side of the Chollas Creek Bridge. The connector ramp is designed to avoid and leave this utility in place. The project implementer should work with the City of San Diego and the owner of the utility to confirm the design would avoid impacting this utility.

Existing utilities are shown on the Preliminary Utility Plan (**Attachment D**).

Railroad Involvement

Railroad facilities will be impacted at several locations. Meetings were held on July 8, 2009, with CPUC personnel and on August 6, 2009, with MTS personnel. This project will have temporary and permanent impacts to MTS and BNSF right of way. A Railroad Report will be required describing the impacts and mitigation measures required as part of the project.

Ramp Metering

The northbound I-15 onramp from 32nd Street is not currently metered. A meeting was held with Traffic Operations Ramp Metering Branch. It was agreed that although the onramp is not listed in the District 11 Ramp Meter Development Plan as ramps that are in need of metering, the necessary improvements for ramp metering such as ramp widening, California Highway Patrol (CHP) pad construction and the installation of ramp metering hardware are outside of the scope of this project and would not be included at this time. Efforts will be made in the design phase of this project to adjust the timing of the traffic signal at the ramp entrances in order to regulate traffic flow onto the freeway.

Park and Ride Facilities

This project does not propose or have any impact on any existing Park and Ride facilities.

Highway Planting

New landscaping installed as part of this project will be a continuation and match of existing landscaping. All landscaping will satisfy both NPDES and biological impact avoidance guidelines.

Drainage

Proposed relocation of drainage inlets have been discussed with Caltrans Hydraulics personnel for feasibility and to ensure that suitable discharge for onsite drainage will be provided. This work has been included in the cost estimate.

Noise Barriers

There is no noise barriers proposed for this project.

Non-Motorized and Pedestrian Features

Concrete sidewalks with standard and Americans with Disability Act (ADA) curb ramps will be installed on the dry side and wet side of the new Vesta bridge with enhanced pedestrian access on the west side of Vesta. Concrete sidewalks and standard curb ramps will also be constructed along the new widening of SB SR-15 on-off ramp to Main Street Intersection improvements. Future direct connectors from Harbor Dr. to SR-15 will need to remove existing sidewalks and curbs ramps to be replaced by new ones.

Needed Roadway Rehabilitation and Upgrading

A field review of the existing pavement on Harbor Drive and 32nd Street as well along Main Street revealed many locations of advanced and severe surface cracking. A Preliminary Structural Section Recommendations report was prepared for this project. Recommendations include cold-planing and overlaying of the existing non-widened sections of the roadway within the project limits with Rubberized Hot Mix Asphalt. A pavement Life Cycle Cost Analysis should be done in the next phase of project development and the City of San Diego should be engaged to review the pavement rehabilitation strategy.

Nonstandard Design Features

An Advisory Design Exception Fact Sheet report and a Mandatory Design Exception Fact Sheet report have been prepared. This report lists project features that do not conform to the standards as set forth in the Caltrans Highway Design Manual (HDM). Both of these reports have been reviewed and concurred to by Caltrans Headquarters Design Coordinator and other appropriate Caltrans personnel and the Mandatory Design Exceptions Fact Sheet report has been reviewed and approved by the Federal Highway Administration (FHWA) as well. The project was discussed with Luis Betancourt, Headquarters Division of Design - Design Reviewer on April 27, 2011. However it should be noted that Caltrans will not sign off on design exceptions outside of Caltrans Right of Way. The project shall be designed to current City, Navy and Caltrans standards where applicable.

Project Cost Estimates

The total project costs (**Attachment F**) is \$84.8 million the following table summarizes the costs of the Build Alternative:

TABLE 7: ALTERNATIVE 2 COSTS (1000'S OF DOLLARS)

COSTS	Preferred Alternative
Roadway	\$ 22,483
Structure	\$ 25,384
R/W	\$ 15,325
Capital	\$ 63,192
PA&ED	\$ 3,136
PS&E	\$ 7,000
R/W	\$ 1,500
Construct	\$ 10,000
Support	\$ 21,636
Totals	\$ 84,829

The total cost presented is based on all phases built as one project. If the phases are built separately but sequentially, the cost will increase due to duplicating certain items such as, but not

limited to, mobilization, contract support, and traffic control. These issues should be more thoroughly reviewed in the next phase of project development. A cost estimate has been prepared and is included as **Attachment F**.

Cost estimates for the individual phases are as follows:

COSTS	Phase I Vesta Street	Phase II	Phase III
Roadway	\$ 19,367	\$ 9,495	\$ 9,162
Structure	\$ 5,512	\$ 10,512	\$ 9,360
R/W	\$ 5,105	\$ 7,000	\$ 1,000
Capital	\$ 29,985	\$ 27,007	\$ 19,522
PA&ED	\$ 1,710	\$ 1,620	\$ 1,171
PS&E	\$ 3,350	\$ 2,971	\$ 2,148
R/W	\$ 480	\$ 540	\$ 390
Construct	\$ 4,700	\$ 4,321	\$ 3,123
Support	\$ 10,240	\$ 9,453	\$ 6,833
Totals	\$ 40,225	\$ 36,460	\$ 26,355

7. Alternatives Considered and Rejected

Direct Access Ramp

While the Direct Access Ramp alternative presented in the PSR (PDS) met the need and purpose of the project, it cut off access that was unacceptable to project stakeholders. This alternative also had a higher cost making it less cost effective than the Build Alternative and subsequent phasing plan presented in this report. Therefore this alternative is not recommended for further study.

8. Other Considerations

Hazardous Waste

An Initial Site Assessment (ISA) was conducted in December 2010 (**Attachment L**). The scope of the ISA is limited to review of public records and visual evidence on potential recognized environmental condition (REC). The Naval Exchange Station and San Diego NAVSTA-IR site 22 (AOPC4A), properties adjacent to the project site, were identified as a potential source of contamination. The groundwater beneath this area is impacted therefore the groundwater under the project location is considered an REC because of its proximity to this location. Because of the age of the subject project area and its use as a transportation corridor there is a high probability that the soil is impacted by aerially deposited lead. Therefore this area is a REC. During the PA&ED, phase soil and groundwater testing should be conducted for the presence of hazardous waste.

Value Analysis

A Value Analysis has not been developed for this project. However in the next phase of project development, the project sponsor can choose to conduct a Value Analysis.

Resource Conservation

By improving traffic operations at the intersection of 32nd Street and Harbor Drive, this project will help reduce congestion, improve traffic flow, and in turn, reduce energy consumption. The utilization of existing alignments and other geometrics will minimize construction time and also result in the reduction of energy consumption due to construction activities.

Removed Asphalt Concrete (AC) will either be stockpiled or recycled for future use, or if an economical and logistic advantage can be demonstrated, it may be conveyed to the contractor as part of the contract. State-owned salvaged AC materials may be incorporated for use into future construction projects or maintenance activities if it is determined to be economically beneficial.

Route Matters

No revised freeway agreement, route adoptions or relinquishment are required for this project.

Permits

Project work will be performed under the requirements of the State's General NPDES Permit and the Caltrans Statewide Permit

The proposed project lies within the Coastal Zone, within National City's Local Coastal Program. The project implementer shall coordinate with National City's Planning department in order to obtain a Coastal Development Permit. Other permits may be required by the City of San Diego and or the Department of the Navy.

Cooperative Agreements

A Cooperative Agreement – Contribution Only 11-0650 was entered into effect on December 4, 2008, between the State of California, acting through Caltrans, and UPSD. This agreement specified monetary contributions of federal SAFETEA-LU (DEMO ID CA560; HPP No. 2340) funds from UPSD (the Funding Partner) to Caltrans (the Implementing Agency) to be used for this project. A Cooperative Agreement 11-0655 was entered into effect on March 23, 2009, between the State of California, acting through Caltrans, and SANDAG. This project is included in the agreement as part of the San Diego Regional GMAP projects funded through the TCIF program. Other agreements will probably be required during subsequent phases of work.

Other Agreements

A Baseline Agreement was entered into effect on September 3, 2008, between the UPSD, SANDAG, Caltrans and the CTC. This purpose of this agreement was to document the project cost, schedule, scope, benefits and conditions.

Any additional Maintenance Agreements or any other required agreements will be prepared and executed in the design phase of this project.

Because the majority of the project is outside Caltrans right of way, the improvements will be transferred to either the City of San Diego or the Navy after construction, and the improvements will be crossing BNSF and MTS airspace requiring access for future maintenance, agreements between agencies will be necessary. The pending decision about who will own the facility needs

to be addressed during the PA&ED phase of the project. The PA&ED will need to define format for design review, design plan and specification format, construction inspection, quality approval/quality control, change orders and as-built requirements. Agreements on how to transfer improvements or right of way between agencies will need to be worked out in PA&ED phase.

Involvement with Navigable Waterways

This project does not impact, adverse or otherwise, any navigable waterways.

Transportation Management Plan

Construction strategies will be implemented in order to reduce the construction time, minimize traffic disruptions, and avoid potential safety problems. The objective of the Transportation Management Plan / Data Sheet is to identify these construction strategies and their related costs, which in turn have been included in the project's cost estimate. (**Attachment J**) These strategies include the following:

- A public awareness campaign to be in effect prior to and during construction;
- The use of Portable Changeable Message Signs (PCMS) to alert motorists of upcoming construction activities that are impacting the roadway such as lane and ramp closures and detours and also to alert motorists of any other pertinent traffic conditions as needed;
- Inclusion of Construction Zone Enhanced Enforcement Zone (COZEED) funding to provide for the presence of CHP personnel during major lane closures and/or construction activities.

Caltrans will implement the above strategies as well as others, and will work with the public, the City of San Diego and local businesses to ensure that the traffic along Harbor Drive, 32nd Street and the surrounding streets remains at an acceptable level of operation during construction.

Stage Construction

Stage construction strategies should be identified during the next phase to make sure that the project is being constructed in the most efficient manner.

Accommodation of Oversize Loads

Harbor Drive is not listed as one of the California routes on the Rural and Single Interstate Routing System; therefore it is not intended to provide for the accommodation of oversize loads. If oversized loads need to be accommodated this should be done through the permitting process of the jurisdictional agency.

Graffiti Control

An anti-graffiti film will be installed on the face of all new roadside sign panels. Other graffiti control measures will be implemented if shown to be beneficial and a cost effective solution to graffiti removal.

9. Funding and Programming

Funding for this project has not been identified. This document will provide a basis from which the sponsoring agencies can solicit funding from other sources.

This project is currently in the 2007 Regional Transportation Plan (RTP). It is listed as part of a “Ground Access and Terminal Capacity” improvement project under the Reasonably Expected Funding scenario. It also ranked as a high priority in the Goods Movement Action Plan (GMAP).

The project was determined eligible to receive funding through the California Transportation Commission, Trade Corridors Improvement Fund (TCIF) program, created through voter approval of the Highway Safety, Traffic Reduction, and Port Security Bond Act of 2006 that was approved by the voters as Proposition 1B on November 7, 2006. The CTC allocates TCIF funds for trade infrastructure improvements based on evaluation of project programming requests via specified selection criteria. Caltrans and the Port jointly nominated the proposed project, and the

CTC committed \$50.6 million of funding for the project through a resolution approved on April 10, 2008. The TCIF funds were designated for construction phase only. Matching fund contributions were required to receive the TCIF funding. To receive the TCIF funds for construction the CTC also required that the project commence construction no later than December 31, 2013. As stated in the Introduction, this project will not be completed by this date. Because of this the project is being un-parred. When funding is identified this project will be re-programmed.

The Port transferred \$7.33 million to SANDAG towards the preliminary design and environmental review (PA&ED) of all the Port Access Projects, through a Memorandum of Understanding (MOU). As of February 8, 2011, \$2.71 million of port funds had been expended in all the Port Access Projects in the environmental phases. The Port in collaboration with SANDAG and Caltrans submitted two rounds of grant applications for Transportation Investment Generating Economic Recovery (TIGER) grant opportunities but did not receive funding. Due to lack of any alternative sources of a match within the required timeframe of the Proposition 1B grant, the Port Commissioners and the staff at the February 8, 2011, board meeting recommended using the remaining \$4.62 million Port District funding, toward completing the Tenth Avenue/Cesar Chavez, Bay Marina Drive and Civic Center Drive projects through construction. At that time it was agreed that a Supplemental Engineering Report (this document), would document the preliminary design and environmental analysis completed to date.

Schedule

The following is a list of major milestone timeline (Table 7).

TABLE 7: MILESTONES DELIVERY DATES (PHASE I, II & III)

HQ Milestones	Approximate Time Needed to Complete
Project Approval and Environmental Document	24 to 36 months
Project Specifications and Estimate	18 months
Right of Way Certification	18 months
Construction	24 months

This project includes multiple improvements to achieve the stated Purpose and Need. Improvements described have independent utility and add value to the local transportation system. The Build Alternative may be phased into three independent projects of Vesta Street Bridge and Operational Improvements, EN connector ramp and SW connector ramp, built in that order for maximum benefit.

FHWA Coordination

This project was presented to Manuel Sanchez on April 7, 2011. As part of the FHWA /Caltrans Joint Stewardship and Oversight Agreement, a comprehensive risk based approach will be used to manage the Federal Aid Highway Program. Under this process, projects will be segregated into two categories: Delegated Projects and High Profile Projects. The Stewardship Agreement provides a number of criteria to determine if a project is High Profile. For those projects identified as High Profile, Caltrans and FHWA will negotiate which specific approval actions that can also be delegated to Caltrans. During the environmental phase of this project, Caltrans will work with FHWA to determine the appropriate category based on the alternative selected.

10. Reviews

This is a State-Authorized project under the current FHWA/Caltrans Stewardship Agreement. For details, see Caltrans 1997 Project Development and Procedures Manual (PDPM), Chapter 2, Section 7, “Federal Government”. Since this is a “delegated” project, no FHWA involvement is required during the Project Approval & Environmental Document phase of the project.

Other Caltrans reviews of this Project Report are as follows:

- Laura Espinoza, District 11 Office of Engineering - Design Reviewer
Date of Concurrence: *January 8, 2010*
- Luis Betancourt, Headquarters Division of Design - Design Coordinator
Date of Concurrence:
- Alex Kennedy, Headquarters Traffic Operations - District Liaison
Date of Concurrence: *January 13, 2010.*

11. Project Personnel

Mario H. Orso	Corridor Project Director, TCIF Corridor	(619) 688-2561
Jacqueline Appleton	Project Manager, TCIF Corridor	(619) 688-6724
Michael Webster	Project/Design Manager, TCIF Corridor	(619) 688-6090
Sunil Repaka	Transportation Engineer, TCIF Corridor	(619) 688-3393
Patrick Coyne	Environmental Coordinator, Environmental	(619) 688-6891
Christina Casgar	SANDAG	(619) 699-1982
Jerine Rosato	Port of San Diego	(619) 725-6084
Rita De la Fuente	Port of San Diego	(619) 686-6236
Grace Tell	Port of San Diego	(619) 686-6254

12. List of Attachments

- A. VICINITY MAP
- B. TYPICAL CROSS SECTIONS
- C. PRELIMINARY LAYOUT
- D. PRELIMINARY UTILITY PLAN
- E. ADVANCE PLANNING STUDIES
- F. COST ESTIMATE
- G. TRAFFIC STUDY: TECHNICAL MEMORANDUM
- H. SANDAG BAYSHORE BIKEWAY PROJECT MAP (EXTRACT)
- I. PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT (PEAR)
- J. TRANSPORTATION MANAGEMENT PLAN / DATA SHEET
- K. BASELINE AGREEMENT
- L. DRAFT INITIAL SITE ASSESSMENT (ISA)
- M. AERIAL PHOTO / MAJOR DESIGN FEATURES

ATTACHMENT A
VICINITY MAP



10th AVENUE
MARINE TERMINAL

75

HANSON DR

5

SAN DIEGO

15

NAVAL BASE
SAN DIEGO

SANTA ST

WARASH BLVD

15th ST

VESTA ST

5

VESTA STREET BRIDGE

NATIONAL CITY
MARINE TERMINAL

5

CIVIC CENTER DR

BAY MARINA DR

NATIONAL CITY

LEGEND:

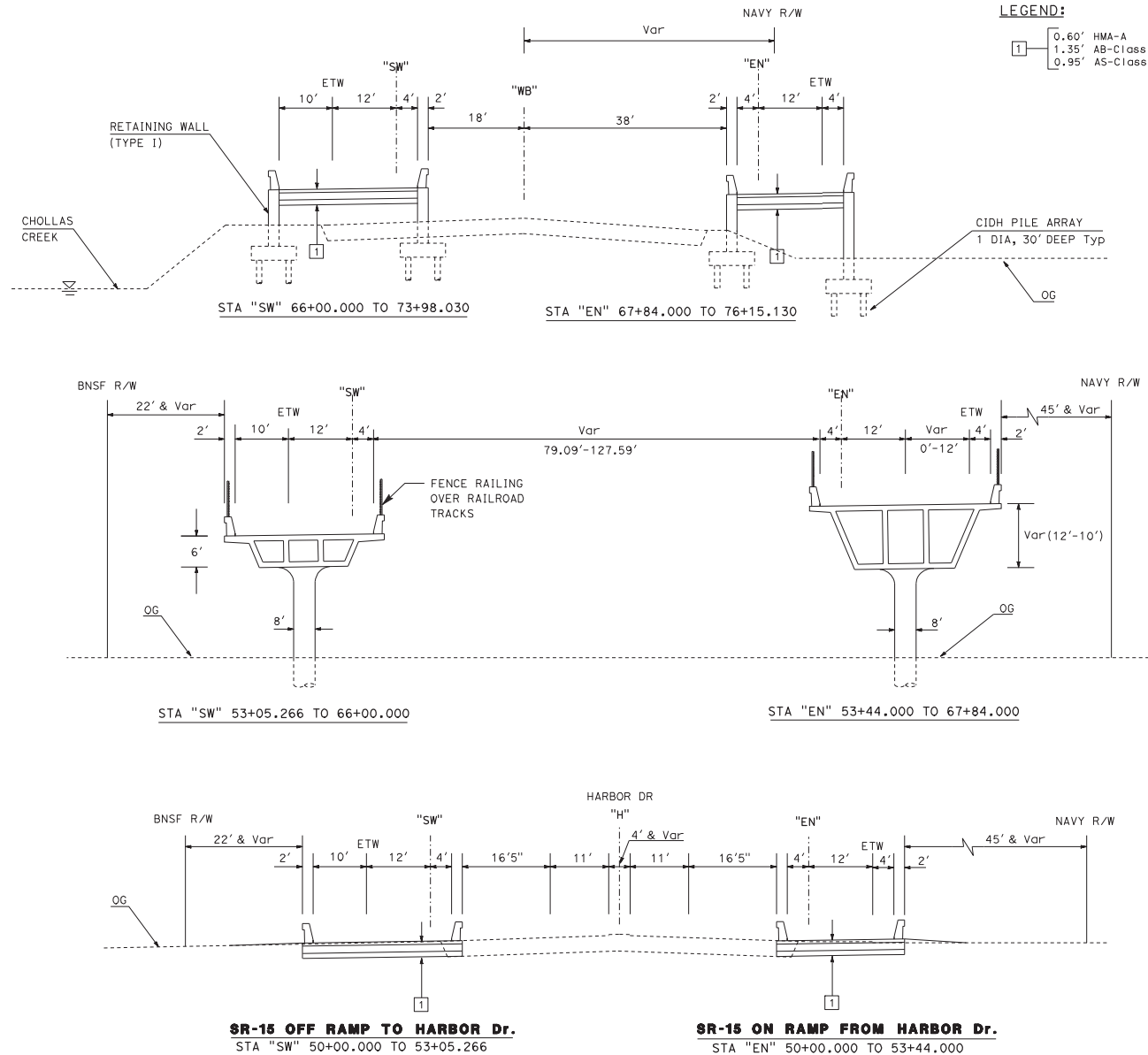
-  TRUCK FREEWAY ACCESS
-  NAVY BASE, SAN DIEGO


VICINITY MAP

ATTACHMENT A

ATTACHMENT B
TYPICAL CROSS SECTIONS

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR				
	MICHAEL J. WEBSTER	CALCULATED - DESIGNED BY	REVISOR BY		
		CHECKED BY	DATE REVISED		



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					

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TYPICAL CROSS SECTIONS

NO SCALE

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ATTACHMENT C
PRELIMINARY LAYOUT

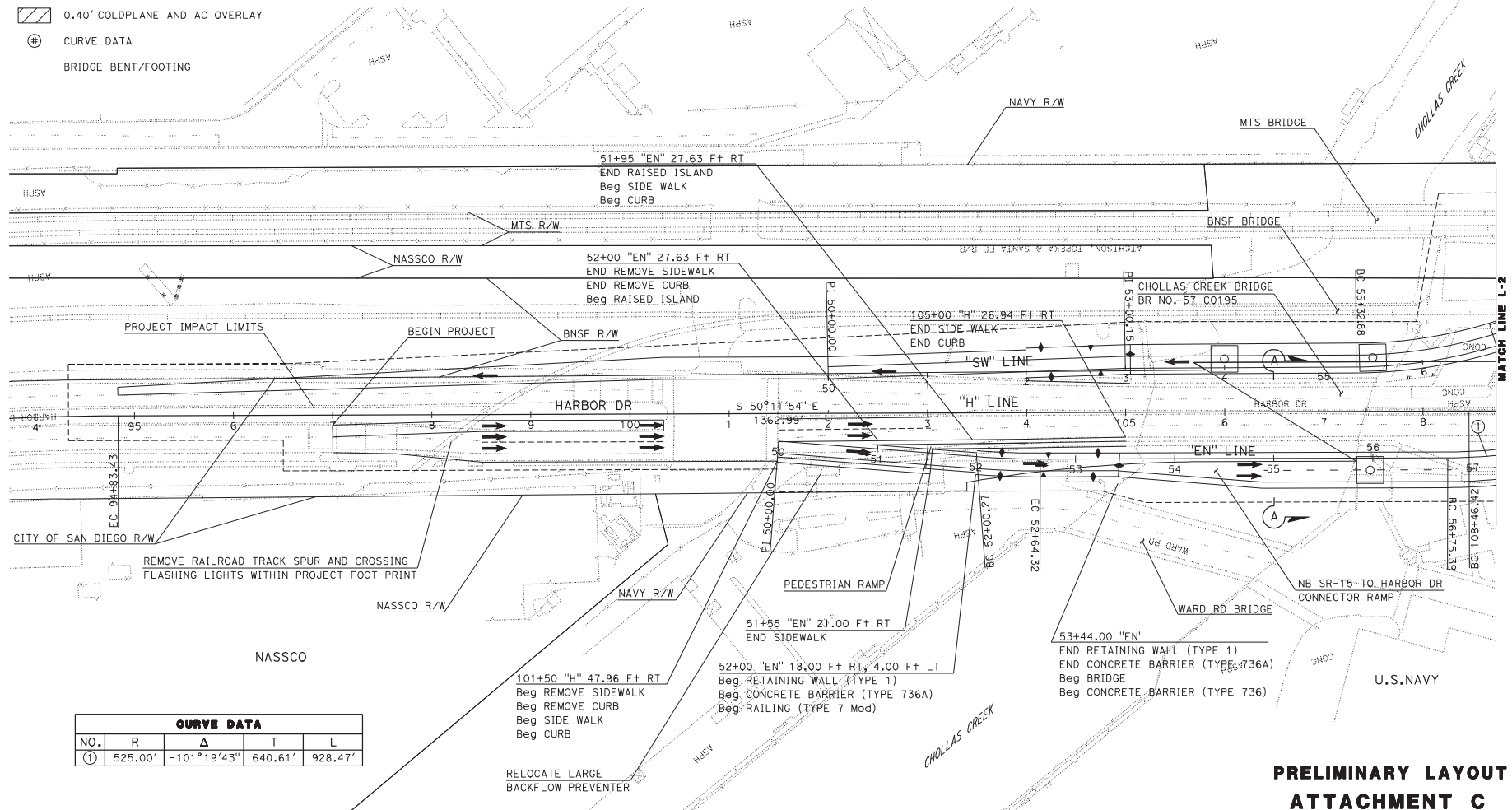
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REVISOR: J. WEBSTER
FUNCTIONAL SUPERVISOR: MICHAEL J. WEBSTER
CALCULATED-DIGITALLY: J. WEBSTER
CHECKED BY: J. WEBSTER
DATE: 4/11/2008

NOTES:

1. FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
2. LOCATION OF CURB RAMP ARE APPROXIMATE.
3. ALL UTILITIES TO BE FIELD VERIFIED.
4. LOCATION OF EXISTING UTILITY FACILITIES ARE LOCATED BASED ON OWNER'S RECORDS AND/OR STATE SURVEY.

LEGEND:

- 0.40' COLDPLANE AND AC OVERLAY
- CURVE DATA
- BRIDGE BENT/FOOTING



CURVE DATA				
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BORDER LAST REVISED 4/11/2008

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EA 293210

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ATTACHMENT C
SHEET 1 OF 7

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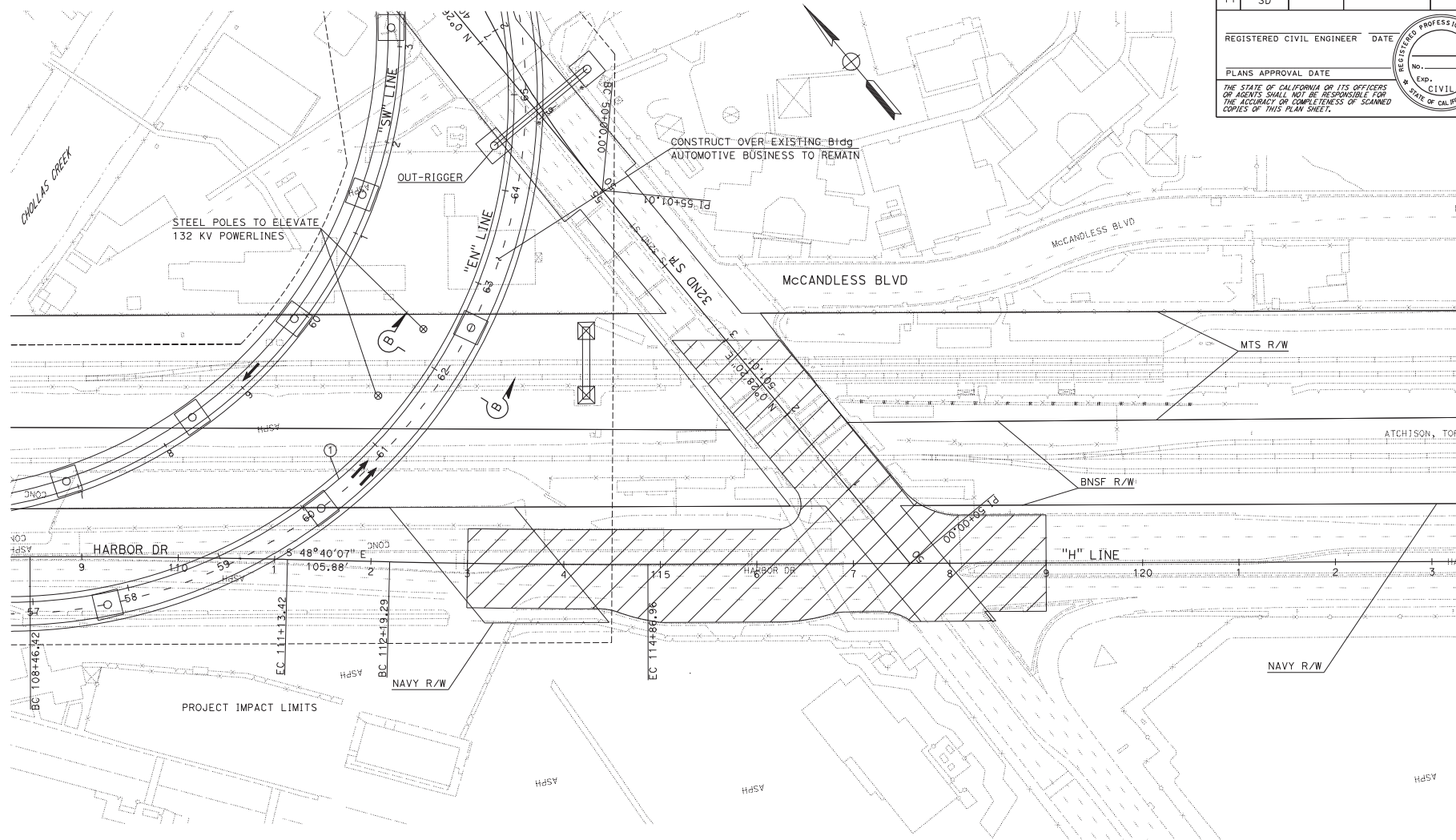
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EXP. _____
CIVIL
STATE OF CALIFORNIA



CURVE DATA				
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SHEET 2 OF 7**

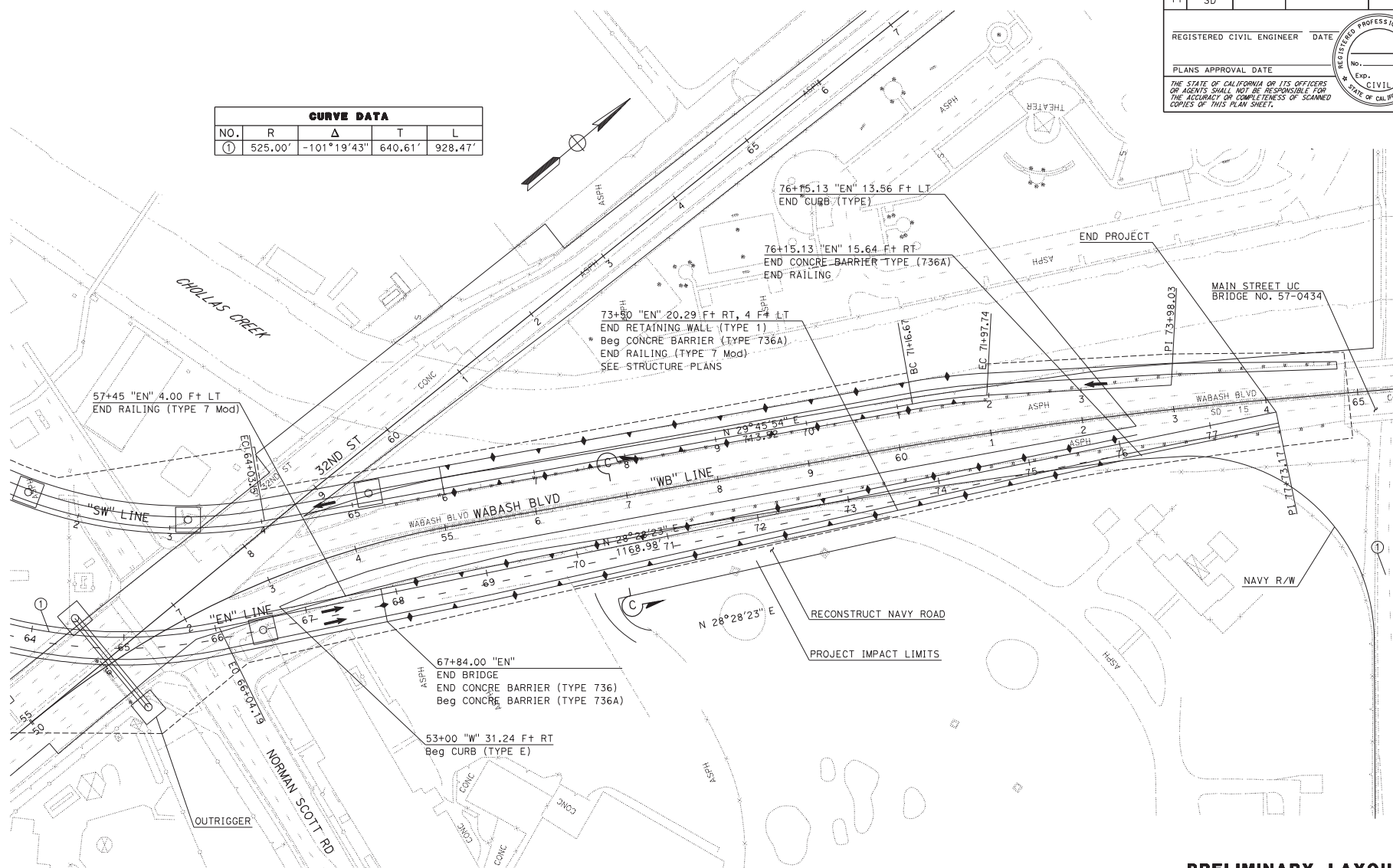
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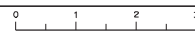
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SHEET 3 OF 7**

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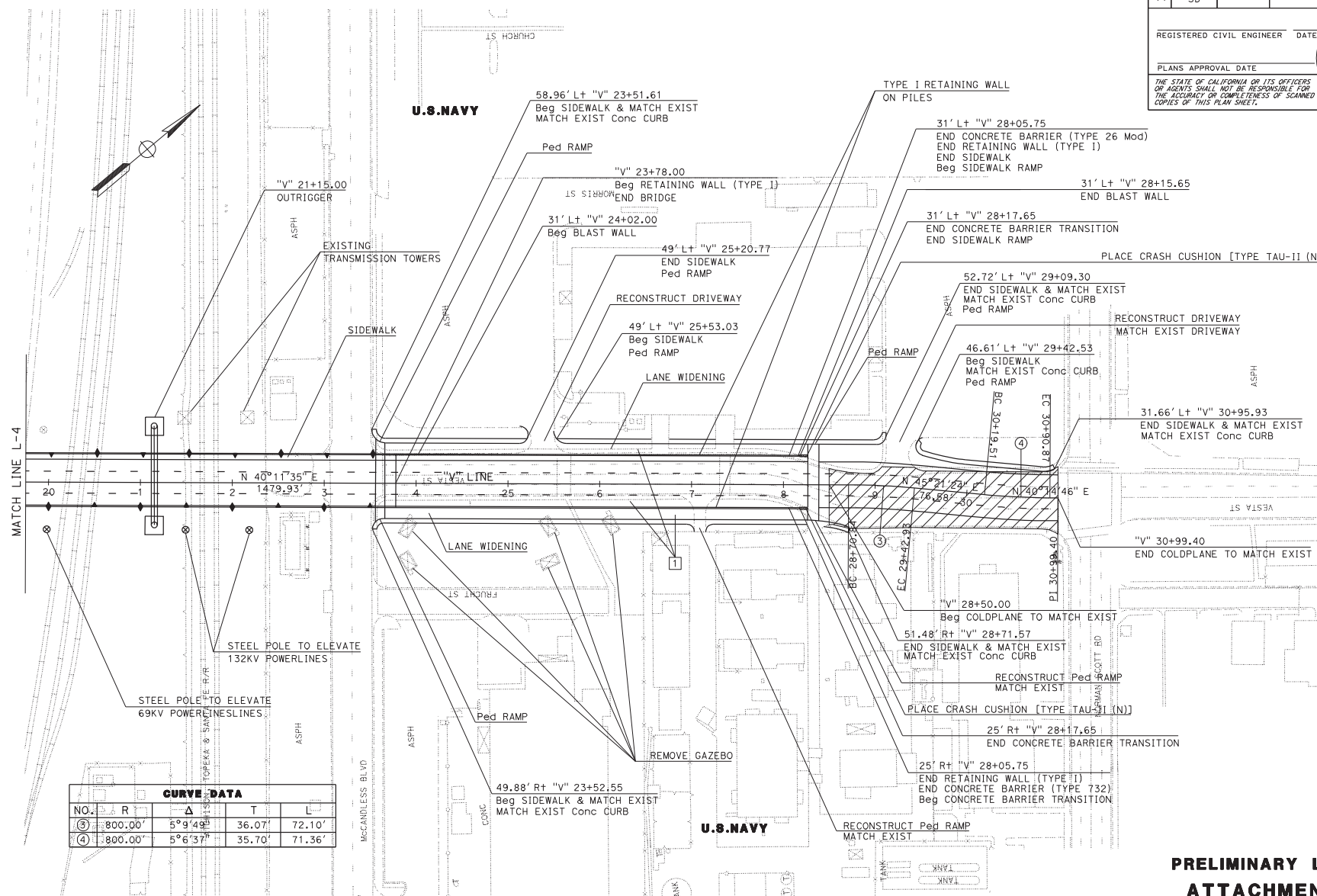
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PLANS APPROVAL DATE					
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**PRELIMINARY LAYOUT
ATTACHMENT C
SHEET 5 OF 7**

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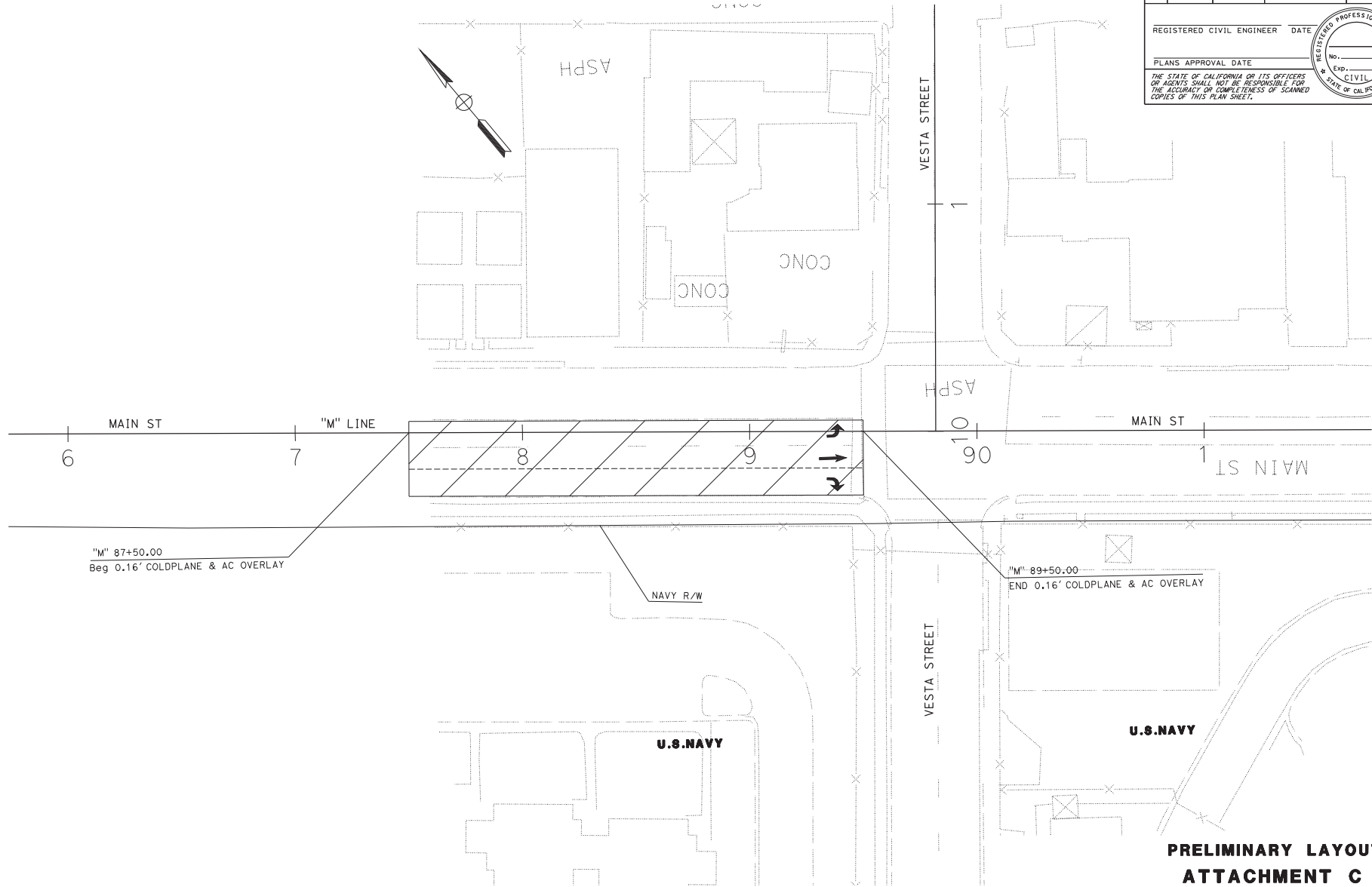
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CD-Caltrans



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STATE OF CALIFORNIA

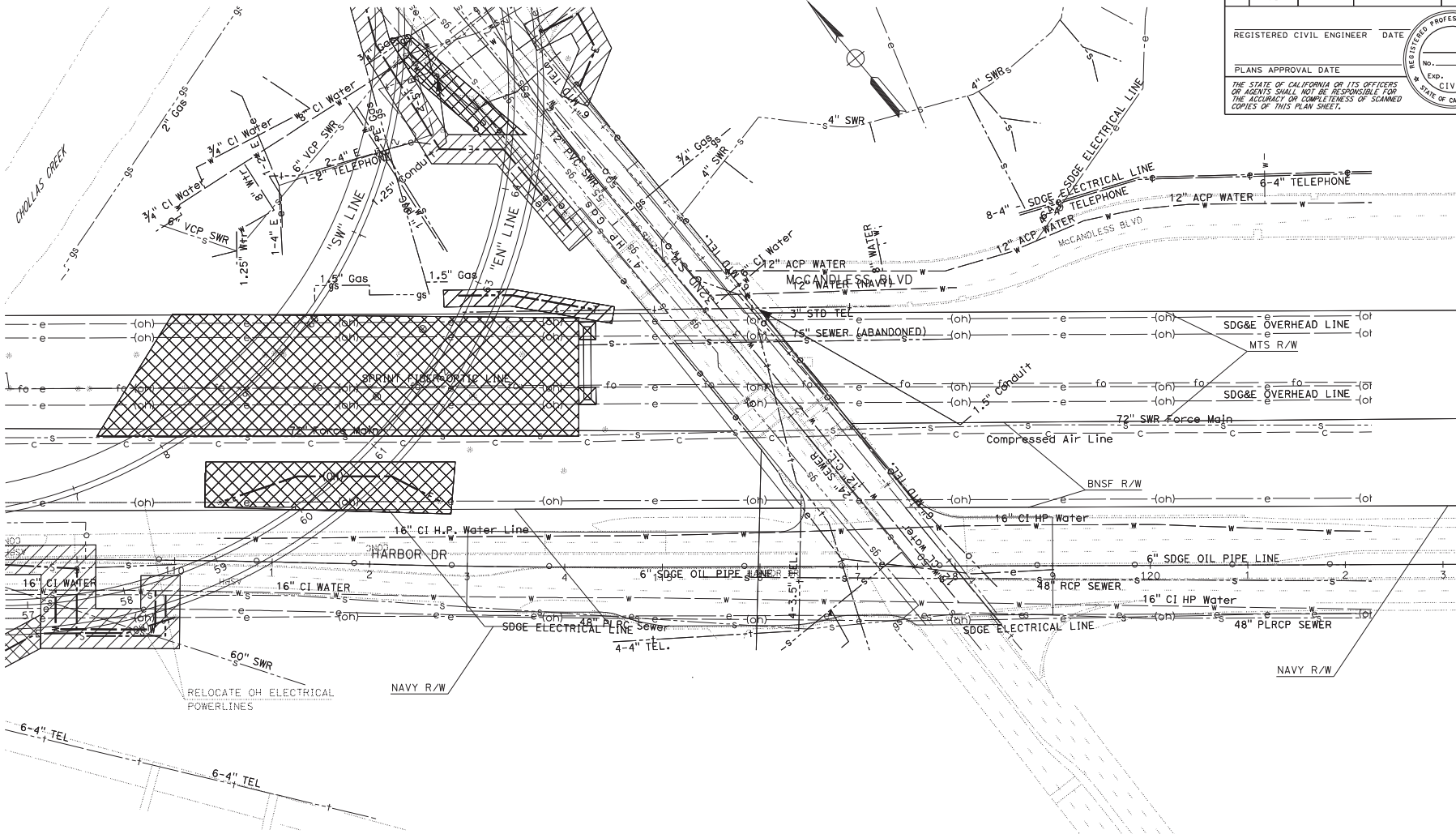
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ATTACHMENT C
SHEET 7 OF 7**

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ATTACHMENT D
PRELIMINARY UTILITY PLAN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans


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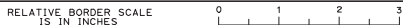
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PRELIMINARY UTILITY PLAN
ATTACHMENT D
SHEET 2 OF 7

THIS PLAN FOR UTILITY INFORMATION ONLY

SCALE: 1"=50'



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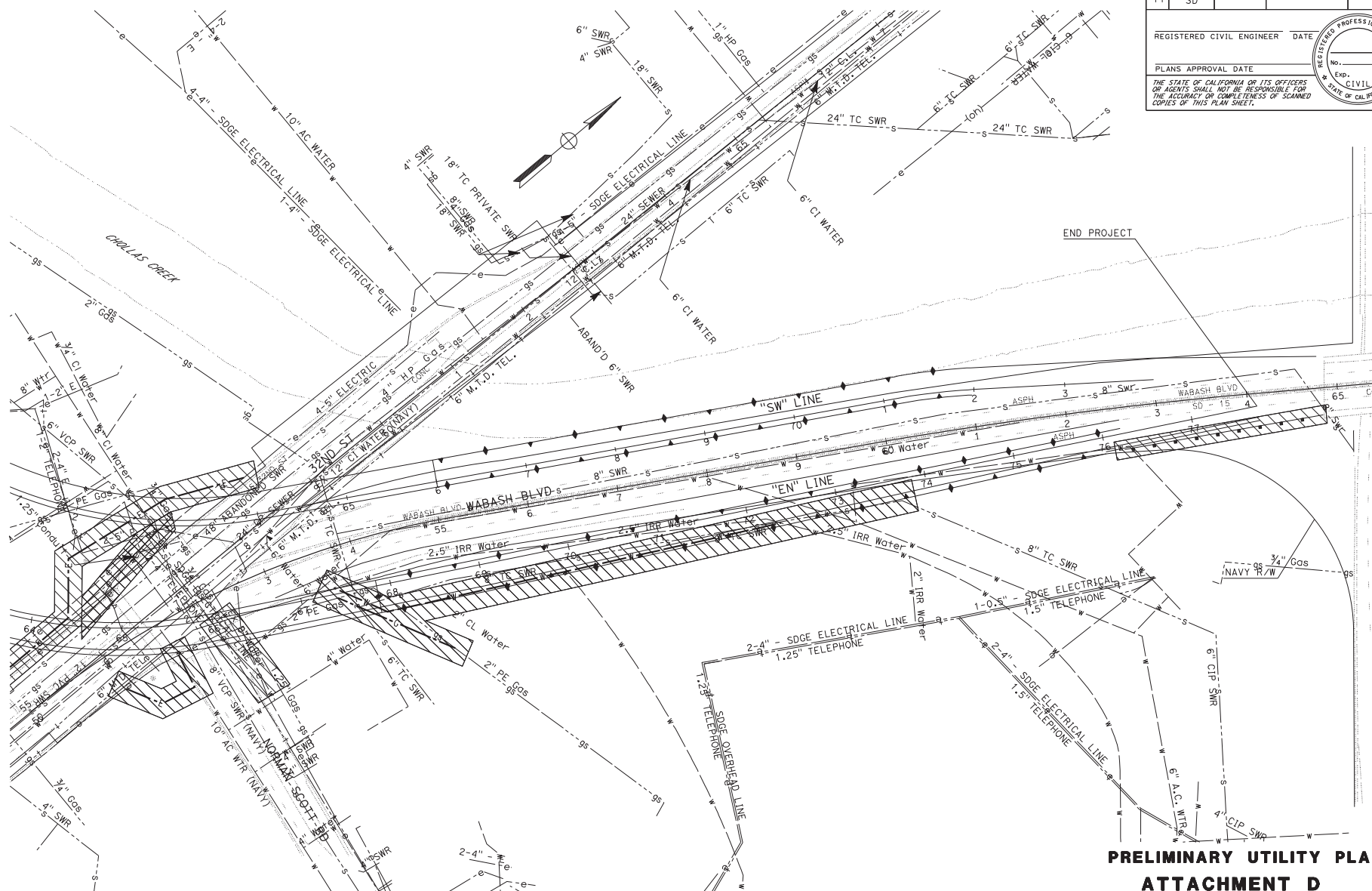
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EA 29321

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ATTACHMENT D
SHEET 3 OF 7**

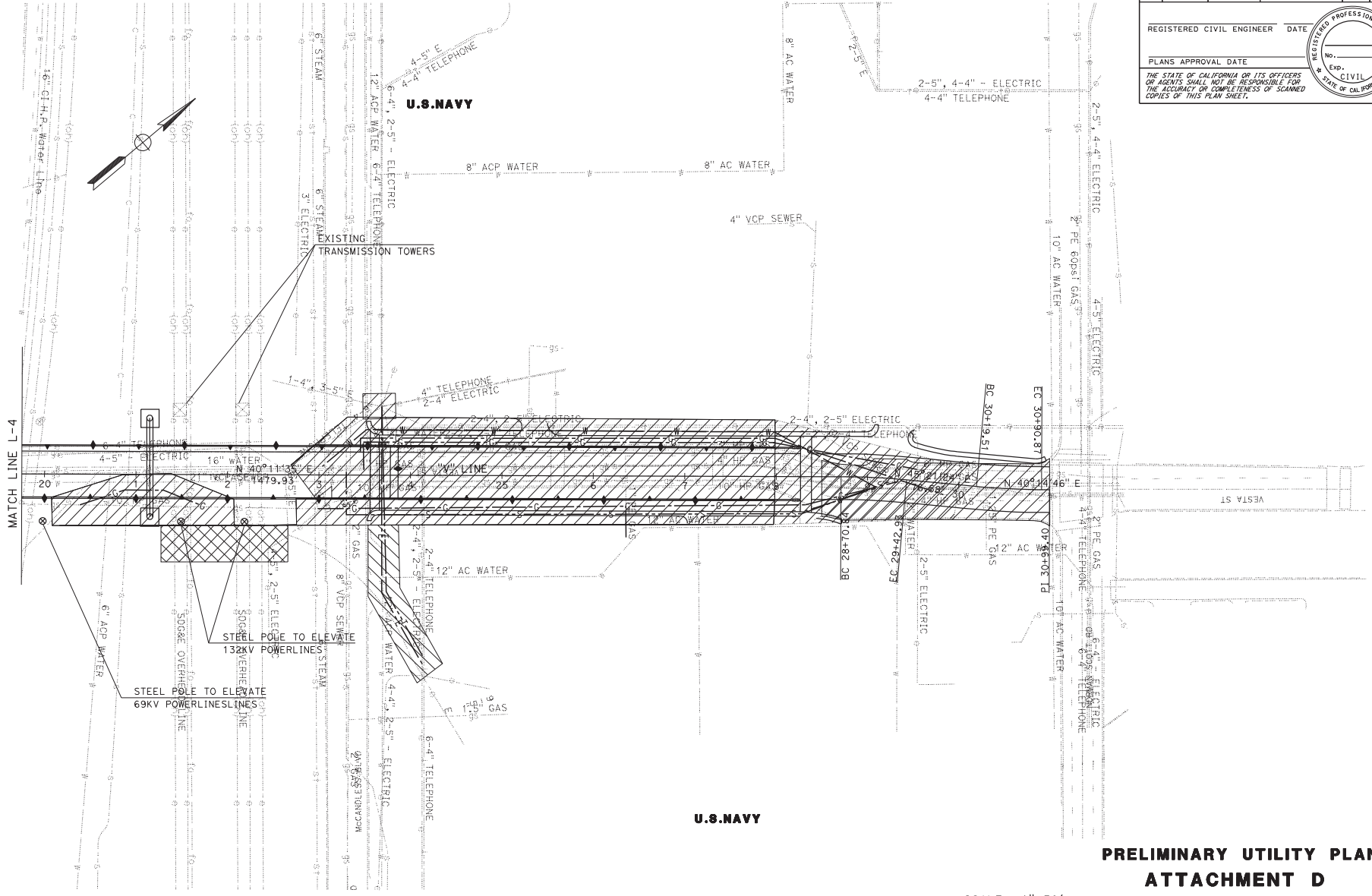
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	MICHAEL J. WEBSTER					

Caltrans

BORDER LAST REVISED 4/11/2008



**PRELIMINARY UTILITY PLAN
ATTACHMENT D
SHEET 5 OF 7**

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DATE	COUNTY	ROUTE	POST MILES	SHEET	TOTAL
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STATE OF CALIFORNIA

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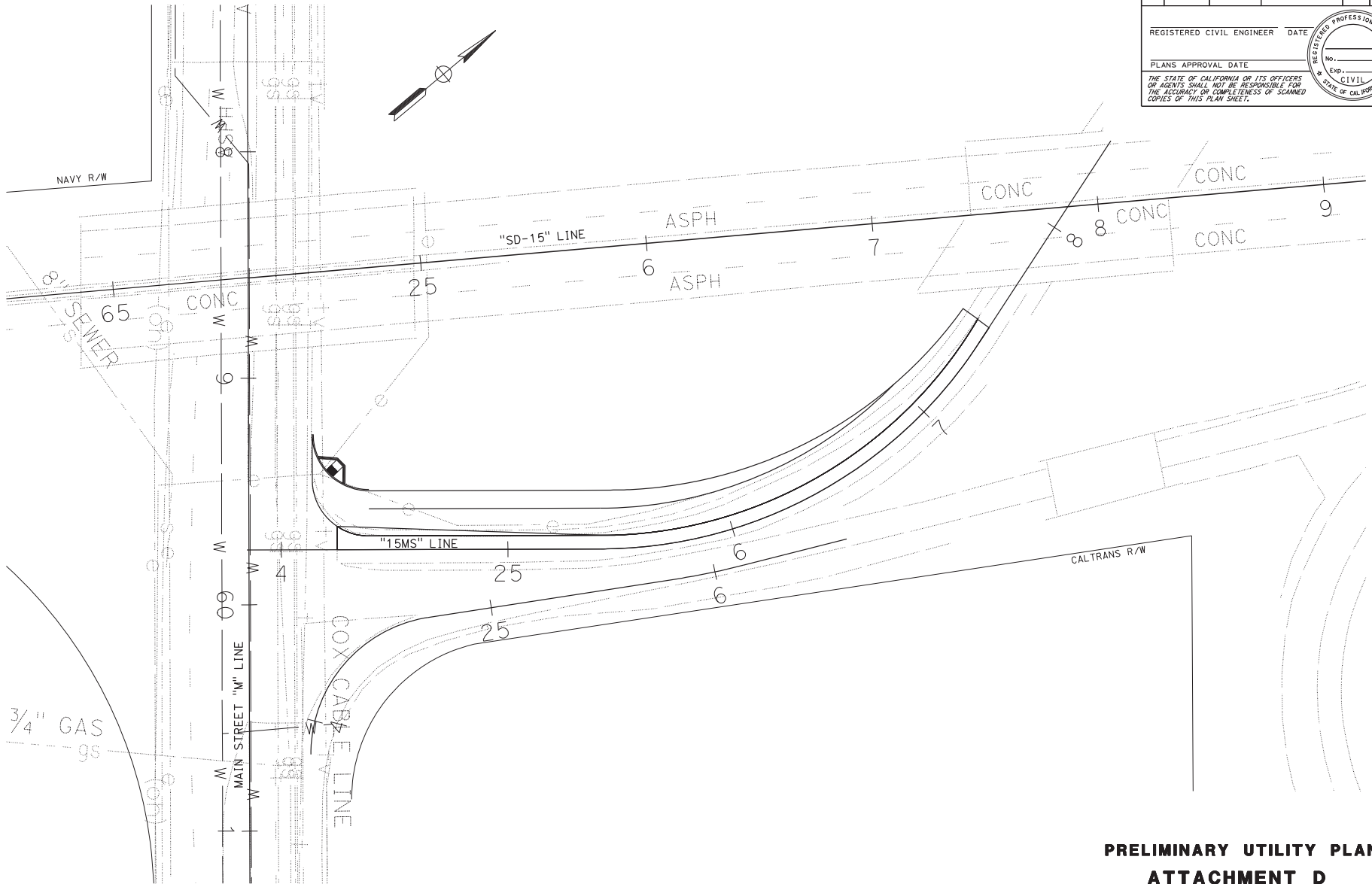
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CU 11272

EA 293210

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DATE	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER	DATE

PLANS APPROVAL DATE	

REGISTERED PROFESSIONAL ENGINEER	DATE

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PRELIMINARY UTILITY PLAN
ATTACHMENT D
SHEET 6 OF 7

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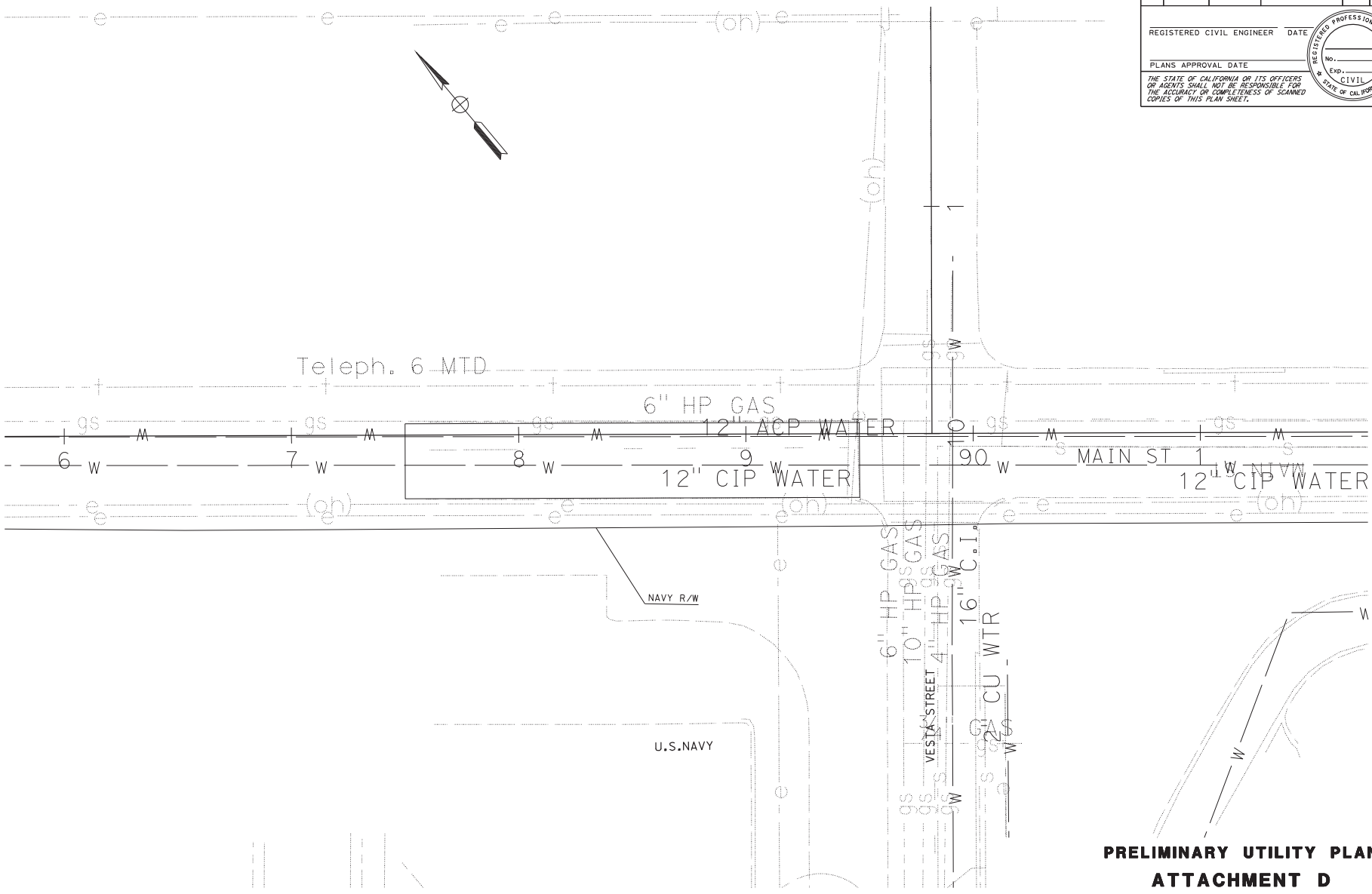
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Caltrans		CHECKED BY	DATE REVISED

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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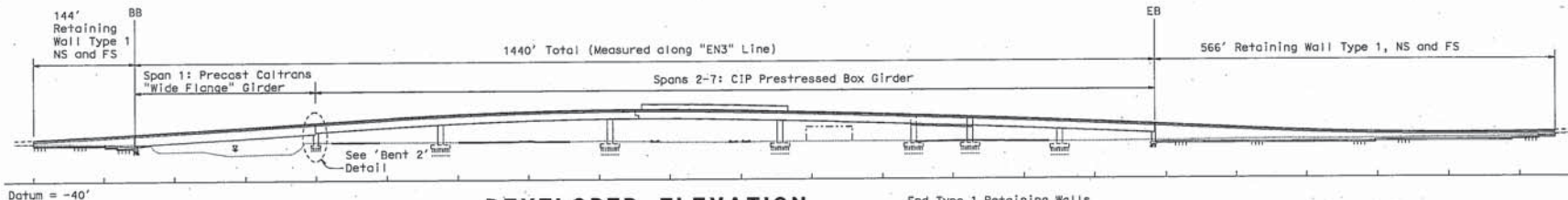
PRELIMINARY UTILITY PLAN
ATTACHMENT D
SHEET 7 OF 7

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05-TO-11 TIME PLOTTED => 14:59

ATTACHMENT E
ADVANCED PLANNING STUDIES

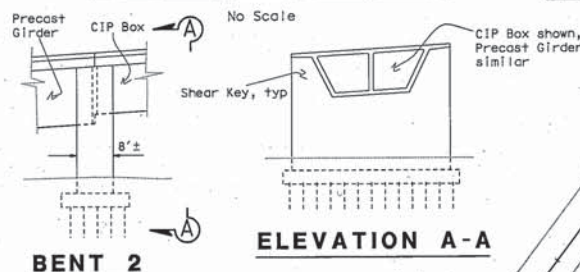
DIST	COUNTY	ROUTE	POST MILES
11	SD	15	TOTAL PROJECT



NOTES / ASSUMPTIONS

- Chollas Creek Avoidance Alternative: Permanent supports and / or falsework not allowed within Chollas Creek.
- Construction Staging: CIP Prestressed Box Girder Frame 1 shall be built prior to Precast Prestressed Girder placement to allow for 2-end stressing.
- Architectural Treatment required for Retaining Walls and Barrier Rails.
- 1' overexcavation and backfill required for Retaining Walls. Limits are 1' outside footings.
- For additional information, see sheets 2 and 3.

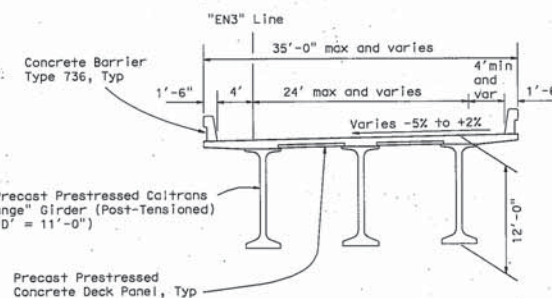
DEVELOPED ELEVATION



ELEVATION A-A

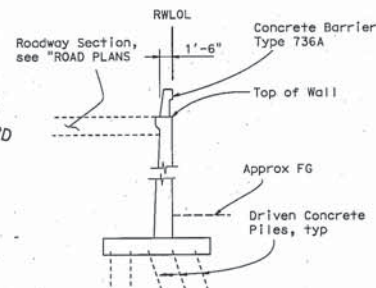
BENT 2

End Type 1 Retaining Walls
Station 73+50 "EN3" Line



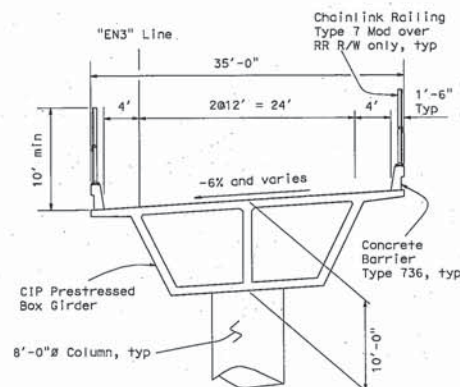
SPAN 1 TYPICAL SECTION

No Scale



TYPE 1 WALL TYPICAL SECTION

No Scale
NOTE: Right Walls shown, Left Walls similar



SPANS 2-7 TYPICAL SECTION

No Scale

BRIDGE

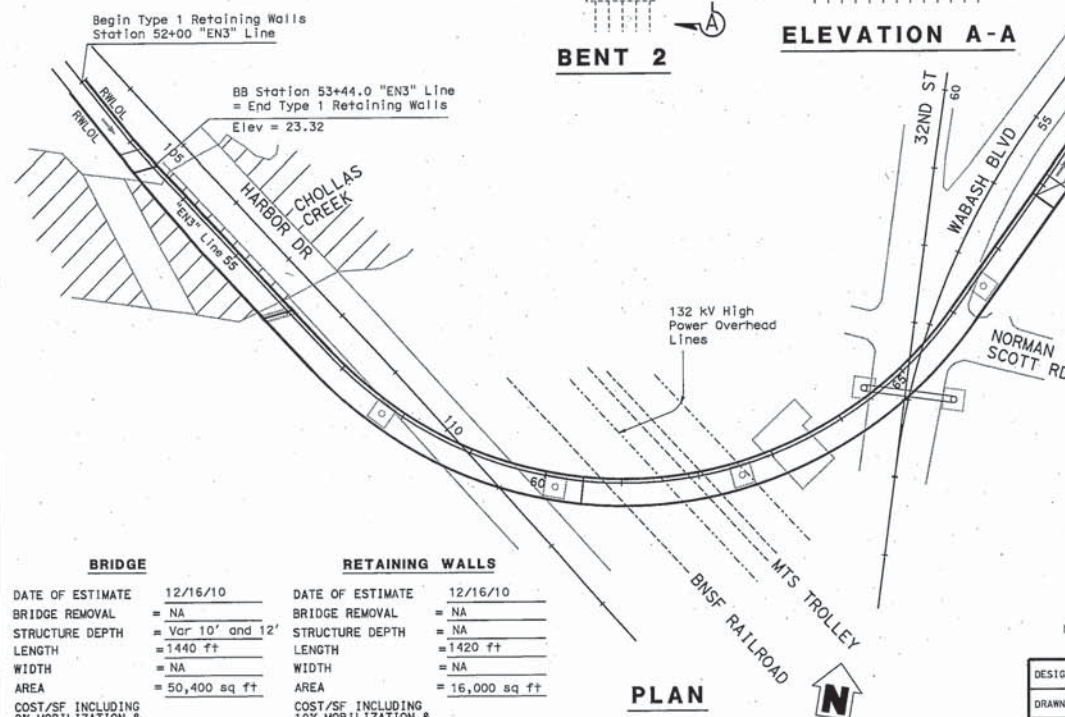
DATE OF ESTIMATE	12/16/10
BRIDGE REMOVAL	= NA
STRUCTURE DEPTH	= Var 10' and 12'
LENGTH	= 1440 ft
WIDTH	= NA
AREA	= 50,400 sq ft
COST/SF INCLUDING 5% MOBILIZATION & 25% CONTINGENCY 3% TRO	= \$205
TOTAL COST	= \$10,319,000

RETAINING WALLS

DATE OF ESTIMATE	12/16/10
BRIDGE REMOVAL	= NA
STRUCTURE DEPTH	= NA
LENGTH	= 1420 ft
WIDTH	= NA
AREA	= 16,000 sq ft
COST/SF INCLUDING 10% MOBILIZATION & 25% CONTINGENCY 10% TRO	= \$145
TOTAL COST	= \$2,314,000

PLAN

No Scale



DESIGNED BY	M. OKIMURA	DATE	10-16-10
DRAWN BY	M. OKIMURA	DATE	10-16-10
CHECKED BY	R. RASHEDI	DATE	10-17-10
APPROVED	R. RASHEDI	DATE	10-17-10

STRUCTURE
DESIGN
BRANCH
11

PLANNING STUDY

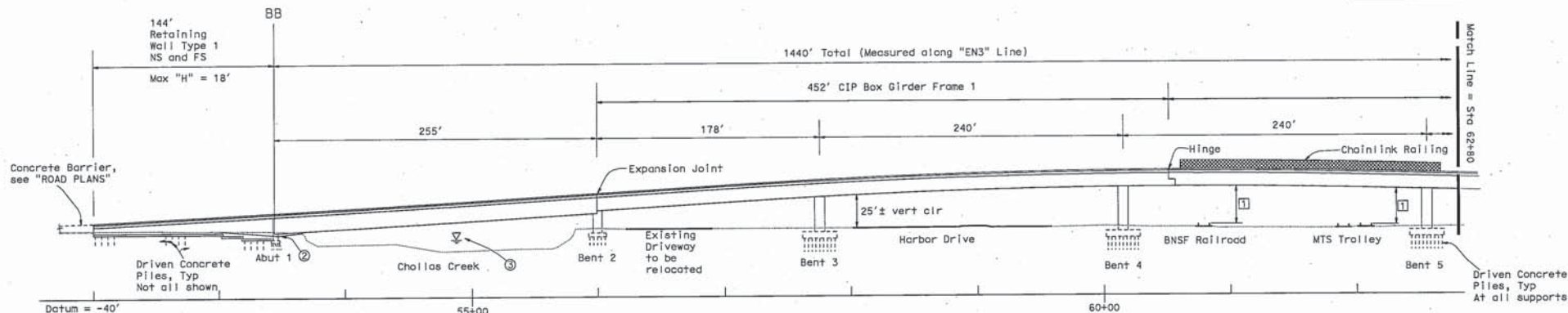
32ND STREET EN CONNECTOR (Sheet 1 of 3)

BRIDGE NO. 57-XXXX	CU 11
SCALE: No Scale	EA 293210

FILE => Work_LayOut_New.dgn

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (METRIC) (REV.07-19-04)

DIST	COUNTY	ROUTE	POST MILES
11	SD	15	TOTAL PROJECT



DEVELOPED ELEVATION

No Scale

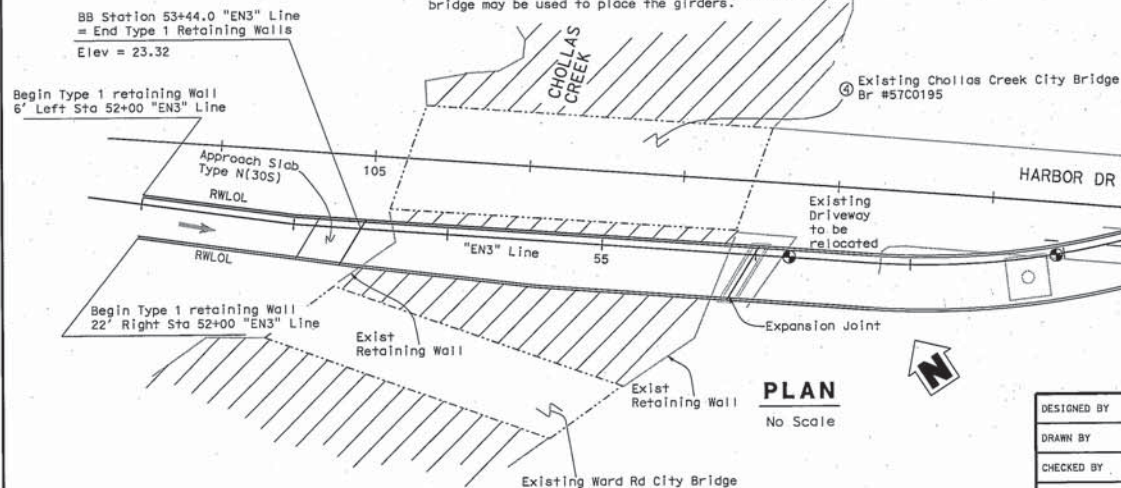
⑤ Indicates Point of Minimum Vertical Clearance

RAILROAD MINIMUM CLEARANCE REQUIREMENTS

- ① Minimum final vertical clearance to top of track = 23'-4". Minimum temporary clearance = 21'-6".
- ② Minimum clearance from face of column to \mathbb{E} nearest track = 25'.
- ③ Minimum clearance from face of falsework to \mathbb{E} nearest track = 15'.

NOTES / ASSUMPTIONS

- ① 132kV high power overhead lines to be raised 25' min above deck prior to construction. Piles and Columns at Bent 5 may be spliced to allow for pile driving and column placement while maintaining 15' min clearance from any boom-type equipment to the power lines.
- ② Cut at Abut 1 to provide 2' min cir from bottom of girder to FG.
- ③ 50-year Design Flood High Water Elev = 5.5'±. Available freeboard = 5.4'±. 100-year Base Flood High Water Elev = 6.4'±. Available freeboard = 4.5'±.
- ④ Splicing of Precast Girders may be done on existing Br #57C0195 upon approval by the City. Each girder will be spliced at 2 locations. Eastbound lanes of Harbor Dr will need to be closed during this time. One 500 ton crane located at each end of the existing bridge may be used to place the girders.



PLAN

No Scale

DESIGNED BY	M. OKIMURA	DATE	10-16-10
DRAWN BY	M. OKIMURA	DATE	10-16-10
CHECKED BY	R. RASHEDI	DATE	10-17-10
APPROVED	R. RASHEDI	DATE	10-17-10

STRUCTURE
DESIGN
BRANCH
11

PLANNING STUDY

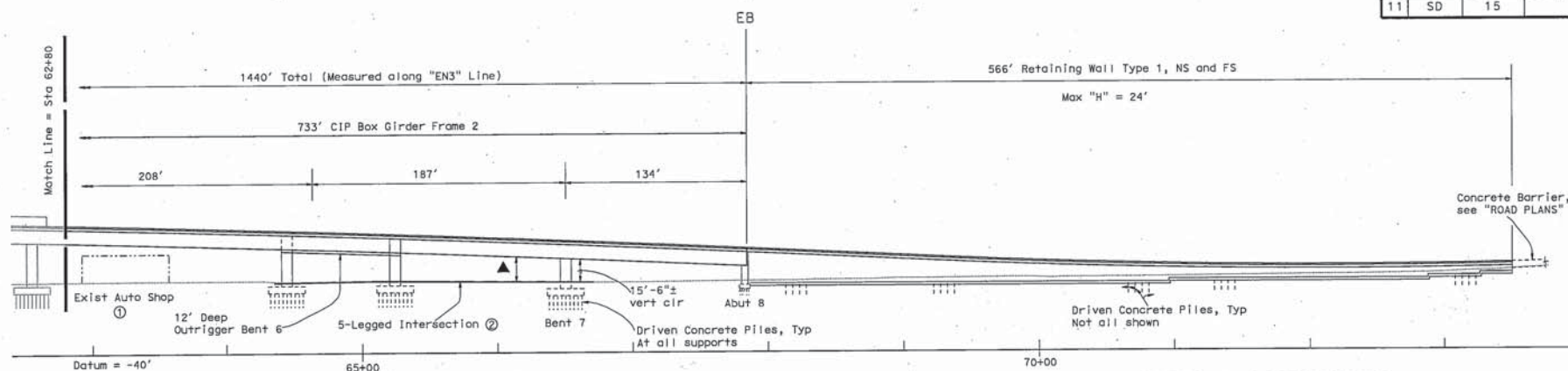
32ND STREET EN CONNECTOR (Sheet 2 of 3)

BRIDGE NO. 57-XXXX	CU 11
SCALE: No Scale	EA 293210

FILE => Mark_Layout_New.dgn

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (METRIC) (REV.03-12-04)

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
11	SD	15	

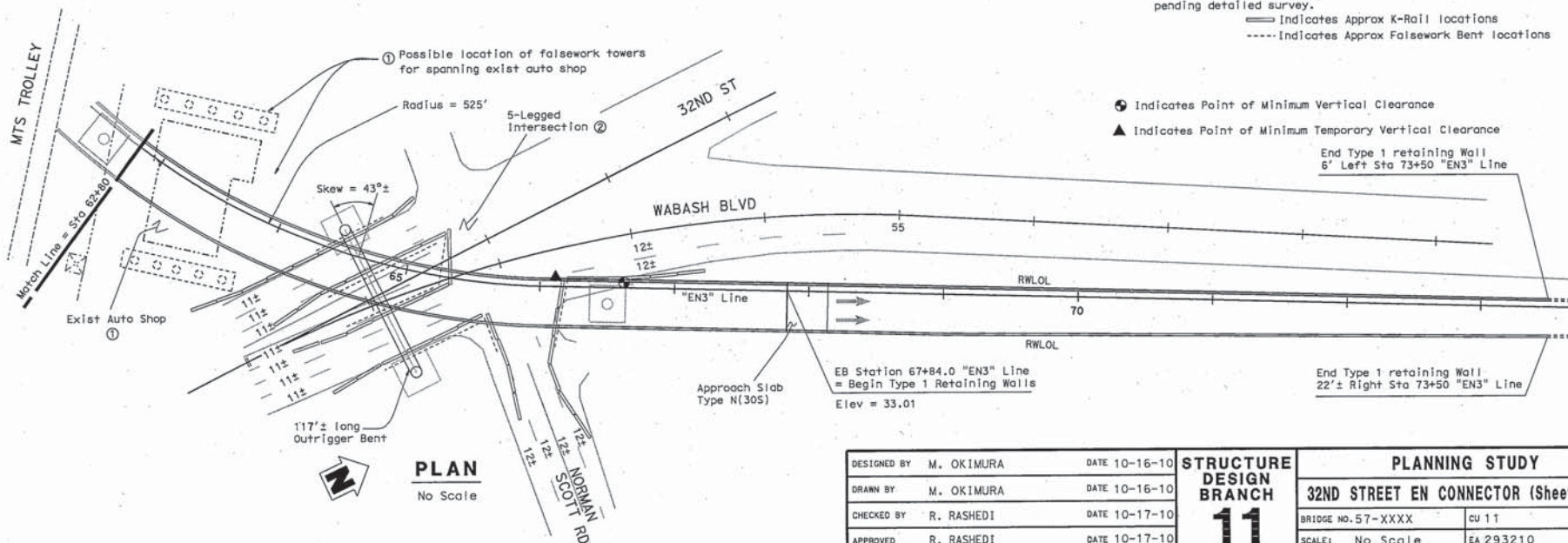


DEVELOPED ELEVATION

No Scale

NOTES / ASSUMPTIONS

- ① Exist Auto Shop to remain open during construction. Profile may need to be raised up to 1' pending detailed survey.
- ② Falsework Bents and K-Rail shown is just one feasible layout. This layout requires one lane in each direction on 32nd St, Wabash Blvd, and Norman Scott Rd to be closed. Consideration may be made to provide temporary access to the auto businesses from 32nd St and close Norman Scott Rd to help alleviate falsework difficulties. Profile may need to be raised up to 1' pending detailed survey.
- == Indicates Approx K-Rail locations
-----Indicates Approx Falsework Bent locations



DESIGNED BY	M. OKIMURA	DATE	10-16-10
DRAWN BY	M. OKIMURA	DATE	10-16-10
CHECKED BY	R. RASHEDI	DATE	10-17-10
APPROVED	R. RASHEDI	DATE	10-17-10

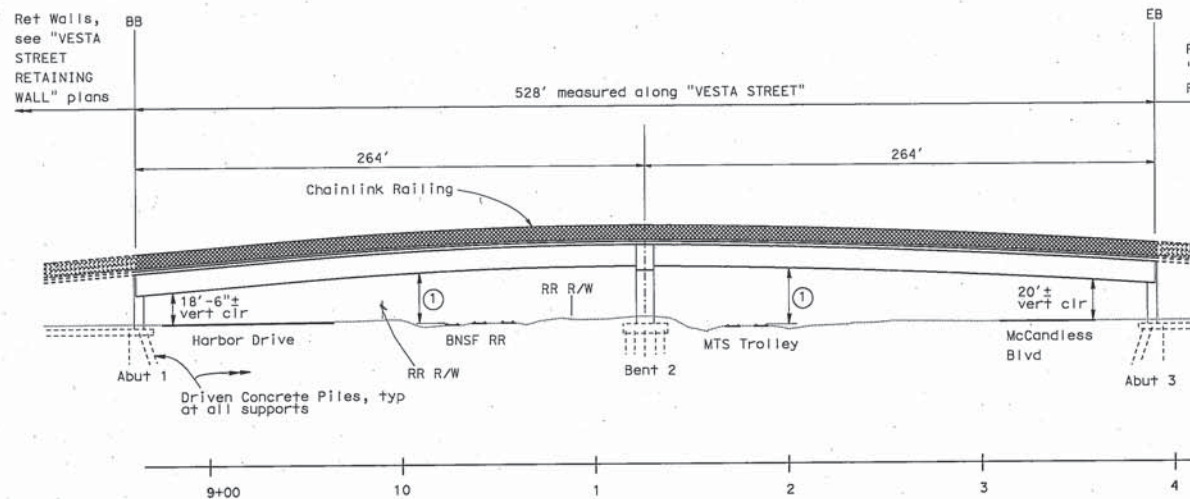
STRUCTURE
DESIGN
BRANCH
11

PLANNING STUDY

32ND STREET EN CONNECTOR (Sheet 3 of 3)

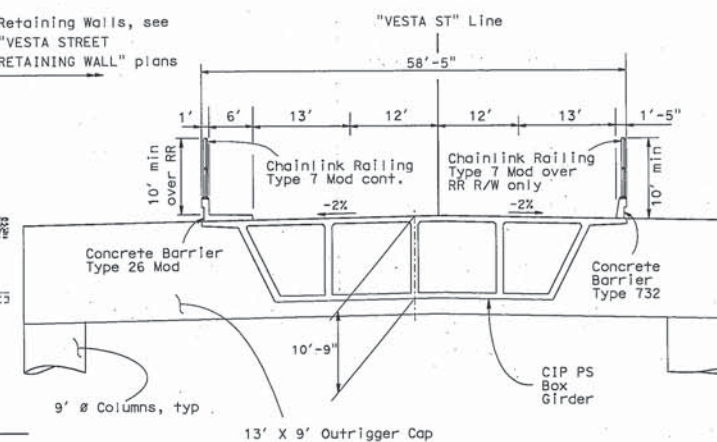
BRIDGE NO. 57-XXXX	CU 11
SCALE: No Scale	EA 293210

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
11	SD	15	



ELEVATION

No Scale



TYPICAL SECTION

No Scale

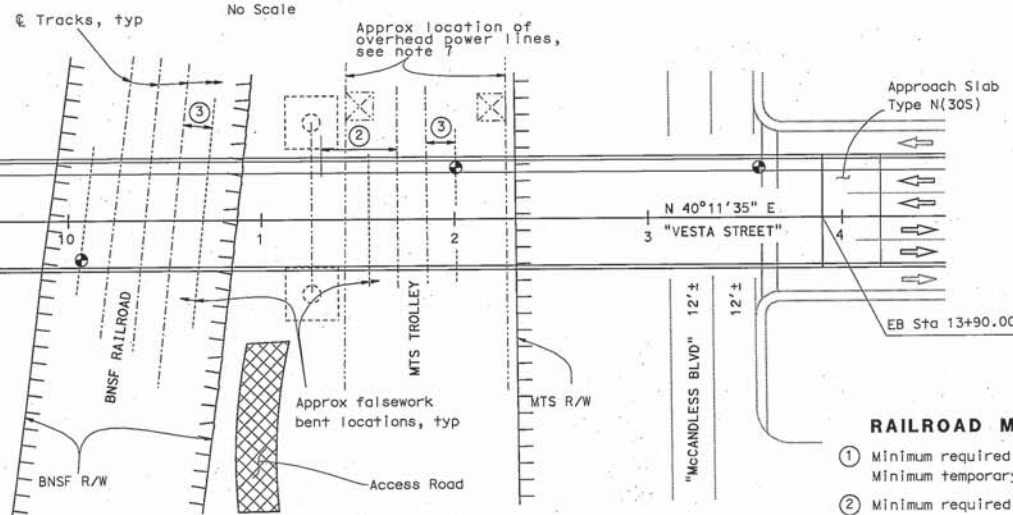
NOTES / ASSUMPTIONS

1. Outrigger Bent to avoid existing underground utilities
 2. Foundations are not allowed within BNSF R/W
 3. Room will be provided for a median falsework bent at Harbor Drive
 4. 3' drainage flow width allowed in travelled way
 5. Architectural Treatment required for barrier rails
 6. 15' min clir from construction equipment to 132kv active powerlines. Use of shaft foundations and shifting bent location should be considered if min clir cannot be met or lines can't be powered down
- ⊙ Indicates Point of Minimum Vertical Clearance

RAILROAD MINIMUM CLEARANCE REQUIREMENTS

- ① Minimum required final vertical clearance to top of track = 23'-4"
Minimum temporary clearance = 21'-6".
- ② Minimum required clearance from face of column to Ⓢ nearest track = 25'.
- ③ Minimum required clearance from face of falsework to Ⓢ nearest track = 15'.

DATE OF ESTIMATE	12/16/10
BRIDGE REMOVAL	= NA
STRUCTURE DEPTH	= 10'-9"
LENGTH	= 528 ft
WIDTH	= 58'-5"
AREA	= 30,844 sq ft
COST/SF INCLUDING 9% MOBILIZATION & 25% CONTINGENCY 3% TRO	= \$189
TOTAL COST	= \$5,816,000



PLAN

No Scale

DESIGNED BY	M. OKIMURA	DATE	02-09-10
DRAWN BY	M. OKIMURA	DATE	02-09-10
CHECKED BY	R. RASHEDI	DATE	02-10-10
APPROVED	R. RASHEDI	DATE	02-10-10

STRUCTURE DESIGN BRANCH
11

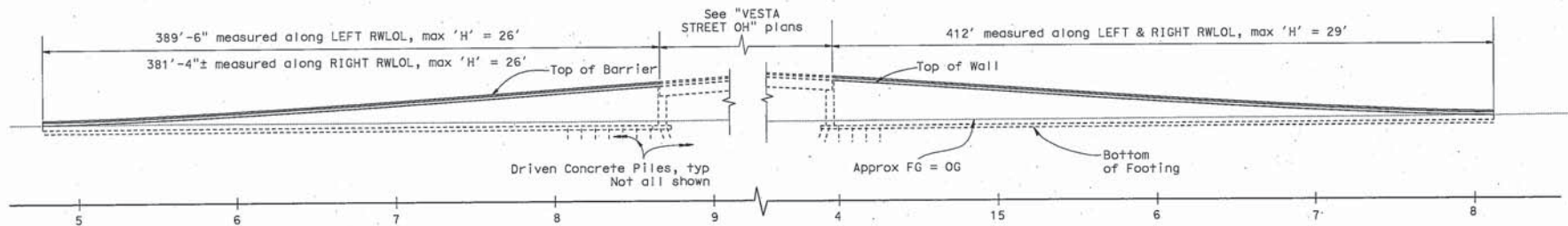
PLANNING STUDY
VESTA STREET OVERHEAD

BRIDGE NO. 57-XXXX	CU 11
SCALE: No Scale	EA 293210

FILE => Mark/Layout_1112.dgn

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 01-12-04)

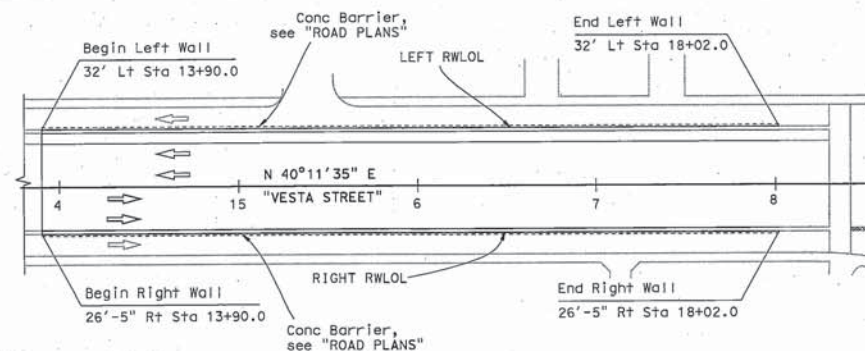
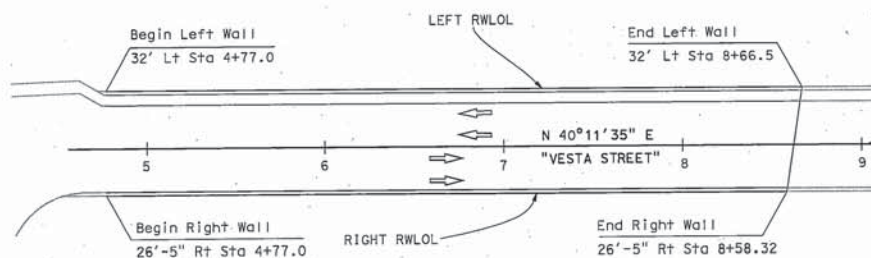
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT
11	SD	15	



- NOTES:
1. Right Wall shown, Left Wall similar
 2. Chain Link Railing not shown
 4. Architectural Treatment required for walls and barrier rail
 5. Assume 1' overexcavation & backfill required. Limits are 1' outside footings

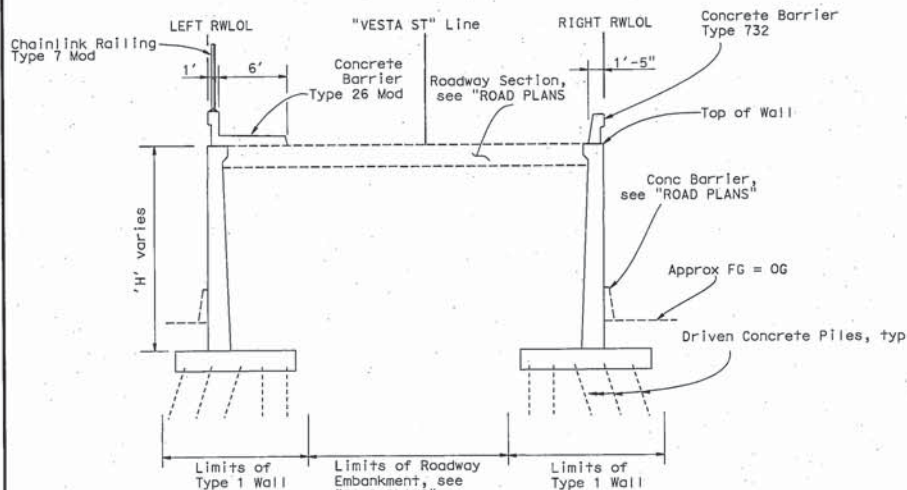
ELEVATION

No Scale



PLAN

No Scale



TYPICAL SECTION

No Scale

DATE OF ESTIMATE	12/16/10
BRIDGE REMOVAL	= NA
STRUCTURE DEPTH	= NA
LENGTH	= 1595 ft
WIDTH	= NA
AREA	= 25,200 sq ft
COST/SF INCLUDING 9% MOBILIZATION & 25% CONTINGENCY 3% TRO	= \$164
TOTAL COST	= \$4,131,000

DESIGNED BY	M. OKIMURA	DATE	02-09-10
DRAWN BY	M. OKIMURA	DATE	02-09-10
CHECKED BY	R. RASHEDI	DATE	02-10-10
APPROVED	R. RASHEDI	DATE	02-10-10

STRUCTURE
DESIGN
BRANCH

11

PLANNING STUDY

VESTA STREET RETAINING WALLS

BRIDGE NO. 57-XXXX	CU 11
SCALE: No Scale	EA 293210

FILE => Mark_Layout_A1+2.dgn

STRUCTURES DESIGN ADVANCE PLANNING STUDY SHEET (METRIC) (REV-07-12-04)

ATTACHMENT F
COST ESTIMATE

**32ND STREET IMPROVEMENTS - FULL BUILT
COST ESTIMATE 2012**

ITEMS	COST
ROADWAY	\$22,483,100
STRUCTURE	\$25,384,320
SUBTOTAL CONSTRUCTION COST	\$47,867,420
RIGHT OF WAY	\$15,325,000
TOTAL CAPITAL COST	\$63,192,420
PR/ED SUPPORT	\$3,136,500
PS&E SUPPORT	\$7,000,000
RIGHT OF WAY SUPPORT	\$1,500,000
CONSTRUCTION SUPPORT	\$10,000,000
TOTAL SUPPORT COST	\$21,636,500
TOTAL PROJECT COST	\$84,828,920

**PHASE I: VESTA STREET IMPROVEMENTS ONLY
COST ESTIMATE 2012**

ITEMS	COST
ROADWAY	\$19,367,600
STRUCTURE	\$5,512,320
SUBTOTAL CONSTRUCTION COST	\$24,879,920
RIGHT OF WAY	\$5,105,000
TOTAL CAPITAL COST	\$29,984,920
PR/ED SUPPORT	\$1,710,000
PS&E SUPPORT	\$3,350,000
RIGHT OF WAY SUPPORT	\$480,000
CONSTRUCTION SUPPORT	\$4,700,000
TOTAL SUPPORT COST	\$10,240,000
TOTAL PROJECT COST	\$40,224,920

**PHASE II: NB SR-15 - HARBOR DR CONNECTOR
RAMP ONLY
COST ESTIMATE 2012**

ITEMS	COST
ROADWAY	\$9,495,500
STRUCTURE	\$10,512,000
SUBTOTAL CONSTRUCTION COST	\$20,007,500
RIGHT OF WAY	\$7,000,000
TOTAL CAPITAL COST	\$27,007,500
PR/ED SUPPORT	\$1,620,480
PS&E SUPPORT	\$2,970,880
RIGHT OF WAY SUPPORT	\$540,160
CONSTRUCTION SUPPORT	\$4,321,280
TOTAL SUPPORT COST	\$9,452,800
TOTAL PROJECT COST	\$36,460,300

**PHASE III: SB SR-15 - HARBOR DR CONNECTOR
RAMP ONLY
COST ESTIMATE 2012**

ITEMS	COST
ROADWAY	\$9,162,200
STRUCTURE	\$9,360,000
SUBTOTAL CONSTRUCTION COST	\$18,522,200
RIGHT OF WAY	\$1,000,000
TOTAL CAPITAL COST	\$19,522,200
PR/ED SUPPORT	\$1,171,380
PS&E SUPPORT	\$2,147,530
RIGHT OF WAY SUPPORT	\$390,460
CONSTRUCTION SUPPORT	\$3,123,680
TOTAL SUPPORT COST	\$6,833,050
TOTAL PROJECT COST	\$26,355,250

ATTACHMENT G
TRAFFIC STUDY: TECHNICAL MEMORANDUM

Port Access Projects – 32nd Street Evaluation of the EN Connector Alternative

PREPARED FOR: Michael Webster, Caltrans
Maurice Eaton, Caltrans

PREPARED BY: John El Khoury, CH2M HILL

COPIES: Carlos Cortez, Caltrans
Hany Haroun, CH2M HILL
Loren Bloomberg, CH2M HILL
Fu Sun, CH2M HILL

DATE: April 22, 2011

1. Introduction

The purpose of this memorandum is to assess the traffic operations of the intersections along 32nd Street, given the proposed East North (EN) Connector Alternative as part of the Port Access Projects. The proposed improvements include providing a unidirectional connector ramp from eastbound (EB) Harbor Drive to northbound (NB) State Route 15 (SR-15). The improvements also include the Vesta Street Overcrossing at Harbor Drive, which connects the dry side and the wet side of the Naval Base San Diego (NBSD). The NBSD has recently opened a new gate (Gate 29) to the base at the Main Street/Vesta Street intersection. Gate 43 at Norman Scott was temporarily blocked and closed. However in this memorandum it is assumed that both Gate 43 and Gate 29 will stay open in the future.

2. Background

The EB to NB connector will provide direct access for traffic from EB Harbor Drive to NB SR-15 by bypassing two heavily traveled intersections. The two intersections are the intersection of Harbor Drive and 32nd Street and the intersection of 32nd Street and Norman Scott Road/Wabash Boulevard. This provides for more efficient travel for trucks out of the Unified Port of San Diego (Port) to the freeway system. The opening of a new gate to the NBSD at Main Street and Vesta Street intersection (Gate 29) provides an alternative to the gate at 32nd Street and Harbor Drive (Gate 6), and also to the gate on Norman Scott Road (Gate 43). Traffic using the planned Main Street gate will utilize the proposed Vesta Street Overcrossing at Harbor Drive to travel between the dry side and the wet side of the NBSD.

The analysis focuses on evaluating traffic operations at four existing intersections. The intersections are:

- 1- Intersection of 32nd Street and Harbor Drive
- 2- Intersection of 32nd Street and Norman Scott Road
- 3- Intersection of 32nd Street and Main Street
- 4- Intersection of Main Street and SR-15 ramps

The project area is shown in Figure 1.

FIGURE 1

Analyzed Intersections along 32nd Street and Main Street



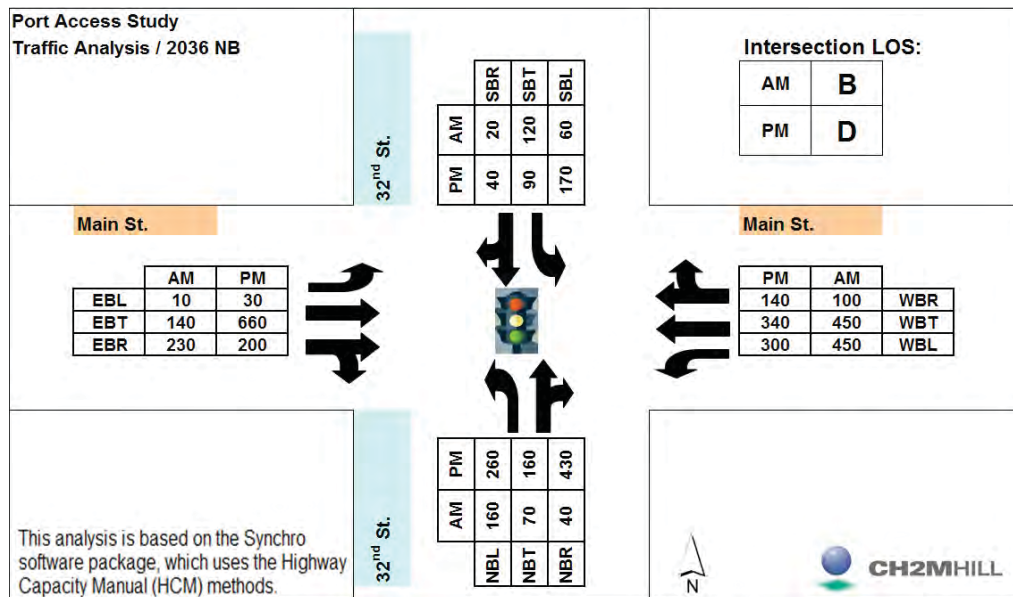
In addition, a fifth intersection is considered in this memorandum, which is the intersection of Main Street and Vesta Street. With the opening of a new gate to NBSD along Main Street at Vesta Street, traffic will be rerouted from the 32nd Street gate (Gate 6) and Norman Scott Road gate (Gate 43) to the newly opened gate (Gate 29). A proposed intersection configuration is presented in Section 6 that is anticipated to provide acceptable operations at this intersection.

3. Traffic Forecasting

Future traffic forecasts were developed for the study area for the horizon year 2036. The San Diego Association of Governments (SANDAG) regional model (Series 11, Revenue Constrained) was used. Future intersection turning movement counts (TMC) were developed based on existing traffic patterns and future growth factors obtained by comparing the SANDAG regional model to the Barrio Logan Community Plan Update forecasts, which were developed by the City of San Diego (City). With consultation and close coordination with the Caltrans Planning group, City of San Diego (including Kimley Horn and Associates as the City's consultant) and CH2M HILL, an annual growth factor, from one to three percent, was applied to the TMC at all intersections within the study area. There were no specific locations or turns that were subject to one percent and others that were subject to three percent. The forecasting effort was done in a way to balance between the various sets of future projected volumes (SANDAG, PORT assumptions, Barrio Logan volumes from City model, etc). The balanced final set that was a compromise between all volumes, and that also insured balanced volumes between intersections, compared to existing volumes showed growth factors that varied from one to three percent among the turning movements. The 2036 TMC for the No-Build alternative are shown in Figures 2 through 5 for the AM and PM peak periods.

FIGURE 2

Intersection of 32nd Street and Main Street - 2036 AM/PM Turning Movement Counts and LOS



Intersection of 32nd Street and Norman Scott Road - 2036 AM/PM Turning Movement Counts and LOS

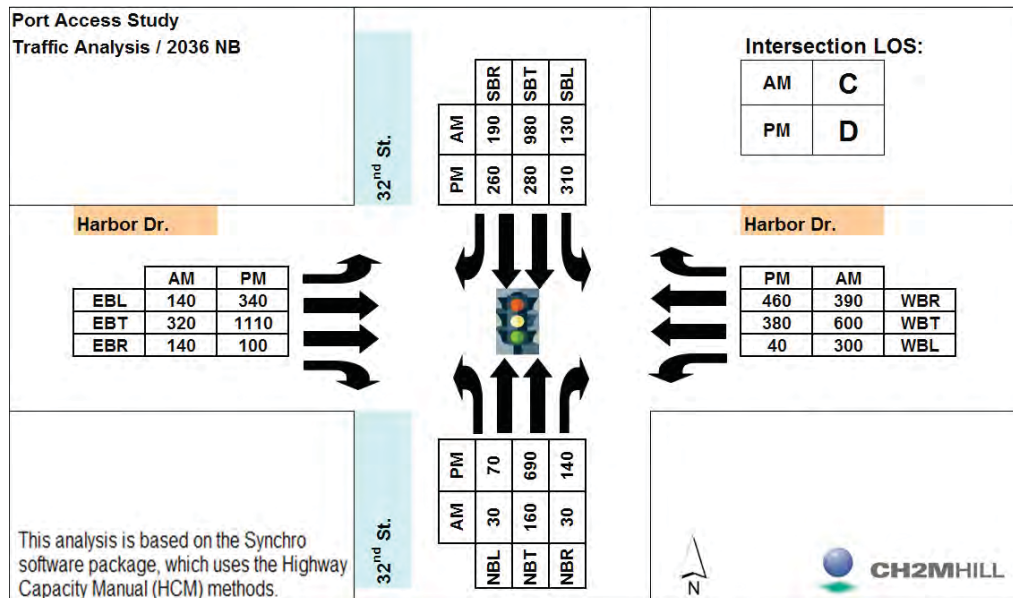
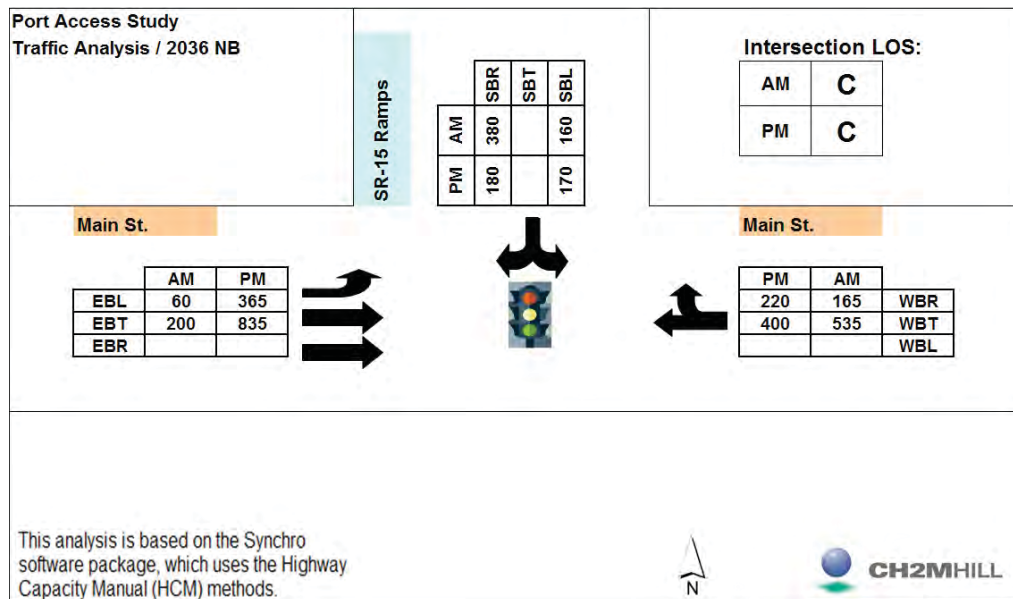


FIGURE 5

Intersection of Main Street and SR-15 Ramps - 2036 AM/PM Turning Movement Counts and LOS



4. Traffic Rerouting

The build alternative includes the direct EN connector ramp, the Vesta Street Bridge, and the opening of Gate 29 to NBSD for access via Main Street/Vesta Street. With those improvements in place, forecast volumes were rerouted to account for the network changes as part of the build scenario analysis. Assumptions were made to reroute a proportion of the NBSD traffic from the 32nd Street/Harbor Drive gate (Gate 6) and 32nd Street/Norman Scott Road gate (Gate 43) to use the proposed gate on Main Street (Gate 29). The assumptions were based on existing traffic patterns and on the Consultant's engineering judgment in coordination with Caltrans. The main assumptions are as follows:

- 1- Fifty percent of through traffic entering or exiting at Gate 6 from 32nd Street will be rerouted to Gate 29.
- 2- Fifty percent of the rerouted traffic from Gate 6 to Gate 29 will be assumed to turn left to get to the SR-15 ramps at Main Street, and the remaining fifty percent will be assumed to turn right to get to I-5 ramps at Main Street/Division Street.
- 3- Traffic from EB Harbor Drive to NB SR-15 will be rerouted on the proposed connector ramp, thus bypassing the intersections of 32nd Street / Harbor Drive and 32nd Street / Norman Scott Road. Two thirds of the left turn movement is assumed to use the connector while the remaining third will still make the left turn from EB Harbor Drive to NB 32nd Street.
- 4- Fifty percent of the traffic making a left turn into NBSD from SB 32nd Street to Norman Scott Road (Gate 43) will be rerouted to use Gate 29.

- 5- Fifty percent of the traffic making a right turn out of NBSD at Norman Scott Road to NB SR-15 (Gate 43) will be rerouted to use Gate 29.

The resulting TMCs at the intersections are presented in Figures 6 and 9.

FIGURE 6

Intersection of 32nd Street and Main Street - 2036 Build AM/PM Turning Movement Counts and LOS

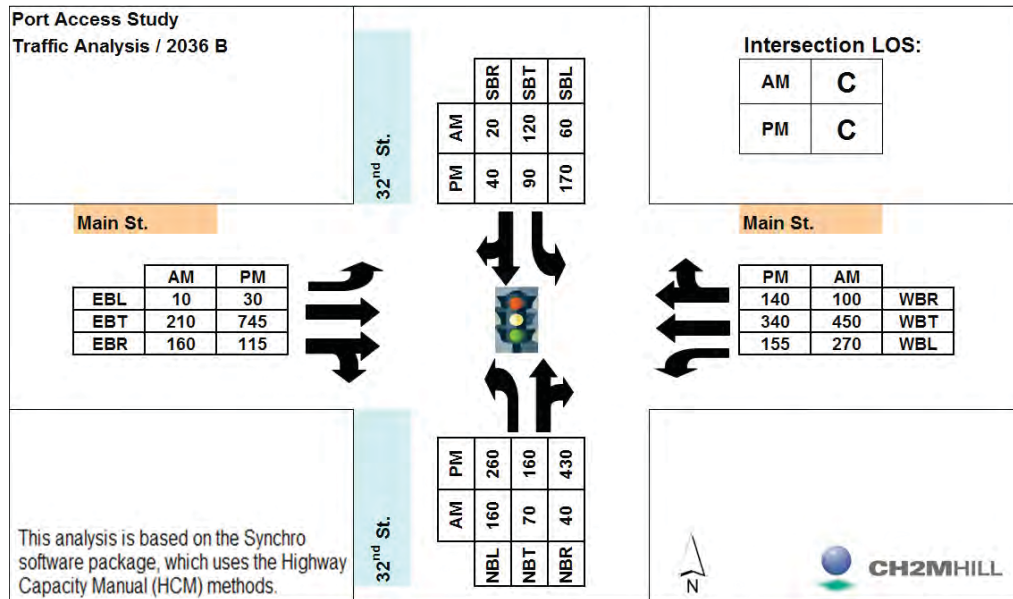


FIGURE 7

Intersection of 32nd Street and Norman Scott Road - 2036 Build AM/PM Turning Movement Counts and LOS

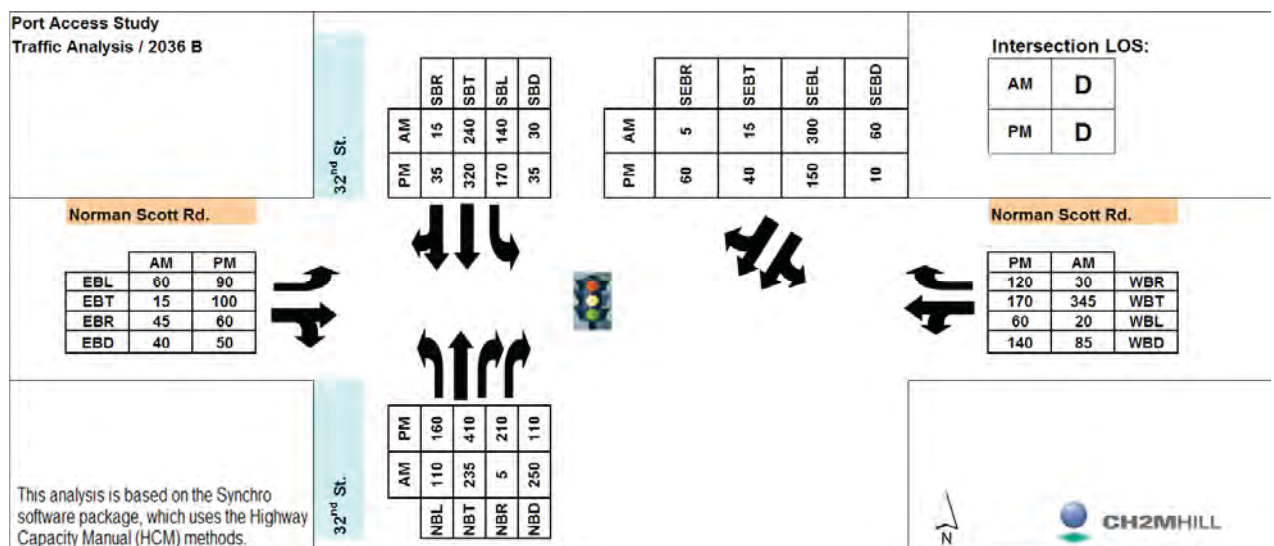


FIGURE 8

Intersection of 32nd Street and Harbor Drive – 2036 Build AM/PM Turning Movement Counts and LOS

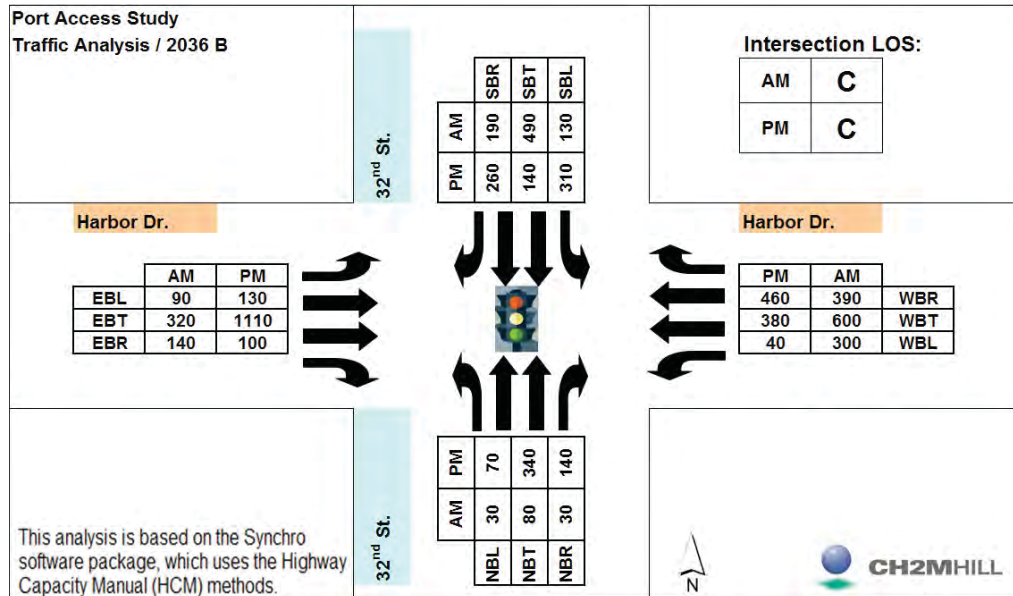
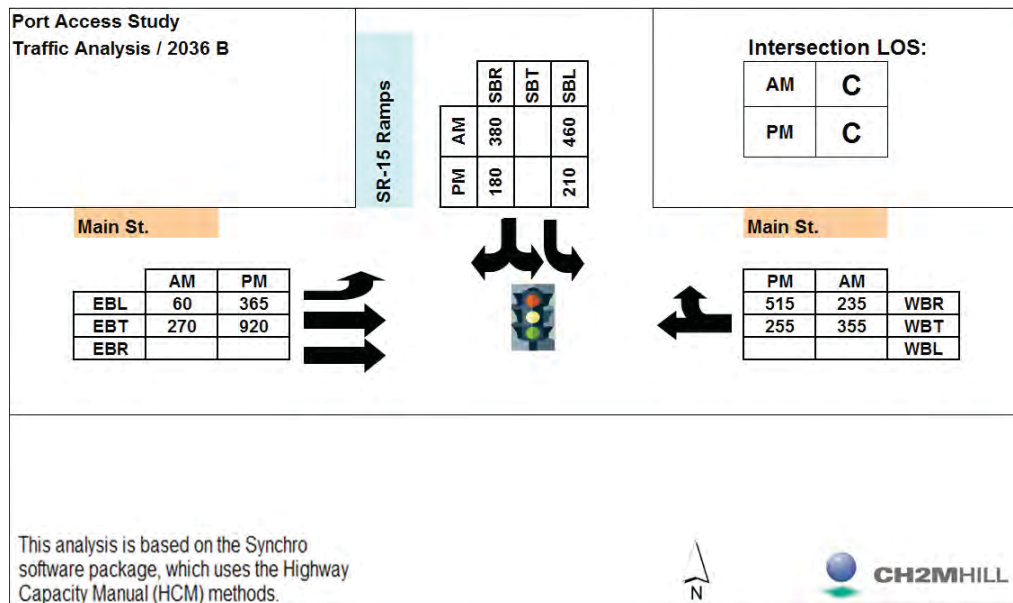


FIGURE 9

Intersection of Main Street and SR-15 Ramps - 2036 Build AM/PM Turning Movement Counts and LOS



5. Traffic Analysis

The traffic analysis was conducted using the forecast volumes presented in Sections 3 and 4. For the no-build scenario, the existing lane geometry/traffic control assumptions were used for all intersections. For the build scenario, one geometric improvement is proposed to the intersection of Main Street and SR-15 ramps. The improvement includes adding a separate left-turn/right-turn lane to the off-ramp from SR-15 to Main Street, as shown in Figure 10.

FIGURE 10

Intersection of Main Street and SR-15 Ramps – Existing and Proposed Geometric Configuration



Future morning and evening peak hour operating conditions were evaluated using the Synchro software, which includes methodologies that are consistent with the Highway Capacity Manual (HCM) methodologies. The results of the 2036 analyses for the no-build and build scenarios are summarized in Table 1.

TABLE 1

Intersection LOS and Delay for the 2036 Analysis Year

Study Intersection	AM Peak Hour				PM Peak Hour			
	No-Build		Build		No-Build		Build	
	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
32 nd Street / Harbor Drive	28	C	23	C	48	D	33	C
32 nd Street / Norman Scott	88	F	49	D	105	F	43	D
32 nd Street / Main Street	27	C	23	C	46	D	35	C
Main Street / SR-15 Ramps	20	C	23	C	22	C	21	C

¹ delay is expressed in seconds per vehicle

The intersection of 32nd Street and Norman Scott Road is anticipated to operate at an unacceptable level of service (LOS) F in the no-build scenario for both the AM and PM peak hours (acceptable LOS operations are LOS D or better, as per City's standards). Acceptable LOS operations are anticipated for all intersections with the proposed improvements for the

build scenario. With a direct connector from EB Harbor Drive to NB SR-15 and the opening of Gate 29 for NBSD access to Main Street/Vesta Street, average delay, in seconds per vehicle, at the intersection of 32nd Street and Norman Scott Road is decreased by more than 50 percent. Traffic operation at this intersection is improved from LOS F to LOS D for both peak hours. As to the intersection of Main Street and SR-15 Ramps, even though the traffic operations improvements are minimal, there are geometric benefits associated with the ramp improvements. Such improvements include added storage on the off-ramp and improved sight distance.

6. Main Street and Vesta Street Intersection

Currently, the intersection of Main Street at Vesta Street is a T-intersection with the south leg of Vesta Street closed to traffic. Main Street runs east-west while Vesta Street is north-south. The existing intersection configuration is shown in Figure 11.

FIGURE 11

Existing Configuration of the Main Street / Vesta Street Intersection



The build improvements include opening Gate 29 on the south leg of Vesta Street at the intersection with Main Street. Traffic rerouted from other gates will use Gate 29 to enter and exit NBSD. Improvements to the current intersection configuration will be required to accommodate additional traffic in and out of NBSD. The suggested intersection improvements, which are shown in Figure 12, include the following:

- 1- Providing a right-turn pocket lane along EB Main Street to serve traffic exiting SR-15 at Main Street and entering NBSD
- 2- Extending the left-turn pocket lane along WB Main Street to serve traffic entering NBSD
- 3- Providing a left-turn pocket lane along NB Vesta Street and a shared through-right lane
- 4- Providing a left-turn pocket lane along SB Vesta Street, which would result in the loss of a few street parking spaces along Vesta Street adjacent to the intersection

FIGURE 12

Proposed Configuration of the Main Street / Vesta Street Intersection



The intersection 2036 TMC were derived based on previously collected data at the intersection of Main Street and SR-15 ramps, which provided traffic volumes for the east-west movements along Main Street. In addition, traffic turning counts were collected at this intersection for a 15-min period on August 27, 2010. The collected data was then multiplied by four to get the hourly data. The volumes were projected and balanced with the 2036 Main Street data to get the final balanced intersection TMC, which are presented in Figures 13 and 14 for the no-build and build scenarios, respectively.

FIGURE 13

Intersection of Main Street and Vesta Street - 2036 AM/PM Turning Movement Counts and LOS

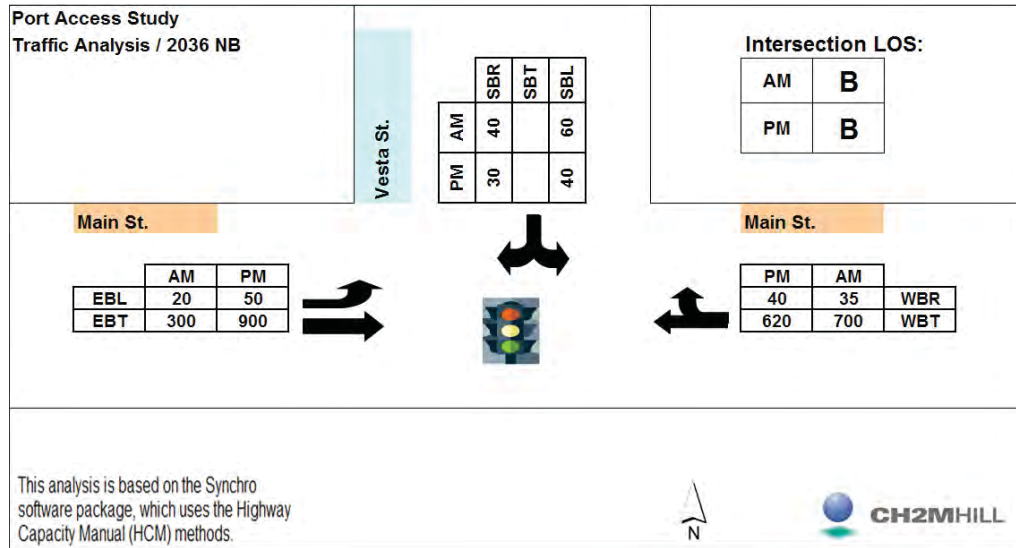
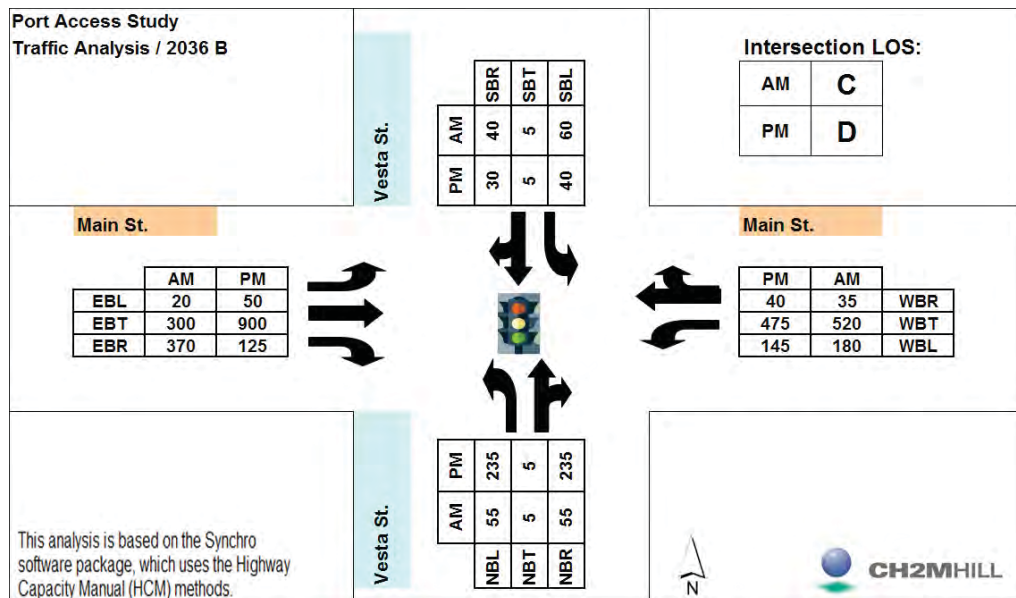


FIGURE 14

Intersection of Main Street and Vesta Street - 2036 Build AM/PM Turning Movement Counts and LOS



Future morning and evening peak hour operating conditions were also evaluated using the Synchro software. The results of the 2036 analysis for the no-build and build scenarios are summarized in Table 2 for the intersection of Main Street and Vesta Street.

TABLE 2

Intersection LOS and Delay for the 2036 Analysis Year

Study Intersection	AM Peak Hour				PM Peak Hour			
	No-Build		Build		No-Build		Build	
	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
Main Street / Vesta Street	11	B	31	C	16	B	51	D

¹ delay is expressed in seconds per vehicle

The intersection of Main Street and Vesta Street is anticipated to operate at LOS D in 2036 with the suggested improvements. Based on a Caltrans criterion of LOS D, the operations at the intersection will still be acceptable. The improvements were selected in a way that no road widening would be needed but would result in the loss of a few street parking spaces along Main Street and Vesta Street adjacent to the intersection.

7. Conclusion

This memo presents the operational effects of the EN Connector Alternative improvements at the 32nd Street project area. The City of San Diego's standard for peak hour intersection operations is LOS D. With the suggested improvements and traffic rerouting due to recently opening Gate 29 at Vesta Street for Naval Base San Diego access, all intersections will operate at LOS D or better during both peak periods in 2036. Also, Gate 6 at Harbor Drive / 32nd Street intersection was recently reconstructed moving the gate further away from Harbor Drive. Note that the assumptions made in this memo regarding traffic rerouting were based on existing gate locations. Future improvements to and relocation of gates at the NBSD would likely warrant different assumptions.

ATTACHMENT H
SANDAG BAYSHORE BIKEWAY PROJECT MAP (EXTRACT)

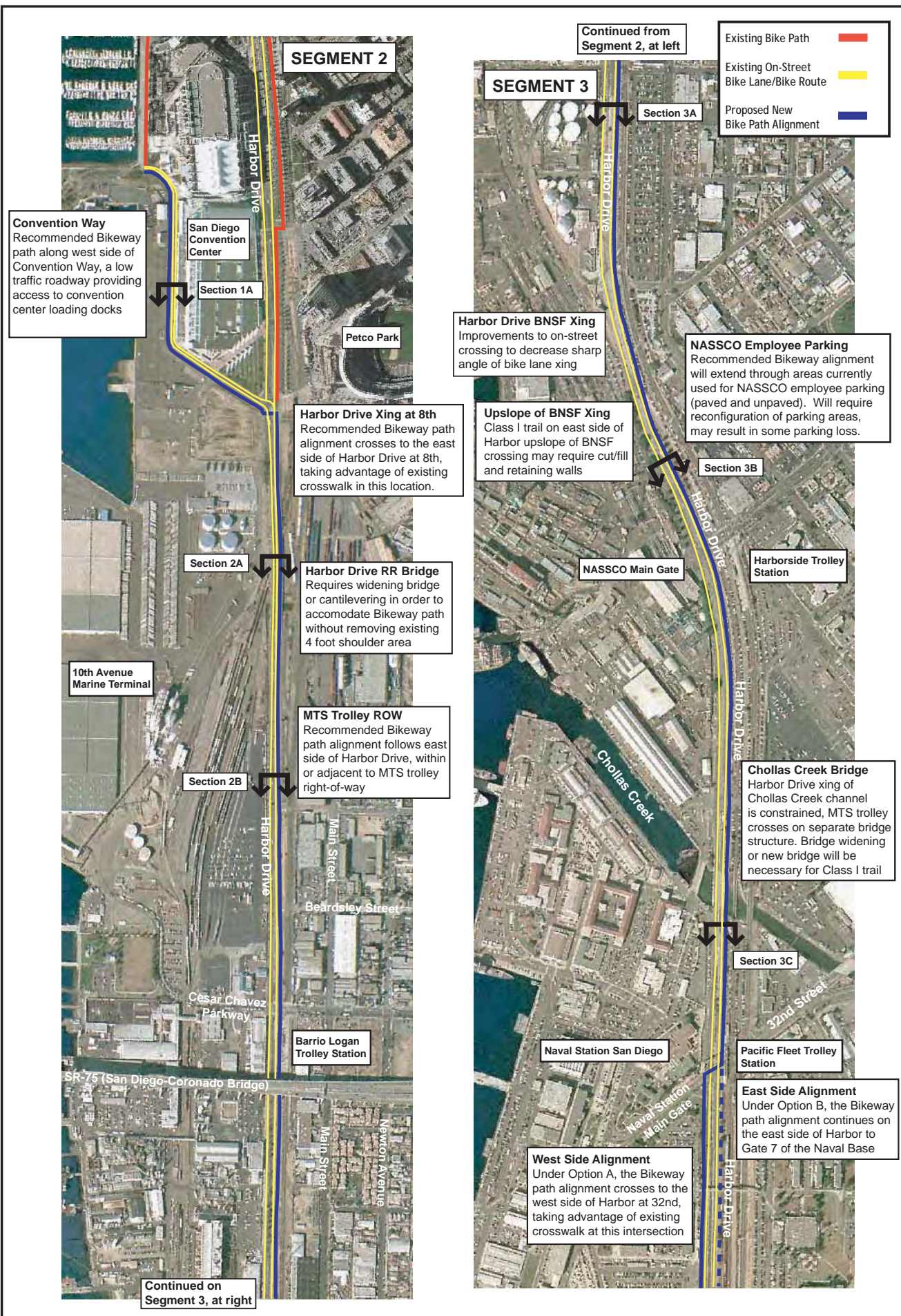


FIGURE
5-3

San Diego Convention Center to
National City Limit

STUDY SEGMENTS
2 and 3

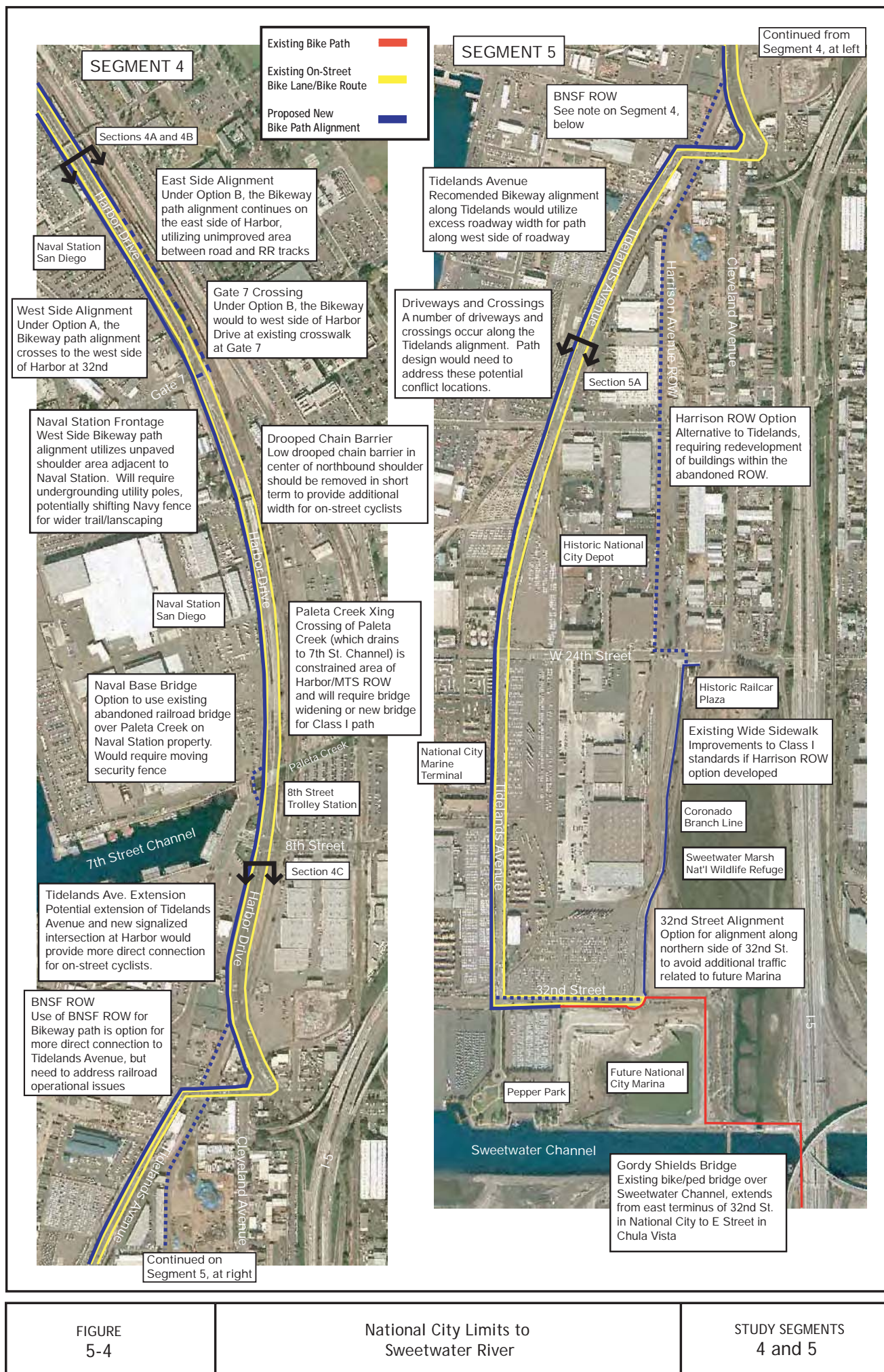
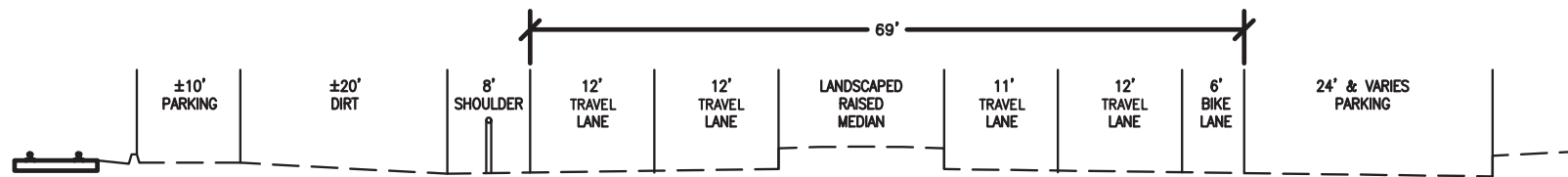


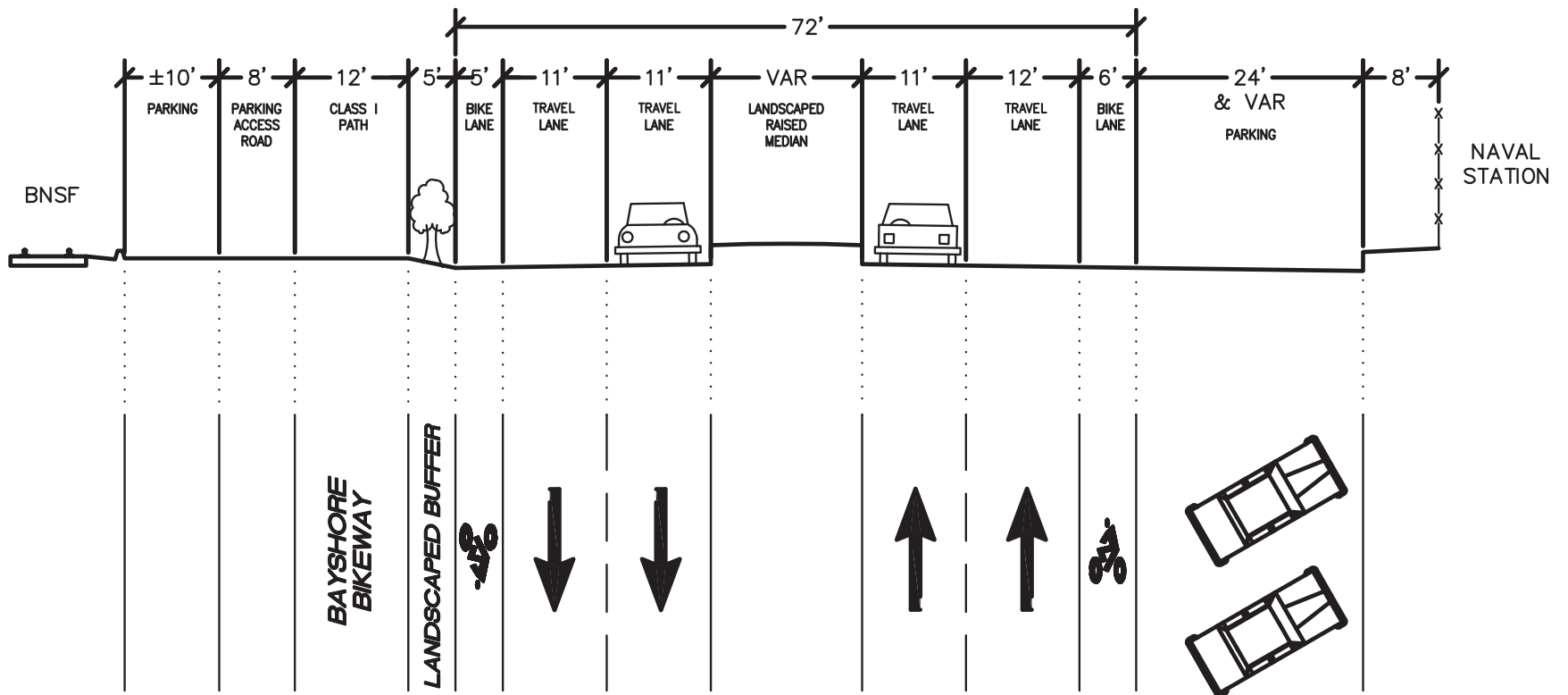
FIGURE 5-4

National City Limits to Sweetwater River

STUDY SEGMENTS 4 and 5

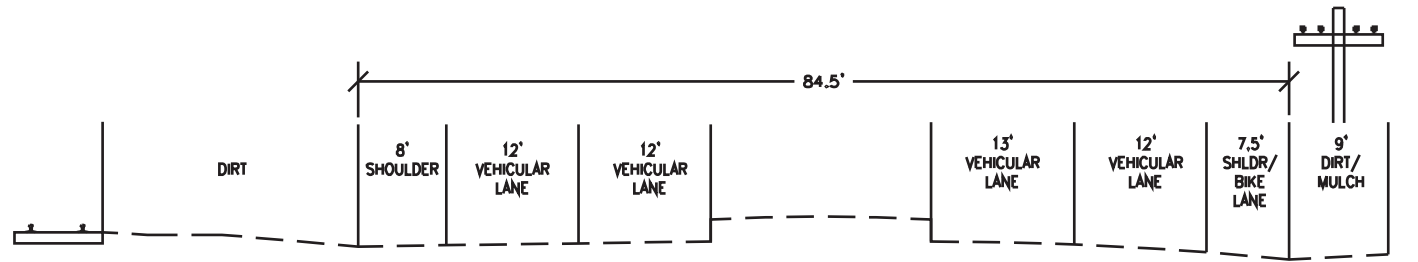


EXISTING CROSS SECTION

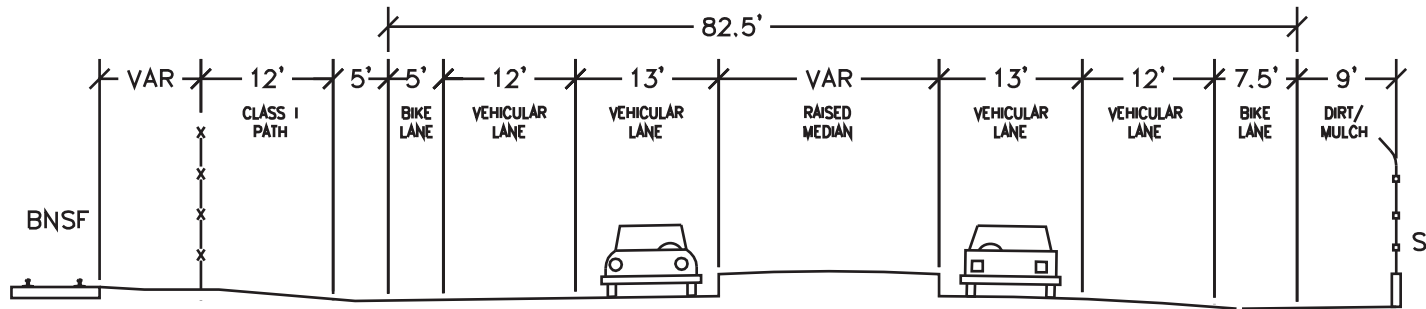


PROPOSED LAYOUT

FIGURE	SECTION	LOCATION	FACING
5-15	3C	Harbor Drive north of 32nd Street	South



EXISTING CROSS SECTION



LANDSCAPED BUFFER/
SETBACK FROM RAILROAD

BAYSHORE
BIKEWAY

LANDSCAPED BUFFER



PROPOSED LAYOUT

FIGURE	SECTION	LOCATION	FACING
5-17	4B	Option B, East Side: Harbor Drive south of 32nd Street	South

ATTACHMENT I
PRELIMINARY ENVIRONMENTAL ASSESSMENT REPORT (PEAR)



PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 11	County SD	Route 15	PM R0.4 to 0.5	EA 1100000374
Project Title: <i>Brief descriptive phrase, e.g., CAPM, Curve Re-alignment, Passing Lane, etc.</i> 32 nd Street and Vesta Street Improvements				
Project Manager Michael Webster			Phone # 619-491-6090	
Project Engineer Carlos Cortez			Phone # 619-688-3298	
Environmental Office Chief/Manager Kevin Hovey			Phone # 619-688-0240	
PEAR Preparer Patrick Coyne			Phone # 619-688-6891	

2. Project Description

Purpose and Need

Write a concise statement of the project purpose and need. It should be consistent with the purpose and need statement in the PSR.

To improve trade corridor mobility from the Port's Marine Terminals at 10th Avenue and National City in providing a more direct connection to the interregional freeway network I-5 and I-15, configured to divert trucks away from adjacent neighborhoods.

Description of work

Write a brief summary of the proposed work that will be done. Include work required that is incidental to the project, such as: access roads, utility relocation, de-watering, etc

Direct connector ramps to and from Harbor Drive connecting to Interstate 15, Vesta Street Bridge interconnecting the dry and wet side of the Naval Base San Diego and operation improvements along 32nd Street, Harbor Street and Main Street. Project scope was reduced based on available funding and schedule constraints

Alternatives

Identify all project alternatives (including no-build). If alternatives are no longer being considered, state why. Do not select or identify a preferred alternative. Describe each alternative still under consideration.

This project includes a build and no build alternative. The build alternative may be broken down into 3 separate construction phases, the environmental document will cover the entire footprint but discuss the work to be completed for each phase.

3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	<input type="checkbox"/>		
Categorical Exemption	<input type="checkbox"/>	Categorical Exclusion	<input type="checkbox"/>
Environmental Document			
Initial Study or Focused Initial Study with Negative Declaration or Mitigated ND	<input checked="" type="checkbox"/>	Environmental Assessment with Finding of No Significant Impact	<input checked="" type="checkbox"/>
Environmental Impact Report	<input type="checkbox"/>	Environmental Impact Statement	<input type="checkbox"/>
CEQA Lead Agency (if determined):		California Department of Transportation	
Estimated length of time (months) to obtain environmental approval:		48-60 months	
Estimated person hours to complete identified tasks:		9898	

4. Special Environmental Considerations

For each viable alternative, summarize below any special processes such as NEPA/404, seasonal constraints, Section 7, Section 4(f) that may affect project delivery and require unusual, exceptional, or extended environmental processes.

Each alternative except for the No Build alternative will require Section 7 consultation and a section 4(f) evaluation due to the proximity of the park adjacent to the project.

5. Anticipated Environmental Commitments

For each viable alternative, prepare briefly summarize the anticipated environmental commitments by impacted resource. If commitments have been made, include a copy of the ECR. For standard PSRs, include a cost estimate for each environmental commitment. Include the total cost of all environmental commitment costs in Item 8. PSR Summary Statement below. Reference PEAR Environmental Commitments Cost Estimate.

There is a potential for mandatory avoidance of Chollas Creek due to the designation from the FEMA FIRM mapping, with no allowable encroachment.

If soil and groundwater are found to be hazardous, they shall be managed and remediated/disposed in accordance with applicable Federal, State and Local hazardous waste regulatory requirements.

6. Permits and Approvals

Include timelines for acquiring permits or agreements. Reference PEAR Environmental Commitments Cost Estimate.

Due to the potential impacts there will be various permits needed such as the Section 404 (Nationwide), Section 401 Water Quality Permit, Section 10 Rivers and Harbors Act Permit, Coastal Development Permit, Magnuson-Stevens Act Essential Fish Habitat, Federal Endangered Species Act Section 7 Consultation and a Section 1602 Streambed Alteration Permit. Project will also require a permit to enter for the Port.

7. Level of Effort: Risks and Assumptions

See Section 5.2 PEAR Handbook regarding important considerations that can affect the level of effort and resources needed not only for the environmental document but also for the PEAR scoping document.

Coordination with another Federal agency (Navy) could create additional review, in turn slowing the PA&ED phase.

Hazardous materials have a high potential to be present in the project footprint, this could substantially increase construction cost due to regulations Federal and State requirements of disposal.

Federally endangered species in the project footprint will require Section 7 consultation.

8. PEAR Technical Summaries

Use brief paragraphs focused on topics that will need environmental review. Indicate the absence of issues to document that they were considered. Refer to the Environmental Studies Checklist when preparing the following summaries. Make a separate statement for each viable alternative. See the PEAR Handbook Exhibit 3 for examples. These paragraphs should be based upon the technical summary provided by each specialist to the generalist who is writing the PEAR.

8.1 Land Use: Covered in section 8.4 Community Impacts (see below).

8.2 Growth: No impacts anticipated

8.3 Farmlands/Timberlands: No impacts anticipated

8.4 Community Impacts: Potential impacts may include the following: parking impacts, changes in land use, temporary impacts to public service delivery (police, fire ambulance, etc) during construction, temporary detours and/or ramp closures that may impact the flow of traffic and access to the trolley. Public outreach needs to occur to minimize permanent and temporary impacts that may result from construction staging and detours.

A community impact assessment and parking study will be necessary to fully evaluate potential community impacts as part of the environmental process.

8.5 Visual/Aesthetics: A Visual Impact Assessment will be necessary to determine the impacts of this project, which includes 3 structures. Impacts to the existing views are anticipated and mitigation measures will be proposed.

The local agency may require landscape, streetscape and urban design features. Implementation of complete street elements will be expected. 5-10% of the total project costs will be used for landscape aesthetic and urban design features necessary for mitigation of impacts and implementation of the Complete Street Policy.

8.6 Cultural Resources: An Archaeological Survey Report (ASR) has been prepared for this project. This report identifies the prehistoric archaeological resources within the project area and discusses the potential for buried prehistoric archaeological deposits. A Historical Resources Evaluation Report (HRER) will need to be completed to address the historic

structures and features as well as potential historic archaeology within the project area. Compliance with Section 106 will include the completion of a Historic Property Survey Report (HPSR). A Paleontological Assessment will need to be completed to address possible impacts to these non-renewable resources. Based on the studies and reports needed, the Standard Environmental Reference estimates the time for completion to be "Average."

- 8.7 Hydrology and Floodplain: The proposed bridge structure will have some encroachments into the Chollas Creek Flood Control Channel. The FEMA FIRM map number 06073C1903 identifies Chollas Creek as a Zone AE Floodway upstream of the project site within the city of National City. As Defined in the Standard Environmental Reference Chapter 17, a Location Hydraulic Study is required due to floodplain impacts. However, since this project is located on a military base there are no FEMA studies or mapping available at the proposed project location. Coordination with the military should be done early to determine their policies and procedures for studying floodplain impacts on a military base.
- 8.8 Water Quality and Storm Water Runoff: In May 2007 the Department of Transportation revised the Project Planning and Design Guide (PPDG) to assist Department staff to better understand the requirements of the statewide National Pollutant Discharge Elimination System (NPDES) Permit and the Storm Water Management Plan. The PPDG provides specific design guidance for incorporating Best Management Practices (BMPs) into projects in both San Diego and Imperial counties during the planning and design phases of a project. These include Treatment BMP, Design Pollution Prevention BMPs, and critical Construction site BMPs.

The PPDG also contains checklists, decision trees, and a format for a new Storm Water Data Report (SWDR). The preparation of a Storm Water Data Report became mandatory for all projects advertised after January 1, 2003. The Storm Water Data Report summarizes the information found in the checklists, and shall be initiated during the Project Initiation Document (PID) process, updated during the Project Approval/ Environmental Document (PA/ED) process, and finalized during the Plans, Specifications, and Estimates (PS&E) process.

According to the District NPDES database there is no record of a Storm Water Data Report for the above listed EA. A Storm Water Data Report must be reviewed and approved at each phase of project development.

- 8.9 Geology, Soils, Seismic and Topography: Possible liquefiable soil.
- 8.10 Paleontology: A Paleontological Assessment will need to be completed to address possible impacts to these non-renewable resources
- 8.11 Hazardous Waste/Materials: An initial site assessment report in the site vicinity indicated that the area has been used for industrial purposes since the early 1900s. There is a potential for encountering contaminated soil and/or groundwater at the subject property due to historical activities onsite and at adjacent properties. Soil and groundwater in the areas of proposed excavations shall be characterized through sampling to rule out the possibility of hazardous contaminations (potential contaminants may include total petroleum hydrocarbons, volatile organic compound, semi-volatile organic compounds, polychlorinated biphenyls, lead and metals). Avoidance of contaminated soil may not be

possible due to the wide spread past industrial uses. Thus the alternatives may be affected equally. If soil and groundwater are found to be hazardous, they shall be managed and remediated/disposed in accordance with applicable Federal, State and Local hazardous waste regulatory requirements.

The Cost of a site assessment may range from \$150,000 to \$250,000. Assuming that the soil and groundwater to be excavated is impacted by the compounds mentioned above, project hazardous waste remediation costs can range from \$1,500,000 to \$2,500,000, for scheduling purposes a year would be necessary to perform the site assessment and remedial activities.

- 8.12 Air Quality: Supporting documentation for exempt project (Table 2 – Safety; Railroad/Highway Crossing)
- 8.13 Noise and Vibration: Project is a Type-1 Project, therefore it would necessitate a Noise Study Report (NSR), if there are noise impacts a Noise Abatement Decision Report (NADR) would be required for abatement considerations. Receptors adjacent to the project include industrial businesses and a park.
- 8.14 Energy and Climate Change: No impacts anticipated, project is not considered a “Major Project” per the Standard Environmental Reference Chapter 13.
- 8.15 Biologic al Environment: The required studies are as follows; Wetlands and Waters of the United States Delineation, Eelgrass Mapping, determination of least tern foraging within project area and invasive species presence determination. Due to the location of the project it will require coordination several regulatory agencies; USFWS for a list of potentially occurring threatened and endangered species, NOAA for list of potentially occurring threatened and endangered species, NOAA-Fisheries for essential fish habitat, Regional Water Quality Board, U.S. Army Corps of Engineers, and California Department of Fish and Game. Due to the potential impacts there will be various permits needed such as the Section 404 (Nationwide), Section 401 Water Quality Permit, Section 10 Rivers and Harbors Act Permit, Coastal Development Permit, Magnuson-Stevens Act Essential Fish Habitat, Federal Endangered Species Act Section 7 Consultation and a Section 1602 Streambed Alteration Permit. It is estimated that 900 hours will be necessary to address biological issues through PA/ED.
- 8.16 Cumulative Impacts: No impacts anticipated.
- 8.17 Context Sensitive Solutions: Coordination with resource agencies shall occur to assure facilities and activities are in harmony with the surrounding environment. Communities are to have the opportunity to be actively involved. Context sensitive commitments shall be sustained, as warranted, as a project moves through the environmental approval process.

9. Summary Statement for PSR or PSR-PDS

For each practicable alternative write a brief summary of key environmental issues, studies required, permits, and anticipated environmental commitments for permanent impacts. Include a time and potential constraints or special considerations, such as construction windows, biological monitoring, Native American monitoring, acquisition of Permits to Enter, etc. For a standard PSR, include cost estimates for environmental permits and commitments. This statement will go directly into the PSR or PSR-PDS.

The proposed project is scoped as an IS/EA for the build alternative, special consideration should be made for hazardous materials present in the project footprint. Coordination with another federal agency (Navy) is expected and shall be done as early as possible to determine Caltrans as the lead agency for NEPA and CEQA. Permits possibly required are as follows; Section 404 (Nationwide), Section 401 Water Quality Permit, Section 10 Rivers and Harbors, Coastal Development Permit, Magnusin-Stevens Act, Section 7 Consultation and 1602 Streambed Alteration.

10. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

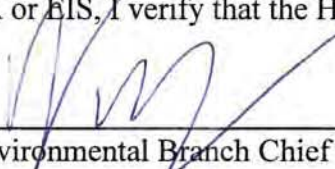
11. List of Preparers

Cultural Resources specialist Karen C. Crafts	Date: 2/28/11
Biologist Robert A. James	Date: 3/7/11
Community Impacts specialist Michelle Trudell	Date: 3/10/11
Noise and Vibration specialist Jayne Dowda	Date: 3/8/11
Air Quality specialist Jayne Dowda	Date: 3/8/11
Paleontology specialist/liaison Karen C. Crafts	Date: 2/28/11
Water Quality specialist Giao Hoang	Date: 3/9/11
Hydrology and Floodplain specialist Tim Brownson	Date: 4/8/11
Hazardous Waste/Materials specialist Joel Kloth	Date: 3/15/11
Visual/Aesthetics specialist Carol Callejon	Date: 3/3/11

Energy and Climate Change specialist N/A	Date:
PEAR Preparer (Name and Title) Patrick Coyne Environmental Planner	Date: 4/11/11

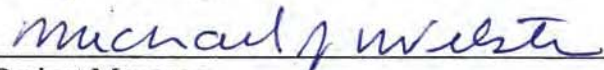
12. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as an EA or EIS, I verify that the HQ DEIA Coordinator has concurred in the Class of Action.



Environmental Branch Chief

Date: 4/25/11



Project Manager

Date: 4/26/11

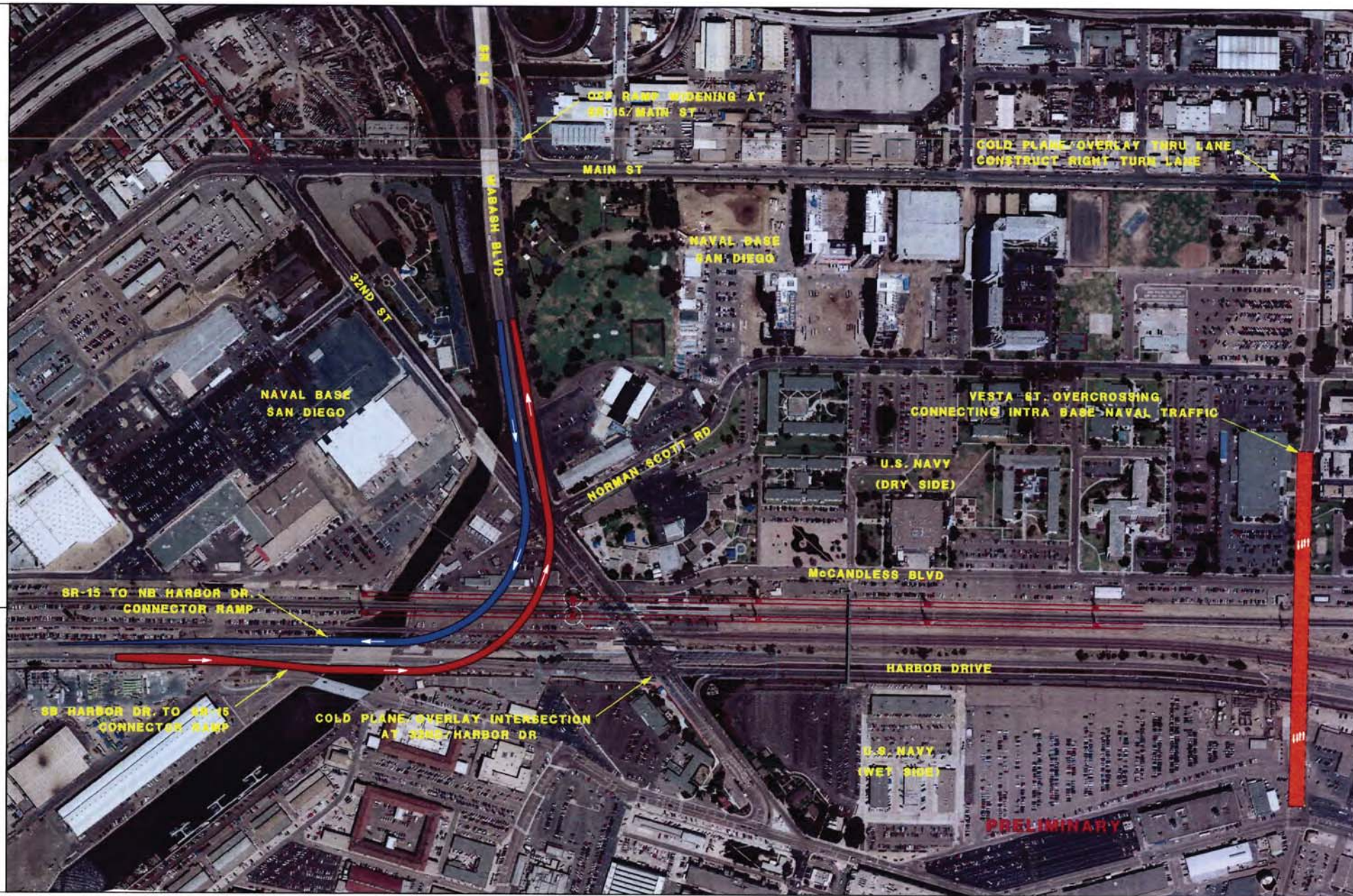
REQUIRED ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist

Attachment B: Estimated Resources by WBS Code

Attachment C: Schedule (Gantt Chart)

Attachment D: PEAR Environmental Commitments Cost Estimate (Standard PSR)

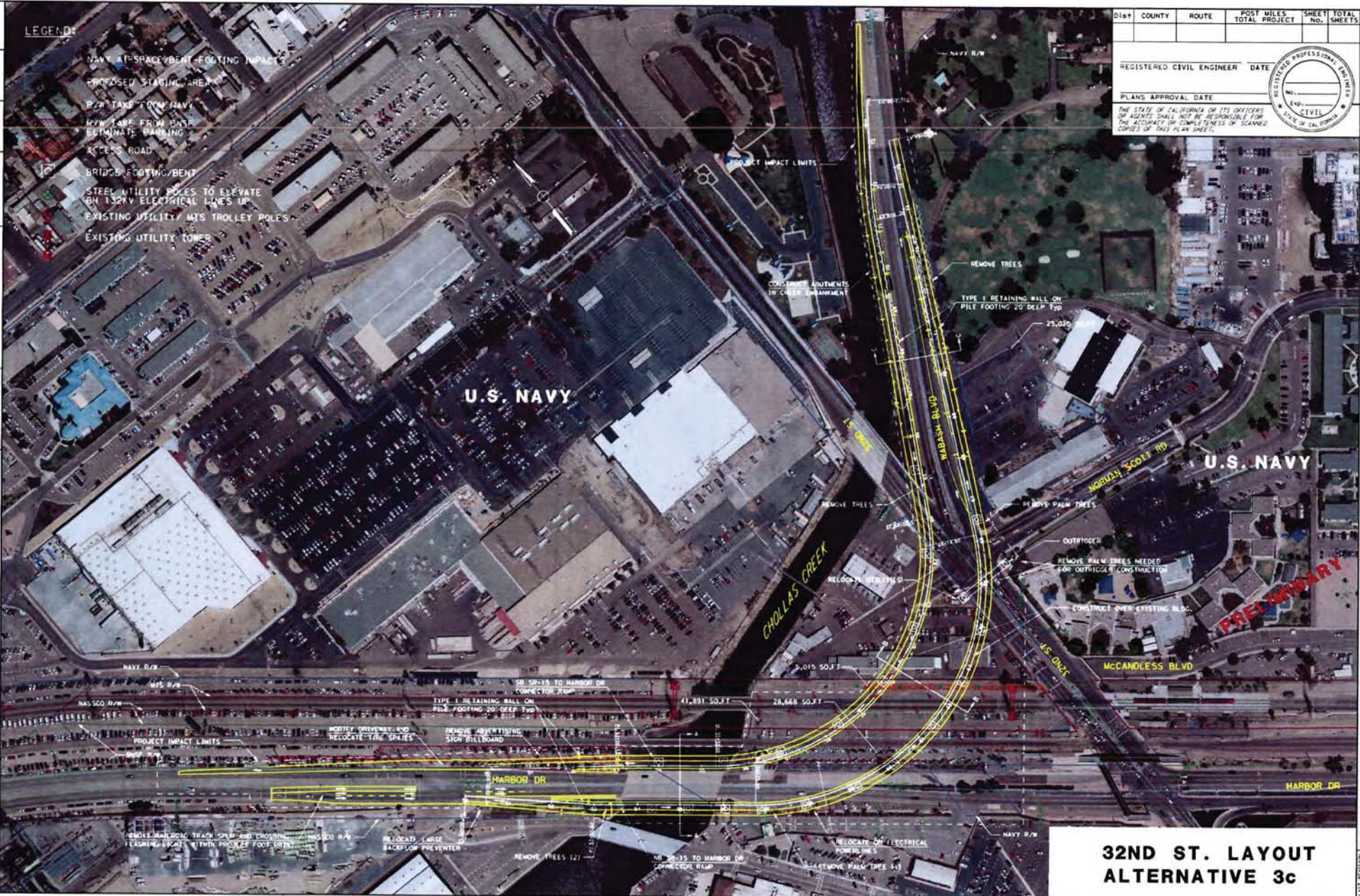


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISOR BY
 DATE REVISOR
 CALCULATED BY
 DESIGNED BY
 CHECKED BY

LEGEND:

- NAVY AIRSPACE/BENT FOOTING IMPACTS
- PROPOSED STAGING AREA
- R/W TAKE FROM NAVY
- R/W TAKE FROM CNR
- ELIMINATE HARBOR
- ACCESS ROAD
- BRIDGE FOOTING/BENT
- STEEL UTILITY POLES TO ELEVATE 6H 132KV ELECTRICAL LINES UP
- EXISTING UTILITY/ MTS TROLLEY POLES
- EXISTING UTILITY TOWER



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE _____

PLANS APPROVAL DATE _____

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA

**32ND ST. LAYOUT
 ALTERNATIVE 3c**

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE
 15 IN INCHES

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 DGN FILE -> REQUEST

CU 00000 EA 000000

DATE PLOTTED -> BLUE
 00-00-00 TIME PLOTTED -> BLUE

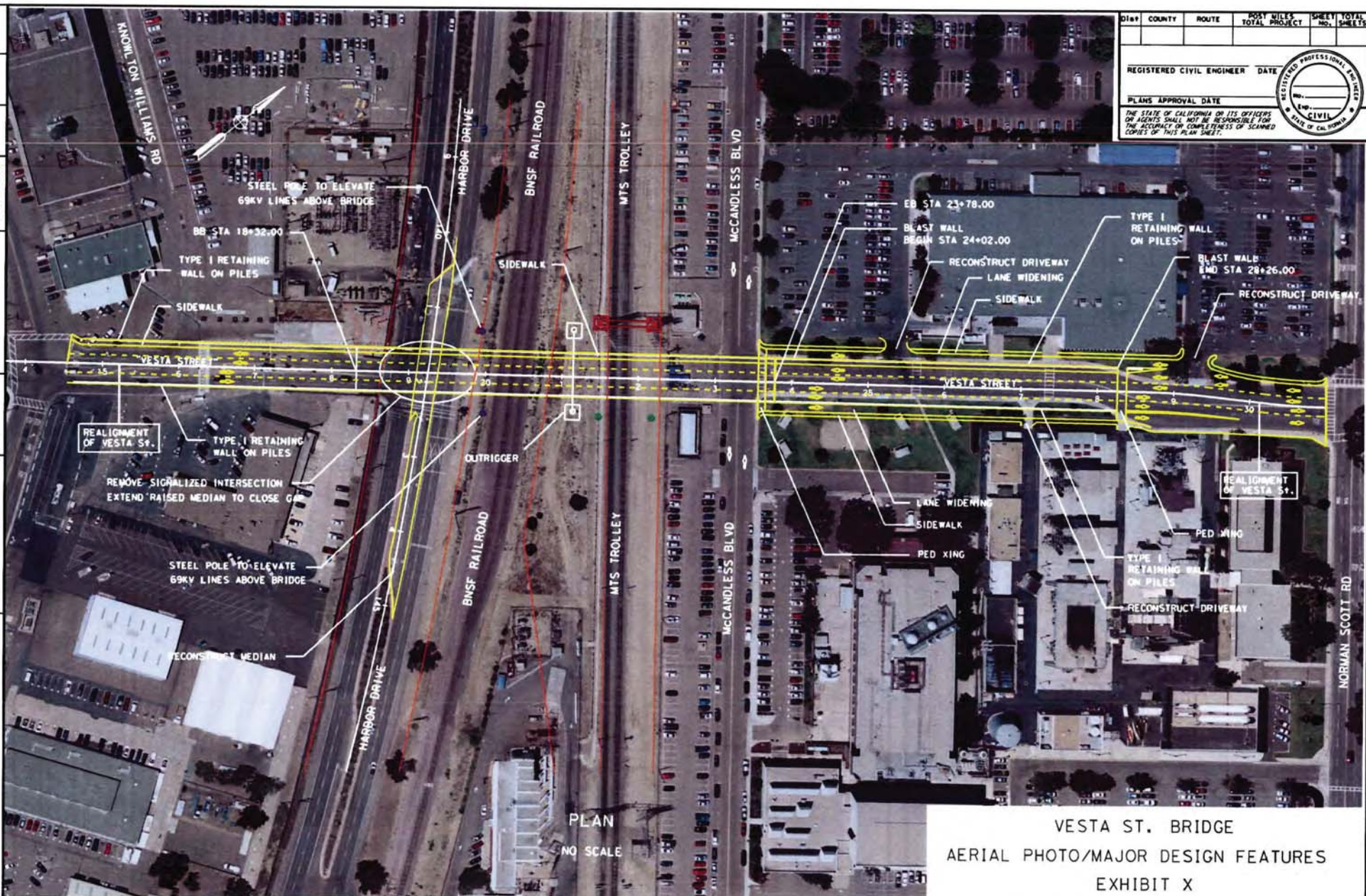
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

REVISIONS
 REVISED BY
 DATE REVISED

CALCULATED BY
 DESIGNED BY
 CHECKED BY

FUNCTIONAL SUPERVISOR

DATE PLOTTED
 TIME PLOTTED



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 STATE OF CALIFORNIA

VESTA ST. BRIDGE
 AERIAL PHOTO/MAJOR DESIGN FEATURES
 EXHIBIT X

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE 15 IN INCHES



USERNAME → USER
 DON FILE → REQUEST

CU 00000

EA 000000

DATE PLOTTED 03-04-11 TIME PLOTTED 03:07PM

Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Growth	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Farmlands/Timberlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Community Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Community Character and Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Relocations	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Environmental Justice	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Utilities/Emergency Services	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Visual/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Property Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Historic Resource Compliance Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Section 106 / PRC 5024 & 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Finding of Effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Data Recovery Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Memorandum of Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Hydrology and Floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Water Quality and Stormwater Runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Geology, Soils, Seismic and Topography	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Paleontology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
PER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
PMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Hazardous Waste/Materials:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
PSI	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	H	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Air Quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	L	
Noise and Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Energy and Climate Change	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Section 7:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Formal	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Informal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
No effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L	
USFWS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
NMFS Consultation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	
Species of Concern (CNPS, USFS, BLM, S, F)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	L	

Environmental Studies for PA&ED Checklist

	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Wetlands & Other Waters/Delineation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
404(b)(1) Alternatives Analysis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Invasive Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Coastal Management Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
HMMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
DFG Consistency Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
2081	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Cumulative Impacts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Context Sensitive Solutions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Section 4(f) Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Permits:					
401 Certification Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
404 Permit Coordination, IP, NWP, or LOP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
1602 Agreement Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Local Coastal Development Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
State Coastal Development Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
NPDES Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	

ATTACHMENT B - Resources by WBS Code

EA:	NOTE: This WBS resource estimating tool is for Generalist use ONLY when a district-specific WBS estimating tool is not available. Check with your supervisor before using this form.														
Description:	WBS current 11/2008														
Assigned Unit	Senior	Generalist	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Landscape	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Project Management															
100.05.05 – Project Init. & Ping							40					40			0
100.05.10 – PID Cmpnt Exec. & Ctrl												0			0
100.05.15 – PID Cmpnt Closeout												0			0
100.10.05 – PA&ED Cmpnt Init. & Ping							20					20			0
100.10.10 – PA&ED Cmpnt Exec. & Ctrl			40									40			0
100.10.15 – PA&ED Cmpnt Closeout							20					20			0
100.10.20 – Project Shelving (PA&ED)												0			0
100.10.25 – Project Unshelving (PA&ED)												0			0
100.10.30 – Updd Admtv Rec during PA&ED												0			0
100.10.35 – Execd Coop Agre for PA&ED Process												0			0
100.15.05 – PS&E Cmpnt Init. & Ping												0			0
100.15.10 – PS&E Cmpnt Exec. & Ctrl												0			0
100.15.15 – PS&E Cmpnt Closeout												0			0
100.15.20 – Project Shelving (PS&E)												0			0
100.15.25 – Project Unshelving (PS&E)												0			0
100.15.30 – Updd Admtv Rec during PS&E												0			0
100.15.35 – Execd Coop Agre for PS&E Process												0			0
100.20.05 – Const Cmpnt Init. & Ping												0			0
100.20.10 – Const Cmpnt Exec. & Ctrl												0			0
100.20.15 – Const Cmpnt Closeout												0			0
100.20.20 – Project Shelving (Construction)												0			0
100.20.25 – Project Unshelving (Construction)												0			0
100.20.30 – Updd Admtv Rec during Const												0			0
100.20.35 – Execd Coop Agre for Const Process												0			0
100.25.05 – R/W Cmpnt Init. & Ping												0			0
100.25.10 – R/W Cmpnt Exec. & Ctrl												0			0
100.25.15 – R/W Cmpnt Closeout												0			0
100.25.20 – Project Shelving (Right of Way)												0			0
100.25.25 – Project Unshelving (Right of Way)												0			0
100.25.30 – Updd Admtv Rec during R/W												0			0
100.25.35 – Execd Coop Agre for R/W Process												0			0
100.25.50 – Execd Coop Agre for R/W Rlnmnt												0			0
Total Project Management	0	0	40	0	0	0	80		0	0	0	120			
150 Develop Project Initiation Document			64									64			
Perform Preliminary Engineering Studies and Prepare Draft Project Report															
160.05.05 – Approvd PID Review							8					8			0
160.05.10 – Geotechnical Information Review												0			0
160.05.20 – Traffic Data & Forecasts Review												0			0
160.05.30 – Project Scope Review												0			0
160.10.20 – Value Analysis												0			0
160.10.25 – Hydraulics/Hydro Study												0			0
160.10.30 – Hwy Planting Des Concepts												0			0
160.15.20 – Draft Project Report												0			0
160.15.25 – Draft PR Circ. Rev & App			24				8					32			0
160.30.05 – Maps for ESR												0			0
160.30.10 – Surveys/Maps for Env Studies												0			0
160.30.15 – Prop Access Rights for Env/Eng Studies												0			0
160.40 – NEPA Delegation												0			0
Total Prelim Eng Studies	0	0	24	0	0	0	16		0	0	0	40			

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Landscape	Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Perform Environmental Studies and Prepare Draft Environmental Document															
165.05 Preform Env Scoping and Aits Review	20	200										220			
165.05.05 – Project Information Review	22	220		20	20	28	20	20	56			406			0
165.05.10 – Pub & Agency Scoping	20	200				28						248			0
165.05.15 – Aits for Further Study	18	180				8						206			0
165.05.20 – Prepare maps for furter Env Evaluation	6	60				6									
165.10.05 – Perform Surveys and Mapping for Env Studies	6	60			25				25						
165.10.10 – Obtain Rights of Entry for Env Studies	4	40													
165.10.15 – CIA, Land Use & Growth	18	180				450						648			0
165.10.20 – Preform Visual Impact Analysis	10	100						725				835			
165.10.25 – Noise Study	6	60										66			0
165.10.30 – Air Quality Study	1	10										11			0
165.10.35 – Water Quality Studies	2	20					40					62			0
165.10.40 – Energy/Climate Change Studies												0			0
165.10.45 – Sum Geotech Report												0			0
165.10.50 – Preliminary Site Investigation HW	3	30										33			0
165.10.55 – Draft R/W Relocation Impact Eval	5	50										55			0
165.10.60 – Prepare location hydraulic/Floodplain Study Report	1	7										8			
165.10.65 – Paleontology Study	4	46										50			0
165.10.70 – Wild & Scenic River Coordination												0			0
165.10.75 – Envir Commitments Record												0			0
165.10.99 - Other Env Studies												0			0
165.15 – Preform Biological Studies			600												
165.15.05 – Biological Assessment												0			0
165.15.10 – Wetlands Study												0			0
165.15.15 – Resource Agency Coord												0			0
165.15.20 – NES Report												0			0
165.15.99 – Other Biological Studies												0			0
165.20.05 – Archaeology Survey				72								72			0
165.20.05.05 – APE Map				40								40			0
165.20.05.10 – NA Consultation												0			0
165.20.05.15 – Records & Literature Search												0			0
165.20.05.20 – Field Survey												0			0
165.20.05.25 – ASR												0			0
165.20.05.99 – Other Archy Survey Products												0			0
165.20.10 – Extended Phase I Archy Studies				284								284			0
165.20.10.05 – Native American Consultation												0			0
165.20.10.10 – Extended Phase I Proposal												0			0
165.20.10.15 – XP1 Field Investigation												0			0
165.20.10.20 – XP1 Materials Analysis												0			0
165.20.10.25 – Extended Phase I Report												0			0
165.20.10.99 – Other Phase I Archy Products												0			0
165.20.15 – Phase II Archy Studies				380								380			0
165.20.15.05 – NA Consultation												0			0
165.20.15.10 – Phase II Proposal												0			0
165.20.15.15 – Field Investigation												0			0
165.20.15.20 – Materials Analysis												0			0
165.20.15.25 – Phase II Report												0			0
165.20.15.99 – Other Phase II Archy Products												0			0
165.20.20 – Hist & Architectural Studies				160								160			0
165.20.20.05 – Prelim APE/Study Area Maps - Archl												0			0
165.20.20.10 – Hist Res Eval Rpt - Archy												0			0
165.20.20.15 – Hist Res Eval Rpt - Archl												0			0
165.20.20.20 – Bridge Evaluation												0			0
165.20.20.99 – Other H & A Study Products												0			0
165.20.25 – Cultural Res Comp Docs				40								40			0
165.20.25.05 – Final APE Maps												0			0
165.20.25.10 – PRC 5024.5 Consult												0			0
165.20.25.15 – HPSR/HRCR												0			0
165.20.25.20 – Finding of Effect												0			0
165.20.25.25 – Archy Data Recovery Plan												0			0
165.20.25.30 – MOA												0			0

165.20.25.99 – Other Cult Res Comp Products												0				0
165.25.05 – Draft ED Analysis	100	870	56	30	80	80	80	80	80			1456				0
165.25.10 – 4(f) Evaluation												0				0
165.25.15 – CE/CE Determination												0				0
165.25.20 – Env Quality Control & Other Reviews												0				0
165.25.25 – Approval to Circ Resolution												0				0
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water		Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
165.25.30 – Env Coordination												0				0
165.25.99 – Other DED Products												0				0
165.30 – NEPA Delegation												0				0
Total Env Studies & Prep DED	226	2133	656	1026	125	600	140		161	0	0	5060				
Permits, Agreements, and Route Adoptions during PA&ED Cmpnt																
170.05 - Required Permits (list)												0				0
170.10.05 - US Army Corps 404 Permit												0				0
170.10.10 - US Forest Service Permit(s)												0				0
170.10.15 - US Coast Guard Permit												0				0
170.10.20 - DFG 1600 Agreement(s)												0				0
170.10.25 - Coastal Zone Development Permit												0				0
170.10.30 - Local Agency Concurrence/Permit												0				0
170.10.40 - Waste Discharge (NPDES) Permit(s)												0				0
170.10.45 - US Fish & Wildlife Service Approval												0				0
170.10.50 - RWQCB 401 Permit												0				0
170.10.60 - Updated ECR												0				0
170.10.95 - Other Permits												0				0
170.45 - MOU from TERO Office												0				0
170.55 - NEPA Delegation												0				0
Total Permits, Agreements & Route Adoptions	0	0	0	0	0	0	0	0	0	0	0	0				
Circulate Draft Environmental Document and Select Preferred Project Alternative																
175.05.05 – Master Dist & Invitation Lists	12	120										132				0
175.05.10 – Notices Pub Hear & DED Avail	9	90										99				0
175.05.15 – DED Pub & Circulation	11	110										121				0
175.05.20 – Fed Consistency Det (Coastal)	5	50										55				0
175.05.99 – Other DED Circulation Products												0				0
175.10. Prepare for & hold public hearing	10	100														0
175.10.05 – Need for Pub Hearing Determination												0				0
175.10.10 – Pub Hearing Logistics	6	60										66				0
175.10.15 – Displays for Pub Hearing	2	28										30				0
175.10.20 – 2nd Notice Pub Hear & Avail	1	11										12				0
175.10.25 – Map Display & Hearing Plan	2	6										8				0
175.10.30 – Display Pub Hear Maps												0				0
175.10.35 – Public Hearing	5	48		12	24	24	12	24	24			173				0
175.10.40 – Record of Public Hearing	1	60										61				0
175.10.99 – Other Pub Hearing Products												0				0
175.15 – Responses to Pub Hear Comments			16	128	140	140	140	140	140			844				0
175.20 – Project Preferred Alternative												0				0
175.25 – NEPA Delegation												0				0
Total DED & Preferred Alt	64	683	16	140	164	164	152		164	0	0	1601				
Prepare and Approve Project Report and Final Environmental Document																
180.05.10 – Approved Project Rep	4	40										44				0
180.05.15 – Updated Stormwater Data Report							16					16				0
180.10. Final Environmental Document (FED)	16	160	40	40	50	50	50	50	50							0
180.10.05 – Approved FED	46	460	20	20	100	100	100	100	100			1046				0
180.10.05.05 – Draft FED Review			20	20	100	100	100	100	100			540				0
180.10.05.10 – Revised Draft FED	28	280										308				0
180.10.05.15 – Section 4(f) Evaluation	17	170										187				0
180.10.05.20 – Findings Report	12	124										136				0
180.10.05.25 – Statement of Overriding Consid	12	124										136				0
180.10.05.30 – CEQA Certification												0				0
180.10.05.35 – FHWA and Approval												0				0
180.10.05.40 – Section 106 Cons & MOA												0				0

180.10.05.45 – Section 7 Consultation			100									100				0
180.10.05.50 – Final Section 4(f) Statement												0				0
180.10.05.55 – Floodplain Only PAF												0				0
180.10.05.60 –Wetlands Only PAF												0				0
180.10.05.65 – Sect 404 Permit Compliance												0				0
180.10.05.70 – Mitigation Measures	14	140										154				0
180.10.10 – Public Dist & Resp to Comments	10	100										110				0
Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water		Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)	
180.10.15 – Final R/W Relo Impact Document												0				0
180.10.99 – Other FED Products												0				0
180.15 Completed Environmental Document	14	140														
180.15.05 – ROD (NEPA)												0				0
180.15.10 – NOD (CEQA)												0				0
180.15.20 – Env Commitments Record												0				0
180.15.99 – Other Complete ED Products												0				0
180.20 – NEPA Delegation												0				0
Total App PR & FED	173	1738	180	80	250	250	266		250	0	0	2777				
Update Project Info for PS&E																
185.05.05 – Project Concept Review for PS&E												0				0
185.05.10 – Updated Project Info for PS&E dev												0				0
Total Update for PS&E	0	0	0	0	0	0	0		0	0	0	0				
ROW & Excess Land																
195.40.25 – Property Maint & Rehab (non-rental)												0				0
195.40.35 – Transfer of Prop to Clear Status												0				0
195.45.05 – Excess Lands Inventory												0				0
195.45.20 – Prop Disp Units less than \$15 K												0				0
195.45.25 – Prop Disp Units \$15 K - \$500 K												0				0
195.45.30 – Prop Disp Units over \$500 K												0				0
Total ROW & Excess Land	0	0	0	0	0	0	0		0	0	0	0				
Utility Relocation																
200.15 – Approved Utility Relocation Plan												0				0
200.20 – Utility Relocation Package												0				0
Total Coordinate Utilities	0	0	0	0	0	0	0		0	0	0	0				
Permits, Agreements, and Route Adoptions during PS&E Cmpnt																
205.10.05 - US Army Corps 404 Permit												0				0
205.10.10 - US Forest Service Permit(s)												0				0
205.10.15 - US Coast Guard Permit												0				0
205.10.20 - DFG 1600 Agreement												0				0
205.10.25 - Coastal Development Permit												0				0
205.10.30 - Local Agency Concurrence/Permit												0				0
205.10.40 - Waste Discharge (NPDES) permit												0				0
205.10.45 - US Fish & Wildlife Service Approval												0				0
205.10.50 - RWQCB 401 Permit												0				0
205.10.60 - Updated ECR												0				0
205.10.95 - Other Permits												0				0
205.20.05 – Draft Fwy Agreement												0				0
205.20.10 – Draft Fwy Agree Review												0				0
205.20.15 – Final Fwy Agree												0				0
205.20.20 – Executed Fwy Agreement												0				0
205.40.10 - New Connections & Route Adopt SbtI												0				0
205.55 - NEPA Delegation												0				0
Total Permits, Agreements, and Route Adoptions	0	0	0	0	0	0	0		0	0	0	0				

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water		Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Right of Way Interests															
225.55.20 – Right of Way Clearance												0			0
Total Right of Way Interests	0	0	0	0	0	0	0		0	0	0	0			
Prepare Draft PS&E															
230.05.55 – Water Pollution Control Plans							40								
230.05.45 – Noise Barrier Plans												0			0
230.10.05 – Hwy Planting Plans												0			0
230.10.15 – Plant List												0			0
230.35.10 – Hwy Planting Specs												0			0
230.35.35 – Water Pollution Ctrl Specs							2					2			0
230.35.40 – Erosion Control Specs							2					2			0
230.40.35 – Water Pollution Control Quantities and Estimates							16								
230.40.40 – Erosion Control Quantities and Estimates							16								
230.60 – Updated Proj Info for PS&E Package												0			0
230.60.05 – Updated Storm Water Data Report							4					4			0
230.60.10 – Other Reviews/Updates Proj Info												0			0
230.90 – NEPA Delegation												0			0
Total Prepare Draft PS&E	0	0	0	0	0	0	80		0	0	0	8			
Mitigate Environmental Impacts and Clean-up Hazardous Waste															
235.05.05 – Hist Structures Mitig												0			0
235.05.10 – Archy & Cult Mitigation												0			0
235.05.15 – Biological Mitigation												0			0
235.05.20 – Env Mitigation R/W work												0			0
235.05.25 – Paleontology Mitigation												0			0
235.05.99 – Other Env Mitigation Products												0			0
235.10.10 – Haz Waste Sites Survey												0			0
235.10.15 – Detailed HW Sites Investigation												0			0
235.15 – HW Management Plan												0			0
235.20 – HW PS&E												0			0
235.25 – HW Clean-up												0			0
235.30 – Certification of Sufficiency (HW)												0			0
235.35 – Long Term Mitigation Monitoring												0			0
235.40 – Updated ECR												0			0
235.45 – NEPA Delegation												0			0
Total Mitigation & HW Clean-up	0	0	0	0	0	0	0		0	0	0	0			
Permits for Subsurface Geotechnical Exploration															
240.70 – Site Ready for Subsurface Exploration												0			0
Total Geotechnical Permit	0	0	0	0	0	0	0		0	0	0	0			
Circulate, Review and Prepare Final District PS&E Package															
255.05 – Circ & Rev Draft Dist PS&E							8					8			0
255.10.25 – Updated Technical Reports												0			0
255.15 – Env Reevaluation												0			0
255.20.05 – Rev Plans for Stds Comp												0			0
255.40 – Res Engs Pending File												0			0
255.45 – NEPA Delegation												0			0
Total PS&E	0	0	0	0	0	0	8		0	0	0	8			

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water		Noise/Air	Paleo	Sup Svcs	Total	Begin Date	End Date	Duration (days)
Prepare Contract Documents															
260.75 - Env Cert at RTL												0			0
Total Prepare Contract Documents	0	0	0	0	0	0	0		0	0	0	0			
Perform Construction Engineering and General Contract Administration															
270.20.50 - Technical Support												0			0
270.55 - Final Inspect & Accept Rec												0			0
270.70 - Update ECR												0			0
270.75 - Permit Renewal & Extension												0			0
270.80 - Long-Term Mitigation Contract												0			0
Total Const Engineering	0	0	0	0	0	0	0		0	0	0	0			
Prepare and Administer Contract Change Orders															
285.05.05 - Need for CCO Determination												0			0
285.10.15 - Other Func Support												0			0
Total CCOs	0	0	0	0	0	0	0		0	0	0	0			
Resolve Contract Claims															
290.35 - Provide Technical Support												0			0
Total Contract Claims	0	0	0	0	0	0	0		0	0	0	0			
Accept Contract, Prepare Final Construction Estimate & Prepare Final Report															
295.35 - Cert of Env Compliance												0			0
295.40 - Long-Term Mitigation Contract												0			0
Total Final Construction	0	0	0	0	0	0	0		0	0	0	0			
Total Project Hours	463	4554	980	1246	539	1014	742		575	0	0	9898			

ATTACHMENT J
TRANSPORTATION MANAGEMENT PLAN/DATA SHEET

Co/Rte/KP	SD/15/PM R0.4-R0.5	EA	293210(11) 00000374)	Alternative No.
Project Limit	In the County & City of san Diego on Rte 15 from Main St UC to S Branch Chollas Creek bridge, On Wabash Blvd between 32nd St and I-15 at Main St UC, On 32nd St from South of Harbor Dr to Wabash Blvd.			
Project Description	Grade separation improvements, and Vesta St Bridge			
Expected Construction Schedule	11/17/2013			

<input checked="" type="checkbox"/>	a. Brochures and Mailers	\$2,000
<input checked="" type="checkbox"/>	b. Press Release	
<input checked="" type="checkbox"/>	c. Paid Advertising	\$10,000
<input checked="" type="checkbox"/>	d. Public Information Center/Kiosk	\$2,000
<input type="checkbox"/>	e. Public Meeting/Speakers Bureau	
<input type="checkbox"/>	f. Telephone Hotline	
<input type="checkbox"/>	g. Internet	
<input checked="" type="checkbox"/>	h. Others Construction Bulletins	\$4,000

<input type="checkbox"/>	a. Changeable Message Signs (Fixed)	\$
<input checked="" type="checkbox"/>	b. Changeable Message Signs (Portable)	\$20,000
<input type="checkbox"/>	c. Ground Mounted Signs	\$
<input type="checkbox"/>	d. Highway Advisory Radio	\$
<input type="checkbox"/>	e. Caltrans Highway Information Network (CHIN)	
<input type="checkbox"/>	f. Others	\$

<input checked="" type="checkbox"/> a. Construction Zone Enhanced Enforcement Program (COZEEP)	\$80,000
<input type="checkbox"/> b. Freeway Service Patrol	\$
<input type="checkbox"/> c. Traffic Management Team	
<input type="checkbox"/> d. Helicopter Surveillance	\$
<input type="checkbox"/> e. Traffic Surveillance Stations (Loop Detector and CCTV)	\$
<input type="checkbox"/> f. Others	\$

4) Construction Strategies

<input checked="" type="checkbox"/>	a. Lane Closure Chart	
<input type="checkbox"/>	b. Reversible Lanes	
<input type="checkbox"/>	c. Total Facility Closure	
<input type="checkbox"/>	d. Contra Flow	
<input type="checkbox"/>	e. Truck Traffic Restrictions	\$ _____
<input type="checkbox"/>	f. Reduced Speed Zone	\$ _____
<input checked="" type="checkbox"/>	g. Connector and Ramp Closures	
<input type="checkbox"/>	h. Incentive and Disincentive Clause	\$ _____
<input type="checkbox"/>	i. Moveable Barrier	\$ _____
<input type="checkbox"/>	j. Others _____	\$ _____

5) Demand Management

<input type="checkbox"/>	a. HOV Lanes/Ramps (New or Convert)	\$ _____
<input type="checkbox"/>	b. Park and Ride Lots	\$ _____
<input type="checkbox"/>	c. Rideshare Incentives	\$ _____
<input type="checkbox"/>	d. Variable Work Hours	
<input type="checkbox"/>	e. Telecommute	
<input type="checkbox"/>	f. Ramp Metering (Temporary Installation)	\$ _____
<input type="checkbox"/>	g. Ramp Metering (Modify Existing)	\$ _____
<input type="checkbox"/>	h. Others _____	\$ _____

6) Alternative Route Strategies

<input type="checkbox"/>	a. Add Capacity to Freeway Connector	\$ _____
<input type="checkbox"/>	b. Street Improvement (widening, traffic signal... etc)	\$ _____
<input type="checkbox"/>	c. Traffic Control Officers	\$ _____
<input type="checkbox"/>	d. Parking Restrictions	
<input type="checkbox"/>	e. Others _____	\$ _____

7) Other Strategies

<input type="checkbox"/>	a. Application of New Technology	\$ _____
<input type="checkbox"/>	e. Others _____	\$ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS =	\$118,000
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Project Notes:

Assumptions/ Comments:

1. Entire project will take approximately 480 working days to construct.
2. Current dollar values used. Inflation was not factored into the estimate.
3. Traffic Control/Maintain Traffic costs were not provided. Please consult with the OE or Construction office for this estimate.
4. Portable CMS specified for this project by this estimate are designated for congestion relief as outlined by DD-60. Portable CMS required for other purposes should be included under other specifications; cost per unit is now \$5,000 with 4 units estimated to be needed.
5. The COZEEP specified for this project by this estimate is designated for congestion relief as outlined by DD-60. The COZEEP required for other purposes should be included under other specifications.
6. It may be a good idea to have a public meeting before the start of construction. If there is going to be multiple street closures it may be a good idea to setup a twitter account so those that work in the area can get instant information about closures. Any long term closures should have display ads placed in the San Diego Union Tribune. Notification should be sent to the CA Trucking Association and emergency services.

Note 1: All projects who's contract value is \$5 million or more, and/or meet certain other criteria should be evaluated for applicability of A+B Bidding. Consult the OE for more details about A+B Bidding.

Note 2: As outlined in Deputy Directive 60, this TMP is a living document, subject to change as required by changing circumstances. If there is material change to the project scope which will affect the function or adequacy of the TMP, then changes to the TMP must be addressed. If traffic conditions at the project site demonstrate that TMP elements need to be adjusted to adequately address congestion, then the TMP shall be altered accordingly.

Note 3: Hospitals with emergency services and fire stations that may require access through work zones at all hours should be accommodated. Schools, major venues, shopping malls, and other heavily utilized areas should also be notified of construction activities that may impact their services.

PREPARED BY

Maryam Hashami
(858) 467-3244

DATE 4/26/11

APPROVED BY

Foroud Khadem

DATE 4/26/11

ATTACHMENT K
BASELINE AGREEMENT

TRADE CORRIDORS IMPROVEMENT FUND PROJECT BASELINE AGREEMENT

1. PARTIES AND DATE

- 1.1 This Project Baseline Agreement (Agreement) for the 32nd Street At Harbor Drive Grade-Separated Improvements, effective on July 1, 2008, is made by and between the California Transportation Commission (Commission), the California Department of Transportation (Caltrans), and the Port Of San Diego And San Diego Association Of Governments (Sandag) (Project Sponsor), sometimes collectively referred to as the "Parties".

2. RECITAL

- 2.1 Whereas at its April 10, 2008 Meeting the California Transportation Commission programmed the Trade Corridors Improvement Fund and included in this program of projects the 32nd Street At Harbor Drive Grade-Separated Improvements, the parties are entering into this Project Baseline Agreement to document the project cost, schedule, scope and benefits, as detailed on the Project Programming Request Form attached hereto as Exhibit A, the Project Study Report Titled On Route I-5 Between Bay Marina Pkwy. And Cesar Chavez Pkwy. And On Harbor Drive Between Tidelands Ave. And Cesar Chavez Pkwy. attached hereto as Exhibit B, and the Project Benefits Form attached hereto as Exhibit C, as the baseline for project monitoring by the California Transportation Commission and its Project Delivery Council. The undersigned Project Sponsor certifies that the funding sources cited are committed and expected to be available; the estimated costs represent full project funding; and the scope and description of benefits is the best estimate possible.

3. GENERAL PROVISIONS

The Project Sponsor and Caltrans agree to abide by the following provisions:

- 3.1 To meet the requirements of Government Code Section 8879.23(c)(1), as added by Proposition 1B, and of Government Code Section 8879.50, as enacted through implementing legislation in 2007 (Senate Bill 88 and Assembly Bill 193).
- 3.2 To adhere to the provisions of the California Transportation Commission Resolution TCIF-P-0708-01, "Adoption of Program of Projects for the Trade Corridors Improvement Fund (TCIF)," dated April 10, 2008.
- 3.3 To adhere to the California Transportation Commission's Trade Corridors Improvement Fund Guidelines.
- 3.4 To adhere to the California Transportation Commission's Accountability Implementation Plan and policies, and program and baseline amendment processes.

- 3.5 The Sponsoring Agency agrees to secure funds for any additional costs of the project. Any change to the funding commitments outlined in this agreement requires an amendment.
- 3.6 To report to the California Transportation Commission on a quarterly basis on the progress made toward the implementation of the project, including scope, cost, and schedule.
- 3.7 To report to the California Transportation Commission on the progress, on a quarterly basis, and outcomes, at the end of the environmental phase, of the environmental process with regard to air quality impacts due to emissions from diesel or other particulates and related mitigation strategies. Whereas the Bond Act mandates that the Commission shall allocate TCIF for trade infrastructure improvements in a manner that places emphasis on projects that improve trade corridor mobility while reducing emissions of diesel particulate and other pollutant emissions, the Department of Transportation, the Sponsoring Agency, and the Corridor Coalition understand and agree that the California Transportation Commission will only allocate TCIF to projects that can demonstrate compliance with applicable environmental requirements. If environmental clearance is conditioned to the implementation of mitigation measures, the sponsoring agency must commit, in writing, to the implementation of those mitigation measures.
- 3.8 To maintain and make available to the California Transportation Commission and/or its designated representative, all work related documents, including engineering and financial data, during the course of the project and retain those records for four years from the date of the final closeout of the project. Financial records will be maintained in accordance with Generally Accepted Accounting Principles.
- 3.9 The California Transportation Commission and/or its designated representative, has the right to audit the project records, including technical and financial data, of the Department of Transportation, the Sponsoring Agency, and any subconsultants at any time during the course of the project and for four years from the date of the final closeout of the project. Audits will be conducted in accordance with Generally Accepted Government Auditing Standards.

4. SPECIFIC PROVISIONS AND CONDITIONS

4.1 Project Schedule and Cost

See Project Programming Request Form, attached as Exhibit A.

4.2 Project Scope

See Project Study Report/Project Study Report Equivalent, attached as Exhibit B.

4.3 Project Benefits

See Project Benefits Form, attached as Exhibit C.

4.4 Other Project Specific Provisions and Conditions

Project Specific Provisions And Conditions

REVISED
Signature Page
Following Agreement

SIGNATURE PAGE
TO
TRADE CORRIDORS IMPROVEMENT FUND
PROJECT BASELINE AGREEMENT
32nd Street At Harbor Drive Grade-Separated Improvements

Name	Date
Title	
Sponsoring Agency	

Name	Date
Title	
Regional Agency	

Will Kempton	Date
Director	
California Department of Transportation	

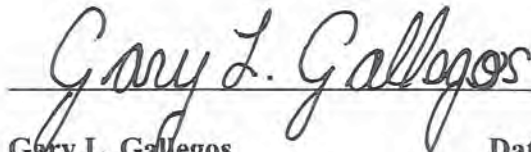
John F. Barna, Jr.
Executive Director
California Transportation Commission

TRADE CORRIDORS IMPROVEMENT FUND PROJECT BASELINE AGREEMENT INSTRUCTIONS


1. Complete the information in the highlighted fields.
2. The General Provisions apply to all agreements. This section documents the sponsoring agency's commitment to the cost, schedule, scope, and benefits of the project. It also includes the reporting, record retention, and auditing requirements of the program. This section should not be edited.
3. Sponsoring Agency must include as attachments an updated Project Programming Request (PPR) Form (Exhibit A), the Project Study Report/Project Study Report Equivalent (Exhibit B), and the Project Benefits Form (Exhibit C). The Project Benefits Form and the PPR are available on the Commission's website at www.catc.ca.gov.
4. The Project Programming Request Form documents the scope, schedule, cost, and benefits to be achieved by the project and will set the baseline for future reporting and accountability measurement. The benefits section should briefly summarize the expected benefits described in the Project Benefit Form, particularly as related to velocity, throughput, reliability, congestion reduction, and emissions reduction.
5. The Project Benefit Form quantifies the benefits expected to be realized by the project. This discussion should describe the benefits that are expected to be achieved by the project, including at a minimum increases in throughput, velocity, reliability, and safety and decreases in congestion and emissions. Both freight and passenger benefits should be described, as well as the planned methodology that is intended to be employed to determine the project baseline and ultimate results.
6. The Project Study Report/Project Study Report Equivalent is the scoping document for the project.
7. Other documents, such as MOUs, funding commitments (Resolutions or Board Actions), and public/private benefit analysis, may be referred to in the Specific Conditions and Provisions Sections and also included as attachments.
8. Section 4.4 "Other Project Specific Provisions and Conditions" – These project specific provisions and conditions may also include such things as deadlines for agreements with other agencies or entities, special funding requirements, provisions for the disposition of public assets on projects with private partners, commitments for public benefits, description of private benefits, or milestones that must be met by the 2010 review. Sponsoring Agencies may reference this information in the Specific Provisions and

- Conditions Section of the TCIF project Baseline Agreement and attach the appropriate documents as part of the Project Baseline Agreement Submittal.
9. Funding Commitment. Each sponsoring agency must provide a local board action or resolution that commits funding identified in the PPR.
 10. Rail Project Agreements. For projects with private railroad involvement, Memorandum of Understanding (MOU) must be executed between the railroad and the sponsoring/regional agency and/or Caltrans. The MOU should include how and when the public and the private funding will be made available and identify the public benefits that will be realized. The MOU should be referred to in the baseline agreement and submitted as an attachment.
 11. The grade separation projects that impact the three main Alameda Corridor East lines of the BNSF and the Union Pacific require that a Master Agreement (aka Corridor Delivery Plan) be executed between the sponsoring agencies and the railroads by the time the baseline agreements are executed. The Master Agreement/Corridor Delivery Plan should include an agreement in concept to the scope, funding commitments, delivery schedule, and sequencing of construction operations within the corridor for each applicable grade separation project. A copy of the agreement should be referenced in the baseline agreement and submitted as an attachment.
 12. The Sponsoring Agency must submit five copies of the TCIF Project Baseline Agreement and all attachments to Maura Twomey, Deputy Director, California Transportation Commission, 1120 N Street MS-52, Sacramento, CA 95814.


SIGNATURE PAGE
TO
TRADE CORRIDORS IMPROVEMENT FUND
PROJECT BASELINE AGREEMENT
32nd Street At Harbor Drive Grade-Separated Improvements

 6-27-08

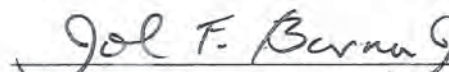
Gary L. Gallegos Date
Executive Director
San Diego Association of Governments (SANDAG)

 Dirk Mathison 6/27/08

Dan E. Wilkins Date
Executive Vice President
Port of San Diego

 8/20/08

Will Kempton Date
Director
California Department of Transportation

 9/3/08

John F. Barna, Jr. Date
Executive Director
California Transportation Commission

Trade Corridor Improvement Fund Project Benefits Form

Project Title: 32nd Street at Harbor Drive Grade-Separated Improvements

Project Category: Port

Project Type: Operational Improvements
Elimination of one five-legged intersection
Grade Separation

Outputs: Operational Improvements
One grade separation

Outcomes*:	Safety	<p>Increase safety by removing trucks from residential areas and removing one at-grade rail crossing for trucks.</p> <p>This project removes trucks from local roads (residential areas). According to Transportation Research Record No. 1322, Large Vehicle Safety: Transit and Trucks 1991, the most significant and consistent factor associated with truck accident rates was the roadway class (highest rates on the "local" road system, lowest on limited-access highways).</p> <p>Project will accommodate future Bayshore Bikeway and improve bicyclists safety by separating bicycle and vehicular traffic with designated bikelane.</p>
	Velocity	<p>40% increase in truck average velocity, by 10 mph</p> <p>Current delay at one project intersection at peak is 31.5 seconds (AM) and 28.6 seconds (PM). In 2030, delays projected to increase to 133.0 seconds (AM) and 61.3 seconds (PM) without the project, whereas preferred project alternative is projected to decrease delays to 52.0 (AM) and 40.0 (PM) seconds.</p> <p>Proposed improvements result in average delay reduction of 55.6 seconds per vehicle (all vehicles) in 2030</p>
	Throughput	65% increase in truck throughput, to 11,960 trucks per day
	Reliability	<p>Improved LOS at 21 intersections to LOS D or better</p> <p>Current LOS at main project intersection (Harbor Drive/32nd) is C (AM/PM). In 2030, LOS is projected to be F (AM) and E (PM) without project, whereas with preferred project alternative, LOS projected to increase to D (AM/PM) in 2030.</p>
	Congestion Reduction	67% reduction in average truck delay or approximately 242 truck-hours/day.
	Emissions Reduction	<p>67% reduction in vehicle delay time (idling at intersections), or 2,524 hours of vehicle delay per day</p> <p>Diversion of truck operations from residential areas</p> <p>Project contributes to regional reductions in reactive organic gases (ROG) and nitrogen oxides (NOx) emissions</p> <p>Regional analyses indicate de minimis differences in regional pollution with project; CO and CO2 emissions levels reduced in 2020 with Project (40 pounds/day and 20 pounds/day, respectively)</p> <p>Improved freeway/arterial operations for truck trips reduce emissions, as highest PM10 emissions on a per mile basis associated with speeds lower than 25 mph</p>

*Benefits from all port access improvement projects combined



2008 Project Programming Request (Project Information)

General Instructions

<input checked="" type="checkbox"/> New Project		<input type="checkbox"/> Amendment (Existing Project)		Date: 01/10/08	
Caltrans District	EA	PPNO	MPO ID	TCRP No.	
11					
County	Route/Corridor	Project Sponsor/Lead Agency		MPO	Element
SD	15	Caltrans		SANDAG	CO
Project Title					
32nd Street at Harbor Drive Grade-Separated Improvements					
PM Bk	PM Ahd	Project Mgr/Contact	Phone	E-mail Address	
		Mario Orso	619-688-2561	mario_orso@dot.ca.gov	
Location, Project Limits, Description, Scope of Work, Legislative Description					
At the intersection of 32nd Street and Harbor Drive. The major elements of work will include: a partially raised tee intersection for turning movements from Harbor Drive to I-15, leaving an unrestricted thru movement on Harbor Drive at-grade. The connection to Harbor Drive would bridge over the rail crossing at 32nd Street.					
Component	Implementing Agency		AB 3090	Letter of No Prejudice	
PA&ED	Caltrans		<input type="checkbox"/>	<input type="checkbox"/>	
PS&E	Caltrans		<input type="checkbox"/>	<input type="checkbox"/>	
Right of Way	Caltrans		<input type="checkbox"/>	<input type="checkbox"/>	
Construction	Caltrans		<input type="checkbox"/>	<input type="checkbox"/>	
Legislative Districts					
Assembly: 79		Senate: 40			
Congressional: 51					
Purpose and Need					
The Port's Marine Terminals at 10th Avenue and National City are vital components of San Diego's Working Waterfront, which includes maritime operators, ship builders, and other commercial and industrial businesses. The Cities of San Diego and National City have grown around the marine terminals and Navy Operations; thus, their associated truck travel patterns have developed adjacent to residential communities, schools, and passenger transit centers. Despite these demands, and the 10-15% growth rate in cargo handled by the Port, the supporting roadway facilities have not expanded and levels of service are degrading. Thus, a primary purpose of this project is to provide direct, more efficient truck access to the interregional freeways, Interstates 5 and 15, configured to divert trucks away from adjacent neighborhoods.					
Project Benefits					
Expected Output: One grade-separation crossing and elimination of one five-legged intersection. Expected Outcomes: (Benefits from all port access improvement projects combined). Increased truck throughput by 65% to 11,960 trucks per day. Reduce average truck delay by 67% or approximately 242 truck-hours/day. Improved LOS at 21 intersections to LOS D or better. Increase average truck velocity by 40% or 10 mph. Increase safety by removing trucks from residential areas and removing the at-grade rail crossing for trucks.					
Project Milestone					Date
Project Study Report Approved					11/21/07
Begin Environmental (PA&ED) Phase					07/02/08
Circulate Draft Environmental Document					07/02/11
Draft Project Report					07/02/11
End Environmental Phase (PA&ED Milestone)					12/29/11
Begin Design (PS&E) Phase					12/30/11
End Design Phase (Ready to List for Advertisement Milestone)					05/23/13
Begin Right of Way Phase					12/30/11
End Right of Way Phase (Right of Way Certification Milestone)					05/23/13
Begin Construction Phase (Contract Award Milestone)					11/07/13
End Construction Phase (Construction Contract Acceptance Milestone)					08/25/16
Begin Closeout Phase					02/27/17
End Closeout Phase (Closeout Report)					08/25/17



2008 Project Programming Request (Funding Information)

(dollars in thousands and escalated to the programmed year)

Date: 01/10/08

County	CT District	PPNO	TCRP Project No.	EA
SD	11	0	0	0
Project Title: 32nd Street at Harbor Drive Grade-Separated Improvements				

Existing Total Project Cost									Implementing Agency
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Total Project Cost									
E&P (PA&ED)	4,400	0	0	0	0	0	0	4,400	
PS&E	0	0	0	0	7,750	0	0	7,750	
R/W SUP (CT)	0	0	0	0	1,110	0	0	1,110	
CON SUP (CT)	0	0	0	0	0	14,400	0	14,400	
R/W	0	0	0	0	12,000	0	0	12,000	
CON	0	0	0	0	0	78,800	0	78,800	
TOTAL	4,400	0	0	0	20,860	93,200	0	118,460	

Fund No. 1:									Program Code
Existing Funding									
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	Funding Agency
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									
E&P (PA&ED)								0	Prop 1B TCIF
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)						10,665		10,665	
R/W								0	
CON						40,000		40,000	
TOTAL	0	0	0	0	0	50,665	0	50,665	

Fund No. 2:									Program Code
Existing Funding									
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	Funding Agency
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									Notes
E&P (PA&ED)	800							800	SAFETEA-LU (These funds are already programmed)
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON								0	
TOTAL	800	0	0	0	0	0	0	800	



2008 Project Programming Request (Funding Information)

(dollars in thousands and escalated to the programmed year)

Date: 01/10/08

County	CT District	PPNO	TCRP Project No.	EA
SD	11	0	0	0
Project Title: 32nd Street at Harbor Drive Grade-Separated Improvements				

Fund No. 3:									Program Code
Existing Funding									Funding Agency
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									Notes
E&P (PA&ED)	100							100	Federal (US Navy/DOD)
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON								0	
TOTAL	100	0	0	0	0	0	0	100	

Fund No. 4:									Program Code
Existing Funding									Funding Agency
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									Notes
E&P (PA&ED)	3,500							3,500	Funding Agency: Port of San Diego
PS&E					7,750			7,750	
R/W SUP (CT)					1,110			1,110	
CON SUP (CT)						3,735		3,735	
R/W					12,000			12,000	
CON						38,800		38,800	
TOTAL	3,500	0	0	0	20,860	42,535	0	66,895	

Fund No. 5:									Program Code
Existing Funding									Funding Agency
Component	Prior	08/09	09/10	10/11	11/12	12/13	13/14+	Total	
E&P (PA&ED)	0	0	0	0	0	0	0	0	
PS&E	0	0	0	0	0	0	0	0	
R/W SUP (CT)	0	0	0	0	0	0	0	0	
CON SUP (CT)	0	0	0	0	0	0	0	0	
R/W	0	0	0	0	0	0	0	0	
CON	0	0	0	0	0	0	0	0	
TOTAL	0	0	0	0	0	0	0	0	
Proposed Funding									Notes
E&P (PA&ED)								0	
PS&E								0	
R/W SUP (CT)								0	
CON SUP (CT)								0	
R/W								0	
CON								0	
TOTAL	0	0	0	0	0	0	0	0	

ATTACHMENT L
DRAFT INITIAL SITE ASSESSMENT (ISA)

DRAFT

Initial Site Assessment

32nd Street Port Access Project

Located at
32nd Street and Harbor Drive and Vesta Street
San Diego, California

Prepared for



District 11 - Environmental Division
4050 Taylor Street, San Diego, CA 92110

Prepared by



402 W. Broadway
Suite 1450
San Diego, California 92101

December 2010

Initial Site Assessment

32nd Street Port Access Project

32nd Street and Harbor Drive and Vesta Street
San Diego, California

December 2010

I declare that, to the best of my professional knowledge and belief, I meet the definition of an Environmental Professional as defined in Title 40, Code of Federal Regulations, Part 312.



Prepared By:

Environmental Engineer
CH2M HILL
402 W. Broadway
Suite 1450
San Diego, California 92101

12/10/2010

Date

Executive Summary

This report presents results of the Initial Site Assessment (ISA) conducted by CH2M HILL on behalf of the San Diego Association of Governments (SANDAG), for the California Department of Transportation (the Department), District 11. The ISA was conducted in accordance with the Department's guidance on ISA's (Caltrans, September 2006), which is intended to be consistent with the U.S. Environmental Protection Agency's *Standards and Practice for All Appropriate Inquiries* (Title 40, Code of Federal Regulations, Part 312) and with the American Society for Testing and Materials' (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM, 2005).

The ISA was conducted for two areas; intersection of 32nd Street and Harbor Drive and Vesta Street in the City of San Diego, California. The general location of these two areas (hereby referred to as the Subject Property) is shown in Figure 1-1.

The ISA consists of a background document review, a search of existing recorded sites, a search of the most current hazardous waste and substance site lists, and site reconnaissance. No interviews were conducted at this time because the Subject Property is within the City of San Diego's right-of-way and Naval Base San Diego.

On the basis of the ISA, CH2M HILL had found recognized environmental condition (REC) on the Subject Property. A summary of RECs is provided in Table ES-1.

TABLE ES-1

Summary of Recognized Environmental Conditions at the Subject Property

Location	Description of REC Found	Description of Associated Activity and Use Limitation ^a
Sitewide	No major concerns were identified at both 32 nd Street and Vesta Street properties. However, an adjacent property at 32 nd Street, Naval Exchange Station, was identified as a potential source of contamination to the 32 nd Street property. The groundwater beneath the Naval Exchange Station is impacted. Therefore, the groundwater at the 32 nd Street property is considered a REC because it is located adjacent to the Naval Exchange Station. At the Vesta Street there is a potential for groundwater impact because of activities at adjacent properties. San Diego NAVSTA-IR Site 22 (AOPC 4A) is an adjacent property with chlorinated hydrocarbons issues in the groundwater. Therefore, the groundwater at the Vesta Street property is considered a REC because it is located adjacent to the San Diego NAVSTA-IR Site 22 (AOPC 4A).	N/A

TABLE ES-1

Summary of Recognized Environmental Conditions at the Subject Property

Location	Description of REC Found	Description of Associated Activity and Use Limitation ^a
Sitewide	Because of the age of the Subject Property and because it has been used as a transportation corridor since the early 1950s, there is a high probability of the soil at the Subject Property and vicinity being impacted by aerally deposited lead. Therefore, the soil at the Subject Property is considered a REC because of aerally deposited lead.	N/A

^a Activity and use limitations of the Subject Property were not researched because the Subject Property is a transportation corridor and the right-of-way is owned by the City of San Diego.

N/A = not applicable

The scope of this ISA is limited to a review of public records and visual evidence of potential REC, and does not include verifying RECs based upon environmental testing. On the basis of the findings of RECs, CH2M HILL makes the following recommendation:

- The Subject Property (32nd Street and Vesta Street) has both soil and groundwater RECs. There is a potential for encountering contaminated soil and /or groundwater at the Subject Property because of historical activities at the adjacent properties. Therefore, soil and groundwater in the areas of proposed excavations should be sampled to rule out the possibility of hazardous contamination (potential contaminants may include chlorinated hydrocarbons, volatile organic compounds, semivolatile organic compounds, lead, and metals). If the soil and groundwater are found to be hazardous, they should be managed in accordance with applicable federal and state hazardous waste regulatory requirements.

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Acronyms and Abbreviations

AST	aboveground storage tank
ASTM	American Society for Testing and Materials
AUL	Activity Use Limitations
bgs	below ground surface
BNSF	Burlington Northern Santa Fe
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS	Corrective Action Sites
Department	California Department of Transportation, District 11
EDR	Environmental Data Resources, Inc.
ERNS	Emergency Response Notification System
FINDS	Facility Index System
HAZNET	Facility and Manifest Data
HMIRS	Hazardous Material Incident Report System
HMMD	San Diego County Hazardous Material Management Division
I-5	Interstate 5
ISA	Initial Site Assessment
LUST	Leaking Underground Storage Tank
msl	mean sea level
MTS	Metropolitan Transit System
NBSD	Naval Base San Diego
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
PCB	polychlorinated biphenyl
RCRA	Resource Conservation and Recovery Act

REC	recognized environmental condition
ROW	right-of-way
SAM	Site Assessment and Mitigation
SANDAG	San Diego Association of Governments
SDG&E	San Diego Gas and Electric
SLIC	Spills, Leaks, Investigations, and Cleanups
SQG	small quantity generator
SR 15	State Route 15
SWF/LF	Solid Waste Facilities/Land Fill
TCIF	Trade Corridor Improvement Fund
TSD	treatment, storage, and disposal
USGS	United States Geological Survey

1. Introduction

This report presents results of the Initial Site Assessment (ISA) conducted by CH2M HILL on behalf of the San Diego Association of Governments (SANDAG), for the California Department of Transportation (the Department), District 11. The ISA was conducted in accordance with the Department's guidance on ISA's (Caltrans, September 2006), which is intended to be consistent with the U.S. Environmental Protection Agency's *Standards and Practice for All Appropriate Inquiries* (Title 40, Code of Federal Regulations, Part 312) and with the American Society for Testing and Materials' (ASTM) *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM, 2005).

The ISA was conducted for two areas; intersection of 32nd Street and Harbor Drive and Vesta Street in the City of San Diego, California. The general location of these two areas (hereby referred to as the Subject Property) is shown in Figure 1-1.

The following subsections provide the purpose of this ISA, the scope of work, significant assumptions, limitation and exceptions, deviations, special terms and conditions, and user reliance.

1.1 Purpose

The purpose of this ISA is to evaluate the presence of recognized environmental conditions (RECs) and/or activity and use limitations (AULs), which are as follows:

REC: "...the presence or the likely presence of any hazardous substances or petroleum products on a property that indicate an existing release, a past release, or a threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property."

AUL: "...an explicit recognition by a federal, tribal, state, or local agency that residual levels of hazardous substances or petroleum hydrocarbons may be present on the property, and that unrestricted use of the property may not be acceptable."

1.2 Scope of Work

The scope of work for this ISA consists of the following three components:

- Records review
- Site reconnaissance
- Preparation of this ISA report

This ISA does not include the following American Society for Testing and Materials standard non-scope considerations:

- Asbestos-containing materials
- Radon

- Lead-based paint
- Lead in drinking water
- Wetlands
- Regulatory compliance
- Cultural and historic resources
- Industrial hygiene
- Health and safety
- Ecological resources
- Endangered species
- Indoor air quality
- Biological agents
- Mold

1.3 Significant Assumptions

Opinions given in this ISA report relative to the potential for hazardous materials or petroleum hydrocarbons to exist within the Subject Property are based on information derived from the site reconnaissance conducted on October 27, 2010, and from other information sources described herein.

Certain indicators of the presence of hazardous materials or petroleum hydrocarbons not readily observable during the reconnaissance may later become observable. If hazardous materials or hazardous conditions have not been identified during the assessment, such a finding should not be construed, therefore, as a guarantee of the absence of such substances or conditions but rather as the result of the services performed within the scope and limitations of the work performed.

1.4 Limitations and Exceptions

For this ISA, no limitations or exceptions have been identified.

1.5 Deviations

Overall, there were no deviations from the scope of work except that no interviews were conducted for this ISA. The Subject Property consists of public right-of-way (ROW) with no parcels or properties being acquired for implementation of the proposed improvements.

1.6 Special Terms and Conditions

This report has been prepared for the exclusive use of SANDAG and the Department for the specific purpose of evaluating the potential environmental liability associated with the Subject Property. No warranty, expressed or implied, is made. CH2M HILL makes no representation regarding whether this investigation constitutes “all appropriate inquiry into the previous ownership and uses of this property consistent with good commercial or customary practice,” as defined in Section 101(35)(B) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

CH2M HILL is not responsible for any claims, damages, or liabilities associated with the interpretation by third parties of these findings or reuse of the analysis, associated site data, or recommendations by third parties without the expressed written authorization of CH2M HILL. Limitations of this assessment may not be altered or waived without written consent of CH2M HILL.

It was beyond CH2M HILL's authorized scope of work to review: (1) lead in drinking water, (2) issues associated with worker health and safety, (3) issues pertaining to compliance with environmental regulations, or (4) liabilities associated with the offsite management of solid or hazardous wastes. It was also beyond CH2M HILL's authorized scope of work to conduct interviews with local government officials. The exclusion of the above items is not a representation of the relevance of these non-scope considerations to the Subject Property.

The services described in this report were performed in a manner consistent with generally accepted professional consulting principles and practices. These services were performed consistent with our agreement with SANDAG and the Department. CH2M HILL does not warrant the accuracy of information supplied by others or the use of segregated portions of this report.

This is a technical report and is not a legal representation or an interpretation of environmental laws; rules; regulations; or policies of local, state, or federal governmental agencies.

Any opinions or recommendations presented herein apply to site conditions existing when services were performed. CH2M HILL is unable to report on or accurately predict events that may change the site conditions after the described services are performed, whether occurring naturally or caused by external forces.

1.7 User Reliance

There are no beneficiaries of this report other than SANDAG and the Department, and no third party is entitled to rely upon this report without the written authorization of CH2M HILL and a written agreement limiting the liability of CH2M HILL.

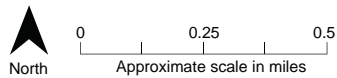


FIGURE 1-1
Site Vicinity Map
Phase I ISA
32nd Street and Vesta Street Port Access Project

2. Subject Alternatives and Setting

This section provides information on the proposed project alternative and general setting of the Subject Property.

2.1 Project Description

The SANDAG, in cooperation with the Department and the Unified Port of San Diego, proposes improvements to intersection of 32nd Street and Harbor Drive and Vesta Street in the City of San Diego. The improvements are intended to provide a well-defined truck route to the interregional freeways, Interstate 5 (I-5) and State Route 15 (SR 15), configured to direct trucks away from adjacent neighborhoods. This project is included in the SANDAG 2007 Regional Transportation Plan as part of the Goods Movement Action Plan, which is intended to improve ground access and terminal capacity of the ports along San Diego Harbor.

The proposed project would include improvements at the intersection of 32nd Street and Harbor Drive and Vesta Street. Improvements at the intersection of 32nd Street and Harbor Drive include grade separated improvements. This build alternative proposes one direct connector from Harbor Drive to SR15. The connector would be a viaduct structure that would go from Harbor Drive west of 32nd St to SR 15 just south of I-5. The connector will provide direct access to SR 15 from eastbound Harbor Drive. The improvements are intended to alleviate traffic at the 32nd Street and Harbor Drive Intersection.

Improvements at Vesta Street would include construction of an overcrossing that would connect the docking side with the office side of Naval Base San Diego (NBSD). This improvement would improve internal circulation at NBSD. The overcrossing at Vesta Street would be constructed solely for Navy's use and would cross over Harbor Drive, Burlington Northern Santa Fe (BNSF) railroad tracks, Metropolitan Transit System (MTS) Trolley Tracks, and McCandless Boulevard.

2.2 Location

The Subject Property is located along Harbor Drive and 32nd Street/SR 15 ramps, and along the Vesta Street in the City of San Diego (southeast of downtown San Diego), California (see Figure 1-1). The Subject Property lies within the City of San Diego's ROW, except for portions of Vesta Street, which lies within the NBSD.

2.3 Site and Vicinity Description

The Subject Property (Figure 2-1a and 2-1b) is located in an area that is a mix of both commercial and industrial enterprises along with some U.S. Navy residential housing to the east and west of Vesta Street.

2.4 Current Use of the Property

At present, the Subject Property is used as a roadway (portion of Harbor Drive and 32nd Street) and transportation corridor that connects the Harbor Drive and 32nd Street to SR 15. The Vesta Street portion of the Subject Property is within NBSD and is used for internal traffic at NBSD.

2.5 Description of Structures, Roads, and Other Site Improvements

The Subject Property consists of public roadways that are within the City of San Diego's ROW and NBSD.

2.6 Current Uses of the Adjoining Properties

Land uses adjacent to the Subject Property are primarily industrial and commercial, with some NBSD residential housing to the northeast and southeast of Vesta Street. In addition, part of the project location (Vesta Street) is within the NBSD.

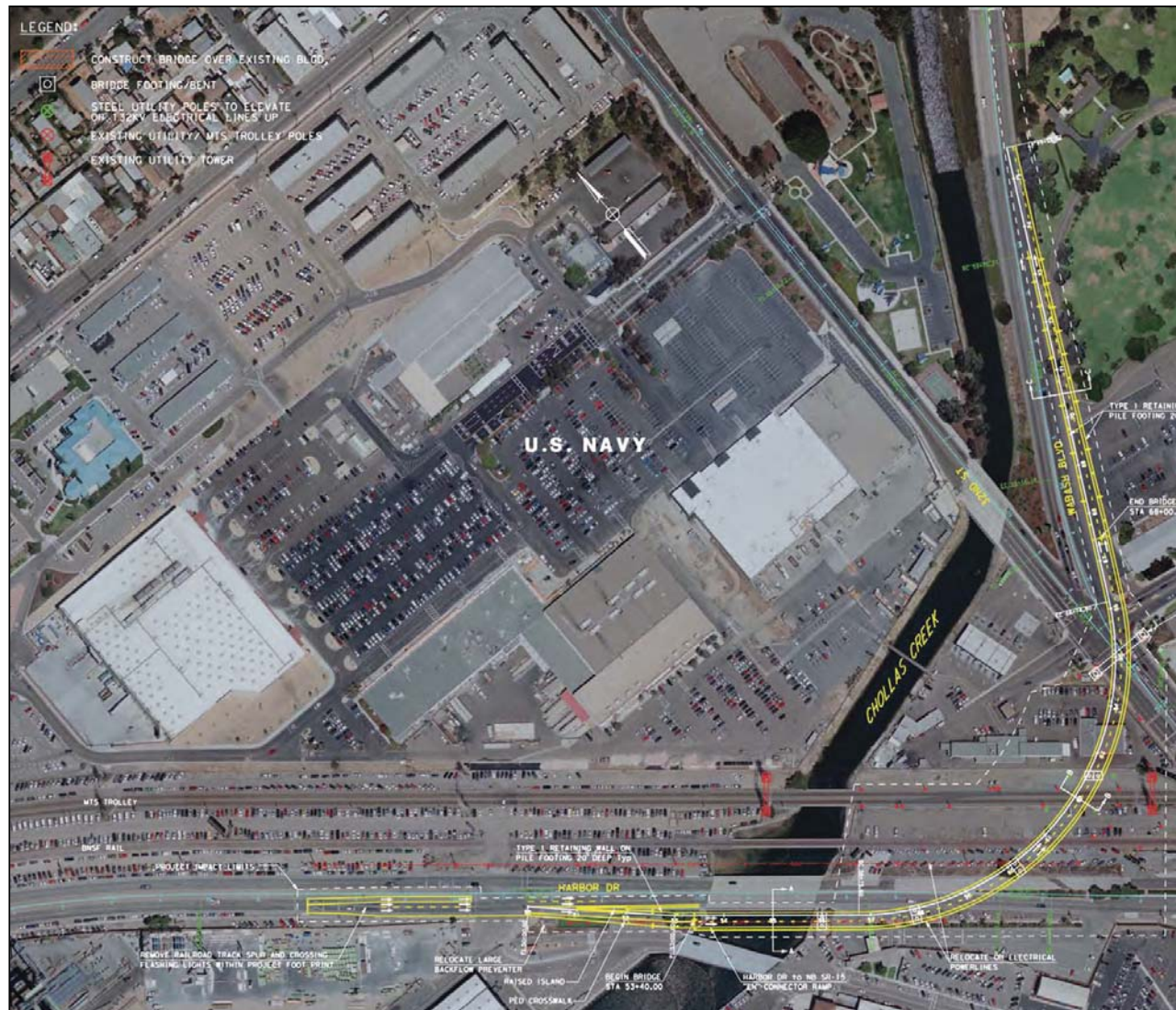


FIGURE 2-1b
 Site Map (32nd Street)
 Phase I ISA
 32nd Street and Vesta Street Port Access Project

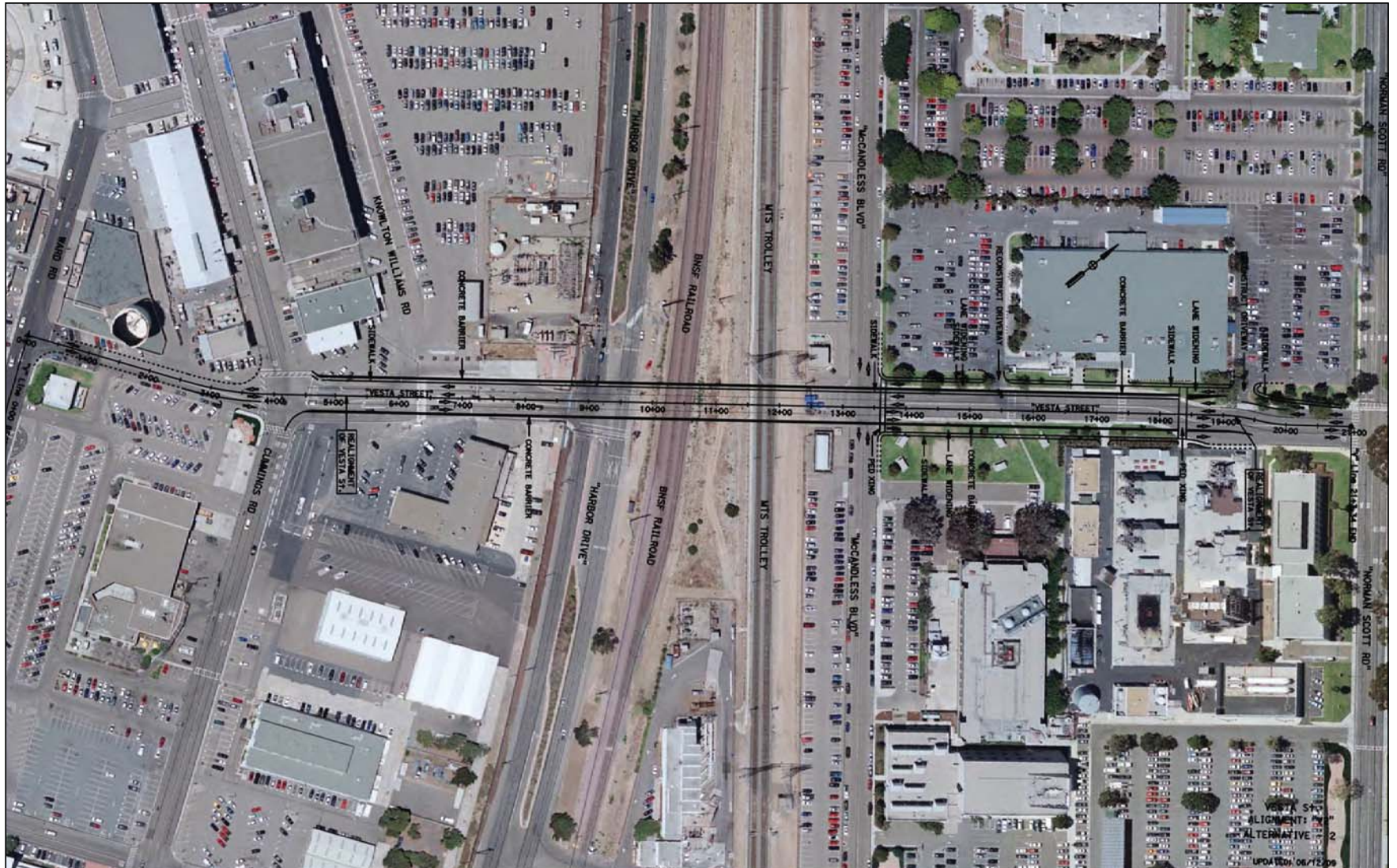


FIGURE 2-1b
 Site Map (Vesta Street)
 Phase I ISA
 32nd Street and Vesta Street Port Access Project

3. User Provided Information

To comply with the requirements of “All Appropriate Inquiry,” the following user-generated information has been compiled.

3.1 Title Records

Because the Subject Property is a public ROW owned by the City of San Diego and the NBSD, no Chain-of-Title reports were obtained for the Subject Property.

3.2 Environmental Liens or Activity and Use Limitations

Because the Subject Property is a public ROW owned by the City of San Diego and the NBSD, no environment liens or activity and use limitation information was obtained.

3.3 Specialized Knowledge

No specialized knowledge pertaining to the Subject Property was identified.

3.4 Commonly Known or Reasonably Ascertainable Information

No commonly known or reasonably ascertainable information pertaining to the Subject Property was identified.

3.5 Valuation Reduction for Environmental Issues

Because the Subject Property is owned by the City of San Diego and NBSD and is not being transferred or sold to a different entity, a valuation reduction for environmental issues assessment was not conducted.

3.6 Owner, Property Manager, and Occupant Information

The Subject Property is within the City of San Diego ROW and NBSD.

3.7 Reason for Performing Initial Site Assessment

The ISA was performed to evaluate the Subject Property for the presence of RECs and/or AULs.

4. Records Review

The purpose of a records review is to obtain and review records that help identify RECs associated with a property. Records were reviewed to obtain existing environmental information and the history of previous uses of the Subject Property. This section provides a summary of the results of that review.

4.1 Standard Environmental Record Sources

CH2M HILL conducted a database search of standard federal, state, local, and tribal government environmental public records, as defined by ASTM E1527-05 and Caltrans ISA guidance documents.

An environmental database search of the project area was ordered from Environmental Data Resources, Inc. (EDR), as a radius search, with the center point half-way between 32nd Street and Vesta Street. To ensure adequate search coverage, CH2M HILL requested a search radius of 1 mile. The EDR database search report was prepared on October 18, 2010, and was reviewed for the presence of sites with RECs in proximity to the Subject Property.

EDR reviewed standard federal, state, local, and tribal listings of known sites and identified 1,233 mapped locations within the search area, with many map locations representing multiple individual sites. The EDR search report is incorporated by reference. Appendix A contains a copy of the EDR report executive summary. The complete report is provided on a compact disc.

The EDR report identified hundreds of individual sites within the search area where hazardous materials or hazardous waste handling, storage, transportation, or potential releases were reported according to regulatory agency records. Table 4-1 contains a summary of the results by search type. In many cases, sites are listed in multiple categories.

TABLE 4-1
Environmental Database Report Results

Record Source	Subject Property Listing (Yes/No)	Number of Sites Identified
Federal Records		
National Priority List (NPL)	No	0
Proposed NPL	No	0
Delisted NPL List	No	0
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) List	No	1
CERCLIS/No Further Remedial Action Planned (NFRAP) Sites Currently or Formerly under Review by U.S. Environmental Protection Agency	No	7
Resource Conservation and Recovery Act (RCRA) Corrective Action Sites (CORRACTS) Facilities List	No	2

TABLE 4-1
Environmental Database Report Results

Record Source	Subject Property Listing (Yes/No)	Number of Sites Identified
RCRA non-CORRACTS Treatment, Storage, and Disposal (TSD) Facilities List	No	1
RCRA Generators List	No	28
Engineering Control	No	0
Institutional Control	No	0
Emergency Response Notification System (ERNS) – Notification of Spills	No	348
State Records		
State NPL	No	2
State CERCLIS (ENVIROSTOR)	No	28
State Landfill or Solid Waste Disposal Site	No	1
State Leaking Underground Storage Tank (LUST)	No	81
San Diego County (SAM)	No	39
State Registered Storage Tank Lists	No	9
State Voluntary Cleanup Sites	No	0
Spills, Leaks, Investigations, and Cleanups (SLIC)	No	20
State Brownfield Sites	No	0
Local Records		
Local Brownfield Lists	No	0
Local Lists of Landfill/Solid Waste Disposal Sites	No	27
Local Lists of Hazardous Waste/Contaminated Sites	No	58
Local List of Registered Storage Tanks	No	35
Local Land Records	No	1
Records of Emergency Release Reports	No	47
Other Records		
FINDS	Yes	23
Cortese/Historical Cortese	No	32
HAZNET	No	93
Drycleaners	No	5
Polychlorinated Biphenyl (PCB) Transformers	No	0
EDR Historical Auto Stations	No	27

The search results were reviewed and screened to focus on information that would most likely suggest RECs associated with the Subject Property. Records for the sites from the following environmental databases were reviewed to identify potential contamination, release, or spills where the cases were not reported as closed or waste handling facilities, such as landfills. These sites were evaluated to determine whether they would represent RECs for the proposed project.

- CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System)
- CERCLIS-NFRAP (CERCLIS where no further remedial action is planned)
- ERNS (Emergency Response Notification System of the U.S. Department of Transportation [DOT])
- HMIRS (Hazardous Materials Incident Report System)
- SWF/LF (solid waste facilities/landfill sites)
- LUST (leaking underground storage tank)
- SAM (San Diego County Site Assessment and Mitigation Program list)
- ENVIROSTOR (California Department of Toxic Substances Control list of sites with known contamination that may have reasons to be investigated further)

On the basis of the review of the EDR report, **none of the mapped sites with hazardous contamination issues are located within the Subject Property.** However, there are two sites (see Table 4-2) close to the Subject Property that has contamination issues. **Out of these two sites, one site is considered environmentally significant and has the potential to impact the Subject Property because this site has groundwater contamination issue and is adjacent to the Subject Property.** The remaining sites were determined to have a low potential to impact the Subject Property on the basis of the following criteria: (1) no reported impacts to groundwater, (2) closure approval received from the lead regulatory agency, (3) relative distance from the Subject Property, or (4) identified as being down gradient, with respect to the local groundwater flow direction, relative to the Subject Property.

TABLE 4-2
List of Environmentally Significant Sites

	Site Name	EDR Map ID	Media Impacted	Source of Impact	Potential to Impact Project
1	Naval Exchange Service Station (identified as Auto Port during Site visit) 32 nd Street and Harbor Drive	D23	Groundwater	LUST	High (Open)
2	Esparza's Used Tires (listed as Awatif Karana in GeoTracker database) 3698 Main Street (North of Vesta Street)	T605	Groundwater	LUST	Low (Open)

4.2 Additional Environmental Record Sources

The ISA guidance identifies other record sources that may be reviewed at the discretion of the preparer. At this time, there are no sites with outstanding contamination issues within the Subject Property. However, there are sites with contamination issues that are adjacent to the Subject Property. This information was obtained from the RWQCB's online GeoTracker database (GeoTracker, December 2010). A summary of the adjacent sites with contaminations issues are provided in the Table 4-3 below:

TABLE 4-3
Review Summary of Site Investigation Activities at Adjacent Properties

	Site Name	Report Reviewed	Summary of Findings
1.	San Diego NAVSTA-IR Site 22 (AOPC 4A) Adjacent to Vesta Street property at the intersection of Vesta Street and Norman Scott Road (as per map)	No report available, only brief summary of project provided.	Indicates that the site is under assessment as of 2007. Potential contaminant of concern includes chlorinated hydrocarbons and media impacted is groundwater.

4.3 Physical Setting Sources

4.3.1 Topography

The United States Geological Survey (USGS) Point Loma 7.5-Minute series quadrangle topographic map (USGS, 1996) was reviewed for this ISA. According to the contour lines on the topographic maps, the approximate ground surface elevation ranges from 20 to 40 feet above mean sea level (msl). Generally, the topography of the area slopes gently to the south and southwest.

4.3.2 Surface Water Bodies

The nearest surface water in the vicinity of 32nd Street and Harbor Drive is Chollas Creek. This creek is located approximately 200 feet west of the SR 15 on-ramp. No surface water is located on the Vesta Street property. In addition, the San Diego Bay is located approximately 1,000 feet to the south of both the properties.

4.3.3 Geology

The Subject Property is located in the San Diego Bay area within the Peninsular Ranges physiographic province. Generalized geologic column for the area consists of Cretaceous Peninsular Ranges Batholith (mostly granodiorite and tonalite); unconformably overlain by Upper Cretaceous marine turbidites and continental fan deposits (conglomerate, sandstone, and siltstone) of Rosario Group; which is in turn unconformably overlain by a succession of Tertiary strata composed of partially intertonguing siltstone, sandstone, and conglomerate that were deposited during several major transgressive-regressive cycles; and Quaternary deposits composed of sandstone and siltstone that were formed in shallow-water marine, estuarine, and deltaic environments (Kennedy 2001 and Kennedy et al 2005). The Quaternary units that are exposed in the vicinity of site consists of artificial fill, young alluvial flood plain deposits, and old paralic deposits of poorly sorted, reddish brown siltstone, sandstone, and conglomerate from beach, estuarine and colluvial origins.

The Subject Property area occurs within a structural frame of four major northwest trending oblique right slip faults consisting of: 1) Newport – Inglewood – Rose Canyon Fault Zone along the coastal margin; 2) Palos Verdes – Coronado Bank Fault Zone on the inner shelf; 3) San Diego Trough Fault Zone in the central offshore; and 4) San Clemente Fault Zone on the outer offshore margin. The Newport – Inglewood – Rose Canyon Fault Zone has three prominent splays running parallel northeasterly beneath the San Diego Bay. These three faults from west to east approaching the site include the Spanish Bight, Coronado, and

Silver Strand Faults. The Rose Canyon Fault Zone is considered to be active because it cuts Holocene sediments (Kennedy 2001). In addition, numerous smaller scale normal faults within the central part of San Diego Bay (beneath the Coronado Bridge) form the San Diego Bay graben (Kennedy 2001).

4.3.4 Hydrogeology

The Subject Property area is located within the Sweetwater River groundwater basin of Pueblo San Diego watershed, at an elevation of approximately 15 feet above mean sea level. Groundwater occurs in shallow alluvial aquifers such as the San Diego Formation aquifer, which is believed to be at least 1000 feet thick. The San Diego Formation consists of yellowish-brown and gray, fine to medium grained fossiliferous marine sandstone and reddish brown transitional marine and nonmarine pebble and cobble conglomerate (2). Groundwater flow direction is generally due southwest toward the San Diego Bay, although variable directions have been reported at nearby locations. Based on available groundwater monitoring data within 1-mile radius, depth to groundwater historically ranged from 4 to 50 feet below ground surface (EDR Report 2010).

4.4 Historical Use Information

4.4.1 Historical Summary

The 32nd Street and Harbor Drive and Vesta Street property existed in 1953, though the SR 15 freeway has not been constructed. A tank farm was identified in 1953, located to the immediate west of the Vesta Street. The SR 15 freeway (Wabash freeway) was shown on the 1956 Sanborn map, and I-5 San Diego freeway appears on the 1964 aerial map. The Coronado Bay Bridge was first observed in 1967. The tank farm previously mentioned, located to the immediate west of Vesta Street was no longer present in 1989. In 1989, the Subject Property was first observed as developed in its present-day format.

4.4.2 City Directories

Because the Subject Property is a public ROW owned by the City of San Diego and the NBSD, city directory information was not requested for this ISA.

4.4.3 Aerial Photos

Historical aerial photographs from 1953, 1964, 1974, 1989, 1994, 2002, and 2005 were reviewed to assess historical land uses and identify evidence of hazardous substance releases. These aerial photographs were obtained from EDR and are provided in Appendix B. The results of the aerial photographs review are summarized in Table 4-4.

TABLE 4-4
Historical Aerial Photographs Review Summary

Date	Findings
1953	32 nd Street and Harbor Drive intersection is visible. SR 15 and the on-ramp from 32 nd Street have not been constructed yet. Chollas creek is visible west of the 32 nd Street. Vesta Street is visible on both sides of NBSD. A tank farm is visible west of Vesta Street on the south side of NBSD.
1964	I-5 freeway is visible to the North of 32 nd Street and Main Street. Additional development has occurred to the east and west of this area. Naval Autoport gas station is visible at the intersection of 32 nd Street and Harbor Drive. SR 15 ramp is visible in the photograph. No major changes are noted in the vicinity of Vesta Street.
1974	Same as above for the 32 nd Street and Harbor Drive Intersection. In the vicinity of Vesta Street on the north side of NBSD, the housing developments are no longer visible. Most of the housing complex observed in 1964 no longer exists.
1989	No major changes are noted at the Harbor Drive and 32 nd Street Intersection, except for some additional buildings to the west and east. The AST tank farm west of Vesta Street is no longer present. This area has been converted to a parking area. Some developments (additional buildings) are visible to the northeast and northwest of this area.
1994	Same as above.
2002	Same as above.
2005	Same as above.

4.4.4 Historical Topographic Maps

In addition to the historical aerial photographs, historical topographic maps dated 1904, 1930, 1942, 1944, 1953, 1967, 1975, 1994, and 1996 were reviewed for the Subject Property. The results of the historical topographic map review are summarized in Table 4-5. Historical topographic maps were obtained from EDR and are provided in Appendix B.

TABLE 4-5
Historical Topographic Maps Review Summary

Date	Findings
1904	The Subject Property could not be identified on this map because of the map scale.
1930	Same as above.
1942	Same as above
1944	The Subject Property is outside the coverage area of the topographic map.
1953	A small portion of the Harbor Drive is visible. Chollas Creek Channel and NBSD is visible to the south of the Subject Property.
1967	Same as above except for additional buildings at the south NBSD and to the south of the Subject Property. Coronado Bay Bridge is visible to the southeast of the Subject Property. Also, San Diego freeway is visible to the north of the Subject Property.
1975	Some tank farms are visible to the west of the Vesta Street, but appear to be more than one mile from the Subject Property.

TABLE 4-5
Historical Topographic Maps Review Summary

Date	Findings
1994	Same as above.
1996	Now, the I-5 freeway is visible to the north of the Subject Property. Also, Vesta Street is shown, though Vesta Street is not identified in the topographic map.

4.4.5 Sanborn Maps

Sanborn maps for the Subject Property were provided by EDR and were available for 1940, 1950, 1956, 1957, 1958, 1959, 1961, and 1965; however, Sanborn map provided did not have coverage for the Subject Property (32nd Street and Vesta Street).

4.4.6 Oil and Gas Maps

The online mapping system maintained by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources was reviewed for oil- and gas-related features for the Subject Property. The Subject Property is located within Map 17S-02W-18 (November 2010). No oil- and gas-related features were identified on the Subject Property or any of the adjacent properties.

4.4.7 Flood Control Maps

Flood control maps provided by EDR were reviewed for the Subject Property. The Subject Property does not lie within the 100-year or the 500-year flood zone.

4.4.8 Building Department Records

There are no buildings within the Subject Property; therefore, no building permits records were requested.

4.4.9 Other Land Use Records

No other land use records were identified for the Subject Property.

4.4.10 Other Historical Use Records

No other historical use records were identified for the Subject Property.

4.5 Previous Investigations

No documentation is currently available regarding previous investigations conducted at the Subject Property.

5. Site Reconnaissance

As part of the ISA, CH2M HILL conducted site reconnaissance of the Subject Property and adjoining properties on October 27, 2010. The purposes of the site reconnaissance were as follows:

- Obtain information indicating the likelihood of identifying RECs in connection with Subject Property or adjoining properties.
- Assess current land uses of the Subject Property and adjoining properties.

The following subsections provide a summary of the methodology used and site observations.

5.1 Methodology and Limiting Conditions

The site reconnaissance was performed by viewing the Subject Property and adjoining properties from a public ROW.

5.2 Site Observations

On October 27, 2010, Mr. Partha Bora, Mr. Soomodh Abraham, and Mr. Fu Sun of CH2M HILL conducted site reconnaissance of the Subject Property and adjoining properties. Photographs were taken and are included in Appendix C. During the site reconnaissance, any potential RECs associated with the environmental features were noted and recorded in Tables 5-1 and 5-2.

5.2.1 Subject Property

The specific features reviewed during the site reconnaissance are presented in Table 5-1.

TABLE 5-1
Site Reconnaissance Summary – Subject Property

Environmental Feature	Observed on Subject Property (Yes/No)	Potential RECs (Yes/No)
Hazardous Substance Use and Storage	No	No
Hazardous Waste Disposal	No	No
Petroleum Products	No	No
ASTs	No	No
Underground Storage Tanks	No	No
Other Suspect Containers	No	No
Pits, Sumps, Drywells, or Catch Basins	No	No
Equipment Likely to Contain PCBs	No	No

TABLE 5-1
Site Reconnaissance Summary – Subject Property

Environmental Feature	Observed on Subject Property (Yes/No)	Potential RECs (Yes/No)
Solid Waste Dumping/Landfill	No	No
Stained Soil/Stressed Vegetation	No	No
Groundwater Monitoring Well	No	No
Odor	No	No
Other (oil stains on streets)	No	No

5.2.2 Adjoining Properties

Specific features checked during the site reconnaissance of the adjoining properties are presented in Table 5-2. For this ISA, the adjoining property is defined as the area and/or properties located within approximately 250 feet of the Subject Property. Adjoining parcels and/or fenced areas were viewed from the property boundary and were not accessed as part of this ISA.

TABLE 5-2
Site Reconnaissance Summary – Adjoining Properties

Environmental Feature	Observed on Adjoining Property (Yes/No)	Potential RECs (Yes/No)
Hazardous Substance Use and Storage	No	No
Hazardous Waste Disposal	No	No
Petroleum Products	No	No
ASTs	No	No
Underground Storage Tanks	No	No
Other Suspect Containers	No	No
Pits, Sumps, Drywells, or Catch Basins	No	No
Equipment Likely to Contain PCBs	No	No
Solid Waste Dumping/Landfill	No	No
Stained Soil/Stressed Vegetation	No	No
Groundwater Monitoring Well	No	No
Odor	No	No
Other	N/A	N/A

6. Interviews

Because the Subject Property is a public ROW owned by the City of San Diego and NBSD, no interviews were conducted at this time.

7. Findings and Conclusions

This report presents results of an ISA conducted by CH2M HILL for SANDAG and the Department for two areas: intersection of 32nd Street and Harbor Drive and Vesta Street in the City of San Diego, California. The 32nd Street and Vesta Street Port Access Project improvements are intended to provide a well-defined truck route to the interregional freeways, I-5, and SR 15, configured to direct trucks away from adjacent neighborhoods.

On the basis of the ISA, CH2M HILL did not identify any RECs on the Subject Property. A summary of the RECs is provided in Table 7-1.

TABLE 7-1

Summary of Recognized Environmental Conditions at the Subject Property

Location	Description of REC Found	Description of Associated Activity and Use Limitation ^a
Sitewide	No major concerns were identified at both 32 nd Street and Vesta Street properties. However, an adjacent property at 32 nd Street, Naval Exchange Station, was identified as a potential source of contamination to the 32 nd Street property. The groundwater beneath the Naval Exchange Station is impacted. Therefore, the groundwater at the 32 nd Street property is considered a REC because it is located adjacent to the Naval Exchange Station. At the Vesta Street there is a potential for groundwater impact because of activities at adjacent properties. San Diego NAVSTA-IR Site 22 (AOPC 4A) is an adjacent property with chlorinated hydrocarbons issues in the groundwater. Therefore, the groundwater at the Vesta Street property is considered a REC because it is located adjacent to the San Diego NAVSTA-IR Site 22 (AOPC 4A).	N/A
Sitewide	Because of the age of the Subject Property and because it has been used as a transportation corridor since the early 1950s, there is a high probability of the soil at the Subject Property and vicinity being impacted by aurally deposited lead. Therefore, the soil at the Subject Property is considered a REC because of aurally deposited lead.	

^a Activity and use limitations of the Subject Property were not researched because the Subject Property is a transportation corridor and the ROW is owned by the City of San Diego

N/A = not applicable

8. Recommendations

The scope of this ISA is limited to a review of public records and visual evidence of potential RECs and does not include verifying RECs based upon environmental testing. On the basis of the findings of RECs, CH2M HILL makes the following recommendation:

- The Subject Property (32nd Street and Vesta Street) has both soil and groundwater RECs. There is a potential for encountering contaminated soil and /or groundwater at the Subject Property because of historical activities at the adjacent properties. Therefore, soil and groundwater in the areas of proposed excavations should be sampled to rule out the possibility of hazardous contamination (potential contaminants may include chlorinated hydrocarbons, volatile organic compounds, semivolatile organic compounds, lead, and metals). If the soil and groundwater are found to be hazardous, they should be managed in accordance with applicable federal and state hazardous waste regulatory requirements.

9. References

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ATTACHMENT M
AERIAL PHOTO/MAJOR DESIGN FEATURES

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
CALTRANS

FUNCTIONAL SUPERVISOR
MICHAEL J. WEBSTER

DESIGNED BY
CHECKED BY

REVISOR
DATE



DATE	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD					

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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EXP. 12/31/2011
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STATE OF CALIFORNIA

AERIAL PHOTO/MAJOR DESIGN FEATURES
ATTACHMENT M
SHEET 1 OF 7

SCALE 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

FUNCTIONAL SUPERVISOR

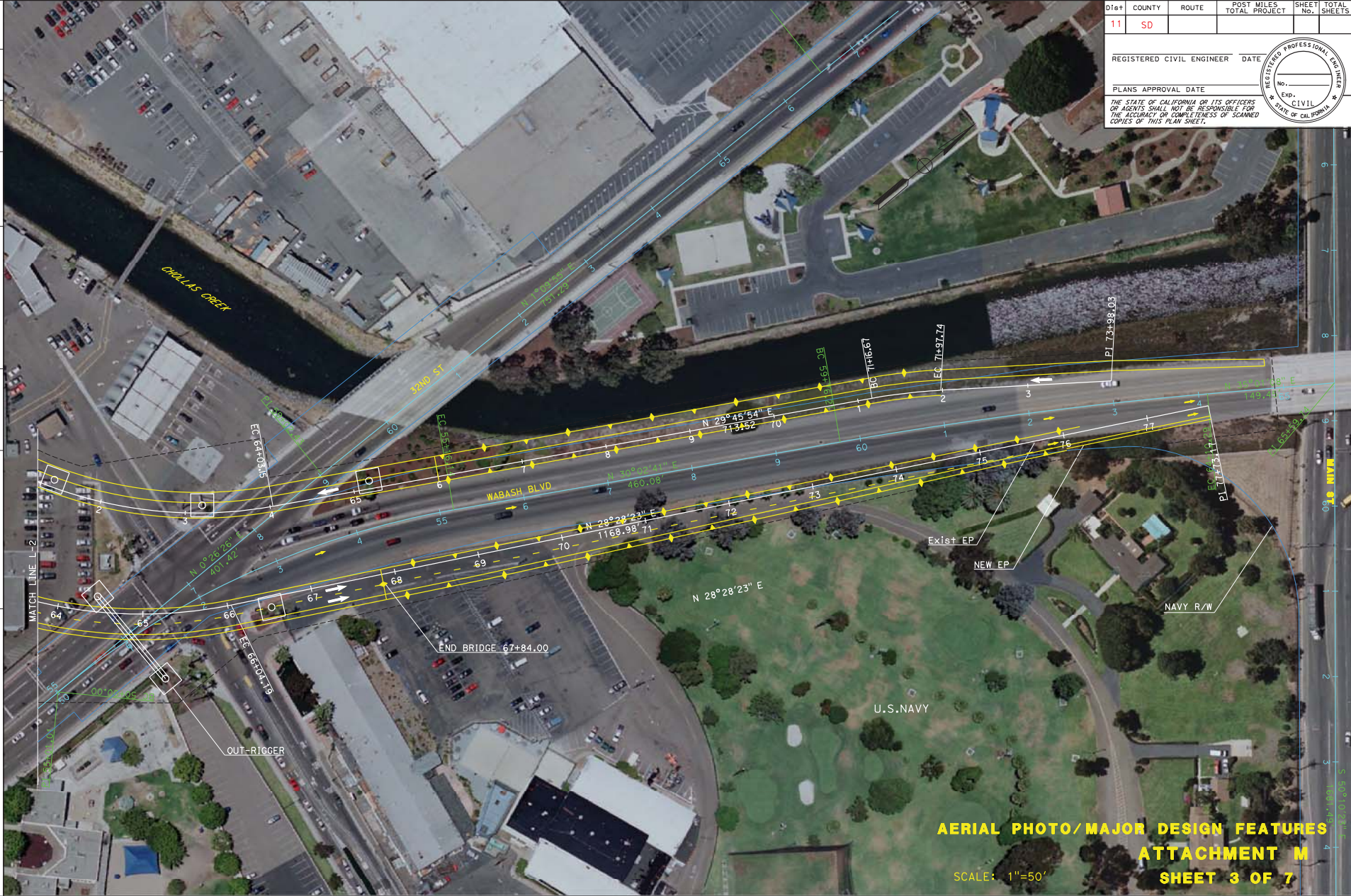
MICHAEL J. WEBSTER

CALCULATED-DIGNS BY

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DATE REVISED



DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD					

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PLANS APPROVAL DATE

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SHEET 3 OF 7

SCALE: 1"=50'

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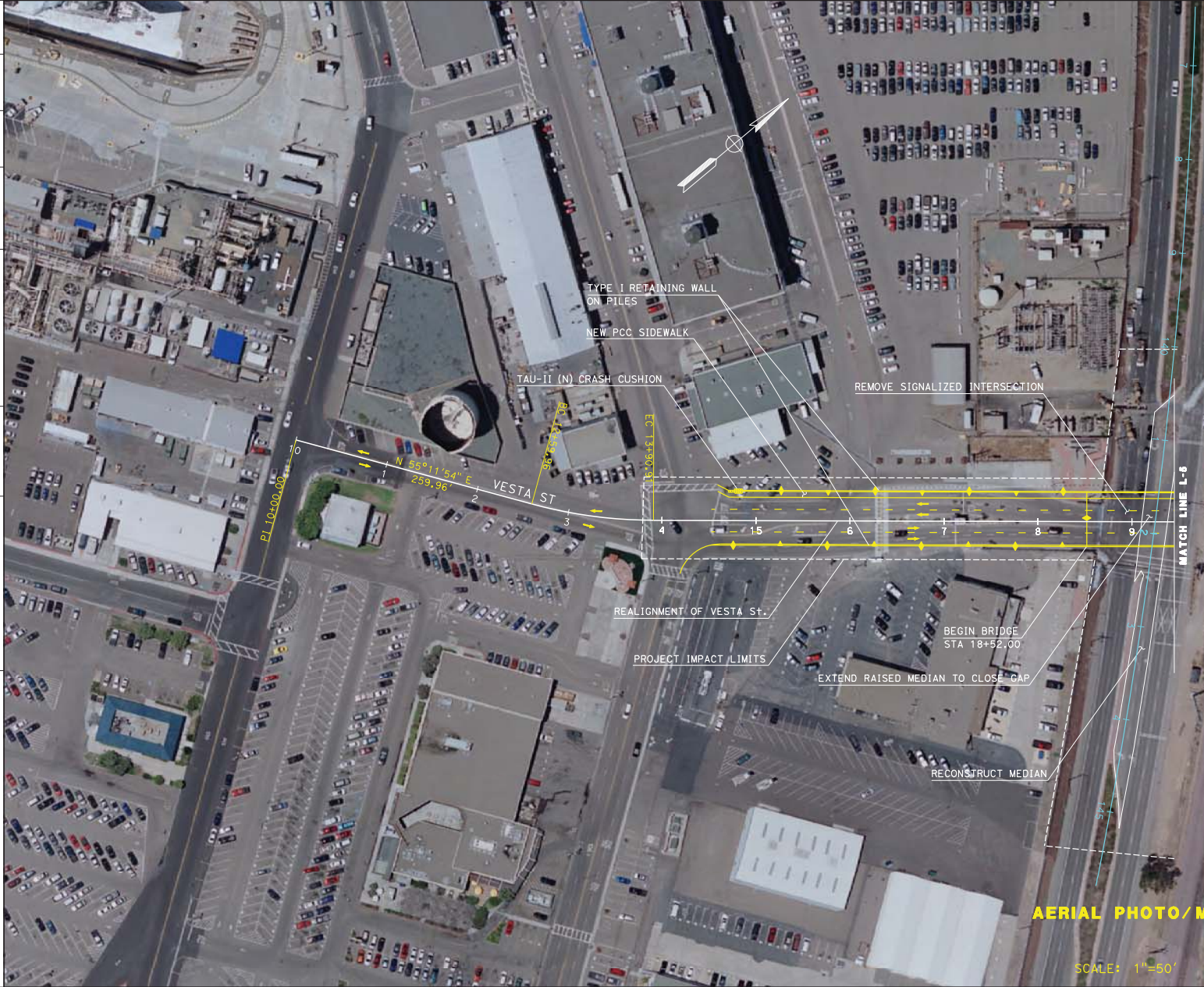
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DATE	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD					

REGISTERED CIVIL ENGINEER

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AERIAL PHOTO/MAJOR DESIGN FEATURES
ATTACHMENT M
SHEET 4 OF 7

SCALE: 1"=50'

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE 15 IN INCHES

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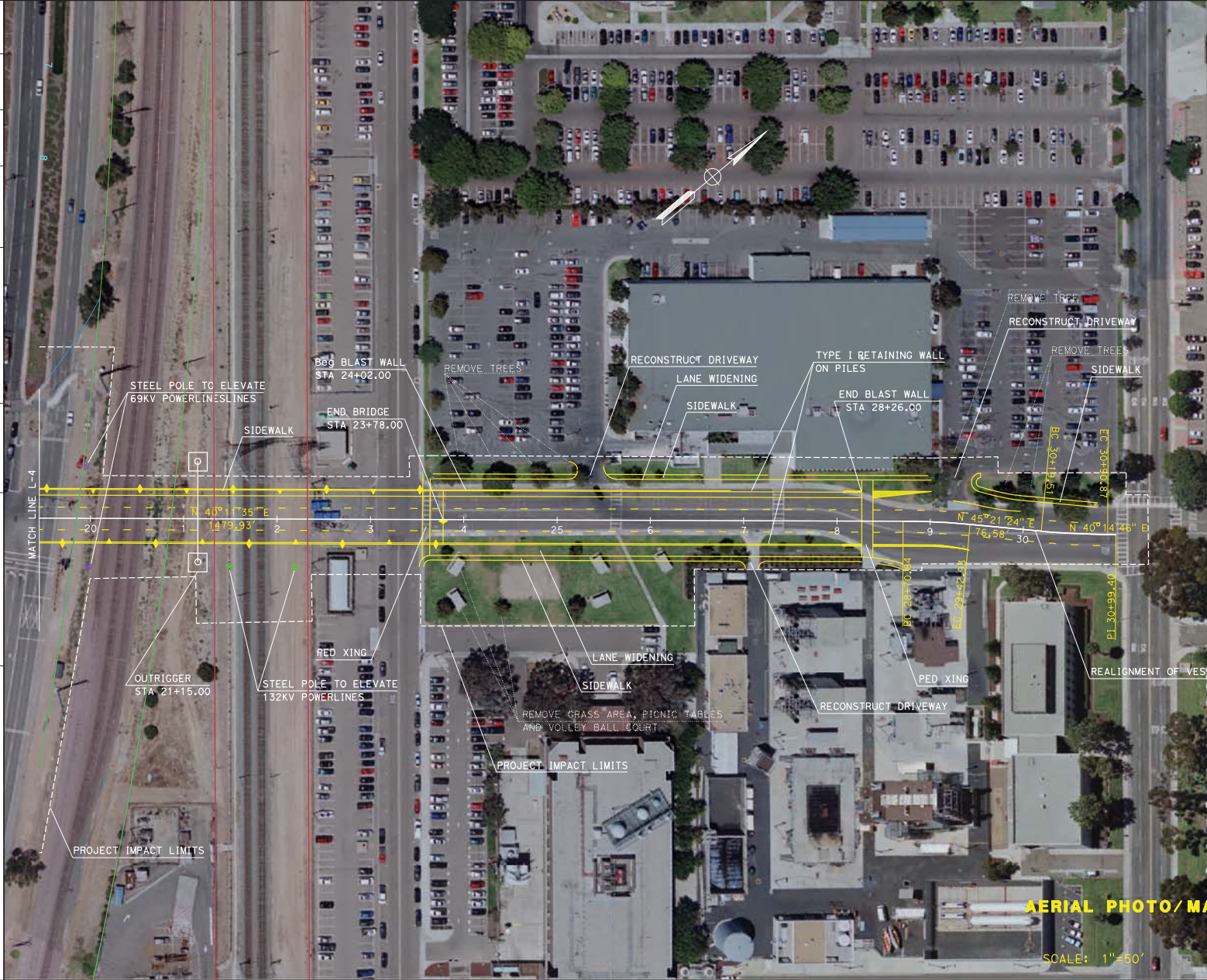
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CU 11272

EA 293210

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Michael J. Webster	Michael J. Webster	Michael J. Webster	Michael J. Webster	Michael J. Webster



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11	SD					

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SHEET 5 OF 7

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Caltrans		DESIGNED BY	REVISOR	DATE
		CHECKED BY	REVISOR	DATE



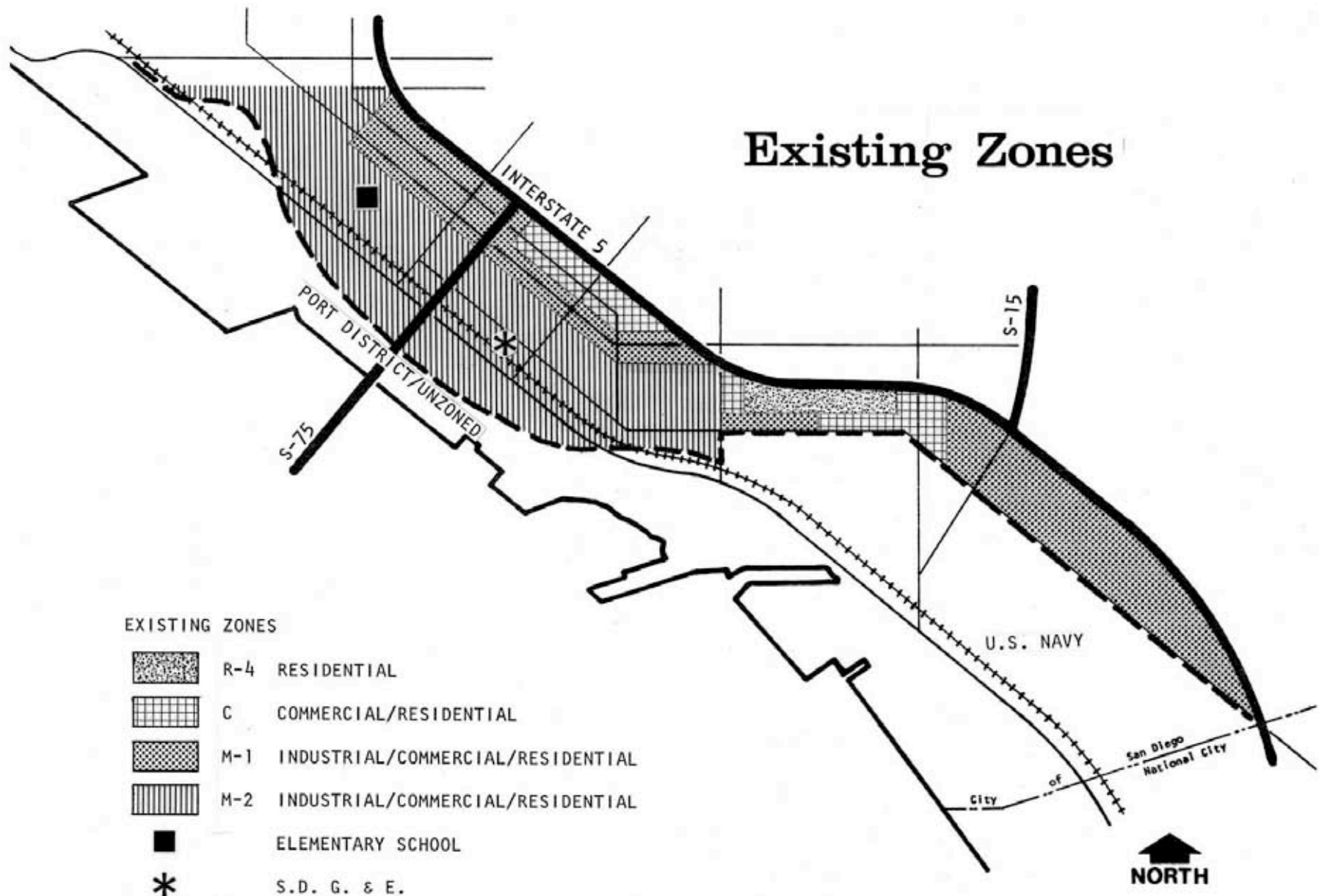
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE			END		
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SHEET 6 OF 7

SCALE: 1"=20'

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Attachment 5
Barrio Logan Community Plan Existing Zones Map



Barrio Logan
Harbor 101

