LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT

DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE

Interstate 5 North Coast Corridor Project

SAN DIEGO COUNTY, CALIFORNIA
DISTRICT 11-SD-5 (PM R28.4/R55.4)
EA 235800 (P ID 11-000-0159)

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LIMITED PHASE II
ENVIRONMENTAL SITE ASSESSMENT
INTERSTATE 5 EXPANSION
DEL MAR HEIGHTS ROAD
TO BIRMINGHAM DRIVE
SAN DIEGO, CALIFORNIA

PREPARED FOR:
State of California
Department of Transportation, District 11
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November 15, 2005
Project No. 105388009

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Mr. Joel Kloth
State of California
Department of Transportation, District 11
2829 Juan Street, MS-46
San Diego, California 92110

Subject: Limited Phase II Environmental Site Assessment
Interstate 5 Expansion
Del Mar Heights Road to Birmingham Drive
San Diego, California

Dear Mr. Kloth:

In general accordance with Contract No. 11A1023 and State of California, Department of Transportation (Department) Task Order No. 9, dated March 30, 2005, we have prepared this limited Phase II Environmental Site Assessment of the subject site (Site). The attached report presents our methodology, findings, opinions, conclusions, and recommendations regarding the limited environmental assessment at the Site.

We appreciate the opportunity to provide environmental consulting services to the Department on this important project. If you have questions regarding this report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

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EXECUTIVE SUMMARY

Ninyo & Moore has prepared this limited Phase II Environmental Site Assessment (ESA) report for a soil and groundwater assessment and aerially deposited lead (ADL) survey performed along the Interstate 5 (I-5) corridor from the Carmel Valley Road interchange to the Birmingham Drive interchange (Site), located in San Diego County, California. The limited Phase II ESA was conducted in anticipation of the expansion of I-5 from the Genesee Avenue interchange to the Vandegrift Boulevard interchange, and reconstruction of the interchanges along this corridor.

Previous soil sampling and analysis by the California Department of Transportation (Department) indicated that ADL is present in shallow soil within the median and shoulders of the subject section of I-5. To complement these data, Ninyo & Moore conducted an ADL survey of soil in the unpaved areas along the northbound and southbound shoulder areas, as well as in the unpaved areas within the interchanges, of this segment of I-5. The survey included hand augering 189 borings to depths of between 0.15 meters (0.5 feet) to 1.5 meters (5 feet) below ground surface (bgs) and collecting soil samples at the total depth of each boring. Soil samples were analyzed for total lead and, as appropriate, soluble lead.

Of the 189 soil samples analyzed for lead, 187 samples contained concentrations of lead above the reporting limit, ranging from 1.15 to 246 milligrams per kilogram (mg/kg). The upper 80% confidence level of the mean of total lead concentrations of the 189 soil samples analyzed was 14.26 mg/kg. Fifty individual samples were analyzed for leachability following the California waste extraction test (WET). Of these 50 samples, two exceeded the hazardous waste criterion of 5 milligrams per liter (mg/ℓ). Thirty individual samples were analyzed for leachability following a modified WET procedure using a deionized water extraction. Of these 30 samples, four samples leached lead at concentrations at or above the Department of Toxic Substances Control ADL Variance criterion of 0.5 mg/ℓ. Fifty individual samples were analyzed for leachability following the federal toxicity characteristic leaching procedure. None of these samples leached lead above the federal hazardous waste criterion of 5 mg/ℓ. The pH of the 50 soil samples analyzed ranged from 3.26 to 9.04. Based on the analytical results of the hand auger samples, the soil assessed meets the criteria specified in the ADL variance granted to the Department and could be reused on Site under the provisions set forth in the variance. The data further suggest that the soil as a whole would not be considered a hazardous waste for disposal purposes; however, additional analytical data may be required by local regulators or waste disposal facility prior to off-site disposal.

In addition, according to a representative of the Department, facilities with known unauthorized releases are located adjacent to some of the interchanges along I-5. Based on this information and anticipated reconstruction requirements of the interchanges (e.g., deep foundations, potential construction dewatering), Ninyo & Moore assessed soil and groundwater at the Del Mar Heights, Via de la Valle, Lomas Santa Fe, Manchester, and Birmingham interchanges. The assessment included drilling ten borings by hollow-stem auger to depths ranging from 4.6 meters (15 feet) to 27.7 meters (91 feet) bgs and collecting soil samples from the borings at approximately 1.5 meter (5-foot) intervals to the total depth of the boring. Groundwater samples were collected from the borings, when encountered.

Based on field observations and potential contaminants of concern, select soil samples collected from the hollow-stem auger borings were analyzed for total petroleum hydrocarbons (TPH) in the gasoline range (TPH-g) and diesel range (TPH-d), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), Title 22 metals, and pH. Groundwater samples were collected from seven borings and analyzed for TPH-g, TPH-d, VOCs, SVOCs, PCBs, and Title 22 metals.

Four of the 30 soil samples analyzed for petroleum hydrocarbons contained concentrations of TPH-d above the analytical reporting limit. Three of these were deeper soil samples (7.6 meters/25 feet and 9.2 meters/30 feet) from borings located on the east and west sides of the Via de la Valle interchange, which contained relatively low concentrations (14 to 180 mg/kg) of TPH-d. The fourth was a shallow sample (1.5 meters/5 feet) from a boring located southeast of the Birmingham interchange that contained 1,100 mg/kg of TPH-d. Benzene, toluene, ethylbenzene, xylenes, SVOCs, and PCBs were not detected above the reporting limit in the soil samples containing TPH-d. The relatively low concentrations of TPH-d, isolated occurrence, nature of the site use, and lack of other contaminants of potential concern in the samples suggest that TPH-d in soil at these locations does not represent a significant environmental concern.

Low concentrations of carbon disulfide (8 milligrams per kilograms [ug/kg]) and acetone (12 to 49 ug/kg) were detected in soil samples collected at various depths from borings located on the east side of the Del Mar Heights interchange, and on the east and west sides of the Manchester interchange. The isolated occurrence and concentrations of carbon disulfide, which is man made and naturally occurring, and acetone detected in these samples would likely be considered a *de minimis* environmental condition. Concentrations of Title 22 metals detected in soil samples appear to be within the range typical of background concentrations for this area.

Concentrations of VOCs suggestive of a release of fuel hydrocarbons (e.g., 1,2-dichloropropane, methyl tert butyl ether, tert butanol, diisopropyl ether, tertiary amyl methyl ether) were detected above the reporting limit in groundwater samples collected from borings located northeast and southeast of the Birmingham interchange and the boring located to the west of the Manchester interchange. The presence of these VOCs in groundwater could be related to unauthorized releases from fuel dispensing operations adjacent to the corridor at these locations. Based on the concentrations of the VOCs detected and the non-beneficial use designation of groundwater to the west of the I-5 corridor in this area, it is our opinion that these VOCs in groundwater do not represent a significant threat to human health within the corridor. Bis (2-ethylhexyl) phthalate (BEHP), commonly associated with plastics, was detected in groundwater samples collected from the west side of the Via de la Valle interchange and from the east and west sides of the Manchester interchange. Based on the concentrations of BEHP detected and the non-beneficial use designation of groundwater to the west of the I-5 corridor in this area, it is our opinion that BEHP in groundwater does not represent a significant threat to human health within the corridor. Concentrations of Title 22 metals detected in the groundwater samples appear to be within the range typical of background concentration for this area. PCBs and TPH-g were not detected above the reporting limit.

Based upon the results of the Site assessment activities conducted, current and future uses of the site, and anticipated general construction activities that may associated with proposed widening of the subject corridor, the following recommendations are provided:

- If the soil is subject to export, it should be characterized for the appropriate waste classification and in accordance with the requirements of the permitted disposal facility.
- If the planned road expansion involves construction dewatering, impacted groundwater may require treatment prior to discharge, under a National Pollution Discharge Elimination System (NPDES) or sewer discharge permit.
- Due to the presence of impacted soils, construction activities should be performed in accordance with a Site-specific health and safety plan and a soil management plan.
- If soil that has been impacted by ADL is reused at the Site, the soil should be handled and reused in accordance with the provisions of the DTSC ADL Variance.

1. INTRODUCTION

At the request of the State of California, Department of Transportation, District 11 (Department), Ninyo & Moore has conducted a limited Phase II Environmental Site Assessment (ESA) for the Interstate 5 (I-5) expansion between the Del Mar Heights Road and Birmingham Drive interchanges in San Diego, California (Site). Our scope of work was based upon the Department-requested services as described in Task Order No. 9 (Task Order) dated March 30, 2005, and Amendment No. 1 to Task Order No. 9 dated June 8, 2005. The work was conducted in general accordance with Department Contract No. 11A1023 (Contract) with Ninyo & Moore dated July 2, 2004, and the applicable County of San Diego Department of Environmental Health (DEH) Site Assessment and Mitigation (SAM) guidelines.

2. SITE LOCATION AND DESCRIPTION

The Site encompasses the Department right-of-way along the northbound and southbound shoulders of I-5, where the southern boundary of the Site is the overcrossing of the Del Mar Heights Road interchange (Site, Figure 1). The northern boundary is the northern terminus of the Birmingham Drive interchange, and includes the interchanges at Del Mar Heights Road, Via de la Valle, Lomas Santa Fe Drive, Manchester Avenue, and Birmingham Drive.

3. PROJECT OBJECTIVES

The Department proposes to widen I-5 from the Genesee interchange to the Vandegrift interchange, and reconstruct the interchanges along this corridor. The expansion and reconstruction of the interstate and interchanges will be completed within the Department right-of-way. The project objectives are to generally evaluate potential near surface soil for aerially deposited lead (ADL) and options for on-Site reuse of the soil, and subsurface soil and groundwater contamination from adjacent properties at five interchanges, in preparation for design and construction activities at the interchanges and along the alignment.

4. SCOPE OF WORK

The scope of work was provided to Ninyo & Moore in the Task Order. In general accordance with the Task Order, Ninyo & Moore performed the tasks listed below:

- Provided project management and coordination.
- Reviewed pertinent environmental reports and documents.
- Conducted a Site visit and marked out the proposed boring locations.
- Prepared a Site-specific work plan.
- Prepared a Site-specific health and safety plan (SHSP).
- Contacted Underground Service Alert (USA) for identification and location of nearby subsurface utilities.
- Conducted a geophysical survey at the proposed boring locations to evaluate the potential presence of underlying and/or nearby subsurface utilities.
- Obtained a boring permit from the DEH.
- Advanced ten borings up to 27.7 meters (91 feet) below ground surface (bgs) using hollow-stem auger drilling and 189 shallow (up to 1.5 meters [5 feet] bgs) borings using hand auger methods.
- Logged soil samples according to the Unified Soil Classification System (USCS).
- Analyzed hollow-stem auger soil samples and groundwater samples for total petroleum hydrocarbons in the gasoline and diesel ranges (TPH-g and TPH-d) by United States Environmental Protection Agency (USEPA) test method 8015M and volatile organic compounds (VOCs) by USEPA test method 8260B; analyzed select soil samples for semi-volatile organic compounds (SVOCs) by USEPA test method 8270, metals by USEPA test methods 6010B/7471A, polychlorinated biphenyls (PCBs) by USEPA test method 8082, and pH by USEPA method 9045C.
- Analyzed hand auger soil samples for total lead by USEPA test method 6010B.
- Analyzed select hand auger soil samples for pH by USEPA method 9045C and leachable lead by the waste extraction test (WET), the WET method using deionized water, and the Toxicity Characteristic Leaching Procedure (TCLP).
- Obtained global positioning system (GPS) readings at each boring location.

- Placed soil cuttings and decontamination fluids into separate, properly labeled, 55-gallon drums for transportation and disposal/recycling of the waste at an appropriate facility.
- Provided coordination of transportation and disposal/recycling of the waste.
- Compiled and evaluated analytical data and summarized the data on appropriate figures and tables.
- Prepared this report including a summary of the investigative methods and field observations; data evaluation and discussion; findings; and conclusions and recommendations.

5. PREVIOUS ENVIRONMENTAL WORK

In June 2001, Geocon prepared a report describing assessment activities for lead in shallow soil along the shoulders and center median of I-5 from 0.4 kilometers south of Via de la Valle in San Diego to 0.4 kilometers north of Leucadia Boulevard in Encinitas, California. The purpose of the assessment was to gather data, regarding the presence of ADL, that could be used by the Department for segregating non-hazardous soil from potentially hazardous soil and reduce disposal costs, and to provide data that could be used to evaluate health and safety issues for on-site workers.

Soil samples were collected at depths ranging from 0.15 to 0.6 meters bgs. Along the shoulders, the samples were collected between 1 and 4 meters from the edge of the paved shoulder. According to the Geocon report, the analytical results and statistical analyses indicated that the upper 0.15 meters of soil could not be reused on site, but the soil between 0.15 meters and the total depth assessed, 0.6 meters, could be reused in accordance with the Department's ADL variance. The results also indicated that if the upper 0.6 meters of soil was taken off site for disposal, the soil could potentially be classified as a hazardous waste.

6. AERIALLY DEPOSITED LEAD (ADL) VARIANCE

The Department has been granted a variance from the California Department of Toxic Substances Control (DTSC) for generating, manifesting, transporting, storing, and disposing of soil classified as hazardous due to lead impacts. The findings of the variance indicate that the Department generates large volumes of soil associated with highway construction projects that is

impacted with lead from historical emissions from automobiles. Generally, the upper 0.6 meters (2 feet) of soil has been found to contain concentrations of lead in excess of regulatory thresholds. However, the DTSC has prepared a risk assessment that shows that soil contaminated with certain concentrations of lead can be managed in a way that present an acceptable threat to human health and the environment.

Under the variance, the DTSC has prepared specifications concerning lead concentrations and pH for the management of the soil under certain conditions:

1. Soil containing less than 0.5 milligrams per liter (mg/ℓ) of extractable lead, based on a modified WET method using deionized water as the extractant, and less than 350 milligrams per kilogram (mg/kg) of total lead may be used as fill on the project site provided that the soil is at least 5 feet above the water table and is covered with at least one foot of non-hazardous soil. The total lead limit shall be below the risk based limit of 1,496 mg/kg or the statutory limits in Health and Safety Code Section 25157.8, currently 350 mg/kg, whichever is less.

2. Soil containing between 0.5 and 50 mg/ℓ of extractable lead, based on a modified WET method using deionized water as the extractant, and less than 350 mg/kg of total lead may be used as fill on the project site provided that the soil is at least 5 feet above the water table and is protected from infiltration by a pavement structure, which will be maintained by the Department. The total lead limit shall be below the risk based limit of 1,496 mg/kg or the statutory limits in Health and Safety Code Section 25157.8, currently 350 mg/kg, whichever is less.

3. Soil with a pH of less than 5.0 shall be used only under paved portions of the highway.

Other stipulations and restrictions regarding the location of the reuse and management of the soil that cannot be reused in the right-of-way are presented in the variance.

7. INVESTIGATIVE METHODS

This section of the report provides information regarding procedures and methods associated with conducting the limited Site assessment. Drilling, groundwater and soil sampling, and related field activities were performed in general accordance with applicable portions of the latest version of the DEH SAM manual and the Task Order.

7.1. Permits, Notifications, and Interaction with Regulatory Agency Personnel

Ninyo & Moore prepared and submitted a work plan to the Department for a limited subsurface assessment dated May 13, 2005. The work plan was reviewed and approved by Mr. Joel Kloth, Department representative. A permit for drilling 10 borings at the Site was obtained from the County of San Diego DEH. A copy of the approved boring permit is included in the 60-day report in Appendix A. Ninyo & Moore notified the Department and the DEH a minimum of two days prior to conducting subsurface Site assessment activities.

On May 9, 2005, representatives of Ninyo & Moore and the Department marked out the proposed boring locations at the Site. In addition, a representative of Ninyo & Moore contacted USA, a public utility locator, to evaluate the proposed boring locations for possible underground utility conflicts.

7.2. Site Safety

On-Site work was subject to the procedures outlined in the SHSP. The SHSP provided policies, information, requirements, and guidelines regarding procedures that were to be followed by personnel performing specific tasks at the Site. The plan was prepared in general accordance with Federal Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard (29 CFR 1910.120) and Title 8 CCR Section 5192. The plan was reviewed and approved by a certified industrial hygienist (CIH).

Prior to commencing field activities, the Site workers read and signed the plan, acknowledging their familiarity with its provisions. Each day, prior to beginning fieldwork at the Site, Ninyo & Moore field personnel conducted a tailgate meeting and discussed the key features of the plan.

7.3. Boring Locations

Boring locations were selected in the field and approved by Department personnel based on observed Site conditions and limited historical information. The areas of assessment were

limited by accessibility, utility locations, and personnel safety. Figures 2 through 6 present the drilling locations at each interchange. The target depth for each boring location was selected by a Department representative based on the expected depth to groundwater and the expected depth of drilling or excavation activities anticipated during the reconstruction of the interchanges. Hand auger locations were selected in the field based on accessibility and safety. Sampling locations were generally between 30 and 100 meters (100 to 330 feet) apart along the highway, depending on Site conditions, and between the edge of the paved shoulder and edge of the Department right-of-way (Figure 7). Target depths were randomly selected between 0.1 and 1.5 meters (0.33 to 5 feet) bgs.

7.4. Geophysical Clearance

Southwest Geophysics, Inc. evaluated each proposed exploratory boring location at the Site to evaluate and mark potential buried utilities or other subsurface anomalies. A combination of electromagnetic induction, magnetometry, and ground penetrating radar was utilized. Where utility conflicts were noted, the borings were relocated a minimum of 5 feet from the utility. A copy of the geophysical evaluation report prepared by Southwest Geophysics, Inc. is included in Appendix B.

7.5. Hand Auger Drilling and Soil Sampling

Hand auger borings were completed from May 18, 2005 to June 9, 2005. Borings were advanced using a manually-operated, pre-cleaned, stainless steel hand auger. The target depths of the hand auger borings ranged from 0.15 to 1.5 meters (0.5 to 5 feet) bgs. When the boring location was augered to the desired depth, a sample was collected from the bottom of the auger and placed directly into laboratory supplied glass jars. The jars were labeled with pertinent sample and project information and placed in a cooler in the field.

7.6. Hollow-Stem Auger Drilling and Soil Sampling

Hollow-stem auger drilling was conducted between May 17, 2005 to June 3, 2005. Borings were advanced using a drill rig operated by Tri-County Drilling, a bonded, C-57-licensed,

drilling contractor with appropriate current certificates, experience, and training. The drill rig advanced the borings using hollow-stem, continuous-flight augers to the target depth, groundwater, or refusal, whichever was achieved first. Ten borings were advanced using the hollow-stem auger method to depths ranging from 4.6 to 27.7 meters (15 to 91 feet) bgs. Drilling and sampling activities were performed under the supervision of a California Professional Geologist.

Soil samples were collected at approximate 1.5-meter (5-foot) intervals with a standard penetration test sampler, which was driven approximately 76 centimeters in advance of the hollow-stem auger by a 64-kilogram (140-pound) auto-trip hammer. Upon retrieving the sampler from the borehole, the soil was logged by the on-Site geologist according to the USCS, and the least disturbed soil sample was covered on both ends by Teflon™ sheeting, sealed with plastic end caps, labeled with pertinent information, and placed in a cooler for transport by courier to EMAX Laboratories of Torrance, California, a state-certified laboratory. Copies of the boring logs are included in the 60-day report in Appendix A. Soil cuttings were placed in 55-gallon drums, labeled, and stored on Site pending disposal.

Once the boring reached the target depth or refusal, and groundwater samples were collected, if applicable, the borings were backfilled with granular bentonite and hydrated, and the ground surface was restored to approximate its original condition.

7.7. Groundwater Sampling

Where groundwater was encountered, a groundwater sample was collected from each boring within the hollow portion of the augers. Groundwater was not encountered in borings NM03-B4, NM03-B6, or NM03-B8; therefore, samples were not collected at these locations. At borings that encountered groundwater, the depth to groundwater was measured using an electric water-level sounder prior to sampling. The measurements were recorded from the ground surface to the nearest 3 millimeters (0.01 foot). Sampling data were documented on groundwater sampling summary forms, which include the sampler's name, boring identification, date, and time the sample was collected.

Groundwater samples were collected with new Teflon®-lined disposable bailers and dispensed into appropriate, laboratory-supplied containers. For samples to be analyzed for VOCs, no head space was allowed.

7.8. Trip Blanks and Field Blanks

A trip blank, consisting of deionized water placed into containers by the analytical testing laboratory, accompanied the hollow-stem auger samples collected during each day of fieldwork. The trip blank was used to document sample handling and the potential for cross contamination of samples during sample transport. A field blank, consisting of deionized water poured over the sampling equipment (e.g., brass liners or Teflon bailer for hollow-stem auger drilling and stainless steel auger for hand auger sampling), was collected for each day of field sampling. The field blank was collected to document the condition of sampling equipment. The samples were immediately dispensed into appropriate laboratory-supplied containers, labeled with pertinent information, and placed in a cooler for transport by courier to EMAX Laboratories.

7.9. Analytical Testing Program

Analytical testing was performed in general accordance with the Task Order and was selected by Department personnel based on the contaminants of potential concern at the boring location. Soil and groundwater samples collected from the hollow-stem auger borings were analyzed for multiple contaminants of potential concern depending on location. The analytical protocols are presented in Table 1. Up to five soil samples from each hollow-stem auger boring were submitted for analysis. One soil sample from the total depth of each hand auger boring was submitted for analysis. Hand auger and select hollow-stem auger soil samples were analyzed for lead by USEPA method 6010B. Select hand auger soil samples were also analyzed for leachable lead by the WET method, the WET method using deionized water, and TCLP.

The field blanks for the hollow-stem auger borings were analyzed based on the analytical suite requested for the boring for which the blank was prepared. The field blanks for the hand auger borings were analyzed for lead. The trip blanks were analyzed for VOCs.

Table 1 – Hollow-Stem Auger Sample Analytical Testing

Interchange	TPH g/d		VOCs		SVOCs		Metals		PCBs	
	S	G	S	G	S	G	S	G	S	G
Del Mar Heights	3/b	1/b	3/b	1/b	3/b	1/b	3/b	1/b	3/b	1/b
Via de la Valle	3/b	1/b	3/b	1/b	3/b	1/b	3/b	1/b	3/b	1/b
Lomas Santa Fe	3/b	1/b	3/b	1/b	3/b	1/b	--	Pb only	--	--
Manchester	3/b	1/b	3/b	1/b	--	--	--	Pb only	--	--
Birmingham	3/b	1/b	3/b	1/b	--	--	--	Pb only	--	--

Notes:
1/b = 1 sample per boring
3/b = 3 samples per boring
G = groundwater sample
Title 22 Metals = USEPA test method 6010B/7471A
PCB = polychlorinated biphenyls - USEPA test method 8082
TPH g/d = total petroleum hydrocarbons gas/diesel - USEPA test method 8015
Pb = lead
S = soil sample
SVOCs = semi-volatile organic compounds - USEPA test method 8270
VOCs = volatile organic compounds and fuel oxygenates - USEPA test method 8260B
-- = not applicable

7.10. Sample Labeling, Containers, Preservatives, and Holding Times

Soil and/or groundwater samples collected from each location were placed into appropriate laboratory-supplied containers or clean brass sleeves. The containers and sleeves were labeled with pertinent information, written in indelible ink, and contained the following information:

- project name;
- unique sample identification number;
- project location;
- date and time of collection;
- sampler's initials; and
- sample preservative, if applicable.

Sample identification numbers were designated as follows:

- NM03-B1-5-5.5 = Ninyo and Moore (NM03), boring one (B1), soil sampled at a depth of 1.5 meters to 1.7 meters (5-5.5 feet) bgs.
- NM03-B1-GW = Ninyo and Moore (NM03), boring one (B1), groundwater sample (GW).
- I5SB-DMH-HA145 = Sample collected along the southbound side of I-5 north of the Del Mar Heights interchange, hand auger boring 145.

7.11. Field Documentation

The following documentation was prepared while in the field.

7.11.1. Daily Field Logs

Daily field logs were prepared by the field personnel and included a chronology of field activities performed, deviations from the work plan, if any, visitors to the Site, and other pertinent information.

7.11.2. Boring Logs

Boring logs were prepared in the field under the supervision of a California-Professional Geologist. The information recorded on each field boring log included the following:

- project name and number;
- unique boring identifier and datum;
- drilling equipment;
- drilling method and boring diameter;
- name of sampler, logger, and reviewer;
- depth interval;
- earth material descriptions in general accordance with the USCS;
- approximate depths to strata changes, bedrock, and groundwater, as applicable;
- lithology (if rock or geologic formation material was encountered);
- photoionization detector (PID) readings in parts per million (ppm) at each sample depth;
- number of blows per 15-centimeter (0.5 feet) or partial penetration increment; and,
- boring abandonment summary.

7.11.3. Chain-of-Custody

Sample chain-of-custody procedures were followed through sample collection, transfer, analysis, and disposal to ensure that the integrity of the samples was maintained. A description of sample custody procedures for sample collection is provided below.

Field personnel logged individual samples onto triplicate chain-of-custody forms at the time the sample was collected. Information for each sample recorded on the chain-of-custody form included sample identification number, matrix, date and time of collection, number and type of containers, analytical methods to be performed on the sample, laboratory turn-around time, and added preservatives, if any. Upon relinquishing the samples to the laboratory, the chain-of-custody forms were signed and dated by the field personnel and the condition of the samples was noted on the form by the analytical testing laboratory. The laboratory personnel accepting the samples signed and noted the date and time on the chain-of-custody form upon receipt. The chain-of-custody documentation accompanied the samples from the field to the laboratory. The sampler retained one copy of the chain-of-custody form.

7.12. Decontamination Procedures for Non-Sample Contacting Equipment

Drilling and sampling equipment were decontaminated by the drilling contractor prior to drilling operations and between borings. Applicable drilling equipment was placed in the decontamination area and cleaned using a high temperature, high pressure wash system.

7.13. Soil and Fluid Disposal

Soil cuttings and decontamination fluids generated from field activities were placed into 30 properly labeled 55-gallon drums, and stored in a pre-selected, on-Site location pending disposition. Wastes were disposed of by Ocean Blue Environmental Services at Crosby and Overton of Long Beach, California, as non-hazardous waste based on review of the laboratory analytical results. The non-hazardous waste manifest is included as Appendix C.

7.14. Air Monitoring during Drilling

Ambient air quality was monitored during drilling and sampling activities according to the guidelines established in the SHSP. The frequency of air monitoring intervals was dependent on such factors as type of contaminant(s), weather conditions (e.g., wind direction and velocity), location and proximity of sensitive receptors, and drilling conditions. A PID was used to monitor concentrations of total VOCs in the breathing space at worker chest level. Prior to initiating drilling activities, the PID was calibrated according to the manufacturer's instructions.

7.15. Deviations from the Work Plan

In general, the scope of work for the limited assessment was conducted in accordance with the Task Order and amendment and the May 13, 2005 work plan. The deviations from the work plan included the following:

- Two hand auger boring locations were identified as I5NB-LSF-HA23, one location was sampled at 0.15 meters (0.5 feet) and one was sampled at 0.6 meters (2.0 feet). They were two different sampling locations. In addition, two other hand auger boring locations were identified as I5NB-MAN-HA38, both were sampled at 0.15 meters (0.5 feet), however; they were two different sampling locations. The duplicate samples are reported in the tables with an asterisk (*). The samples are differentiated based on the date and time of sample collection and the GPS locational data for each boring.
- Soil samples collected from NM03-B2, B3, and B7 were analyzed for benzene, toluene, ethylbenzene, xylenes, and fuel oxygenates rather than the full USEPA method 8260B VOC list due to an error at the laboratory.
- Groundwater was not encountered in borings NM03-B4, NM03-B6, and NM03-B8; therefore, groundwater samples were not collected at these locations.

These deviations do not impact the conclusions or recommendations included in this report as stated; however, since groundwater samples were not collected in three locations, conclusions regarding the presence and concentration of potential contaminants cannot be provided. Likewise, since the full list of VOCs was not analyzed for in soil samples collected from NM03-B2, -B3, and B-7, the presence and concentration of potential contaminants not analyzed for cannot be provided.

8. ASSESSMENT RESULTS AND FIELD OBSERVATIONS

The following sections describe the geography, geology, and the hydrogeology of the Site, field observations, and results of this assessment.

8.1. Geography

The Site varies in elevation from approximately 9 to 92 meters (20 to 300 feet) above mean sea level (MSL) along the alignment, according to the United States Geological Survey (USGS) Del Mar and Encinitas Quadrangles (USGS, 1968 and USGS, 1967). Surface drainage for the Site varies throughout the alignment.

8.2. Geology

This section summarizes the regional geologic setting and Site geologic conditions. The information is based on review of the referenced, published, and unpublished reports, and observations made by Ninyo & Moore at the Site.

8.2.1. Regional Geologic Setting

The Site is situated at the western margin of the Peninsular Ranges geomorphic province characterized by northwest-trending mountain ranges separated by subparallel fault zones (Norris and Webb, 1990). In general, the province consists of rugged mountains underlain by Mesozoic-age metamorphic and crystalline rocks to the east, with a dissected coastal plain underlain by Cenozoic-age sedimentary rock sequences to the west.

8.2.2. Site Geologic Conditions

The USGS Geologic Map of the Del Mar Quadrangle (USGS, 1975) and Division of Mines and Geology (DMG), Encinitas Quadrangle (DMG, 1996) were reviewed to obtain Site geological information. The Del Mar Heights interchange is underlain by Torrey Sandstone. Moving northward, the Site is underlain by the Bay Point Formation, and alluvium is prominent throughout the San Dieguito Valley up to the Via de la Valle interchange. The Site north of Via de la Valle is underlain by Bay Point Formation, fol-

lowed by Torrey Sandstone, up to Lomas Santa Fe, which is underlain by Bay Point Formation. Torrey Sandstone and the Del Mar Formation are intertongued northward from Lomas Santa Fe, and alluvium is prominent throughout the San Elijo Lagoon, north to Manchester Avenue. The Torrey Sandstone and Del Mar Formation are intertongued northward toward Birmingham, which is underlain by Torrey Sandstone.

Soils encountered during drilling varied by location and included fill and alluvium underlain by formations including the Torrey Sandstone and Bay Point Formation. Boring logs are provided in Appendix A.

8.3. Hydrogeology

This section summarizes the regional hydrogeologic setting and Site hydrogeologic conditions. The information is based on our review of the referenced published and unpublished reports and observations made by Ninyo & Moore at the Site.

8.3.1. Regional Hydrogeologic Setting

A review of available hydrogeologic data from the Regional Water Quality Control Board (RWQCB) Region 9 Basin Plan provided the information presented in Table 2 regarding the hydrologic units and beneficial uses of groundwater and surface water (RWQCB, 1994).

Table 2 – Hydrologic Setting and Uses

Inter-change	Hydrologic Unit	Hydrologic Area	Hydrologic Subarea	Existing Beneficial Uses* (Groundwater)	Existing Beneficial Uses (Surface Water)
Carmel Valley	Peñasquitos	Miramar Reservoir	--	MUN**, AGR, IND	REC, BIOL, EST, WILD, RARE, MAR, MIGR, SPWN,
Del Mar Heights	Peñasquitos	Miramar Reservoir	--	MUN**, AGR, IND	REC, BIOL, EST, WILD, RARE, MAR, MIGR, SPWN,

Table 2 – Hydrologic Setting and Uses

Inter-change	Hydrologic Unit	Hydrologic Area	Hydrologic Subarea	Existing Beneficial Uses* (Groundwater)	Existing Beneficial Uses (Surface Water)
Via de la Valle	San Dieguito	Solana Beach	Rancho Santa Fe	MUN**, AGR, IND	REC, BIOL, EST, WILD, RARE, MAR, MIGR, SPWN
Lomas Santa Fe	San Dieguito	Solana Beach	Rancho Santa Fe	MUN**, AGR, IND	REC, BIOL, EST, WILD, RARE, MAR, MIGR, SPWN
Manchester	Carlsbad	Escondido Creek	–	MUN**, AGR, IND	MUN, AGR, IND***, POW, REC, WARM, COLD, WILD
Birmingham	Carlsbad	Escondido Creek	–	MUN**, AGR, IND	MUN, AGR, IND***, POW, REC, WARM, COLD, WILD

Notes:
AGR - agricultural supply
BIOL - preservation of biological habitats
COLD - cold freshwater habitat
EST - estuarine habitat
IND - industrial service supply
MAR - marine habitat
MIGR - migratory habitat
MUN - municipal and domestic supply
POW - hydropower generation
REC - water recreation
SPWN - spawning, reproduction, and/or early development
WARM - warm freshwater habitat
WILD - wildlife habitat
* There are no potential beneficial uses for groundwater
**Groundwater is excepted from municipal use westerly of the easterly boundary of the I-5 right-of-way (RWQCB, 1994)
*** Potential beneficial use

8.3.2. Site Hydrogeologic Conditions

During drilling, groundwater was encountered in seven of the boring locations (Table 3). Depth to groundwater ranged from 1.52 meters (5 feet) bgs in boring NM03-B5 to 25.3 meters (83 feet) bgs in boring NM03-B1. Groundwater levels, gradient, and flow direction may fluctuate due to seasonal variations, irrigation, groundwater withdrawal or injection, and other factors.

Table 3 – Depth to Groundwater

Boring ID	Location	Depth to Groundwater
NM03-B1	Del Mar Heights Road (East)	25.3 meters (83 feet)
NM03-B2	Via de la Valle (East)	8.53 meters (28 feet)
NM03-B3	Via de la Valle (West)	7.93 meters (26 feet)

Table 3 – Depth to Groundwater

Boring ID	Location	Depth to Groundwater
NM03-B4	Del Mar Heights Road (West)	not encountered
NM03-B5	Manchester Avenue (East)	1.52 meters (5 feet)
NM03-B6	Loma Santa Fe Drive (West)	not encountered
NM03-B7	Birmingham Drive (South-East)	5.79 meters (19 feet)
NM03-B8	Loma Santa Fe Drive (East)	not encountered
NM03-B9	Manchester Avenue (West)	3.05 meters (10 feet)
NM03-B10	Birmingham Drive (North-East)	7.62 meters (25 feet)

8.4. Analytical Results

Analytical results of soil and water samples collected are presented on Tables 4 through 9. Copies of the laboratory analytical reports, including quality control/quality assurance data and chain-of-custody documentation, are included in Appendix D.

Several constituents were detected in soil and groundwater at concentrations below the reporting limit but above the method detection limit, which allows the laboratory to report the presence of the constituent. However, the laboratory cannot quantify the amount of the constituent with sufficient accuracy, thus the laboratory reports the presence and estimated concentration of the constituent with a qualifier that the concentration presented is an estimate. The concentrations of constituents that were detected and estimated are below regulatory action levels.

8.4.1. Hand Auger Soil Sample Results

The following summarizes the soil sample analytical results for the hand auger borings as presented in Table 4.

- Total lead was detected in 187 of the 189 samples collected at concentrations ranging from 1.15 to 246 mg/kg.
- Soil samples collected from seven hand auger borings contained concentrations of lead that exceeded the 50 mg/kg threshold criterion for leachability. The concentration criterion of 50 mg/kg of lead was selected because leachability, one of the

primary concerns for reuse, off-Site disposal, and waste characterization, is analyzed using a method with a 10 times dilution. Since the soluble hazardous waste criterion, the soluble threshold limit concentration (STLC), is 5 mg/ℓ for lead and the dilution factor is 10, a soil sample containing a concentration of total lead below 50 mg/kg should not leach at concentrations above 5 mg/ℓ.

- The upper 80% confidence level of the mean concentration of lead in the soil samples analyzed was 14.26 mg/kg (Table 10).
- The soil samples I5SB-BIR-HA105 and -HA110 leached lead using the WET method at concentrations of 8.81 and 13.5 mg/ℓ, respectively, above the hazardous waste criteria of 5 mg/ℓ. None of the other samples analyzed using the WET method leached lead at or above 5 mg/ℓ.
- None of the samples analyzed using the TCLP method leached lead at concentrations at or above 5 mg/ℓ.
- Four samples leached lead above the variance criteria of 0.5 mg/ℓ using the modified WET method.
- The pH of the soil samples analyzed ranged from 3.26 to 9.04.

8.4.2. Soil Boring Sample Results

The following summarizes soil sample analytical results as presented in Tables 5 and 6.

- Soil samples collected from borings B-1 through B-10 did not contain detectable concentrations of TPH-g. TPH-d was detected in soil samples collected from NM03-B02, -B03, and -B07 as described below:
    - The soil samples collected from boring NM03-B02 at depths of 7.6 and 9.2 meters (y25 and 30 feet) bgs contained TPH-d at concentrations of 14 and 52 mg/kg, respectively.
    - The soil sample collected from boring NM03-B03 at a depth of 7.6 meters (25 feet) bgs contained TPH-d at a concentration of 180 mg/kg.
    - The soil sample collected from boring NM03-B07 at a depth of 1.5 meters (5 feet) bgs contained TPH-d at a concentration of 1,100 mg/kg.
- VOCs were detected in soil samples collected from borings NM03-B01, B05, and B09 at depths ranging from 1.7 to 6.3 meters (5.5 to 20.5 feet) bgs.

- The soil samples collected from borings NM03-B01 at 1.7 meters (5.5 feet) bgs, NM03-B05 at 1.7 meters (5.5.feet) bgs, and NM03-B09 at 3.2 meters (10.5 feet) bgs contained acetone at concentrations of 12, 49, and 15 µg/kg, respectively.
- Carbon disulfide was detected in the soil sample collected from boring NM03-B09 at 6.3 meters (20.5 feet) bgs at a concentration of 8 µg/kg.

- Concentrations of SVOCs and PCBs were not detected at or above the reporting limit in the soil samples submitted for analysis.
- Concentrations of several Title 22 metals were detected in the samples analyzed, but below threshold criteria that would indicate the soil could leach those metals at concentrations that would classify the soil as a hazardous waste for disposal purposes.

8.4.3. Groundwater Sample Results

The following summarizes the groundwater sample analytical results as presented in Tables 7 and 8.

- The groundwater samples did not contain concentrations of TPH-G or PCBs at or above the reporting limit.
- The groundwater samples did not contain concentrations of TPH-d at or above the reporting limit with the exception of the groundwater sample collected from boring NM03-B9, which contained TPH-d at a concentration of 0.51 micrograms per liter (µg/ℓ).
- VOCs were detected in groundwater samples collected from borings NM03-B1, -B9, and -B10 as summarized below.
  - MTBE was detected at concentrations of 350 and 990 µg/ℓ in groundwater samples collected from borings NM03-B7 and NM03-B10, respectively.
  - A concentration of 2.5 µg/ℓ of 1,2-dichloropropane was detected in the groundwater sample collected from boring NM03-B9.
  - Tert-butanol was detected in the groundwater samples collected from borings NM03-B7 and NM03-B10 at concentrations of 59 and 72 µg/ℓ, respectively.
  - DIPE was detected in the groundwater sample collected from boring NM03-B7 at a concentration of 1.5 µg/ℓ.

- TAME was detected in the groundwater samples collected from borings NM03-B7 and NM03-B10 at concentrations of 1.1 and 6.7 µg/ℓ, respectively.

- BEHP, an SVOC, was detected in the groundwater samples collected from NM03-B3, NM03-B5, and NM03-B9 at concentrations of 10, 19, and 11 µg/ℓ, respectively.

- Title 22 metals were detected in the groundwater samples analyzed, but below concentrations that would classify the water as hazardous.

- One trip blank, NM03-B4-TRIP, contained methylene chloride at a concentration of 1.8 µg/ℓ. No other VOCs were detected in the trip blanks (Table 9).

- The hollow-stem auger field blanks did not contain detectable concentrations of TPH-g, TPH-d, PCBs, or SVOCs. Zinc was detected at a concentration of 0.0172 mg/ℓ in the sample NM03-B1-EQUIP and acetone was detected at a concentration of 34 µg/ℓ in the sample NM03-B10-EQUIP.

- The hand auger field blanks did not contain lead above the reporting limit.

9. DATA EVALUATION AND DISCUSSION

The following sections describe the nature and extent of soil and groundwater impacts at the Site in the areas evaluated.

9.1. Soil Data Evaluation and Discussion

Based on information obtained from hollow-stem auger borings, petroleum hydrocarbon and/or VOC-impacted soil is present at depths ranging from 1.5 to 9.2 meters (5 to 30 feet) in borings NM03-B1, B2, B3, B7, and B9. Concentrations of some Title 22 metals were detected in all of the soil samples analyzed for metals; however, the concentrations detected were not above threshold criteria that would suggest leachability would be of concern for disposal purposes.

Soil containing concentrations of TPH and VOCs may be considered a waste by the local regulatory agency if the soil is excavated and disposed of. The concentrations of acetone in the soil samples may be a laboratory artifact since acetone is used as an extractant in the

laboratory. Acetone was detected in a field blank at a concentration of 34 µg/ℓ. Carbon disulfide is used in the manufacturing of rayon, cellophane, carbon tetrachloride, and flotation agents, and is also naturally occurring in marshes and coastal or ocean environments.

Based on the analytical results of the hand auger samples, the soil assessed meets the criteria specified in the ADL variance granted to the Department and could be reused on Site under the provisions set forth in the variance. The data further suggest that the soil as a whole would not be considered a hazardous waste for disposal purposes; however, additional analytical data may be required by local regulators or waste disposal facility prior to off-site disposal.

The results of the ADL survey conducted as part of this report indicate that the soil is non-hazardous and meets the criteria for ruse under the variance. The results of the survey conducted by Geocon indicate that some soil is considered a hazardous waste and does not meet the variance criteria for reuse. It should be noted that the soil sampling locations, and therefore the data sets, were different for the two assessments. Data evaluated by Geocon were generated from soil samples collected from the median of the highway and from between 1 and 4 meters (3 and 13 feet) from the paved shoulder of the highway. The soil samples collected during the Ninyo & Moore assessment were collected from approximately 3 meters (10 feet) from the paved shoulder to the edge of the Department right-of-way. The data may be used for evaluating the potential to segregate soil for different disposal/reuse option or may be evaluated as a whole with the understanding that the two data sets were generated form samples collected from different areas of the right-of-way.

9.2. Groundwater Data Evaluation and Discussion

The groundwater samples collected from borings NM03-B3, B5, B7, B9, and B10 contained detectable concentrations of TPH-d, VOCs, and bis (2-ethylhexyl) phthalate (BEHP). PCBs were not detected above the reporting limit in the groundwater samples. Concentrations of some Title 22 metals were detected in each of the groundwater samples, but not at concentrations above regulatory action levels.

The concentrations of TPH, VOCs, BEHP, and some metals may be of concern if dewatering in these areas is proposed. The water may require treatment prior to discharge into the storm sewer or sanitary sewer under the required permit.

The presence of TPH and VOCs in the groundwater samples are likely due to off-Site sources related to petroleum releases adjacent to the highway. BEHP is a suspected laboratory contaminant that can originate from plastics used in the collection or analysis procedures, or from the sample drying process in the laboratory procedures. BEHP is used to increase flexibility in plastics.

10. CONCLUSIONS

Based on the results of this limited Site assessment, the following conclusions are provided at this time.

10.1. Soil

- At locations explored, the Site is generally underlain by fill and alluvial soils, which are underlain by the Torrey Sandstone or the Bay Point Formation.
- Concentrations of TPH-G, SVOCs, and PCBs were not detected above the reporting limit in the soil samples collected from the hollow-stem auger borings.
- Concentrations of TPH-d and VOCs were detected in soil samples collected from borings NM03-B1, B2, B3, B5, B7, and B9. Concentrations of some Title 22 metals were detected in all of the soil samples analyzed for metals, but at concentrations below threshold criteria that would indicate leachability would be of concern for waste disposal.
- Of the 189 soil samples analyzed for lead, 187 samples contained reportable concentrations of lead ranging from 1.15 to 246 mg/kg. The upper 80% confidence level of the mean of total lead concentrations of the 189 soil samples analyzed was 14.26 mg/kg. Fifty individual samples were analyzed for leachability following the California WET procedure. Of these 50 samples, two exceeded the hazardous waste criterion of 5 mg/ℓ. Thirty individual samples were analyzed for leachability following a modified WET procedure using a deionized water extraction. Of these 30 samples, four samples leached lead at concentrations at or above the Department of Toxic Substances Control ADL Variance criterion of 0.5 mg/ℓ. Fifty individual samples were analyzed for leachability following the federal toxicity characteristic leaching procedure. None of these

samples leached lead above the federal hazardous waste criterion of 5 mg/ℓ. The pH of the 50 soil samples analyzed ranged from 3.26 to 9.04.

- Based on the analytical results of the hand auger samples, the soil assessed meets the criteria specified in the ADL variance granted to the Department and could be reused on Site under the provisions set forth in the variance. The data further suggest that the soil as a whole would not be considered a hazardous waste for disposal purposes; however, additional analytical data may be required by local regulators or waste disposal facility prior to off-site disposal.

10.2. Groundwater

- Groundwater was encountered during drilling at seven of ten locations. Depth to groundwater ranged from 1.52 meters (5 feet) bgs in boring NM03-B5 to 25.3 meters (83 feet) bgs in boring NM03-B1.

- Concentrations of TPH-G and PCBs were not detected above the reporting limit in the groundwater samples collected.

- Concentrations of TPH-d, VOCs, and/or SVOCs were detected in five of the seven samples analyzed. Concentrations of some Title 22 metals were detected above the reporting limit.

10.3. Groundwater

- This assessment was limited to evaluating TPH, VOCs, SVOCs, PCBs, and metals in soils and groundwater at specific locations approved by Department personnel. Other areas not evaluated as part of this limited assessment may contain similar types of soil and groundwater impacts. In addition, other types of soil and groundwater impacts, not tested for as part of this limited assessment, may be present in some soil and groundwater as a result of past and/or current Site use and adjacent property uses.

- The limited nature of this assessment did not include delineating the lateral extent of the impacted soil and groundwater, identifying the contaminant source(s), or evaluating other areas of potentially impacted groundwater.

- If the proposed expansion involves construction dewatering, groundwater will likely require pretreatment if discharged to the storm sewer under a NPDES permit. If the dewatering effluent is discharged to the sanitary sewer, it would require a sewer discharge permit through the local municipality, and may require treatment prior to discharge.

11. RECOMMENDATIONS

Based upon the results of the Site assessment activities conducted, current and future uses of the site, and anticipated general construction activities that may associated with proposed widening of the subject corridor, the following recommendations are provided:

- If the soil is subject to export, it should be characterized for the appropriate waste classification and in accordance with the requirements of the permitted disposal facility.
- If the planned road expansion involves construction dewatering, impacted groundwater may require treatment prior to discharge, under a National Pollution Discharge Elimination System (NPDES) or sewer discharge permit.
- Due to the presence of impacted soils, construction activities should be performed in accordance with a Site-specific health and safety plan and a soil management plan.
- If soil that has been impacted by ADL is reused at the Site, the soil should be handled and reused in accordance with the provisions of the DTSC ADL Variance.

12. PROJECT PERSONNEL AND SUBCONTRACTORS

Stephan Beck of Ninyo & Moore was the Task Order manager and provided technical input; assisted in the planning, coordination, and data evaluation; and reviewed this report. Scott Snyder of Ninyo & Moore was the project manager for Department Task Order No. 9 and coordinated all field activities and prepared the report. Matt Fuller of Ninyo & Moore conducted field activities and assisted in report preparation. Peter Clark, Tim Brown, Matt Roe, Lauren Hedges, and Shannon Smith also conducted field activities and provided quality control review of various portions of the report. Stephen Waide of Ninyo & Moore is the CIH who reviewed, approved, and signed the SHSP. Southwest Geophysics, Inc. conducted the geophysical survey. Tri-County Drilling conducted the hollow-stem auger drilling. EMAX Laboratories, Inc. conducted the laboratory analysis. American Barricade provided traffic control services. Ocean Blue Environmental Services transported the soil cuttings and decontamination fluids to an appropriate facility for disposal/recycling.

13. LIMITATIONS

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. Please also note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards.

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited subsurface assessment and chemical analysis. Further assessment of potential adverse environmental impacts from past on-Site and/or nearby use of hazardous materials may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated; however, conditions can vary significantly between sampling locations. Variations in soil and/or groundwater conditions will exist beyond the points explored in this evaluation.

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 Site. The testing and analyses have been conducted by an independent laboratory which 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.

Our conclusions, recommendations, and opinions are based on an analysis of the observed Site conditions. It should be understood that the conditions of a Site could change with time as a result of natural processes or the activities of man at the Site or nearby properties. 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.

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.

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.

14. SELECTED REFERENCES

California Regional Water Quality Control Board, State Water Resources Control Board, 1994, Water Quality Control Plan, Region 9.

Division of Mines and Geology, 1996, Geology of the Encinitas 7.5-minute Quadrangle, San Diego County, California, Scale 1:24,000.

Norris, R.M. and Webb, R.W., 1990, Geology of California, Section Edition: John Wiley & Sons, Inc.

United States Geological Survey, 1975, Geology of the Del Mar 7.5-minute Quadrangle, San Diego County, California, Scale 1:24,000.

United States Geological Survey, 1968, Del Mar Quadrangle, California: 7.5-minute series (topographic), Scale 1:24,000: Photorevised 1975.

United States Geological Survey, 1967, Encinitas Quadrangle, California: 7.5-minute series (topographic), Scale 1:24,000: Photorevised 1975.

Table 4 - Summary of Soil Sample Analytical Results - Hand Auger Borings

Sample ID	Depth (meters)	Depth (feet)	Total Lead (mg/kg)	WET (mg/L)	WET-DI (mg/L)	TCLP (mg/L)	pH
I5NB-DMH-HA01	1.53	5	1.47	ND	--	ND	5.15
I5NB-DMH-HA02	0.15	0.5	4.72	0.187	--	ND	6.24
I5NB-DMH-HA03	0.3	1	4.25	--	--	--	--
I5NB-DMH-HA04	0.76	2.5	9.85	0.317	--	ND	9.04
I5NB-DMH-HA05	1.1	3.5	12.3	--	--	--	--
I5NB-DMH-HA06	0.15	0.5	15.9	--	--	--	--
I5NB-DMH-HA07	1.53	5	21.1	0.368	--	ND	7.61
I5NB-DMH-HA08	1.53	5	5.87	--	--	--	--
I5NB-DMH-HA09	1.53	5	14.7	0.395	--	ND	8.73
I5NB-DMH-HA10	0.76	2.5	1.7	--	--	--	--
I5NB-DMH-HA11	0.91	3	12.4	--	--	--	--
I5NB-VDLV-HA12	0.76	2.5	2.3	--	--	--	--
I5NB-VDLV-HA13	0.15	0.5	1.45	0.0899	--	ND	6.47
I5NB-VDLV-HA14	0.76	2.5	1.85	--	--	--	--
I5NB-VDLV-HA15	1.53	5	4.55	--	--	--	--
I5NB-VDLV-HA16	0.15	0.5	9.84	0.425	--	ND	6.36
I5NB-VDLV-HA17	1.53	5	2.16	--	--	--	--
I5NB-LSF-HA18	0.15	0.5	4.51	0.231	--	ND	4.86
I5NB-LSF-HA19	0.6	2	2.65	--	--	--	--
I5NB-LSF-HA20	0.15	0.5	10.4	--	--	--	--
I5NB-LSF-HA21	0.6	2	3.27	0.0692	--	ND	6.03
I5NB-LSF-HA22	0.76	2.5	13.5	--	--	--	--
I5NB-LSF-HA23	0.15	0.5	**246**	3.75	--	ND	5.76
I5NB-LSF-HA23*	0.6	2	2.14	--	--	--	--
I5NB-LSF-HA24	0.15	0.5	13.8	--	--	--	--
I5NB-LSF-HA25	0.91	3	2.8	--	--	--	--
I5NB-LSF-HA26	0.15	0.5	16	--	--	--	--
I5NB-LSF-HA27	0.91	3	2.51	--	--	--	--
I5NB-LSF-HA28	0.15	0.5	2.9	--	--	--	--
I5NB-LSF-HA29	1.53	5	2.79	--	--	--	--
I5NB-LSF-HA30	0.6	2	17.3	--	--	--	--
I5NB-LSF-HA31	0.31	1	6.13	0.0769	--	ND	5.14
I5NB-LSF-HA32	0.6	2	10.6	--	--	--	--
I5NB-MAN-HA33	0.31	1	16.2	1.06	--	ND	6.05
I5NB-MAN-HA34	0.6	2	4.03	--	--	--	--
I5NB-MAN-HA35	0.31	1	41	2.4	--	ND	6.45
I5NB-MAN-HA36	0.6	2	8.85	--	--	--	--
I5NB-MAN-HA37	0.6	2	8.7	--	--	--	--
I5NB-MAN-HA38	0.15	0.5	16.9	--	--	--	--
I5NB-MAN-HA38*	0.15	0.5	2.8	--	--	--	--
I5NB-MAN-HA39	0.31	1	3.38	--	--	ND	7.37
I5NB-MAN-HA40	0.31	1	22.3	--	--	--	--
I5NB-MAN-HA41	0.6	2	17.2	--	--	--	--
I5NB-MAN-HA42	0.6	2	16.1	--	--	--	--
I5NB-MAN-HA43	0.31	1	1.51	--	--	--	--
I5NB-MAN-HA44	0.31	1	**64.7**	4.6	--	0.126	5.92

Table 4 - Summary of Soil Sample Analytical Results - Hand Auger Borings

Sample ID	Depth (meters)	Depth (feet)	Total Lead (mg/kg)	WET (mg/L)	WET-DI (mg/L)	TCLP (mg/L)	pH
I5NB-MAN-HA45	1.53	5	6	--	--	--	--
I5NB-MAN-HA46	0.31	1	49.5	1.45	--	ND	7.95
I5NB-MAN-HA47	0.31	1	9.43	--	--	--	--
I5NB-MAN-HA48	0.91	3	5.63	--	--	--	--
I5NB-MAN-HA49	0.31	1	8.71	--	--	--	--
I5NB-MAN-HA50	0.31	1	2.78	--	--	--	--
I5NB-MAN-HA51	0.91	3	2.04	--	--	--	--
I5NB-MAN-HA52	0.31	1	2.1	--	--	--	--
I5NB-MAN-HA53	0.6	2	1.89	--	--	--	--
I5NB-MAN-HA54	0.6	2	1.4	0.115	--	ND	5.48
I5NB-MAN-HA55	0.91	3	3.85	--	--	--	--
I5NB-MAN-HA56	0.91	3	13.5	--	--	--	--
I5NB-MAN-HA57	0.6	2	8.89	--	--	--	--
I5NB-MAN-HA58	0.31	1	7.45	--	--	--	--
I5NB-MAN-HA59	0.91	3	10.7	--	--	--	--
I5NB-MAN-HA60	0.31	1	11.5	0.488	--	ND	8.2
I5NB-MAN-HA61	0.91	3	2.72	--	--	--	--
I5NB-MAN-HA62	0.6	2	3.06	--	--	--	--
I5NB-MAN-HA63	0.15	0.5	2.64	--	--	--	--
I5NB-MAN-HA64	0.31	1	7.21	--	--	--	--
I5NB-MAN-HA65	0.6	2	8.49	--	--	--	--
I5NB-MAN-HA66	0.6	2	12.6	--	--	--	--
I5NB-MAN-HA67	0.6	2	2.33	--	--	--	--
I5NB-MAN-HA68	0.91	3	3.81	--	--	--	--
I5NB-MAN-HA69	0.91	3	1.57	--	--	--	--
I5NB-MAN-HA70	0.6	2	4.11	--	--	--	--
I5NB-MAN-HA71	0.31	1	6.88	--	--	--	--
I5NB-MAN-HA72	0.6	2	2.69	--	--	--	--
I5NB-MAN-HA73	0.91	3	2.6	--	--	--	--
I5NB-MAN-HA74	0.91	3	23.9	ND	0.212	ND	6.94
I5NB-MAN-HA75	0.15	0.5	9.61	--	--	--	--
I5NB-MAN-HA76	0.31	1	2.89	--	--	--	--
I5NB-MAN-HA77	0.91	3	1.71	0.0984	0.0531	ND	6.05
I5NB-MAN-HA78	0.15	0.5	**65**	0.612	0.406	ND	6.77
I5SB-MAN-HA79	0.31	1	11.2	--	--	--	--
I5SB-MAN-HA80	0.15	0.5	15	--	--	--	--
I5SB-MAN-HA81	0.31	1	2.67	--	--	--	--
I5SB-MAN-HA82	0.15	0.5	3.17	--	--	--	--
I5SB-MAN-HA83	0.31	1	2.66	0.0586	0.0908	ND	8.2
I5SB-MAN-HA84	0.91	3	3.13	--	--	--	--
I5SB-MAN-HA85	0.6	2	4.25	--	--	--	--
I5SB-MAN-HA86	0.91	3	2.03	--	--	--	--
I5SB-MAN-HA87	0.15	0.5	2.82	ND	ND	0.407	7.88
I5SB-MAN-HA88	0.91	3	11.9	--	--	--	--
I5SB-MAN-HA89	0.6	2	9.65	--	--	--	--
I5SB-MAN-HA90	0.15	0.5	7.59	--	--	--	--

Table 4 - Summary of Soil Sample Analytical Results - Hand Auger Borings

Sample ID	Depth (meters)	Depth (feet)	Total Lead (mg/kg)	WET (mg/L)	WET-DI (mg/L)	TCLP (mg/L)	pH
I5SB-MAN-HA91	0.31	1	24.1	--	--	--	--
I5SB-MAN-HA92	0.31	1	8.16	0.215	ND	ND	8.29
I5SB-MAN-HA93	0.31	1	4.04	--	--	--	--
I5SB-MAN-HA94	0.15	0.5	4.46	--	--	--	--
I5SB-MAN-HA95	0.31	1	4.5	0.244	0.067	ND	6.55
I5SB-MAN-HA96	0.31	1	19.6	--	--	--	--
I5SB-MAN-HA97	0.15	0.5	1.48	--	--	--	--
I5SB-MAN-HA98	0.91	3	5.45	--	--	--	--
I5SB-MAN-HA99	0.91	3	3.82	--	--	--	--
I5SB-MAN-HA100	0.6	2	4.15	--	--	--	--
I5SB-MAN-HA101	0.6	2	3.17	0.08	0.215	ND	7.12
I5SB-MAN-HA102	0.91	3	3.09	--	--	--	--
I5SB-MAN-HA103	0.31	1	9.81	--	--	--	--
I5SB-BIR-HA104	0.91	3	4.52	--	--	--	--
I5SB-BIR-HA105	0.6	2	**85.5**	**8.81**	0.43	0.138	7.39
I5SB-BIR-HA106	0.6	2	3.56	--	--	--	--
I5SB-BIR-HA107	0.91	3	5.73	--	--	--	--
I5SB-BIR-HA108	0.15	0.5	2.91	0.0744	**1.02**	ND	6.59
I5SB-BIR-HA109	0.31	1	5.06	--	--	--	--
I5SB-BIR-HA110	0.31	1	**124**	**13.5**	**1.31**	1.18	5.88
I5SB-BIR-HA111	0.31	1	3.69	--	--	--	--
I5SB-BIR-HA112	0.15	0.5	11.7	--	--	--	--
I5SB-LSF-HA113	0.31	1	34.7	--	--	--	--
I5SB-LSF-HA114	0.6	2	13.5	--	--	--	--
I5SB-LSF-HA115	0.31	1	5.19	--	--	--	--
I5SB-LSF-HA116	0.31	1	11.6	ND	ND	ND	**3.26**
I5SB-LSF-HA117	0.15	0.5	8.07	--	--	--	--
I5SB-LSF-HA118	0.31	1	5.55	--	--	--	--
I5SB-LSF-HA119	0.15	0.5	5.99	--	--	--	--
I5SB-LSF-HA120	0.6	2	3.04	0.206	0.0695	ND	6.67
I5SB-LSF-HA121	0.91	3	5.34	--	--	--	--
I5SB-LSF-HA122	0.91	3	2.59	--	--	--	--
I5SB-VDLV-HA123	0.31	1	4.77	--	--	--	--
I5SB-VDLV-HA124	0.31	1	1.89	ND	ND	ND	5.64
I5SB-VDLV-HA125	0.15	0.5	6.67	--	--	--	--
I5SB-VDLV-HA126	0.91	3	2.91	--	--	--	--
I5SB-VDLV-HA127	1.53	5	2.85	ND	ND	ND	5.89
I5SB-VDLV-HA128	0.31	1	4.78	--	--	--	--
I5SB-VDLV-HA129	0.15	0.5	2.57	--	--	--	--
I5SB-VDLV-HA130	0.91	3	3.52	--	--	--	--
I5SB-DMH-HA131	0.15	0.5	11.7	--	--	--	--
I5SB-DMH-HA132	0.15	0.5	7.05	--	--	--	--
I5SB-DMH-HA133	0.6	2	30.7	--	--	--	--
I5SB-DMH-HA134	0.31	1	11	--	--	--	--
I5SB-DMH-HA135	0.6	2	15	--	--	--	--
I5SB-DMH-HA136	0.31	1	4.1	--	--	--	--

Table 4 - Summary of Soil Sample Analytical Results - Hand Auger Borings

Sample ID	Depth (meters)	Depth (feet)	Total Lead (mg/kg)	WET (mg/L)	WET-DI (mg/L)	TCLP (mg/L)	pH
I5SB-DMH-HA137	0.15	0.5	14.7	--	--	--	--
I5SB-DMH-HA138	0.91	3	1.38	--	--	--	--
I5SB-DMH-HA139	0.31	1	12	--	--	--	--
I5SB-DMH-HA140	0.91	3	9.27	--	--	--	--
I5SB-DMH-HA141	0.31	1	1.96	0.0527	0.072	ND	6.75
I5SB-DMH-HA142	0.6	2	3.69	--	--	--	--
I5SB-DMH-HA143	0.91	3	8.06	--	--	--	--
I5SB-DMH-HA144	0.31	1	1.69	--	--	--	--
I5SB-DMH-HA145	0.15	0.5	ND	0.0943	ND	ND	7.02
I5SB-DMH-HA146	0.31	1	1.91	--	--	--	--
I5SB-DMH-HA147	0.15	0.5	1.68	--	--	--	--
I5SB-DMH-HA148	0.31	1	ND	ND	ND	ND	6.92
I5SB-DMH-HA149	0.6	2	1.15	--	--	--	--
I5SB-DMH-HA150	0.91	3	2.92	--	--	--	--
I5SB-DMH-HA151	0.31	1	5	0.0185	0.0866	ND	8.54
I5SB-DMH-HA152	0.91	3	1.88	--	--	--	--
I5SB-VDLV-HA153	0.15	0.5	**105**	--	--	--	--
I5SB-VDLV-HA154	0.15	0.5	2.04	ND	ND	ND	5.88
I5SB-VDLV-HA155	0.91	3	11.7	0.0571	0.0899	ND	6.08
I5SB-VDLV-HA156	0.31	1	18.3	--	--	--	--
I5SB-LSF-HA157	0.31	1	16.5	--	--	--	--
I5SB-LSF-HA158	0.15	0.5	13.2	0.73	0.171	0.0672	6.57
I5SB-LSF-HA159	0.15	0.5	10.8	--	--	--	--
I5SB-LSF-HA160	0.15	0.5	5.4	--	--	--	--
I5SB-MAN-HA161	0.91	3	41	--	--	--	--
I5SB-LSF-HA162	0.15	0.5	4.54	--	--	--	--
I5SB-LSF-HA163	0.31	1	6.14	--	--	--	--
I5SB-VDLV-HA164	1.53	5	3.11	--	--	--	--
I5SB-VDLV-HA165	0.91	3	6.74	--	--	--	--
I5SB-VDLV-HA166	0.6	2	1.99	--	--	--	--
I5SB-VDLV-HA167	0.6	2	3.44	--	--	--	--
I5SB-VDLV-HA168	0.15	0.5	3.85	0.164	ND	ND	5.82
I5SB-DMH-HA169	0.6	2	3.96	0.0817	0.0792	ND	5.41
I5SB-DMH-HA170	0.15	0.5	**54.1**	--	--	--	--
I5SB-DMH-HA171	0.15	0.5	6.25	0.264	0.121	ND	7.16
I5SB-DMH-HA172	0.15	0.5	3.9	0.0702	ND	ND	8.12
I5SB-DMH-HA173	0.31	1	3.29	--	--	--	--
I5SB-DMH-HA174	0.15	0.5	10.2	ND	--	ND	6.94
I5SB-DMH-HA175	0.15	0.5	11.4	0.679	0.147	ND	7.16
I5SB-DMH-HA176	0.15	0.5	42.7	3	**1.22**	0.14	9
I5SB-DMH-HA177	0.31	1	4	0.0984	--	ND	6.05
I5NB-DMH-HA178	0.15	0.5	45.8	1.55	**0.735**	ND	5.37
I5NB-DMH-HA179	0.31	1	13.7	0.319	0.147	ND	5.31
I5NB-VDLV-HA180	0.15	0.5	44	--	--	--	--
I5SB-DMH-HA181	0.31	1	6.5	--	--	--	--
I5SB-DMH-HA182	0.15	0.5	10.7	--	--	--	--

Table 4 - Summary of Soil Sample Analytical Results - Hand Auger Borings

Sample ID	Depth (meters)	Depth (feet)	Total Lead (mg/kg)	WET (mg/L)	WET-DI (mg/L)	TCLP (mg/L)	pH
I5SB-VDLV-HA183	0.31	1	22.3	--	--	--	--
I5SB-VDLV-HA184	0.91	3	3.78	--	--	--	--
I5SB-VDLV-HA185	0.6	2	11.2	--	--	--	--
I5SB-DMH-HA186	0.91	3	1.57	--	--	--	--
I5SB-DMH-HA187	0.15	0.5	17	--	--	--	--
DTSC Variance Criteria			350	N/A	0.5	N/A	<5.0
Hazardous Waste Criteria			350	5	5	N/A	<2 or >12.5
10 times STLC			50	N/A	N/A	N/A	N/A
20 times TCLP			100	N/A	N/A	N/A	N/A

Notes:
mg/kg = Milligrams per kilogram
mg/L = Milligrams per liter
-- = Not analyzed
* = misnamed sample
DI = deionized water
ND = Not detected at or above the reporting limit
STLC = Soluble Threshold Limit Concentration
TCLP = Toxicity Characteristic Leaching Procedure
WET = waste extraction test

Table 5 - Summary of Soil Sample Analytical Results - TPH, VOCs, SVOCs, and PCBs

Sample ID	Sample Depth (feet)	Sample Depth (meters)	TPH-gasoline (mg/kg)	TPH-diesel (mg/kg)	VOCs (µg/kg)		BTEX (µg/kg)	SVOCs (µg/kg)	PCBs (µg/kg)
					carbon disulfide	acetone			
NM03-B1	5.5-6	1.7-1.8	ND	ND	ND	**12**	--	ND	ND
	55.5-56	17-17.1	ND	ND	ND	ND	--	ND	ND
	61-61.5	18.7-18.8	ND	ND	ND	ND	--	ND	ND
NM03-B2	5.0	1.5	ND	ND	--	--	ND	ND	ND
	25.0	7.6	ND	**14**	--	--	ND	ND	ND
	30.0	9.2	ND	**52**	--	--	ND	ND	ND
NM03-B3	5.0	1.5	ND	ND	--	--	ND	ND	ND
	25.0	7.6	ND	**180**	--	--	ND	ND	ND
	30.0	9.2	ND	ND	--	--	ND	ND	ND
NM03-B4	5-5.5	1.5-1.7	ND	ND	ND	ND	--	ND	ND
	35.5-36	10.9-11	ND	ND	ND	ND	--	ND	ND
	50-50.5	15.3-15.4	ND	ND	ND	ND	--	ND	ND
NM03-B5	5.5-6	1.7-1.8	ND	ND	ND	**49**	--	ND	ND
	10.5-11	3.2-3.4	ND	ND	ND	ND	--	ND	ND
	15.5-16	4.7-4.9	ND	ND	ND	ND	--	ND	ND
NM03-B6	5.5-6	1.7-1.8	ND	ND	ND	ND	--	ND	ND
	15.5-16	4.7-4.9	ND	ND	ND	ND	--	ND	ND
	25-25.5	7.6-7.8	ND	ND	ND	ND	--	ND	ND
NM03-B7	5.0	1.5	ND	**1100**	--	--	ND	--	--
	15.0	4.6	ND	ND	--	--	ND	--	--
	25.0	7.6	ND	ND	--	--	ND	--	--
NM03-B8	5.5-6	1.7-1.8	ND	ND	ND	ND	--	ND	ND
	55.5-56	17-17.1	ND	ND	ND	ND	--	ND	ND
	60.5-61	18.5-18.7	ND	ND	ND	ND	--	ND	ND
	65.5-66	20-20.2	ND	ND	ND	ND	--	ND	ND
NM03-B9	6-6.5	1.83-1.98	ND	ND	ND	ND	--	ND	ND
	10.5-11	3.2-3.4	ND	ND	ND	**15**	--	ND	ND
	15-15.5	4.6-4.7	ND	ND	ND	ND	--	ND	ND
	20.5-21	6.3-6.4	ND	ND	**8**	ND	--	ND	ND

Table 5 - Summary of Soil Sample Analytical Results - TPH, VOCs, SVOCs, and PCBs

Sample ID	Sample Depth (feet)	Sample Depth (meters)	TPH-gasoline (mg/kg)	TPH-diesel (mg/kg)	VOCs (µg/kg)		BTEX (µg/kg)	SVOCs (µg/kg)	PCBs (µg/kg)
					carbon disulfide	acetone			
NM03-B10	5-5.5	1.5-1.7	ND	ND	ND	ND	--	--	--
	10-10.5	3.1-3.2	ND	ND	ND	ND	--	--	--
	20-20.5	6.1-6.3	ND	ND	ND	ND	--	--	--

Notes:
mg/kg = Milligrams per kilogram
µg/kg = Micrograms per kilogram
-- = not analyzed
BTEX = Benzene, toluene, ethylbenzene, xylenes
ND = Not detected at or above the reporting limit
PCBs = Polychlorinated biphenyls
SVOCs = Semi-volatile organic compounds
TPH = Total petroleum hydrocarbons
VOCs = Volatile organic compounds

Table 6 - Summary of Soil Sample Analytical Results - Detected Title 22 Metals

Sample ID	Sample Depth (feet)	Sample Depth (meters)	Arsenic (mg/kg)	Barium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
NM03-B1	1-1.5	0.3-0.5	--	--	--	--	--	2.66	--	--	--	--
NM03-B1	5.5-6	1.7-1.8	ND	8.91	5.48	1.86	1.28	1.76	1.8	2.07	15.5	6.6
NM03-B1	55.5-56	17-17.1	3.69	8.68	7.18	1.26	2.97	2.73	3.23	10.5	29.9	10.3
NM03-B1	61-61.5	18.7-18.8	3.31	12.5	6.34	1.99	2.54	3.06	2.67	4.14	25.7	13.2
NM03-B2	1.0	0.3	--	--	--	--	--	3.7	--	--	--	--
NM03-B2	5.0	1.5	1.43	12.2	6.06	2.08	2.48	2.04	2.5	2.27	16	20.6
NM03-B2	25.0	7.6	ND	93.4	27.5	13.6	19.8	4.36	10.8	19.1	93.4	50.2
NM03-B2	30.0	9.2	ND	169	27.7	9.23	16.9	1.54	9.34	9.4	71.6	58.4
NM03-B3	1.0	0.3	--	--	--	--	--	1.58	--	--	--	--
NM03-B3	5.0	1.5	ND	28.8	11.1	3.42	6.25	1.66	4.28	4.94	33.4	21.3
NM03-B3	25.0	7.6	2.42	80.5	19	7.34	32.2	36.1	8.53	7.49	54.2	81.6
NM03-B3	30.0	9.1	ND	86	15.2	5.22	6.59	ND	4.73	6.26	40.7	28.3
NM03-B4	0.5-1	0.15-0.3	--	--	--	--	--	2.85	--	--	--	--
NM03-B4	5-5.5	1.5-1.7	1.88	7.93	6.27	1.14	1.67	1.99	1.75	2.31	14.5	7.14
NM03-B4	35.5-36	10.9-11	2.38	8.44	5.25	1.73	1.36	1.61	2.56	1.67	9.55	17.8
NM03-B4	50-50.5	15.3-15.4	4.24	4.67	5.35	ND	ND	1.36	1.76	1.66	8.41	11.6
NM03-B5	1-1.5	0.3-0.5	--	--	--	--	--	2.28	--	--	--	--
NM03-B6	1-1.5	0.3-0.5	--	--	--	--	--	13.5	--	--	--	--
NM03-B6	5.5-6	1.7-1.8	4.15	9	3.71	3.04	1.84	3.09	3.02	1.89	8.65	10.4
NM03-B6	15.5-16	4.7-4.9	2.03	5.55	3.05	1.37	1.18	1.31	ND	1.55	7.23	11.2
NM03-B6	25-25.5	7.6-7.8	ND	54.6	7.55	3.41	7.87	12.1	3.52	5.43	18.5	41.6
NM03-B7	1.0	0.3	--	--	--	--	--	6.55	--	--	--	--
NM03-B8	1-1.5	0.3-0.5	--	--	--	--	--	2.37	--	--	--	--
NM03-B9	1.5-2	0.5-0.6	--	--	--	--	--	3.47	--	--	--	--
NM03-B9	6-6.5	1.83-1.98	3.35	8.22	3.43	1.4	ND	2.88	1.8	1.2	6.91	11.3
NM03-B9	10.5-11	3.2-3.4	2.68	6.28	3.34	1.48	1.52	1.64	1.61	ND	8.54	11.7
NM03-B9	15-15.5	4.6-4.7	3.41	20.2	7.76	2.14	5	3.31	2.63	2.07	11.6	16.1
NM03-B9	20.5-21	6.3-6.4	1.45	14	5.21	ND	2.09	ND	1.76	1.91	11.1	11.5

Table 6 - Summary of Soil Sample Analytical Results - Detected Title 22 Metals

Sample ID	Sample Depth (feet)	Sample Depth (meters)	Arsenic (mg/kg)	Barium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
NM03-B10	1-1.5	0.3-0.5	--	--	--	--	--	2.24	--	--	--	--
10X STLC			50	500	50	800	250	50	200	70	240	2500
Industrial PRGs			1.6	67000	450	1900	41000	750	20000	67	7200	100000

Notes:
mg/kg = Milligrams per kilogram
-- = Not analyzed
ND = Not detected at or above the reporting limit
PRGs = Preliminary Remediation Goals
STLC = Soluble Threshold Limit Concentration
Metals analyzed by USEPA Methods 6010B and 7470A

Table 7 - Summary of Groundwater Sample Analytical Results - TPH, VOCs, SVOCs, and PCBs

Sample ID	TPH-gasoline (µg/ℓ)	TPH-diesel (µg/ℓ)	VOCs (µg/l)					SVOCs (µg/l)	PCBs (µg/l)
			MTBE	1,2-dichloro propane	Tert-butanol	DIPE	TAME	BEHP	
NM03-B1-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND
NM03-B2-GW	ND	ND	ND	ND	ND	ND	ND	ND	ND
NM03-B3-GW	ND	ND	ND	ND	ND	ND	ND	**10**	ND
NM03-B5-GW	ND	ND	ND	ND	ND	ND	ND	**19**	ND
NM03-B7-GW	ND	ND	**350**	ND	**59**	**1.5**	**1.1**	--	--
NM03-B9-GW	ND	**0.51**	ND	**2.5**	ND	ND	ND	**11**	ND
NM03-B10-GW	ND	ND	**990**	ND	**72**	ND	**6.7**	--	--

Notes:
µg/ℓ = Micrograms per liter
-- = Not analyzed
BEHP = bis (2-ethylhexyl) phthalate
DIPE = diisopropyl ether
ETBE = ethyl tertiary butyl ether
MTBE = methyl tertiary butyl ether
TAME = tertiary amyl methyl ether
ND = Not detected at or above the reporting limit
PCBs = Polychlorinated biphenyls
SVOCs = Semi-volatile organic compounds
TPH = Total petroleum hydrocarbons
VOCs = Volatile organic compounds

Table 8 - Summary of Groundwater Sample Analytical Results - Detected Metals

Sample ID	Arsenic (mg/l)	Barium (mg/l)	Chromium (mg/l)	Cobalt (mg/l)	Copper (mg/l)	Lead (mg/l)	Molybdenum (mg/l)	Nickel (mg/l)	Vanadium (mg/l)	Zinc (mg/l)
NM03-B1-GW	ND	0.12	ND	0.109	ND	ND	ND	0.0816	ND	0.0251
NM03-B2-GW	ND	0.0493	ND	ND	ND	ND	ND	ND	ND	ND
NM03-B3-GW	ND	0.0703	ND	ND	ND	ND	0.0629	0.0116	ND	ND
NM03-B5-GW	ND	0.0699	ND	ND	ND	ND	ND	ND	ND	0.0145
NM03-B7-GW	ND	0.862	0.0105	0.0581	0.0464	0.0277	ND	0.029	0.0425	0.0887
NM03-B9-GW	0.0299	0.0571	ND	ND	ND	ND	0.0541	ND	0.0154	--

Notes:
mg/ℓ = Milligrams per liter
-- = Not analyzed
ND = Not detected at or above the reporting limit

Table 9 - Summary of Field Blank and Trip Blank Analytical Results

Sample ID	TPH-gasoline (µg/l)	TPH-diesel (µg/l)	VOCs (µg/l)		SVOCs (µg/l)	PCBs (µg/l)	Zinc* (mg/l)
			methylene chloride	acetone			
NM03-B1-TRIP	--	--	ND	ND	--	--	--
NM03-B2-TRIP	--	--	ND	ND	--	--	--
NM03-B3-TRIP	--	--	ND	ND	--	--	--
NM03-B4-TRIP	--	--	**1.8**	ND	--	--	--
NM03-B5-TRIP	--	--	ND	ND	--	--	--
NM03-B6-TRIP	--	--	ND	ND	--	--	--
NM03-B7-TRIP	--	--	ND	ND	--	--	--
NM03-B8-TRIP	--	--	ND	ND	--	--	--
NM03-B9-TRIP	--	--	ND	ND	--	--	--
NM03-B10-TRIP	--	--	ND	ND	--	--	--
NM03-B1-EQUIP	ND	ND	ND	ND	ND	ND	**0.0172**
NM03-B2-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B3-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B4-EQUIP	--	--	--	--	--	--	ND
NM03-B5-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B6-EQUIP	--	--	--	--	--	--	ND
NM03-B7-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B8-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B9-EQUIP	ND	ND	ND	ND	ND	ND	ND
NM03-B10-EQUIP	ND	ND	ND	**34**	ND	ND	ND

Notes:
*no other metals were detected above the reporting limit
mg/ℓ = milligrams per liter
µg/ℓ = micrograms per liter
-- = Not analyzed
PCBs = Polychlorinated biphenyls
SVOCs = Semi-volatile organic compounds
TPH = Total petroleum hydrocarbons
VOCs = Volatile organic compounds

Table 10 - Statistics Worksheet

Analytical Method: Total Lead USEPA 6010B

Units: mg/kg

Sample ID	Sample Result
I5NB-DMH-HA01	1.47
I5NB-DMH-HA02	4.72
I5NB-DMH-HA03	4.25
I5NB-DMH-HA04	9.85
I5NB-DMH-HA05	12.3
I5NB-DMH-HA06	15.9
I5NB-DMH-HA07	21.1
I5NB-DMH-HA08	5.87
I5NB-DMH-HA09	14.7
I5NB-DMH-HA10	1.7
I5NB-DMH-HA11	12.4
I5NB-VDLV-HA12	2.3
I5NB-VDLV-HA13	1.45
I5NB-VDLV-HA14	1.85
I5NB-VDLV-HA15	4.55
I5NB-VDLV-HA16	9.84
I5NB-VDLV-HA17	2.16
I5NB-LSF-HA18	4.51
I5NB-LSF-HA19	2.65
I5NB-LSF-HA20	10.4
I5NB-LSF-HA21	3.27
I5NB-LSF-HA22	13.5
I5NB-LSF-HA23	246
I5NB-LSF-HA23*	2.14
I5NB-LSF-HA24	13.8
I5NB-LSF-HA25	2.8
I5NB-LSF-HA26	16
I5NB-LSF-HA27	2.51
I5NB-LSF-HA28	2.9
I5NB-LSF-HA29	2.79
I5NB-LSF-HA30	17.3
I5NB-LSF-HA31	6.13
I5NB-LSF-HA32	10.6
I5NB-MAN-HA33	16.2
I5NB-MAN-HA34	4.03
I5NB-MAN-HA35	41
I5NB-MAN-HA36	8.85
I5NB-MAN-HA37	8.7
I5NB-MAN-HA38	16.9
I5NB-MAN-HA38*	2.8
I5NB-MAN-HA39	3.38
I5NB-MAN-HA40	22.3
I5NB-MAN-HA41	17.2
I5NB-MAN-HA42	16.1
I5NB-MAN-HA43	1.51

Statistical Analysis	
Number of Samples (n)	189.00
Sample Mean (x)	12.05
Sample Variance (s^2)	559.80
Standard Deviation (s)	23.60
Degrees of Freedon (df)	188.00
Standard Error of Mean (s[x])	1.72
Student's 't' value	1.29
80% Confidence Interval	**14.26**

Table 10 - Statistics Worksheet Analytical Method: Total Lead USEPA 6010B Units: mg/kg	
I5NB-MAN-HA44	64.7
I5NB-MAN-HA45	6
I5NB-MAN-HA46	49.5
I5NB-MAN-HA47	9.43
I5NB-MAN-HA48	5.63
I5NB-MAN-HA49	8.71
I5NB-MAN-HA50	2.78
I5NB-MAN-HA51	2.04
I5NB-MAN-HA52	2.1
I5NB-MAN-HA53	1.89
I5NB-MAN-HA54	1.4
I5NB-MAN-HA55	3.85
I5NB-MAN-HA56	13.5
I5NB-MAN-HA57	8.89
I5NB-MAN-HA58	7.45
I5NB-MAN-HA59	10.7
I5NB-MAN-HA60	11.5
I5NB-MAN-HA61	2.72
I5NB-MAN-HA62	3.06
I5NB-MAN-HA63	2.64
I5NB-MAN-HA64	7.21
I5NB-MAN-HA65	8.49
I5NB-MAN-HA66	12.6
I5NB-MAN-HA67	2.33
I5NB-MAN-HA68	3.81
I5NB-MAN-HA69	1.57
I5NB-MAN-HA70	4.11
I5NB-MAN-HA71	6.88
I5NB-MAN-HA72	2.69
I5NB-MAN-HA73	2.6
I5NB-MAN-HA74	23.9
I5NB-MAN-HA75	9.61
I5NB-MAN-HA76	2.89
I5NB-MAN-HA77	1.71
I5NB-MAN-HA78	65
I5SB-MAN-HA79	11.2
I5SB-MAN-HA80	15
I5SB-MAN-HA81	2.67
I5SB-MAN-HA82	3.17
I5SB-MAN-HA83	2.66
I5SB-MAN-HA84	3.13
I5SB-MAN-HA85	4.25
I5SB-MAN-HA86	2.03
I5SB-MAN-HA87	2.82
I5SB-MAN-HA88	11.9
I5SB-MAN-HA89	9.65
I5SB-MAN-HA90	7.59

Table 10 - Statistics Worksheet

Analytical Method: Total Lead USEPA 6010B

Units: mg/kg

I5SB-MAN-HA91	24.1	
I5SB-MAN-HA92	8.16	
I5SB-MAN-HA93	4.04	
I5SB-MAN-HA94	4.46	
I5SB-MAN-HA95	4.5	
I5SB-LSF-HA96	19.6	
I5SB-LSF-HA97	1.48	
I5SB-LSF-HA98	5.45	
I5SB-LSF-HA99	3.82	
I5SB-LSF-HA100	4.15	
I5SB-LSF-HA101	3.17	
I5SB-LSF-HA102	3.09	
I5SB-LSF-HA103	9.81	
I5SB-LSF-HA104	4.52	
I5SB-LSF-HA105	85.5	
I5SB-LSF-HA106	3.56	
I5SB-LSF-HA107	5.73	
I5SB-LSF-HA108	2.91	
I5SB-LSF-HA109	5.06	
I5SB-LSF-HA110	124	
I5SB-LSF-HA111	3.69	
I5SB-LSF-HA112	11.7	
I5SB-LSF-HA113	34.7	
I5SB-LSF-HA114	13.5	
I5SB-LSF-HA115	5.19	
I5SB-LSF-HA116	11.6	
I5SB-LSF-HA117	8.07	
I5SB-LSF-HA118	5.55	
I5SB-LSF-HA119	5.99	
I5SB-LSF-HA120	3.04	
I5SB-LSF-HA121	5.34	
I5SB-LSF-HA122	2.59	
I5SB-LSF-HA123	4.77	
I5SB-VDLV-HA124	1.89	
I5SB-VDLV-HA125	6.67	
I5SB-VDLV-HA126	2.91	
I5SB-VDLV-HA127	2.85	
I5SB-VDLV-HA128	4.78	
I5SB-VDLV-HA129	2.57	
I5SB-VDLV-HA130	3.52	
I5SB-DMH-HA131	11.7	
I5SB-DMH-HA132	7.05	
I5SB-DMH-HA133	30.7	
I5SB-DMH-HA134	11	
I5SB-DMH-HA135	15	
I5SB-DMH-HA136	4.1	
I5SB-DMH-HA137	14.7	

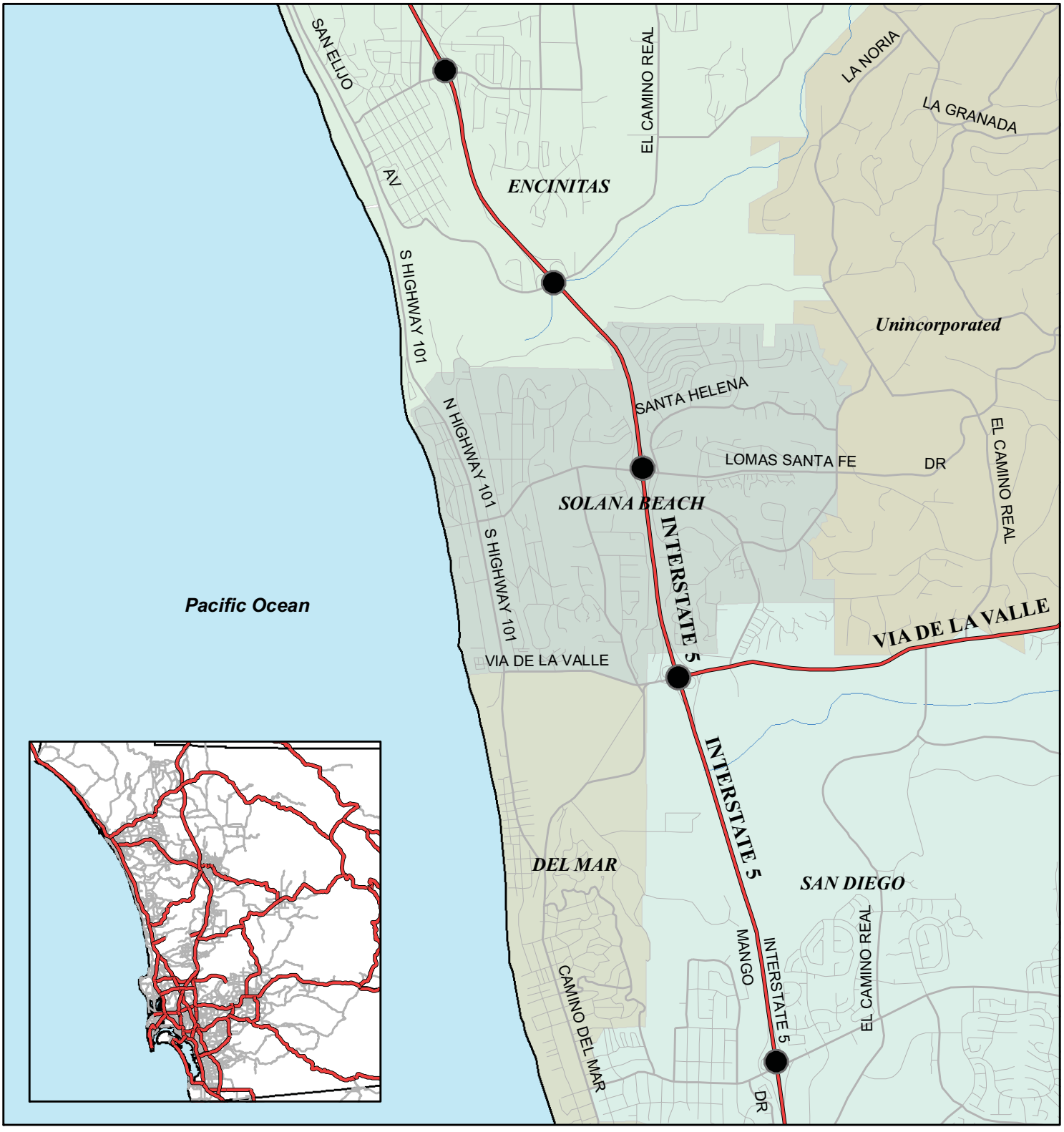
Table 10 - Statistics Worksheet

Analytical Method: Total Lead USEPA 6010B

Units: mg/kg

I5SB-DMH-HA138	1.38	
I5SB-DMH-HA139	12	
I5SB-DMH-HA140	9.27	
I5SB-DMH-HA141	1.96	
I5SB-DMH-HA142	3.69	
I5SB-DMH-HA143	8.06	
I5SB-DMH-HA144	1.69	
I5SB-DMH-HA145	0.1	
I5SB-DMH-HA146	1.91	
I5SB-DMH-HA147	1.68	
I5SB-DMH-HA148	0.1	
I5SB-DMH-HA149	1.15	
I5SB-DMH-HA150	2.92	
I5SB-DMH-HA151	5	
I5SB-DMH-HA152	1.88	
I5SB-DMH-HA153	105	
I5SB-DMH-HA154	2.04	
I5SB-DMH-HA155	11.7	
I5SB-DMH-HA156	18.3	
I5SB-DMH-HA157	16.5	
I5SB-DMH-HA158	13.2	
I5SB-DMH-HA159	10.8	
I5SB-DMH-HA160	5.4	
I5SB-DMH-HA161	41	
I5SB-DMH-HA162	4.54	
I5SB-DMH-HA163	6.14	
I5SB-DMH-HA164	3.11	
I5SB-DMH-HA165	6.74	
I5SB-DMH-HA166	1.99	
I5SB-DMH-HA167	3.44	
I5SB-DMH-HA168	3.85	
I5SB-DMH-HA169	3.96	
I5SB-DMH-HA170	54.1	
I5SB-DMH-HA171	6.25	
I5SB-DMH-HA172	3.9	
I5SB-DMH-HA173	3.29	
I5SB-DMH-HA174	10.2	
I5SB-DMH-HA175	11.4	
I5SB-DMH-HA176	42.7	
I5SB-DMH-HA177	4	
I5SB-DMH-HA178	45.8	
I5SB-DMH-HA179	13.7	
I5SB-DMH-HA180	44	
I5SB-DMH-HA181	6.5	
I5SB-DMH-HA182	10.7	
I5SB-DMH-HA183	22.3	
I5SB-DMH-HA184	3.78	

Table 10 - Statistics Worksheet Analytical Method: Total Lead USEPA 6010B Units: mg/kg			
I5SB-DMH-HA185	11.2		
I5SB-DMH-HA186	1.57		
I5SB-DMH-HA187	17		



LEGEND

- Approximate location of soil borings

N

0 500 1,000 2,000 Meters

Caltrans I-5 Expansion\105338009 Fig 1slm.mxd - SANDAG GIS shapefiles

Ninyo & Moore	SITE LOCATION MAP	FIGURE
PROJECT NO. 105388009 / DATE 11/05	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	1

LEGEND

⊕ Approximate location of soil boring

N

0 25 50 100 Meters

Ninyo & Moore		BORING LOCATION MAP - DEL MAR HEIGHTS ROAD	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	2
105388009	11/05		

LEGEND

⊕ Approximate location of soil boring

N

0 25 50 100 Meters

Ninyo & Moore		BORING LOCATION MAP - VIA DE LA VALLE	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	3
105388009	11/05		

LEGEND

⊕ Approximate location of soil boring

N

0 25 50 100 Meters

Ninyo & Moore		BORING LOCATION MAP - LOMAS SANTA FE DRIVE	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	4
105388009	11/05		

LEGEND

⌖ Approximate location of soil boring

N

0 25 50 100 Meters

Ninyo & Moore		BORING LOCATION MAP - MANCHESTER AVENUE	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	5
105388009	11/05		

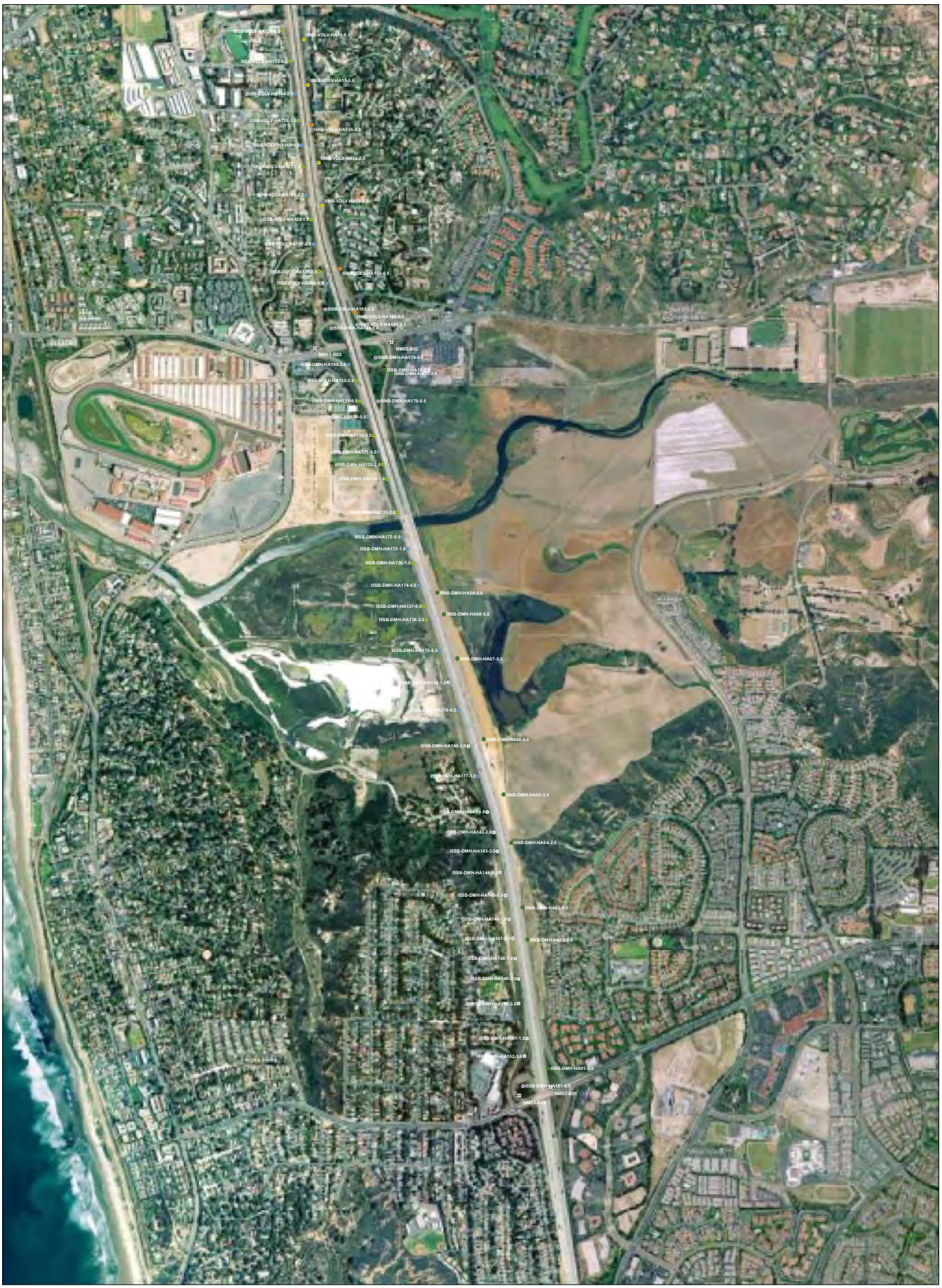
LEGEND

⊕ Approximate location of soil boring

N

0 25 50 100 Meters

Ninyo & Moore		BORING LOCATION MAP - BIRMINGHAM DRIVE	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	6
105388009	11/05		



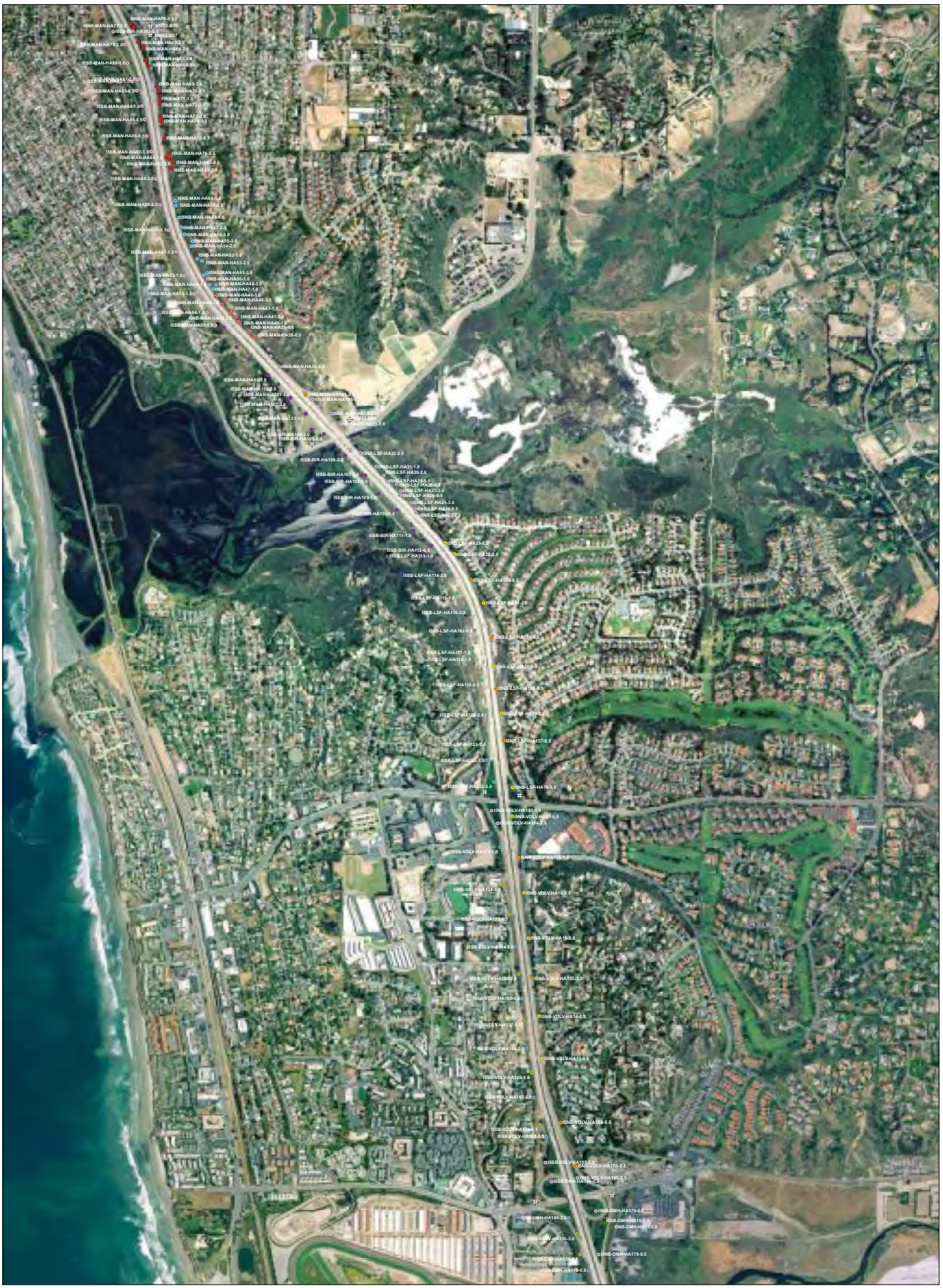
Legend

- Hand auger soil samples (5-18-05)
- Hand auger soil samples (5-19-05)
- Hand auger soil samples (5-20-05)
- Hand auger soil samples (5-24-05)
- Hand auger soil samples (5-25-05)
- Hand auger soil samples (5-26-05)
- Hand auger soil samples (5-27-05)
- Hand auger soil samples (5-31-05)
- Hand auger soil samples (6-1-05)
- Hand auger soil samples (6-2-05)
- Hand auger soil samples (6-3-05)
- Hand auger soil samples (6-7-05)
- Hand auger soil samples (6-8-05)
- Hand auger soil samples (6-9-05)
- Hollow-Stem Auger boring location

N

0 125 250 500 Meters

Ninyo & Moore		HOLLOW-STEM AUGER AND HAND AUGER SOIL SAMPLE LOCATIONS, DEL MAR HEIGHTS TO VIA DE LA VALLE	FIGURE
PROJECT NO.	DATE	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	7
105388009	11/05		



Legend

- Hand auger soil samples (5-18-05)
- Hand auger soil samples (5-19-05)
- Hand auger soil samples (5-20-05)
- Hand auger soil samples (5-24-05)
- Hand auger soil samples (5-25-05)
- Hand auger soil samples (5-26-05)
- Hand auger soil samples (5-27-05)
- Hand auger soil samples (5-31-05)
- Hand auger soil samples (6-1-05)
- Hand auger soil samples (6-2-05)
- Hand auger soil samples (6-3-05)
- Hand auger soil samples (6-7-05)
- Hand auger soil samples (6-8-05)
- Hand auger soil samples (6-9-05)
- Hollow-Stem Auger boring location

N

0 125 250 500 Meters

Ninyo & Moore	HOLLOW-STEM AUGER AND HAND AUGER SOIL SAMPLE LOCATIONS, VIA DE LA VALLE TO BIRMINGHAM	FIGURE
PROJECT NO. 105388009 / DATE 11/05	I-5 EXPANSION DEL MAR HEIGHTS ROAD TO BIRMINGHAM DRIVE SAN DIEGO COUNTY, CALIFORNIA	8

APPENDIX A

60-DAY REPORT

August 18, 2005
Project No. 105388009

Permit Clerk
County of San Diego
Department of Environmental Health
Site Assessment and Mitigation Division
P.O. Box 129261
San Diego, California 92112-9261

Subject: 60-Day Boring Report
Interstate 5 Right-of-Way
San Diego County, California

Dear Permit Clerk:

Ninyo & Moore is submitting the attached documents in fulfillment of the conditions of boring permit number LMON103106 issued on May 9, 2005, (attached) for the following project:

Property Owner:	California Department of Transportation
Site Address:	Interstate 5 Caltrans Right-Of-Way San Diego County, California
Property Representative:	Mr. Joel Kloth
Address:	2829 Juan Street, MS-46 San Diego, California 92186-5406
Assessor's Parcel No.:	263-292-54-00 (nearest) 298-490-11-00 (nearest) 304-101-21-00 (nearest) 260-324-12-00 (nearest) 261-210-14-00 (nearest)

Between May 17 June 3, 2005, Ninyo & Moore drilled ten soil borings at the site and collected environmental soil and groundwater samples for evaluation. Soil cuttings and decontamination water generated were stored in five 55-gallon drums and subsequently transported by Ocean Blue Environmental to Crosby and Overton in Long Beach, California, for treatment. During the site assessment, groundwater was encountered in seven borings and was measured at depths of between 5 and 83 feet below ground surface.

Soil samples were collected at 5-foot intervals for description. Select soil samples collected from each boring were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and diesel

(TPH-d) by United States Environmental Protection Agency (USEPA) test method 8015, volatile organic compounds (VOCs) and oxygenates by USEPA test method 8260B, semi-volatile organic compounds (SVOCs) by USEPA test method 8270C, polychlorinated biphenyls (PCBs) by USEPA Method 8082, Title 22 metals by USEPA methods 6010B/7471A, and pH by USEPA method 9045C.

The groundwater samples were analyzed for one or more of the analytes TPH-g and TPH-d, VOCs and oxygenates, SVOCs, PCBs, and Title 22 metals. Once the total drilling depth was achieved, or the boring could not be advanced due to refusal, and the groundwater sample was collected, if applicable, the borings were backfilled with bentonite grout to approximately 5 feet bgs, followed by placement of medium bentonite chips and hydrated with 5 gallons of potable water. The top one foot of each boring was filled with soil to approximate its original condition. The boreholes were backfilled with grout based on the total depth of each boring. The volumes of grout used ranged between 6 and 31.85 cubic feet; the boring abandonment summary presents the volume used for each boring.

The attached documents include a copy of the approved boring permit, boring logs, boring abandonment summary sheets, analytical data, a site location map, and a boring location map. If you have any questions regarding this report, please contact the undersigned.

Respectfully submitted,
NINYO & MOORE

Scott Snyder, P.G., HG.
Senior Hydrogeologist

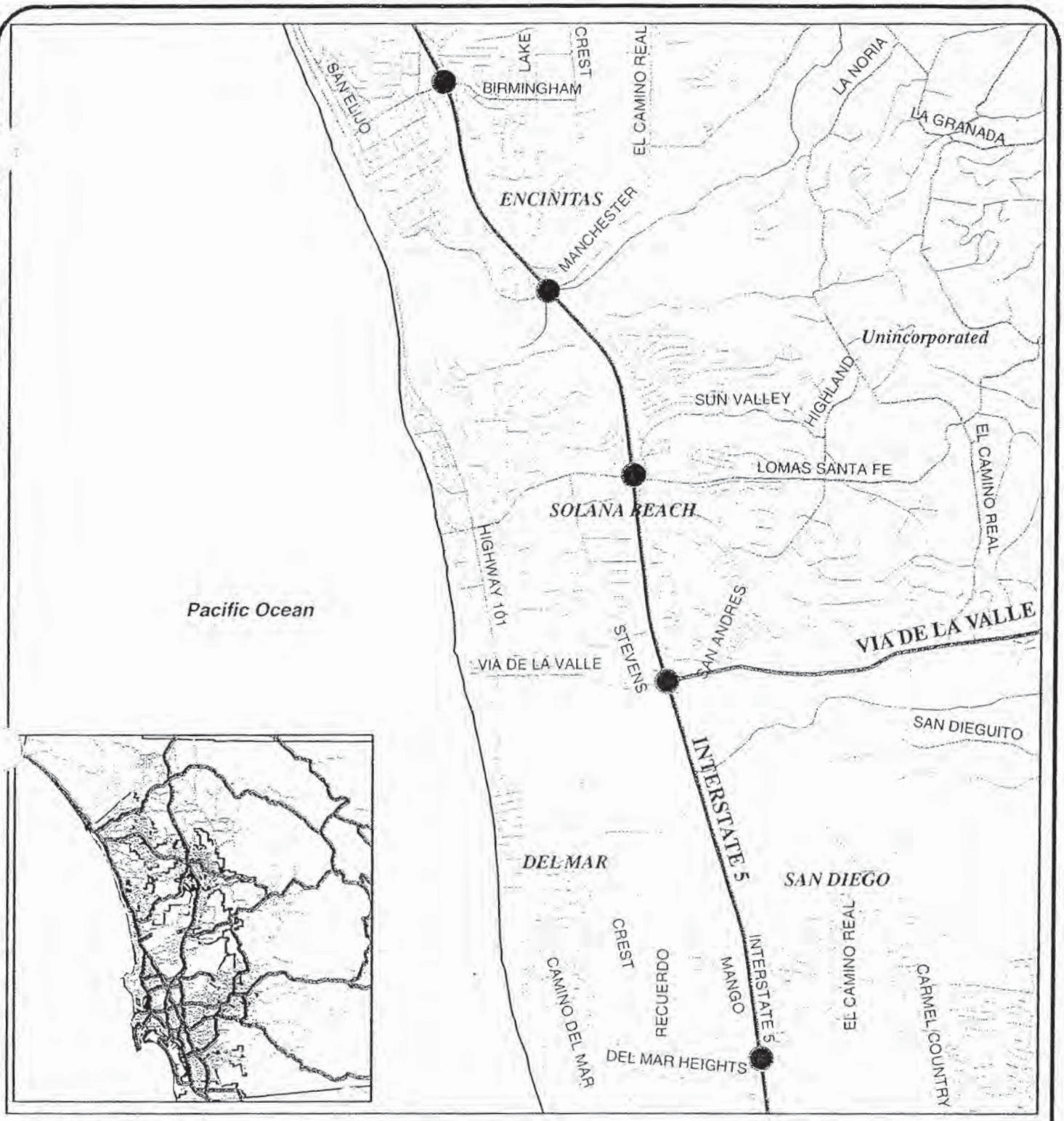
WSS/

Distribution: (1) Addressee
(1) Mr. Joel Kloth; District 11, California Department of Transportation

Attachments: Attachment A – Site Location and Boring Location Maps
Attachment B – Approved Soil Boring Construction Permit
Attachment C – Boring Logs
Attachment D – Boring Abandonment Logs
Attachment E – Analytical Data

ATTACHMENT A

SITE LOCATION AND BORING LOCATION MAPS

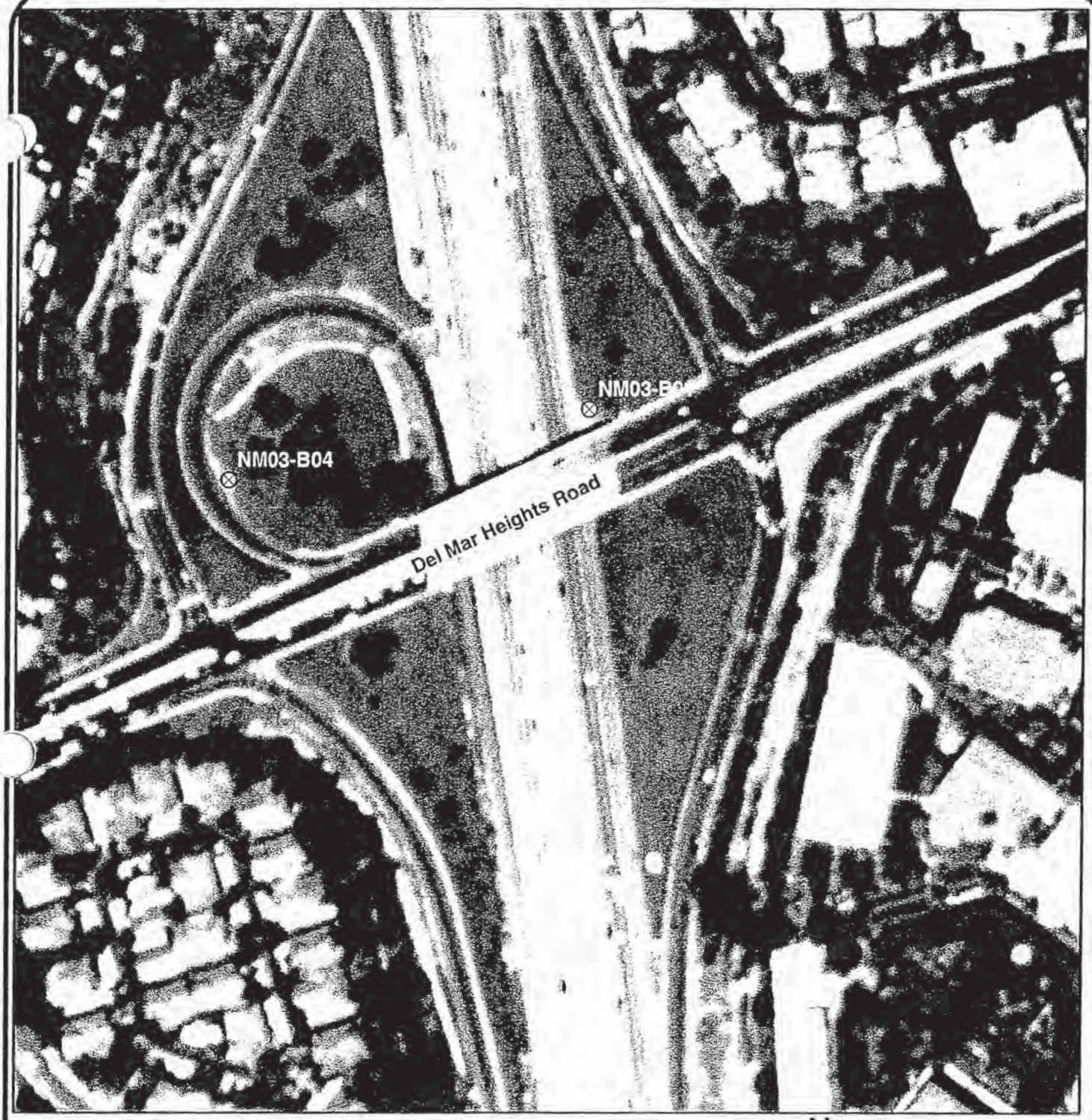


Ninyo & Moore

SITE LOCATION MAP

I-5 EXPANSION DEL MAR HEIGHTS ROAD
TO BIRMINGHAM DRIVE
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	1



LEGEND

⊗ Approximate location of soil boring

N

0 25 50 100 Meters

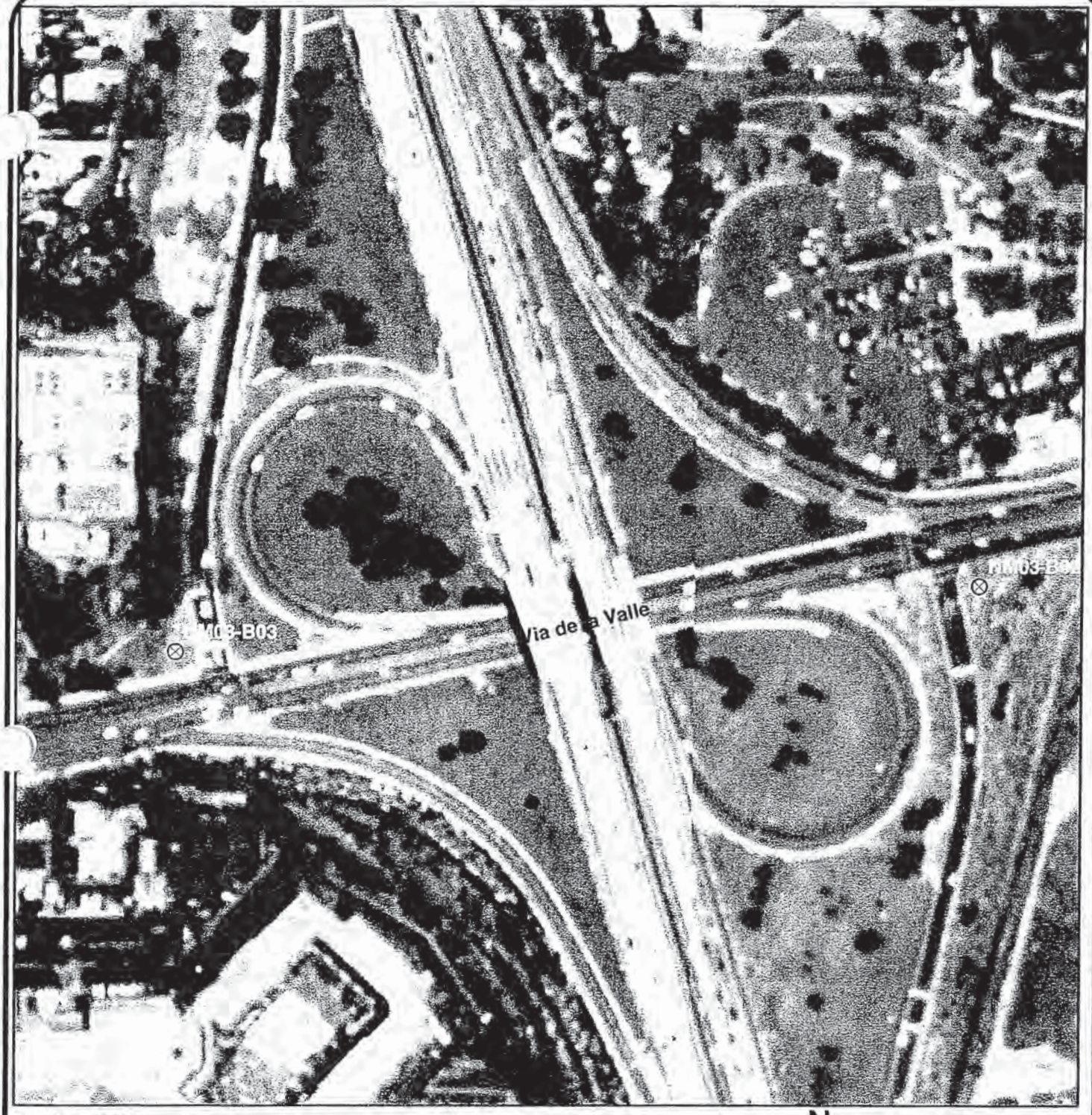
105338009 Fig 2.mxd -- Aerial by Terraserver

Ninyo & Moore

BORING LOCATION MAP

I-5 AND DEL MAR HEIGHTS ROAD
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	2



LEGEND

⊗ Approximate location of soil boring

N

0 25 50 100 Meters

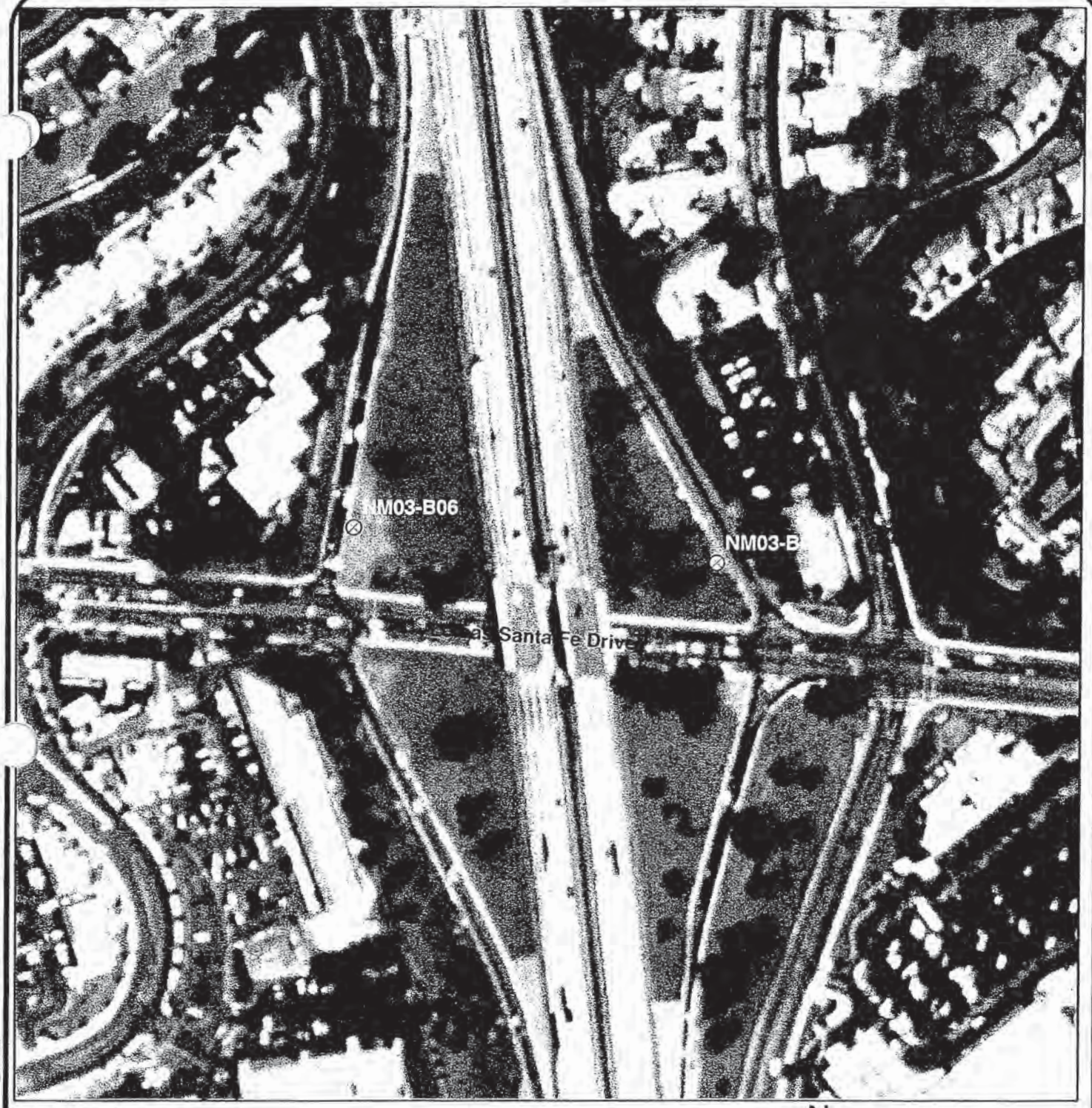
105338009 Fig 3.mxd-- Aerial by Terraserver

Ninyo & Moore

BORING LOCATION MAP

I-5 AND VIA DE LA VALLE
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	3



LEGEND

⊗ Approximate location of soil boring

N

0 25 50 100 Meters

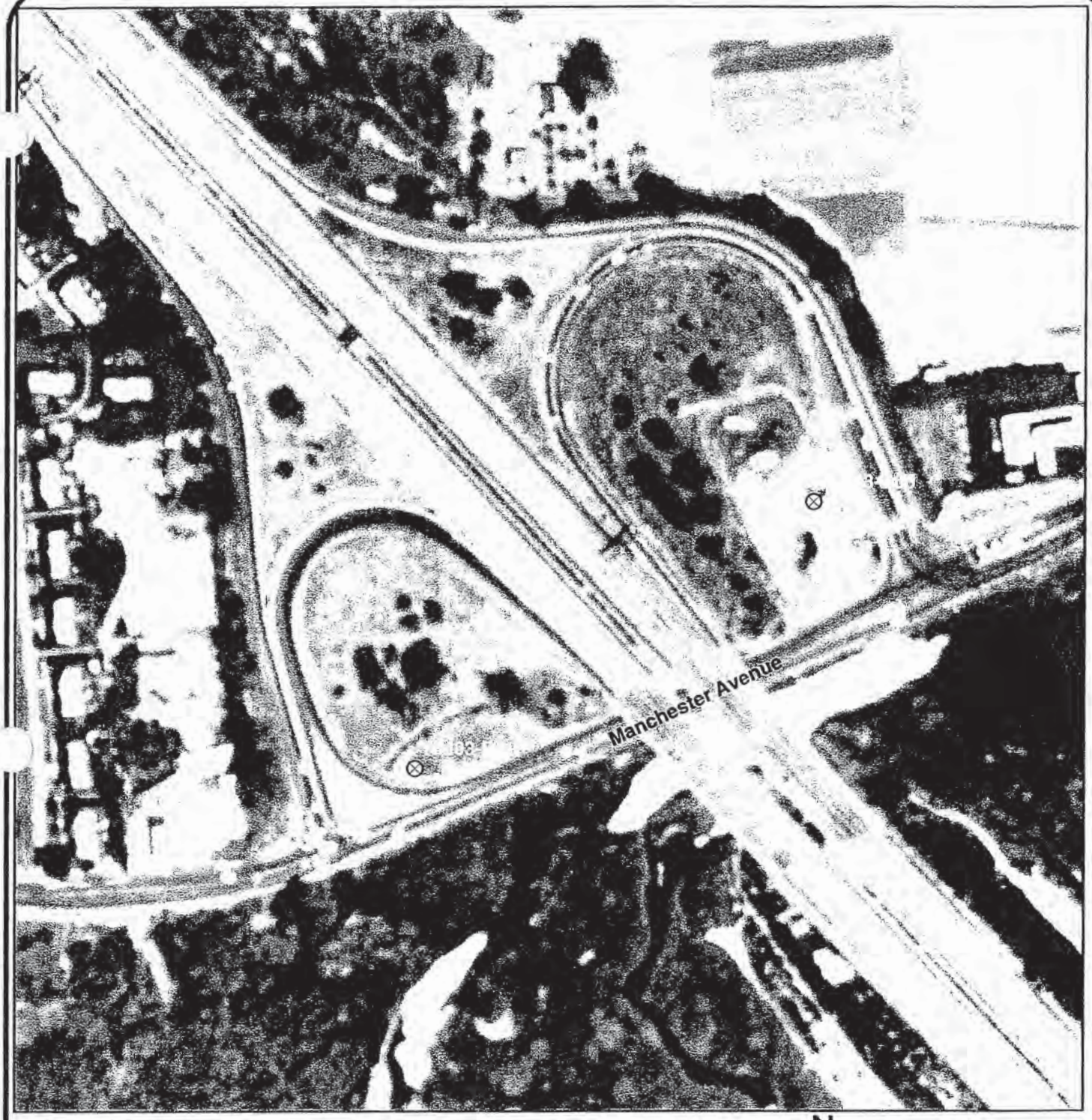
105338009 Fig 4.mxd -- Aerial by Terraserver

Ninyo & Moore

BORING LOCATION MAP

I-5 AND LOMAS SANTA FE DRIVE
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	4



LEGEND

⊗ Approximate location of soil boring

N

0 25 50 100 Meters

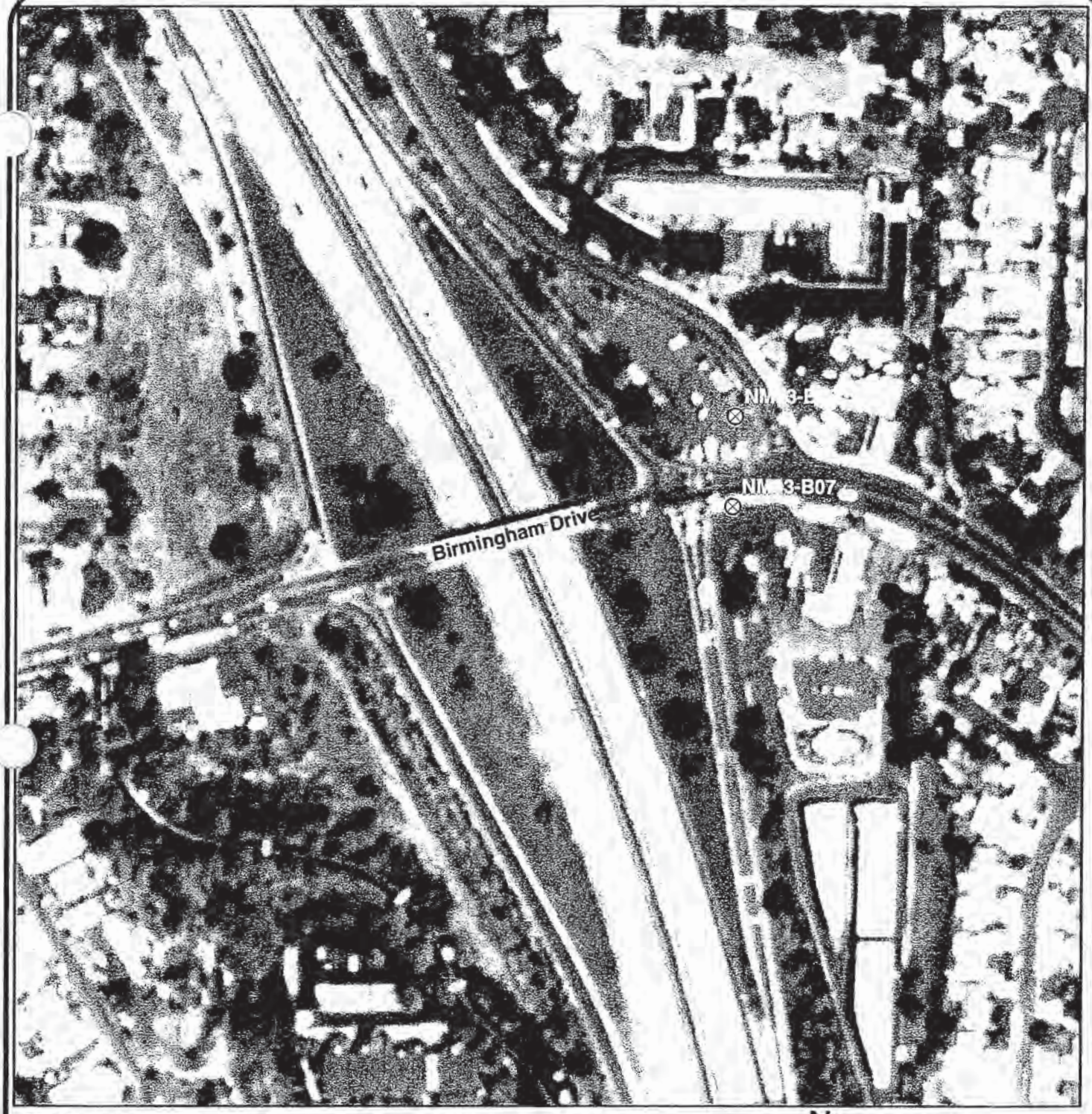
105338009 Fig 5.mxd -- Aerial by Terraserver

Ninyo & Moore

BORING LOCATION MAP

I-5 AND MANCHESTER AVENUE
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	5



LEGEND

⊗ Approximate location of soil boring

N

0 25 50 100 Meters

105338009 Fig 6.mxd – Aerial by Terraserver

Ninyo & Moore

BORING LOCATION MAP

I-5 AND BIRMINGHAM DRIVE
SAN DIEGO, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	8/05	6

ATTACHMENT B

APPROVED SOIL BORING CONSTRUCTION PERMIT

PERMIT #LMON103106
A.P.N. # 263-292-54-00, 298-490-11-00, 304-101-21-00, 260-324-12-00, 261-210-14-00
EST #NONE

COUNTY OF SAN DIEGO
DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION

SOIL BORING CONSTRUCTION PERMIT

SITE NAME: CALTRANS I-5 EXPANSION

SITE ADDRESS: I-5 (FROM DEL MAR HEIGHTS RD TO BIRMINGHAM DR), SAN DIEGO, CA

PERMIT FOR: **10 BORINGS**

PERMIT APPROVAL DATE: MAY 9, 2005

PERMIT EXPIRES ON: SEPTEMBER 6, 2005

RESPONSIBLE PARTY: STATE OF CALIFORNIA, DEPT OF TRANSP. DIST II

PERMIT CONDITIONS:

1. All borings must be sealed from the bottom of the boring to the ground surface with an approved sealing material as specified in California Well Standards Bulletin 74-90, Part III, Section 19.D. **Drill cuttings are not an acceptable fill material.**

2. Placement of any sealing material at a depth greater than 30 feet must be done using the tremie method.

3. All borings must be destroyed within 24 hours of drilling.

4. All water and soil resulting from the activities covered by this permit must be managed, stored and disposed of as specified in the SAM Manual in Section 5, E- 4. (**http://www.sdcounty.ca.gov/deh/lwq/sam/manual_guidelines.html**). In addition, drill cuttings must be properly handled and disposed in compliance with the Stormwater Best Management Practices of the local jurisdiction.

5. **This work is not connected to any known unauthorized release of hazardous substances. Any contamination found in the course of drilling and sampling must be reported to DEH.** Within 60 days of completing work, submit a well/boring construction report, including all well and/or boring logs and laboratory data to the Well Permit Desk. This report must include all items required by the SAM Manual, Section 5, Pages 6 & 7

6. This office must be given 48-hour notice of any drilling activity on this site and advanced notification of drilling cancellation. Please contact the Well Permit Desk at 338-2339.

APPROVED BY: M Crystal MARISUE CRYSTAL DATE: 05/09/2005

NOTIFIED: by email 5/9/05 msc

DEH:SAM-9075 (4/03)

3401

PERMIT APPLICATION
GROUNDWATER
AND VADOSE MONITORING WELLS
AND EXPLORATORY OR TEST BORINGS

RECEIVED
2005 APR 27 PM 3 14

OFFICE USE ONLY
PERMIT LMON # 103106
SAM CASE Y~~O~~# —
DATE RECEIVED: 4-27-05
FEE PAID: $580 —
CHECK # 91464

A. RESPONSIBLE PARTY ~~State of~~ California DOT, District 11 Phone 619.688.6925
(The person, persons, or company responsible for the construction, maintenance, and destruction of the proposed borings and/or wells.)
Mailing Address 2829 Juan St, MS-46 City San Diego State CA Zip 92110
Contact Person Joel Kloth Phone 858.616.6619 Ext. ____ Fax 619.688.3192

B. SITE ASSESSMENT PROJECT NUMBER – IF APPLICABLE # ____

C. CONSULTING FIRM Ninyo & Moore
Mailing Address 5710 Ruffin Rd City San Diego State CA Zip 92123
Registered Professional Scott Snyder Registration # 7356 (RG)
Contact Person Lauran Hodges / Scott Snyder Phone 858.576.1000 Ext. 1288 Fax 858.576.9600

D. DRILLING COMPANY Tri-County Drilling C57# 547737
Contact Name Tim Duddie
Mailing Address 9361 Candida St City San Diego State CA Zip 92126-4537
Phone 858-271-0099 Fax 858-271-0233

E. CONSTRUCTION INFORMATION

TYPE OF WELLS/ BORINGS TO BE CONSTRUCTED

	#
☐ Groundwater	___
☐ Vadose	___
☒ Boring	10
☐ Other	___

NUMBER OF WELLS TO BE DESTROYED

☐	___

MATERIALS TO BE USED

CASING
Not Applicable ☒
Type ____
Gauge ____
Diameter ____
Well Screen Size ____
Filter Pack ____

SEAL/BORING BACKFILL
☐ Neat Cement
☒ Cement & Bentonite
☐ Sand-Cement
☐ Bentonite
☐ Other
Borehole diameter ____

Drilling Method
☒ Auger
☐ Mud Rotary
☐ Percussion
☐ Air Rotary
☐ Other

PROPOSED CONSTRUCTION
Estimated groundwater depth: 30-40 ft.
Estimated depth of boring 100 ft.

Concrete surface seal	0 to 3
Annular seal	3' to T.D.
Bentonite transition seal	____ to ____
Filter Pack	____ to ____
Perforation	____ to ____

NOTE:
Attach a well construction diagram for wells with multiple completions

I agree to comply with the requirements of the current Site Assessment and Mitigation Manual, and with all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction.

DRILLER'S SIGNATURE [signature] DATE 4/27/05

Within 60 days of completion, I will furnish the Monitoring Well Permit Desk with a complete and accurate well/boring log. I will certify the design and construction or destruction of the well/borings in accordance with the permit application.

G/RCE/CEG SIGNATURE [signature] DATE 4/27/05

F. SITE INFORMATION

1. **ASSESSOR'S PARCEL NUMBER** 304-101-21
Site Name _____
Site Address I-5 and Del Mar Heights Road City San Diego Zip 92130-

PROPERTY OWNER State of California DOT, District 11
Phone 619.688.6925 Ext. _____ Fax _____
Mailing Address 2829 Juan Street City San Diego State CA Zip 92110-

NUMBER OF WELLS 2 **TYPE OF WELLS** soil borings

2. **ASSESSOR'S PARCEL NUMBER** 298-490-11
Site Name _____
Site Address I-5 and Via de la Valle City San Diego Zip 92130-

PROPERTY OWNER State of California DOT, District 11
Phone 619.688.6925 Ext. _____ Fax _____
Mailing Address 2829 Juan Street City San Diego State CA Zip 92110-

NUMBER OF WELLS 2- **TYPE OF WELLS** soil borings

3. **ASSESSOR'S PARCEL NUMBER** 263-292-54
Site Name _____
Site Address I-5 and Lomas Santa Fe Drive City Solana Beach Zip 92075

PROPERTY OWNER State of California DOT, District 11
Phone 619.688.6925 Ext. _____ Fax _____
Mailing Address 2829 Juan Street City San Diego State CA Zip 92110-

NUMBER OF WELLS 2 **TYPE OF WELLS** soil borings

4. **ASSESSOR'S PARCEL NUMBER** 261-210-14
Site Name _____
Site Address I-5 and Manchester Drive City Encinitas Zip 92007-

PROPERTY OWNER State of California DOT, District 11
Phone 619.688.6925 Ext. _____ Fax _____
Mailing Address 2829 Juan Street City San Diego State CA Zip 92110-

NUMBER OF WELLS 2 **TYPE OF WELLS** soil borings

5. Assessor's Parcel Number 260-324-12
Site Address: I-5 and Birmingham Drive City: Encinitas Zip: 92007
Property Owner: Same as above

G. FEES (in effect beginning July 1, 2004, through June 30, 2005)

ACTIVITY	FEE SCHEDULE	AMOUNT	
Permit for Well Installations Only (Groundwater Monitoring Wells, Vadose, Vapor Extraction Wells)	$175.00 for the first monitoring well		$175.00
Permit for Well Maintenance Inspection (Valid for three years)	$ 95.00 for first well maintenance inspection		$95.00
Each Additional New Well	$150.00 for each additional well installation	___ x $150.00	____
	$30.00 for each additional well maintenance inspection	___ x $30.00	____
Permit for Borings Only *(CPT's, Hydropunch, Geoprobes, Temporary Well Points, etc.)*	$175.00 for the first boring	1 x $175.00	175.00
	$45.00 for each additional boring	9 x $45.00	405.00
Permit for Well Destructions Only	$175.00 for the first destruction	___ x $175.00	
	$115.00 for each additional destruction ...	___ x $115.00	
Permit for any Combination of Well Installations, Borings, & Destructions ***(except UST backfill permit)***	The first activity will be $175.00	___ x $175.00	____
	Additional activities will be as follows:		
	$150.00 for each additional well	___ x $150.00	____
	$ 95.00 for first well maintenance inspection	___ x $ 95.00	____
	$ 30.00 for each additional well maintenance inspection	___ x $ 30.00	____
	$ 45.00 for each additional boring	___ x $ 45.00	____
	$115.00 for each well destruction	___ x $115.00	____
Permit for Underground Storage Tank Monitoring System in Backfill *(i.e. Enhanced Leak Detection)*	**$310.00 (Flat Fee)**		$310.00
	TOTAL COST OF PERMIT		$ 580.00

H. **QUESTIONNAIRE: Please answer all applicable questions completely. For well destructions, complete only #1 below and submit any required supportive documentation.**

1. If wells are to be destroyed, provide a description of method of destruction N/A

2. What is the purpose of the well/boring investigation?

   ☐ a. Part of an ongoing site assessment case in which DEH or another government regulator is the lead agency.

   ☐ b. Part of a Phase I investigation for property ownership transfer or: _____

   ☐ c. Geotechnical investigation for proposed construction, land stabilization or:

   ☒ d. Other: Site investigation for property transaction

3. What procedures will be used to prevent the well/boring from providing an avenue to contamination during construction? All drilling and sampling equipment will be decontaminated prior to use.

4. What field procedures will be utilized to determine if contamination exists? Soil cuttings and samples will be screened with the photoionization detector (PID) during drilling.

5. What procedures will be used to determine whether samples will be sent for laboratory testing or archiving? Field observations of staining and/or elevated PID readings from soil samples will be utilized to determine samples requiring laboratory testing.

6. What constituents will be monitored and tested (Include EPA Laboratory Test Methods to be used)? Selected soil samples will be collected and analyzed for TPH g/d by USEPA test method 8015M, VOCs and EOs by USEPA test method 8260, and PAHs by USEPA test method 8270.

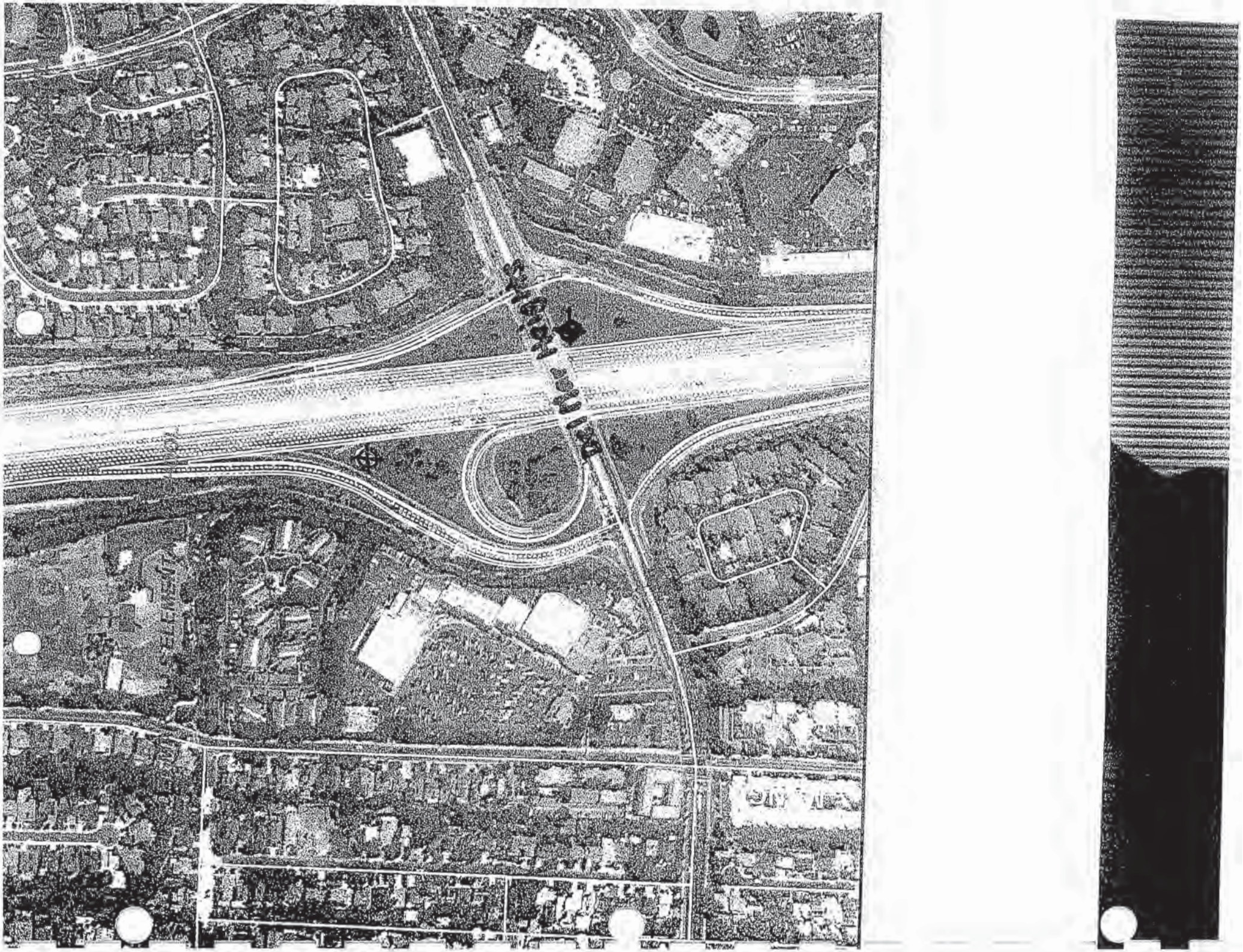
7. How will samples be transported and preserved? Samples will be placed in an ice chilled cooler and transported under chain-of-custody protocol to a state certified laboratory for chemical analysis.

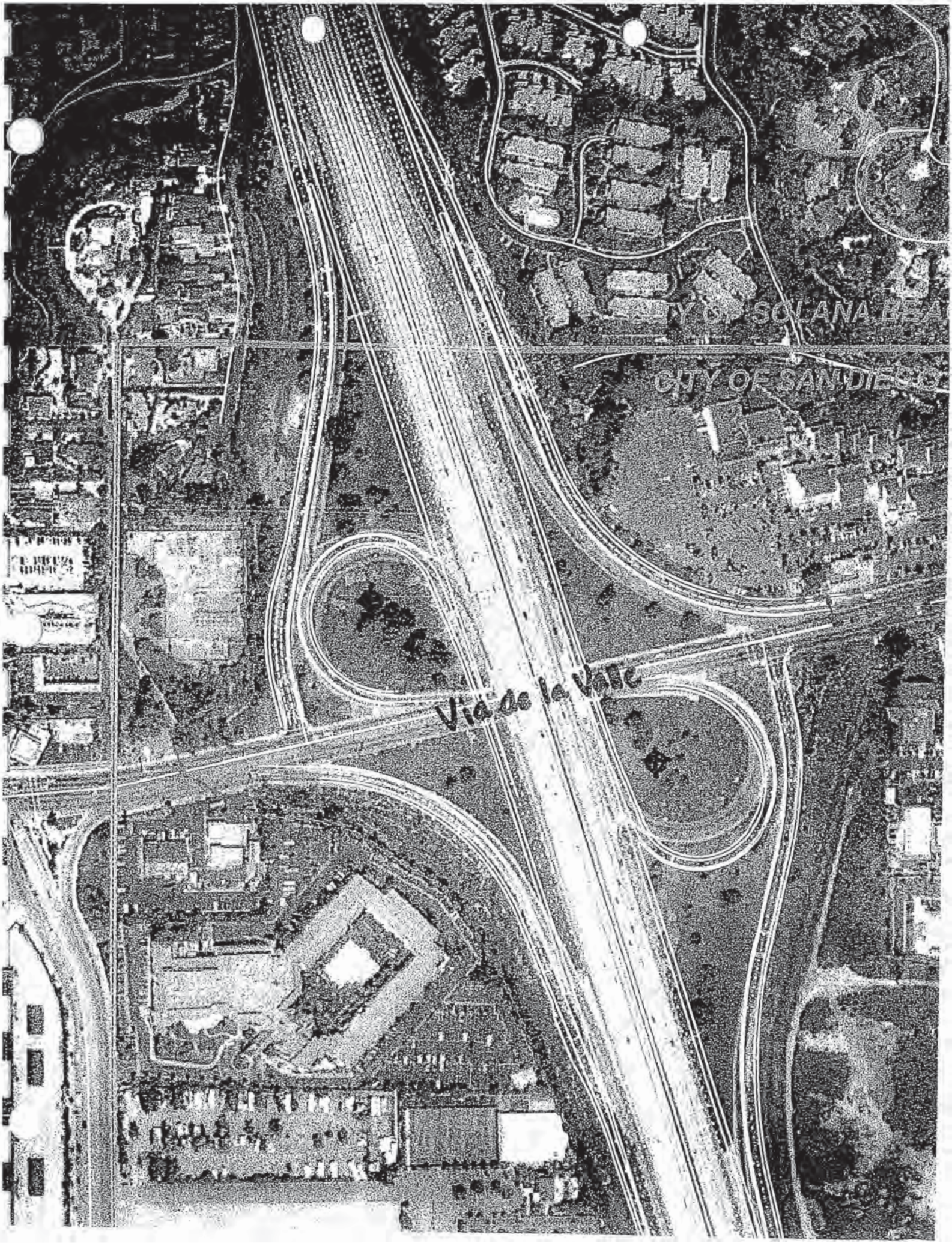
8. What sampling methods will be used? Soil samples will be collected with a split spoon drive sampler.

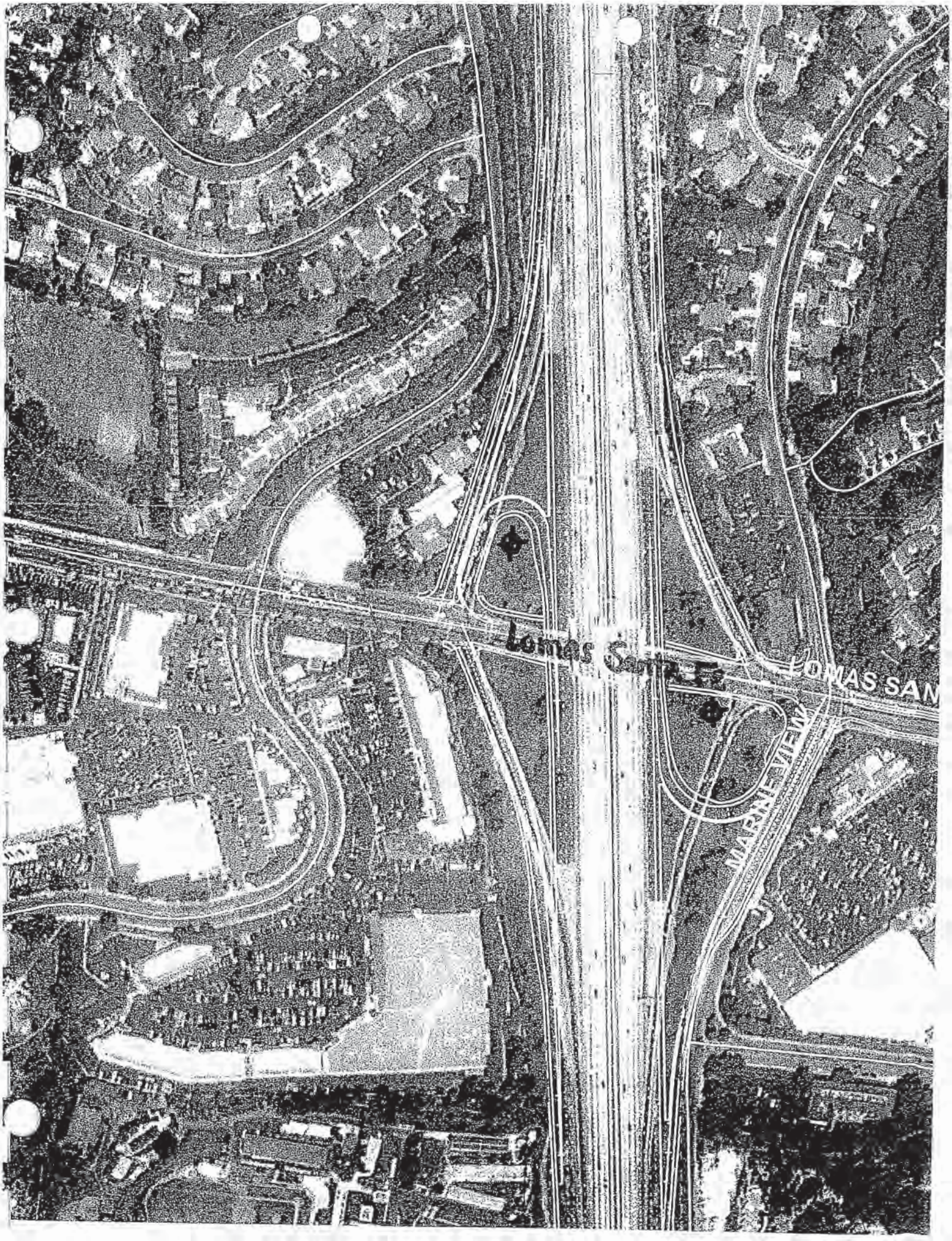
9. Are you proposing a variation from the methods and/or procedures presented in the requirements for the construction or destruction of Vadose and Groundwater Monitoring Wells (Current SAM Manual Requirements)? If yes, specify these variations and include a well construction diagram and all required supporting documentation. Refer to the SAM Manual Appendix B for monitoring well guidelines (http://www/sdcounty.ca.gov/deh/lwq/sam/monitoring_well.html). :No.

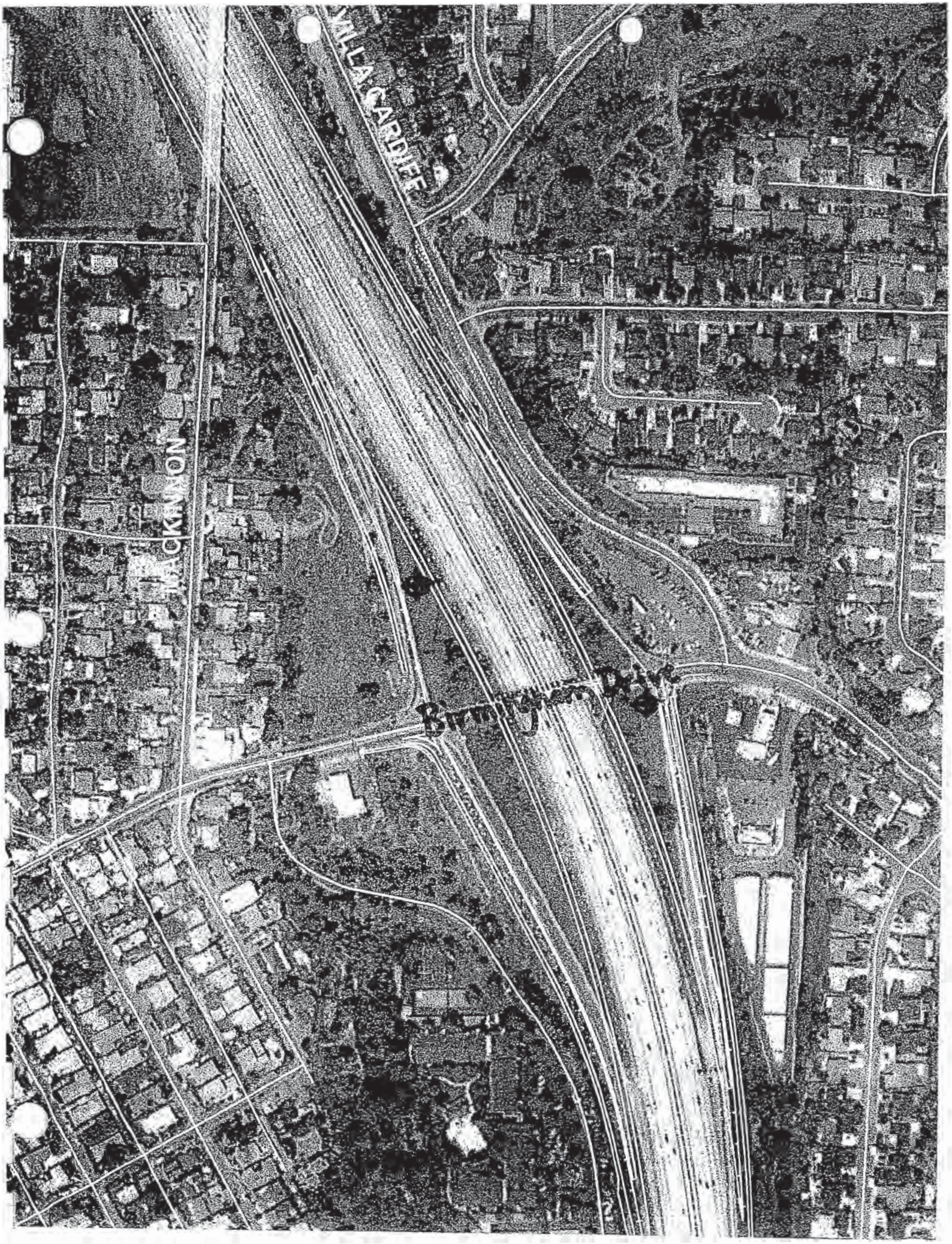
10. Are you proposing a variation in drilling and destruction of soil borings from the methods and/or procedures specified in the current SAM manual? If yes, specify these variations and include a destruction diagram. No.

11. What procedures will be used to ensure that the drilling equipment will introduce no contamination? Drilling equipment will be decontaminated with a high-pressure steam wash prior to drilling operations between boring locations.




CITY OF SOLANA BEA
CITY OF SAN DIEGO
Via de la Valle


Lomas
LOMAS SAN
MARINE VIEW


VILLA CARDIFF
MACKINNON
Burnham Dr

Manchester Avenue

County of San Diego

GARY W. ERBECK
DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
LAND AND WATER QUALITY DIVISION
P.O. BOX 129261, SAN DIEGO, CA 92112-9261
(619) 338-2222 FAX (619) 338-2377
1-800-253-9933

RICHARD HAAS
ASSISTANT DIRECTOR

PROPERTY OWNER RESPONSIBILITY ACKNOWLEDGEMENT

Proposed locations for subsurface work:

Property Address: See attached

Assessor's Parcel Number (APN): See attached

I, Joel Kloth, owner of the property/properties listed above, give my permission to Ninyo + Moore (consulting company, contractor) to conduct the following work at the locations stated above.

☐ Install _____ monitoring wells ☐ Destroy _____ monitoring wells ☒ Drill 10 soil borings

The person who causes to have a monitoring well installed or an existing well destroyed on this property is defined as the *Responsible Party*. San Diego County Code, Section 67.424, states that: "Monitoring wells shall be maintained to meet construction or destruction standards. If a monitoring well does not meet construction or destruction standards, the *Responsible Party* must repair, reconstruct or destroy the monitoring well so it meets the standards. The property owner, if different than the *Responsible Party*, must take the necessary actions to repair, reconstruct or destroy the monitoring well so it meets the standards if the *Responsible Party* does not complete the necessary actions."

A soil boring is used specifically to sample soil and, because there are construction and destruction standards, is included in the definition of a monitoring well even though no maintenance is required. These standards are outlined in the County of San Diego Site Assessment and Mitigation (SAM) Manual and the State of California Well Standards Bulletin 74-90.

I understand that Scott Snyder (registered professional) of Ninyo + Moore (consulting company) and authorized signer for Tri-County Drilling (drilling company) have submitted a signed application to the Department of Environmental Health in which they have agreed to complete the above-stated work according the requirements of the current SAM Manual, all ordinances and laws of the County of San Diego and the State of California pertaining to well/boring construction and destruction.

I also understand that if either the registered professional and/or the licensed drilling company should fail in their responsibilities as defined in San Diego County Code, Section 67.424, I, as the property owner, must take the necessary actions to repair, reconstruct or destroy the monitoring well so it meets the standards if the Responsible Party does not complete the necessary actions.

The scope of work covered by this Acknowledgement will expire one year from the date of the property owner's signature below. If an extension of time beyond one year is required to complete the proposed drilling activities or additional work is proposed, a new Property Owner Responsibility Agreement will be required.

Property Owner Signature: Joel K Kloth Date: 4-26-05

Print Name: Joel Kloth for Caltrans Title: Engineering Geologist

Company: California Dept. of Transportation

Mailing Address: P.O. Box 85406, San Diego CA 92186-5406, MS-46

Interchange	Closest Assessor's Parcel Number
Del Mar Heights	304-101-21
Via de la Valle	298-490-11
Lomas Santa Fe	263-292-54
Manchester Avenue	261-210-14
Birmingham Drive	260-324-12

ATTACHMENT C

BORING LOGS

DATE DRILLED 5/17/05 BORING NO. NM03-B1

GROUND ELEVATION 67.0 m (219.8') SHEET 1 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0						SW	ALLUVIUM: Tan, damp, medium dense, SAND.
		Driven	36		0.0			
	1							
5		Driven	28		0.0			Tan to brown, moist.
	2							
10	3	Driven	24		0.0		SC	Brown to black, damp, clayey SAND.
	4							
15		Driven	27					Brown, moist.
	5							
20	6	Driven	29		0.0		SW	Brown to tan, moist, medium dense, SAND.
	7							
25		Driven	20		0.0		SC	Loose, clayey SAND.
	8							
30	9	Driven	11		0.0			
	10							

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-1

DATE DRILLED 5/17/05 BORING NO. NM03-B1

GROUND ELEVATION 67.0 m (219.8') SHEET 2 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
								SC	ALLUVIUM (Continued): Loose, clayey SAND.
35									
	11			20		0.0			Wet.
	12								
40									
				16		0.0		SW	Grayish tan, moist, loose, SAND.
	13								
45									
	14			29		0.0			
	15								
50									
				25		0.0			Orange to brown.
	16								
55									
	17			41		0.0			
	18								
60									
				25		0.0		SC	Brown, wet, medium dense, clayey SAND.
	19								
	20			54					TORREY SANDSTONE:

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-2

DATE DRILLED 5/17/05 BORING NO. NM03-B1

GROUND ELEVATION 67.0 m (219.8') SHEET 3 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
									TORREY SANDSTONE: (Continued) Orangish, brown, very dense, SANDSTONE.
	21								
70				53					Very dense, silty SANDSTONE.
	22								
75									
	23			53					
	24								
80				59		0.0			Tan, damp, very dense, SANDSTONE.
	25				▽				
85									
	26			52					
	27								
90				53					
	28								
95									
	29								Total Depth = 91 feet. Groundwater encountered at approximately 83 feet. Backfilled with bentonite grout.
	30								

REGISTERED GEOLOGIST
W. SCOTT SNYDER
No. 748
CERTIFIED HYDROGEOLOGIST
Exp. 9/06
STATE OF CALIFORNIA

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-3

DATE DRILLED 05/18/05 BORING NO. NM03-B2

GROUND ELEVATION 18.0 m (59.1') SHEET 1 OF 2

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY PDC LOGGED BY PDC REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
			9		0.0		SM	FILL: Medium brown to reddish brown, dry to damp, loose, silty fine SAND; organics present.
	1							
5			34		0.0			Light brown to reddish brown, damp to moist, dense.
	2							
10	3		21		0.0			Medium dense.
	4							
15			12		0.0		ML/CL	Medium to dark brown, damp to wet, medium dense, fine sandy, clayey SILT to stiff fine, sandy, silty CLAY.
	5							
20	6		35		0.0		SM	Medium tan, damp to moist, dense, silty fine SAND.
	7							
25			24		0.0			
	8			▽			ML	ALLUVIUM: Dark brown to black, moist to wet, loose, fine sandy SILT.
30	9		6		0.0			Saturated.
	10							

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-4

DATE DRILLED 05/18/05 BORING NO. NM03-B2

GROUND ELEVATION 18.0 m (59.1') SHEET 2 OF 2

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY PDC LOGGED BY PDC REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
35	11	Driven	9		0.0			ALLUVIUM (Continued): Dark brown, fine sandy clayey SILT.
40	12	Driven	8		0.0		ML/CL	Dark gray, saturated, loose, clayey silt to firm silty CLAY.
45	13							
	14	Driven	21		0.0			Medium dense, stiff.
50	15	Driven	12		0.0		SM	Dark gray, saturated, medium dense, silty fine SAND with shells.
55	16							Total Depth = 15.70 meters (51.5 feet). Groundwater encountered at approximately 8.69 meters (28.5 feet) during drilling. Backfilled on 05/18/05 with bentonite grout.
60	17							
65	18							
	19							
	20							

REGISTERED GEOLOGIST
W. SCOTT SNYDER
No. 748
CERTIFIED HYDROGEOLOGIST
Exp. 08/06
STATE OF CALIFORNIA

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-5

DATE DRILLED 05/20/05 BORING NO. NM03-B3

GROUND ELEVATION 18.0 m (59.1') SHEET 1 OF 2

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY PDC LOGGED BY PDC REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
			■	30				SM	FILL: Medium tan, dry to damp, medium dense, silty fine SAND.
	1								Minor gravel and cobbles.
5			■	29		0.0			Medium brown, damp, minor clay content.
	2								
10	3		■	21		0.0			Medium tan to brown, damp to moist.
	4								
15			■	22		0.0		SM/SC	Medium tan, moist, medium dense, silty fine sand to clayey fine SAND.
	5								
20	6		■	29		0.0		SM	Medium tan, moist, to wet, silty fine SAND. Asphalt in shoe of sampler.
	7								
25			■	11	▽	0.0		ML/CL	Dark brown to black, wet to saturated, medium dense, clayey silt to stiff, silty CLAY.
	8								
30	9		■	20				SM	Tan, saturated, medium dense, saturated silty fine SAND.
	10							SM	ALUUVIUM: Dark gray to black, saturated, medium dense, silty fine SAND.

Ninyo & Moore

BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-6

DATE DRILLED 05/20/05 BORING NO. NM03-B3

GROUND ELEVATION 18.0 m (59.1') SHEET 2 OF 2

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY PDC LOGGED BY PDC REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
35	11		■	27		0.0			ALLUVIUM (Continued): Medium gray, saturated, medium dense, silty fine SAND.
40	12		■	29		0.0			
45	13								Total Depth = 12.65 meters (41.5 feet). Groundwater encountered at approximately 8.08 meters (26.5 feet) during drilling. Backfilled on 05/20/05 with bentonite grout.
50	14								
55	15								
60	16								
65	17								
	18								
	19								
	20								

REGISTERED GEOLOGIST
W. SCOTT SNYDER
No. 748
CERTIFIED HYDROGEOLOGIST
Exp. 08/06
STATE OF CALIFORNIA

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-7

DATE DRILLED 05/23/05 BORING NO. NM03-B4

GROUND ELEVATION 84.0 m (275.6') SHEET 1 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0			5		0.0		SM	ALLUVIUM: Orange, moist, very loose, silty SAND.
	1								
5									Tan to orange.
	2			11		0.0			
10	3								
				12					
	4								
	5			13					
20	6								
				56					TORREY SANDSTONE: Tan, moist, very dense, SANDSTONE.
	7								
25									Tan to white, dense.
	8			53		0.0			
30	9								
				50		0.0			Tan, very dense.
	10								

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-8

DATE DRILLED 05/23/05 BORING NO. NM03-B4

GROUND ELEVATION 84.0 m (275.6') SHEET 2 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
								TORREY SANDSTONE (Continued): Tan, moist, very dense, SANDSTONE.
35	11		51		0.0			
40	12							
	13							
45	14							
50	15		50		0.0			Dry.
	16							
55	17		4		0.0			White, sandy SILTSTONE.
60	18		3		0.0			
	19							
	20							

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-9

DATE DRILLED 05/23/05 BORING NO. NM03-B4

GROUND ELEVATION 84.0 m (275.6') SHEET 3 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
									TORREY SANDSTONE (Continued): White, sandy SILTSTONE.
70	21								
	22								
75	23								
	24								
80	25								
85	26								
	27								
90									Total Depth = 90 feet. Groundwater not encountered during drilling. Backfilled with bentonite grout.
	28								
95	29								
	30								

REGISTERED GEOLOGIST
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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-10

DATE DRILLED 05/24/05 BORING NO. NM03-B5

GROUND ELEVATION 6.0 m (19.7') SHEET 1 OF 1

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY MLF

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0		31				SW	ALLUVIUM: Whitish tan, moist, medium dense, SAND.
	1							
5				▽				
			6		0.0			Brown to black, saturated, loose, SAND.
	2							
10	3							
			8				SM	Silty SAND.
	4							
15								
	5		8					
								Total Depth = 17 feet. Groundwater encountered at approximately 5 feet. Backfilled with bentonite grout.
20	6							
	7							
25								
	8							
30	9							
	10							

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-11

DATE DRILLED 05/25/05 BORING NO. NM03-B6

GROUND ELEVATION 25.0 m (82') SHEET 1 OF 2

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0						SM	ALLUVIUM: Brown, moist, loose, silty SAND.
	1							
5								
	2		24		0.0			Medium dense.
10	3							
			56		0.0			BAY POINT FORMATION: Tan to orange, moist, very dense, SANDSTONE.
	4							
5								
	5		52		0.0			
20	6							Orange tan.
			50/4"		0.0			
	7							
25								
	8		50/6"		0.0			
	9							
30								
			50/3"		0.0			
	10							

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-12

DATE DRILLED 05/25/05 BORING NO. NM03-B6

GROUND ELEVATION 25.0 m (82') SHEET 2 OF 2

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
35	11		50/2"		0.0			BAY POINT FORMATION (Continued): Tan to orange, moist, very dense, SANDSTONE.
40	12		50/2"					
45	13							
50	14		50/1"					
55	15							
	16							
	17							Total Depth = 55 feet. Groundwater not encountered during drilling. Backfilled with bentonite grout.
60	18							
	19							
	20							

REGISTERED GEOLOGIST
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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-13

DATE DRILLED 05/26/05 BORING NO. NM03-B7

GROUND ELEVATION 61.0 m (200') SHEET 1 OF 1

METHOD OF DRILLING CME 75 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY PDC LOGGED BY PDC REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES: Bulk	SAMPLES: Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
			■			0.0		SM	FILL: Medium tan, damp to moist, silty fine SAND.
	1								Asphalt layer.
5			◤	50/3"		0.0			TORREY SANDSTONE: Medium tan, damp to moist, moderately to well cemented, silty fine-grained SANDSTONE.
	2								
10	3		◤	60/6"		0.0			Light tan.
	4								
15			◤	50/3"		0.0			Medium tan.
	5				▽				
20	6		◤	60/6"		0.0			Medium brown, wet to saturated, moderately to well cemented, silty fine- grained SANDSTONE.
	7								
25			◤	30/2"		0.0			Reddish brown and mottled gray.
	8								
30	9		◤	80/6"		0.0			Medium tan.
	10								Total Depth = 9.30 meters (30.5 feet). Groundwater encountered at approximately 5.79 meters (19 feet) during drilling. Backfilled on 05/26/05 with bentonite grout.

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-14

DATE DRILLED 05/31/05 BORING NO. NM03-B8

GROUND ELEVATION 25.0 m (82') SHEET 1 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0				0.0			ASPHALT: Approximately 4 inches thick.
							SW	FILL: Tan, moist, medium dense, highly weathered SAND.
5	1							
	2		42		0.0		SW	ALLUVIUM: Orange tan, moist, medium dense, SAND.
10	3		30		0.0			
	4							
5								
	5		31		0.0			
20	6		32		0.0			BAY POINT FORMATION: Tan, moist, medium dense, SANDSTONE.
	7							Brown, moist, loose, sandy CLAYSTONE.
25								
	8		14		0.0			
	9							
30								Medium dense.
			20		0.0			
	10							

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-15

DATE DRILLED 05/31/05 BORING NO. NM03-B8

GROUND ELEVATION 25.0 m (82') SHEET 2 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
								BAY POINT FORMATION (Continued): Brown, moist, medium dense, SANDSTONE.
35	11		28		0.0			
	12							
40			41		0.0			
	13							
45								
	14		43		0.0			
	15							
50			45		0.0			Orange stain.
	16							
55								Brown, loose.
	17		16		0.0			
	18							
60								Tan, wet, medium dense.
	19		33		0.0			
65								
	20							Dense.

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-16

DATE DRILLED 05/31/05 BORING NO. NM03-B8

GROUND ELEVATION 25.0 m (82') SHEET 3 OF 3

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES Bulk	SAMPLES Driven	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
				81		0.0			BAY POINT FORMATION (Continued): Tan, wet, dense, SANDSTONE.
70	21			50/4"		0.0			Very dense.
	22								Total Depth = 72 feet. Groundwater not encountered during drilling. Backfilled with bentonite grout.
75	23								
	24								
80									
	25								
85	26								
	27								
90									
	28								
95	29								
	30								

REGISTERED GEOLOGIST
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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-17

DATE DRILLED 05/27/05 BORING NO. NM03-B9

GROUND ELEVATION 6.0 m (19.7') SHEET 1 OF 1

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0						SW	ALLUVIUM: Tan, dry, medium dense, SAND.
			17		0.0			
	1							
5								Brown and moist.
			42		0.0			
	2							
10	3			▽				Gray.
			18		0.0			
	4							
				▼				Gray and loose SILT.
			5					
	5							
20	6							Gray, wet, medium dense.
			36		0.0			
	7							Total Depth = 22 feet. Groundwater encountered at approximately 10 feet below ground surface. Backfilled with bentonite grout.
25								
	8							
30	9							
	10							

REGISTERED GEOLOGIST
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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-18

DATE DRILLED 06/03/05 BORING NO. NM03-B10

GROUND ELEVATION 61.0 m (200') SHEET 1 OF 1

METHOD OF DRILLING CME 75, 178 mm Diameter Hollow Stem Auger

DRIVE WEIGHT 63 kg (140 lbs (Spooling Cable)) DROP 760 mm (30")

SAMPLED BY MLF LOGGED BY MLF REVIEWED BY WSS

DEPTH (feet)	DEPTH (meters)	SAMPLES (Bulk / Driven)	BLOWS/300 mms (blows/foot)	MOISTURE (%)	PID (ppm)	SYMBOL	CLASSIFICATION U.S.C.S.	DESCRIPTION/INTERPRETATION
	0				0.0			ASPHALT/CONCRETE: Approximately 4 inches thick.
	1							TORREY SANDSTONE: Orange tan, dry, dense, SANDSTONE.
5	2		50/5"		0.0			Gray, very dense.
10	3		50/6"		0.0			
	4							
	5		50/5"		0.0			Moist.
20	6		50/6"		0.0			Tan.
	7							
25				▽				
	8		50/2"		0.0			
30	9							
	10							Total Depth = 30 feet. Groundwater encountered at approximately 25 feet. Refusal at approximately 30 feet. Backfilled with bentonite grout.

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BORING LOG

DEPARTMENT OF TRANSPORTATION, I-5 WIDENING
VILLA DE VALLE, DEL MAR, CALIFORNIA

PROJECT NO.	DATE	FIGURE
105388009	08/05	A-19

ATTACHMENT D

BORING ABANDONMENT LOGS

Ninyo&Moore

Boring Abandonment Field Log

Project #: 105388009

Boring ID:	**NM03-B1**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**31.85 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Matt Fuller**		

Boring ID:	**NM03-B2**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**18 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Peter Clark**		

Boring ID:	**NM03-B3**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**14.5 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Peter Clark**		

Boring ID:	**NM03-B4**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**31.5 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Matt Fuller**		

Ninyo&Moore

Boring Abandonment Field Log

Project #: 105388009

Boring ID:	**NM03-B5**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**6 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Matt Fuller**		

Boring ID:	**NM03-B6**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**19.25 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Matt Fuller**		

Boring ID:	**NM03-B7**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**10.7 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Peter Clark**		

Boring ID:	**NM03-B8**	Permit No.:	**LMON 103106**
Date of Boring Abandonment:			
Backfill material:	**Bentonite grout**		
Volume of backfill material:	**25.2 cubic feet**		
Surface completion material:	**soil**		
Volume of surface seal backfill material:		**0.1 cubic feet**	
Observed by:	**Matt Fuller**		

Ninyo&Moore

Boring Abandonment Field Log

Project #: 105388009

Boring ID: **NM03-B9**	Permit No.: **LMON 103106**
Date of Boring Abandonment:	
Backfill material:	**Bentonite grout**
Volume of backfill material:	**7.7 cubic feet**
Surface completion material:	**soil**
Volume of surface seal backfill material:	**0.1 cubic feet**
Observed by:	**Matt Fuller**

Boring ID: **NM03-B10**	Permit No.: **LMON 103106**
Date of Boring Abandonment:	
Backfill material:	**Bentonite grout**
Volume of backfill material:	**10.5 cubic feet**
Surface completion material:	**soil**
Volume of surface seal backfill material:	**0.1 cubic feet**
Observed by:	**Matt Fuller**

ATTACHMENT E

ANALYTICAL DATA

APPENDIX B

GEOPHYSICAL SURVEY REPORT

SOUTHWEST
GEOPHYSICS, INC.
YOUR SUBSURFACE SOLUTION

RECEIVED
MAY 18 2005
NINYO & MOORE
SAN DIEGO OFFICE

May 16, 2005
Project No. 104015h

Mr. Scott Snyder
Ninyo & Moore
5710 Ruffin Road
San Diego, California 92123-1013

Subject: Geophysical Evaluation
Interstate 5 Interchanges
San Diego, California

Dear Mr. Snyder:

In accordance with your authorization, we have performed geophysical surveys at several interchanges along Interstate 5 (I-5) in San Diego, California (Figure 1). Specifically, our surveys were conducted at the Del Mar Heights Road, Via de la Valle, Loma Santa Fe Drive, Manchester Avenue, and Birmingham Drive interchanges. The purpose of the surveys was to assess the presence of utilities at 14 proposed boring locations. This report presents our survey methodology, equipment used, analysis, and findings.

Our scope of services for the project included performance of geophysical surveys in the areas of the proposed borings, analysis of the data obtained, and preparation of this letter-report presenting our findings. The geophysical evaluation included the use of a GSSI SIR 3000 ground penetrating radar (GPR) with a 400 MHz transducer, Geonics EM61 time domain instrument, Schonstedt GA-52C magnetic gradiometer, Fisher M-Scope TW6 pipe and cable locator, and Metrotech 9860 line tracer.

The proposed boring locations were selected by your office and marked in the field with paint and wooden stakes prior to our site visit (Figure 2). The primary scope of our evaluation was to delineate subsurface utilities in roughly a 15-foot radius around each of the proposed soil boring locations. Traverses using the instruments described above were taken over each of the areas on

random profiles, which were oriented to optimally recognize buried structures. In some cases where risers were present, the line tracer was used to trace out the lines. Our interpretation of the collected data took place in real time as the survey progressed, and the findings of our evaluation were marked on the ground surface and reported to you at the completion of the survey. It should also be noted that the depth of GPR penetration at the boring locations was fairly shallow (i.e., less than 3 feet). Therefore, nonmetallic lines at greater depths may not have been detected.

The results of our surveys indicate several utilities are located at or in the near vicinity of the proposed boreholes. As a result, some of the borings were relocated slightly (less than 10 feet) to avoid detected underground utilities. Accordingly, the proposed boring locations, as they are currently marked, are generally clear of underground utilities. Based on our discussion with a technician at the Sewer Lift Station located at the Manchester Avenue interchange, the boring in this area may conflict with an underground forced main sewer line. Apparently the line is several feet deep. Several traverses with our instrumentation were conducted; however, no indication of the line location was obtained. The technician did report, however, that the location of the sewer line would be delineated by facility personnel upon receipt of a "Dig Alert" ticket.

The field evaluation and geophysical analyses presented in this report have been conducted in general accordance with current practice and the standard of care exercised by consultants performing similar tasks in the project area. No warranty, expressed or implied, is made regarding the conclusions presented in this report. There is no evaluation detailed enough to reveal every subsurface condition. Variations may exist and conditions not observed or described in this report may be present. Uncertainties relative to subsurface conditions can be reduced through additional subsurface exploration. Additional subsurface surveying will be performed upon request.

Please note that our evaluation was limited to the assessment of the possible presence of detectable buried utilities, and that "USA" or "Dig Alert" should also be contacted prior to conducting

subsurface exploration activities. In addition, we recommend that available utility plans/drawings of the project site be reviewed as appropriate.

Southwest Geophysics, Inc. should be contacted if the reader requires additional information or has questions regarding the content, interpretations presented, or completeness of this document. This report is intended exclusively for use by the client. Any use or reuse of this report by parties other than the client is undertaken at said parties' sole risk.

We appreciate the opportunity to be of service on this project. Should you have any questions related to this report, please contact the undersigned at your convenience.

Sincerely,
SOUTHWEST GEOPHYSICS, INC.

Patrick F. Lehrmann, R.Gp.
Principal Geologist/Geophysicist

REGISTERED GEOPHYSICIST
PATRICK F. LEHRMANN
No. 1043
Exp. 1/31/06
STATE OF CALIFORNIA

Hans van de Vrugt, C.E.G., R.Gp.
Principal Geologist/Geophysicist

PFL/HV/hv

Attachments: Figure 1 – Site Location Map
Figures 2 and 3 – Site Photographs

Distribution: (2) Addressee

SITE LOCATION MAP

N

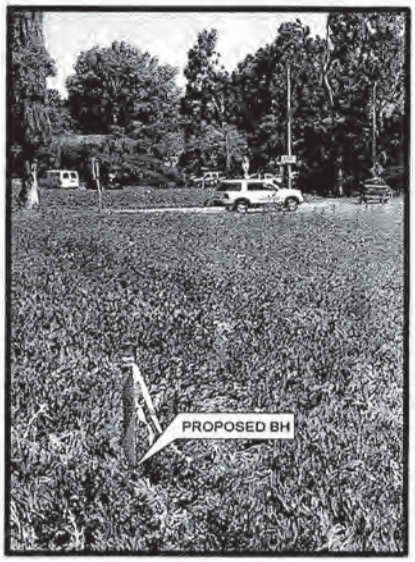
I-5 INTERCHANGES
SAN DIEGO, CALIFORNIA

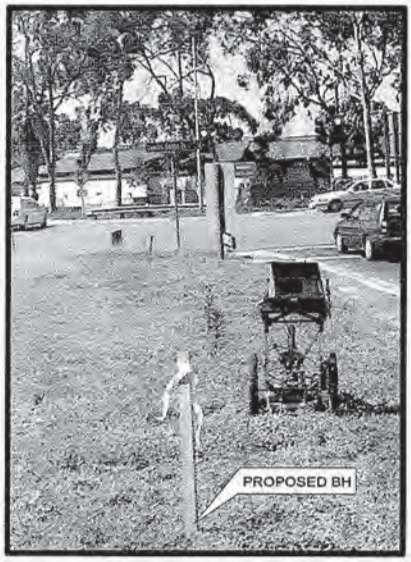
PROJECT NO.: 104015h

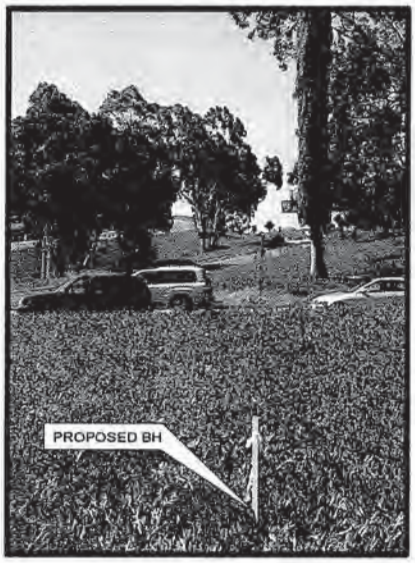
DATE: 5/05

SOUTHWEST GEOPHYSICS, INC.

FIGURE 1







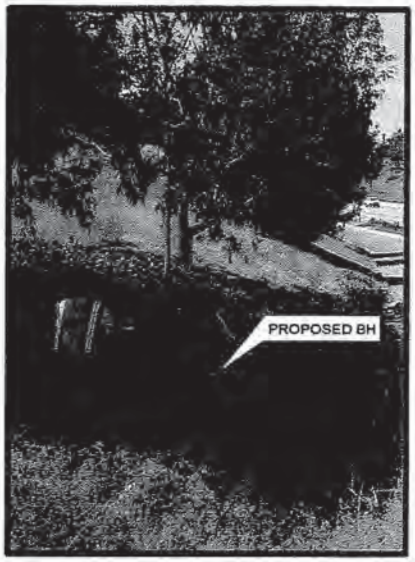
SITE PHOTOGRAPHS

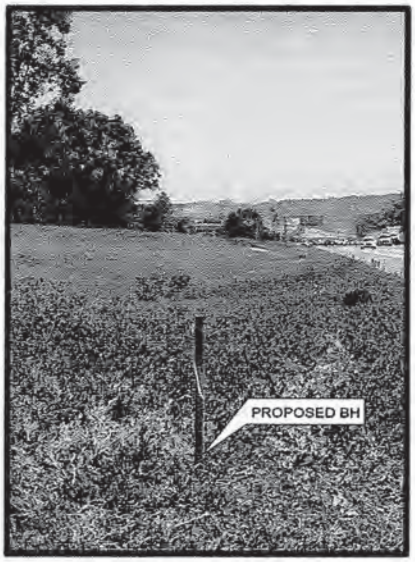
I-5 INTERCHANGES
SAN DIEGO, CALIFORNIA

PROJECT NO.: 104015h | DATE: 5/05

SOUTHWEST GEOPHYSICS, INC.

FIGURE 2





SITE PHOTOGRAPHS

I-5 INTERCHANGES
SAN DIEGO, CALIFORNIA

PROJECT NO.: 104015h | DATE: 5/05

SOUTHWEST GEOPHYSICS, INC.

FIGURE 3

APPENDIX C

NON-HAZARDOUS WASTE MANIFEST

NON-HAZARDOUS WASTE MANIFEST

(lease print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No. 072005-2

2. Page 1 of 1

3. Generator's Name and Mailing Address
CALIFORNIA DEPARTMENT OF TRANSPORTATION
2929 JUAN ST
SAN DIEGO, CA 92110

4. Generator's Phone (858) 616-6622 ATTN: JOEL KLOTH

5. Transporter 1 Company Name: OCEAN BLUE ENVIRONMENTAL

6. US EPA ID Number: CAD983608258

A. State Transporter's ID

B. Transporter 1 Phone 562.624.4120

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
CROSBY AND OUERTON
1650 WEST 17th STREET
LONG BEACH, CA 90813

10. US EPA ID Number: CAD028409019

E. State Facility's ID

F. Facility's Phone 562.432.5445

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. NON-HAZARDOUS WASTE SOLID (DRILL CUTTINGS)	030	DM	013500	P
b. ~~NON-HAZARDOUS WASTE LIQUID~~ D.O. (~~WATER~~) D.O.		~~DM~~ D.O.		
c.				
d.				

G. Additional Descriptions for Materials Listed Above
11a PROFILE # 27885
~~11b PROFILE # 14427~~ D.O.

H. Handling Codes for Wastes Listed Above
A-14
B-Ø

15. Special Handling Instructions and Additional Information OB JOB # 51707 SITE: IS NORTH OF DEL MAR HEIGHTS

PROJECT# 105388009

GENERATOR

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Printed/Typed Name: Joel Kloth for Caltrans | Signature: Joel Kloth | Date: Month 07 Day 19 Year 05

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: DONALD OSTRAND | Signature: Donald Ostrand | Date: Month 07 Day 29 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Sheldon Brewster | Signature: Sheldon Brewster | Date: Month 07 Day 22 Year 05

NON-HAZARDOUS WASTE

APPENDIX D

LABORATORY ANALYTICAL REPORTS

TABLE OF CONTENTS

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2009 2010 – 2019
GC/MS-SVOA	SW 3520C/3550B/8270C	3000 – 3013
GC-VOA	METHOD 5030B/M8015	4000 – 4008
GC-SVOA	METHOD 3520C/LUFT/M8015 SW3520C/3550B/8082	5000 – 5008 5009 – 5022
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B METHOD 7470A/7471A	7000 – 7020 7021 – 7030
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-15-2005
EMAX Batch No.: 05E155

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/18/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
FQC-TRIP BLANK	E155-01	05/17/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B1 1-1.5	E155-02	05/17/05	SOIL	LEAD
NM03-B1 5.5-6	E155-03	05/17/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B1 55.5-56	E155-04	05/17/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B1 61-61.5	E155-05	05/17/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-FB1	E155-06	05/17/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-GW1	E155-07	05/17/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

1001

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: (310) 618-8889 Fax #: (310) 618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: B2/VW01-33

EMAX CONTROL NO. *: 05E155

PROJECT CODE: 105388009

CLIENT: CalTrans
PROJECT: Caltrans / 105388009
COORDINATOR: Scott Snyder
TEL: 858-576-1000 FAX: EMAIL: SSnyder@ninyomoore.com
SEND REPORT TO: Scott Snyder
COMPANY: Ninyo & Moore
ADDRESS: 5710 Ruffin Rd
San Diego CA 92123
EMAX PM:

MATRIX CODE: DW= Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/Sediment; WP=Wipes PP=Pure Products; AR=Air; O= Blank Water

PRESERVATIVE CODE: IC=Ice; HC=HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: VOC; TPH-GAS; TPH-Diesel; SVOC; Metals; PCB's; total lead

TAT: ☐ Rush _____hrs. ☐ Rush _____days ☐ 7 days ☐ 14 days ☐ 21 days ☒ 30 days ☐ _____days ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
* 1	FQC - trip blank	TB	5.17.05	1130	02	40mL	VOA	O	TB	X	
* 2	NM03-B1 1-1.5	B1	5.17.05	0745	1	6"	SS	SS		X	
* 3	NM03-B1 5.5-6	B1	5.17.05	0955	1	6"	SS	SS		X X X X X X	
* 4	NM03-B1 55.5-56	B1	5.17.05	1125	1	6"	SS	SS		X X X X X X	
* 5	NM03-B1 61-61.5	B1	5.17.05	1135	1	6"	SS	SS		X X X X X X	
* 6	NM03-FB1	FB	5.17.05	1400	10			O		X X X X X X	
* 7	NM03-GW1	B1	5.17.05	1400	10			GW		X X X X X X	
* 8											
* 9											
* 0											

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.2	

SAMPLER

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Phil Hoffman	5/18/05	1200	Phil Hoffman
	5/18/05	1410	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

GRAPHICS EXPRESS (626) 330-3585

2001

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E155
☑ EMAX Courier	SEE COC	Recepient	Surgey. S
☐ Client Delivery		Date	5-18-05
☐ Third Party		Time	1410

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☐ Address	☐ Courier Signature/Date/Time	☐ Analysis Required
☑ Client PM/FC	☑ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ Plastic Bag
Temperatures	☑ Cooler 1 4.2°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
-01	F-QC	ID QC (only) on vials	Follow COC
-02	NM03-B1 1-1.5'	ID NM3-B1-GW on	"
		Labels. DATE & Time on	
-06	NM03-FB1	metals - Container Rec'd UnPreserved	preserved in lab
-07	NM03-GW1	metals - Container Rec'd UnPreserved	"

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ Date 5-18-05

SRF _____ Date 5/18/05

PM _____ Date 5/22/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E155

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 05/18/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067E63B	1	NA	05/25/0512:56	05/25/0512:56	REC890	REC670	V067E63	Method Blank
LCS1W	V067E63L	1	NA	05/25/0511:45	05/25/0511:45	REC888	REC670	V067E63	Lab Control Sample (LCS)
LCD1W	V067E63C	1	NA	05/25/0512:20	05/25/0512:20	REC889	REC670	V067E63	LCS Duplicate
FQC-TRIP BLANK	E155-01	1	NA	05/25/0514:43	05/25/0514:43	REC893	REC670	V067E63	Field Sample
NM03-FB1	E155-06	1	NA	05/25/0515:18	05/25/0515:18	REC894	REC670	V067E63	Field Sample
NM03-GW1	E155-07	1	NA	05/25/0515:54	05/25/0515:54	REC895	REC670	V067E63	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/25/05 14:43
Sample ID: FQC-TRIP BLANK	Date Analyzed: 05/25/05 14:43
Lab Samp ID: E155-01	Dilution Factor: 1
Lab File ID: REC893	Matrix : WATER
Ext Btch ID: V067E63	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	104	63-143
4-BROMOFLUOROBENZENE	106	63-143
TOLUENE-D8	107	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/25/05 15:18
Sample ID: NM03-FB1	Date Analyzed: 05/25/05 15:18
Lab Samp ID: E155-06	Dilution Factor: 1
Lab File ID: REC894	Matrix : WATER
Ext Btch ID: V067E63	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	63-143
4-BROMOFLUOROBENZENE	106	63-143
TOLUENE-D8	106	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/25/05 15:54
Sample ID: NM03-GW1	Date Analyzed: 05/25/05 15:54
Lab Samp ID: E155-07	Dilution Factor: 1
Lab File ID: REC895	Matrix : WATER
Ext Btch ID: V067E63	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	5.9J	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	63-143
4-BROMOFLUOROBENZENE	105	63-143
TOLUENE-D8	109	63-143

2006

QC SUMMARIES

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E155	Date Extracted: 05/25/05 12:56
Sample ID: MBLK1W	Date Analyzed: 05/25/05 12:56
Lab Samp ID: V067E63B	Dilution Factor: 1
Lab File ID: REC890	Matrix : WATER
Ext Btch ID: V067E63	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	70-130
4-BROMOFLUOROBENZENE	104	70-130
TOLUENE-D8	106	70-130

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V067E63B V067E63L V067E63C
LAB FILE ID: REC890 REC888 REC889
DATE EXTRACTED: 05/25/0512:56 05/25/0511:45 05/25/0512:20 DATE COLLECTED: NA
DATE ANALYZED: 05/25/0512:56 05/25/0511:45 05/25/0512:20 DATE RECEIVED: 05/25/05
PREP. BATCH: V067E63 V067E63 V067E63
CALIB. REF: REC670 REC670 REC670

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	9.91	99	10	9.47	95	5	60-130	30
Benzene	ND	10	10.4	104	10	9.87	99	5	70-130	30
Chlorobenzene	ND	10	10.8	108	10	10.3	103	5	70-120	30
Toluene	ND	10	10.7	107	10	10.1	101	7	70-130	30
Trichloroethene	ND	10	10.3	103	10	9.76	98	6	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	11.7	117	10	11	110	70-130
4-Bromofluorobenzene	10	10.5	105	10	10.1	101	70-130
Toluene-d8	10	11.1	111	10	10.5	105	70-130

2009

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E155

2010

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/18/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VO06E22Q	1	NA	05/24/0512:24	05/24/0512:24	REW239	REW188	VO06E22	Method Blank
LCS1S	VO06E22L	1	NA	05/24/0510:27	05/24/0510:27	REW236	REW188	VO06E22	Lab Control Sample (LCS)
LCD1S	VO06E22C	1	NA	05/24/0511:06	05/24/0511:06	REW237	REW188	VO06E22	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/24/0518:10	05/24/0518:10	REW248	REW188	VO06E22	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/24/0518:49	05/24/0518:49	REW249	REW188	VO06E22	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/24/0519:28	05/24/0519:28	REW250	REW188	VO06E22	Field Sample

FN - Filename
% Moist - Percent Moisture

2012

SAMPLE RESULTS

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/24/05 18:10
Sample ID: NM03-B1 5.5-6	Date Analyzed: 05/24/05 18:10
Lab Samp ID: E155-03	Dilution Factor: 1
Lab File ID: REW248	Matrix : SOIL
Ext Btch ID: V006E22	% Moisture : 9.9
Calib. Ref.: REW188	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.5	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.5	2.2
1,1,2-TRICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHENE	ND	5.5	2.2
1,2-DICHLOROETHANE	ND	5.5	2.2
1,2-DICHLOROPROPANE	ND	5.5	2.2
2-BUTANONE	ND	11	5.5
2-HEXANONE	ND	11	5.5
4-METHYL-2-PENTANONE	ND	11	5.5
ACETONE	12	11	5.5
BENZENE	ND	5.5	2.2
BROMODICHLOROMETHANE	ND	5.5	2.2
BROMOFORM	ND	5.5	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.5	2.2
CARBON TETRACHLORIDE	ND	5.5	2.2
CHLOROBENZENE	ND	5.5	2.2
CHLOROETHANE	ND	5.5	2.2
CHLOROFORM	ND	5.5	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.5	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.5	2.2
DIBROMOCHLOROMETHANE	ND	5.5	2.2
ETHYLBENZENE	ND	5.5	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.5	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.5	2.2
STYRENE	ND	5.5	2.2
TETRACHLOROETHENE	ND	5.5	2.2
TOLUENE	ND	5.5	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.5	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.5	2.2
TRICHLOROETHENE	ND	5.5	2.2
VINYL CHLORIDE	ND	5.5	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	54-154
4-BROMOFLUOROBENZENE	105	63-143
TOLUENE-D8	104	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/24/05 18:49
Sample ID: NM03-B1 55.5-56	Date Analyzed: 05/24/05 18:49
Lab Samp ID: E155-04	Dilution Factor: 1
Lab File ID: REW249	Matrix : SOIL
Ext Btch ID: V006E22	% Moisture : 10.8
Calib. Ref.: REW188	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	ND	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	54-154
4-BROMOFLUOROBENZENE	102	63-143
TOLUENE-D8	107	63-143

2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/24/05 19:28
Sample ID: NM03-B1 61-61.5	Date Analyzed: 05/24/05 19:28
Lab Samp ID: E155-05	Dilution Factor: 1
Lab File ID: REW250	Matrix : SOIL
Ext Btch ID: V006E22	% Moisture : 11.1
Calib. Ref.: REW188	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	ND	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	114	54-154
4-BROMOFLUOROBENZENE	104	63-143
TOLUENE-D8	108	63-143

2016

QC SUMMARIES

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/24/05
Batch No. : 05E155	Date Extracted: 05/24/05 12:24
Sample ID: MBLK1S	Date Analyzed: 05/24/05 12:24
Lab Samp ID: V006E22Q	Dilution Factor: 1
Lab File ID: REW239	Matrix : SOIL
Ext Btch ID: V006E22	% Moisture : NA
Calib. Ref.: REW188	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	106	60-140
4-BROMOFLUOROBENZENE	119	70-130
TOLUENE-D8	117	70-130

2018

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW 5030B/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V006E22Q	V006E22L	V006E22C		
LAB FILE ID:	REW239	REW236	REW237		
DATE EXTRACTED:	05/24/0512:24	05/24/0510:27	05/24/0511:06	DATE COLLECTED:	NA
DATE ANALYZED:	05/24/0512:24	05/24/0510:27	05/24/0511:06	DATE RECEIVED:	05/24/05
PREP. BATCH:	V006E22	V006E22	V006E22		
CALIB. REF:	REW188	REW188	REW188		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	22.2	111	20	21.3	107	4	60-140	50
Benzene	ND	20	23.3	116	20	21.8	109	6	70-130	50
Chlorobenzene	ND	20	23	115	20	22.1	111	4	70-130	50
Toluene	ND	20	23.7	119	20	22.3	111	6	70-130	50
Trichloroethene	ND	20	23.4	117	20	21.9	110	6	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	59.2	118	50	57.4	115	60-140
4-Bromofluorobenzene	50	58.2	116	50	58.3	117	70-130
Toluene-d8	50	60.1	120	50	57.2	114	70-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E155

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and three (3) soil samples were received on 05/18/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd edition.

1. Holding Time

Analytical holding time was met.

2. Tuning and Calibration

Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designate in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : T-042

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVE041SB	1	NA	05/31/0514:09	05/21/0516:15	REX498	RCX291	SVE041S	Method Blank
LCS1S	SVE041SL	1	NA	05/31/0514:38	05/21/0516:15	REX499	RCX291	SVE041S	Lab Control Sample (LCS)
LCD1S	SVE041SC	1	NA	05/31/0515:08	05/21/0516:15	REX500	RCX291	SVE041S	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/31/0522:57	05/21/0516:15	REX516	RCX291	SVE041S	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/31/0523:26	05/21/0516:15	REX517	RCX291	SVE041S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/31/0523:55	05/21/0516:15	REX518	RCX291	SVE041S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVE035WB	1	NA	06/01/0513:28	05/19/0518:00	RFX004	RCX291	SVE035W	Method Blank
LCS1W	SVE035WL	1	NA	06/01/0513:57	05/19/0518:00	RFX005	RCX291	SVE035W	Lab Control Sample (LCS)
LCD1W	SVE035WC	1	NA	06/01/0514:26	05/19/0518:00	RFX006	RCX291	SVE035W	LCS Duplicate
NM03-FB1	E155-06	.95	NA	06/01/0514:56	05/19/0518:00	RFX007	RCX291	SVE035W	Field Sample
NM03-GW1	E155-07	1.4	NA	06/01/0515:25	05/19/0518:00	RFX008	RCX291	SVE035W	Field Sample

FN - Filename
% Moist - Percent Moisture

3002

SAMPLE RESULTS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/21/05 16:15
Sample ID: NM03-B1 5.5-6	Date Analyzed: 05/31/05 22:57
Lab Samp ID: E155-03	Dilution Factor: 1
Lab File ID: REX516	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : 9.9
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	200
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	730	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	730	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	730	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	730	190
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	80	36-143
2-FLUOROBIPHENYL	65	36-143
2-FLUOROPHENOL	61	36-143
NITROBENZENE-D5	63	36-143
PHENOL-D5	64	36-143
TERPHENYL-D14	81	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
Batch No.	: 05E155	Date Extracted:	05/21/05 16:15
Sample ID:	NM03-B1 55.5-56	Date Analyzed:	05/31/05 23:26
Lab Samp ID:	E155-04	Dilution Factor:	1
Lab File ID:	REX517	Matrix :	SOIL
Ext Btch ID:	SVE041S	% Moisture :	10.8
Calib. Ref.:	RCX291	Instrument ID :	T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	68	36-143
2-FLUOROBIPHENYL	59	36-143
2-FLUOROPHENOL	58	36-143
NITROBENZENE-D5	60	36-143
PHENOL-D5	58	36-143
TERPHENYL-D14	75	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/21/05 16:15
Sample ID: NM03-B1 61-61.5	Date Analyzed: 05/31/05 23:55
Lab Samp ID: E155-05	Dilution Factor: 1
Lab File ID: REX518	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : 11.1
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	80	36-143
2-FLUOROBIPHENYL	72	36-143
2-FLUOROPHENOL	69	36-143
NITROBENZENE-D5	72	36-143
PHENOL-D5	70	36-143
TERPHENYL-D14	80	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
Batch No.	: 05E155	Date Extracted:	05/19/05 18:00
Sample ID:	NM03-FB1	Date Analyzed:	06/01/05 14:56
Lab Samp ID:	E155-06	Dilution Factor:	.95
Lab File ID:	RFX007	Matrix	: WATER
Ext Btch ID:	SVE035W	% Moisture	: NA
Calib. Ref.:	RCX291	Instrument ID	: T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.5	4.8
1,2-DICHLOROBENZENE	ND	9.5	4.8
1,3-DICHLOROBENZENE	ND	9.5	4.8
1,4-DICHLOROBENZENE	ND	9.5	4.8
2,4,5-TRICHLOROPHENOL	ND	9.5	4.8
2,4,6-TRICHLOROPHENOL	ND	9.5	4.8
2,4-DICHLOROPHENOL	ND	9.5	4.8
2,4-DIMETHYLPHENOL	ND	9.5	4.8
2,4-DINITROPHENOL	ND	19	4.8
2,4-DINITROTOLUENE	ND	9.5	4.8
2,6-DINITROTOLUENE	ND	9.5	4.8
2-CHLORONAPHTHALENE	ND	9.5	4.8
2-CHLOROPHENOL	ND	9.5	4.8
2-METHYLNAPHTHALENE	ND	9.5	4.8
2-METHYLPHENOL	ND	9.5	4.8
2-NITROANILINE	ND	9.5	4.8
2-NITROPHENOL	ND	9.5	4.8
3,3'-DICHLOROBENZIDINE	ND	9.5	4.8
3-NITROANILINE	ND	9.5	4.8
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.8
4-BROMOPHENYL-PHENYL ETHER	ND	9.5	4.8
4-CHLORO-3-METHYLPHENOL	ND	9.5	4.8
4-CHLOROANILINE	ND	9.5	4.8
4-CHLOROPHENYL-PHENYL ETHER	ND	9.5	4.8
4-METHYLPHENOL (1)	ND	9.5	4.8
4-NITROANILINE	ND	9.5	4.8
4-NITROPHENOL	ND	19	4.8
ACENAPHTHENE	ND	9.5	4.8
ACENAPHTHYLENE	ND	9.5	4.8
ANTHRACENE	ND	9.5	4.8
BENZO(A)ANTHRACENE	ND	9.5	4.8
BENZO(A)PYRENE	ND	9.5	4.8
BENZO(B)FLUORANTHENE	ND	9.5	4.8
BENZO(K)FLUORANTHENE	ND	9.5	4.8
BENZO(G,H,I)PERYLENE	ND	9.5	4.8
BIS(2-CHLOROETHOXY)METHANE	ND	9.5	4.8
BIS(2-CHLOROETHYL)ETHER	ND	9.5	4.8
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.5	4.8
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.5	4.8
BUTYLBENZYLPHTHALATE	ND	9.5	4.8
CHRYSENE	ND	9.5	4.8
DI-N-BUTYLPHTHALATE	ND	9.5	4.8
DI-N-OCTYLPHTHALATE	ND	9.5	4.8
DIBENZO(A,H)ANTHRACENE	ND	9.5	4.8
DIBENZOFURAN	ND	9.5	4.8
DIETHYLPHTHALATE	ND	9.5	4.8
DIMETHYLPHTHALATE	ND	9.5	4.8
FLUORANTHENE	ND	9.5	4.8
FLUORENE	ND	9.5	4.8
HEXACHLOROBENZENE	ND	9.5	4.8
HEXACHLOROBUTADIENE	ND	9.5	4.8
HEXACHLOROCYCLOPENTADIENE	ND	9.5	4.8
HEXACHLOROETHANE	ND	9.5	4.8
INDENO(1,2,3-CD)PYRENE	ND	9.5	4.8
ISOPHORONE	ND	9.5	4.8
N-NITROSO-DI-N-PROPYLAMINE	ND	9.5	4.8
N-NITROSODIPHENYLAMINE (2)	ND	9.5	4.8
NAPHTHALENE	ND	9.5	4.8
NITROBENZENE	ND	9.5	4.8
PENTACHLOROPHENOL	ND	19	4.8
PHENANTHRENE	ND	9.5	4.8
PHENOL	ND	9.5	4.8
PYRENE	ND	9.5	4.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	78	36-143
2-FLUOROBIPHENYL	62	36-143
2-FLUOROPHENOL	58	36-143
NITROBENZENE-D5	64	36-143
PHENOL-D5	61	36-143
TERPHENYL-D14	94	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/19/05 18:00
Sample ID: NM03-GW1	Date Analyzed: 06/01/05 15:25
Lab Samp ID: E155-07	Dilution Factor: 1.4
Lab File ID: RFX008	Matrix : WATER
Ext Btch ID: SVE035W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	14	7
1,2-DICHLOROBENZENE	ND	14	7
1,3-DICHLOROBENZENE	ND	14	7
1,4-DICHLOROBENZENE	ND	14	7
2,4,5-TRICHLOROPHENOL	ND	14	7
2,4,6-TRICHLOROPHENOL	ND	14	7
2,4-DICHLOROPHENOL	ND	14	7
2,4-DIMETHYLPHENOL	ND	14	7
2,4-DINITROPHENOL	ND	28	7
2,4-DINITROTOLUENE	ND	14	7
2,6-DINITROTOLUENE	ND	14	7
2-CHLORONAPHTHALENE	ND	14	7
2-CHLOROPHENOL	ND	14	7
2-METHYLNAPHTHALENE	ND	14	7
2-METHYLPHENOL	ND	14	7
2-NITROANILINE	ND	14	7
2-NITROPHENOL	ND	14	7
3,3'-DICHLOROBENZIDINE	ND	14	7
3-NITROANILINE	ND	14	7
4,6-DINITRO-2-METHYLPHENOL	ND	28	7
4-BROMOPHENYL-PHENYL ETHER	ND	14	7
4-CHLORO-3-METHYLPHENOL	ND	14	7
4-CHLOROANILINE	ND	14	7
4-CHLOROPHENYL-PHENYL ETHER	ND	14	7
4-METHYLPHENOL (1)	ND	14	7
4-NITROANILINE	ND	14	7
4-NITROPHENOL	ND	28	7
ACENAPHTHENE	ND	14	7
ACENAPHTHYLENE	ND	14	7
ANTHRACENE	ND	14	7
BENZO(A)ANTHRACENE	ND	14	7
BENZO(A)PYRENE	ND	14	7
BENZO(B)FLUORANTHENE	ND	14	7
BENZO(K)FLUORANTHENE	ND	14	7
BENZO(G,H,I)PERYLENE	ND	14	7
BIS(2-CHLOROETHOXY)METHANE	ND	14	7
BIS(2-CHLOROETHYL)ETHER	ND	14	7
BIS(2-CHLOROISOPROPYL)ETHER	ND	14	7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	14	7
BUTYLBENZYLPHTHALATE	ND	14	7
CHRYSENE	ND	14	7
DI-N-BUTYLPHTHALATE	ND	14	7
DI-N-OCTYLPHTHALATE	ND	14	7
DIBENZO(A,H)ANTHRACENE	ND	14	7
DIBENZOFURAN	ND	14	7
DIETHYLPHTHALATE	ND	14	7
DIMETHYLPHTHALATE	ND	14	7
FLUORANTHENE	ND	14	7
FLUORENE	ND	14	7
HEXACHLOROBENZENE	ND	14	7
HEXACHLOROBUTADIENE	ND	14	7
HEXACHLOROCYCLOPENTADIENE	ND	14	7
HEXACHLOROETHANE	ND	14	7
INDENO(1,2,3-CD)PYRENE	ND	14	7
ISOPHORONE	ND	14	7
N-NITROSO-DI-N-PROPYLAMINE	ND	14	7
N-NITROSODIPHENYLAMINE (2)	ND	14	7
NAPHTHALENE	ND	14	7
NITROBENZENE	ND	14	7
PENTACHLOROPHENOL	ND	28	7
PHENANTHRENE	ND	14	7
PHENOL	ND	14	7
PYRENE	ND	14	7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	78	36-143
2-FLUOROBIPHENYL	57	36-143
2-FLUOROPHENOL	60	36-143
NITROBENZENE-D5	64	36-143
PHENOL-D5	63	36-143
TERPHENYL-D14	73	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARIES

3009

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E155	Date Extracted: 05/19/05 18:00
Sample ID: MBLK1W	Date Analyzed: 06/01/05 13:28
Lab Samp ID: SVE035WB	Dilution Factor: 1
Lab File ID: RFX004	Matrix : WATER
Ext Btch ID: SVE035W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	71	40-130
2-FLUOROBIPHENYL	60	40-130
2-FLUOROPHENOL	54	40-130
NITROBENZENE-D5	60	40-130
PHENOL-D5	57	40-130
TERPHENYL-D14	88	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW 3520C/8270C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVE035WB	SVE035WL	SVE035WC		
LAB FILE ID:	RFX004	RFX005	RFX006		
DATE EXTRACTED:	05/19/0518:00	05/19/0518:00	05/19/0518:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/01/0513:28	06/01/0513:57	06/01/0514:26	DATE RECEIVED:	05/19/05
PREP. BATCH:	SVE035W	SVE035W	SVE035W		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	56.6	71	80	56.5	71	0	30-130	30
1,4-Dichlorobenzene	ND	80	49.4	62	80	49.5	62	0	30-130	30
2,4-Dinitrotoluene	ND	80	74.2	93	80	70.8	89	5	50-130	30
2-Chlorophenol	ND	80	57.2	71	80	55.9	70	2	30-130	30
4-Chloro-3-Methylphenol	ND	80	67	84	80	64.7	81	3	40-130	30
4-Nitrophenol	ND	80	64.9	81	80	63.2	79	3	40-130	30
Acenaphthene	ND	80	64.1	80	80	61.6	77	4	40-130	30
n-Nitroso-di-n-propylamine	ND	80	62.1	78	80	59.4	74	4	40-130	30
Pentachlorophenol	ND	80	66.7	83	80	63.4	79	5	40-130	30
Phenol	ND	80	59.2	74	80	56.9	71	4	30-130	30
Pyrene	ND	80	74.9	94	80	69.7	87	7	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	145	97	150	135	90	40-130
2-Fluorobiphenyl	100	78	78	100	74.8	75	40-130
2-Fluorophenol	150	102	68	150	101	67	40-130
Nitrobenzene-d5	100	76.4	76	100	76.9	77	40-130
Phenol-d5	150	104	69	150	103	69	40-130
Terphenyl-d14	100	94.8	95	100	89.6	90	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/21/05
Batch No. : 05E155	Date Extracted: 05/21/05 16:15
Sample ID: MBLK1S	Date Analyzed: 05/31/05 14:09
Lab Samp ID: SVE041SB	Dilution Factor: 1
Lab File ID: REX498	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	73	40-130
2-FLUOROBIPHENYL	70	40-130
2-FLUOROPHENOL	66	40-130
NITROBENZENE-D5	73	40-130
PHENOL-D5	69	40-130
TERPHENYL-D14	87	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW 3550B/8270C

MATRIX: SOIL
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVE041SB SVE041SL SVE041SC
LAB FILE ID: REX498 REX499 REX500
DATE EXTRACTED: 05/21/0516:15 05/21/0516:15 05/21/0516:15
DATE ANALYZED: 05/31/0514:09 05/31/0514:38 05/31/0515:08
PREP. BATCH: SVE041S SVE041S SVE041S
CALIB. REF: RCX291 RCX291 RCX291
% MOISTURE: NA
DATE COLLECTED: NA
DATE RECEIVED: 05/21/05

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	1480	56	2670	1690	63	13	40-130	50
1,4-Dichlorobenzene	ND	2670	1470	55	2670	1660	62	12	30-130	50
2,4-Dinitrotoluene	ND	2670	1640	62	2670	1700	64	3	40-130	50
2-Chlorophenol	ND	2670	1470	55	2670	1650	62	12	40-130	50
4-Chloro-3-Methylphenol	ND	2670	1640	61	2670	1830	68	11	40-130	50
4-Nitrophenol	ND	2670	1390	52	2670	1410	53	1	25-130	50
Acenaphthene	ND	2670	1570	59	2670	1750	66	11	40-130	50
n-Nitroso-di-n-propylamine	ND	2670	1640	62	2670	1840	69	11	40-130	50
Pentachlorophenol	ND	2670	1410	53	2670	1410	53	1	30-130	50
Phenol	ND	2670	1440	54	2670	1600	60	11	40-130	50
Pyrene	ND	2670	1730	65	2670	1730	65	0	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	3770	75	5000	3900	78	40-130
2-Fluorobiphenyl	3330	2120	64	3330	2230	67	40-130
2-Fluorophenol	5000	2930	59	5000	3050	61	40-130
Nitrobenzene-d5	3330	2100	63	3330	2200	66	40-130
Phenol-d5	5000	2960	59	5000	3060	61	40-130
Terphenyl-d14	3330	2750	83	3330	2680	80	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05E155

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and three (3) soil samples were received on 05/18/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 Mod in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 05/19/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour interval and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : GCT055

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME010SB	1	NA	05/19/0515:53	05/19/0515:53	UE19003A	UE19002A	VME010S	Method Blank
LCS1S	VME010SL	1	NA	05/19/0516:32	05/19/0516:32	UE19004A	UE19002A	VME010S	Lab Control Sample (LCS)
LCD1S	VME010SC	1	NA	05/19/0517:11	05/19/0517:11	UE19005A	UE19002A	VME010S	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/19/0523:00	05/19/0523:00	UE19014A	UE19012A	VME010S	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/19/0523:39	05/19/0523:39	UE19015A	UE19012A	VME010S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/20/0500:18	05/20/0500:18	UE19016A	UE19012A	VME010S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA55E01B	1	NA	05/20/0515:30	05/20/0515:30	UE20004A	UE20003A	VA55E01	Method Blank
LCS1W	VA55E01L	1	NA	05/20/0516:09	05/20/0516:09	UE20005A	UE20003A	VA55E01	Lab Control Sample (LCS)
LCD1W	VA55E01C	1	NA	05/20/0516:48	05/20/0516:48	UE20006A	UE20003A	VA55E01	LCS Duplicate
NM03-FB1	E155-06	1	NA	05/20/0518:06	05/20/0518:06	UE20008A	UE20003A	VA55E01	Field Sample
NM03-GW1	E155-07	1	NA	05/20/0518:44	05/20/0518:44	UE20009A	UE20003A	VA55E01	Field Sample

FN - Filename
% Moist - Percent Moisture

4002

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : WATER
Instrument ID : GCT055

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA55E01B	ND	90	1	NA	.1	.02	05/20/0515:30	05/20/0515:30	UE20004A	UE20003A	VA55E01	NA	05/20/05
LCS1W	VA55E01L	.4	95	1	NA	.1	.02	05/20/0516:09	05/20/0516:09	UE20005A	UE20003A	VA55E01	NA	05/20/05
LCD1W	VA55E01C	.444	98	1	NA	.1	.02	05/20/0516:48	05/20/0516:48	UE20006A	UE20003A	VA55E01	NA	05/20/05
NM03-FB1	E155-06	ND	84	1	NA	.1	.02	05/20/0518:06	05/20/0518:06	UE20008A	UE20003A	VA55E01	05/17/05	05/18/05
NM03-GW1	E155-07	ND	92	1	NA	.1	.02	05/20/0518:44	05/20/0518:44	UE20009A	UE20003A	VA55E01	05/17/05	05/18/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : SOIL
Instrument ID : GCT055

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME010SB	ND	89	1	NA	1	.5	05/19/0515:53	05/19/0515:53	UE19003A	UE19002A	VME010S	NA	05/19/05
LCS1S	VME010SL	25.2	103	1	NA	1	.5	05/19/0516:32	05/19/0516:32	UE19004A	UE19002A	VME010S	NA	05/19/05
LCD1S	VME010SC	26.3	102	1	NA	1	.5	05/19/0517:11	05/19/0517:11	UE19005A	UE19002A	VME010S	NA	05/19/05
NM03-B1 5.5-6	E155-03	ND	85	1	9.9	1.1	.55	05/19/0523:00	05/19/0523:00	UE19014A	UE19012A	VME010S	05/17/05	05/18/05
NM03-B1 55.5-56	E155-04	ND	84	1	10.8	1.1	.56	05/19/0523:39	05/19/0523:39	UE19015A	UE19012A	VME010S	05/17/05	05/18/05
NM03-B1 61-61.5	E155-05	ND	82	1	11.1	1.1	.56	05/20/0500:18	05/20/0500:18	UE19016A	UE19012A	VME010S	05/17/05	05/18/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA55E01B	VA55E01L	VA55E01C		
LAB FILE ID:	UE20004A	UE20005A	UE20006A		
DATE EXTRACTED:	05/20/0515:30	05/20/0516:09	05/20/0516:48	DATE COLLECTED:	NA
DATE ANALYZED:	05/20/0515:30	05/20/0516:09	05/20/0516:48	DATE RECEIVED:	05/20/05
PREP. BATCH:	VA55E01	VA55E01	VA55E01		
CALIB. REF:	UE20003A	✓ UE20003A	UE20003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.4	80	.5	.444	89	10	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0381	95	.04	.0392	98	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 5030B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VME010SB	VME010SL	VME010SC		
LAB FILE ID:	UE19003A	UE19004A	UE19005A		
DATE EXTRACTED:	05/19/0515:53	05/19/0516:32	05/19/0517:11	DATE COLLECTED:	NA
DATE ANALYZED:	05/19/0515:53	05/19/0516:32	05/19/0517:11	DATE RECEIVED:	05/19/05
PREP. BATCH:	VME010S	VME010S	VME010S		
CALIB. REF:	UE19002A	UE19002A	UE19002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	25.2	101	25	26.3	105	4	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.06	103	2	2.04	102	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E155

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water and three (3) soil samples were received on 05/18/05 for Total Petroleum Hydrocarbons by Extraction by Method M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 05/19/05 and completed on 05/20/05. Extraction for soil samples was performed and completed on 05/20/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was designated for MS/MSD.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : GCT072

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSE021WB	1	NA	05/20/0519:10	05/19/0518:00	BE20007A	BE20002A	DSE021W	Method Blank
LCS1W	DSE021WL	1	NA	05/20/0517:44	05/19/0518:00	BE20005A	BE20002A	DSE021W	Lab Control Sample (LCS)
LCD1W	DSE021WC	1	NA	05/20/0518:27	05/19/0518:00	BE20006A	BE20002A	DSE021W	LCS Duplicate
NM03-FB1	E155-06	.94	NA	05/21/0505:21	05/19/0518:00	BE20021A	BE20014A	DSE021W	Field Sample
NM03-GW1	E155-07	1.23	NA	05/21/0506:05	05/19/0518:00	BE20022A	BE20014A	DSE021W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE023SB	1	NA	05/21/0509:00	05/20/0513:15	BE20026A	BE20024A	DSE023S	Method Blank
LCS1S	DSE023SL	1	NA	05/21/0509:43	05/20/0513:15	BE20027A	BE20024A	DSE023S	Lab Control Sample (LCS)
LCD1S	DSE023SC	1	NA	05/21/0510:27	05/20/0513:15	BE20028A	BE20024A	DSE023S	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/21/0519:53	05/20/0513:15	BE20041A	BE20036A	DSE023S	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/21/0520:36	05/20/0513:15	BE20042A	BE20036A	DSE023S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/21/0521:20	05/20/0513:15	BE20043A	BE20036A	DSE023S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : WATER
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSE021WB	ND	115	120	1	NA	.5	.1	05/20/0519:10	05/19/0518:00	BE20007A	BE20002A	DSE021W	NA	05/19/05
LCS1W	DSE021WL	4.51	111	121	1	NA	.5	.1	05/20/0517:44	05/19/0518:00	BE20005A	BE20002A	DSE021W	NA	05/19/05
LCD1W	DSE021WC	4.58	103	119	1	NA	.5	.1	05/20/0518:27	05/19/0518:00	BE20006A	BE20002A	DSE021W	NA	05/19/05
NM03-FB1	E155-06	ND	113	122	.94	NA	.47	.094	05/21/0505:21	05/19/0518:00	BE20021A	BE20014A	DSE021W	05/17/05	05/18/05
NM03-GW1	E155-07	ND	82	99	1.23	NA	.62	.12	05/21/0506:05	05/19/0518:00	BE20022A	BE20014A	DSE021W	05/17/05	05/18/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE023SB	ND	132	119	1	NA	10	5	05/21/0509:00	05/20/0513:15	BE20026A	BE20024A	DSE023S	NA	05/20/05
LCS1S	DSE023SL	462	130	119	1	NA	10	5	05/21/0509:43	05/20/0513:15	BE20027A	BE20024A	DSE023S	NA	05/20/05
LCD1S	DSE023SC	458	131	121	1	NA	10	5	05/21/0510:27	05/20/0513:15	BE20028A	BE20024A	DSE023S	NA	05/20/05
NM03-B1 5.5-6	E155-03	ND	143	127	1	9.9	11	5.5	05/21/0519:53	05/20/0513:15	BE20041A	BE20036A	DSE023S	05/17/05	05/18/05
NM03-B1 55.5-56	E155-04	ND	137	122	1	10.8	11	5.6	05/21/0520:36	05/20/0513:15	BE20042A	BE20036A	DSE023S	05/17/05	05/18/05
NM03-B1 61-61.5	E155-05	ND	139	123	1	11.1	11	5.6	05/21/0521:20	05/20/0513:15	BE20043A	BE20036A	DSE023S	05/17/05	05/18/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5005

QC SUMMARIES

5006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 3520C/M8015

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSE021WB	DSE021WL	DSE021WC		
LAB FILE ID:	BE20007A	BE20005A	BE20006A		
DATE EXTRACTED:	05/19/0518:00	05/19/0518:00	05/19/0518:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/20/0519:10	05/20/0517:44	05/20/0518:27	DATE RECEIVED:	05/19/05
PREP. BATCH:	DSE021W	DSE021W	DSE021W		
CALIB. REF:	BE20002A	BE20002A	BE20002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.51	90	5	4.58	92	2	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	1.11	111	1	1.03	103	50-140
Hexacosane	.25	.302	121	.25	.299	119	70-150

5007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD LUFT/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSE023SB	DSE023SL	DSE023SC		
LAB FILE ID:	BE20026A	BE20027A	BE20028A		
DATE EXTRACTED:	05/20/0513:15	05/20/0513:15	05/20/0513:15	DATE COLLECTED:	NA
DATE ANALYZED:	05/21/0509:00	05/21/0509:43	05/21/0510:27	DATE RECEIVED:	05/20/05
PREP. BATCH:	DSE023S	DSE023S	DSE023S		
CALIB. REF:	BE20024A	BE20024A	BE20024A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	462	92	500	458	92	1	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	130	130	100	131	131	60-150
Hexacosane	25	29.8	119	25	30.3	121	60-160

5008

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3520C/3550B/8082
PCBs

SDG#: 05E155

5009

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

SW3520C/3550B/8082
PCBs

Two (2) water and three (3) soil samples were received on 05/18/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%, except the closing DCC of PCB-1260 in column A had high bias, but the associated sample was ND.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit except for DCB for E155-07, but the second surrogate met QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE033SB	1	NA	05/23/0521:13	05/23/0515:00	SE23020A	SE23006A	CPE033S	Method Blank
LCS1S	60E033SL	1	NA	05/24/0501:51	05/23/0515:00	SE23031A	SE23030A	CPE033S	Lab Control Sample (LCS)
LCD1S	60E033SC	1	NA	05/24/0502:16	05/23/0515:00	SE23032A	SE23030A	CPE033S	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/24/0505:13	05/23/0515:00	SE23039A	SE23030A	CPE033S	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/24/0505:38	05/23/0515:00	SE23040A	SE23030A	CPE033S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/24/0506:03	05/23/0515:00	SE23041A	SE23030A	CPE033S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPE030WB	1	NA	05/20/0514:02	05/19/0516:00	SE20007A	SE2006A	CPE030W	Method Blank
LCS1W	60E030WL	1	NA	05/20/0515:18	05/19/0516:00	SE20010A	SE2006A	CPE030W	Lab Control Sample (LCS)
LCD1W	60E030WC	1	NA	05/20/0515:44	05/19/0516:00	SE20011A	SE2006A	CPE030W	LCS Duplicate
NM03-FB1	E155-06	.94	NA	05/20/0517:25	05/19/0516:00	SE20015A	SE2006A	CPE030W	Field Sample
NM03-GW1	E155-07	1.11	NA	05/20/0517:51	05/19/0516:00	SE20016A	SE2006A	CPE030W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
Batch No.	: 05E155	Date Extracted:	05/23/05 15:00
Sample ID:	NM03-B1 5.5-6	Date Analyzed:	05/24/05 05:13
Lab Samp ID:	E155-03	Dilution Factor:	1
Lab File ID:	SE23039A	Matrix	: SOIL
Ext Btch ID:	CPE033S	% Moisture	: 9.9
Calib. Ref.:	SE23030A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	55	22 | 22
PCB-1221	(ND) | ND	55	22 | 22
PCB-1232	(ND) | ND	55	22 | 22
PCB-1242	(ND) | ND	55	22 | 22
PCB-1248	(ND) | ND	55	22 | 22
PCB-1254	(ND) | ND	55	22 | 22
PCB-1260	(ND) | ND	55	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(97) | 97	45-154
DECACHLOROBIPHENYL	161* | (136)	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/23/05 15:00
Sample ID: NM03-B1 55.5-56	Date Analyzed: 05/24/05 05:38
Lab Samp ID: E155-04	Dilution Factor: 1
Lab File ID: SE23040A	Matrix : SOIL
Ext Btch ID: CPE033S	% Moisture : 10.8
Calib. Ref.: SE23030A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	56	22 | 22
PCB-1221	(ND) | ND	56	22 | 22
PCB-1232	(ND) | ND	56	22 | 22
PCB-1242	(ND) | ND	56	22 | 22
PCB-1248	(ND) | ND	56	22 | 22
PCB-1254	(ND) | ND	56	22 | 22
PCB-1260	(ND) | ND	56	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(100) | 101	45-154
DECACHLOROBIPHENYL	163* | (137)	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/23/05 15:00
Sample ID: NM03-B1 61-61.5	Date Analyzed: 05/24/05 06:03
Lab Samp ID: E155-05	Dilution Factor: 1
Lab File ID: SE23041A	Matrix : SOIL
Ext Btch ID: CPE033S	% Moisture : 11.1
Calib. Ref.: SE23030A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	56	22|22
PCB-1221	(ND)|ND	56	22|22
PCB-1232	(ND)|ND	56	22|22
PCB-1242	(ND)|ND	56	22|22
PCB-1248	(ND)|ND	56	22|22
PCB-1254	(ND)|ND	56	22|22
PCB-1260	(ND)|ND	56	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72)|69	45-154
DECACHLOROBIPHENYL	(146)|123	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/19/05 16:00
Sample ID: NM03-FB1	Date Analyzed: 05/20/05 17:25
Lab Samp ID: E155-06	Dilution Factor: .94
Lab File ID: SE20015A	Matrix : WATER
Ext Btch ID: CPE030W	% Moisture : NA
Calib. Ref.: SE2006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	.94	.47|.47
PCB-1221	(ND)|ND	.94	.47|.47
PCB-1232	(ND)|ND	.94	.47|.47
PCB-1242	(ND)|ND	.94	.47|.47
PCB-1248	(ND)|ND	.94	.47|.47
PCB-1254	(ND)|ND	.94	.47|.47
PCB-1260	(ND)|ND	.94	.47|.47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(107)|104	45-165
DECACHLOROBIPHENYL	(131)|114	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/17/05
Project : CALTRANS	Date Received: 05/18/05
Batch No. : 05E155	Date Extracted: 05/19/05 16:00
Sample ID: NM03-GW1	Date Analyzed: 05/20/05 17:51
Lab Samp ID: E155-07	Dilution Factor: 1.11
Lab File ID: SE20016A	Matrix : WATER
Ext Btch ID: CPE030W	% Moisture : NA
Calib. Ref.: SE2006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1.1	.56|.56
PCB-1221	(ND)|ND	1.1	.56|.56
PCB-1232	(ND)|ND	1.1	.56|.56
PCB-1242	(ND)|ND	1.1	.56|.56
PCB-1248	(ND)|ND	1.1	.56|.56
PCB-1254	(ND)|ND	1.1	.56|.56
PCB-1260	(ND)|ND	1.1	.56|.56

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(80)|74	45-165
DECACHLOROBIPHENYL	(33*)|27*	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

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SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected	: NA
Project	: CALTRANS	Date Received	: 05/19/05
Batch No.	: 05E155	Date Extracted	: 05/19/05 16:00
Sample ID	: MBLK1W	Date Analyzed	: 05/20/05 14:02
Lab Samp ID	: CPE030WB	Dilution Factor	: 1
Lab File ID	: SE20007A	Matrix	: WATER
Ext Btch ID	: CPE030W	% Moisture	: NA
Calib. Ref.:	SE2006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1	.5 | .5
PCB-1221	(ND) | ND	1	.5 | .5
PCB-1232	(ND) | ND	1	.5 | .5
PCB-1242	(ND) | ND	1	.5 | .5
PCB-1248	(ND) | ND	1	.5 | .5
PCB-1254	(ND) | ND	1	.5 | .5
PCB-1260	(ND) | ND	1	.5 | .5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(102) | 98	50-150
DECACHLOROBIPHENYL	(116) | 101	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: CPE030WB 60E030WL 60E030WC
LAB FILE ID: SE20007A SE20010A SE20011A
DATE EXTRACTED: 05/19/0516:00 05/19/0516:00 05/19/0516:00 DATE COLLECTED: NA
DATE ANALYZED: 05/20/0514:02 05/20/0515:18 05/20/0515:44 DATE RECEIVED: 05/19/05
PREP. BATCH: CPE030W CPE030W CPE030W
CALIB. REF: SE2006A SE2006A SE2006A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(4.44) | 5.21	(89) | 104	5	(4.57) | 5.18	(91) | 104	(3) | 1	50-130	30
PCB-1260	(ND) | ND	5	(6.11) | 5.5	(122) | 110	5	(6.49) | 5.68	(130) | 114	(6) | 3	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.32) | .29	(80) | 73	.4	(.337) | .306	(84) | 77	50-150
Decachlorobiphenyl	.4	(.3) | .272	(75) | 68*	.4	(.306) | .26	(76) | 65*	70-150

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E155	Date Extracted:	05/23/05 15:00
Sample ID:	MBLK1S	Date Analyzed:	05/23/05 21:13
Lab Samp ID:	CPE033SB	Dilution Factor:	1
Lab File ID:	SE23020A	Matrix :	SOIL
Ext Btch ID:	CPE033S	% Moisture :	NA
Calib. Ref.:	SE23006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(112) | 108	50-140
DECACHLOROBIPHENYL	172* | (132)	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CPE033SB 60E033SL 60E033SC
LAB FILE ID: SE23020A SE23031A SE23032A
DATE EXTRACTED: 05/23/0515:00 05/23/0515:00 05/23/0515:00 DATE COLLECTED: NA
DATE ANALYZED: 05/23/0521:13 05/24/0501:51 05/24/0502:16 DATE RECEIVED: 05/23/05
PREP. BATCH: CPE033S CPE033S CPE033S
CALIB. REF: SE23006A SE23030A SE23030A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(155) | 143	(93) | 86	167	(150) | 144	(90) | 86	(3) | 1	50-130	50
PCB-1260	(ND) | ND	167	272 | (223)	163* | (134)	167	263 | (221)	158* | (133)	3 | (1)	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.1) | 10.5	(83) | 79	13.3	(11) | 10.3	(82) | 78	50-140
Decachlorobiphenyl	13.3	22.9 | (18)	172* | (135)	13.3	23.9 | (17.9)	179* | (134)	50-140

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LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METALS BY ICP/ MERCURY

SDG#: 05E155

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

METHOD 3010A/3050B/6010B
METALS BY ICP

Two (2) water and three (3) soil samples were received on 05/18/05 for Metals analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit except Barium and Silver in LCD1S but were within QC limit in LCS1S.

4. Serial Dilution / Post-Analytical Spike

Samples F024-03 and E147-01 from other SDGs were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met except as aforementioned.

LAB CHRONICLE
METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : T-I73

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPF006WB	1	NA	06/03/0514:26	06/02/0514:50	I73F008011	I73F008009	IPF006W	Method Blank
LCS1W	IPF006WL	1	NA	06/03/0514:32	06/02/0514:50	I73F008012	I73F008009	IPF006W	Lab Control Sample (LCS)
LCD1W	IPF006WC	1	NA	06/03/0514:39	06/02/0514:50	I73F008013	I73F008009	IPF006W	LCS Duplicate
NM03-FB1	E155-06	1	NA	06/03/0514:53	06/02/0514:50	I73F008015	I73F008009	IPF006W	Field Sample
NM03-GW1	E155-07	1	NA	06/03/0514:59	06/02/0514:50	I73F008016	I73F008009	IPF006W	Field Sample
844013-534DL	F024-03T	5	NA	06/03/0515:51	06/02/0514:50	I73F008024	I73F008021	IPF006W	Diluted Sample
844013-534	F024-03	1	NA	06/03/0515:57	06/02/0514:50	I73F008025	I73F008021	IPF006W	Field Sample
844013-534AS	F024-03A	1	NA	06/03/0516:03	06/02/0514:50	I73F008026	I73F008021	IPF006W	Analytical Spike Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE085SB	1	NA	05/29/0502:30	05/26/0513:00	I73E037011	I73E037009	IPE085S	Method Blank
LCS1S	IPE085SL	1	NA	05/29/0502:36	05/26/0513:00	I73E037012	I73E037009	IPE085S	Lab Control Sample (LCS)
LCD1S	IPE085SC	1	NA	05/29/0502:42	05/26/0513:00	I73E037013	I73E037009	IPE085S	LCS Duplicate
NM03-B1 5.5-6	E155-03	1	9.9	05/30/0512:55	05/26/0513:00	I73E038024	I73E038021	IPE085S	Field Sample
NM03-B1 55.5-56	E155-04	1	10.8	05/30/0513:02	05/26/0513:00	I73E038025	I73E038021	IPE085S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	05/30/0513:08	05/26/0513:00	I73E038026	I73E038021	IPE085S	Field Sample
A3058	E147-01	1	2.4	05/30/0511:49	05/26/0514:50	I73E038014	I73E038009	IPE085S	Field Sample
A3058DL	E147-01T	5	2.4	05/30/0511:55	05/26/0514:50	I73E038015	I73E038009	IPE085S	Diluted Sample
A3058AS	E147-01A	1	2.4	05/30/0512:01	05/26/0514:50	I73E038016	I73E038009	IPE085S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3010A/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
SDG NO.	: 05E155	Date Extracted:	06/02/05 14:50
Sample ID:	NM03-FB1	Date Analyzed:	06/03/05 14:53
Lab Samp ID:	E155-06	Dilution Factor:	1
Lab File ID:	I73F008015	Matrix :	WATER
Ext Btch ID:	IPF006W	% Moisture :	NA
Calib. Ref.:	I73F008009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	.00233J	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	.0172	.01	.005

METHOD 3010A/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
SDG NO.	: 05E155	Date Extracted:	06/02/05 14:50
Sample ID:	NM03-GW1	Date Analyzed:	06/03/05 14:59
Lab Samp ID:	E155-07	Dilution Factor:	1
Lab File ID:	I73F008016	Matrix :	WATER
Ext Btch ID:	IPF006W	% Moisture :	NA
Calib. Ref.:	I73F008009	Instrument ID :	EMAXT173

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	.12	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	.109	.01	.0025
Copper	.00478J	.01	.002
Lead	ND	.01	.003
Molybdenum	.023J	.05	.005
Nickel	.0816	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	.0251	.01	.005

METHOD 3010A/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	06/02/05
SDG NO.	: 05E155	Date Extracted:	06/02/05 14:50
Sample ID:	MBLK1W	Date Analyzed:	06/03/05 14:26
Lab Samp ID:	IPF006WB	Dilution Factor:	1
Lab File ID:	I73F008011	Matrix :	WATER
Ext Btch ID:	IPF006W	% Moisture :	NA
Calib. Ref.:	I73F008009	Instrument ID :	EMAXT173

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	.0053J	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPF006WB	IPF006WL	IPF006WC		
LAB FILE ID:	I73F008011	I73F008012	I73F008013		
DATIME EXTRCTD:	06/02/0514:50	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	NA
DATIME ANALYZD:	06/03/0514:26	06/03/0514:32	06/03/0514:39	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W	IPF006W		
CALIB. REF:	I73F008009	I73F008009	I73F008009		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	5.2	104	5	5.08	102	3	80-120	20
Arsenic	ND	1	1.1	110	1	1.06	106	3	80-120	20
Barium	ND	1	1	100	1	.98	98	2	80-120	20
Beryllium	ND	1	1.1	110	1	1.08	108	2	80-120	20
Cadmium	ND	1	1.03	103	1	1	100	3	80-120	20
Chromium	ND	1	1.06	106	1	1.04	104	2	80-120	20
Cobalt	ND	1	1.05	105	1	1.02	102	2	80-120	20
Copper	ND	1	1.1	110	1	1.08	108	2	80-120	20
Lead	ND	1	1.07	107	1	1.05	105	2	80-120	20
Molybdenum	ND	1	1.04	104	1	1.02	102	2	80-120	20
Nickel	ND	1	1.04	104	1	1.02	102	2	80-120	20
Selenium	ND	1	1.08	108	1	1.04	104	3	80-120	20
Silver	ND	1	1.05	105	1	1.03	103	2	80-120	20
Thallium	.0053J	1	1.1	109	1	1.07	106	3	80-120	20
Vanadium	ND	1	1.07	107	1	1.05	105	2	80-120	20
Zinc	ND	1	1.06	106	1	1.04	104	2	80-120	20

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EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	5		
SAMPLE ID:	844013-534	844013-534DL		
EMAX SAMP ID:	F024-03	F024-03T		
LAB FILE ID:	I73F008025	I73F008024		
DATE EXTRACTED:	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	06/02/05
DATE ANALYZED:	06/03/0515:57	06/03/0515:51	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W		
CALIB. REF:	I73F008021	I73F008021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	ND	ND	0	10
Barium	.0288	.0294J	NA	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	ND	ND	0	10
Cobalt	ND	ND	0	10
Copper	ND	ND	0	10
Lead	ND	ND	0	10
Molybdenum	ND	ND	0	10
Nickel	ND	ND	0	10
Selenium	.0696	.0604	13*	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	ND	ND	0	10
Zinc	ND	.0373J	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	844013-534			
CONTROL NO.:	F024-03	F024-03A		
LAB FILE ID:	I73F008025	I73F008026		
DATIME EXTRCTD:	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	06/02/05
DATIME ANALYZD:	06/03/0515:57	06/03/0516:03	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W		
CALIB. REF:	I73F008021	I73F008021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	4.93	99	75-125
Arsenic	ND	1	1	100	75-125
Barium	.0288	1	.958	93	75-125
Beryllium	ND	1	.968	97	75-125
Cadmium	ND	1	.916	92	75-125
Chromium	ND	1	.959	96	75-125
Cobalt	ND	1	.937	94	75-125
Copper	ND	1	1.06	106	75-125
Lead	ND	1	.957	96	75-125
Molybdenum	ND	1	.977	98	75-125
Nickel	ND	1	.922	92	75-125
Selenium	.0696	1	1.03	96	75-125
Silver	ND	1	.957	96	75-125
Thallium	ND	1	.969	97	75-125
Vanadium	ND	1	.992	99	75-125
Zinc	ND	1	.977	98	75-125

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
SDG NO.	: 05E155	Date Extracted:	05/26/05 13:00
Sample ID:	NM03-B1 5.5-6	Date Analyzed:	05/30/05 12:55
Lab Samp ID:	E155-03	Dilution Factor:	1
Lab File ID:	I73E038024	Matrix :	SOIL
Ext Btch ID:	IPE085S	% Moisture :	9.9
Calib. Ref.:	I73E038021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.1	2.22
Arsenic	.764J	1.11	.444
Barium	8.91	1.11	.222
Beryllium	ND	1.11	.222
Cadmium	ND	1.11	.111
Chromium	5.48	1.11	.222
Cobalt	1.86	1.11	.222
Copper	1.28	1.11	.222
Lead	1.76	1.11	.222
Molybdenum	ND	5.55	.555
Nickel	1.8	1.11	.222
Selenium	ND	1.11	.555
Silver	ND	1.11	.277
Thallium	2.07	1.11	.555
Vanadium	15.5	1.11	.555
Zinc	6.6	1.11	.555

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
SDG NO.	: 05E155	Date Extracted:	05/26/05 13:00
Sample ID:	NM03-B1 55.5-56	Date Analyzed:	05/30/05 13:02
Lab Samp ID:	E155-04	Dilution Factor:	1
Lab File ID:	I73E038025	Matrix :	SOIL
Ext Btch ID:	IPE085S	% Moisture :	10.8
Calib. Ref.:	I73E038021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.2	2.24
Arsenic	3.69	1.12	.448
Barium	8.68	1.12	.224
Beryllium	.607J	1.12	.224
Cadmium	ND	1.12	.112
Chromium	7.18	1.12	.224
Cobalt	1.26	1.12	.224
Copper	2.97	1.12	.224
Lead	2.73	1.12	.224
Molybdenum	ND	5.61	.561
Nickel	3.23	1.12	.224
Selenium	.909J	1.12	.561
Silver	ND	1.12	.28
Thallium	10.5	1.12	.561
Vanadium	29.9	1.12	.561
Zinc	10.3	1.12	.561

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/17/05
Project	: CALTRANS	Date Received:	05/18/05
SDG NO.	: 05E155	Date Extracted:	05/26/05 13:00
Sample ID:	NM03-B1 61-61.5	Date Analyzed:	05/30/05 13:08
Lab Samp ID:	E155-05	Dilution Factor:	1
Lab File ID:	I73E038026	Matrix :	SOIL
Ext Btch ID:	IPE085S	% Moisture :	11.1
Calib. Ref.:	I73E038021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.2	2.25
Arsenic	3.31	1.12	.45
Barium	12.5	1.12	.225
Beryllium	.371J	1.12	.225
Cadmium	ND	1.12	.112
Chromium	6.34	1.12	.225
Cobalt	1.99	1.12	.225
Copper	2.54	1.12	.225
Lead	3.06	1.12	.225
Molybdenum	ND	5.62	.562
Nickel	2.67	1.12	.225
Selenium	ND	1.12	.562
Silver	ND	1.12	.281
Thallium	4.14	1.12	.562
Vanadium	25.7	1.12	.562
Zinc	13.2	1.12	.562

METHOD 3050B/6010B
METALS BY ICP

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/26/05
SDG NO. : 05E155	Date Extracted: 05/26/05 13:00
Sample ID: MBLK1S	Date Analyzed: 05/29/05 02:30
Lab Samp ID: IPE085SB	Dilution Factor: 1
Lab File ID: I73E037011	Matrix : SOIL
Ext Btch ID: IPE085S	% Moisture : NA
Calib. Ref.: I73E037009	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	ND	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	ND	1	.5
Vanadium	ND	1	.5
Zinc	ND	1	.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE085SB	IPE085SL	IPE085SC		
LAB FILE ID:	I73E037011	I73E037012	I73E037013		
DATIME EXTRCTD:	05/26/0513:00	05/26/0513:00	05/26/0513:00	DATE COLLECTED:	NA
DATIME ANALYZD:	05/29/0502:30	05/29/0502:36	05/29/0502:42	DATE RECEIVED:	05/26/05
PREP. BATCH:	IPE085S	IPE085S	IPE085S		
CALIB. REF:	I73E037009	I73E037009	I73E037009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	429	86	500	419	84	2	80-120	20
Arsenic	ND	100	86.4	86	100	84.8	85	2	80-120	20
Barium	ND	100	80.5	81	100	78.1	78*	3	80-120	20
Beryllium	ND	100	87.4	87	100	84.9	85	3	80-120	20
Cadmium	ND	100	82	82	100	80	80	2	80-120	20
Chromium	ND	100	84.6	85	100	82.4	82	3	80-120	20
Cobalt	ND	100	83.4	83	100	81.5	81	2	80-120	20
Copper	ND	100	87.7	88	100	85.2	85	3	80-120	20
Lead	ND	100	84.6	85	100	82.7	83	2	80-120	20
Molybdenum	ND	100	85.5	85	100	83.4	83	2	80-120	20
Nickel	ND	100	82.8	83	100	80.9	81	2	80-120	20
Selenium	ND	100	84.8	85	100	82.8	83	2	80-120	20
Silver	ND	100	80.2	80	100	78.3	78*	2	80-120	20
Thallium	ND	100	85.9	86	100	83.8	84	2	80-120	20
Vanadium	ND	100	86.8	87	100	84.4	84	3	80-120	20
Zinc	ND	100	86	86	100	83.7	84	3	80-120	20

7013

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	2.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	A3058	A3058DL		
EMAX SAMP ID:	E147-01	E147-01T		
LAB FILE ID:	I73E038014	I73E038015		
DATE EXTRACTED:	05/26/0514:50	05/26/0514:50	DATE COLLECTED:	05/17/05
DATE ANALYZED:	05/30/0511:49	05/30/0511:55	DATE RECEIVED:	05/18/05
PREP. BATCH:	IPE085S	IPE085S		
CALIB. REF:	I73E038009	I73E038009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	4.59	4.12J	NA	10
Barium	39.5	38.4	3	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	2.27	2.33J	NA	10
Cobalt	.842J	ND	NA	10
Copper	2.34	2.22J	NA	10
Lead	.74J	1.45J	NA	10
Molybdenum	ND	ND	0	10
Nickel	.988J	ND	NA	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	1.05	ND	NA	10
Vanadium	9.79	9.43	4	10
Zinc	4.14	5.13	24*	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	2.4
DILTN FACTR:	1	1		
SAMPLE ID:	A3058			
CONTROL NO.:	E147-01	E147-01A		
LAB FILE ID:	I73E038014	I73E038016		
DATIME EXTRCTD:	05/26/0514:50	05/26/0514:50	DATE COLLECTED:	05/17/05
DATIME ANALYZD:	05/30/0511:49	05/30/0512:01	DATE RECEIVED:	05/18/05
PREP. BATCH:	IPE085S	IPE085S		
CALIB. REF:	I73E038009	I73E038009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	512	513	100	75-125
Arsenic	4.59	102	112	105	75-125
Barium	39.5	102	133	91	75-125
Beryllium	ND	102	104	101	75-125
Cadmium	ND	102	95.5	93	75-125
Chromium	2.27	102	102	98	75-125
Cobalt	.842J	102	98.4	95	75-125
Copper	2.34	102	110	105	75-125
Lead	.74J	102	99.4	96	75-125
Molybdenum	ND	102	101	98	75-125
Nickel	.988J	102	97.3	94	75-125
Selenium	ND	102	104	101	75-125
Silver	ND	102	103	100	75-125
Thallium	1.05	102	105	101	75-125
Vanadium	9.79	102	113	101	75-125
Zinc	4.14	102	108	101	75-125

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE085SB	1	NA	05/29/0502:30	05/26/0513:00	I73E037011	I73E037009	IPE085S	Method Blank
LCS1S	IPE085SL	1	NA	05/29/0502:36	05/26/0513:00	I73E037012	I73E037009	IPE085S	Lab Control Sample (LCS)
LCD1S	IPE085SC	1	NA	05/29/0502:42	05/26/0513:00	I73E037013	I73E037009	IPE085S	LCS Duplicate
NM03-B1 1-1.5	E155-02	1	5.4	05/30/0512:49	05/26/0513:00	I73E038023	I73E038021	IPE085S	Field Sample
A3058	E147-01	1	2.4	05/30/0511:49	05/26/0513:00	I73E038014	I73E038009	IPE085S	Field Sample
A3058DL	E147-01T	5	2.4	05/30/0511:55	05/26/0513:00	I73E038015	I73E038009	IPE085S	Diluted Sample
A3058AS	E147-01A	1	2.4	05/30/0512:01	05/26/0513:00	I73E038016	I73E038009	IPE085S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

7016

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE085SB	ND	1	NA	1	.2	05/29/0502:30	05/26/0513:00	I73E037011	I73E037009	IPE085S	NA	05/26/05
LCS1S	IPE085SL	84.6	1	NA	1	.2	05/29/0502:36	05/26/0513:00	I73E037012	I73E037009	IPE085S	NA	05/26/05
LCD1S	IPE085SC	82.7	1	NA	1	.2	05/29/0502:42	05/26/0513:00	I73E037013	I73E037009	IPE085S	NA	05/26/05
NM03-B1 1-1.5	E155-02	2.66	1	5.4	1.06	.211	05/30/0512:49	05/26/0513:00	I73E038023	I73E038021	IPE085S	05/17/05	05/18/05

7017

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPE085SB IPE085SL IPE085SC
LAB FILE ID: I73E037011 I73E037012 I73E037013
DATIME EXTRCTD: 05/26/0513:00 05/26/0513:00 05/26/0513:00 DATE COLLECTED: NA
DATIME ANALYZD: 05/29/0502:30 05/29/0502:36 05/29/0502:42 DATE RECEIVED: 05/26/05
PREP. BATCH: IPE085S IPE085S IPE085S
CALIB. REF: I73E037009 I73E037009 I73E037009

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	84.6	85	100	82.7	83	2	80-120	20

7018

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	2.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	A3058	A3058DL		
EMAX SAMP ID:	E147-01	E147-01T		
LAB FILE ID:	I73E038014	I73E038015		
DATE EXTRACTED:	05/26/0513:00	05/26/0513:00	DATE COLLECTED:	05/17/05
DATE ANALYZED:	05/30/0511:49	05/30/0511:55	DATE RECEIVED:	05/18/05
PREP. BATCH:	IPE085S	IPE085S		
CALIB. REF:	I73E038009	I73E038009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	.74J	1.45J	NA	10

7019

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT:	NINYO & MOORE			
PROJECT:	CALTRANS			
SDG NO.:	05E155			
METHOD:	METHOD 3050B/6010B			
MATRIX:	SOIL		% MOISTURE:	2.4
DILTN FACTR:	1	1		
SAMPLE ID:	A3058			
CONTROL NO.:	E147-01	E147-01A		
LAB FILE ID:	I73E038014	I73E038016		
DATIME EXTRCTD:	05/26/0513:00	05/26/0513:00	DATE COLLECTED:	05/17/05
DATIME ANALYZD:	05/30/0511:49	05/30/0512:01	DATE RECEIVED:	05/18/05
PREP. BATCH:	IPE085S	IPE085S		
CALIB. REF:	I73E038009	I73E038009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	.74J	102	99.4	96	75-125

7020

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E155

METHOD 7470A/7471A
MERCURY BY COLD VAPOR

Two (2) water and three (3) soil samples were received on 05/18/05 for Mercury analysis by Method 7470A/7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples E155-03 and E213-07 from other SDGs were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E155
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGF012WB	1	NA	06/07/0512:48	06/06/0514:40	M47F011010	M47F011008	HGF012W	Method Blank
LCS1W	HGF012WL	1	NA	06/07/0512:50	06/06/0514:40	M47F011011	M47F011008	HGF012W	Lab Control Sample (LCS)
LCD1W	HGF012WC	1	NA	06/07/0512:52	06/06/0514:40	M47F011012	M47F011008	HGF012W	LCS Duplicate
V8MW16AS	E213-07A	1	NA	06/07/0512:55	06/06/0514:40	M47F011013	M47F011008	HGF012W	Analytical Spike Sample
V8MW16	E213-07	1	NA	06/07/0512:58	06/06/0514:40	M47F011014	M47F011008	HGF012W	Field Sample
V8MW16DL	E213-07T	5	NA	06/07/0513:00	06/06/0514:40	M47F011015	M47F011008	HGF012W	Diluted Sample
NM03-FB1	E155-06	1	NA	06/07/0513:07	06/06/0514:40	M47F011018	M47F011008	HGF012W	Field Sample
NM03-GW1	E155-07	1	NA	06/07/0513:09	06/06/0514:40	M47F011019	M47F011008	HGF012W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGF015SB	1	NA	06/08/0510:29	06/07/0515:30	M47F014010	M47F014008	HGF015S	Method Blank
LCS1S	HGF015SL	1	NA	06/08/0510:31	06/07/0515:30	M47F014011	M47F014008	HGF015S	Lab Control Sample (LCS)
LCD1S	HGF015SC	1	NA	06/08/0510:33	06/07/0515:30	M47F014012	M47F014008	HGF015S	LCS Duplicate
NM03-B1 5.5-6AS	E155-03A	1	9.9	06/08/0510:36	06/07/0515:30	M47F014013	M47F014008	HGF015S	Analytical Spike Sample
NM03-B1 5.5-6	E155-03	1	9.9	06/08/0510:38	06/07/0515:30	M47F014014	M47F014008	HGF015S	Field Sample
NM03-B1 5.5-6DL	E155-03T	5	9.9	06/08/0510:40	06/07/0515:30	M47F014015	M47F014008	HGF015S	Diluted Sample
NM03-B1 55.5-56	E155-04	1	10.8	06/08/0510:43	06/07/0515:30	M47F014016	M47F014008	HGF015S	Field Sample
NM03-B1 61-61.5	E155-05	1	11.1	06/08/0510:45	06/07/0515:30	M47F014017	M47F014008	HGF015S	Field Sample

FN - Filename
% Moist - Percent Moisture

2204

METHOD 7470A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGF012WB	ND	1	NA	.5	.1	06/07/0512:48	06/06/0514:40	M47F011010	M47F011008	HGF012W	NA	06/06/05
LCS1W	HGF012WL	4.85	1	NA	.5	.1	06/07/0512:50	06/06/0514:40	M47F011011	M47F011008	HGF012W	NA	06/06/05
LCD1W	HGF012WC	4.94	1	NA	.5	.1	06/07/0512:52	06/06/0514:40	M47F011012	M47F011008	HGF012W	NA	06/06/05
NM03-FB1	E155-06	ND	1	NA	.5	.1	06/07/0513:07	06/06/0514:40	M47F011018	M47F011008	HGF012W	05/17/05	05/18/05
NM03-GW1	E155-07	ND	1	NA	.5	.1	06/07/0513:09	06/06/0514:40	M47F011019	M47F011008	HGF012W	05/17/05	05/18/05

7023

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGF012WB	HGF012WL	HGF012WC		
LAB FILE ID:	M47F011010	M47F011011	M47F011012		
DATIME EXTRCTD:	06/06/0514:40	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	NA
DATIME ANALYZD:	06/07/0512:48	06/07/0512:50	06/07/0512:52	DATE RECEIVED:	06/06/05
PREP. BATCH:	HGF012W	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008	M47F011008		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5	4.85	97	5	4.94	99	2	80-120	20

2024

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	V8MW16	V8MW16DL		
EMAX SAMP ID:	E213-07	E213-07T		
LAB FILE ID:	M47F011014	M47F011015		
DATE EXTRACTED:	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	05/23/05
DATE ANALYZED:	06/07/0512:58	06/07/0513:00	DATE RECEIVED:	05/24/05
PREP. BATCH:	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7025

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	V8MW16			
CONTROL NO.:	E213-07	E213-07A		
LAB FILE ID:	M47F011014	M47F011013		
DATIME EXTRCTD:	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	05/23/05
DATIME ANALYZD:	06/07/0512:58	06/07/0512:55	DATE RECEIVED:	05/24/05
PREP. BATCH:	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2	1.91	96	85-115

7026

METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E155

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGF015SB	ND	1	NA	.1	.033	06/08/0510:29	06/07/0515:30	M47F014010	M47F014008	HGF015S	NA	06/07/05
LCS1S	HGF015SL	.802	1	NA	.1	.033	06/08/0510:31	06/07/0515:30	M47F014011	M47F014008	HGF015S	NA	06/07/05
LCD1S	HGF015SC	.798	1	NA	.1	.033	06/08/0510:33	06/07/0515:30	M47F014012	M47F014008	HGF015S	NA	06/07/05
NM03-B1 5.5-6AS	E155-03A	.372	1	9.9	.111	.0366	06/08/0510:36	06/07/0515:30	M47F014013	M47F014008	HGF015S	05/17/05	05/18/05
NM03-B1 5.5-6	E155-03	ND	1	9.9	.111	.0366	06/08/0510:38	06/07/0515:30	M47F014014	M47F014008	HGF015S	05/17/05	05/18/05
NM03-B1 5.5-6DL	E155-03T	ND	5	9.9	.555	.183	06/08/0510:40	06/07/0515:30	M47F014015	M47F014008	HGF015S	05/17/05	05/18/05
NM03-B1 55.5-56	E155-04	ND	1	10.8	.112	.037	06/08/0510:43	06/07/0515:30	M47F014016	M47F014008	HGF015S	05/17/05	05/18/05
NM03-B1 61-61.5	E155-05	ND	1	11.1	.112	.0371	06/08/0510:45	06/07/0515:30	M47F014017	M47F014008	HGF015S	05/17/05	05/18/05

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: HGF015SB HGF015SL HGF015SC
LAB FILE ID: M47F014010 M47F014011 M47F014012
DATIME EXTRCTD: 06/07/0515:30 06/07/0515:30 06/07/0515:30 DATE COLLECTED: NA
DATIME ANALYZD: 06/08/0510:29 06/08/0510:31 06/08/0510:33 DATE RECEIVED: 06/07/05
PREP. BATCH: HGF015S HGF015S HGF015S
CALIB. REF: M47F014008 M47F014008 M47F014008

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.802	96	.833	.798	96	0	80-120	20

7028

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E155
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	9.9
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B1 5.5-6	NM03-B1 5.5-6DL		
EMAX SAMP ID:	E155-03	E155-03T		
LAB FILE ID:	M47F014014	M47F014015		
DATE EXTRACTED:	06/07/0515:30	06/07/0515:30	DATE COLLECTED:	05/17/05
DATE ANALYZED:	06/08/0510:38	06/08/0510:40	DATE RECEIVED:	05/18/05
PREP. BATCH:	HGF015S	HGF015S		
CALIB. REF:	M47F014008	M47F014008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7029

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E155
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	9.9
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B1 5.5-6			
CONTROL NO.:	E155-03	E155-03A		
LAB FILE ID:	M47F014014	M47F014013		
DATIME EXTRCTD:	06/07/0515:30	06/07/0515:30	DATE COLLECTED:	05/17/05
DATIME ANALYZD:	06/08/0510:38	06/08/0510:36	DATE RECEIVED:	05/18/05
PREP. BATCH:	HGF015S	HGF015S		
CALIB. REF:	M47F014008	M47F014008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.370	.372	101	85-115

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CLIENT: **NINYO & MOORE**

PROJECT: **CALTRANS**

SDG: **05E172**

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METALS	METHOD 3010A/3050B/6010B METHOD 7470A/7471A	7000 – 7020 7021 – 7031
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-09-2005
EMAX Batch No.: 05E172

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/19/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B2-1	E172-01	05/18/05	SOIL	LEAD
NM03-B2-1.5	E172-02	05/18/05	SOIL	HOLD
NM03-B2-5	E172-03	05/18/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B2-10	E172-04	05/18/05	SOIL	HOLD
NM03-B2-15	E172-05	05/18/05	SOIL	HOLD
NM03-B2-20	E172-06	05/18/05	SOIL	HOLD
NM03-B2-25	E172-07	05/18/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B2-30	E172-08	05/18/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B2-35	E172-09	05/18/05	SOIL	HOLD
NM03-B2-40	E172-10	05/18/05	SOIL	HOLD
NM03-B2-45	E172-11	05/18/05	SOIL	HOLD
NM03-B2-50	E172-12	05/18/05	SOIL	HOLD
NM03-B2-EQ	E172-13	05/18/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B2-GW	E172-14	05/18/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B2-TRIP	E172-15	05/18/05	WATER	CANCELLED

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

SHEET 1 OF 3

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: I22 / I23 / VW09-01

EMAX CONTROL NO. * 05E172

PROJECT CODE: 105388009

CLIENT: NINYO & MOORE
PROJECT: CALTRANS / I-5 WIDENING
COORDINATOR: SCOTT SNYDER
TEL: (858) 576-1000 FAX: (858) 576-9600 EMAIL: SSNYDER@NINYOANDMOORE.COM
SEND REPORT TO: MR. SCOTT SNYDER
COMPANY: NINYO & MOORE
ADDRESS: 5710 RUFFIN ROAD
SAN DIEGO, CALIFORNIA 92123
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O=

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ STANDARD

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	TPH-GAS 8015M	TPH-DIESEL 8015M	VOCs + FUEL OXYGENATES 8260B	SVOCs 8270C	PCBs 8082	TITLE 22 METALS 6010B/7471	TOTAL LEAD 6010B	COMMENTS
1	NM03-B2-1		5/18/05	9:18	1	6 INCH	SLEEVE	SS								X	
2	NM03-B2-1.5			9:38	1												HOLD
3	NM03-B2-5			9:50	1					X	X	X	X	X	X		[redacted]
4	NM03-B2-10			10:15	1												HOLD
5	NM03-B2-15			10:29	1												HOLD
6	NM03-B2-20			10:39	1												HOLD
7	NM03-B2-25			10:55	1					X	X	X	X	X	X		
8	NM03-B2-30			10:43	1					X	X	X	X	X	X		
9	NM03-B2-35			10:49	1												HOLD
10	NM03-B2-40			11:00	1												HOLD

Instructions: ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR TITLE 22 METALS.

Cooler #	Temp. (°C)	Sample #s
1	3.8	
2	3.6	

SAMPLER: PETER DAVID CLARK NINYO & MOORE

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter David Clark	5/19/05	1200	
Phil Hallen	5/19/05	1410	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

2001

CHAIN OF CUSTODY

SHEET 2 OF 3

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE

EMAX CONTROL NO. *

PROJECT CODE: 105388009

CLIENT NMO+MOORE

PROJECT CALTRANS / I-5 WIDENING

COORDINATOR SCOTT SNYDER

TEL FAX EMAIL

SEND REPORT TO

COMPANY

ADDRESS

EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOCs + FIA OXYGENATES 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7470A; TCLP LEAD 6010B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ STANDARD

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE (WATER)	(WATER)	(WATER)						COMMENTS
										HC		HC						
1	NM03-B2-45		5/13/05	11:16	1	6 INCH	SLEEVE	SS										HOLD
2	NM03-B2-50		↓	11:24	1	↓	↓	↓										HOLD
3																		
4	NM03-B2-EQ		5/14/05	10:00	3	40mL	VOA	W		X								
5	NM03-B2-EQ			10:05	1	LITER	GLASS				X							
6	NM03-B2-EQ			10:00	3	40mL	VOA					X						
7	NM03-B2-EQ			10:05	1	LITER	GLASS						X					
8	NM03-B2-EQ		↓	10:05	1	LITER	GLASS							X				
9	NM03-B2-EQ		↓	10:10	1	250mL	PLASTIC	↓							X			
10																		

13.

Instructions ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR TITLE 22 METALS.

Cooler #	Temp. (°C)	Sample #s
1	3.8	
2	3.6	

SAMPLER PETER & DAVID CURRY NMO+MOORE

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter McCurry	5/14/05	1200	
Phil Hatten	5/14/05	1410	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Form COC

SHEET 3 OF 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE

EMAX CONTROL NO. *
PROJECT CODE: 105388009

CLIENT NINYO & MOORE
PROJECT CALTRANS / I-5 WIDENING
COORDINATOR SCOTT SNYDER
TEL FAX EMAIL
SEND REPORT TO
COMPANY
ADDRESS
EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: TPH-GAS; TPH-DIESEL; VOCs + FUEL OXYGEN. 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7471; TOTAL LEAD 6010B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ STANDARD

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE HC		HC						COMMENTS
	NM03-B2-GW		5/18/05	12:40	4	40ML	VOA	GW		X								
	NM03-B2-GW			12:45	1	LITER	GLASS				X							
	NM03-B2-GW			12:40	5	40ML	VOA					X						
14.	NM03-B2-GW			12:45	1	LITER	GLASS						X					
	NM03-B2-GW			12:45	1	LITER	GLASS							X				
	NM03-B2-GW			12:50	1	250ML	PLASTIC								X			
15.	NM03-B2-TRIP		5/18/05		2	40ML	VOA	W				X						
8																		
9																		
0																		

Instructions

☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR TITLE 22 METALS.
☆ NM03-B2-TRIP IS NOT PRESERVED

Cooler #	Temp. (°C)	Sample #s
1	3.8	
2	3.6	

SAMPLER PETER DAVID CLARK NINYO & MOORE
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter David Clark	5/18/05	1200	Phil Hadem
Phil Hadem	5/19/05	1410	

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1004

Hanh Bui

From: Hanh Bui
Sent: Friday, May 20, 2005 4:15 PM
To: 'Lauren Hedges'
Subject: Sample not received NM03-B2-TRIP SDG: 05E172 (NM/Caltrans)

Hi Lauren,
We will cancel 8260+oxygenated for sample NM03-B2-TRIP (E172-15), please see attachment, thanks.
Hanh

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E172
☑ EMAX Courier	SEE COC	Recepient	Sergey.S
☐ Client Delivery		Date	5-19-05
☐ Third Party		Time	1410

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☑ Address	☑ Courier Signature/Date/Time	☑ Analysis Required
☑ Client PM/FC	☑ TAT	☑ Matrix
☐ Tel #/Fax #	☑ Sample ID	☑ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Coolers	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ plastic Bag
Temperatures	☑ Cooler 1 3.6°C	☑ Cooler 2 3.6°C	☐ Cooler 3 _____	☐ Cooler 4 _____
	☐ Cooler 5 _____	☐ Cooler 6 _____	☐ Cooler 7 _____	☐ Cooler 8 _____
	☐ Cooler 9 _____	☐ Cooler 10 _____	☐ Cooler 11 _____	☐ Cooler 12 _____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
-15	NM03-B2-TRIP	NOT RECD.	Cancel
		* on sleeves only Client ID - No other Information.	

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ Date 5-19-05

SRF _____ Date 5/20/05

PM _____ Date 5/24/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E172

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 05/19/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit except 1,2-Dichloroethane-d4 in LCS/LCSD had high recovery but all target analytes met QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001E46Q	1	NA	05/30/0512:26	05/30/0512:26	REV590	REV175	V001E46	Method Blank
LCS1W	V001E46L	1	NA	05/30/0510:55	05/30/0510:55	REV587	REV175	V001E46	Lab Control Sample (LCS)
LCD1W	V001E46C	1	NA	05/30/0511:24	05/30/0511:24	REV588	REV175	V001E46	LCS Duplicate
NM03-B2-EQ	E172-13	1	NA	05/30/0513:25	05/30/0513:25	REV592	REV175	V001E46	Field Sample
NM03-B2-GW	E172-14	1	NA	05/30/0513:54	05/30/0513:54	REV593	REV175	V001E46	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
Batch No.	: 05E172	Date Extracted:	05/30/05 13:25
Sample ID:	NM03-B2-EQ	Date Analyzed:	05/30/05 13:25
Lab Samp ID:	E172-13	Dilution Factor:	1
Lab File ID:	REV592	Matrix :	WATER
Ext Btch ID:	V001E46	% Moisture :	NA
Calib. Ref.:	REV175	Instrument ID :	T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	135	63-143
4-BROMOFLUOROBENZENE	101	63-143
TOLUENE-D8	95	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/30/05 13:54
Sample ID: NM03-B2-GW	Date Analyzed: 05/30/05 13:54
Lab Samp ID: E172-14	Dilution Factor: 1
Lab File ID: REV593	Matrix : WATER
Ext Btch ID: VOO1E46	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	134	63-143
4-BROMOFLUOROBENZENE	101	63-143
TOLUENE-D8	97	63-143

2005

QC SUMMARIES

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/30/05
Batch No. : 05E172	Date Extracted: 05/30/05 12:26
Sample ID: MBLK1W	Date Analyzed: 05/30/05 12:26
Lab Samp ID: V001E46Q	Dilution Factor: 1
Lab File ID: REV590	Matrix : WATER
Ext Btch ID: V001E46	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	128	70-130
4-BROMOFLUOROBENZENE	103	70-130
TOLUENE-D8	97	70-130

2007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V001E46Q V001E46L V001E46C
LAB FILE ID: REV590 REV587 REV588
DATE EXTRACTED: 05/30/0512:26 05/30/0510:55 05/30/0511:24 DATE COLLECTED: NA
DATE ANALYZED: 05/30/0512:26 05/30/0510:55 05/30/0511:24 DATE RECEIVED: 05/30/05
PREP. BATCH: V001E46 V001E46 V001E46
CALIB. REF: REV175 REV175 REV175

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	10	11.1	111	10	10.7	107	3	70-130	30
Ethylbenzene	ND	10	10.3	103	10	10.4	104	2	70-120	30
m/p-Xylenes	ND	20	21	105	20	21.2	106	1	70-130	30
MTBE	ND	10	8.82	88	10	9.69	97	9	60-140	30
o-Xylene	ND	10	10.5	105	10	10.9	109	3	70-130	30
Toluene	ND	10	10.3	103	10	10.1	101	1	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	13.5	135*	10	13.7	137*	70-130
4-Bromofluorobenzene	10	10.4	104	10	10.3	103	70-130
Toluene-d8	10	10.7	107	10	10.3	103	70-130

2008

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E172

2009

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/19/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006E26B	1	NA	05/26/0502:59	05/26/0502:59	REW298	REW188	V006E26	Method Blank
LCS1S	V006E26L	1	NA	05/26/0501:42	05/26/0501:42	REW296	REW188	V006E26	Lab Control Sample (LCS)
LCD1S	V006E26C	1	NA	05/26/0502:20	05/26/0502:20	REW297	REW188	V006E26	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/26/0504:55	05/26/0504:55	REW301	REW188	V006E26	Field Sample
NM03-B2-25	E172-07	1	18.2	05/26/0505:34	05/26/0505:34	REW302	REW188	V006E26	Field Sample
NM03-B2-30	E172-08	1	30.3	05/26/0506:12	05/26/0506:12	REW303	REW188	V006E26	Field Sample

FN - Filename
% Moist - Percent Moisture

2011

SAMPLE RESULTS

2012

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
Batch No.	: 05E172	Date Extracted:	05/26/05 04:55
Sample ID:	NM03-B2-5	Date Analyzed:	05/26/05 04:55
Lab Samp ID:	E172-03	Dilution Factor:	1
Lab File ID:	REW301	Matrix :	SOIL
Ext Btch ID:	VO06E26	% Moisture :	10.3
Calib. Ref.:	REW188	Instrument ID :	T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
O-XYLENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TERT-BUTANOL	ND	22	11
DIPE	ND	5.6	2.2
ETBE	ND	5.6	2.2
TAME	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	111	54-154
4-BROMOFLUOROBENZENE	108	63-143
TOLUENE-D8	103	63-143

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
Batch No.	: 05E172	Date Extracted:	05/26/05 05:34
Sample ID:	NM03-B2-25	Date Analyzed:	05/26/05 05:34
Lab Samp ID:	E172-07	Dilution Factor:	1
Lab File ID:	REW302	Matrix	: SOIL
Ext Btch ID:	VO06E26	% Moisture	: 18.2
Calib. Ref.:	REW188	Instrument ID	: T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	6.1	2.4
ETHYLBENZENE	ND	6.1	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	6.1	2.4
O-XYLENE	ND	6.1	2.4
TOLUENE	ND	6.1	2.4
TERT-BUTANOL	ND	24	12
DIPE	ND	6.1	2.4
ETBE	ND	6.1	2.4
TAME	ND	6.1	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	115	54-154
4-BROMOFLUOROBENZENE	109	63-143
TOLUENE-D8	104	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
Batch No.	: 05E172	Date Extracted:	05/26/05 06:12
Sample ID:	NM03-B2-30	Date Analyzed:	05/26/05 06:12
Lab Samp ID:	E172-08	Dilution Factor:	1
Lab File ID:	REW303	Matrix :	SOIL
Ext Btch ID:	VOO6E26	% Moisture :	30.3
Calib. Ref.:	REW188	Instrument ID :	T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	7.2	2.9
ETHYLBENZENE	ND	7.2	2.9
M/P-XYLENES	ND	14	2.9
MTBE	ND	7.2	2.9
O-XYLENE	ND	7.2	2.9
TOLUENE	ND	7.2	2.9
TERT-BUTANOL	ND	29	14
DIPE	ND	7.2	2.9
ETBE	ND	7.2	2.9
TAME	ND	7.2	2.9

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	114	54-154
4-BROMOFLUOROBENZENE	107	63-143
TOLUENE-D8	105	63-143

2015

QC SUMMARIES

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E172	Date Extracted: 05/26/05 02:59
Sample ID: MBLK1S	Date Analyzed: 05/26/05 02:59
Lab Samp ID: V006E26B	Dilution Factor: 1
Lab File ID: REW298	Matrix : SOIL
Ext Btch ID: V006E26	% Moisture : NA
Calib. Ref.: REW188	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
O-XYLENE	ND	5	2
TOLUENE	ND	5	2
TERT-BUTANOL	ND	20	10
DIPE	ND	5	2
ETBE	ND	5	2
TAME	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	111	60-140
4-BROMOFLUOROBENZENE	122	70-130
TOLUENE-D8	118	70-130

2017

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: V006E26B V006E26L V006E26C
LAB FILE ID: REW298 REW296 REW297
DATE EXTRACTED: 05/26/0502:59 05/26/0501:42 05/26/0502:20 DATE COLLECTED: NA
DATE ANALYZED: 05/26/0502:59 05/26/0501:42 05/26/0502:20 DATE RECEIVED: 05/26/05
PREP. BATCH: V006E26 V006E26 V006E26
CALIB. REF: REW188 REW188 REW188

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	20	20.1	100	20	20.6	103	2	70-130	50
Ethylbenzene	ND	20	20.7	104	20	21.4	107	3	70-130	50
m/p-Xylenes	ND	40	41.8	104	40	43.3	108	4	70-130	50
MTBE	ND	20	17.7	89	20	17.8	89	0	60-140	50
o-Xylene	ND	20	20	100	20	20.3	101	1	70-130	50
Toluene	ND	20	20.5	103	20	21.1	105	3	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	51.6	103	50	52.2	104	60-140
4-Bromofluorobenzene	50	51.5	103	50	53.2	106	70-130
Toluene-d8	50	49.4	99	50	51.3	103	70-130

2018

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E172

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and three (3) soil samples were received on 05/19/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : T-042

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVE041SB	1	NA	05/31/0514:09	05/21/0516:15	REX498	RCX291	SVE041S	Method Blank
LCS1S	SVE041SL	1	NA	05/31/0514:38	05/21/0516:15	REX499	RCX291	SVE041S	Lab Control Sample (LCS)
LCD1S	SVE041SC	1	NA	05/31/0515:08	05/21/0516:15	REX500	RCX291	SVE041S	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/31/0520:31	05/21/0516:15	REX511	RCX291	SVE041S	Field Sample
NM03-B2-25	E172-07	1	18.2	05/31/0521:01	05/21/0516:15	REX512	RCX291	SVE041S	Field Sample
NM03-B2-30	E172-08	1	30.3	05/31/0521:30	05/21/0516:15	REX513	RCX291	SVE041S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVE042WB	1	NA	05/25/0522:57	05/23/0515:30	REX403	RCX291	SVE042W	Method Blank
LCS1W	SVE042WL	1	NA	05/25/0523:26	05/23/0515:30	REX404	RCX291	SVE042W	Lab Control Sample (LCS)
LCD1W	SVE042WC	1	NA	05/25/0523:54	05/23/0515:30	REX405	RCX291	SVE042W	LCS Duplicate
NM03-B2-EQ	E172-13	.94	NA	06/01/0516:24	05/23/0515:30	RFX010	RCX291	SVE042W	Field Sample
NM03-B2-GW	E172-14	1.0	NA	06/01/0516:53	05/23/0515:30	RFX011	RCX291	SVE042W	Field Sample

FN - Filename
% Moist - Percent Moisture

3002

SAMPLE RESULTS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/21/05 16:15
Sample ID: NM03-B2-5	Date Analyzed: 05/31/05 20:31
Lab Samp ID: E172-03	Dilution Factor: 1
Lab File ID: REX511	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : 10.3
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	73	36-143
2-FLUOROBIPHENYL	68	36-143
2-FLUOROPHENOL	65	36-143
NITROBENZENE-D5	68	36-143
PHENOL-D5	66	36-143
TERPHENYL-D14	82	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/21/05 16:15
Sample ID: NM03-B2-25	Date Analyzed: 05/31/05 21:01
Lab Samp ID: E172-07	Dilution Factor: 1
Lab File ID: REX512	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : 18.2
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	400	200
1,2-DICHLOROBENZENE	ND	400	200
1,3-DICHLOROBENZENE	ND	400	200
1,4-DICHLOROBENZENE	ND	400	200
2,4,5-TRICHLOROPHENOL	ND	400	200
2,4,6-TRICHLOROPHENOL	ND	400	220
2,4-DICHLOROPHENOL	ND	400	200
2,4-DIMETHYLPHENOL	ND	400	200
2,4-DINITROPHENOL	ND	810	200
2,4-DINITROTOLUENE	ND	400	200
2,6-DINITROTOLUENE	ND	400	200
2-CHLORONAPHTHALENE	ND	400	200
2-CHLOROPHENOL	ND	400	200
2-METHYLNAPHTHALENE	ND	400	200
2-METHYLPHENOL	ND	400	200
2-NITROANILINE	ND	400	200
2-NITROPHENOL	ND	400	200
3,3'-DICHLOROBENZIDINE	ND	400	200
3-NITROANILINE	ND	400	200
4,6-DINITRO-2-METHYLPHENOL	ND	810	200
4-BROMOPHENYL-PHENYL ETHER	ND	400	200
4-CHLORO-3-METHYLPHENOL	ND	400	200
4-CHLOROANILINE	ND	400	200
4-CHLOROPHENYL-PHENYL ETHER	ND	400	200
4-METHYLPHENOL (1)	ND	400	200
4-NITROANILINE	ND	400	200
4-NITROPHENOL	ND	810	200
ACENAPHTHENE	ND	400	200
ACENAPHTHYLENE	ND	400	200
ANTHRACENE	ND	400	200
BENZO(A)ANTHRACENE	ND	400	200
BENZO(A)PYRENE	ND	400	200
BENZO(B)FLUORANTHENE	ND	400	200
BENZO(K)FLUORANTHENE	ND	400	200
BENZO(G,H,I)PERYLENE	ND	400	200
BIS(2-CHLOROETHOXY)METHANE	ND	400	200
BIS(2-CHLOROETHYL)ETHER	ND	400	200
BIS(2-CHLOROISOPROPYL)ETHER	ND	400	200
BIS(2-ETHYLHEXYL)PHTHALATE	ND	400	200
BUTYLBENZYLPHTHALATE	ND	400	200
CHRYSENE	ND	400	200
DI-N-BUTYLPHTHALATE	ND	400	200
DI-N-OCTYLPHTHALATE	ND	400	200
DIBENZO(A,H)ANTHRACENE	ND	400	200
DIBENZOFURAN	ND	400	200
DIETHYLPHTHALATE	ND	400	200
DIMETHYLPHTHALATE	ND	400	200
FLUORANTHENE	ND	400	200
FLUORENE	ND	400	200
HEXACHLOROBENZENE	ND	400	200
HEXACHLOROBUTADIENE	ND	400	230
HEXACHLOROCYCLOPENTADIENE	ND	400	200
HEXACHLOROETHANE	ND	400	200
INDENO(1,2,3-CD)PYRENE	ND	400	200
ISOPHORONE	ND	400	200
N-NITROSO-DI-N-PROPYLAMINE	ND	400	200
N-NITROSODIPHENYLAMINE (2)	ND	400	200
NAPHTHALENE	ND	400	200
NITROBENZENE	ND	400	200
PENTACHLOROPHENOL	ND	810	210
PHENANTHRENE	ND	400	200
PHENOL	ND	400	200
PYRENE	ND	400	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	71	36-143
2-FLUOROBIPHENYL	67	36-143
2-FLUOROPHENOL	61	36-143
NITROBENZENE-D5	62	36-143
PHENOL-D5	63	36-143
TERPHENYL-D14	71	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/21/05 16:15
Sample ID: NM03-B2-30	Date Analyzed: 05/31/05 21:30
Lab Samp ID: E172-08	Dilution Factor: 1
Lab File ID: REX513	Matrix : SOIL
Ext Btch ID: SVE041S	% Moisture : 30.3
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	470	240
1,2-DICHLOROBENZENE	ND	470	240
1,3-DICHLOROBENZENE	ND	470	240
1,4-DICHLOROBENZENE	ND	470	240
2,4,5-TRICHLOROPHENOL	ND	470	240
2,4,6-TRICHLOROPHENOL	ND	470	260
2,4-DICHLOROPHENOL	ND	470	240
2,4-DIMETHYLPHENOL	ND	470	240
2,4-DINITROPHENOL	ND	950	240
2,4-DINITROTOLUENE	ND	470	240
2,6-DINITROTOLUENE	ND	470	240
2-CHLORONAPHTHALENE	ND	470	240
2-CHLOROPHENOL	ND	470	240
2-METHYLNAPHTHALENE	ND	470	240
2-METHYLPHENOL	ND	470	240
2-NITROANILINE	ND	470	240
2-NITROPHENOL	ND	470	240
3,3'-DICHLOROBENZIDINE	ND	470	240
3-NITROANILINE	ND	470	240
4,6-DINITRO-2-METHYLPHENOL	ND	950	240
4-BROMOPHENYL-PHENYL ETHER	ND	470	240
4-CHLORO-3-METHYLPHENOL	ND	470	240
4-CHLOROANILINE	ND	470	240
4-CHLOROPHENYL-PHENYL ETHER	ND	470	240
4-METHYLPHENOL (1)	ND	470	240
4-NITROANILINE	ND	470	240
4-NITROPHENOL	ND	950	240
ACENAPHTHENE	ND	470	240
ACENAPHTHYLENE	ND	470	240
ANTHRACENE	ND	470	240
BENZO(A)ANTHRACENE	ND	470	240
BENZO(A)PYRENE	ND	470	240
BENZO(B)FLUORANTHENE	ND	470	240
BENZO(K)FLUORANTHENE	ND	470	240
BENZO(G,H,I)PERYLENE	ND	470	240
BIS(2-CHLOROETHOXY)METHANE	ND	470	240
BIS(2-CHLOROETHYL)ETHER	ND	470	240
BIS(2-CHLOROISOPROPYL)ETHER	ND	470	240
BIS(2-ETHYLHEXYL)PHTHALATE	ND	470	240
BUTYLBENZYLPHTHALATE	ND	470	240
CHRYSENE	ND	470	240
DI-N-BUTYLPHTHALATE	ND	470	240
DI-N-OCTYLPHTHALATE	ND	470	240
DIBENZO(A,H)ANTHRACENE	ND	470	240
DIBENZOFURAN	ND	470	240
DIETHYLPHTHALATE	ND	470	240
DIMETHYLPHTHALATE	ND	470	240
FLUORANTHENE	ND	470	240
FLUORENE	ND	470	240
HEXACHLOROBENZENE	ND	470	240
HEXACHLOROBUTADIENE	ND	470	270
HEXACHLOROCYCLOPENTADIENE	ND	470	240
HEXACHLOROETHANE	ND	470	240
INDENO(1,2,3-CD)PYRENE	ND	470	240
ISOPHORONE	ND	470	240
N-NITROSO-DI-N-PROPYLAMINE	ND	470	240
N-NITROSODIPHENYLAMINE (2)	ND	470	240
NAPHTHALENE	ND	470	240
NITROBENZENE	ND	470	240
PENTACHLOROPHENOL	ND	950	250
PHENANTHRENE	ND	470	240
PHENOL	ND	470	240
PYRENE	ND	470	240

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	67	36-143
2-FLUOROBIPHENYL	52	36-143
2-FLUOROPHENOL	50	36-143
NITROBENZENE-D5	49	36-143
PHENOL-D5	52	36-143
TERPHENYL-D14	73	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/23/05 15:30
Sample ID: NM03-B2-EQ	Date Analyzed: 06/01/05 16:24
Lab Samp ID: E172-13	Dilution Factor: .94
Lab File ID: RFX010	Matrix : WATER
Ext Btch ID: SVE042W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	81	36-143
2-FLUOROBIPHENYL	66	36-143
2-FLUOROPHENOL	57	36-143
NITROBENZENE-D5	66	36-143
PHENOL-D5	57	36-143
TERPHENYL-D14	88	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/23/05 15:30
Sample ID: NM03-B2-GW	Date Analyzed: 06/01/05 16:53
Lab Samp ID: E172-14	Dilution Factor: 1.0
Lab File ID: RFX011	Matrix : WATER
Ext Btch ID: SVE042W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	78	36-143
2-FLUOROBIPHENYL	48	36-143
2-FLUOROPHENOL	53	36-143
NITROBENZENE-D5	53	36-143
PHENOL-D5	57	36-143
TERPHENYL-D14	85	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARY

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E172	Date Extracted: 05/23/05 15:30
Sample ID: MBLK1W	Date Analyzed: 05/25/05 22:57
Lab Samp ID: SVE042WB	Dilution Factor: 1
Lab File ID: REX403	Matrix : WATER
Ext.Btch ID: SVE042W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	74	40-130
2-FLUOROBIPHENYL	54	40-130
2-FLUOROPHENOL	47	40-130
NITROBENZENE-D5	54	40-130
PHENOL-D5	50	40-130
TERPHENYL-D14	98	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW 3520C/8270C

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVE042WB	SVE042WL	SVE042WC		
LAB FILE ID:	REX403	REX404	REX405		
DATE EXTRACTED:	05/23/0515:30	05/23/0515:30	05/23/0515:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/25/0522:57	05/25/0523:26	05/25/0523:54	DATE RECEIVED:	05/23/05
PREP. BATCH:	SVE042W	SVE042W	SVE042W		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	60	75	80	62.9	79	5	30-130	30
1,4-Dichlorobenzene	ND	80	48	60	80	50.3	63	5	30-130	30
2,4-Dinitrotoluene	ND	80	89.9	112	80	93	116	3	50-130	30
2-Chlorophenol	ND	80	63.7	80	80	68	85	7	30-130	30
4-Chloro-3-Methylphenol	ND	80	83.9	105	80	89.1	111	6	40-130	30
4-Nitrophenol	ND	80	79.5	99	80	85.4	107	7	40-130	30
Acenaphthene	ND	80	74.4	93	80	75.8	95	2	40-130	30
n-Nitroso-di-n-propylamine	ND	80	74.6	93	80	82.4	103	10	40-130	30
Pentachlorophenol	ND	80	83.3	104	80	87.8	110	5	40-130	30
Phenol	ND	80	64.5	81	80	68.1	85	5	30-130	30
Pyrene	ND	80	90.1	113	80	89.6	112	1	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	159	106	150	164	109	40-130
2-Fluorobiphenyl	100	76.1	76	100	78.4	78	40-130
2-Fluorophenol	150	98.8	66	150	105	70	40-130
Nitrobenzene-d5	100	78.7	79	100	85.5	85	40-130
Phenol-d5	150	104	69	150	111	74	40-130
Terphenyl-d14	100	107	107	100	104	104	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/21/05
Batch No.	: 05E172	Date Extracted:	05/21/05 16:15
Sample ID:	MBLK1S	Date Analyzed:	05/31/05 14:09
Lab Samp ID:	SVE041SB	Dilution Factor:	1
Lab File ID:	REX498	Matrix :	SOIL
Ext Btch ID:	SVE041S	% Moisture :	NA
Calib. Ref.:	RCX291	Instrument ID :	T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	73	40-130
2-FLUOROBIPHENYL	70	40-130
2-FLUOROPHENOL	66	40-130
NITROBENZENE-D5	73	40-130
PHENOL-D5	69	40-130
TERPHENYL-D14	87	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW 3550B/8270C

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVE041SB	SVE041SL	SVE041SC		
LAB FILE ID:	REX498	REX499	REX500		
DATE EXTRACTED:	05/21/0516:15	05/21/0516:15	05/21/0516:15	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0514:09	05/31/0514:38	05/31/0515:08	DATE RECEIVED:	05/21/05
PREP. BATCH:	SVE041S	SVE041S	SVE041S		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	1480	56	2670	1690	63	13	40-130	50
1,4-Dichlorobenzene	ND	2670	1470	55	2670	1660	62	12	30-130	50
2,4-Dinitrotoluene	ND	2670	1640	62	2670	1700	64	3	40-130	50
2-Chlorophenol	ND	2670	1470	55	2670	1650	62	12	40-130	50
4-Chloro-3-Methylphenol	ND	2670	1640	61	2670	1830	68	11	40-130	50
4-Nitrophenol	ND	2670	1390	52	2670	1410	53	1	25-130	50
Acenaphthene	ND	2670	1570	59	2670	1750	66	11	40-130	50
n-Nitroso-di-n-propylamine	ND	2670	1640	62	2670	1840	69	11	40-130	50
Pentachlorophenol	ND	2670	1410	53	2670	1410	53	1	30-130	50
Phenol	ND	2670	1440	54	2670	1600	60	11	40-130	50
Pyrene	ND	2670	1730	65	2670	1730	65	0	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	3770	75	5000	3900	78	40-130
2-Fluorobiphenyl	3330	2120	64	3330	2230	67	40-130
2-Fluorophenol	5000	2930	59	5000	3050	61	40-130
Nitrobenzene-d5	3330	2100	63	3330	2200	66	40-130
Phenol-d5	5000	2960	59	5000	3060	61	40-130
Terphenyl-d14	3330	2750	83	3330	2680	80	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

SDG#: 05E172

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CAL TRANS

SDG: 05E172

METHOD5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and three (3) soil samples were received on 05/19/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 05/24/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour intervals and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method Blanks were free of contamination at the Reporting Limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was spiked.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39E17B	1	NA	05/23/0513:43	05/23/0513:43	EE23003A	EE23002A	VA39E17	Method Blank
LCS1W	VA39E17L	1	NA	05/23/0514:19	05/23/0514:19	EE23004A	EE23002A	VA39E17	Lab Control Sample (LCS)
LCD1W	VA39E17C	1	NA	05/23/0514:55	05/23/0514:55	EE23005A	EE23002A	VA39E17	LCS Duplicate
NM03-B2-EQ	E172-13	1	NA	05/24/0501:07	05/24/0501:07	EE23022A	EE23013A	VA39E17	Field Sample
NM03-B2-GW	E172-14	1	NA	05/24/0501:43	05/24/0501:43	EE23023A	EE23013A	VA39E17	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME016SB	1	NA	05/25/0521:44	05/25/0521:44	EE25013A	EE25004A	VME016S	Method Blank
LCS1S	VME016SL	1	NA	05/25/0520:32	05/25/0520:32	EE25011A	EE25004A	VME016S	Lab Control Sample (LCS)
LCD1S	VME016SC	1	NA	05/25/0521:08	05/25/0521:08	EE25012A	EE25004A	VME016S	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/26/0513:26	05/26/0513:26	EE25039A	EE25030A	VME016S	Field Sample
NM03-B2-25	E172-07	1	18.2	05/26/0514:02	05/26/0514:02	EE25040A	EE25030A	VME016S	Field Sample
NM03-B2-30	E172-08	1	30.3	05/26/0514:38	05/26/0514:38	EE25041A	EE25030A	VME016S	Field Sample

FN - Filename
% Moist - Percent Moisture

4002

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME016SB	ND	94	1	NA	1	.5	05/25/0521:44	05/25/0521:44	EE25013A	EE25004A	VME016S	NA	05/25/05
LCS1S	VME016SL	22.8	105	1	NA	1	.5	05/25/0520:32	05/25/0520:32	EE25011A	EE25004A	VME016S	NA	05/25/05
LCD1S	VME016SC	25.6	106	1	NA	1	.5	05/25/0521:08	05/25/0521:08	EE25012A	EE25004A	VME016S	NA	05/25/05
NM03-B2-5	E172-03	ND	80	1	10.3	1.1	.56	05/26/0513:26	05/26/0513:26	EE25039A	EE25030A	VME016S	05/18/05	05/19/05
NM03-B2-25	E172-07	ND	86	1	18.2	1.2	.61	05/26/0514:02	05/26/0514:02	EE25040A	EE25030A	VME016S	05/18/05	05/19/05
NM03-B2-30	E172-08	ND	78	1	30.3	1.4	.72	05/26/0514:38	05/26/0514:38	EE25041A	EE25030A	VME016S	05/18/05	05/19/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39E17B	ND	97	1	NA	.1	.02	05/23/0513:43	05/23/0513:43	EE23003A	EE23002A	VA39E17	NA	05/23/05
LCS1W	VA39E17L	.437	111	1	NA	.1	.02	05/23/0514:19	05/23/0514:19	EE23004A	EE23002A	VA39E17	NA	05/23/05
LCD1W	VA39E17C	.457	104	1	NA	.1	.02	05/23/0514:55	05/23/0514:55	EE23005A	EE23002A	VA39E17	NA	05/23/05
NM03-B2-EQ	E172-13	ND	92	1	NA	.1	.02	05/24/0501:07	05/24/0501:07	EE23022A	EE23013A	VA39E17	05/18/05	05/19/05
NM03-B2-GW	E172-14	ND	91	1	NA	.1	.02	05/24/0501:43	05/24/0501:43	EE23023A	EE23013A	VA39E17	05/18/05	05/19/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4003

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39E17B	VA39E17L	VA39E17C		
LAB FILE ID:	EE23003A	EE23004A	EE23005A		
DATE EXTRACTED:	05/23/0513:43	05/23/0514:19	05/23/0514:55	DATE COLLECTED:	NA
DATE ANALYZED:	05/23/0513:43	05/23/0514:19	05/23/0514:55	DATE RECEIVED:	05/23/05
PREP. BATCH:	VA39E17	VA39E17	VA39E17		
CALIB. REF:	EE23002A	EE23002A	EE23002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.437	87	.5	.457	91	4	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0444	111	.04	.0417	104	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VME016SB VME016SL VME016SC
LAB FILE ID: EE25013A EE25011A EE25012A
DATE EXTRACTED: 05/25/0521:44 05/25/0520:32 05/25/0521:08 DATE COLLECTED: NA
DATE ANALYZED: 05/25/0521:44 05/25/0520:32 05/25/0521:08 DATE RECEIVED: 05/25/05
PREP. BATCH: VME016S VME016S VME016S
CALIB. REF: EE25004A EE25004A EE25004A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	22.8	91	25	25.6	102	11	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.11	105	2	2.12	106	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E172

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

METHOD M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water samples and three (3) soil samples were received on 05/19/05 for Total Petroleum Hydrocarbons by Extraction by Method M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 05/20/05 and completed on 05/21/05. Extraction for soil samples was performed and completed on 05/23/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was designated for MS/MSD.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

Samples E172-07 and –08 displayed heavier hydrocarbon pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSE024WB	1	NA	05/21/0517:20	05/20/0518:30	TE19070A	TE19067A	DSE024W	Method Blank
LCS1W	DSE024WL	1	NA	05/21/0518:02	05/20/0518:30	TE19071A	TE19067A	DSE024W	Lab Control Sample (LCS)
LCD1W	DSE024WC	1	NA	05/21/0518:43	05/20/0518:30	TE19072A	TE19067A	DSE024W	LCS Duplicate
NM03-B2-EQ	E172-13	.94	NA	05/22/0503:48	05/20/0518:30	TE19085A	TE19080A	DSE024W	Field Sample
NM03-B2-GW	E172-14	1.25	NA	05/22/0504:30	05/20/0518:30	TE19086A	TE19080A	DSE024W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE029SB	1	NA	05/27/0506:35	05/24/0517:45	TE26023A	TE26014A	DSE029S	Method Blank
LCS1S	DSE029SL	1	NA	05/27/0505:11	05/24/0517:45	TE26021A	TE26014A	DSE029S	Lab Control Sample (LCS)
LCD1S	DSE029SC	1	NA	05/27/0505:53	05/24/0517:45	TE26022A	TE26014A	DSE029S	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/27/0510:46	05/24/0517:45	TE26029A	TE26027A	DSE029S	Field Sample
NM03-B2-25	E172-07	1	18.2	05/27/0511:29	05/24/0517:45	TE26030A	TE26027A	DSE029S	Field Sample
NM03-B2-30	E172-08	1	30.3	05/27/0512:11	05/24/0517:45	TE26031A	TE26027A	DSE029S	Field Sample

FN - Filename
% Moist - Percent Moisture

5002

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : WATER
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSE024WB	ND	93	114	1	NA	.5	.1	05/21/0517:20	05/20/0518:30	TE19070A	TE19067A	DSE024W	NA	05/20/05
LCS1W	DSE024WL	5.39	93	114	1	NA	.5	.1	05/21/0518:02	05/20/0518:30	TE19071A	TE19067A	DSE024W	NA	05/20/05
LCD1W	DSE024WC	5.43	98	119	1	NA	.5	.1	05/21/0518:43	05/20/0518:30	TE19072A	TE19067A	DSE024W	NA	05/20/05
NM03-B2-EQ	E172-13	ND	103	104	.94	NA	.47	.094	05/22/0503:48	05/20/0518:30	TE19085A	TE19080A	DSE024W	05/18/05	05/19/05
NM03-B2-GW	E172-14	ND	107	100	1.25	NA	.62	.12	05/22/0504:30	05/20/0518:30	TE19086A	TE19080A	DSE024W	05/18/05	05/19/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : SOIL
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE029SB	ND	125	112	1	NA	10	5	05/27/0506:35	05/24/0517:45	TE26023A	TE26014A	DSE029S	NA	05/24/05
LCS1S	DSE029SL	546	130	114	1	NA	10	5	05/27/0505:11	05/24/0517:45	TE26021A	TE26014A	DSE029S	NA	05/24/05
LCD1S	DSE029SC	526	127	112	1	NA	10	5	05/27/0505:53	05/24/0517:45	TE26022A	TE26014A	DSE029S	NA	05/24/05
NM03-B2-5	E172-03	ND	125	111	1	10.3	11	5.6	05/27/0510:46	05/24/0517:45	TE26029A	TE26027A	DSE029S	05/18/05	05/19/05
NM03-B2-25	E172-07	14	127	116	1	18.2	12	6.1	05/27/0511:29	05/24/0517:45	TE26030A	TE26027A	DSE029S	05/18/05	05/19/05
NM03-B2-30	E172-08	52	127	115	1	30.3	14	7.2	05/27/0512:11	05/24/0517:45	TE26031A	TE26027A	DSE029S	05/18/05	05/19/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5005

QC SUMMARIES

5006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD 3520C/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSE024WB	DSE024WL	DSE024WC		
LAB FILE ID:	TE19070A	TE19071A	TE19072A		
DATE EXTRACTED:	05/20/0518:30	05/20/0518:30	05/20/0518:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/21/0517:20	05/21/0518:02	05/21/0518:43	DATE RECEIVED:	05/20/05
PREP. BATCH:	DSE024W	DSE024W	DSE024W		
CALIB. REF:	TE19067A	TE19067A	TE19067A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	5.39	108	5	5.43	109	1	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.933	93	1	.978	98	50-140
Hexacosane	.25	.285	114	.25	.297	119	70-150

5007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD LUFT/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSE029SB	DSE029SL	DSE029SC		
LAB FILE ID:	TE26023A	TE26021A	TE26022A		
DATE EXTRACTED:	05/24/0517:45	05/24/0517:45	05/24/0517:45	DATE COLLECTED:	NA
DATE ANALYZED:	05/27/0506:35	05/27/0505:11	05/27/0505:53	DATE RECEIVED:	05/24/05
PREP. BATCH:	DSE029S	DSE029S	DSE029S		
CALIB. REF:	TE26014A	TE26014A	TE26014A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	546	109	500	526	105	4	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	130	130	100	127	127	60-150
Hexacosane	25	28.5	114	25	27.9	112	60-160

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
PCBs

SDG#: 05E172

5009

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

SW3520C/3550B/8082
PCBs

Two (2) water and three (3) soil samples were received on 05/19/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit except for DCB for water samples but the second surrogate met QC criteria.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE033SB	1	NA	05/23/0521:13	05/23/0515:00	SE23020A	SE23006A	CPE033S	Method Blank
LCS1S	60E033SL	1	NA	05/24/0501:51	05/23/0515:00	SE23031A	SE23030A	CPE033S	Lab Control Sample (LCS)
LCD1S	60E033SC	1	NA	05/24/0502:16	05/23/0515:00	SE23032A	SE23030A	CPE033S	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/24/0506:29	05/23/0515:00	SE23042A	SE23030A	CPE033S	Field Sample
NM03-B2-25	E172-07	1	18.2	05/24/0506:54	05/23/0515:00	SE23043A	SE23030A	CPE033S	Field Sample
NM03-B2-30	E172-08	1	30.3	05/24/0507:19	05/23/0515:00	SE23044A	SE23030A	CPE033S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPE034WB	1	NA	05/26/0515:15	05/24/0516:30	SE26007A	SE26006A	CPE034W	Method Blank
LCS1W	60E034WL	1	NA	05/26/0516:31	05/24/0516:30	SE26010A	SE26006A	CPE034W	Lab Control Sample (LCS)
LCD1W	60E034WC	1	NA	05/26/0516:57	05/24/0516:30	SE26011A	SE26006A	CPE034W	LCS Duplicate
NM03-B2-EQ	E172-13	.94	NA	05/26/0517:22	05/24/0516:30	SE26012A	SE26006A	CPE034W	Field Sample
NM03-B2-GW	E172-14	1.15	NA	05/26/0517:49	05/24/0516:30	SE26013A	SE26006A	CPE034W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
Batch No.	: 05E172	Date Extracted:	05/23/05 15:00
Sample ID:	NM03-B2-5	Date Analyzed:	05/24/05 06:29
Lab Samp ID:	E172-03	Dilution Factor:	1
Lab File ID:	SE23042A	Matrix :	SOIL
Ext Btch ID:	CPE033S	% Moisture :	10.3
Calib. Ref.:	SE23030A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	56	22|22
PCB-1221	(ND)|ND	56	22|22
PCB-1232	(ND)|ND	56	22|22
PCB-1242	(ND)|ND	56	22|22
PCB-1248	(ND)|ND	56	22|22
PCB-1254	(ND)|ND	56	22|22
PCB-1260	(ND)|ND	56	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(96)|92	45-154
DECACHLOROBIPHENYL	159*|(133)	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/23/05 15:00
Sample ID: NM03-B2-25	Date Analyzed: 05/24/05 06:54
Lab Samp ID: E172-07	Dilution Factor: 1
Lab File ID: SE23043A	Matrix : SOIL
Ext Btch ID: CPE033S	% Moisture : 18.2
Calib. Ref.: SE23030A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	61	24 | 24
PCB-1221	(ND) | ND	61	24 | 24
PCB-1232	(ND) | ND	61	24 | 24
PCB-1242	(ND) | ND	61	24 | 24
PCB-1248	(ND) | ND	61	24 | 24
PCB-1254	(ND) | ND	61	24 | 24
PCB-1260	(ND) | ND	61	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(82) | 79	45-154
DECACHLOROBIPHENYL	(150) | 126	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/23/05 15:00
Sample ID: NM03-B2-30	Date Analyzed: 05/24/05 07:19
Lab Samp ID: E172-08	Dilution Factor: 1
Lab File ID: SE23044A	Matrix : SOIL
Ext Btch ID: CPE033S	% Moisture : 30.3
Calib. Ref.: SE23030A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	72	29|29
PCB-1221	(ND)|ND	72	29|29
PCB-1232	(ND)|ND	72	29|29
PCB-1242	(ND)|ND	72	29|29
PCB-1248	(ND)|ND	72	29|29
PCB-1254	(ND)|ND	72	29|29
PCB-1260	(ND)|ND	72	29|29

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(58)|56	45-154
DECACHLOROBIPHENYL	(147)|124	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/24/05 16:30
Sample ID: NM03-B2-EQ	Date Analyzed: 05/26/05 17:22
Lab Samp ID: E172-13	Dilution Factor: .94
Lab File ID: SE26012A	Matrix : WATER
Ext Btch ID: CPE034W	% Moisture : NA
Calib. Ref.: SE26006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	.94	.47|.47
PCB-1221	(ND)|ND	.94	.47|.47
PCB-1232	(ND)|ND	.94	.47|.47
PCB-1242	(ND)|ND	.94	.47|.47
PCB-1248	(ND)|ND	.94	.47|.47
PCB-1254	(ND)|ND	.94	.47|.47
PCB-1260	(ND)|ND	.94	.47|.47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(80)|85	45-165
DECACHLOROBIPHENYL	(14*)|16*	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
Batch No. : 05E172	Date Extracted: 05/24/05 16:30
Sample ID: NM03-B2-GW	Date Analyzed: 05/26/05 17:49
Lab Samp ID: E172-14	Dilution Factor: 1.15
Lab File ID: SE26013A	Matrix : WATER
Ext Btch ID: CPE034W	% Moisture : NA
Calib. Ref.: SE26006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.1	.58 | .58
PCB-1221	(ND) | ND	1.1	.58 | .58
PCB-1232	(ND) | ND	1.1	.58 | .58
PCB-1242	(ND) | ND	1.1	.58 | .58
PCB-1248	(ND) | ND	1.1	.58 | .58
PCB-1254	(ND) | ND	1.1	.58 | .58
PCB-1260	(ND) | ND	1.1	.58 | .58

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(60) | 65	45-165
DECACHLOROBIPHENYL	(22*) | 23*	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/24/05
Batch No. : 05E172	Date Extracted: 05/24/05 16:30
Sample ID: MBLK1W	Date Analyzed: 05/26/05 15:15
Lab Samp ID: CPE034WB	Dilution Factor: 1
Lab File ID: SE26007A	Matrix : WATER
Ext Btch ID: CPE034W	% Moisture : NA
Calib. Ref.: SE26006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1	.5 | .5
PCB-1221	(ND) | ND	1	.5 | .5
PCB-1232	(ND) | ND	1	.5 | .5
PCB-1242	(ND) | ND	1	.5 | .5
PCB-1248	(ND) | ND	1	.5 | .5
PCB-1254	(ND) | ND	1	.5 | .5
PCB-1260	(ND) | ND	1	.5 | .5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(82) | 87	50-150
DECACHLOROBIPHENYL	(63*) | 65*	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: CPE034WB 60E034WL 60E034WC
LAB FILE ID: SE26007A SE26010A SE26011A
DATE EXTRACTED: 05/24/0516:30 05/24/0516:30 05/24/0516:30 DATE COLLECTED: NA
DATE ANALYZED: 05/26/0515:15 05/26/0516:31 05/26/0516:57 DATE RECEIVED: 05/24/05
PREP. BATCH: CPE034W CPE034W CPE034W
CALIB. REF: SE26006A SE26006A SE26006A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(4.73) | 5.01	(95) | 100	5	(4.94) | 4.99	(99) | 100	(4) | 0	50-130	30
PCB-1260	(ND) | ND	5	(5.1) | 5.27	(102) | 105	5	(5.29) | 5.35	(106) | 107	(4) | 2	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.352) | .366	(88) | 91	.4	(.356) | .366	(89) | 91	50-150
Decachlorobiphenyl	.4	(.238) | .24	(60*) | 60*	.4	(.305) | .306	(76) | 77	70-150

5020

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E172	Date Extracted:	05/23/05 15:00
Sample ID:	MBLK1S	Date Analyzed:	05/23/05 21:13
Lab Samp ID:	CPE033SB	Dilution Factor:	1
Lab File ID:	SE23020A	Matrix :	SOIL
Ext Btch ID:	CPE033S	% Moisture :	NA
Calib. Ref.:	SE23006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(112) | 108	50-140
DECACHLOROBIPHENYL	172* | (132)	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CPE033SB 60E033SL 60E033SC
LAB FILE ID: SE23020A SE23031A SE23032A
DATE EXTRACTED: 05/23/0515:00 05/23/0515:00 05/23/0515:00 DATE COLLECTED: NA
DATE ANALYZED: 05/23/0521:13 05/24/0501:51 05/24/0502:16 DATE RECEIVED: 05/23/05
PREP. BATCH: CPE033S CPE033S CPE033S
CALIB. REF: SE23006A SE23030A SE23030A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(155) | 143	(93) | 86	167	(150) | 144	(90) | 86	(3) | 1	50-130	50
PCB-1260	(ND) | ND	167	272 | (223)	163* | (134)	167	263 | (221)	158* | (133)	3 | (1)	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(11.1) | 10.5	(83) | 79	13.3	(11) | 10.3	(82) | 78	50-140
Decachlorobiphenyl	13.3	22.9 | (18)	172* | (135)	13.3	23.9 | (17.9)	179* | (134)	50-140

5022

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METALS BY ICP / MERCURY

SDG#: 05E172

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

METHOD 3010A/3050B/6010B
METALS BY ICP

Two (2) water and three (3) soil samples were received on 05/19/05 for Metals analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample E172-13 and sample E272-11 were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : T-I73

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE092SB	1	NA	06/02/0505:48	05/30/0510:35	I73F004011	I73F004009	IPE092S	Method Blank
LCS1S	IPE092SL	1	NA	06/02/0505:54	05/30/0510:35	I73F004012	I73F004009	IPE092S	Lab Control Sample (LCS)
LCD1S	IPE092SC	1	NA	06/02/0506:00	05/30/0510:35	I73F004013	I73F004009	IPE092S	LCS Duplicate
NM03-B2-1	E172-01	1	NA	06/02/0508:56	05/30/0510:35	I73F004040	I73F004033	IPE092S	Field Sample
B-12-20.0DL	E272-11T	5	16.1	06/02/0507:13	05/30/0510:35	I73F004024	I73F004021	IPE092S	Diluted Sample
B-12-20.0	E272-11	1	16.1	06/02/0507:19	05/30/0510:35	I73F004025	I73F004021	IPE092S	Field Sample
B-12-20.0AS	E272-11A	1	16.1	06/02/0507:25	05/30/0510:35	I73F004026	I73F004021	IPE092S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE092SB	ND	1	NA	1	.2	06/02/0505:48	05/30/0510:35	I73F004011	I73F004009	IPE092S	NA	05/27/05
LCS1S	IPE092SL	98.5	1	NA	1	.2	06/02/0505:54	05/30/0510:35	I73F004012	I73F004009	IPE092S	NA	05/27/05
LCD1S	IPE092SC	99.5	1	NA	1	.2	06/02/0506:00	05/30/0510:35	I73F004013	I73F004009	IPE092S	NA	05/27/05
NM03-B2-1	E172-01	3.7	1	NA	1	.2	06/02/0508:56	05/30/0510:35	I73F004040	I73F004033	IPE092S	05/18/05	05/19/05

7003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE092SB	IPE092SL	IPE092SC		
LAB FILE ID:	I73F004011	I73F004012	I73F004013		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/02/0505:48	06/02/0505:54	06/02/0506:00	DATE RECEIVED:	05/27/05
PREP. BATCH:	IPE092S	IPE092S	IPE092S		
CALIB. REF:	I73F004009	I73F004009	I73F004009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	98.5	98	100	99.5	100	1	80-120	20

7004

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
SDG NO.	: 05E172	Date Extracted:	05/30/05 10:35
Sample ID:	NM03-B2-5	Date Analyzed:	06/02/05 08:38
Lab Samp ID:	E172-03	Dilution Factor:	1
Lab File ID:	I73F004037	Matrix :	SOIL
Ext Btch ID:	IPE092S	% Moisture :	10.3
Calib. Ref.:	I73F004033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.1	2.23
Arsenic	1.43	1.11	.446
Barium	12.2	1.11	.223
Beryllium	ND	1.11	.223
Cadmium	ND	1.11	.111
Chromium	6.06	1.11	.223
Cobalt	2.08	1.11	.223
Copper	2.48	1.11	.223
Lead	2.04	1.11	.223
Molybdenum	ND	5.57	.557
Nickel	2.5	1.11	.223
Selenium	ND	1.11	.557
Silver	ND	1.11	.279
Thallium	2.27	1.11	.557
Vanadium	16	1.11	.557
Zinc	20.6	1.11	.557

7008

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
SDG NO.	: 05E172	Date Extracted:	05/30/05 10:35
Sample ID:	NM03-B2-30	Date Analyzed:	06/02/05 08:44
Lab Samp ID:	E172-08	Dilution Factor:	1
Lab File ID:	I73F004038	Matrix :	SOIL
Ext Btch ID:	IPE092S	% Moisture :	30.3
Calib. Ref.:	I73F004033	Instrument ID :	EMAXI173

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	14.3	2.87
Arsenic	ND	1.43	.574
Barium	169	1.43	.287
Beryllium	.366J	1.43	.287
Cadmium	.181J	1.43	.143
Chromium	27.7	1.43	.287
Cobalt	9.23	1.43	.287
Copper	16.9	1.43	.287
Lead	1.54	1.43	.287
Molybdenum	ND	7.17	.717
Nickel	9.34	1.43	.287
Selenium	ND	1.43	.717
Silver	1.11J	1.43	.359
Thallium	9.4	1.43	.717
Vanadium	71.6	1.43	.717
Zinc	58.4	1.43	.717

7009

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/27/05
SDG NO.	: 05E172	Date Extracted:	05/30/05 10:35
Sample ID:	MBLK1S	Date Analyzed:	06/02/05 05:48
Lab Samp ID:	IPE092SB	Dilution Factor:	1
Lab File ID:	I73F004011	Matrix :	SOIL
Ext Btch ID:	IPE092S	% Moisture :	NA
Calib. Ref.:	I73F004009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	ND	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	ND	1	.5
Vanadium	ND	1	.5
Zinc	ND	1	.5

7010

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE092SB	IPE092SL	IPE092SC		
LAB FILE ID:	I73F004011	I73F004012	I73F004013		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/02/0505:48	06/02/0505:54	06/02/0506:00	DATE RECEIVED:	05/27/05
PREP. BATCH:	IPE092S	IPE092S	IPE092S		
CALIB. REF:	I73F004009	I73F004009	I73F004009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	497	99	500	499	100	0	80-120	20
Arsenic	ND	100	101	101	100	101	101	1	80-120	20
Barium	ND	100	94.6	95	100	94.4	94	0	80-120	20
Beryllium	ND	100	104	104	100	105	105	1	80-120	20
Cadmium	ND	100	95.4	95	100	96.2	96	1	80-120	20
Chromium	ND	100	99.3	99	100	99.9	100	1	80-120	20
Cobalt	ND	100	97.8	98	100	98.6	99	1	80-120	20
Copper	ND	100	104	104	100	104	104	0	80-120	20
Lead	ND	100	98.5	98	100	99.5	100	1	80-120	20
Molybdenum	ND	100	101	101	100	102	102	1	80-120	20
Nickel	ND	100	97	97	100	98	98	1	80-120	20
Selenium	ND	100	97.3	97	100	98.3	98	1	80-120	20
Silver	ND	100	96.7	97	100	96.7	97	0	80-120	20
Thallium	ND	100	101	101	100	103	103	1	80-120	20
Vanadium	ND	100	102	102	100	103	103	0	80-120	20
Zinc	ND	100	99.4	99	100	100	100	1	80-120	20

7011

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPE090WB	1	NA	05/31/0514:14	05/27/0515:00	I73E039011	I73E039009	IPE090W	Method Blank
LCS1W	IPE090WL	1	NA	05/31/0514:21	05/27/0515:00	I73E039012	I73E039009	IPE090W	Lab Control Sample (LCS)
LCD1W	IPE090WC	1	NA	05/31/0514:27	05/27/0515:00	I73E039013	I73E039009	IPE090W	LCS Duplicate
NM03-B2-EQAS	E172-13A	1	NA	05/31/0514:34	05/27/0515:00	I73E039014	I73E039009	IPE090W	Analytical Spike Sample
NM03-B2-EQ	E172-13	1	NA	05/31/0514:42	05/27/0515:00	I73E039015	I73E039009	IPE090W	Field Sample
NM03-B2-EQDL	E172-13T	5	NA	05/31/0514:48	05/27/0515:00	I73E039016	I73E039009	IPE090W	Diluted Sample
NM03-B2-GW	E172-14	1	NA	05/31/0514:55	05/27/0515:00	I73E039017	I73E039009	IPE090W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client : NINYO & MOORE	Date Collected: 05/18/05
Project : CALTRANS	Date Received: 05/19/05
SDG NO. : 05E172	Date Extracted: 05/27/05 15:00
Sample ID: NM03-B2-EQ	Date Analyzed: 05/31/05 14:42
Lab Samp ID: E172-13	Dilution Factor: 1
Lab File ID: I73E039015	Matrix : WATER
Ext Btch ID: IPE090W	% Moisture : NA
Calib. Ref.: I73E039009	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

7015

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/18/05
Project	: CALTRANS	Date Received:	05/19/05
SDG NO.	: 05E172	Date Extracted:	05/27/05 15:00
Sample ID:	NM03-B2-GW	Date Analyzed:	05/31/05 14:55
Lab Samp ID:	E172-14	Dilution Factor:	1
Lab File ID:	I73E039017	Matrix	: WATER
Ext Btch ID:	IPE090W	% Moisture	: NA
Calib. Ref.:	I73E039009	Instrument ID	: EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	.0493	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	.00564J	.01	.002
Lead	ND	.01	.003
Molybdenum	.0317J	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	.00553J	.01	.005
Zinc	ND	.01	.005

7016

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/27/05
SDG NO. : 05E172	Date Extracted: 05/27/05 15:00
Sample ID: MBLK1W	Date Analyzed: 05/31/05 14:14
Lab Samp ID: IPE090WB	Dilution Factor: 1
Lab File ID: I73E039011	Matrix : WATER
Ext Btch ID: IPE090W	% Moisture : NA
Calib. Ref.: I73E039009	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

7017

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1W
CONTROL NO.: IPE090WB IPE090WL IPE090WC
LAB FILE ID: I73E039011 I73E039012 I73E039013
DATIME EXTRCTD: 05/27/0515:00 05/27/0515:00 05/27/0515:00 DATE COLLECTED: NA
DATIME ANALYZD: 05/31/0514:14 05/31/0514:21 05/31/0514:27 DATE RECEIVED: 05/27/05
PREP. BATCH: IPE090W IPE090W IPE090W
CALIB. REF: I73E039009 I73E039009 I73E039009

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	5.09	102	5	5.13	103	1	80-120	20
Arsenic	ND	1	1.04	104	1	1.04	104	0	80-120	20
Barium	ND	1	.929	93	1	.946	95	2	80-120	20
Beryllium	ND	1	1.02	102	1	1.04	104	1	80-120	20
Cadmium	ND	1	.956	96	1	.965	97	1	80-120	20
Chromium	ND	1	.987	99	1	.997	100	1	80-120	20
Cobalt	ND	1	.978	98	1	.988	99	1	80-120	20
Copper	ND	1	1.02	102	1	1.04	104	2	80-120	20
Lead	ND	1	1	100	1	1.01	101	1	80-120	20
Molybdenum	ND	1	1.02	102	1	1.02	102	1	80-120	20
Nickel	ND	1	.971	97	1	.981	98	1	80-120	20
Selenium	ND	1	1.03	103	1	1.04	104	1	80-120	20
Silver	ND	1	.977	98	1	.993	99	2	80-120	20
Thallium	ND	1	1.03	103	1	1.05	105	2	80-120	20
Vanadium	ND	1	1.01	101	1	1.03	103	2	80-120	20
Zinc	ND	1	1.01	101	1	1.02	102	1	80-120	20

7018

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B2-EQ	NM03-B2-EQDL		
EMAX SAMP ID:	E172-13	E172-13T		
LAB FILE ID:	I73E039015	I73E039016		
DATE EXTRACTED:	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	05/18/05
DATE ANALYZED:	05/31/0514:42	05/31/0514:48	DATE RECEIVED:	05/19/05
PREP. BATCH:	IPE090W	IPE090W		
CALIB. REF:	I73E039009	I73E039009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	ND	ND	0	10
Barium	ND	ND	0	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	ND	ND	0	10
Cobalt	ND	ND	0	10
Copper	ND	ND	0	10
Lead	ND	ND	0	10
Molybdenum	ND	ND	0	10
Nickel	ND	ND	0	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	ND	ND	0	10
Zinc	ND	.0689	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B2-EQ			
CONTROL NO.:	E172-13	E172-13A		
LAB FILE ID:	I73E039015	I73E039014		
DATIME EXTRCTD:	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	05/18/05
DATIME ANALYZD:	05/31/0514:42	05/31/0514:34	DATE RECEIVED:	05/19/05
PREP. BATCH:	IPE090W	IPE090W		
CALIB. REF:	I73E039009	I73E039009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	4.9	98	75-125
Arsenic	ND	1	1.01	101	75-125
Barium	ND	1	.905	91	75-125
Beryllium	ND	1	.992	99	75-125
Cadmium	ND	1	.933	93	75-125
Chromium	ND	1	.961	96	75-125
Cobalt	ND	1	.952	95	75-125
Copper	ND	1	.993	99	75-125
Lead	ND	1	.976	98	75-125
Molybdenum	ND	1	.987	99	75-125
Nickel	ND	1	.946	95	75-125
Selenium	ND	1	1.01	101	75-125
Silver	ND	1	.947	95	75-125
Thallium	ND	1	1.02	102	75-125
Vanadium	ND	1	.988	99	75-125
Zinc	ND	1	.988	99	75-125

7020

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E172

METHOD 7470A/7471A
MERCURY BY COLD VAPOR

Two (2) water and three (3) soil samples were received on 05/19/05 for Mercury analysis by Method 7470A/7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples from another SDG E173-07 and E080-19 were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD sample was not designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGE041WB	1	NA	05/23/0518:11	05/23/0515:00	M47E032010	M47E032008	HGE041W	Method Blank
LCS1W	HGE041WL	1	NA	05/23/0518:13	05/23/0515:00	M47E032011	M47E032008	HGE041W	Lab Control Sample (LCS)
LCD1W	HGE041WC	1	NA	05/23/0518:15	05/23/0515:00	M47E032012	M47E032008	HGE041W	LCS Duplicate
NM03-B2-EQ	E172-13	1	NA	05/23/0518:38	05/23/0515:00	M47E032022	M47E032020	HGE041W	Field Sample
NM03-B2-GW	E172-14	1	NA	05/23/0518:40	05/23/0515:00	M47E032023	M47E032020	HGE041W	Field Sample
B-1-GWAS	E173-07A	1	NA	05/23/0518:18	05/23/0515:00	M47E032013	M47E032008	HGE041W	Analytical Spike Sample
B-1-GW	E173-07	1	NA	05/23/0518:20	05/23/0515:00	M47E032014	M47E032008	HGE041W	Field Sample
B-1-GWDL	E173-07T	5	NA	05/23/0518:22	05/23/0515:00	M47E032015	M47E032008	HGE041W	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2021

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGE041WB	ND	1	NA	.5	.1	05/23/0518:11	05/23/0515:00	M47E032010	M47E032008	HGE041W	NA	05/23/05
LCS1W	HGE041WL	5.04	1	NA	.5	.1	05/23/0518:13	05/23/0515:00	M47E032011	M47E032008	HGE041W	NA	05/23/05
LCD1W	HGE041WC	5.07	1	NA	.5	.1	05/23/0518:15	05/23/0515:00	M47E032012	M47E032008	HGE041W	NA	05/23/05
NM03-B2-EQ	E172-13	ND	1	NA	.5	.1	05/23/0518:38	05/23/0515:00	M47E032022	M47E032020	HGE041W	05/18/05	05/19/05
NM03-B2-GW	E172-14	ND	1	NA	.5	.1	05/23/0518:40	05/23/0515:00	M47E032023	M47E032020	HGE041W	05/18/05	05/19/05

7023

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGE041WB	HGE041WL	HGE041WC		
LAB FILE ID:	M47E032010	M47E032011	M47E032012		
DATIME EXTRCTD:	05/23/0515:00	05/23/0515:00	05/23/0515:00	DATE COLLECTED:	NA
DATIME ANALYZD:	05/23/0518:11	05/23/0518:13	05/23/0518:15	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE041W	HGE041W	HGE041W		
CALIB. REF:	M47E032008	M47E032008	M47E032008		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5	5.04	101	5	5.07	101	1	80-120	20

3024

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E172
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-1-GW	B-1-GWDL		
EMAX SAMP ID:	E173-07	E173-07T		
LAB FILE ID:	M47E032014	M47E032015		
DATE EXTRACTED:	05/23/0515:00	05/23/0515:00	DATE COLLECTED:	05/18/05
DATE ANALYZED:	05/23/0518:20	05/23/0518:22	DATE RECEIVED:	05/19/05
PREP. BATCH:	HGE041W	HGE041W		
CALIB. REF:	M47E032008	M47E032008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7023

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	B-1-GW			
CONTROL NO.:	E173-07	E173-07A		
LAB FILE ID:	M47E032014	M47E032013		
DATIME EXTRCTD:	05/23/0515:00	05/23/0515:00	DATE COLLECTED:	05/18/05
DATIME ANALYZD:	05/23/0518:20	05/23/0518:18	DATE RECEIVED:	05/19/05
PREP. BATCH:	HGE041W	HGE041W		
CALIB. REF:	M47E032008	M47E032008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2	1.96	98	85-115

4026

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E172
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGE043SB	1	NA	05/24/0516:22	05/23/0517:20	M47E033041	M47E033032	HGE043S	Method Blank
LCS1S	HGE043SL	1	NA	05/24/0516:25	05/23/0517:20	M47E033042	M47E033032	HGE043S	Lab Control Sample (LCS)
LCD1S	HGE043SC	1	NA	05/24/0516:27	05/23/0517:20	M47E033043	M47E033032	HGE043S	LCS Duplicate
NM03-B2-5	E172-03	1	10.3	05/24/0516:49	05/23/0517:20	M47E033052	M47E033044	HGE043S	Field Sample
NM03-B2-25	E172-07	1	18.2	05/24/0516:51	05/23/0517:20	M47E033053	M47E033044	HGE043S	Field Sample
NM03-B2-30	E172-08	1	30.3	05/24/0516:53	05/23/0517:20	M47E033054	M47E033044	HGE043S	Field Sample
24-8027AS	E080-19A	1	33.7	05/24/0516:34	05/23/0517:20	M47E033046	M47E033044	HGE043S	Analytical Spike Sample
24-8027	E080-19	1	33.7	05/24/0516:38	05/23/0517:20	M47E033047	M47E033044	HGE043S	Field Sample
24-8027DL	E080-19T	5	33.7	05/24/0516:40	05/23/0517:20	M47E033048	M47E033044	HGE043S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2027

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT:	NINYO & MOORE	
PROJECT:	CALTRANS	
BATCH NO.:	05E172	
METHOD:	METHOD 7471A	

MATRIX:	SOIL		% MOISTURE:	33.7
DILUTION FACTOR:	1	5		
SAMPLE ID:	24-8027	24-8027DL		
EMAX SAMP ID:	E080-19	E080-19T		
LAB FILE ID:	M47E033047	M47E033048		
DATE EXTRACTED:	05/23/0517:20	05/23/0517:20	DATE COLLECTED:	05/10/05
DATE ANALYZED:	05/24/0516:38	05/24/0516:40	DATE RECEIVED:	05/11/05
PREP. BATCH:	HGE043S	HGE043S		
CALIB. REF:	M47E033044	M47E033044		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	.0669J	ND	NA	10

7030

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	33.7
DILTN FACTR:	1	1		
SAMPLE ID:	24-8027			
CONTROL NO.:	E080-19	E080-19A		
LAB FILE ID:	M47E033047	M47E033046		
DATIME EXTRCTD:	05/23/0517:20	05/23/0517:20	DATE COLLECTED:	05/10/05
DATIME ANALYZD:	05/24/0516:38	05/24/0516:34	DATE RECEIVED:	05/11/05
PREP. BATCH:	HGE043S	HGE043S		
CALIB. REF:	M47E033044	M47E033044		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	.0669J	.502	.556	111	85-115

7031

METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E172

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGE043SB	ND	1	NA	.1	.033	05/24/0516:22	05/23/0517:20	M47E033041	M47E033032	HGE043S	NA	05/23/05
LCS1S	HGE043SL	.757	1	NA	.1	.033	05/24/0516:25	05/23/0517:20	M47E033042	M47E033032	HGE043S	NA	05/23/05
LCD1S	HGE043SC	.755	1	NA	.1	.033	05/24/0516:27	05/23/0517:20	M47E033043	M47E033032	HGE043S	NA	05/23/05
NM03-B2-5	E172-03	ND	1	10.3	.111	.0368	05/24/0516:49	05/23/0517:20	M47E033052	M47E033044	HGE043S	05/18/05	05/19/05
NM03-B2-25	E172-07	ND	1	18.2	.122	.0403	05/24/0516:51	05/23/0517:20	M47E033053	M47E033044	HGE043S	05/18/05	05/19/05
NM03-B2-30	E172-08	ND	1	30.3	.143	.0473	05/24/0516:53	05/23/0517:20	M47E033054	M47E033044	HGE043S	05/18/05	05/19/05

8204

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E172
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGE043SB	HGE043SL	HGE043SC		
LAB FILE ID:	M47E033041	M47E033042	M47E033043		
DATIME EXTRCTD:	05/23/0517:20	05/23/0517:20	05/23/0517:20	DATE COLLECTED:	NA
DATIME ANALYZD:	05/24/0516:22	05/24/0516:25	05/24/0516:27	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE043S	HGE043S	HGE043S		
CALIB. REF:	M47E033032	M47E033032	M47E033032		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.757	91	.833	.755	91	0	80-120	20

7029

TABLE OF CONTENTS

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

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OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-14-2005
EMAX Batch No.: 05E207

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/23/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B3-1	E207-01	05/20/05	SOIL	LEAD
NM03-B3-1.5	E207-02	05/20/05	SOIL	HOLD
NM03-B3-5	E207-03	05/20/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B3-10	E207-04	05/20/05	SOIL	HOLD
NM03-B3-15	E207-05	05/20/05	SOIL	HOLD
NM03-B3-20	E207-06	05/20/05	SOIL	HOLD
NM03-B3-25	E207-07	05/20/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B3-30	E207-08	05/20/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B3-35	E207-09	05/20/05	SOIL	HOLD
NM03-B3-40	E207-10	05/20/05	SOIL	HOLD
NM03-B3-EQ	E207-11	05/20/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
NM03-B3-GW	E207-12	05/20/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
NM03-B3-TRIP	E207-13	05/20/05	WATER	VOLATILE ORGANICS BY GC/MS

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

SHEET 1 OF 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE: C10/UW01-44

EMAX CONTROL NO. * 05E207
PROJECT CODE: 105388 009

CLIENT: NINYO + MOORE
PROJECT: CALTRANS / I-5 WIDENING
COORDINATOR: SCOTT SNYDER
TEL: (858) 576-1000 FAX: (619) 576-9600 EMAIL: SSNYDER@NMMOORE.COM
SEND REPORT TO: MR. SCOTT SNYDER
COMPANY: NINYO & MOORE
ADDRESS: 5710 RUFFIN ROAD
SAN DIEGO, CALIFORNIA 92123
EMAX PM:

MATRIX CODE		PRESERVATIVE CODE	
DW=Drinking Water		IC = Ice	
GW=Ground Water		HC = HCl	
WW=Waste Water		HN=HNO3	
SD=Solid Waste	SL=Sludge	SH=NaOH	
SS=Soil/ Sediment		ST=Na2S2O3	
WP=Wipes	PP=Pure Products	ZA=Zinc Acetate	
AR=Air		HS=H_2SO_4	
O=			

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOCs + OXYGENATES 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7471A; TOTAL LEAD 6010B

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ STANDARD

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
* 1	NM03 - B3 - 1		5/20/05		1	6 INCH	SLEEVE	SS		TPH-GAS, TPH-DIESEL, VOCs + OXYGENATES, SVOCs, PCBs, TITLE 22 METALS, TOTAL LEAD	
* 2	NM03 - B3 - 1.5				1						HOLD
* 3	NM03 - B3 - 5				1					X X X X X X	
* 4	NM03 - B3 - 10				1						HOLD
* 5	NM03 - B3 - 15				1						HOLD
* 6	NM03 - B3 - 20				1						HOLD
* 7	NM03 - B3 - 25				1					X X X X X X	
* 8	NM03 - B3 - 30				1					X X X X X X	
* 9	NM03 - B3 - 35				1						HOLD
* 10	NM03 - B3 - 40				1						HOLD

Instructions: ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR TITLE 22 METALS

Cooler #	Temp. (°C)	Sample #s
1	3.6	
2	3.0	

SAMPLER: PETER PAUL CLARK NINYO&MOORE

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter Paul Clark	5/23/05	13:20	
	5/23/05	17:26	

COURIER/AIRBILL

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

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SHEET 2 OF 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE

EMAX CONTROL NO. * 05E207
PROJECT CODE: 105388009

CLIENT: NINYO & MOORE
PROJECT: CALTRANS / I-5 WIDENING
COORDINATOR: SCOTT SNYDER
TEL: FAX: EMAIL:
SEND REPORT TO:
COMPANY:
ADDRESS:
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOCs + FUEL OXYGENATES 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7470; TOTAL LEAD 6010B

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ STANDARD

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	SAMPLING DATE	SAMPLING TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	TPH-GAS	TPH-DIESEL	VOCs + FUEL OXYGENATES	SVOCs	PCBs	TITLE 22 METALS	TOTAL LEAD	COMMENTS
1	NM03-B3-EQ		5/20/05		3	40ML	VOA	W		X							
2	NM03-B3-EQ		↓		1	LITER	GLASS	↓			X						
3	NM03-B3-EQ		↓		3	40ML	VOA	↓				X					
4	NM03-B3-EQ		↓		1	LITER	GLASS	↓					X				
5	NM03-B3-EQ		↓		1	LITER	GLASS	↓						X			
6	NM03-B3-EQ		↓		1	250ML	PLASTIC	↓							X		
7																	
8																	
9																	
0																	

11

Instructions: ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR TITLE 22 METALS

Cooler #	Temp. (°C)	Sample #s

SAMPLER: PETER DAVID CLARK NINYO & MOORE
COURIER/AIRBILL:

RELINQUISHED BY	Date	Time	RECEIVED BY
[signature]	5/23/05	13:20	[signature]
[signature]	5/23/05	17:20	[signature]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

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SHEET 3 OF 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE

EMAX CONTROL NO. * 05E207
PROJECT CODE:

CLIENT NMO + MOORE
PROJECT CALTRANS / I-5 WIDENING
COORDINATOR SCOTT SNYDER
TEL FAX EMAIL
SEND REPORT TO
COMPANY
ADDRESS
EMAX PM

MATRIX CODE		PRESERVATIVE CODE	
DW=Drinking Water		IC = Ice	
GW=Ground Water		HC = HCl	
WW=Waste Water		HN=HNO3	
SD=Solid Waste SL=Sludge		SH=NaOH	
SS=Soil/ Sediment		ST=Na2S2O3	
WP=Wipes PP=Pure Products		ZA=Zinc Acetate	
AR=Air		HS=H_2SO_4	
O=			

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOCs + GAS 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7471; TOTAL LEAD 6010B

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ STANDARD

	SAMPLE ID		SAMPLING			CONTAINER			MATRIX CODE	QC	PRESERVATIVE CODE								COMMENTS
LAB	CLIENT		LOCATION	DATE	TIME	NO.	SIZE	TYPE											
1	NM03-B3-GW			5/24/05		4	40ML	VOAs	GW		X								
2	NM03-B3-GW					1	LITER	GLASS				X							
3	NM03-B3-GW					5	40ML	VOAs					X						
4	NM03-B3-GW					1	LITER	GLASS						X					
5	NM03-B3-GW					1	LITER	GLASS							X				
6	NM03-B3-GW					1	250ML	PLASTIC								X			
7																			
8	NM03-B3-TRIP			5/24/05		2	40ML	VOAs	W				X						
9																			
10																			

12
13

Instructions A FIELD MOBILE SAMPLER PRIOR TO ANALYSIS FOR TITLE 22 METALS

Cooler #	Temp. (°C)	Sample #s

SAMPLER
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
	5/23/05	13:20	
	5/23/05	17:20	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1004

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E207
☑ EMAX Courier	See COC	Recepient	J. LUNA
☐ Client Delivery		Date	5-23-05
☐ Third Party		Time	1720

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☑ Address	☑ Courier Signature/Date/Time	☑ Analysis Required
☑ Client PM/FC	☑ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler 2	☐ Box	☐	☐
Condition	☐ Custody Seal	☐ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ plastic bag
Temperatures	☑ Cooler 1 3.6°C	☑ Cooler 2 3.0°C	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
		NO COLLECTION TIME / ANALYSIS ON CONTAINERS/LABEL	Follow COC 00:00 for all samples per Scott's instruction 5/06/05
-11,12		METALS (LEAD) CONTAINER RECVD UNPRES.	Preserved in lab after filtration

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling Cecilia Date 5/23/05

SRF Cecilia Date 5/24/05

PM CA Date 5/26/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E207

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 05/23/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001E44Q	1	NA	05/30/0500:31	05/30/0500:31	REV566	REV175	V001E44	Method Blank
LCS1W	V001E44L	1	NA	05/29/0523:02	05/29/0523:02	REV563	REV175	V001E44	Lab Control Sample (LCS)
LCD1W	V001E44C	1	NA	05/29/0523:32	05/29/0523:32	REV564	REV175	V001E44	LCS Duplicate
NM03-B3-EQ	E207-11	1	NA	05/30/0506:59	05/30/0506:59	REV579	REV175	V001E44	Field Sample
NM03-B3-GW	E207-12	1	NA	05/30/0507:29	05/30/0507:29	REV580	REV175	V001E44	Field Sample
NM03-B3-TRIP	E207-13	1	NA	05/30/0507:58	05/30/0507:58	REV581	REV175	V001E44	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/30/05 06:59
Sample ID: NM03-B3-EQ	Date Analyzed: 05/30/05 06:59
Lab Samp ID: E207-11	Dilution Factor: 1
Lab File ID: REV579	Matrix : WATER
Ext Btch ID: VOO1E44	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	130	63-143
4-BROMOFLUOROBENZENE	98	63-143
TOLUENE-D8	96	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/30/05 07:29
Sample ID: NM03-B3-GW	Date Analyzed: 05/30/05 07:29
Lab Samp ID: E207-12	Dilution Factor: 1
Lab File ID: REV580	Matrix : WATER
Ext Btch ID: V001E44	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	124	63-143
4-BROMOFLUOROBENZENE	98	63-143
TOLUENE-D8	97	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/30/05 07:58
Sample ID: NM03-B3-TRIP	Date Analyzed: 05/30/05 07:58
Lab Samp ID: E207-13	Dilution Factor: 1
Lab File ID: REV581	Matrix : WATER
Ext Btch ID: V001E44	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	129	63-143
4-BROMOFLUOROBENZENE	99	63-143
TOLUENE-D8	96	63-143

QC SUMMARIES

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/30/05
Batch No. : 05E207	Date Extracted: 05/30/05 00:31
Sample ID: MBLK1W	Date Analyzed: 05/30/05 00:31
Lab Samp ID: V001E44Q	Dilution Factor: 1
Lab File ID: REV566	Matrix : WATER
Ext Btch ID: V001E44	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	126	70-130
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	98	70-130

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V001E44Q	V001E44L	V001E44C		
LAB FILE ID:	REV566	REV563	REV564		
DATE EXTRACTED:	05/30/0500:31	05/29/0523:02	05/29/0523:32	DATE COLLECTED:	NA
DATE ANALYZED:	05/30/0500:31	05/29/0523:02	05/29/0523:32	DATE RECEIVED:	05/29/05
PREP. BATCH:	V001E44	V001E44	V001E44		
CALIB. REF:	REV175	REV175	REV175		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	10	10.5	105	10	11	110	5	70-130	30
Ethylbenzene	ND	10	10.5	105	10	10.8	108	3	70-120	30
m/p-Xylenes	ND	20	21.2	106	20	22	110	4	70-130	30
MTBE	ND	10	8.99	90	10	8.94	89	1	60-140	30
o-Xylene	ND	10	10.7	107	10	11	110	3	70-130	30
Toluene	ND	10	10.2	102	10	10.5	105	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	13.3	133*	10	13	130	70-130
4-Bromofluorobenzene	10	10.6	106	10	10.4	104	70-130
Toluene-d8	10	10.3	103	10	10.4	104	70-130

2009

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E207

2010

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/23/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006E37B	1	NA	05/31/0501:46	05/31/0501:46	REW444	REW378	V006E37	Method Blank
LCS1S	V006E37L	1	NA	05/31/0500:29	05/31/0500:29	REW442	REW378	V006E37	Lab Control Sample (LCS)
LCD1S	V006E37C	1	NA	05/31/0501:08	05/31/0501:08	REW443	REW378	V006E37	LCS Duplicate
NM03-B3-5	E207-03	1	9.8	05/31/0507:35	05/31/0507:35	REW453	REW378	V006E37	Field Sample
NM03-B3-25	E207-07	1	19.7	05/31/0508:14	05/31/0508:14	REW454	REW378	V006E37	Field Sample
NM03-B3-30	E207-08	1	15.1	05/31/0508:53	05/31/0508:53	REW455	REW378	V006E37	Field Sample

FN - Filename
% Moist - Percent Moisture

2014

SAMPLE RESULTS

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/31/05 07:35
Sample ID: NM03-B3-5	Date Analyzed: 05/31/05 07:35
Lab Samp ID: E207-03	Dilution Factor: 1
Lab File ID: REW453	Matrix : SOIL
Ext Btch ID: VOO6E37	% Moisture : 9.8
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5.5	2.2
ETHYLBENZENE	ND	5.5	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.5	2.2
O-XYLENE	ND	5.5	2.2
TOLUENE	ND	5.5	2.2
TERT-BUTANOL	ND	22	11
DIPE	ND	5.5	2.2
ETBE	ND	5.5	2.2
TAME	ND	5.5	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	54-154
4-BROMOFLUOROBENZENE	80	63-143
TOLUENE-D8	78	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/31/05 08:14
Sample ID: NM03-B3-25	Date Analyzed: 05/31/05 08:14
Lab Samp ID: E207-07	Dilution Factor: 1
Lab File ID: REW454	Matrix : SOIL
Ext Btch ID: V006E37	% Moisture : 19.7
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	6.2	2.5
ETHYLBENZENE	ND	6.2	2.5
M/P-XYLENES	ND	12	2.5
MTBE	ND	6.2	2.5
O-XYLENE	ND	6.2	2.5
TOLUENE	ND	6.2	2.5
TERT-BUTANOL	ND	25	12
DIPE	ND	6.2	2.5
ETBE	ND	6.2	2.5
TAME	ND	6.2	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	95	54-154
4-BROMOFLUOROBENZENE	93	63-143
TOLUENE-D8	99	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/31/05 08:53
Sample ID: NM03-B3-30	Date Analyzed: 05/31/05 08:53
Lab Samp ID: E207-08	Dilution Factor: 1
Lab File ID: REW455	Matrix : SOIL
Ext Btch ID: VOO6E37	% Moisture : 15.1
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5.9	2.4
ETHYLBENZENE	ND	5.9	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	5.9	2.4
O-XYLENE	ND	5.9	2.4
TOLUENE	ND	5.9	2.4
TERT-BUTANOL	ND	24	12
DIPE	ND	5.9	2.4
ETBE	ND	5.9	2.4
TAME	ND	5.9	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	54-154
4-BROMOFLUOROBENZENE	87	63-143
TOLUENE-D8	81	63-143

2016

QC SUMMARIES

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/31/05
Batch No. : 05E207	Date Extracted: 05/31/05 01:46
Sample ID: MBLK1S	Date Analyzed: 05/31/05 01:46
Lab Samp ID: V006E37B	Dilution Factor: 1
Lab File ID: REW444	Matrix : SOIL
Ext Btch ID: V006E37	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
O-XYLENE	ND	5	2
TOLUENE	ND	5	2
TERT-BUTANOL	ND	20	10
DIPE	ND	5	2
ETBE	ND	5	2
TAME	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	106	60-140
4-BROMOFLUOROBENZENE	108	70-130
TOLUENE-D8	97	70-130

2018

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW 5030B/8260B

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V006E37B	V006E37L	V006E37C		
LAB FILE ID:	REW444	REW442	REW443		
DATE EXTRACTED:	05/31/0501:46	05/31/0500:29	05/31/0501:08	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0501:46	05/31/0500:29	05/31/0501:08	DATE RECEIVED:	05/31/05
PREP. BATCH:	V006E37	V006E37	V006E37		
CALIB. REF:	REW378	REW378	REW378		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	20	21.4	107	20	20.9	104	3	70-130	50
Ethylbenzene	ND	20	20.9	105	20	20.9	104	0	70-130	50
m/p-Xylenes	ND	40	42.4	106	40	42.3	106	0	70-130	50
MTBE	ND	20	22.1	111	20	21.8	109	1	60-140	50
o-Xylene	ND	20	20.6	103	20	20.6	103	0	70-130	50
Toluene	ND	20	21.4	107	20	21.2	106	1	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	58.7	117	50	58.5	117	60-140
4-Bromofluorobenzene	50	56	112	50	55.4	111	70-130
Toluene-d8	50	51	102	50	48.9	98	70-130

2019

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E207

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and three (3) soil samples were received on 05/23/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit except four surrogates in E207-08 were slightly below QC limit. Sample was reanalyzed with similar QC deficiency. Both sets of data were reported.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-042

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVE049SB	1	NA	05/27/0513:07	05/25/0514:30	REX444	RCX291	SVE049S	Method Blank
LCS1S	SVE049SL	1	NA	05/27/0513:35	05/25/0514:30	REX445	RCX291	SVE049S	Lab Control Sample (LCS)
NM03-B3-5	E207-03	1	9.8	05/28/0522:38	05/25/0514:30	REX491	RCX291	SVE049S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/28/0523:07	05/25/0514:30	REX492	RCX291	SVE049S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/28/0523:35	05/25/0514:30	REX493	RCX291	SVE049S	Field Sample
NM03-B3-30RE!	E207-08W	1	15.1	06/04/0520:01	05/25/0514:30	RFH071	REH231	SVE049S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVE052WB	1	NA	05/27/0522:14	05/25/0517:30	REX463	RCX291	SVE052W	Method Blank
LCS1W	SVE052WL	1	NA	05/27/0522:43	05/25/0517:30	REX464	RCX291	SVE052W	Lab Control Sample (LCS)
LCD1W	SVE052WC	1	NA	05/27/0523:12	05/25/0517:30	REX465	RCX291	SVE052W	LCS Duplicate
NM03-B3-EQ	E207-11	.94	NA	05/28/0513:57	05/25/0517:30	REX473	RCX291	SVE052W	Field Sample
NM03-B3-GW	E207-12	.94	NA	05/28/0514:25	05/25/0517:30	REX474	RCX291	SVE052W	Field Sample

! Instrument ID : T-041
FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 14:30
Sample ID: NM03-B3-5	Date Analyzed: 05/28/05 22:38
Lab Samp ID: E207-03	Dilution Factor: 1
Lab File ID: REX491	Matrix : SOIL
Ext Btch ID: SVE049S	% Moisture : 9.8
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	200
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	730	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	730	190
4,6-DINITRO-2-METHYLPHENOL	ND	370	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	730	190
4-NITROPHENOL	ND	370	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	210
HEXACHLOROBUTADIENE	ND	370	190
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	730	190
PENTACHLOROPHENOL	ND	370	190
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	53	36-143
2-FLUOROBIPHENYL	51	36-143
2-FLUOROPHENOL	50	36-143
NITROBENZENE-D5	51	36-143
PHENOL-D5	51	36-143
TERPHENYL-D14	88	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 14:30
Sample ID: NM03-B3-25	Date Analyzed: 05/28/05 23:07
Lab Samp ID: E207-07	Dilution Factor: 1
Lab File ID: REX492	Matrix : SOIL
Ext Btch ID: SVE049S	% Moisture : 19.7
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	410	210
1,2-DICHLOROBENZENE	ND	410	210
1,3-DICHLOROBENZENE	ND	410	210
1,4-DICHLOROBENZENE	ND	410	210
2,4,5-TRICHLOROPHENOL	ND	410	210
2,4,6-TRICHLOROPHENOL	ND	410	230
2,4-DICHLOROPHENOL	ND	410	210
2,4-DIMETHYLPHENOL	ND	410	210
2,4-DINITROPHENOL	ND	820	210
2,4-DINITROTOLUENE	ND	410	210
2,6-DINITROTOLUENE	ND	410	210
2-CHLORONAPHTHALENE	ND	410	210
2-CHLOROPHENOL	ND	410	210
2-METHYLNAPHTHALENE	ND	410	210
2-METHYLPHENOL	ND	410	210
2-NITROANILINE	ND	410	210
2-NITROPHENOL	ND	410	210
3,3'-DICHLOROBENZIDINE	ND	410	210
3-NITROANILINE	ND	410	210
4,6-DINITRO-2-METHYLPHENOL	ND	820	210
4-BROMOPHENYL-PHENYL ETHER	ND	410	210
4-CHLORO-3-METHYLPHENOL	ND	410	210
4-CHLOROANILINE	ND	410	210
4-CHLOROPHENYL-PHENYL ETHER	ND	410	210
4-METHYLPHENOL (1)	ND	410	210
4-NITROANILINE	ND	410	210
4-NITROPHENOL	ND	820	210
ACENAPHTHENE	ND	410	210
ACENAPHTHYLENE	ND	410	210
ANTHRACENE	ND	410	210
BENZO(A)ANTHRACENE	ND	410	210
BENZO(A)PYRENE	ND	410	210
BENZO(B)FLUORANTHENE	ND	410	210
BENZO(K)FLUORANTHENE	ND	410	210
BENZO(G,H,I)PERYLENE	ND	410	210
BIS(2-CHLOROETHOXY)METHANE	ND	410	210
BIS(2-CHLOROETHYL)ETHER	ND	410	210
BIS(2-CHLOROISOPROPYL)ETHER	ND	410	210
BIS(2-ETHYLHEXYL)PHTHALATE	ND	410	210
BUTYLBENZYLPHTHALATE	ND	410	210
CHRYSENE	ND	410	210
DI-N-BUTYLPHTHALATE	ND	410	210
DI-N-OCTYLPHTHALATE	ND	410	210
DIBENZO(A,H)ANTHRACENE	ND	410	210
DIBENZOFURAN	ND	410	210
DIETHYLPHTHALATE	ND	410	210
DIMETHYLPHTHALATE	ND	410	210
FLUORANTHENE	ND	410	210
FLUORENE	ND	410	210
HEXACHLOROBENZENE	ND	410	210
HEXACHLOROBUTADIENE	ND	410	240
HEXACHLOROCYCLOPENTADIENE	ND	410	210
HEXACHLOROETHANE	ND	410	210
INDENO(1,2,3-CD)PYRENE	ND	410	210
ISOPHORONE	ND	410	210
N-NITROSO-DI-N-PROPYLAMINE	ND	410	210
N-NITROSODIPHENYLAMINE (2)	ND	410	210
NAPHTHALENE	ND	410	210
NITROBENZENE	ND	410	210
PENTACHLOROPHENOL	ND	820	220
PHENANTHRENE	ND	410	210
PHENOL	ND	410	210
PYRENE	ND	410	210

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	67	36-143
2-FLUOROBIPHENYL	65	36-143
2-FLUOROPHENOL	56	36-143
NITROBENZENE-D5	60	36-143
PHENOL-D5	61	36-143
TERPHENYL-D14	78	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 14:30
Sample ID: NM03-B3-30	Date Analyzed: 05/28/05 23:35
Lab Samp ID: E207-08	Dilution Factor: 1
Lab File ID: REX493	Matrix : SOIL
Ext Btch ID: SVE049S	% Moisture : 15.1
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	390	200
1,2-DICHLOROBENZENE	ND	390	200
1,3-DICHLOROBENZENE	ND	390	200
1,4-DICHLOROBENZENE	ND	390	200
2,4,5-TRICHLOROPHENOL	ND	390	200
2,4,6-TRICHLOROPHENOL	ND	390	220
2,4-DICHLOROPHENOL	ND	390	200
2,4-DIMETHYLPHENOL	ND	390	200
2,4-DINITROPHENOL	ND	780	200
2,4-DINITROTOLUENE	ND	390	200
2,6-DINITROTOLUENE	ND	390	200
2-CHLORONAPHTHALENE	ND	390	200
2-CHLOROPHENOL	ND	390	200
2-METHYLNAPHTHALENE	ND	390	200
2-METHYLPHENOL	ND	390	200
2-NITROANILINE	ND	390	200
2-NITROPHENOL	ND	390	200
3,3'-DICHLOROBENZIDINE	ND	390	200
3-NITROANILINE	ND	390	200
4,6-DINITRO-2-METHYLPHENOL	ND	780	200
4-BROMOPHENYL-PHENYL ETHER	ND	390	200
4-CHLORO-3-METHYLPHENOL	ND	390	200
4-CHLOROANILINE	ND	390	200
4-CHLOROPHENYL-PHENYL ETHER	ND	390	200
4-METHYLPHENOL (1)	ND	390	200
4-NITROANILINE	ND	390	200
4-NITROPHENOL	ND	780	200
ACENAPHTHENE	ND	390	200
ACENAPHTHYLENE	ND	390	200
ANTHRACENE	ND	390	200
BENZO(A)ANTHRACENE	ND	390	200
BENZO(A)PYRENE	ND	390	200
BENZO(B)FLUORANTHENE	ND	390	200
BENZO(K)FLUORANTHENE	ND	390	200
BENZO(G,H,I)PERYLENE	ND	390	200
BIS(2-CHLOROETHOXY)METHANE	ND	390	200
BIS(2-CHLOROETHYL)ETHER	ND	390	200
BIS(2-CHLOROISOPROPYL)ETHER	ND	390	200
BIS(2-ETHYLHEXYL)PHTHALATE	ND	390	200
BUTYLBENZYLPHTHALATE	ND	390	200
CHRYSENE	ND	390	200
DI-N-BUTYLPHTHALATE	ND	390	200
DI-N-OCTYLPHTHALATE	ND	390	200
DIBENZO(A,H)ANTHRACENE	ND	390	200
DIBENZOFURAN	ND	390	200
DIETHYLPHTHALATE	ND	390	200
DIMETHYLPHTHALATE	ND	390	200
FLUORANTHENE	ND	390	200
FLUORENE	ND	390	200
HEXACHLOROBENZENE	ND	390	200
HEXACHLOROBUTADIENE	ND	390	220
HEXACHLOROCYCLOPENTADIENE	ND	390	200
HEXACHLOROETHANE	ND	390	200
INDENO(1,2,3-CD)PYRENE	ND	390	200
ISOPHORONE	ND	390	200
N-NITROSO-DI-N-PROPYLAMINE	ND	390	200
N-NITROSODIPHENYLAMINE (2)	ND	390	200
NAPHTHALENE	ND	390	200
NITROBENZENE	ND	390	200
PENTACHLOROPHENOL	ND	780	210
PHENANTHRENE	ND	390	200
PHENOL	ND	390	200
PYRENE	ND	390	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	46	36-143
2-FLUOROBIPHENYL	34*	36-143
2-FLUOROPHENOL	34*	36-143
NITROBENZENE-D5	34*	36-143
PHENOL-D5	35*	36-143
TERPHENYL-D14	79	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 14:30
Sample ID: NM03-B3-30RE	Date Analyzed: 06/04/05 20:01
Lab Samp ID: E207-08W	Dilution Factor: 1
Lab File ID: RFH071	Matrix : SOIL
Ext Btch ID: SVE049S	% Moisture : 15.1
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	390	200
1,2-DICHLOROBENZENE	ND	390	200
1,3-DICHLOROBENZENE	ND	390	200
1,4-DICHLOROBENZENE	ND	390	200
2,4,5-TRICHLOROPHENOL	ND	390	200
2,4,6-TRICHLOROPHENOL	ND	390	220
2,4-DICHLOROPHENOL	ND	390	200
2,4-DIMETHYLPHENOL	ND	390	200
2,4-DINITROPHENOL	ND	780	200
2,4-DINITROTOLUENE	ND	390	200
2,6-DINITROTOLUENE	ND	390	200
2-CHLORONAPHTHALENE	ND	390	200
2-CHLOROPHENOL	ND	390	200
2-METHYLNAPHTHALENE	ND	390	200
2-METHYLPHENOL	ND	390	200
2-NITROANILINE	ND	390	200
2-NITROPHENOL	ND	390	200
3,3'-DICHLOROBENZIDINE	ND	390	200
3-NITROANILINE	ND	390	200
4,6-DINITRO-2-METHYLPHENOL	ND	780	200
4-BROMOPHENYL-PHENYL ETHER	ND	390	200
4-CHLORO-3-METHYLPHENOL	ND	390	200
4-CHLOROANILINE	ND	390	200
4-CHLOROPHENYL-PHENYL ETHER	ND	390	200
4-METHYLPHENOL (1)	ND	390	200
4-NITROANILINE	ND	390	200
4-NITROPHENOL	ND	780	200
ACENAPHTHENE	ND	390	200
ACENAPHTHYLENE	ND	390	200
ANTHRACENE	ND	390	200
BENZO(A)ANTHRACENE	ND	390	200
BENZO(A)PYRENE	ND	390	200
BENZO(B)FLUORANTHENE	ND	390	200
BENZO(K)FLUORANTHENE	ND	390	200
BENZO(G,H,I)PERYLENE	ND	390	200
BIS(2-CHLOROETHOXY)METHANE	ND	390	200
BIS(2-CHLOROETHYL)ETHER	ND	390	200
BIS(2-CHLOROISOPROPYL)ETHER	ND	390	200
BIS(2-ETHYLHEXYL)PHTHALATE	ND	390	200
BUTYLBENZYLPHTHALATE	ND	390	200
CHRYSENE	ND	390	200
DI-N-BUTYLPHTHALATE	ND	390	200
DI-N-OCTYLPHTHALATE	ND	390	200
DIBENZO(A,H)ANTHRACENE	ND	390	200
DIBENZOFURAN	ND	390	200
DIETHYLPHTHALATE	ND	390	200
DIMETHYLPHTHALATE	ND	390	200
FLUORANTHENE	ND	390	200
FLUORENE	ND	390	200
HEXACHLOROBENZENE	ND	390	200
HEXACHLOROBUTADIENE	ND	390	220
HEXACHLOROCYCLOPENTADIENE	ND	390	200
HEXACHLOROETHANE	ND	390	200
INDENO(1,2,3-CD)PYRENE	ND	390	200
ISOPHORONE	ND	390	200
N-NITROSO-DI-N-PROPYLAMINE	ND	390	200
N-NITROSODIPHENYLAMINE (2)	ND	390	200
NAPHTHALENE	ND	390	200
NITROBENZENE	ND	390	200
PENTACHLOROPHENOL	ND	780	210
PHENANTHRENE	ND	390	200
PHENOL	ND	390	200
PYRENE	ND	390	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	42	36-143
2-FLUOROBIPHENYL	35*	36-143
2-FLUOROPHENOL	29*	36-143
NITROBENZENE-D5	31*	36-143
PHENOL-D5	30*	36-143
TERPHENYL-D14	70	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 17:30
Sample ID: NM03-B3-EQ	Date Analyzed: 05/28/05 13:57
Lab Samp ID: E207-11	Dilution Factor: .94
Lab File ID: REX473	Matrix : WATER
Ext Btch ID: SVE052W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	66	36-143
2-FLUOROBIPHENYL	49	36-143
2-FLUOROPHENOL	45	36-143
NITROBENZENE-D5	52	36-143
PHENOL-D5	47	36-143
TERPHENYL-D14	84	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/25/05 17:30
Sample ID: NM03-B3-GW	Date Analyzed: 05/28/05 14:25
Lab Samp ID: E207-12	Dilution Factor: .94
Lab File ID: REX474	Matrix : WATER
Ext Btch ID: SVE052W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	10	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	85	36-143
2-FLUOROBIPHENYL	56	36-143
2-FLUOROPHENOL	53	36-143
NITROBENZENE-D5	56	36-143
PHENOL-D5	57	36-143
TERPHENYL-D14	81	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARIES

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E207	Date Extracted: 05/25/05 17:30
Sample ID: MBLK1W	Date Analyzed: 05/27/05 22:14
Lab Samp ID: SVE052WB	Dilution Factor: 1
Lab File ID: REX463	Matrix : WATER
Ext Btch ID: SVE052W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	67	40-130
2-FLUOROBIPHENYL	51	40-130
2-FLUOROPHENOL	46	40-130
NITROBENZENE-D5	52	40-130
PHENOL-D5	48	40-130
TERPHENYL-D14	103	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW 3520C/8270C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVE052WB	SVE052WL	SVE052WC		
LAB FILE ID:	REX463	REX464	REX465		
DATE EXTRACTED:	05/25/0517:30	05/25/0517:30	05/25/0517:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/27/0522:14	05/27/0522:43	05/27/0523:12	DATE RECEIVED:	05/25/05
PREP. BATCH:	SVE052W	SVE052W	SVE052W		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	33	41	80	31.3	39	5	30-130	30
1,4-Dichlorobenzene	ND	80	29.1	36	80	29.1	36	0	30-130	30
2,4-Dinitrotoluene	ND	80	45.8	57	80	43	54	6	50-130	30
2-Chlorophenol	ND	80	34.3	43	80	32	40	7	30-130	30
4-Chloro-3-Methylphenol	ND	80	45.6	57	80	37.9	47	18	40-130	30
4-Nitrophenol	ND	80	46.6	58	80	41.1	51	13	40-130	30
Acenaphthene	ND	80	41.1	51	80	35.2	44	15	40-130	30
n-Nitroso-di-n-propylamine	ND	80	40.1	50	80	35	44	14	40-130	30
Pentachlorophenol	ND	80	42.5	53	80	37	46	14	40-130	30
Phenol	ND	80	34.3	43	80	31.4	39	9	30-130	30
Pyrene	ND	80	61.9	77	80	58.4	73	6	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	108	72	150	97.9	65	40-130
2-Fluorobiphenyl	100	52.7	53	100	48.1	48	40-130
2-Fluorophenol	150	65.9	44	150	65	43	40-130
Nitrobenzene-d5	100	52.7	53	100	50.8	51	40-130
Phenol-d5	150	69.9	47	150	66.7	44	40-130
Terphenyl-d14	100	105	105	100	103	103	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E207	Date Extracted: 05/25/05 14:30
Sample ID: MBLK1S	Date Analyzed: 05/27/05 13:07
Lab Samp ID: SVE049SB	Dilution Factor: 1
Lab File ID: REX444	Matrix : SOIL
Ext Btch ID: SVE049S	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	57	40-130
2-FLUOROBIPHENYL	51	40-130
2-FLUOROPHENOL	48	40-130
NITROBENZENE-D5	54	40-130
PHENOL-D5	50	40-130
TERPHENYL-D14	72	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVE049SB SVE049SL
LAB FILE ID: REX444 REX445
DATE EXTRACTED: 05/25/0514:30 05/25/0514:30 DATE COLLECTED: NA
DATE ANALYZED: 05/27/0513:07 05/27/0513:35 DATE RECEIVED: 05/25/05
PREP. BATCH: SVE049S SVE049S
CALIB. REF: RCX291 RCX291

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
1,2,4-Trichlorobenzene	ND	2670	1130	43	40-130
1,4-Dichlorobenzene	ND	2670	1100	41	30-130
2,4-Dinitrotoluene	ND	2670	1400	53	40-130
2-Chlorophenol	ND	2670	1110	42	40-130
4-Chloro-3-Methylphenol	ND	2670	1250	47	40-130
4-Nitrophenol	ND	2670	1200	45	25-130
Acenaphthene	ND	2670	1190	45	40-130
n-Nitroso-di-n-propylamine	ND	2670	1250	47	40-130
Pentachlorophenol	ND	2670	1260	47	30-130
Phenol	ND	2670	1120	42	40-130
Pyrene	ND	2670	1570	59	40-130

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	2800	56	40-130
2-Fluorobiphenyl	3330	1480	44	40-130
2-Fluorophenol	5000	2110	42	40-130
Nitrobenzene-d5	3330	1560	47	40-130
Phenol-d5	5000	2160	43	40-130
Terphenyl-d14	3330	2450	74	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05E207

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and three (3) soil samples were received on 05/23/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. **Holding Time**

   Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 05/26/05.

2. **Calibration**

   Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour interval and at the end of the analytical sequence. All recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : GCT055

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA55E02B	1	NA	05/25/0511:08	05/25/0511:08	UE25003A	UE25002A	VA55E02	Method Blank
LCS1W	VA55E02L	1	NA	05/25/0511:47	05/25/0511:47	UE25004A	UE25002A	VA55E02	Lab Control Sample (LCS)
LCD1W	VA55E02C	1	NA	05/25/0512:27	05/25/0512:27	UE25005A	UE25002A	VA55E02	LCS Duplicate
NM03-B3-EQ	E207-11	1	NA	05/25/0521:38	05/25/0521:38	UE25019A	UE25011A	VA55E02	Field Sample
NM03-B3-GW	E207-12	1	NA	05/25/0522:17	05/25/0522:17	UE25020A	UE25011A	VA55E02	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME018SB	1	NA	05/26/0513:39	05/26/0513:39	UE26003A	UE26002A	VME018S	Method Blank
LCS1S	VME018SL	1	NA	05/26/0514:18	05/26/0514:18	UE26004A	UE26002A	VME018S	Lab Control Sample (LCS)
LCD1S	VME018SC	1	NA	05/26/0514:58	05/26/0514:58	UE26005A	UE26002A	VME018S	LCS Duplicate
NM03-B3-5	E207-03	1	9.8	05/26/0520:49	05/26/0520:49	UE26014A	UE26012A	VME018S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/26/0521:28	05/26/0521:28	UE26015A	UE26012A	VME018S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/26/0522:07	05/26/0522:07	UE26016A	UE26012A	VME018S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : WATER
Instrument ID :

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)		DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA55E02B	ND	89	✓	1	NA	.1	.02	05/25/0511:08	05/25/0511:08	UE25003A	UE25002A	VA55E02	NA	05/25/05
LCS1W	VA55E02L	.467	101		1	NA	.1	.02	05/25/0511:47	05/25/0511:47	UE25004A	UE25002A	VA55E02	NA	05/25/05
LCD1W	VA55E02C	.436	93		1	NA	.1	.02	05/25/0512:27	05/25/0512:27	UE25005A	UE25002A	VA55E02	NA	05/25/05
NM03-B3-EQ	E207-11	ND	90	✓	1	NA	.1	.02	05/25/0521:38	05/25/0521:38	UE25019A	UE25011A	VA55E02	05/20/05	05/23/05
NM03-B3-GW	E207-12	ND	87		1	NA	.1	.02	05/25/0522:17	05/25/0522:17	UE25020A	UE25011A	VA55E02	05/20/05	05/23/05

✓ ✓

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : SOIL
Instrument ID :

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME018SB	ND	91	1	NA	1	.5	05/26/0513:39	05/26/0513:39	UE26003A	UE26002A	VME018S	NA	05/26/05
LCS1S	VME018SL	24.6	98	1	NA	1	.5	05/26/0514:18	05/26/0514:18	UE26004A	UE26002A	VME018S	NA	05/26/05
LCD1S	VME018SC	25.3	100	1	NA	1	.5	05/26/0514:58	05/26/0514:58	UE26005A	UE26002A	VME018S	NA	05/26/05
NM03-B3-5	E207-03	ND	87	1	9.8	1.1	.55	05/26/0520:49	05/26/0520:49	UE26014A	UE26012A	VME018S	05/20/05	05/23/05
NM03-B3-25	E207-07	ND	78	1	19.7	1.2	.62	05/26/0521:28	05/26/0521:28	UE26015A	UE26012A	VME018S	05/20/05	05/23/05
NM03-B3-30	E207-08	ND	75	1	15.1	1.2	.59	05/26/0522:07	05/26/0522:07	UE26016A	UE26012A	VME018S	05/20/05	05/23/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction : 05/26/05 12:20

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA55E02B	VA55E02L	VA55E02C		
LAB FILE ID:	UE25003A	UE25004A	UE25005A		
DATE EXTRACTED:	05/25/0511:08	05/25/0511:47	05/25/0512:27	DATE COLLECTED:	NA
DATE ANALYZED:	05/25/0511:08	05/25/0511:47	05/25/0512:27	DATE RECEIVED:	05/25/05
PREP. BATCH:	VA55E02	VA55E02	VA55E02		
CALIB. REF:	UE25002A	UE25002A	UE25002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.467	93	.5	.436	87	7	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0402	101	.04	.0373	93	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 5030B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VME018SB	VME018SL	VME018SC		
LAB FILE ID:	UE26003A	UE26004A	UE26005A		
DATE EXTRACTED:	05/26/0513:39	05/26/0514:18	05/26/0514:58	DATE COLLECTED:	NA
DATE ANALYZED:	05/26/0513:39	05/26/0514:18	05/26/0514:58	DATE RECEIVED:	05/26/05
PREP. BATCH:	VME018S	VME018S	VME018S		
CALIB. REF:	UE26002A	UE26002A	UE26002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	24.6	98	25	25.3	101	3	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	1.97	98	2	2	100	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E207

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water and three (3) soil samples were received on 05/23/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. **Holding Time**

   Analytical holding time was met. Extraction for water samples was performed on 05/25/05 and completed on 05/26/05. Extraction for soil samples was performed and completed on 05/25/05.

2. **Calibration**

   Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   All recoveries were within QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

   Sample E207-07 displayed heavier fuel pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
SDG NO. : 05E207
Instrument ID : GCT072

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSE033WB	1	NA	05/26/0520:55	05/25/0517:30	BE26004A	BE26003A	DSE033W	Method Blank
LCS1W	DSE033WL	1	NA	05/26/0521:39	05/25/0517:30	BE26005A	BE26003A	DSE033W	Lab Control Sample (LCS)
LCD1W	DSE033WC	1	NA	05/26/0522:23	05/25/0517:30	BE26006A	BE26003A	DSE033W	LCS Duplicate
NM03-B3-EQ	E207-11	.94	NA	05/27/0504:58	05/25/0517:30	BE26015A	BE26012A	DSE033W	Field Sample
NM03-B3-GW	E207-12	.94	NA	05/27/0505:42	05/25/0517:30	BE26016A	BE26012A	DSE033W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE031SB	1	NA	05/26/0500:35	05/25/0514:20	BE24055A	BE24053A	DSE031S	Method Blank
LCS1S	DSE031SL	1	NA	05/26/0501:19	05/25/0514:20	BE24056A	BE24053A	DSE031S	Lab Control Sample (LCS)
LCD1S	DSE031SC	1	NA	05/26/0502:03	05/25/0514:20	BE24057A	BE24053A	DSE031S	LCS Duplicate
NM03-B3-5	E207-03	1	9.8	05/27/0503:30	05/25/0514:20	BE26013A	BE26012A	DSE031S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/27/0506:26	05/25/0514:20	BE26017A	BE26012A	DSE031S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/27/0504:14	05/25/0514:20	BE26014A	BE26012A	DSE031S	Field Sample

FN - Filename
% Moist - Percent Moisture

5002

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : WATER
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSE033WB	ND	115	122	1	NA	.5	.1	05/26/0520:55	05/25/0517:30	BE26004A	BE26003A	DSE033W	NA	05/25/05
LCS1W	DSE033WL	5.36	115	124	1	NA	.5	.1	05/26/0521:39	05/25/0517:30	BE26005A	BE26003A	DSE033W	NA	05/25/05
LCD1W	DSE033WC	5.12	118	123	1	NA	.5	.1	05/26/0522:23	05/25/0517:30	BE26006A	BE26003A	DSE033W	NA	05/25/05
NM03-B3-EQ	E207-11	ND	121	128	.94	NA	.47	.094	05/27/0504:58	05/25/0517:30	BE26015A	BE26012A	DSE033W	05/20/05	05/23/05
NM03-B3-GW	E207-12	ND	109	85	.94	NA	.47	.094	05/27/0505:42	05/25/0517:30	BE26016A	BE26012A	DSE033W	05/20/05	05/23/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE031SB	ND	107	111	1	NA	10	5	05/26/0500:35	05/25/0514:20	BE24055A	BE24053A	DSE031S	NA	05/25/05
LCS1S	DSE031SL	494	107	113	1	NA	10	5	05/26/0501:19	05/25/0514:20	BE24056A	BE24053A	DSE031S	NA	05/25/05
LCD1S	DSE031SC	486	106	113	1	NA	10	5	05/26/0502:03	05/25/0514:20	BE24057A	BE24053A	DSE031S	NA	05/25/05
NM03-B3-5	E207-03	ND	127	122	1	9.8	11	5.5	05/27/0503:30	05/25/0514:20	BE26013A	BE26012A	DSE031S	05/20/05	05/23/05
NM03-B3-25	E207-07	180	135	132	1	19.7	12	6.2	05/27/0506:26	05/25/0514:20	BE26017A	BE26012A	DSE031S	05/20/05	05/23/05
NM03-B3-30	E207-08	ND	128	119	1	15.1	12	5.9	05/27/0504:14	05/25/0514:20	BE26014A	BE26012A	DSE031S	05/20/05	05/23/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 3520C/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSE033WB	DSE033WL	DSE033WC		
LAB FILE ID:	BE26004A	BE26005A	BE26006A		
DATE EXTRACTED:	05/25/0517:30	05/25/0517:30	05/25/0517:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/26/0520:55	05/26/0521:39	05/26/0522:23	DATE RECEIVED:	05/25/05
PREP. BATCH:	DSE033W	DSE033W	DSE033W		
CALIB. REF:	BE26003A	BE26003A	BE26003A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	5.36	107	5	5.12	102	5	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	1.15	115	1	1.18	118	50-140
Hexacosane	.25	.311	124	.25	.307	123	70-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD LUFT/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: DSE031SB DSE031SL DSE031SC
LAB FILE ID: BE24055A BE24056A BE24057A
DATE EXTRACTED: 05/25/0514:20 05/25/0514:20 05/25/0514:20 DATE COLLECTED: NA
DATE ANALYZED: 05/26/0500:35 05/26/0501:19 05/26/0502:03 DATE RECEIVED: 05/25/05
PREP. BATCH: DSE031S DSE031S DSE031S
CALIB. REF: BE24053A BE24053A BE24053A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	494	99	500	486	97	2	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	107	107	100	106	106	60-150
Hexacosane	25	28.2	113	25	28.2	113	60-160

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3520C/3550B/8082
PCBs

SDG#: 05E207

5009

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

SW3520C/3550B/8082
PCBs

Two (2) water and three (3) soil samples were received on 05/23/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hours interval and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit for soil. Both surrogates in E207-12 and DCB in QC samples for water were below limit, but reextraction was not performed since only one bottle of sample was provided.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE037SB	1	NA	05/27/0504:47	05/26/0515:00	SE26039A	SE26033A	CPE037S	Method Blank
LCS1S	60E037SL	1	NA	05/27/0506:02	05/26/0515:00	SE26042A	SE26033A	CPE037S	Lab Control Sample (LCS)
LCD1S	60E037SC	1	NA	05/27/0506:28	05/26/0515:00	SE26043A	SE26033A	CPE037S	LCS Duplicate
NM03-B3-5	E207-03	1	9.8	05/26/0523:43	05/26/0515:00	SE26027A	SE26006A	CPE037S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/27/0508:59	05/26/0515:00	SE26049A	SE26033A	CPE037S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/27/0509:24	05/26/0515:00	SE26050A	SE26033A	CPE037S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	CPE034WB	1	NA	05/26/0515:15	05/24/0516:30	SE26007A	SE26006A	CPE034W	Method Blank
LCS1W	60E034WL	1	NA	05/26/0516:31	05/24/0516:30	SE26010A	SE26006A	CPE034W	Lab Control Sample (LCS)
LCD1W	60E034WC	1	NA	05/26/0516:57	05/24/0516:30	SE26011A	SE26006A	CPE034W	LCS Duplicate
NM03-B3-EQ	E207-11	.94	NA	05/26/0519:05	05/24/0516:30	SE26016A	SE26006A	CPE034W	Field Sample
NM03-B3-GW	E207-12	.94	NA	05/26/0519:30	05/24/0516:30	SE26017A	SE26006A	CPE034W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E207	Date Extracted:	05/26/05 15:00
Sample ID:	NM03-B3-5	Date Analyzed:	05/26/05 23:43
Lab Samp ID:	E207-03	Dilution Factor:	1
Lab File ID:	SE26027A	Matrix	: SOIL
Ext Btch ID:	CPE037S	% Moisture	: 9.8
Calib. Ref.:	SE26006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	55	22 | 22
PCB-1221	(ND) | ND	55	22 | 22
PCB-1232	(ND) | ND	55	22 | 22
PCB-1242	(ND) | ND	55	22 | 22
PCB-1248	(ND) | ND	55	22 | 22
PCB-1254	(ND) | ND	55	22 | 22
PCB-1260	(ND) | ND	55	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(70) | 74	45-154
DECACHLOROBIPHENYL	(93) | 92	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E207	Date Extracted:	05/26/05 15:00
Sample ID:	NM03-B3-25	Date Analyzed:	05/27/05 08:59
Lab Samp ID:	E207-07	Dilution Factor:	1
Lab File ID:	SE26049A	Matrix	: SOIL
Ext Btch ID:	CPE037S	% Moisture	: 19.7
Calib. Ref.:	SE26033A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	62	25 | 25
PCB-1221	(ND) | ND	62	25 | 25
PCB-1232	(ND) | ND	62	25 | 25
PCB-1242	(ND) | ND	62	25 | 25
PCB-1248	(ND) | ND	62	25 | 25
PCB-1254	(ND) | ND	62	25 | 25
PCB-1260	(ND) | ND	62	25 | 25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(91) | 95	45-154
DECACHLOROBIPHENYL	(93) | 93	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E207	Date Extracted:	05/26/05 15:00
Sample ID:	NM03-B3-30	Date Analyzed:	05/27/05 09:24
Lab Samp ID:	E207-08	Dilution Factor:	1
Lab File ID:	SE26050A	Matrix :	SOIL
Ext Btch ID:	CPE037S	% Moisture :	15.1
Calib. Ref.:	SE26033A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	59	24 | 24
PCB-1221	(ND) | ND	59	24 | 24
PCB-1232	(ND) | ND	59	24 | 24
PCB-1242	(ND) | ND	59	24 | 24
PCB-1248	(ND) | ND	59	24 | 24
PCB-1254	(ND) | ND	59	24 | 24
PCB-1260	(ND) | ND	59	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(78) | 89	45-154
DECACHLOROBIPHENYL	(98) | 99	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
Batch No.	: 05E207	Date Extracted:	05/24/05 16:30
Sample ID:	NM03-B3-EQ	Date Analyzed:	05/26/05 19:05
Lab Samp ID:	E207-11	Dilution Factor:	.94
Lab File ID:	SE26016A	Matrix :	WATER
Ext Btch ID:	CPE034W	% Moisture :	NA
Calib. Ref.:	SE26006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	.94	.47 | .47
PCB-1221	(ND) | ND	.94	.47 | .47
PCB-1232	(ND) | ND	.94	.47 | .47
PCB-1242	(ND) | ND	.94	.47 | .47
PCB-1248	(ND) | ND	.94	.47 | .47
PCB-1254	(ND) | ND	.94	.47 | .47
PCB-1260	(ND) | ND	.94	.47 | .47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(85) | 90	45-165
DECACHLOROBIPHENYL	(20*) | 22*	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/20/05
Project : CALTRANS	Date Received: 05/23/05
Batch No. : 05E207	Date Extracted: 05/24/05 16:30
Sample ID: NM03-B3-GW	Date Analyzed: 05/26/05 19:30
Lab Samp ID: E207-12	Dilution Factor: .94
Lab File ID: SE26017A	Matrix : WATER
Ext Btch ID: CPE034W	% Moisture : NA
Calib. Ref.: SE26006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	.94	.47 | .47
PCB-1221	(ND) | ND	.94	.47 | .47
PCB-1232	(ND) | ND	.94	.47 | .47
PCB-1242	(ND) | ND	.94	.47 | .47
PCB-1248	(ND) | ND	.94	.47 | .47
PCB-1254	(ND) | ND	.94	.47 | .47
PCB-1260	(ND) | ND	.94	.47 | .47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(32*) | 33*	45-165
DECACHLOROBIPHENYL	(10*) | 12*	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

5018

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/24/05
Batch No.	: 05E207	Date Extracted:	05/24/05 16:30
Sample ID	: MBLK1W	Date Analyzed:	05/26/05 15:15
Lab Samp ID	: CPE034WB	Dilution Factor:	1
Lab File ID	: SE26007A	Matrix :	WATER
Ext Btch ID	: CPE034W	% Moisture :	NA
Calib. Ref.	: SE26006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1	.5|.5
PCB-1221	(ND)|ND	1	.5|.5
PCB-1232	(ND)|ND	1	.5|.5
PCB-1242	(ND)|ND	1	.5|.5
PCB-1248	(ND)|ND	1	.5|.5
PCB-1254	(ND)|ND	1	.5|.5
PCB-1260	(ND)|ND	1	.5|.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(82)|87	50-150
DECACHLOROBIPHENYL	(63*)|65*	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	CPE034WB	60E034WL	60E034WC		
LAB FILE ID:	SE26007A	SE26010A	SE26011A		
DATE EXTRACTED:	05/24/0516:30	05/24/0516:30	05/24/0516:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/26/0515:15	05/26/0516:31	05/26/0516:57	DATE RECEIVED:	05/24/05
PREP. BATCH:	CPE034W	CPE034W	CPE034W		
CALIB. REF:	SE26006A	SE26006A	SE26006A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(4.73) | 5.01	(95) | 100	5	(4.94) | 4.99	(99) | 100	(4) | 0	50-130	30
PCB-1260	(ND) | ND	5	(5.1) | 5.27	(102) | 105	5	(5.29) | 5.35	(106) | 107	(4) | 2	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.352) | .366	(88) | 91	.4	(.356) | .366	(89) | 91	50-150
Decachlorobiphenyl	.4	(.238) | .24	(60*) | 60*	.4	(.305) | .306	(76) | 77	70-150

5020

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CPE037SB 60E037SL 60E037SC
LAB FILE ID: SE26039A SE26042A SE26043A
DATE EXTRACTED: 05/26/0515:00 05/26/0515:00 05/26/0515:00 DATE COLLECTED: NA
DATE ANALYZED: 05/27/0504:47 05/27/0506:02 05/27/0506:28 DATE RECEIVED: 05/26/05
PREP. BATCH: CPE037S CPE037S CPE037S
CALIB. REF: SE26033A SE26033A SE26033A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(149) | 156	(89) | 94	167	(151) | 156	(91) | 94	(1) | 0	50-130	50
PCB-1260	(ND) | ND	167	(179) | 171	(107) | 103	167	(181) | 170	(109) | 102	(1) | 1	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(12.3) | 13.1	(92) | 98	13.3	(12.3) | 13.2	(92) | 99	50-140
Decachlorobiphenyl	13.3	(14.3) | 14.3	(107) | 107	13.3	(14.6) | 14.5	(109) | 109	50-140

5022

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

TOTAL AND DISSOLVED METALS BY ICP

SDG#: 05E207

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

METHOD 3010A/3050B/6010B
TOTAL AND DISSOLVED METALS BY ICP

Two (2) water and four (4) soil samples were received on 05/23/05 for Total and Dissolved Metals analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. Holding Time

Analysis met holding time criteria.

2. Method Blank

Method blanks were free of contamination at the reporting limit.

3. Lab Control Sample/Lab Control Sample Duplicate

Lab control results were within QC limit except Barium in LCS1S was slightly low at 79%, but was within the limit in LCD1S.

4. Serial Dilution / Post-Analytical Spike

Samples E206-07 and -11 from other SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. Matrix Spike/Matrix Spike Duplicate

MS/MSD sample was not designated in this SDG.

6. Sample Analysis

Samples were analyzed according to the prescribed QC procedure. All criteria were met with the aforementioned exception.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE079SB	1	NA	05/26/0515:00	05/25/0510:30	173E032011	173E032009	IPE079S	Method Blank
LCS1S	IPE079SL	1	NA	05/26/0515:06	05/25/0510:30	173E032012	173E032009	IPE079S	Lab Control Sample (LCS)
LCD1S	IPE079SC	1	NA	05/26/0515:12	05/25/0510:30	173E032013	173E032009	IPE079S	LCS Duplicate
B-9-10.0'DL	E206-11T	5	3.4	05/26/0516:26	05/25/0510:30	173E032023	173E032021	IPE079S	Diluted Sample
B-9-10.0'	E206-11	1	3.4	05/26/0516:33	05/25/0510:30	173E032024	173E032021	IPE079S	Field Sample
B-9-10.0'AS	E206-11A	1	3.4	05/26/0516:39	05/25/0510:30	173E032025	173E032021	IPE079S	Analytical Spike Sample
NM03-B3-1	E207-01	1	4.9	05/26/0517:57	05/25/0510:30	173E032037	173E032033	IPE079S	Field Sample

FN - Filename
% Moist - Percent Moisture

7002

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE079SB	ND	1	NA	1	.2	05/26/0515:00	05/25/0510:30	I73E032011	I73E032009	IPE079S	NA	05/25/05
LCS1S	IPE079SL	82.8	1	NA	1	.2	05/26/0515:06	05/25/0510:30	I73E032012	I73E032009	IPE079S	NA	05/25/05
LCD1S	IPE079SC	84	1	NA	1	.2	05/26/0515:12	05/25/0510:30	I73E032013	I73E032009	IPE079S	NA	05/25/05
NM03-B3-1	E207-01	1.58	1	4.9	1.05	.21	05/26/0517:57	05/25/0510:30	I73E032037	I73E032033	IPE079S	05/20/05	05/23/05

7003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE079SB	IPE079SL	IPE079SC		
LAB FILE ID:	I73E032011	I73E032012	I73E032013		
DATIME EXTRCTD:	05/25/0510:30	05/25/0510:30	05/25/0510:30	DATE COLLECTED:	NA
DATIME ANALYZD:	05/26/0515:00	05/26/0515:06	05/26/0515:12	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPE079S	IPE079S	IPE079S		
CALIB. REF:	I73E032009	I73E032009	I73E032009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	82.8	83	100	84	84	1	80-120	20

2004

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	3.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-9-10.0'	B-9-10.0'DL		
EMAX SAMP ID:	E206-11	E206-11T		
LAB FILE ID:	I73E032024	I73E032023		
DATE EXTRACTED:	05/25/0510:30	05/25/0510:30	DATE COLLECTED:	05/20/05
DATE ANALYZED:	05/26/0516:33	05/26/0516:26	DATE RECEIVED:	05/23/05
PREP. BATCH:	IPE079S	IPE079S		
CALIB. REF:	I73E032021	I73E032021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	5.05	5.4	7	10

7005

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 3.4
DILTN FACTR: 1 1
SAMPLE ID: B-9-10.0'
CONTROL NO.: E206-11 E206-11A
LAB FILE ID: 173E032024 173E032025
DATIME EXTRCTD: 05/25/0510:30 05/25/0510:30 DATE COLLECTED: 05/20/05
DATIME ANALYZD: 05/26/0516:33 05/26/0516:39 DATE RECEIVED: 05/23/05
PREP. BATCH: 1PE079S 1PE079S
CALIB. REF: 173E032021 173E032021

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	5.05	104	94	86	75-125

7006

LAB CHRONICLE
METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE079SB	1	NA	05/26/0515:00	05/25/0510:30	I73E032011	I73E032009	IPE079S	Method Blank
LCS1S	IPE079SL	1	NA	05/26/0515:06	05/25/0510:30	I73E032012	I73E032009	IPE079S	Lab Control Sample (LCS)
LCD1S	IPE079SC	1	NA	05/26/0515:12	05/25/0510:30	I73E032013	I73E032009	IPE079S	LCS Duplicate
B-9-10.0'DL	E206-11T	5	3.4	05/26/0516:26	05/25/0510:30	I73E032023	I73E032021	IPE079S	Diluted Sample
B-9-10.0'	E206-11	1	3.4	05/26/0516:33	05/25/0510:30	I73E032024	I73E032021	IPE079S	Field Sample
B-9-10.0'AS	E206-11A	1	3.4	05/26/0516:39	05/25/0510:30	I73E032025	I73E032021	IPE079S	Analytical Spike Sample
NM03-B3-5	E207-03	1	9.8	05/26/0518:04	05/25/0510:30	I73E032038	I73E032033	IPE079S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/26/0518:10	05/25/0510:30	I73E032039	I73E032033	IPE079S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/26/0518:16	05/25/0510:30	I73E032040	I73E032033	IPE079S	Field Sample

FN - Filename
% Moist - Percent Moisture

2007

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 10:30
Sample ID:	NM03-B3-5	Date Analyzed:	05/26/05 18:04
Lab Samp ID:	E207-03	Dilution Factor:	1
Lab File ID:	I73E032038	Matrix :	SOIL
Ext Btch ID:	IPE079S	% Moisture :	9.8
Calib. Ref.:	I73E032033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.1	2.22
Arsenic	ND	1.11	.443
Barium	28.8	1.11	.222
Beryllium	.303J	1.11	.222
Cadmium	ND	1.11	.111
Chromium	11.1	1.11	.222
Cobalt	3.42	1.11	.222
Copper	6.25	1.11	.222
Lead	1.66	1.11	.222
Molybdenum	ND	5.54	.554
Nickel	4.28	1.11	.222
Selenium	ND	1.11	.554
Silver	ND	1.11	.277
Thallium	4.94	1.11	.554
Vanadium	33.4	1.11	.554
Zinc	21.3	1.11	.554

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 10:30
Sample ID:	NM03-B3-25	Date Analyzed:	05/26/05 18:10
Lab Samp ID:	E207-07	Dilution Factor:	1
Lab File ID:	I73E032039	Matrix :	SOIL
Ext Btch ID:	IPE079S	% Moisture :	19.7
Calib. Ref.:	I73E032033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	12.5	2.49
Arsenic	2.42	1.25	.498
Barium	80.5	1.25	.249
Beryllium	.67J	1.25	.249
Cadmium	.174J	1.25	.125
Chromium	19	1.25	.249
Cobalt	7.34	1.25	.249
Copper	32.2	1.25	.249
Lead	36.1	1.25	.249
Molybdenum	ND	6.23	.623
Nickel	8.53	1.25	.249
Selenium	1.22J	1.25	.623
Silver	.408J	1.25	.311
Thallium	7.49	1.25	.623
Vanadium	54.2	1.25	.623
Zinc	81.6	1.25	.623

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 10:30
Sample ID	: NM03-B3-30	Date Analyzed:	05/26/05 18:16
Lab Samp ID	: E207-08	Dilution Factor:	1
Lab File ID	: I73E032040	Matrix :	SOIL
Ext Btch ID	: IPE079S	% Moisture :	15.1
Calib. Ref.	: I73E032033	Instrument ID :	EMAXT173

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.8	2.36
Arsenic	ND	1.18	.471
Barium	86	1.18	.236
Beryllium	.323J	1.18	.236
Cadmium	ND	1.18	.118
Chromium	15.2	1.18	.236
Cobalt	5.22	1.18	.236
Copper	6.59	1.18	.236
Lead	.558J	1.18	.236
Molybdenum	ND	5.89	.589
Nickel	4.73	1.18	.236
Selenium	ND	1.18	.589
Silver	ND	1.18	.294
Thallium	6.26	1.18	.589
Vanadium	40.7	1.18	.589
Zinc	28.3	1.18	.589

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 10:30
Sample ID:	MBLK1S	Date Analyzed:	05/26/05 15:00
Lab Samp ID:	IPE079SB	Dilution Factor:	1
Lab File ID:	I73E032011	Matrix :	SOIL
Ext Btch ID:	IPE079S	% Moisture :	NA
Calib. Ref.:	I73E032009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	ND	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	ND	1	.5
Vanadium	ND	1	.5
Zinc	.573J	1	.5

7011

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPE079SB IPE079SL IPE079SC
LAB FILE ID: I73E032011 I73E032012 I73E032013
DATIME EXTRCTD: 05/25/0510:30 05/25/0510:30 05/25/0510:30 DATE COLLECTED: NA
DATIME ANALYZD: 05/26/0515:00 05/26/0515:06 05/26/0515:12 DATE RECEIVED: 05/25/05
PREP. BATCH: IPE079S IPE079S IPE079S
CALIB. REF: I73E032009 I73E032009 I73E032009

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	420	84	500	424	85	1	80-120	20
Arsenic	ND	100	86.2	86	100	87	87	1	80-120	20
Barium	ND	100	79.4	79*	100	79.9	80	1	80-120	20
Beryllium	ND	100	87.1	87	100	87.7	88	1	80-120	20
Cadmium	ND	100	81	81	100	82	82	1	80-120	20
Chromium	ND	100	83.4	83	100	84.1	84	1	80-120	20
Cobalt	ND	100	82.3	82	100	83.2	83	1	80-120	20
Copper	ND	100	86.2	86	100	86.6	87	1	80-120	20
Lead	ND	100	82.8	83	100	84	84	1	80-120	20
Molybdenum	ND	100	84.1	84	100	85.4	85	2	80-120	20
Nickel	ND	100	81.6	82	100	82.8	83	1	80-120	20
Selenium	ND	100	83.9	84	100	85	85	1	80-120	20
Silver	ND	100	82.2	82	100	82.9	83	1	80-120	20
Thallium	ND	100	85.8	86	100	87.2	87	2	80-120	20
Vanadium	ND	100	85.5	86	100	86.1	86	1	80-120	20
Zinc	.573J	100	84.6	84	100	85.2	85	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	3.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-9-10.0'	B-9-10.0'DL		
EMAX SAMP ID:	E206-11	E206-11T		
LAB FILE ID:	I73E032024	I73E032023		
DATE EXTRACTED:	05/25/0510:30	05/25/0510:30	DATE COLLECTED:	05/20/05
DATE ANALYZED:	05/26/0516:33	05/26/0516:26	DATE RECEIVED:	05/23/05
PREP. BATCH:	IPE079S	IPE079S		
CALIB. REF:	I73E032021	I73E032021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	1.39	ND	NA	10
Barium	105	115	9	10
Beryllium	.408J	ND	NA	10
Cadmium	ND	ND	0	10
Chromium	21.6	22.7	5	10
Cobalt	6.75	7.18	6	10
Copper	18.2	18.8	3	10
Lead	5.05	5.4	7	10
Molybdenum	1.2J	ND	NA	10
Nickel	7.26	7.84	8	10
Selenium	ND	ND	0	10
Silver	.553J	ND	NA	10
Thallium	10.8	11.4	5	10
Vanadium	56.1	60.9	9	10
Zinc	39.9	49.3	24*	10

7013

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	3.4
DILTN FACTR:	1	1		
SAMPLE ID:	B-9-10.0'			
CONTROL NO.:	E206-11	E206-11A		
LAB FILE ID:	I73E032024	I73E032025		
DATIME EXTRCTD:	05/25/0510:30	05/25/0510:30	DATE COLLECTED:	05/20/05
DATIME ANALYZD:	05/26/0516:33	05/26/0516:39	DATE RECEIVED:	05/23/05
PREP. BATCH:	IPE079S	IPE079S		
CALIB. REF:	I73E032021	I73E032021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	518	461	89	75-125
Arsenic	1.39	104	95.3	91	75-125
Barium	105	104	186	78	75-125
Beryllium	.408J	104	93.5	90	75-125
Cadmium	ND	104	86.6	84	75-125
Chromium	21.6	104	111	86	75-125
Cobalt	6.75	104	94.4	85	75-125
Copper	18.2	104	112	91	75-125
Lead	5.05	104	94	86	75-125
Molybdenum	1.2J	104	91	87	75-125
Nickel	7.26	104	94.5	84	75-125
Selenium	ND	104	92.6	89	75-125
Silver	.553J	104	90.4	87	75-125
Thallium	10.8	104	101	88	75-125
Vanadium	56.1	104	146	87	75-125
Zinc	39.9	104	129	86	75-125

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPE078WB	1	NA	05/26/0510:38	05/25/0512:00	I73E031011	I73E031009	IPE078W	Method Blank
LCS1W	IPE078WL	1	NA	05/26/0510:44	05/25/0512:00	I73E031012	I73E031009	IPE078W	Lab Control Sample (LCS)
LCD1W	IPE078WC	1	NA	05/26/0510:50	05/25/0512:00	I73E031013	I73E031009	IPE078W	LCS Duplicate
B-8-GWAS	E206-07A	1	NA	05/26/0510:58	05/25/0512:00	I73E031014	I73E031009	IPE078W	Analytical Spike Sample
B-8-GW	E206-07	1	NA	05/26/0511:06	05/25/0512:00	I73E031015	I73E031009	IPE078W	Field Sample
B-8-GWDL	E206-07T	5	NA	05/26/0511:12	05/25/0512:00	I73E031016	I73E031009	IPE078W	Diluted Sample
NM03-B3-GW	E207-12	1	NA	05/26/0512:00	05/25/0512:00	I73E031023	I73E031021	IPE078W	Field Sample
NM03-B3-EQ	E207-11	1	NA	05/26/0512:06	05/25/0512:00	I73E031024	I73E031021	IPE078W	Field Sample

FN - Filename
% Moist - Percent Moisture

7015

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 12:00
Sample ID:	NM03-B3-EQ	Date Analyzed:	05/26/05 12:06
Lab Samp ID:	E207-11	Dilution Factor:	1
Lab File ID:	I73E031024	Matrix :	WATER
Ext Btch ID:	IPE078W	% Moisture :	NA
Calib. Ref.:	I73E031021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	.00504J	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/20/05
Project	: CALTRANS	Date Received:	05/23/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 12:00
Sample ID:	NM03-B3-GW	Date Analyzed:	05/26/05 12:00
Lab Samp ID:	E207-12	Dilution Factor:	1
Lab File ID:	I73E031023	Matrix :	WATER
Ext Btch ID:	IPE078W	% Moisture :	NA
Calib. Ref.:	I73E031021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	.00567J	.01	.005
Barium	.0703	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	.00704J	.01	.0025
Copper	.00245J	.01	.002
Lead	ND	.01	.003
Molybdenum	.0629	.05	.005
Nickel	.0116	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	.00901J	.01	.005
Zinc	ND	.01	.005

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E207	Date Extracted:	05/25/05 12:00
Sample ID:	MBLK1W	Date Analyzed:	05/26/05 10:38
Lab Samp ID:	IPE078WB	Dilution Factor:	1
Lab File ID:	I73E031011	Matrix :	WATER
Ext Btch ID:	IPE078W	% Moisture :	NA
Calib. Ref.:	I73E031009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPE078WB	IPE078WL	IPE078WC		
LAB FILE ID:	I73E031011	I73E031012	I73E031013		
DATIME EXTRCTD:	05/25/0512:00	05/25/0512:00	05/25/0512:00	DATE COLLECTED:	NA
DATIME ANALYZD:	05/26/0510:38	05/26/0510:44	05/26/0510:50	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPE078W	IPE078W	IPE078W		
CALIB. REF:	I73E031009	I73E031009	I73E031009		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	4.76	95	5	4.9	98	3	80-120	20
Arsenic	ND	1	.987	99	1	1.01	101	2	80-120	20
Barium	ND	1	.912	91	1	.934	93	2	80-120	20
Beryllium	ND	1	1	100	1	1.02	102	2	80-120	20
Cadmium	ND	1	.932	93	1	.951	95	2	80-120	20
Chromium	ND	1	.965	96	1	.985	99	2	80-120	20
Cobalt	ND	1	.951	95	1	.971	97	2	80-120	20
Copper	ND	1	.994	99	1	1.02	102	3	80-120	20
Lead	ND	1	.963	96	1	.982	98	2	80-120	20
Molybdenum	ND	1	.963	96	1	.989	99	3	80-120	20
Nickel	ND	1	.945	95	1	.965	96	2	80-120	20
Selenium	ND	1	.969	97	1	.98	98	1	80-120	20
Silver	ND	1	.95	95	1	.973	97	2	80-120	20
Thallium	ND	1	.971	97	1	1	100	3	80-120	20
Vanadium	ND	1	.977	98	1	1.0	100	2	80-120	20
Zinc	ND	1	.964	96	1	.984	98	2	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-8-GW	B-8-GWDL		
EMAX SAMP ID:	E206-07	E206-07T		
LAB FILE ID:	I73E031015	I73E031016		
DATE EXTRACTED:	05/25/0512:00	05/25/0512:00	DATE COLLECTED:	05/20/05
DATE ANALYZED:	05/26/0511:06	05/26/0511:12	DATE RECEIVED:	05/23/05
PREP. BATCH:	IPE078W	IPE078W		
CALIB. REF:	I73E031009	I73E031009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	ND	ND	0	10
Barium	.862	.865	0	10
Beryllium	ND	ND	0	10
Cadmium	.00203J	ND	NA	10
Chromium	.0105	ND	NA	10
Cobalt	.0581	.0612	5	10
Copper	.0464	.0408J	NA	10
Lead	.0277	.0261J	NA	10
Molybdenum	.0387J	.0428J	NA	10
Nickel	.029	.0367J	26	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	.0425	.0421J	NA	10
Zinc	.0887	.149	68*	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	B-8-GW			
CONTROL NO.:	E206-07	E206-07A		
LAB FILE ID:	I73E031015	I73E031014		
DATIME EXTRCTD:	05/25/0512:00	05/25/0512:00	DATE COLLECTED:	05/20/05
DATIME ANALYZD:	05/26/0511:06	05/26/0510:58	DATE RECEIVED:	05/23/05
PREP. BATCH:	IPE078W	IPE078W		
CALIB. REF:	I73E031009	I73E031009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	4.84	97	75-125
Arsenic	ND	1	1.01	101	75-125
Barium	.862	1	1.74	88	75-125
Beryllium	ND	1	.993	99	75-125
Cadmium	.00203J	1	.919	92	75-125
Chromium	.0105	1	.965	95	75-125
Cobalt	.0581	1	.989	93	75-125
Copper	.0464	1	1.06	102	75-125
Lead	.0277	1	.975	95	75-125
Molybdenum	.0387J	1	1	96	75-125
Nickel	.029	1	.953	92	75-125
Selenium	ND	1	.975	97	75-125
Silver	ND	1	.967	97	75-125
Thallium	ND	1	.97	97	75-125
Vanadium	.0425	1	1.02	97	75-125
Zinc	.0887	1	1.05	96	75-125

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

METHOD 7471A
MERCURY BY COLD VAPOR

Three (3) soil samples were received on 05/23/05 for Mercury analysis by Method 7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample E206-20 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGE049SB	1	NA	05/26/0512:16	05/25/0515:30	M47E036035	M47E036032	HGE049S	Method Blank
LCS1S	HGE049SL	1	NA	05/26/0512:18	05/25/0515:30	M47E036036	M47E036032	HGE049S	Lab Control Sample (LCS)
LCD1S	HGE049SC	1	NA	05/26/0512:20	05/25/0515:30	M47E036037	M47E036032	HGE049S	LCS Duplicate
NM03-B3-5	E207-03	1	9.8	05/26/0513:18	05/25/0515:30	M47E036061	M47E036056	HGE049S	Field Sample
NM03-B3-25	E207-07	1	19.7	05/26/0513:20	05/25/0515:30	M47E036062	M47E036056	HGE049S	Field Sample
NM03-B3-30	E207-08	1	15.1	05/26/0513:24	05/25/0515:30	M47E036063	M47E036056	HGE049S	Field Sample
B-9-20.0'AS	E206-20A	1	11.4	05/26/0512:23	05/25/0515:30	M47E036038	M47E036032	HGE049S	Analytical Spike Sample
B-9-20.0'	E206-20	1	11.4	05/26/0512:26	05/25/0515:30	M47E036039	M47E036032	HGE049S	Field Sample
B-9-20.0'DL	E206-20T	5	11.4	05/26/0512:28	05/25/0515:30	M47E036040	M47E036032	HGE049S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

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METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGE049SB	ND	1	NA	.1	.033	05/26/0512:16	05/25/0515:30	M47E036035	M47E036032	HGE049S	NA	05/25/05
LCS1S	HGE049SL	.77	1	NA	.1	.033	05/26/0512:18	05/25/0515:30	M47E036036	M47E036032	HGE049S	NA	05/25/05
LCD1S	HGE049SC	.77	1	NA	.1	.033	05/26/0512:20	05/25/0515:30	M47E036037	M47E036032	HGE049S	NA	05/25/05
NM03-B3-5	E207-03	ND	1	9.8	.111	.0366	05/26/0513:18	05/25/0515:30	M47E036061	M47E036056	HGE049S	05/20/05	05/23/05
NM03-B3-25	E207-07	ND	1	19.7	.125	.0411	05/26/0513:20	05/25/0515:30	M47E036062	M47E036056	HGE049S	05/20/05	05/23/05
NM03-B3-30	E207-08	ND	1	15.1	.118	.0389	05/26/0513:24	05/25/0515:30	M47E036063	M47E036056	HGE049S	05/20/05	05/23/05

7024

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: NA

DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGE049SB	HGE049SL	HGE049SC		
LAB FILE ID:	M47E036035	M47E036036	M47E036037		
DATIME EXTRCTD:	05/25/0515:30	05/25/0515:30	05/25/0515:30	DATE COLLECTED:	NA
DATIME ANALYZD:	05/26/0512:16	05/26/0512:18	05/26/0512:20	DATE RECEIVED:	05/25/05
PREP. BATCH:	HGE049S	HGE049S	HGE049S		
CALIB. REF:	M47E036032	M47E036032	M47E036032		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.77	92	.833	.77	92	0	80-120	20

7025

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	11.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-9-20.0'	B-9-20.0'DL		
EMAX SAMP ID:	E206-20	E206-20T		
LAB FILE ID:	M47E036039	M47E036040		
DATE EXTRACTED:	05/25/0515:30	05/25/0515:30	DATE COLLECTED:	05/20/05
DATE ANALYZED:	05/26/0512:26	05/26/0512:28	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE049S	HGE049S		
CALIB. REF:	M47E036032	M47E036032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7026

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	11.4
DILTN FACTR:	1	1		
SAMPLE ID:	B-9-20.0'			
CONTROL NO.:	E206-20	E206-20A		
LAB FILE ID:	M47E036039	M47E036038		
DATIME EXTRCTD:	05/25/0515:30	05/25/0515:30	DATE COLLECTED:	05/20/05
DATIME ANALYZD:	05/26/0512:26	05/26/0512:23	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE049S	HGE049S		
CALIB. REF:	M47E036032	M47E036032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.376	.357	95	85-115

7027

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E207

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Two (2) water samples were received on 05/23/05 for Dissolved Mercury analysis by Method 7470A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample E206-08 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E207
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGE051WB	1	NA	05/26/0516:09	05/25/0516:00	M47E037034	M47E037032	HGE051W	Method Blank
LCS1W	HGE051WL	1	NA	05/26/0516:11	05/25/0516:00	M47E037035	M47E037032	HGE051W	Lab Control Sample (LCS)
LCD1W	HGE051WC	1	NA	05/26/0516:13	05/25/0516:00	M47E037036	M47E037032	HGE051W	LCS Duplicate
NM03-B3-EQ	E207-11	1	NA	05/26/0516:42	05/25/0516:00	M47E037047	M47E037044	HGE051W	Field Sample
NM03-B3-GW	E207-12	1	NA	05/26/0516:44	05/25/0516:00	M47E037048	M47E037044	HGE051W	Field Sample
FB-3AS	E206-08A	1	NA	05/26/0516:16	05/25/0516:00	M47E037037	M47E037032	HGE051W	Analytical Spike Sample
FB-3	E206-08	1	NA	05/26/0516:18	05/25/0516:00	M47E037038	M47E037032	HGE051W	Field Sample
FB-3DL	E206-08T	5	NA	05/26/0516:21	05/25/0516:00	M47E037039	M47E037032	HGE051W	Diluted Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E207

Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGE051WB	ND	1	NA	.5	.1	05/26/0516:09	05/25/0516:00	M47E037034	M47E037032	HGE051W	NA	05/25/05
LCS1W	HGE051WL	4.89	1	NA	.5	.1	05/26/0516:11	05/25/0516:00	M47E037035	M47E037032	HGE051W	NA	05/25/05
LCD1W	HGE051WC	4.89	1	NA	.5	.1	05/26/0516:13	05/25/0516:00	M47E037036	M47E037032	HGE051W	NA	05/25/05
NM03-B3-EQ	E207-11	ND	1	NA	.5	.1	05/26/0516:42	05/25/0516:00	M47E037047	M47E037044	HGE051W	05/20/05	05/23/05
NM03-B3-GW	E207-12	ND	1	NA	.5	.1	05/26/0516:44	05/25/0516:00	M47E037048	M47E037044	HGE051W	05/20/05	05/23/05

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E207
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGE051WB	HGE051WL	HGE051WC		
LAB FILE ID:	M47E037034	M47E037035	M47E037036		
DATIME EXTRCTD:	05/25/0516:00	05/25/0516:00	05/25/0516:00	DATE COLLECTED:	NA
DATIME ANALYZD:	05/26/0516:09	05/26/0516:11	05/26/0516:13	DATE RECEIVED:	05/25/05
PREP. BATCH:	HGE051W	HGE051W	HGE051W		
CALIB. REF:	M47E037032	M47E037032	M47E037032		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5	4.89	98	5	4.89	98	0	80-120	20

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EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E207
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	FB-3	FB-3DL		
EMAX SAMP ID:	E206-08	E206-08T		
LAB FILE ID:	M47E037038	M47E037039		
DATE EXTRACTED:	05/25/0516:00	05/25/0516:00	DATE COLLECTED:	05/20/05
DATE ANALYZED:	05/26/0516:18	05/26/0516:21	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE051W	HGE051W		
CALIB. REF:	M47E037032	M47E037032		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT:	NINYO & MOORE			
PROJECT:	CALTRANS			
SDG NO.:	05E207			
METHOD:	METHOD 7470A			
MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	FB-3			
CONTROL NO.:	E206-08	E206-08A		
LAB FILE ID:	M47E037038	M47E037037		
DATIME EXTRCTD:	05/25/0516:00	05/25/0516:00	DATE COLLECTED:	05/20/05
DATIME ANALYZD:	05/26/0516:18	05/26/0516:16	DATE RECEIVED:	05/23/05
PREP. BATCH:	HGE051W	HGE051W		
CALIB. REF:	M47E037032	M47E037032		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2	2.11	106	85-115

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CLIENT: **NINYO & MOORE**

PROJECT: **CALTRANS**

SDG: **05E233**

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METALS	METHOD 3010A/3050B/6010B METHOD 7470A/7471A	7000 – 7022 7023 – 7033
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** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-23-2005
EMAX Batch No.: 05E233

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/25/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-TB04	E233-01	05/23/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B4 0.5-1	E233-02	05/23/05	SOIL	LEAD
NM03-B4 5-5.5	E233-03	05/23/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B4 35.5-36	E233-04	05/23/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B4 50-50.5	E233-05	05/23/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS

Sample ID	Control #	Col Date	Matrix	Analysis
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-TB05	E233-06	05/24/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-GW05	E233-07	05/24/05	WATER	VOLATILE ORGANICS BY GC/MS
				TPH GASOLINE
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				TPH DIESEL
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
NM03-ER05	E233-08	05/24/05	WATER	VOLATILE ORGANICS BY GC/MS
				TPH GASOLINE
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				TPH DIESEL
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
NM03-B5 1-1.5	E233-09	05/24/05	SOIL	LEAD
NM03-B5 5.5-6	E233-10	05/24/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD
NM03-B5 10.5-11	E233-11	05/24/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD
NM03-B5 15.5-16	E233-12	05/24/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: EI / VW01-02

EMAX CONTROL NO. * 05E233

PROJECT CODE:

CLIENT: Caltrans
PROJECT: 105388009 / I-5 exclusion
COORDINATOR: Scott Snyder
TEL: (858) 576-1000 FAX: EMAIL: SSnyder@nmyo&moore
SEND REPORT TO: Scott Snyder
COMPANY: Nimyo & Moore
ADDRESS: 5710 Ruffin Road
San Diego CA 92107
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O=

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: VOC; TPH-GAS; SVOC; PCB; TPH-Diesel; Metals, Total Lead

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ ~~30~~ days ☐ ____days ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
9	NM03-B5 1-1.5	B5	5-24-05	1030	1	6"s	sleeve	SS		X	
10	NM03 B5 5.5-6			1115	1					X X X X X X	
11	NM03 B5 10.5-11			1125	1					X X X X X X	
12	NM03 B5 15.5-16			1130	1					X X X X X X	
5											
6											
7											
8											
9											
0											

Instructions

Cooler #	Temp. (°C)	Sample #s

SAMPLER: Matt Fehn

RELINQUISHED BY	Date	Time	RECEIVED BY
Phil Hahn	5-25-05	1150	
	5-25-05	1615	

COURIER/AIRBILL

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: E1 / VW01-02

EMAX CONTROL NO. * 05E233

PROJECT CODE:

CLIENT: Caltrans
PROJECT: 105388009 / I-5 extension
COORDINATOR: Scott Snyder
TEL: (858) 576-1000 FAX: EMAIL: SSnyder@ngm.com
SEND REPORT TO: Scott Snyder
COMPANY: Ninyo & Moore
ADDRESS: 5710 Ruffin Road
San Diego CA 92107
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O= Blank Water

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: VOC; TPH - GAS; SVOC; PCB; TPH-Diesel + Metals; Total Lead

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☒ 30 days ☐ ____days ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
1	NM03-~~B4~~ TB04	FQC	5-23-05	0930	2	40ml	VOA	O		VOC	
2	NM03-B4 0.5-1	B4		0941	1	6"	SS	SS		Total Lead	
3	NM03-B4 5-5.5	B4		0950	1	"	"	S		VOC, TPH-GAS, SVOC, PCB, TPH-Diesel + Metals, Total Lead	
4	NM03-B4 35.5-36	B4		1048	1	"	"	"		VOC, TPH-GAS, SVOC, PCB, TPH-Diesel + Metals, Total Lead	
5	NM03-B4 50-50.5	B4		1200	1	"	"	"		VOC, TPH-GAS, SVOC, PCB, TPH-Diesel + Metals, Total Lead	
6	NM03-TB05	FQC	5-24-05	0930	2	40ml	VOA	O		VOC	
7	NM03-GW05	B5		1200	10					VOC, TPH-GAS, SVOC, PCB, TPH-Diesel + Metals, Total Lead	
8	NM03-ER05	B5		1220	10					VOC, TPH-GAS, SVOC, PCB, TPH-Diesel + Metals, Total Lead	
9											
10											

Instructions

Cooler #	Temp. (°C)	Sample #s
1	2.7	

SAMPLER: Matt Fl

RELINQUISHED BY	Date	Time	COURIER/AIRBILL	RECEIVED BY
Phil Helm	5-25-05	1150		Phil Helm
	5-25-05	1615		

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Monday, June 06, 2005 4:39 PM
To: Hanh Bui
Subject: RE: COC changes (NM/Caltrans 105388009)

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E254-03 to -06 and F009-02, 03, 07.

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E233-10 to 12 and E271-02, 04, 06.

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Monday, June 06, 2005 4:20 PM
To: Scott Snyder
Subject: RE: COC changes (NM/Caltrans 105388009)

Hi Scott,
I just want to verify with you that we already extracted all samples for PCBs, (05E254, 05F009), so we cann't cancel this method.
For Tittle 22 Metals, we already analyze 05E254. Do you want us to analyze total Lead for sample E254-03 to -06?
F009 we cancel Metals, and analyze Total Lead for samples F009-02, -03 to -07?

Samples with NM03-B5 and B7
Samples were extracted for PCBs and SVOCs 05E233, 05E271. We will analyze these methods.
You want to cancel Metals for samples E233-10 to -12, and analyze total Lead?
COCs did not have any check marked for Metals. Do you want us to analyze total Lead for samples E271-02, -04, -06 ?

Enclosed COCs and please give me advise, thanks
Hanh

-----Original Message-----
From: Scott Snyder [mailto:ssnyder@ninyoandmoore.com]
Sent: Friday, June 03, 2005 5:22 PM
To: Hanh Bui
Subject: COC changes

Hanh,

I have changes to the following samples:

Samples with NM03-B6 and NM03-B8 and their associated field blanks:
Do not analyze soil or groundwater for PCBs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Samples with NM03-B5, NM03-B7, NM03-B9, and NM03-B10 and their associated field blanks:
Do not analyze soil or groundwater for PCBs or SVOCs

1004

Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Please reply to let me know you have received this and it is OK.

Thanks,
Scott

Scott Snyder PG, CHG

Senior Hydrogeologist

Ninyo & Moore

5710 Ruffin Road

San Diego, California 92123

(858) 576-1000 x1255

1005

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Friday, May 27, 2005 9:51 AM
To: Hanh Bui
Subject: RE: Question for samples received on May/25 SDG: 05E232 and 05E233 (NM/Caltrans I5 10538809)

Please hold them pending instructions for additional analyses. We may or may not analyze those samples, but we wanted to make sure you had them in case we need to run something from those samples.

Thanks.

> -----Original Message-----
> **From:** Hanh Bui [mailto:HDBui@emaxlabs.com]
> **Sent:** Friday, May 27, 2005 9:47 AM
> **To:** Scott Snyder
> **Subject:** RE: Question for samples received on May/25 SDG: 05E232 and 05E233 (NM/Caltrans I5 10538809)
>
> How's about the extra samples we received that not list on COCs 05E233?
>
> > -----Original Message-----
> > **From:** Scott Snyder [mailto:ssnyder@ninyoandmoore.com]
> > **Sent:** Friday, May 27, 2005 9:42 AM
> > **To:** Hanh Bui; Lauren Hedges
> > **Subject:** RE: Question for samples received on May/25 SDG: 05E232 and 05E233 (NM/Caltrans I5 10538809)
> >
> > Unless there is a significant discrepancy, always follow the COC please.
> >
> > Thanks.
> >
> > > -----Original Message-----
> > > **From:** Hanh Bui [mailto:HDBui@emaxlabs.com]
> > > **Sent:** Friday, May 27, 2005 9:33 AM
> > > **To:** Scott Snyder; Lauren Hedges
> > > **Subject:** Question for samples received on May/25 SDG: 05E232 and 05E233 (NM/Caltrans I5 10538809)
> > >
> > > Hi Scott,
> > > Please find the attached of COCs and SRF and give me advise for discrepancy, thanks.
> > > Hanh

1006

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E233
☒ EMAX Courier	SEE COC	Recepient	J. Luna
☐ Client Delivery		Date	5-25-05
☐ Third Party		Time	1615

COC Inspection

☒ Client Name	☒ Sampler Name	☒ Sampling Date/Time/Location
☒ Address	☒ Courier Signature/Date/Time	☒ Analysis Required
☒ Client PM/FC	☒ TAT	☒ Matrix
☒ Tel #/Fax #	☒ Sample ID	☐ Preservative (if any)
Safety Issues ☒ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☒ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☒ Intact	☐ Damaged	☐
Packaging	☒ Bubble Pack	☐ Styrofoam	☒ Sufficient	☒ PlastzBag
Temperatures	☒ Cooler 1 2.7°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
		* NO Analysis on Sleeves Containers for Soil	
-06	NM03 TB05	Time 10:00 on Vials Vs COC Time 9:30 A → Follow COC	
-07	NM03 GW05	Metals Container REC'D Unpreserved } preserved in lab	
-08	NM03 ER05	" " " " " } after filtration	
		* REC'D (5) Extra Sleeves NOT	
		Listed on COC. ID is - AS Below	
		(1) NM03-B4-11-11.5' Time 11:00	Hold
		(2) NM03-B4-20.5-21', 10:14	per Scott's instruction
		(3) NM03-B4-30'-30.5' Time 10:30	5/27/05
		(4) NM03-B4-26'-26.5' Time 10:23	
		(5) NM03-B4-15.5'-16' Time 10:05	
			Analyze Total Lead & Cancel
		5/25/05	Metals # 10 to 12 per Scott 6/6/05

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ Date 5/25/05

SRF _____ Date 5/26/05

PM _____ Date 6/2/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E233

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Four (4) water samples were received on 05/25/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-002

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V002F09Q	1	NA	06/03/0514:40	06/03/0514:40	RFP079	REP269	V002F09	Method Blank
LCS1W	V002F09L	1	NA	06/03/0512:45	06/03/0512:45	RFP076	REP269	V002F09	Lab Control Sample (LCS)
LCD1W	V002F09C	1	NA	06/03/0513:23	06/03/0513:23	RFP077	REP269	V002F09	LCS Duplicate
NM03-TB04	E233-01	1	NA	06/03/0518:31	06/03/0518:31	RFP085	REP269	V002F09	Field Sample
NM03-TB05	E233-06	1	NA	06/03/0519:09	06/03/0519:09	RFP086	REP269	V002F09	Field Sample
NM03-GW05	E233-07	1	NA	06/03/0521:43	06/03/0521:43	RFP090	REP269	V002F09	Field Sample
NM03-ER05	E233-08	1	NA	06/03/0522:21	06/03/0522:21	RFP091	REP269	V002F09	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 18:31
Sample ID: NM03-TB04	Date Analyzed: 06/03/05 18:31
Lab Samp ID: E233-01	Dilution Factor: 1
Lab File ID: RFP085	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	1.8	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	87	63-143
4-BROMOFLUOROBENZENE	93	63-143
TOLUENE-D8	104	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 19:09
Sample ID: NM03-TB05	Date Analyzed: 06/03/05 19:09
Lab Samp ID: E233-06	Dilution Factor: 1
Lab File ID: RFP086	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	63-143
4-BROMOFLUOROBENZENE	91	63-143
TOLUENE-D8	99	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 21:43
Sample ID: NM03-GW05	Date Analyzed: 06/03/05 21:43
Lab Samp ID: E233-07	Dilution Factor: 1
Lab File ID: RFP090	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	96	63-143
4-BROMOFLUOROBENZENE	93	63-143
TOLUENE-D8	97	63-143

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 22:21
Sample ID: NM03-ER05	Date Analyzed: 06/03/05 22:21
Lab Samp ID: E233-08	Dilution Factor: 1
Lab File ID: RFP091	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	97	63-143
4-BROMOFLUOROBENZENE	92	63-143
TOLUENE-D8	98	63-143

2007

QC SUMMARIES

2008

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E233	Date Extracted: 06/03/05 14:40
Sample ID: MBLK1W	Date Analyzed: 06/03/05 14:40
Lab Samp ID: V002F09Q	Dilution Factor: 1
Lab File ID: RFP079	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	70-130
4-BROMOFLUOROBENZENE	90	70-130
TOLUENE-D8	95	70-130

2009

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V002F09Q	V002F09L	V002F09C		
LAB FILE ID:	RFP079	RFP076	RFP077		
DATE EXTRACTED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE RECEIVED:	06/03/05
PREP. BATCH:	V002F09	V002F09	V002F09		
CALIB. REF:	REP269	REP269	REP269		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	8.77	88	10	8.57	86	2	60-130	30
Benzene	ND	10	10.3	103	10	10.5	105	2	70-130	30
Chlorobenzene	ND	10	10.6	106	10	10.6	106	0	70-120	30
Toluene	ND	10	10.7	107	10	11.1	111	3	70-130	30
Trichloroethene	ND	10	9.32	93	10	9.59	96	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.33	93	10	8.92	89	70-130
4-Bromofluorobenzene	10	8.95	89	10	9.19	92	70-130
Toluene-d8	10	9.6	96	10	9.97	100	70-130

2010

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E233

2011

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Six (6) soil samples were received on 05/25/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

2012

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006E39B	1	NA	06/01/0500:58	06/01/0500:58	REW480	REW378	V006E39	Method Blank
LCS1S	V006E39L	1	NA	05/31/0523:40	05/31/0523:40	REW478	REW378	V006E39	Lab Control Sample (LCS)
LCD1S	V006E39C	1	NA	06/01/0500:19	06/01/0500:19	REW479	REW378	V006E39	LCS Duplicate
NM03-B4 5-5.5	E233-03	1	9.1	06/01/0505:28	06/01/0505:28	REW487	REW378	V006E39	Field Sample
MBLK2S	V006F10B	1	NA	06/03/0513:30	06/03/0513:30	RFW082	REW378	V006F10	Method Blank
LCS2S	V006F10L	1	NA	06/03/0512:12	06/03/0512:12	RFW080	REW378	V006F10	Lab Control Sample (LCS)
LCD2S	V006F10C	1	NA	06/03/0512:51	06/03/0512:51	RFW081	REW378	V006F10	LCS Duplicate
NM03-B4 35.5-36	E233-04	1	8.0	06/03/0515:26	06/03/0515:26	RFW085	REW378	V006F10	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	06/03/0516:04	06/03/0516:04	RFW086	REW378	V006F10	Field Sample
NM03-B5 5.5-6	E233-10	1	16.4	06/03/0516:43	06/03/0516:43	RFW087	REW378	V006F10	Field Sample
NM03-B5 10.5-11	E233-11	1	20.7	06/03/0517:22	06/03/0517:22	RFW088	REW378	V006F10	Field Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/03/0518:00	06/03/0518:00	RFW089	REW378	V006F10	Field Sample

FN - Filename
% Moist - Percent Moisture

2013

SAMPLE RESULTS

2014

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/01/05 05:28
Sample ID: NM03-B4 5-5.5	Date Analyzed: 06/01/05 05:28
Lab Samp ID: E233-03	Dilution Factor: 1
Lab File ID: REW487	Matrix : SOIL
Ext Btch ID: VOO6E39	% Moisture : 9.1
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.5	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.5	2.2
1,1,2-TRICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHENE	ND	5.5	2.2
1,2-DICHLOROETHANE	ND	5.5	2.2
1,2-DICHLOROPROPANE	ND	5.5	2.2
2-BUTANONE	ND	11	5.5
2-HEXANONE	ND	11	5.5
4-METHYL-2-PENTANONE	ND	11	5.5
ACETONE	ND	11	5.5
BENZENE	ND	5.5	2.2
BROMODICHLOROMETHANE	ND	5.5	2.2
BROMOFORM	ND	5.5	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.5	2.2
CARBON TETRACHLORIDE	ND	5.5	2.2
CHLOROBENZENE	ND	5.5	2.2
CHLOROETHANE	ND	5.5	2.2
CHLOROFORM	ND	5.5	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.5	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.5	2.2
DIBROMOCHLOROMETHANE	ND	5.5	2.2
ETHYLBENZENE	ND	5.5	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.5	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.5	2.2
STYRENE	ND	5.5	2.2
TETRACHLOROETHENE	ND	5.5	2.2
TOLUENE	ND	5.5	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.5	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.5	2.2
TRICHLOROETHENE	ND	5.5	2.2
VINYL CHLORIDE	ND	5.5	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	54-154
4-BROMOFLUOROBENZENE	103	63-143
TOLUENE-D8	95	63-143

2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 15:26
Sample ID: NM03-B4 35.5-36	Date Analyzed: 06/03/05 15:26
Lab Samp ID: E233-04	Dilution Factor: 1
Lab File ID: RFW085	Matrix : SOIL
Ext Btch ID: VOO6F10	% Moisture : 8.0
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.4	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.4	2.2
1,1,2-TRICHLOROETHANE	ND	5.4	2.2
1,1-DICHLOROETHANE	ND	5.4	2.2
1,1-DICHLOROETHENE	ND	5.4	2.2
1,2-DICHLOROETHANE	ND	5.4	2.2
1,2-DICHLOROPROPANE	ND	5.4	2.2
2-BUTANONE	ND	11	5.4
2-HEXANONE	ND	11	5.4
4-METHYL-2-PENTANONE	ND	11	5.4
ACETONE	ND	11	5.4
BENZENE	ND	5.4	2.2
BROMODICHLOROMETHANE	ND	5.4	2.2
BROMOFORM	ND	5.4	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.4	2.2
CARBON TETRACHLORIDE	ND	5.4	2.2
CHLOROBENZENE	ND	5.4	2.2
CHLOROETHANE	ND	5.4	2.2
CHLOROFORM	ND	5.4	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.4	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.4	2.2
DIBROMOCHLOROMETHANE	ND	5.4	2.2
ETHYLBENZENE	ND	5.4	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.4	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.4	2.2
STYRENE	ND	5.4	2.2
TETRACHLOROETHENE	ND	5.4	2.2
TOLUENE	ND	5.4	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.4	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.4	2.2
TRICHLOROETHENE	ND	5.4	2.2
VINYL CHLORIDE	ND	5.4	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	54-154
4-BROMOFLUOROBENZENE	103	63-143
TOLUENE-D8	95	63-143

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 16:04
Sample ID: NM03-B4 50-50.5	Date Analyzed: 06/03/05 16:04
Lab Samp ID: E233-05	Dilution Factor: 1
Lab File ID: RFW086	Matrix : SOIL
Ext Btch ID: V006F10	% Moisture : 9.9
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.5	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.5	2.2
1,1,2-TRICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHENE	ND	5.5	2.2
1,2-DICHLOROETHANE	ND	5.5	2.2
1,2-DICHLOROPROPANE	ND	5.5	2.2
2-BUTANONE	ND	11	5.5
2-HEXANONE	ND	11	5.5
4-METHYL-2-PENTANONE	ND	11	5.5
ACETONE	ND	11	5.5
BENZENE	ND	5.5	2.2
BROMODICHLOROMETHANE	ND	5.5	2.2
BROMOFORM	ND	5.5	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.5	2.2
CARBON TETRACHLORIDE	ND	5.5	2.2
CHLOROBENZENE	ND	5.5	2.2
CHLOROETHANE	ND	5.5	2.2
CHLOROFORM	ND	5.5	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.5	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.5	2.2
DIBROMOCHLOROMETHANE	ND	5.5	2.2
ETHYLBENZENE	ND	5.5	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.5	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.5	2.2
STYRENE	ND	5.5	2.2
TETRACHLOROETHENE	ND	5.5	2.2
TOLUENE	ND	5.5	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.5	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.5	2.2
TRICHLOROETHENE	ND	5.5	2.2
VINYL CHLORIDE	ND	5.5	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	54-154
4-BROMOFLUOROBENZENE	101	63-143
TOLUENE-D8	93	63-143

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 16:43
Sample ID: NM03-B5 5.5-6	Date Analyzed: 06/03/05 16:43
Lab Samp ID: E233-10	Dilution Factor: 1
Lab File ID: RFW087	Matrix : SOIL
Ext Btch ID: VO06F10	% Moisture : 16.4
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6	2.4
1,1,2,2-TETRACHLOROETHANE	ND	6	2.4
1,1,2-TRICHLOROETHANE	ND	6	2.4
1,1-DICHLOROETHANE	ND	6	2.4
1,1-DICHLOROETHENE	ND	6	2.4
1,2-DICHLOROETHANE	ND	6	2.4
1,2-DICHLOROPROPANE	ND	6	2.4
2-BUTANONE	11J	12	6
2-HEXANONE	ND	12	6
4-METHYL-2-PENTANONE	ND	12	6
ACETONE	49	12	6
BENZENE	ND	6	2.4
BROMODICHLOROMETHANE	ND	6	2.4
BROMOFORM	ND	6	2.4
BROMOMETHANE	ND	12	2.4
CARBON DISULFIDE	ND	6	2.4
CARBON TETRACHLORIDE	ND	6	2.4
CHLOROBENZENE	ND	6	2.4
CHLOROETHANE	ND	6	2.4
CHLOROFORM	ND	6	2.4
CHLOROMETHANE	ND	12	2.4
CIS-1,2-DICHLOROETHENE	ND	6	2.4
CIS-1,3-DICHLOROPROPENE	ND	6	2.4
DIBROMOCHLOROMETHANE	ND	6	2.4
ETHYLBENZENE	ND	6	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	6	2.4
METHYLENE CHLORIDE	ND	12	2.4
O-XYLENE	ND	6	2.4
STYRENE	ND	6	2.4
TETRACHLOROETHENE	ND	6	2.4
TOLUENE	ND	6	2.4
TRANS-1,2-DICHLOROETHENE	ND	6	2.4
TRANS-1,3-DICHLOROPROPENE	ND	6	2.4
TRICHLOROETHENE	ND	6	2.4
VINYL CHLORIDE	ND	6	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	54-154
4-BROMOFLUOROBENZENE	103	63-143
TOLUENE-D8	95	63-143

2018

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 17:22
Sample ID: NM03-B5 10.5-11	Date Analyzed: 06/03/05 17:22
Lab Samp ID: E233-11	Dilution Factor: 1
Lab File ID: RFW088	Matrix : SOIL
Ext Btch ID: V006F10	% Moisture : 20.7
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.3	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.3	2.5
1,1,2-TRICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHENE	ND	6.3	2.5
1,2-DICHLOROETHANE	ND	6.3	2.5
1,2-DICHLOROPROPANE	ND	6.3	2.5
2-BUTANONE	ND	13	6.3
2-HEXANONE	ND	13	6.3
4-METHYL-2-PENTANONE	ND	13	6.3
ACETONE	ND	13	6.3
BENZENE	ND	6.3	2.5
BROMODICHLOROMETHANE	ND	6.3	2.5
BROMOFORM	ND	6.3	2.5
BROMOMETHANE	ND	13	2.5
CARBON DISULFIDE	ND	6.3	2.5
CARBON TETRACHLORIDE	ND	6.3	2.5
CHLOROBENZENE	ND	6.3	2.5
CHLOROETHANE	ND	6.3	2.5
CHLOROFORM	ND	6.3	2.5
CHLOROMETHANE	ND	13	2.5
CIS-1,2-DICHLOROETHENE	ND	6.3	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.3	2.5
DIBROMOCHLOROMETHANE	ND	6.3	2.5
ETHYLBENZENE	ND	6.3	2.5
M/P-XYLENES	ND	13	2.5
MTBE	ND	6.3	2.5
METHYLENE CHLORIDE	ND	13	2.5
O-XYLENE	ND	6.3	2.5
STYRENE	ND	6.3	2.5
TETRACHLOROETHENE	ND	6.3	2.5
TOLUENE	ND	6.3	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.3	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.3	2.5
TRICHLOROETHENE	ND	6.3	2.5
VINYL CHLORIDE	ND	6.3	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	106	54-154
4-BROMOFLUOROBENZENE	105	63-143
TOLUENE-D8	94	63-143

2019

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 06/03/05 18:00
Sample ID: NM03-B5 15.5-16	Date Analyzed: 06/03/05 18:00
Lab Samp ID: E233-12	Dilution Factor: 1
Lab File ID: RFW089	Matrix : SOIL
Ext Btch ID: VOO6F10	% Moisture : 23.2
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.5	2.6
1,1,2,2-TETRACHLOROETHANE	ND	6.5	2.6
1,1,2-TRICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHENE	ND	6.5	2.6
1,2-DICHLOROETHANE	ND	6.5	2.6
1,2-DICHLOROPROPANE	ND	6.5	2.6
2-BUTANONE	ND	13	6.5
2-HEXANONE	ND	13	6.5
4-METHYL-2-PENTANONE	ND	13	6.5
ACETONE	ND	13	6.5
BENZENE	ND	6.5	2.6
BROMODICHLOROMETHANE	ND	6.5	2.6
BROMOFORM	ND	6.5	2.6
BROMOMETHANE	ND	13	2.6
CARBON DISULFIDE	ND	6.5	2.6
CARBON TETRACHLORIDE	ND	6.5	2.6
CHLOROBENZENE	ND	6.5	2.6
CHLOROETHANE	ND	6.5	2.6
CHLOROFORM	ND	6.5	2.6
CHLOROMETHANE	ND	13	2.6
CIS-1,2-DICHLOROETHENE	ND	6.5	2.6
CIS-1,3-DICHLOROPROPENE	ND	6.5	2.6
DIBROMOCHLOROMETHANE	ND	6.5	2.6
ETHYLBENZENE	ND	6.5	2.6
M/P-XYLENES	ND	13	2.6
MTBE	ND	6.5	2.6
METHYLENE CHLORIDE	ND	13	2.6
O-XYLENE	ND	6.5	2.6
STYRENE	ND	6.5	2.6
TETRACHLOROETHENE	ND	6.5	2.6
TOLUENE	ND	6.5	2.6
TRANS-1,2-DICHLOROETHENE	ND	6.5	2.6
TRANS-1,3-DICHLOROPROPENE	ND	6.5	2.6
TRICHLOROETHENE	ND	6.5	2.6
VINYL CHLORIDE	ND	6.5	2.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	54-154
4-BROMOFLUOROBENZENE	104	63-143
TOLUENE-D8	95	63-143

2020

QC SUMMARIES

2021

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05E233	Date Extracted: 06/01/05 00:58
Sample ID: MBLK1S	Date Analyzed: 06/01/05 00:58
Lab Samp ID: V006E39B	Dilution Factor: 1
Lab File ID: REW480	Matrix : SOIL
Ext Btch ID: V006E39	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	60-140
4-BROMOFLUOROBENZENE	109	70-130
TOLUENE-D8	98	70-130

2022

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: V006E39B V006E39L V006E39C
LAB FILE ID: REW480 REW478 REW479
DATE EXTRACTED: 06/01/0500:58 05/31/0523:40 06/01/0500:19 DATE COLLECTED: NA
DATE ANALYZED: 06/01/0500:58 05/31/0523:40 06/01/0500:19 DATE RECEIVED: 06/01/05
PREP. BATCH: V006E39 V006E39 V006E39
CALIB. REF: REW378 REW378 REW378

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	18.5	93	20	18.9	94	2	60-140	50
Benzene	ND	20	20.7	103	20	20.9	105	1	70-130	50
Chlorobenzene	ND	20	20.1	101	20	20.5	103	2	70-130	50
Toluene	ND	20	20.9	104	20	20.9	105	0	70-130	50
Trichloroethene	ND	20	19	95	20	19.1	95	0	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	55.1	110	50	57.9	116	60-140
4-Bromofluorobenzene	50	54.7	109	50	57.4	115	70-130
Toluene-d8	50	48.4	97	50	50.7	101	70-130

2023

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E233	Date Extracted: 06/03/05 13:30
Sample ID: MBLK2S	Date Analyzed: 06/03/05 13:30
Lab Samp ID: V006F10B	Dilution Factor: 1
Lab File ID: RFW082	Matrix : SOIL
Ext Btch ID: V006F10	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	96	60-140
4-BROMOFLUOROBENZENE	101	70-130
TOLUENE-D8	92	70-130

2024

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK2S
LAB SAMP ID: V006F10B V006F10L V006F10C
LAB FILE ID: RFW082 RFW080 RFW081
DATE EXTRACTED: 06/03/0513:30 06/03/0512:12 06/03/0512:51 DATE COLLECTED: NA
DATE ANALYZED: 06/03/0513:30 06/03/0512:12 06/03/0512:51 DATE RECEIVED: 06/03/05
PREP. BATCH: V006F10 V006F10 V006F10
CALIB. REF: REW378 REW378 REW378

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	17.6	88	20	17.8	89	1	60-140	50
Benzene	ND	20	20.3	101	20	20.8	104	3	70-130	50
Chlorobenzene	ND	20	20.1	101	20	20.7	103	3	70-130	50
Toluene	ND	20	20.4	102	20	20.9	105	3	70-130	50
Trichloroethene	ND	20	19.6	98	20	20.1	101	3	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	57.1	114	50	54.1	108	60-140
4-Bromofluorobenzene	50	55.7	111	50	53.5	107	70-130
Toluene-d8	50	49.9	100	50	48.6	97	70-130

2025

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E233

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and six (6) soil samples were received on 05/25/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   Sample E233-04 was spiked. All recoveries were within QC limit.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-041

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVE059SB	1	NA	06/07/0522:23	05/31/0517:30	RFH121	REH231	SVE059S	Method Blank
LCS1S	SVE059SL	1	NA	06/07/0522:50	05/31/0517:30	RFH122	REH231	SVE059S	Lab Control Sample (LCS)
LCD1S	SVE059SC	1	NA	06/07/0523:18	05/31/0517:30	RFH123	REH231	SVE059S	LCS Duplicate
NM03-B4 5-5.5	E233-03	1	9.1	06/07/0523:45	05/31/0517:30	RFH124	REH231	SVE059S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	06/08/0500:13	05/31/0517:30	RFH125	REH231	SVE059S	Field Sample
NM03-B4 35.5-36MS	E233-04M	1	8.0	06/08/0500:41	05/31/0517:30	RFH126	REH231	SVE059S	Matrix Spike Sample (MS)
NM03-B4 35.5-36MSD	E233-04S	1	8.0	06/08/0501:08	05/31/0517:30	RFH127	REH231	SVE059S	MS Duplicate (MSD)
NM03-B4 50-50.5	E233-05	1	9.9	06/08/0501:36	05/31/0517:30	RFH128	REH231	SVE059S	Field Sample
NM03-B5 5.5-6	E233-10	1	16.4	06/08/0502:04	05/31/0517:30	RFH129	REH231	SVE059S	Field Sample
NM03-B5 10.5-11	E233-11	1	20.7	06/08/0502:31	05/31/0517:30	RFH130	REH231	SVE059S	Field Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/08/0502:59	05/31/0517:30	RFH131	REH231	SVE059S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVE056WB	1	NA	06/03/0521:15	05/30/0512:00	RFH039	REH231	SVE056W	Method Blank
LCS1W	SVE056WL	1	NA	06/03/0521:43	05/30/0512:00	RFH040	REH231	SVE056W	Lab Control Sample (LCS)
LCD1W	SVE056WC	1	NA	06/03/0522:11	05/30/0512:00	RFH041	REH231	SVE056W	LCS Duplicate
NM03-GW05	E233-07	.94	NA	06/07/0521:28	05/30/0512:00	RFH119	REH231	SVE056W	Field Sample
NM03-ER05	E233-08	.94	NA	06/07/0521:55	05/30/0512:00	RFH120	REH231	SVE056W	Field Sample

FN - Filename
% Moist - Percent Moisture

3002

SAMPLE RESULTS

3003

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B4 5-5.5	Date Analyzed: 06/07/05 23:45
Lab Samp ID: E233-03	Dilution Factor: 1
Lab File ID: RFH124	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 9.1
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	360	180
1,2-DICHLOROBENZENE	ND	360	180
1,3-DICHLOROBENZENE	ND	360	180
1,4-DICHLOROBENZENE	ND	360	180
2,4,5-TRICHLOROPHENOL	ND	360	180
2,4,6-TRICHLOROPHENOL	ND	360	200
2,4-DICHLOROPHENOL	ND	360	180
2,4-DIMETHYLPHENOL	ND	360	180
2,4-DINITROPHENOL	ND	730	180
2,4-DINITROTOLUENE	ND	360	180
2,6-DINITROTOLUENE	ND	360	180
2-CHLORONAPHTHALENE	ND	360	180
2-CHLOROPHENOL	ND	360	180
2-METHYLNAPHTHALENE	ND	360	180
2-METHYLPHENOL	ND	360	180
2-NITROANILINE	ND	360	180
2-NITROPHENOL	ND	360	180
3,3'-DICHLOROBENZIDINE	ND	360	180
3-NITROANILINE	ND	360	180
4,6-DINITRO-2-METHYLPHENOL	ND	730	180
4-BROMOPHENYL-PHENYL ETHER	ND	360	180
4-CHLORO-3-METHYLPHENOL	ND	360	180
4-CHLOROANILINE	ND	360	180
4-CHLOROPHENYL-PHENYL ETHER	ND	360	180
4-METHYLPHENOL (1)	ND	360	180
4-NITROANILINE	ND	360	180
4-NITROPHENOL	ND	730	180
ACENAPHTHENE	ND	360	180
ACENAPHTHYLENE	ND	360	180
ANTHRACENE	ND	360	180
BENZO(A)ANTHRACENE	ND	360	180
BENZO(A)PYRENE	ND	360	180
BENZO(B)FLUORANTHENE	ND	360	180
BENZO(K)FLUORANTHENE	ND	360	180
BENZO(G,H,I)PERYLENE	ND	360	180
BIS(2-CHLOROETHOXY)METHANE	ND	360	180
BIS(2-CHLOROETHYL)ETHER	ND	360	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	360	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	360	180
BUTYLBENZYLPHTHALATE	ND	360	180
CHRYSENE	ND	360	180
DI-N-BUTYLPHTHALATE	ND	360	180
DI-N-OCTYLPHTHALATE	ND	360	180
DIBENZO(A,H)ANTHRACENE	ND	360	180
DIBENZOFURAN	ND	360	180
DIETHYLPHTHALATE	ND	360	180
DIMETHYLPHTHALATE	ND	360	180
FLUORANTHENE	ND	360	180
FLUORENE	ND	360	180
HEXACHLOROBENZENE	ND	360	180
HEXACHLOROBUTADIENE	ND	360	210
HEXACHLOROCYCLOPENTADIENE	ND	360	180
HEXACHLOROETHANE	ND	360	180
INDENO(1,2,3-CD)PYRENE	ND	360	180
ISOPHORONE	ND	360	180
N-NITROSO-DI-N-PROPYLAMINE	ND	360	180
N-NITROSODIPHENYLAMINE (2)	ND	360	180
NAPHTHALENE	ND	360	180
NITROBENZENE	ND	360	180
PENTACHLOROPHENOL	ND	730	190
PHENANTHRENE	ND	360	180
PHENOL	ND	360	180
PYRENE	ND	360	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	73	36-143
2-FLUOROBIPHENYL	57	36-143
2-FLUOROPHENOL	49	36-143
NITROBENZENE-D5	61	36-143
PHENOL-D5	49	36-143
TERPHENYL-D14	82	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B4 35.5-36	Date Analyzed: 06/08/05 00:13
Lab Samp ID: E233-04	Dilution Factor: 1
Lab File ID: RFH125	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 8.0
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	360	180
1,2-DICHLOROBENZENE	ND	360	180
1,3-DICHLOROBENZENE	ND	360	180
1,4-DICHLOROBENZENE	ND	360	180
2,4,5-TRICHLOROPHENOL	ND	360	180
2,4,6-TRICHLOROPHENOL	ND	360	200
2,4-DICHLOROPHENOL	ND	360	180
2,4-DIMETHYLPHENOL	ND	360	180
2,4-DINITROPHENOL	ND	720	180
2,4-DINITROTOLUENE	ND	360	180
2,6-DINITROTOLUENE	ND	360	180
2-CHLORONAPHTHALENE	ND	360	180
2-CHLOROPHENOL	ND	360	180
2-METHYLNAPHTHALENE	ND	360	180
2-METHYLPHENOL	ND	360	180
2-NITROANILINE	ND	360	180
2-NITROPHENOL	ND	360	180
3,3'-DICHLOROBENZIDINE	ND	360	180
3-NITROANILINE	ND	360	180
4,6-DINITRO-2-METHYLPHENOL	ND	720	180
4-BROMOPHENYL-PHENYL ETHER	ND	360	180
4-CHLORO-3-METHYLPHENOL	ND	360	180
4-CHLOROANILINE	ND	360	180
4-CHLOROPHENYL-PHENYL ETHER	ND	360	180
4-METHYLPHENOL (1)	ND	360	180
4-NITROANILINE	ND	360	180
4-NITROPHENOL	ND	720	180
ACENAPHTHENE	ND	360	180
ACENAPHTHYLENE	ND	360	180
ANTHRACENE	ND	360	180
BENZO(A)ANTHRACENE	ND	360	180
BENZO(A)PYRENE	ND	360	180
BENZO(B)FLUORANTHENE	ND	360	180
BENZO(K)FLUORANTHENE	ND	360	180
BENZO(G,H,I)PERYLENE	ND	360	180
BIS(2-CHLOROETHOXY)METHANE	ND	360	180
BIS(2-CHLOROETHYL)ETHER	ND	360	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	360	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	360	180
BUTYLBENZYLPHTHALATE	ND	360	180
CHRYSENE	ND	360	180
DI-N-BUTYLPHTHALATE	ND	360	180
DI-N-OCTYLPHTHALATE	ND	360	180
DIBENZO(A,H)ANTHRACENE	ND	360	180
DIBENZOFURAN	ND	360	180
DIETHYLPHTHALATE	ND	360	180
DIMETHYLPHTHALATE	ND	360	180
FLUORANTHENE	ND	360	180
FLUORENE	ND	360	180
HEXACHLOROBENZENE	ND	360	180
HEXACHLOROBUTADIENE	ND	360	210
HEXACHLOROCYCLOPENTADIENE	ND	360	180
HEXACHLOROETHANE	ND	360	180
INDENO(1,2,3-CD)PYRENE	ND	360	180
ISOPHORONE	ND	360	180
N-NITROSO-DI-N-PROPYLAMINE	ND	360	180
N-NITROSODIPHENYLAMINE (2)	ND	360	180
NAPHTHALENE	ND	360	180
NITROBENZENE	ND	360	180
PENTACHLOROPHENOL	ND	720	190
PHENANTHRENE	ND	360	180
PHENOL	ND	360	180
PYRENE	ND	360	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	62	36-143
2-FLUOROBIPHENYL	54	36-143
2-FLUOROPHENOL	47	36-143
NITROBENZENE-D5	58	36-143
PHENOL-D5	48	36-143
TERPHENYL-D14	84	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B4 50-50.5	Date Analyzed: 06/08/05 01:36
Lab Samp ID: E233-05	Dilution Factor: 1
Lab File ID: RFH128	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 9.9
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	200
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	730	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	730	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	730	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	730	190
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	68	36-143
2-FLUOROBIPHENYL	65	36-143
2-FLUOROPHENOL	56	36-143
NITROBENZENE-D5	70	36-143
PHENOL-D5	57	36-143
TERPHENYL-D14	68	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/30/05 12:00
Sample ID: NM03-GW05	Date Analyzed: 06/07/05 21:28
Lab Samp ID: E233-07	Dilution Factor: .94
Lab File ID: RFH119	Matrix : WATER
Ext Btch ID: SVE056W	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	19	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	91	36-143
2-FLUOROBIPHENYL	49	36-143
2-FLUOROPHENOL	43	36-143
NITROBENZENE-D5	56	36-143
PHENOL-D5	48	36-143
TERPHENYL-D14	85	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/30/05 12:00
Sample ID: NM03-ER05	Date Analyzed: 06/07/05 21:55
Lab Samp ID: E233-08	Dilution Factor: .94
Lab File ID: RFH120	Matrix : WATER
Ext Btch ID: SVE056W	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	80	36-143
2-FLUOROBIPHENYL	56	36-143
2-FLUOROPHENOL	47	36-143
NITROBENZENE-D5	63	36-143
PHENOL-D5	49	36-143
TERPHENYL-D14	88	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B5 5.5-6	Date Analyzed: 06/08/05 02:04
Lab Samp ID: E233-10	Dilution Factor: 1
Lab File ID: RFH129	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 16.4
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	390	200
1,2-DICHLOROBENZENE	ND	390	200
1,3-DICHLOROBENZENE	ND	390	200
1,4-DICHLOROBENZENE	ND	390	200
2,4,5-TRICHLOROPHENOL	ND	390	200
2,4,6-TRICHLOROPHENOL	ND	390	220
2,4-DICHLOROPHENOL	ND	390	200
2,4-DIMETHYLPHENOL	ND	390	200
2,4-DINITROPHENOL	ND	790	200
2,4-DINITROTOLUENE	ND	390	200
2,6-DINITROTOLUENE	ND	390	200
2-CHLORONAPHTHALENE	ND	390	200
2-CHLOROPHENOL	ND	390	200
2-METHYLNAPHTHALENE	ND	390	200
2-METHYLPHENOL	ND	390	200
2-NITROANILINE	ND	390	200
2-NITROPHENOL	ND	390	200
3,3'-DICHLOROBENZIDINE	ND	390	200
3-NITROANILINE	ND	390	200
4,6-DINITRO-2-METHYLPHENOL	ND	790	200
4-BROMOPHENYL-PHENYL ETHER	ND	390	200
4-CHLORO-3-METHYLPHENOL	ND	390	200
4-CHLOROANILINE	ND	390	200
4-CHLOROPHENYL-PHENYL ETHER	ND	390	200
4-METHYLPHENOL (1)	ND	390	200
4-NITROANILINE	ND	390	200
4-NITROPHENOL	ND	790	200
ACENAPHTHENE	ND	390	200
ACENAPHTHYLENE	ND	390	200
ANTHRACENE	ND	390	200
BENZO(A)ANTHRACENE	ND	390	200
BENZO(A)PYRENE	ND	390	200
BENZO(B)FLUORANTHENE	ND	390	200
BENZO(K)FLUORANTHENE	ND	390	200
BENZO(G,H,I)PERYLENE	ND	390	200
BIS(2-CHLOROETHOXY)METHANE	ND	390	200
BIS(2-CHLOROETHYL)ETHER	ND	390	200
BIS(2-CHLOROISOPROPYL)ETHER	ND	390	200
BIS(2-ETHYLHEXYL)PHTHALATE	ND	390	200
BUTYLBENZYLPHTHALATE	ND	390	200
CHRYSENE	ND	390	200
DI-N-BUTYLPHTHALATE	ND	390	200
DI-N-OCTYLPHTHALATE	ND	390	200
DIBENZO(A,H)ANTHRACENE	ND	390	200
DIBENZOFURAN	ND	390	200
DIETHYLPHTHALATE	ND	390	200
DIMETHYLPHTHALATE	ND	390	200
FLUORANTHENE	ND	390	200
FLUORENE	ND	390	200
HEXACHLOROBENZENE	ND	390	200
HEXACHLOROBUTADIENE	ND	390	230
HEXACHLOROCYCLOPENTADIENE	ND	390	200
HEXACHLOROETHANE	ND	390	200
INDENO(1,2,3-CD)PYRENE	ND	390	200
ISOPHORONE	ND	390	200
N-NITROSO-DI-N-PROPYLAMINE	ND	390	200
N-NITROSODIPHENYLAMINE (2)	ND	390	200
NAPHTHALENE	ND	390	200
NITROBENZENE	ND	390	200
PENTACHLOROPHENOL	ND	790	210
PHENANTHRENE	ND	390	200
PHENOL	ND	390	200
PYRENE	ND	390	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	74	36-143
2-FLUOROBIPHENYL	62	36-143
2-FLUOROPHENOL	49	36-143
NITROBENZENE-D5	63	36-143
PHENOL-D5	53	36-143
TERPHENYL-D14	77	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B5 10.5-11	Date Analyzed: 06/08/05 02:31
Lab Samp ID: E233-11	Dilution Factor: 1
Lab File ID: RFH130	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 20.7
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	420	210
1,2-DICHLOROBENZENE	ND	420	210
1,3-DICHLOROBENZENE	ND	420	210
1,4-DICHLOROBENZENE	ND	420	210
2,4,5-TRICHLOROPHENOL	ND	420	210
2,4,6-TRICHLOROPHENOL	ND	420	230
2,4-DICHLOROPHENOL	ND	420	210
2,4-DIMETHYLPHENOL	ND	420	210
2,4-DINITROPHENOL	ND	830	210
2,4-DINITROTOLUENE	ND	420	210
2,6-DINITROTOLUENE	ND	420	210
2-CHLORONAPHTHALENE	ND	420	210
2-CHLOROPHENOL	ND	420	210
2-METHYLNAPHTHALENE	ND	420	210
2-METHYLPHENOL	ND	420	210
2-NITROANILINE	ND	420	210
2-NITROPHENOL	ND	420	210
3,3'-DICHLOROBENZIDINE	ND	420	210
3-NITROANILINE	ND	420	210
4,6-DINITRO-2-METHYLPHENOL	ND	830	210
4-BROMOPHENYL-PHENYL ETHER	ND	420	210
4-CHLORO-3-METHYLPHENOL	ND	420	210
4-CHLOROANILINE	ND	420	210
4-CHLOROPHENYL-PHENYL ETHER	ND	420	210
4-METHYLPHENOL (1)	ND	420	210
4-NITROANILINE	ND	420	210
4-NITROPHENOL	ND	830	210
ACENAPHTHENE	ND	420	210
ACENAPHTHYLENE	ND	420	210
ANTHRACENE	ND	420	210
BENZO(A)ANTHRACENE	ND	420	210
BENZO(A)PYRENE	ND	420	210
BENZO(B)FLUORANTHENE	ND	420	210
BENZO(K)FLUORANTHENE	ND	420	210
BENZO(G,H,I)PERYLENE	ND	420	210
BIS(2-CHLOROETHOXY)METHANE	ND	420	210
BIS(2-CHLOROETHYL)ETHER	ND	420	210
BIS(2-CHLOROISOPROPYL)ETHER	ND	420	210
BIS(2-ETHYLHEXYL)PHTHALATE	ND	420	210
BUTYLBENZYLPHTHALATE	ND	420	210
CHRYSENE	ND	420	210
DI-N-BUTYLPHTHALATE	ND	420	210
DI-N-OCTYLPHTHALATE	ND	420	210
DIBENZO(A,H)ANTHRACENE	ND	420	210
DIBENZOFURAN	ND	420	210
DIETHYLPHTHALATE	ND	420	210
DIMETHYLPHTHALATE	ND	420	210
FLUORANTHENE	ND	420	210
FLUORENE	ND	420	210
HEXACHLOROBENZENE	ND	420	210
HEXACHLOROBUTADIENE	ND	420	240
HEXACHLOROCYCLOPENTADIENE	ND	420	210
HEXACHLOROETHANE	ND	420	210
INDENO(1,2,3-CD)PYRENE	ND	420	210
ISOPHORONE	ND	420	210
N-NITROSO-DI-N-PROPYLAMINE	ND	420	210
N-NITROSODIPHENYLAMINE (2)	ND	420	210
NAPHTHALENE	ND	420	210
NITROBENZENE	ND	420	210
PENTACHLOROPHENOL	ND	830	220
PHENANTHRENE	ND	420	210
PHENOL	ND	420	210
PYRENE	ND	420	210

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	47	36-143
2-FLUOROBIPHENYL	48	36-143
2-FLUOROPHENOL	40	36-143
NITROBENZENE-D5	50	36-143
PHENOL-D5	43	36-143
TERPHENYL-D14	59	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: NM03-B5 15.5-16	Date Analyzed: 06/08/05 02:59
Lab Samp ID: E233-12	Dilution Factor: 1
Lab File ID: RFH131	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 23.2
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	430	220
1,2-DICHLOROBENZENE	ND	430	220
1,3-DICHLOROBENZENE	ND	430	220
1,4-DICHLOROBENZENE	ND	430	220
2,4,5-TRICHLOROPHENOL	ND	430	220
2,4,6-TRICHLOROPHENOL	ND	430	240
2,4-DICHLOROPHENOL	ND	430	220
2,4-DIMETHYLPHENOL	ND	430	220
2,4-DINITROPHENOL	ND	860	220
2,4-DINITROTOLUENE	ND	430	220
2,6-DINITROTOLUENE	ND	430	220
2-CHLORONAPHTHALENE	ND	430	220
2-CHLOROPHENOL	ND	430	220
2-METHYLNAPHTHALENE	ND	430	220
2-METHYLPHENOL	ND	430	220
2-NITROANILINE	ND	430	220
2-NITROPHENOL	ND	430	220
3,3'-DICHLOROBENZIDINE	ND	430	220
3-NITROANILINE	ND	430	220
4,6-DINITRO-2-METHYLPHENOL	ND	860	220
4-BROMOPHENYL-PHENYL ETHER	ND	430	220
4-CHLORO-3-METHYLPHENOL	ND	430	220
4-CHLOROANILINE	ND	430	220
4-CHLOROPHENYL-PHENYL ETHER	ND	430	220
4-METHYLPHENOL (1)	ND	430	220
4-NITROANILINE	ND	430	220
4-NITROPHENOL	ND	860	220
ACENAPHTHENE	ND	430	220
ACENAPHTHYLENE	ND	430	220
ANTHRACENE	ND	430	220
BENZO(A)ANTHRACENE	ND	430	220
BENZO(A)PYRENE	ND	430	220
BENZO(B)FLUORANTHENE	ND	430	220
BENZO(K)FLUORANTHENE	ND	430	220
BENZO(G,H,I)PERYLENE	ND	430	220
BIS(2-CHLOROETHOXY)METHANE	ND	430	220
BIS(2-CHLOROETHYL)ETHER	ND	430	220
BIS(2-CHLOROISOPROPYL)ETHER	ND	430	220
BIS(2-ETHYLHEXYL)PHTHALATE	ND	430	220
BUTYLBENZYLPHTHALATE	ND	430	220
CHRYSENE	ND	430	220
DI-N-BUTYLPHTHALATE	ND	430	220
DI-N-OCTYLPHTHALATE	ND	430	220
DIBENZO(A,H)ANTHRACENE	ND	430	220
DIBENZOFURAN	ND	430	220
DIETHYLPHTHALATE	ND	430	220
DIMETHYLPHTHALATE	ND	430	220
FLUORANTHENE	ND	430	220
FLUORENE	ND	430	220
HEXACHLOROBENZENE	ND	430	220
HEXACHLOROBUTADIENE	ND	430	250
HEXACHLOROCYCLOPENTADIENE	ND	430	220
HEXACHLOROETHANE	ND	430	220
INDENO(1,2,3-CD)PYRENE	ND	430	220
ISOPHORONE	ND	430	220
N-NITROSO-DI-N-PROPYLAMINE	ND	430	220
N-NITROSODIPHENYLAMINE (2)	ND	430	220
NAPHTHALENE	ND	430	220
NITROBENZENE	ND	430	220
PENTACHLOROPHENOL	ND	860	230
PHENANTHRENE	ND	430	220
PHENOL	ND	430	220
PYRENE	ND	430	220

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	49	36-143
2-FLUOROBIPHENYL	50	36-143
2-FLUOROPHENOL	43	36-143
NITROBENZENE-D5	52	36-143
PHENOL-D5	47	36-143
TERPHENYL-D14	55	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARIES

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/30/05
Batch No. : 05E233	Date Extracted: 05/30/05 12:00
Sample ID: MBLK1W	Date Analyzed: 06/03/05 21:15
Lab Samp ID: SVE056WB	Dilution Factor: 1
Lab File ID: RFH039	Matrix : WATER
Ext Btch ID: SVE056W	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	63	40-130
2-FLUOROBIPHENYL	52	40-130
2-FLUOROPHENOL	45	40-130
NITROBENZENE-D5	56	40-130
PHENOL-D5	48	40-130
TERPHENYL-D14	92	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 3520C/8270C

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVE056WB	SVE056WL	SVE056WC		
LAB FILE ID:	RFH039	RFH040	RFH041		
DATE EXTRACTED:	05/30/0512:00	05/30/0512:00	05/30/0512:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0521:15	06/03/0521:43	06/03/0522:11	DATE RECEIVED:	05/30/05
PREP. BATCH:	SVE056W	SVE056W	SVE056W		
CALIB. REF:	REH231	REH231	REH231		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	34.6	43	80	31.1	39	11	30-130	30
1,4-Dichlorobenzene	ND	80	30.6	38	80	24.5	31	22	30-130	30
2,4-Dinitrotoluene	ND	80	66.8	84	80	61.4	77	8	50-130	30
2-Chlorophenol	ND	80	37.2	46	80	35.1	44	6	30-130	30
4-Chloro-3-Methylphenol	ND	80	45.1	56	80	47.9	60	6	40-130	30
4-Nitrophenol	ND	80	57.6	72	80	55.1	69	4	40-130	30
Acenaphthene	ND	80	45.8	57	80	45.7	57	0	40-130	30
n-Nitroso-di-n-propylamine	ND	80	39.1	49	80	40.2	50	3	40-130	30
Pentachlorophenol	ND	80	65.6	82	80	61.3	77	7	40-130	30
Phenol	ND	80	33.8	42	80	33.2	42	2	30-130	30
Pyrene	ND	80	65.2	82	80	60.7	76	7	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	122	81	150	112	75	40-130
2-Fluorobiphenyl	100	53.8	54	100	57.3	57	40-130
2-Fluorophenol	150	66.3	44	150	61.4	41	40-130
Nitrobenzene-d5	100	57.7	58	100	59.6	60	40-130
Phenol-d5	150	70.9	47	150	70.2	47	40-130
Terphenyl-d14	100	88.9	89	100	84.8	85	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/31/05
Batch No. : 05E233	Date Extracted: 05/31/05 17:30
Sample ID: MBLK1S	Date Analyzed: 06/07/05 22:23
Lab Samp ID: SVE059SB	Dilution Factor: 1
Lab File ID: RFH121	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	70	40-130
2-FLUOROBIPHENYL	59	40-130
2-FLUOROPHENOL	50	40-130
NITROBENZENE-D5	63	40-130
PHENOL-D5	53	40-130
TERPHENYL-D14	79	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 3550B/8270C

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVE059SB	SVE059SL	SVE059SC		
LAB FILE ID:	RFH121	RFH122	RFH123		
DATE EXTRACTED:	05/31/0517:30	05/31/0517:30	05/31/0517:30	DATE COLLECTED:	NA
DATE ANALYZED:	06/07/0522:23	06/07/0522:50	06/07/0523:18	DATE RECEIVED:	05/31/05
PREP. BATCH:	SVE059S	SVE059S	SVE059S		
CALIB. REF:	REH231	REH231	REH231		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	1360	51	2670	1480	55	8	40-130	50
1,4-Dichlorobenzene	ND	2670	1280	48	2670	1400	52	9	30-130	50
2,4-Dinitrotoluene	ND	2670	1620	61	2670	1830	69	12	40-130	50
2-Chlorophenol	ND	2670	1330	50	2670	1450	55	9	40-130	50
4-Chloro-3-Methylphenol	ND	2670	1240	47	2670	1380	52	10	40-130	50
4-Nitrophenol	ND	2670	1320	50	2670	1530	58	15	25-130	50
Acenaphthene	ND	2670	1290	48	2670	1400	52	8	40-130	50
n-Nitroso-di-n-propylamine	ND	2670	1130	42	2670	1290	48	13	40-130	50
Pentachlorophenol	ND	2670	1490	56	2670	1670	62	11	30-130	50
Phenol	ND	2670	1150	43	2670	1240	46	7	40-130	50
Pyrene	ND	2670	1650	62	2670	1840	69	11	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	2910	58	5000	3270	65	40-130
2-Fluorobiphenyl	3330	1660	50	3330	1850	56	40-130
2-Fluorophenol	5000	2260	45	5000	2450	49	40-130
Nitrobenzene-d5	3330	1860	56	3330	2020	61	40-130
Phenol-d5	5000	2300	46	5000	2470	49	40-130
Terphenyl-d14	3330	2620	79	3330	2910	87	50-130

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW 3550B/8270C

MATRIX: SOIL % MOISTURE: 8.0
DILUTION FACTOR: 1 1 1
SAMPLE ID: NM03-B4 35.5-36
LAB SAMP ID: E233-04 E233-04M E233-04S
LAB FILE ID: RFH125 RFH126 RFH127
DATE EXTRACTED: 05/31/0517:30 05/31/0517:30 05/31/0517:30 DATE COLLECTED: 05/23/05
DATE ANALYZED: 06/08/0500:13 06/08/0500:41 06/08/0501:08 DATE RECEIVED: 05/25/05
PREP. BATCH: SVE059S SVE059S SVE059S
CALIB. REF: REH231 REH231 REH231

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2900	1650	57	2900	1250	43	28	36-143	50
1,4-Dichlorobenzene	ND	2900	1470	51	2900	1130	39	26	27-143	50
2,4-Dinitrotoluene	ND	2900	1890	65	2900	1310	45	36	36-143	50
2-Chlorophenol	ND	2900	1630	56	2900	1270	44	25	36-143	50
4-Chloro-3-Methylphenol	ND	2900	1620	56	2900	1220	42	29	36-143	50
4-Nitrophenol	ND	2900	1650	57	2900	1160	40	35	22-143	50
Acenaphthene	ND	2900	1680	58	2900	1290	45	26	36-143	50
n-Nitroso-di-n-propylamine	ND	2900	1520	52	2900	1100	38	32	36-143	50
Pentachlorophenol	ND	2900	1750	60	2900	1180	41	39	27-143	50
Phenol	ND	2900	1390	48	2900	1070	37	26	36-143	50
Pyrene	ND	2900	1750	60	2900	1320	46	28	36-143	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5430	3760	69	5430	2590	48	36-143
2-Fluorobiphenyl	3620	2160	60	3620	1760	49	36-143
2-Fluorophenol	5430	2750	51	5430	2170	40	36-143
Nitrobenzene-d5	3620	2350	65	3620	1780	49	36-143
Phenol-d5	5430	2830	52	5430	2260	42	36-143
Terphenyl-d14	3620	2720	75	3620	2110	58	45-143

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05E233

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and six (6) soil samples were received on 05/25/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 05/28/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour intervals and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39E21B	1	NA	05/31/0512:16	05/31/0512:16	EE31003A	EE31002A	VA39E21	Method Blank
LCS1W	VA39E21L	1	NA	05/31/0512:52	05/31/0512:52	EE31004A	EE31002A	VA39E21	Lab Control Sample (LCS)
LCD1W	VA39E21C	1	NA	05/31/0513:28	05/31/0513:28	EE31005A	EE31002A	VA39E21	LCS Duplicate
NM03-GW05	E233-07R	1	NA	05/31/0523:30	05/31/0523:30	EE31021A	EE31011A	VA39E21	Field Sample
NM03-ER05	E233-08R	1	NA	06/01/0501:18	06/01/0501:18	EE31024A	EE31022A	VA39E21	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME022SB	1	NA	06/01/0521:02	06/01/0521:02	EE31054A	EE31048A	VME022S	Method Blank
LCS1S	VME022SL	1	NA	06/01/0519:51	06/01/0519:51	EE31052A	EE31048A	VME022S	Lab Control Sample (LCS)
LCD1S	VME022SC	1	NA	06/01/0520:27	06/01/0520:27	EE31053A	EE31048A	VME022S	LCS Duplicate
NM03-B4 5-5.5	E233-03	1	9.1	06/02/0505:58	06/02/0505:58	EE31069A	EE31060A	VME022S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	06/02/0506:34	06/02/0506:34	EE31070A	EE31060A	VME022S	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	06/02/0507:10	06/02/0507:10	EE31071A	EE31060A	VME022S	Field Sample
NM03-B5 5.5-6	E233-10	1	16.4	06/02/0508:57	06/02/0508:57	EE31074A	EE31072A	VME022S	Field Sample
NM03-B5 10.5-11	E233-11W	1	20.7	06/02/0510:51	06/02/0510:51	EE31077A	EE31072A	VME022S	Field Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/02/0510:08	06/02/0510:08	EE31076A	EE31072A	VME022S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39E21B	ND	94	1	NA	.1	.02	05/31/0512:16	05/31/0512:16	EE31003A	EE31002A	VA39E21	NA	05/31/05
LCS1W	VA39E21L	.4	106	1	NA	.1	.02	05/31/0512:52	05/31/0512:52	EE31004A	EE31002A	VA39E21	NA	05/31/05
LCD1W	VA39E21C	.348	107	1	NA	.1	.02	05/31/0513:28	05/31/0513:28	EE31005A	EE31002A	VA39E21	NA	05/31/05
NM03-GW05	E233-07R	ND	88	1	NA	.1	.02	05/31/0523:30	05/31/0523:30	EE31021A	EE31011A	VA39E21	05/24/05	05/25/05
NM03-ER05	E233-08R	ND	95	1	NA	.1	.02	06/01/0501:18	06/01/0501:18	EE31024A	EE31022A	VA39E21	05/24/05	05/25/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME022SB	ND	93	1	NA	1	.5	06/01/0521:02	06/01/0521:02	EE31054A	EE31048A	VME022S	NA	06/01/05
LCS1S	VME022SL	23.4	104	1	NA	1	.5	06/01/0519:51	06/01/0519:51	EE31052A	EE31048A	VME022S	NA	06/01/05
LCD1S	VME022SC	22.6	106	1	NA	1	.5	06/01/0520:27	06/01/0520:27	EE31053A	EE31048A	VME022S	NA	06/01/05
NM03-B4 5-5.5	E233-03	ND	86	1	9.1	1.1	.55	06/02/0505:58	06/02/0505:58	EE31069A	EE31060A	VME022S	05/23/05	05/25/05
NM03-B4 35.5-36	E233-04	ND	90	1	8.0	1.1	.54	06/02/0506:34	06/02/0506:34	EE31070A	EE31060A	VME022S	05/23/05	05/25/05
NM03-B4 50-50.5	E233-05	ND	87	1	9.9	1.1	.55	06/02/0507:10	06/02/0507:10	EE31071A	EE31060A	VME022S	05/23/05	05/25/05
NM03-B5 5.5-6	E233-10	ND	81	1	16.4	1.2	.6	06/02/0508:57	06/02/0508:57	EE31074A	EE31072A	VME022S	05/24/05	05/25/05
NM03-B5 10.5-11	E233-11W	ND	78	1	20.7	1.3	.63	06/02/0510:51	06/02/0510:51	EE31077A	EE31072A	VME022S	05/24/05	05/25/05
NM03-B5 15.5-16	E233-12	ND	78	1	23.2	1.3	.65	06/02/0510:08	06/02/0510:08	EE31076A	EE31072A	VME022S	05/24/05	05/25/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction : 05/28/05 12:30

4005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39E21B	VA39E21L	VA39E21C		
LAB FILE ID:	EE31003A	EE31004A	EE31005A		
DATE EXTRACTED:	05/31/0512:16	05/31/0512:52	05/31/0513:28	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0512:16	05/31/0512:52	05/31/0513:28	DATE RECEIVED:	05/31/05
PREP. BATCH:	VA39E21	VA39E21	VA39E21		
CALIB. REF:	EE31002A	EE31002A	EE31002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.4	80	.5	.348	70	14	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0424	106	.04	.0429	107	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 5030B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VME022SB	VME022SL	VME022SC		
LAB FILE ID:	EE31054A	EE31052A	EE31053A		
DATE EXTRACTED:	06/01/0521:02	06/01/0519:51	06/01/0520:27	DATE COLLECTED:	NA
DATE ANALYZED:	06/01/0521:02	06/01/0519:51	06/01/0520:27	DATE RECEIVED:	06/01/05
PREP. BATCH:	VME022S	VME022S	VME022S		
CALIB. REF:	EE31048A	EE31048A	EE31048A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	23.4	94	25	22.6	90	4	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.08	104	2	2.12	106	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E233

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water and six (6) soil samples were received on 05/25/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 05/30/05 and completed on 05/31/05. Extraction for soil samples was performed and completed on 05/27/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample E233-05 was spiked. Recoveries were within QC limits.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

Sample E233-07 displayed heavier hydrocarbon pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : GCT072

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE035SB	1	NA	05/28/0508:52	05/27/0514:00	BE26052A	BE26049A	DSE035S	Method Blank
LCS1S	DSE035SL	1	NA	05/28/0508:08	05/27/0514:00	BE26051A	BE26049A	DSE035S	Lab Control Sample (LCS)
NM03-B4 5-5.5	E233-03	1	9.1	05/28/0511:47	05/27/0514:00	BE26056A	BE26049A	DSE035S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	05/28/0512:31	05/27/0514:00	BE26057A	BE26049A	DSE035S	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	05/28/0515:26	05/27/0514:00	BE26061A	BE26060A	DSE035S	Field Sample
NM03-B4 50-50.5MS	E233-05M	1	9.9	05/28/0516:10	05/27/0514:00	BE26062A	BE26060A	DSE035S	Matrix Spike Sample (MS)
NM03-B4 50-50.5MSD	E233-05S	1	9.9	05/28/0516:54	05/27/0514:00	BE26063A	BE26060A	DSE035S	MS Duplicate (MSD)
NM03-B5 5.5-6	E233-10	1	16.4	05/28/0513:15	05/27/0514:00	BE26058A	BE26049A	DSE035S	Field Sample
NM03-B5 10.5-11	E233-11	1	20.7	05/28/0513:59	05/27/0514:00	BE26059A	BE26049A	DSE035S	Field Sample
NM03-B5 15.5-16	E233-12	1	23.2	05/28/0517:37	05/27/0514:00	BE26064A	BE26060A	DSE035S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W!	DSE036WB	1	NA	05/31/0512:43	05/30/0512:00	TE31004A	TE31002A	DSE036W	Method Blank
LCS1W!	DSE036WL	1	NA	05/31/0513:25	05/30/0512:00	TE31005A	TE31002A	DSE036W	Lab Control Sample (LCS)
LCD1W!	DSE036WC	1	NA	05/31/0514:07	05/30/0512:00	TE31006A	TE31002A	DSE036W	LCS Duplicate
NM03-GW05!	E233-07	1	NA	05/31/0520:00	05/30/0512:00	TE31013A	TE31002A	DSE036W	Field Sample
NM03-ER05!	E233-08	.97	NA	05/31/0521:25	05/30/0512:00	TE31015A	TE31014A	DSE036W	Field Sample

! Instrument ID : GCT050
FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : WATER
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSE036WB	ND	57	92	1	NA	.5	.1	05/31/0512:43	05/30/0512:00	TE31004A	TE31002A	DSE036W	NA	05/30/05
LCS1W	DSE036WL	4.54	71	97	1	NA	.5	.1	05/31/0513:25	05/30/0512:00	TE31005A	TE31002A	DSE036W	NA	05/30/05
LCD1W	DSE036WC	4.66	69	96	1	NA	.5	.1	05/31/0514:07	05/30/0512:00	TE31006A	TE31002A	DSE036W	NA	05/30/05
NM03-GW05	E233-07	.21J	56	72	1	NA	.5	.1	05/31/0520:00	05/30/0512:00	TE31013A	TE31002A	DSE036W	05/24/05	05/25/05
NM03-ER05	E233-08	ND	69	102	.97	NA	.49	.097	05/31/0521:25	05/30/0512:00	TE31015A	TE31014A	DSE036W	05/24/05	05/25/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE035SB	ND	96	107	1	NA	10	5	05/28/0508:52	05/27/0514:00	BE26052A	BE26049A	DSE035S	NA	05/27/05
LCS1S	DSE035SL	426	104	104	1	NA	10	5	05/28/0508:08	05/27/0514:00	BE26051A	BE26049A	DSE035S	NA	05/27/05
NM03-B4 5-5.5	E233-03	ND	96	107	1	9.1	11	5.5	05/28/0511:47	05/27/0514:00	BE26056A	BE26049A	DSE035S	05/23/05	05/25/05
NM03-B4 35.5-36	E233-04	ND	103	111	1	8.0	11	5.4	05/28/0512:31	05/27/0514:00	BE26057A	BE26049A	DSE035S	05/23/05	05/25/05
NM03-B4 50-50.5	E233-05	ND	96	104	1	9.9	11	5.5	05/28/0515:26	05/27/0514:00	BE26061A	BE26060A	DSE035S	05/23/05	05/25/05
NM03-B4 50-50.5MS	E233-05M	503	98	108	1	9.9	11.1	5.55	05/28/0516:10	05/27/0514:00	BE26062A	BE26060A	DSE035S	05/23/05	05/25/05
NM03-B4 50-50.5MSD	E233-05S	515	103	111	1	9.9	11.1	5.55	05/28/0516:54	05/27/0514:00	BE26063A	BE26060A	DSE035S	05/23/05	05/25/05
NM03-B5 5.5-6	E233-10	ND	93	107	1	16.4	12	6	05/28/0513:15	05/27/0514:00	BE26058A	BE26049A	DSE035S	05/24/05	05/25/05
NM03-B5 10.5-11	E233-11	ND	98	107	1	20.7	13	6.3	05/28/0513:59	05/27/0514:00	BE26059A	BE26049A	DSE035S	05/24/05	05/25/05
NM03-B5 15.5-16	E233-12	ND	102	112	1	23.2	13	6.5	05/28/0517:37	05/27/0514:00	BE26064A	BE26060A	DSE035S	05/24/05	05/25/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5005 C1

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 3520C/M8015

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSE036WB	DSE036WL	DSE036WC		
LAB FILE ID:	TE31004A	TE31005A	TE31006A		
DATE EXTRACTED:	05/30/0512:00	05/30/0512:00	05/30/0512:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0512:43	05/31/0513:25	05/31/0514:07	DATE RECEIVED:	05/30/05
PREP. BATCH:	DSE036W	DSE036W	DSE036W		
CALIB. REF:	TE31002A	TE31002A	TE31002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.54	91	5	4.66	93	3	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.71	71	1	.691	69	50-140
Hexacosane	.25	.244	97	.25	.24	96	70-150

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD LUFT/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: DSE035SB DSE035SL
LAB FILE ID: BE26052A BE26051A
DATE EXTRACTED: 05/27/0514:00 05/27/0514:00 DATE COLLECTED: NA
DATE ANALYZED: 05/28/0508:52 05/28/0508:08 DATE RECEIVED: 05/27/05
PREP. BATCH: DSE035S DSE035S
CALIB. REF: BE26049A BE26049A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Diesel	ND	500	426	85	60-150

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Bromobenzene	100	104	104	60-150
Hexacosane	25	26.1	104	60-160

5008

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD LUFT/M8015

MATRIX: SOIL % MOISTURE: 9.9
DILUTION FACTOR: 1 1 1
SAMPLE ID: NM03-B4 50-50.5
LAB SAMP ID: E233-05 E233-05M E233-05S
LAB FILE ID: BE26061A BE26062A BE26063A
DATE EXTRACTED: 05/27/0514:00 05/27/0514:00 05/27/0514:00 DATE COLLECTED: 05/23/05
DATE ANALYZED: 05/28/0515:26 05/28/0516:10 05/28/0516:54 DATE RECEIVED: 05/25/05
PREP. BATCH: DSE035S DSE035S DSE035S
CALIB. REF: BE26060A BE26060A BE26060A

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	555	503	91	555	515	93	2	54-165	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromobenzene	111	109	98	111	114	103	54-165
Hexacosane	27.7	30.1	108	27.7	30.7	111	54-176

5009

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3520C/3550B/8082
PCBs

SDG#: 05E233

5010

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

SW3520C/3550B/8082
PCBs

Two (2) water and six (6) soil samples were received on 05/25/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. Holding Time

Analytical holding time was met.

2. Instrument Performance and Calibration

Initial calibration was 5-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample E233-05 was spiked. All recoveries were within QC limit.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All QC criteria were met.

Soil extracts were cleaned up by acid prior to analysis.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE040SB	1	NA	05/31/0516:11	05/31/0512:30	SE31014A	SE31006A	CPE040S	Method Blank
LCS1S	60E040SL	1	NA	05/31/0517:27	05/31/0512:30	SE31017A	SE31006A	CPE040S	Lab Control Sample (LCS)
LCD1S	60E040SC	1	NA	05/31/0517:52	05/31/0512:30	SE31018A	SE31006A	CPE040S	LCS Duplicate
NM03-B4 5-5.5	E233-03	1	9.1	05/31/0519:59	05/31/0512:30	SE31023A	SE31006A	CPE040S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	05/31/0520:24	05/31/0512:30	SE31024A	SE31006A	CPE040S	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	05/31/0520:49	05/31/0512:30	SE31025A	SE31006A	CPE040S	Field Sample
NM03-B4 50-50.5MS	E233-05M	1	9.9	05/31/0521:15	05/31/0512:30	SE31026A	SE31006A	CPE040S	Matrix Spike Sample (MS)
NM03-B4 50-50.5MSD	E233-05S	1	9.9	05/31/0521:40	05/31/0512:30	SE31027A	SE31006A	CPE040S	MS Duplicate (MSD)
NM03-B5 5.5-6	E233-10	1	16.4	06/01/0500:37	05/31/0512:30	SE31034A	SE31033A	CPE040S	Field Sample
NM03-B5 10.5-11	E233-11	1	20.7	06/01/0501:02	05/31/0512:30	SE31035A	SE31033A	CPE040S	Field Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/01/0501:28	05/31/0512:30	SE31036A	SE31033A	CPE040S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60E039WB	1	NA	05/31/0514:04	05/30/0512:00	SE31009A	SE31006A	60E039W	Method Blank
LCS1W	60E039WL	1	NA	05/31/0514:29	05/30/0512:00	SE31010A	SE31006A	60E039W	Lab Control Sample (LCS)
LCD1W	60E039WC	1	NA	05/31/0514:54	05/30/0512:00	SE31011A	SE31006A	60E039W	LCS Duplicate
NM03-GW05	E233-07	1.09	NA	05/31/0515:20	05/30/0512:00	SE31012A	SE31006A	60E039W	Field Sample
NM03-ER05	E233-08	.94	NA	05/31/0515:45	05/30/0512:00	SE31013A	SE31006A	60E039W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/23/05
Project	: CALTRANS	Date Received:	05/25/05
Batch No.	: 05E233	Date Extracted:	05/31/05 12:30
Sample ID:	NM03-B4 5-5.5	Date Analyzed:	05/31/05 19:59
Lab Samp ID:	E233-03	Dilution Factor:	1
Lab File ID:	SE31023A	Matrix	: SOIL
Ext Btch ID:	CPE040S	% Moisture	: 9.1
Calib. Ref.:	SE31006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	55	22 | 22
PCB-1221	(ND) | ND	55	22 | 22
PCB-1232	(ND) | ND	55	22 | 22
PCB-1242	(ND) | ND	55	22 | 22
PCB-1248	(ND) | ND	55	22 | 22
PCB-1254	(ND) | ND	55	22 | 22
PCB-1260	(ND) | ND	55	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 85	45-154
DECACHLOROBIPHENYL	(84) | 82	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/23/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 12:30
Sample ID: NM03-B4 35.5-36	Date Analyzed: 05/31/05 20:24
Lab Samp ID: E233-04	Dilution Factor: 1
Lab File ID: SE31024A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 8.0
Calib. Ref.: SE31006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	54	22 | 22
PCB-1221	(ND) | ND	54	22 | 22
PCB-1232	(ND) | ND	54	22 | 22
PCB-1242	(ND) | ND	54	22 | 22
PCB-1248	(ND) | ND	54	22 | 22
PCB-1254	(ND) | ND	54	22 | 22
PCB-1260	(ND) | ND	54	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(77) | 85	45-154
DECACHLOROBIPHENYL	(86) | 86	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/23/05
Project	: CALTRANS	Date Received:	05/25/05
Batch No.	: 05E233	Date Extracted:	05/31/05 12:30
Sample ID:	NM03-B4 50-50.5	Date Analyzed:	05/31/05 20:49
Lab Samp ID:	E233-05	Dilution Factor:	1
Lab File ID:	SE31025A	Matrix :	SOIL
Ext Btch ID:	CPE040S	% Moisture :	9.9
Calib. Ref.:	SE31006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	55	22 | 22
PCB-1221	(ND) | ND	55	22 | 22
PCB-1232	(ND) | ND	55	22 | 22
PCB-1242	(ND) | ND	55	22 | 22
PCB-1248	(ND) | ND	55	22 | 22
PCB-1254	(ND) | ND	55	22 | 22
PCB-1260	(ND) | ND	55	22 | 22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(71) | 79	45-154
DECACHLOROBIPHENYL	(86) | 84	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/24/05
Project	: CALTRANS	Date Received:	05/25/05
Batch No.	: 05E233	Date Extracted:	05/30/05 12:00
Sample ID:	NM03-GW05	Date Analyzed:	05/31/05 15:20
Lab Samp ID:	E233-07	Dilution Factor:	1.09
Lab File ID:	SE31012A	Matrix :	WATER
Ext Btch ID:	60E039W	% Moisture :	NA
Calib. Ref.:	SE31006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	1.1	.55 | .55
PCB-1221	(ND) | ND	1.1	.55 | .55
PCB-1232	(ND) | ND	1.1	.55 | .55
PCB-1242	(ND) | ND	1.1	.55 | .55
PCB-1248	(ND) | ND	1.1	.55 | .55
PCB-1254	(ND) | ND	1.1	.55 | .55
PCB-1260	(ND) | ND	1.1	.55 | .55

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	44* | (63)	45-165
DECACHLOROBIPHENYL	(63) | 64	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/24/05
Project	: CALTRANS	Date Received:	05/25/05
Batch No.	: 05E233	Date Extracted:	05/30/05 12:00
Sample ID:	NM03-ER05	Date Analyzed:	05/31/05 15:45
Lab Samp ID:	E233-08	Dilution Factor:	.94
Lab File ID:	SE31013A	Matrix	: WATER
Ext Btch ID:	60E039W	% Moisture	: NA
Calib. Ref.:	SE31006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	.94	.47 | .47
PCB-1221	(ND) | ND	.94	.47 | .47
PCB-1232	(ND) | ND	.94	.47 | .47
PCB-1242	(ND) | ND	.94	.47 | .47
PCB-1248	(ND) | ND	.94	.47 | .47
PCB-1254	(ND) | ND	.94	.47 | .47
PCB-1260	(ND) | ND	.94	.47 | .47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75) | 81	45-165
DECACHLOROBIPHENYL	(93) | 93	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/24/05
Project	: CALTRANS	Date Received:	05/25/05
Batch No.	: 05E233	Date Extracted:	05/31/05 12:30
Sample ID:	NM03-B5 5.5-6	Date Analyzed:	06/01/05 00:37
Lab Samp ID:	E233-10	Dilution Factor:	1
Lab File ID:	SE31034A	Matrix	: SOIL
Ext Btch ID:	CPE040S	% Moisture	: 16.4
Calib. Ref.:	SE31033A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	60	24 | 24
PCB-1221	(ND) | ND	60	24 | 24
PCB-1232	(ND) | ND	60	24 | 24
PCB-1242	(ND) | ND	60	24 | 24
PCB-1248	(ND) | ND	60	24 | 24
PCB-1254	(ND) | ND	60	24 | 24
PCB-1260	(ND) | ND	60	24 | 24

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 80	45-154
DECACHLOROBIPHENYL	(90) | 88	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 12:30
Sample ID: NM03-B5 10.5-11	Date Analyzed: 06/01/05 01:02
Lab Samp ID: E233-11	Dilution Factor: 1
Lab File ID: SE31035A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 20.7
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	63	25 | 25
PCB-1221	(ND) | ND	63	25 | 25
PCB-1232	(ND) | ND	63	25 | 25
PCB-1242	(ND) | ND	63	25 | 25
PCB-1248	(ND) | ND	63	25 | 25
PCB-1254	(ND) | ND	63	25 | 25
PCB-1260	(ND) | ND	63	25 | 25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(68) | 80	45-154
DECACHLOROBIPHENYL	(89) | 88	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/24/05
Project : CALTRANS	Date Received: 05/25/05
Batch No. : 05E233	Date Extracted: 05/31/05 12:30
Sample ID: NM03-B5 15.5-16	Date Analyzed: 06/01/05 01:28
Lab Samp ID: E233-12	Dilution Factor: 1
Lab File ID: SE31036A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 23.2
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	65	26 | 26
PCB-1221	(ND) | ND	65	26 | 26
PCB-1232	(ND) | ND	65	26 | 26
PCB-1242	(ND) | ND	65	26 | 26
PCB-1248	(ND) | ND	65	26 | 26
PCB-1254	(ND) | ND	65	26 | 26
PCB-1260	(ND) | ND	65	26 | 26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(67) | 79	45-154
DECACHLOROBIPHENYL	(93) | 93	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

5022

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/30/05
Batch No. : 05E233	Date Extracted: 05/30/05 12:00
Sample ID: MBLK1W	Date Analyzed: 05/31/05 14:04
Lab Samp ID: 60E039WB	Dilution Factor: 1
Lab File ID: SE31009A	Matrix : WATER
Ext Btch ID: 60E039W	% Moisture : NA
Calib. Ref.: SE31006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1	.5|.5
PCB-1221	(ND)|ND	1	.5|.5
PCB-1232	(ND)|ND	1	.5|.5
PCB-1242	(ND)|ND	1	.5|.5
PCB-1248	(ND)|ND	1	.5|.5
PCB-1254	(ND)|ND	1	.5|.5
PCB-1260	(ND)|ND	1	.5|.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(66)|73	50-150
DECACHLOROBIPHENYL	(86)|87	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: 60E039WB 60E039WL 60E039WC
LAB FILE ID: SE31009A SE31010A SE31011A
DATE EXTRACTED: 05/30/0512:00 05/30/0512:00 05/30/0512:00 DATE COLLECTED: NA
DATE ANALYZED: 05/31/0514:04 05/31/0514:29 05/31/0514:54 DATE RECEIVED: 05/30/05
PREP. BATCH: 60E039W 60E039W 60E039W
CALIB. REF: SE31006A SE31006A SE31006A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(4.62) | 4.45	(92) | 89	5	(4.29) | 4.16	(86) | 83	(7) | 7	50-130	30
PCB-1260	(ND) | ND	5	(4.98) | 4.87	(100) | 97	5	(5.21) | 4.89	(104) | 98	(5) | 0	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.331) | .349	(83) | 87	.4	(.299) | .323	(75) | 81	50-150
Decachlorobiphenyl	.4	(.37) | .362	(93) | 91	.4	(.373) | .365	(93) | 91	70-150

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/31/05
Batch No.	: 05E233	Date Extracted:	05/31/05 12:30
Sample ID:	MBLK1S	Date Analyzed:	05/31/05 16:11
Lab Samp ID:	CPE040SB	Dilution Factor:	1
Lab File ID:	SE31014A	Matrix :	SOIL
Ext Btch ID:	CPE040S	% Moisture :	NA
Calib. Ref.:	SE31006A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	50	20|20
PCB-1221	(ND)|ND	50	20|20
PCB-1232	(ND)|ND	50	20|20
PCB-1242	(ND)|ND	50	20|20
PCB-1248	(ND)|ND	50	20|20
PCB-1254	(ND)|ND	50	20|20
PCB-1260	(ND)|ND	50	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76)|82	50-140
DECACHLOROBIPHENYL	(94)|93	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	CPE040SB	60E040SL	60E040SC		
LAB FILE ID:	SE31014A	SE31017A	SE31018A		
DATE EXTRACTED:	05/31/0512:30	05/31/0512:30	05/31/0512:30	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0516:11	05/31/0517:27	05/31/0517:52	DATE RECEIVED:	05/31/05
PREP. BATCH:	CPE040S	CPE040S	CPE040S		
CALIB. REF:	SE31006A	SE31006A	SE31006A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND)|ND	167	(115)|115	(69)|69	167	(112)|125	(67)|75	(3)|8	50-130	50
PCB-1260	(ND)|ND	167	(149)|151	(89)|91	167	(153)|145	(92)|87	(3)|4	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(8.61)|9.26	(65)|69	13.3	(8.39)|9.08	(63)|68	50-140
Decachlorobiphenyl	13.3	(12.3)|12.3	(93)|92	13.3	(12.2)|12.1	(91)|91	50-140

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: 9.9

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	NM03-B4 50-50.5				
LAB SAMP ID:	E233-05	E233-05M	E233-05S		
LAB FILE ID:	SE31025A	SE31026A	SE31027A		
DATE EXTRACTED:	05/31/0512:30	05/31/0512:30	05/31/0512:30	DATE COLLECTED:	05/23/05
DATE ANALYZED:	05/31/0520:49	05/31/0521:15	05/31/0521:40	DATE RECEIVED:	05/25/05
PREP. BATCH:	CPE040S	CPE040S	CPE040S		
CALIB. REF:	SE31006A	SE31006A	SE31006A		

ACCESSION:

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	185	(157) | 133	(85) | 72	185	(168) | 161	(91) | 87	(7) | 19	45-143	50
PCB-1260	(ND) | ND	185	(174) | 167	(94) | 90	185	(177) | 169	(96) | 91	(2) | 1	54-165	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	14.8	(8.8) | 9.64	(60) | 65	14.8	(11.2) | 11.6	(76) | 78	45-154
Decachlorobiphenyl	14.8	(13.3) | 12.8	(90) | 86	14.8	(13.2) | 12.7	(89) | 86	45-154

* : Outside of QC limits

5027

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

TOTAL AND DISSOLVED
METALS BY ICP / MERCURY

SDG#: 05E233

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

METHOD 3010A/3050B/6010B
TOTAL AND DISSOLVED METALS BY ICP

Two (2) water and eight (8) soil samples for Total and Dissolved Metals were received on 05/25/05 to be analyzed by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples F233-07 and -12 were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   Sample E233-12 was spiked. Recoveries were within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedure. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-I73

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPF020SB	1	NA	06/07/0520:34	06/06/0509:15	I73F015011	I73F015009	IPF020S	Method Blank
LCS1S	IPF020SL	1	NA	06/07/0520:40	06/06/0509:15	I73F015012	I73F015009	IPF020S	Lab Control Sample (LCS)
LCD1S	IPF020SC	1	NA	06/07/0520:46	06/06/0509:15	I73F015013	I73F015009	IPF020S	LCS Duplicate
NM03-B4 0.5-1	E233-02	1	6.8	06/07/0520:54	06/06/0509:15	I73F015014	I73F015009	IPF020S	Field Sample
NM03-B5 1-1.5	E233-09	1	10.5	06/07/0521:19	06/06/0509:15	I73F015018	I73F015009	IPF020S	Field Sample
NM03-B5 5.5-6	E233-10	1	16.4	06/07/0521:25	06/06/0509:15	I73F015019	I73F015009	IPF020S	Field Sample
NM03-B5 10.5-11	E233-11	1	20.7	06/07/0521:31	06/06/0509:15	I73F015020	I73F015009	IPF020S	Field Sample
NM03-B5 15.5-16DL	E233-12T	5	23.2	06/07/0521:53	06/06/0509:15	I73F015023	I73F015021	IPF020S	Diluted Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/07/0521:59	06/06/0509:15	I73F015024	I73F015021	IPF020S	Field Sample
NM03-B5 15.5-16AS	E233-12A	1	23.2	06/07/0522:05	06/06/0509:15	I73F015025	I73F015021	IPF020S	Analytical Spike Sample
NM03-B5 15.5-16MS	E233-12M	1	23.2	06/07/0522:11	06/06/0509:15	I73F015026	I73F015021	IPF020S	Matrix Spike Sample (MS)
NM03-B5 15.5-16MSD	E233-12S	1	23.2	06/07/0522:17	06/06/0509:15	I73F015027	I73F015021	IPF020S	MS Duplicate (MSD)

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPF020SB	ND	1	NA	1	.2	06/07/0520:34	06/06/0509:15	I73F015011	I73F015009	IPF020S	NA	06/06/05
LCS1S	IPF020SL	101	1	NA	1	.2	06/07/0520:40	06/06/0509:15	I73F015012	I73F015009	IPF020S	NA	06/06/05
LCD1S	IPF020SC	99.1	1	NA	1	.2	06/07/0520:46	06/06/0509:15	I73F015013	I73F015009	IPF020S	NA	06/06/05
NM03-B4 0.5-1	E233-02	2.85	1	6.8	1.07	.215	06/07/0520:54	06/06/0509:15	I73F015014	I73F015009	IPF020S	05/23/05	05/25/05
NM03-B5 1-1.5	E233-09	2.28	1	10.5	1.12	.223	06/07/0521:19	06/06/0509:15	I73F015018	I73F015009	IPF020S	05/24/05	05/25/05
NM03-B5 5.5-6	E233-10	3.35	1	16.4	1.2	.239	06/07/0521:25	06/06/0509:15	I73F015019	I73F015009	IPF020S	05/24/05	05/25/05
NM03-B5 10.5-11	E233-11	2.52	1	20.7	1.26	.252	06/07/0521:31	06/06/0509:15	I73F015020	I73F015009	IPF020S	05/24/05	05/25/05
NM03-B5 15.5-16DL	E233-12T	1.78J	5	23.2	6.51	1.3	06/07/0521:53	06/06/0509:15	I73F015023	I73F015021	IPF020S	05/24/05	05/25/05
NM03-B5 15.5-16	E233-12	2.17	1	23.2	1.3	.26	06/07/0521:59	06/06/0509:15	I73F015024	I73F015021	IPF020S	05/24/05	05/25/05
NM03-B5 15.5-16AS	E233-12A	124	1	23.2	1.3	.26	06/07/0522:05	06/06/0509:15	I73F015025	I73F015021	IPF020S	05/24/05	05/25/05
NM03-B5 15.5-16MS	E233-12M	119	1	23.2	1.3	.26	06/07/0522:11	06/06/0509:15	I73F015026	I73F015021	IPF020S	05/24/05	05/25/05
NM03-B5 15.5-16MSD	E233-12S	119	1	23.2	1.3	.26	06/07/0522:17	06/06/0509:15	I73F015027	I73F015021	IPF020S	05/24/05	05/25/05

7003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPF020SB IPF020SL IPF020SC
LAB FILE ID: I73F015011 I73F015012 I73F015013
DATIME EXTRCTD: 06/06/0509:15 06/06/0509:15 06/06/0509:15 DATE COLLECTED: NA
DATIME ANALYZD: 06/07/0520:34 06/07/0520:40 06/07/0520:46 DATE RECEIVED: 06/06/05
PREP. BATCH: IPF020S IPF020S IPF020S
CALIB. REF: I73F015009 I73F015009 I73F015009

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	101	101	100	99.1	99	1	80-120	20

7004

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	23.2
DILTN FACTR:	1	1	1		
SAMPLE ID:	NM03-B5 15.5-16				
CONTROL NO.:	E233-12	E233-12M	E233-12S		
LAB FILE ID:	I73F015024	I73F015026	I73F015027		
DATIME EXTRCTD:	06/06/0509:15	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/07/0521:59	06/07/0522:11	06/07/0522:17	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF020S	IPF020S	IPF020S		
CALIB. REF:	I73F015021	I73F015021	I73F015021		

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	2.17	130	119	90	130	119	90	0	75-125	20

7005

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	23.2
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B5 15.5-16	NM03-B5 15.5-1		
EMAX SAMP ID:	E233-12	E233-12T		
LAB FILE ID:	173F015024	173F015023		
DATE EXTRACTED:	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	05/24/05
DATE ANALYZED:	06/07/0521:59	06/07/0521:53	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF020S	IPF020S		
CALIB. REF:	173F015021	173F015021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	2.17	1.78J	NA	10

9004

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	23.2
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B5 15.5-16			
CONTROL NO.:	E233-12	E233-12A		
LAB FILE ID:	I73F015024	I73F015025		
DATIME EXTRCTD:	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/07/0521:59	06/07/0522:05	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF020S	IPF020S		
CALIB. REF:	I73F015021	I73F015021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	2.17	130	124	93	75-125

7007

LAB CHRONICLE
METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-I73

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPF020SB	1	NA	06/07/0520:34	06/06/0509:15	I73F015011	I73F015009	IPF020S	Method Blank
LCS1S	IPF020SL	1	NA	06/07/0520:40	06/06/0509:15	I73F015012	I73F015009	IPF020S	Lab Control Sample (LCS)
LCD1S	IPF020SC	1	NA	06/07/0520:46	06/06/0509:15	I73F015013	I73F015009	IPF020S	LCS Duplicate
NM03-B4 5-5.5	E233-03	1	9.1	06/07/0521:00	06/06/0509:15	I73F015015	I73F015009	IPF020S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	06/07/0521:06	06/06/0509:15	I73F015016	I73F015009	IPF020S	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	06/07/0521:12	06/06/0509:15	I73F015017	I73F015009	IPF020S	Field Sample
NM03-B5 15.5-16DL	E233-12T	5	23.2	06/07/0521:53	06/06/0509:15	I73F015023	I73F015021	IPF020S	Diluted Sample
NM03-B5 15.5-16	E233-12	1	23.2	06/07/0521:59	06/06/0509:15	I73F015024	I73F015021	IPF020S	Field Sample
NM03-B5 15.5-16AS	E233-12A	1	23.2	06/07/0522:05	06/06/0509:15	I73F015025	I73F015021	IPF020S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

8004

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/23/05
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E233	Date Extracted:	06/06/05 09:15
Sample ID:	NM03-B4 5-5.5	Date Analyzed:	06/07/05 21:00
Lab Samp ID:	E233-03	Dilution Factor:	1
Lab File ID:	I73F015015	Matrix :	SOIL
Ext Btch ID:	IPF020S	% Moisture :	9.1
Calib. Ref.:	I73F015009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11	2.2
Arsenic	1.88	1.1	.44
Barium	7.93	1.1	.22
Beryllium	.221J	1.1	.22
Cadmium	ND	1.1	.11
Chromium	6.27	1.1	.22
Cobalt	1.14	1.1	.22
Copper	1.67	1.1	.22
Lead	1.99	1.1	.22
Molybdenum	ND	5.5	.55
Nickel	1.75	1.1	.22
Selenium	ND	1.1	.55
Silver	ND	1.1	.275
Thallium	2.31	1.1	.55
Vanadium	14.5	1.1	.55
Zinc	7.14	1.1	.55

7009

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/23/05
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E233	Date Extracted:	06/06/05 09:15
Sample ID:	NM03-B4 35.5-36	Date Analyzed:	06/07/05 21:06
Lab Samp ID:	E233-04	Dilution Factor:	1
Lab File ID:	I73F015016	Matrix :	SOIL
Ext Btch ID:	IPF020S	% Moisture :	8.0
Calib. Ref.:	I73F015009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.9	2.17
Arsenic	2.38	1.09	.435
Barium	8.44	1.09	.217
Beryllium	.23J	1.09	.217
Cadmium	ND	1.09	.109
Chromium	5.25	1.09	.217
Cobalt	1.73	1.09	.217
Copper	1.36	1.09	.217
Lead	1.61	1.09	.217
Molybdenum	ND	5.43	.543
Nickel	2.56	1.09	.217
Selenium	ND	1.09	.543
Silver	ND	1.09	.272
Thallium	1.67	1.09	.543
Vanadium	9.55	1.09	.543
Zinc	17.8	1.09	.543

7010

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/23/05
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E233	Date Extracted:	06/06/05 09:15
Sample ID:	NM03-B4 50-50.5	Date Analyzed:	06/07/05 21:12
Lab Samp ID:	E233-05	Dilution Factor:	1
Lab File ID:	I73F015017	Matrix :	SOIL
Ext Btch ID:	IPF020S	% Moisture :	9.9
Calib. Ref.:	I73F015009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.1	2.22
Arsenic	4.24	1.11	.444
Barium	4.67	1.11	.222
Beryllium	ND	1.11	.222
Cadmium	ND	1.11	.111
Chromium	5.35	1.11	.222
Cobalt	1.02J	1.11	.222
Copper	.926J	1.11	.222
Lead	1.36	1.11	.222
Molybdenum	ND	5.55	.555
Nickel	1.76	1.11	.222
Selenium	ND	1.11	.555
Silver	ND	1.11	.277
Thallium	1.66	1.11	.555
Vanadium	8.41	1.11	.555
Zinc	11.6	1.11	.555

7011

METHOD 3050B/6010B
METALS BY ICP

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/06/05
SDG NO. : 05E233	Date Extracted: 06/06/05 09:15
Sample ID: MBLK1S	Date Analyzed: 06/07/05 20:34
Lab Samp ID: IPF020SB	Dilution Factor: 1
Lab File ID: I73F015011	Matrix : SOIL
Ext Btch ID: IPF020S	% Moisture : NA
Calib. Ref.: I73F015009	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	ND	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	.6J	1	.5
Vanadium	ND	1	.5
Zinc	ND	1	.5

7012

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPF020SB	IPF020SL	IPF020SC		
LAB FILE ID:	I73F015011	I73F015012	I73F015013		
DATIME EXTRCTD:	06/06/0509:15	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	NA
DATIME ANALYZD:	06/07/0520:34	06/07/0520:40	06/07/0520:46	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF020S	IPF020S	IPF020S		
CALIB. REF:	I73F015009	I73F015009	I73F015009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	497	99	500	493	99	1	80-120	20
Arsenic	ND	100	99.8	100	100	98.1	98	2	80-120	20
Barium	ND	100	95.1	95	100	95.1	95	0	80-120	20
Beryllium	ND	100	105	105	100	104	104	1	80-120	20
Cadmium	ND	100	97	97	100	95.7	96	1	80-120	20
Chromium	ND	100	101	101	100	101	101	1	80-120	20
Cobalt	ND	100	99.1	99	100	98.2	98	1	80-120	20
Copper	ND	100	105	105	100	105	105	0	80-120	20
Lead	ND	100	101	101	100	99.1	99	1	80-120	20
Molybdenum	ND	100	101	101	100	99.9	100	1	80-120	20
Nickel	ND	100	98.6	99	100	97.5	97	1	80-120	20
Selenium	ND	100	98.4	98	100	95.8	96	3	80-120	20
Silver	ND	100	98.3	98	100	98.2	98	0	80-120	20
Thallium	.6J	100	100	100	100	99.1	98	1	80-120	20
Vanadium	ND	100	102	102	100	101	101	0	80-120	20
Zinc	ND	100	99.8	100	100	98.8	99	1	80-120	20

7013

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	23.2
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B5 15.5-16	NM03-B5 15.5-1		
EMAX SAMP ID:	E233-12	E233-12T		
LAB FILE ID:	173F015024	173F015023		
DATE EXTRACTED:	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	05/24/05
DATE ANALYZED:	06/07/0521:59	06/07/0521:53	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF020S	IPF020S		
CALIB. REF:	173F015021	173F015021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	1.18J	ND	NA	10
Barium	29.7	28.9	3	10
Beryllium	ND	ND	0	10
Cadmium	.149J	ND	NA	10
Chromium	11.8	10.9	8	10
Cobalt	1.84	1.96J	NA	10
Copper	3.04	3.17J	NA	10
Lead	2.17	1.78J	NA	10
Molybdenum	.665J	ND	NA	10
Nickel	2.94	2.65J	NA	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	3.55	5.68J	NA	10
Vanadium	20	19.1	4	10
Zinc	19.6	20.1	3	10

7014

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	23.2
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B5 15.5-16			
CONTROL NO.:	E233-12	E233-12A		
LAB FILE ID:	173F015024	173F015025		
DATIME EXTRCTD:	06/06/0509:15	06/06/0509:15	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/07/0521:59	06/07/0522:05	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF020S	IPF020S		
CALIB. REF:	173F015021	173F015021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	651	609	93	75-125
Arsenic	1.18J	130	123	94	75-125
Barium	29.7	130	146	90	75-125
Beryllium	ND	130	128	98	75-125
Cadmium	.149J	130	118	91	75-125
Chromium	11.8	130	135	95	75-125
Cobalt	1.84	130	122	93	75-125
Copper	3.04	130	133	100	75-125
Lead	2.17	130	124	93	75-125
Molybdenum	.665J	130	124	95	75-125
Nickel	2.94	130	123	92	75-125
Selenium	ND	130	120	92	75-125
Silver	ND	130	121	93	75-125
Thallium	3.55	130	125	94	75-125
Vanadium	20	130	144	95	75-125
Zinc	19.6	130	141	93	75-125

7015 N5

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPF021WB	1	NA	06/16/0521:44	06/06/0516:00	I73F030011	I73F030009	IPF021W	Method Blank
LCS1W	IPF021WL	1	NA	06/07/0522:45	06/06/0516:00	I73F015031	I73F015021	IPF021W	Lab Control Sample (LCS)
LCD1W	IPF021WC	1	NA	06/07/0522:51	06/06/0516:00	I73F015032	I73F015021	IPF021W	LCS Duplicate
NM03-GW05AS	E233-07A	1	NA	06/07/0523:16	06/06/0516:00	I73F015036	I73F015033	IPF021W	Analytical Spike Sample
NM03-GW05	E233-07	1	NA	06/07/0523:24	06/06/0516:00	I73F015037	I73F015033	IPF021W	Field Sample
NM03-GW05DL	E233-07T	5	NA	06/07/0523:30	06/06/0516:00	I73F015038	I73F015033	IPF021W	Diluted Sample
NM03-ER05	E233-08	1	NA	06/07/0523:36	06/06/0516:00	I73F015039	I73F015033	IPF021W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/24/05
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E233	Date Extracted:	06/06/05 16:00
Sample ID:	NM03-GW05	Date Analyzed:	06/07/05 23:24
Lab Samp ID:	E233-07	Dilution Factor:	1
Lab File ID:	I73F015037	Matrix :	WATER
Ext Btch ID:	IPF021W	% Moisture :	NA
Calib. Ref.:	I73F015033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	.00602J	.01	.005
Barium	.0699	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	.00735J	.01	.0025
Copper	.00627J	.01	.002
Lead	ND	.01	.003
Molybdenum	.0142J	.05	.005
Nickel	.00937J	.01	.0025
Selenium	.00764J	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	.0145	.01	.005

7017

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/24/05
Project	: CALTRANS	Date Received:	05/25/05
SDG NO.	: 05E233	Date Extracted:	06/06/05 16:00
Sample ID:	NM03-ER05	Date Analyzed:	06/07/05 23:36
Lab Samp ID:	E233-08	Dilution Factor:	1
Lab File ID:	I73F015039	Matrix :	WATER
Ext Btch ID:	IPF021W	% Moisture :	NA
Calib. Ref.:	I73F015033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

7018

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/06/05
SDG NO. : 05E233	Date Extracted: 06/06/05 16:00
Sample ID: MBLK1W	Date Analyzed: 06/16/05 21:44
Lab Samp ID: IPF021WB	Dilution Factor: 1
Lab File ID: I73F030011	Matrix : WATER
Ext Btch ID: IPF021W	% Moisture : NA
Calib. Ref.: I73F030009	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

7019

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPF021WB	IPF021WL	IPF021WC		
LAB FILE ID:	I73F030011	I73F015031	I73F015032		
DATIME EXTRCTD:	06/06/0516:00	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	NA
DATIME ANALYZD:	06/16/0521:44	06/07/0522:45	06/07/0522:51	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF021W	IPF021W	IPF021W		
CALIB. REF:	I73F030009	I73F015021	I73F015021		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	5.41	108	5	5.25	105	3	80-120	20
Arsenic	ND	1	1.09	109	1	1.05	105	4	80-120	20
Barium	ND	1	1.04	104	1	.999	100	4	80-120	20
Beryllium	ND	1	1.15	115	1	1.09	109	5	80-120	20
Cadmium	ND	1	1.07	107	1	1.02	102	4	80-120	20
Chromium	ND	1	1.1	110	1	1.05	105	5	80-120	20
Cobalt	ND	1	1.08	108	1	1.04	104	4	80-120	20
Copper	ND	1	1.14	114	1	1.09	109	4	80-120	20
Lead	ND	1	1.1	110	1	1.05	105	4	80-120	20
Molybdenum	ND	1	1.07	107	1	1.05	105	2	80-120	20
Nickel	ND	1	1.08	108	1	1.03	103	4	80-120	20
Selenium	ND	1	1.09	109	1	1.06	106	3	80-120	20
Silver	ND	1	1.09	109	1	1.05	105	4	80-120	20
Thallium	ND	1	1.09	109	1	1.06	106	4	80-120	20
Vanadium	ND	1	1.12	112	1	1.06	106	5	80-120	20
Zinc	ND	1	1.11	111	1	1.06	106	4	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-GW05	NM03-GW05DL		
EMAX SAMP ID:	E233-07	E233-07T		
LAB FILE ID:	I73F015037	I73F015038		
DATE EXTRACTED:	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	05/24/05
DATE ANALYZED:	06/07/0523:24	06/07/0523:30	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF021W	IPF021W		
CALIB. REF:	I73F015033	I73F015033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	.00602J	ND	NA	10
Barium	.0699	.069	1	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	ND	ND	0	10
Cobalt	.00735J	ND	NA	10
Copper	.00627J	ND	NA	10
Lead	ND	ND	0	10
Molybdenum	.0142J	ND	NA	10
Nickel	.00937J	ND	NA	10
Selenium	.00764J	ND	NA	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	ND	ND	0	10
Zinc	.0145	ND	NA	10

7021

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-GW05			
CONTROL NO.:	E233-07	E233-07A		
LAB FILE ID:	I73F015037	I73F015036		
DATIME EXTRCTD:	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/07/0523:24	06/07/0523:16	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF021W	IPF021W		
CALIB. REF:	I73F015033	I73F015033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	5.24	105	75-125
Arsenic	.00602J	1	1.02	102	75-125
Barium	.0699	1	.996	93	75-125
Beryllium	ND	1	.984	98	75-125
Cadmium	ND	1	.913	91	75-125
Chromium	ND	1	.953	95	75-125
Cobalt	.00735J	1	.938	93	75-125
Copper	.00627J	1	1.09	108	75-125
Lead	ND	1	.95	95	75-125
Molybdenum	.0142J	1	.999	98	75-125
Nickel	.00937J	1	.929	92	75-125
Selenium	.00764J	1	1.04	104	75-125
Silver	ND	1	1.03	103	75-125
Thallium	ND	1	.943	94	75-125
Vanadium	ND	1	.993	99	75-125
Zinc	.0145	1	1.02	100	75-125

7022

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E233

METHOD 7470A/7471A
TOTAL AND DISSOLVED MERCURY BY COLD VAPOR

Two (2) water and three (3) soil samples were received on 05/25/05 for Total and Dissolved Mercury analysis by Method 7470A/7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blank was free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples E213-07 and E258-01 from other SDGs were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD sample was not designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGF016SB	1	NA	06/08/0511:41	06/07/0515:30	M47F014040	M47F014032	HGF016S	Method Blank
LCS1S	HGF016SL	1	NA	06/08/0511:43	06/07/0515:30	M47F014041	M47F014032	HGF016S	Lab Control Sample (LCS)
LCD1S	HGF016SC	1	NA	06/08/0511:46	06/07/0515:30	M47F014042	M47F014032	HGF016S	LCS Duplicate
86-WS-009AS	E258-01A	1	20.4	06/08/0511:48	06/07/0515:30	M47F014043	M47F014032	HGF016S	Analytical Spike Sample
86-WS-009	E258-01	1	20.4	06/08/0511:55	06/07/0515:30	M47F014046	M47F014044	HGF016S	Field Sample
86-WS-009DL	E258-01T	5	20.4	06/08/0511:57	06/07/0515:30	M47F014047	M47F014044	HGF016S	Diluted Sample
NM03-B4 5-5.5	E233-03	1	9.1	06/08/0512:04	06/07/0515:30	M47F014050	M47F014044	HGF016S	Field Sample
NM03-B4 35.5-36	E233-04	1	8.0	06/08/0512:06	06/07/0515:30	M47F014051	M47F014044	HGF016S	Field Sample
NM03-B4 50-50.5	E233-05	1	9.9	06/08/0512:08	06/07/0515:30	M47F014052	M47F014044	HGF016S	Field Sample

FN - Filename
% Moist - Percent Moisture

7024

METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGF016SB	ND	1	NA	.1	.033	06/08/0511:41	06/07/0515:30	M47F014040	M47F014032	HGF016S	NA	06/07/05
LCS1S	HGF016SL	.795	1	NA	.1	.033	06/08/0511:43	06/07/0515:30	M47F014041	M47F014032	HGF016S	NA	06/07/05
LCD1S	HGF016SC	.793	1	NA	.1	.033	06/08/0511:46	06/07/0515:30	M47F014042	M47F014032	HGF016S	NA	06/07/05
NM03-B4 5-5.5	E233-03	ND	1	9.1	.11	.0363	06/08/0512:04	06/07/0515:30	M47F014050	M47F014044	HGF016S	05/23/05	05/25/05
NM03-B4 35.5-36	E233-04	ND	1	8.0	.109	.0359	06/08/0512:06	06/07/0515:30	M47F014051	M47F014044	HGF016S	05/23/05	05/25/05
NM03-B4 50-50.5	E233-05	ND	1	9.9	.111	.0366	06/08/0512:08	06/07/0515:30	M47F014052	M47F014044	HGF016S	05/23/05	05/25/05

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: HGF016SB HGF016SL HGF016SC
LAB FILE ID: M47F014040 M47F014041 M47F014042
DATIME EXTRCTD: 06/07/0515:30 06/07/0515:30 06/07/0515:30 DATE COLLECTED: NA
DATIME ANALYZD: 06/08/0511:41 06/08/0511:43 06/08/0511:46 DATE RECEIVED: 06/07/05
PREP. BATCH: HGF016S HGF016S HGF016S
CALIB. REF: M47F014032 M47F014032 M47F014032

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.795	95	.833	.793	95	0	80-120	20

7026

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	20.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	86-WS-009	86-WS-009DL		
EMAX SAMP ID:	E258-01	E258-01T		
LAB FILE ID:	M47F014046	M47F014047		
DATE EXTRACTED:	06/07/0515:30	06/07/0515:30	DATE COLLECTED:	05/26/05
DATE ANALYZED:	06/08/0511:55	06/08/0511:57	DATE RECEIVED:	05/27/05
PREP. BATCH:	HGF016S	HGF016S		
CALIB. REF:	M47F014044	M47F014044		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	.0643J	.308J	NA	10

7027

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	20.4
DILTN FACTR:	1	1		
SAMPLE ID:	86-WS-009			
CONTROL NO.:	E258-01	E258-01A		
LAB FILE ID:	M47F014046	M47F014043		
DATIME EXTRCTD:	06/07/0515:30	06/07/0515:30	DATE COLLECTED:	05/26/05
DATIME ANALYZD:	06/08/0511:55	06/08/0511:48	DATE RECEIVED:	05/27/05
PREP. BATCH:	HGF016S	HGF016S		
CALIB. REF:	M47F014044	M47F014032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	.0643J	.418	.479	99	85-115

7028

LAB CHRONICLE
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E233
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGF012WB	1	NA	06/07/0512:48	06/06/0514:40	M47F011010	M47F011008	HGF012W	Method Blank
LCS1W	HGF012WL	1	NA	06/07/0512:50	06/06/0514:40	M47F011011	M47F011008	HGF012W	Lab Control Sample (LCS)
LCD1W	HGF012WC	1	NA	06/07/0512:52	06/06/0514:40	M47F011012	M47F011008	HGF012W	LCS Duplicate
V8MW16AS	E213-07A	1	NA	06/07/0512:55	06/06/0514:40	M47F011013	M47F011008	HGF012W	Analytical Spike Sample
V8MW16	E213-07	1	NA	06/07/0512:58	06/06/0514:40	M47F011014	M47F011008	HGF012W	Field Sample
V8MW16DL	E213-07T	5	NA	06/07/0513:00	06/06/0514:40	M47F011015	M47F011008	HGF012W	Diluted Sample
NM03-GW05	E233-07	1	NA	06/07/0513:16	06/06/0514:40	M47F011022	M47F011020	HGF012W	Field Sample
NM03-ER05	E233-08	1	NA	06/07/0513:18	06/06/0514:40	M47F011023	M47F011020	HGF012W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E233

Matrix : WATER
Instrument ID : T1047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGF012WB	ND	1	NA	.5	.1	06/07/0512:48	06/06/0514:40	M47F011010	M47F011008	HGF012W	NA	06/06/05
LCS1W	HGF012WL	4.85	1	NA	.5	.1	06/07/0512:50	06/06/0514:40	M47F011011	M47F011008	HGF012W	NA	06/06/05
LCD1W	HGF012WC	4.94	1	NA	.5	.1	06/07/0512:52	06/06/0514:40	M47F011012	M47F011008	HGF012W	NA	06/06/05
NM03-GW05	E233-07	ND	1	NA	.5	.1	06/07/0513:16	06/06/0514:40	M47F011022	M47F011020	HGF012W	05/24/05	05/25/05
NM03-ER05	E233-08	ND	1	NA	.5	.1	06/07/0513:18	06/06/0514:40	M47F011023	M47F011020	HGF012W	05/24/05	05/25/05

7030

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGF012WB	HGF012WL	HGF012WC		
LAB FILE ID:	M47F011010	M47F011011	M47F011012		
DATIME EXTRCTD:	06/06/0514:40	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	NA
DATIME ANALYZD:	06/07/0512:48	06/07/0512:50	06/07/0512:52	DATE RECEIVED:	06/06/05
PREP. BATCH:	HGF012W	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008	M47F011008		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5	4.85	97	5	4.94	99	2	80-120	20

7470A
Hg

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E233
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	V8MW16	V8MW16DL		
EMAX SAMP ID:	E213-07	E213-07T		
LAB FILE ID:	M47F011014	M47F011015		
DATE EXTRACTED:	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	05/23/05
DATE ANALYZED:	06/07/0512:58	06/07/0513:00	DATE RECEIVED:	05/24/05
PREP. BATCH:	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7032

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E233
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	V8MW16			
CONTROL NO.:	E213-07	E213-07A		
LAB FILE ID:	M47F011014	M47F011013		
DATIME EXTRCTD:	06/06/0514:40	06/06/0514:40	DATE COLLECTED:	05/23/05
DATIME ANALYZD:	06/07/0512:58	06/07/0512:55	DATE RECEIVED:	05/24/05
PREP. BATCH:	HGF012W	HGF012W		
CALIB. REF:	M47F011008	M47F011008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2	1.91	96	85-115

05E233

TABLE OF CONTENTS

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

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Cover Letter, COC/Sample Receipt Form		1000 – 1007
GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2007 2008 – 2017
GC/MS-SVOA	SW 3550B/8270C	3000 – 3009
GC-VOA	METHOD 5030B/M8015	4000 – 4006
GC-SVOA	METHOD LUFT/M8015 SW3550B/8082	5000 – 5006 5007 – 5016
HPLC	**	6000 –
METALS	METHOD 3050B/6010B METHOD 7471A	7000 – 7013 7014 – 7021
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-08-2005
EMAX Batch No.: 05E254

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/26/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03 TB06	E254-01	05/25/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03 B06 1-1.5	E254-02	05/25/05	SOIL	LEAD
NM03 B06 5.5-6	E254-03	05/25/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD
NM03 B06 15.5-16	E254-04	05/25/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD
NM03 B06 25-25.5	E254-05	05/25/05	SOIL	TPH GASOLINE

Sample ID	Control #	Col Date	Matrix	Analysis
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
				LEAD
NM03 B06 10.5-11	E254-06	05/25/05	SOIL	HOLD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

1001

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

05E254 9 5/26/05

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: C6/VW01-38

EMAX CONTROL NO. * ~~05E253~~

PROJECT CODE:

CLIENT: Caltrans
PROJECT: 105388009
COORDINATOR: Scott Snyder
TEL: (858) 576-1000 FAX: EMAIL: ssnyder@wnyoe.com
SEND REPORT TO: Scott Snyder
COMPANY: Nuyo & Moore
ADDRESS: 5710 Ruffin Rd
S.D. CA 92107
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O= Blank Wa

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: VOC; TPH-GAS; SVOC; PCB; TPH-Diesel; Metals; Total Lead

TAT:
- ☐ Rush ____ hrs.
- ☒ Rush 3 days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____ days
- ☐

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	VOC	TPH-GAS	SVOC	PCB	TPH-Diesel	Metals	Total Lead	COMMENTS
1	NM03 TB 06	FQC	5-25-05	0830	2	40ml	VOA	O		X							
2	NM03 B06 1-1.5	B6	5-25-05		2	4oz	Glass	SS								X	
3	NM03 B06 5.5-6	↓	↓	0945	1	6"	Sleeve	SS		X	X	X	X	X	X		
4	NM03 B06 15.5-16	↓	↓	1010	1	↓	↓	↓		X	X	X	X	X	X		
5	NM03 B06 25-25.5	↓	↓	1030	1	↓	↓	↓		X	X	X	X	X	X		
6	NM03 B06 10.5-11	↓	↓	1000	1	↓	↓	↓									put on hold
7																	
8																	
9																	
0																	

Instructions: Hold NM03 B06 10.5-11

Cooler #	Temp. (°C)	Sample #s
1	4.2	

SAMPLER: [signature]

COURIER/AIRBILL:

RELINQUISHED BY	Date	Time	RECEIVED BY
[signature]	5260S	17-45	[signature]
[signature]	5260S	1600	[signature]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1002

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E284
☒ EMAX Courier	SEECOL	Recepient	I PATEL
☐ Client Delivery		Date	5-26-05
☐ Third Party		Time	1600

COC Inspection

☒ Client Name	☒ Sampler Name	☐ Sampling Date/Time/Location
☒ Address	☒ Courier Signature/Date/Time	☒ Analysis Required
☒ Client PM/FC	☒ TAT	☒ Matrix
☒ Tel #/Fax #	☒ Sample ID	☐ Preservative (if any)
Safety Issues ☒ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☒ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☒ Intact	☐ Damaged	☐
Packaging	☒ Bubble Pack	☐ Styrofoam	☒ Sufficient	☒ Plastic Bag
Temperatures	☒ Cooler 1 4.2°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
-02	NM03 B06 1-1.5'	ID on label Reads as NM03-B6-0.5-1' & Time 9:25 on label. NO Time on COC.	Follow COC per Scott's instruction 5/27/05
-03	NM03 B06-5.5	-6', ID on label NM03-B6-5.5-6'	
-04	NM03-B06 15.5	-16, ID on label NM03-B6 15.5-16'	
-05	NM03 B06 25	-25.5' ID on label NM03-B6 25-25.5'	
-06	NM03 B06 10.5'	-11' ID on label NM03-B6-10.5-11	
		* NO Analysis on all the labels	Analyze Total lead #3 to #6 per Scott 6/6/05
		5/26/05	

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling MM Date 5-26-05

SRF Date 5/27/05

PM Date 5/26

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Friday, May 27, 2005 9:27 AM
To: Hanh Bui; Lauren Hedges
Subject: RE: Question for samples received on May/26 SDG: 05E254 (NM/Caltrans 10538809)

Use the ID on the COC. Thanks

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Friday, May 27, 2005 9:23 AM
To: Lauren Hedges
Cc: Scott Snyder
Subject: Question for samples received on May/26 SDG: 05E254 (NM/Caltrans 10538809)

Please give me advise for discrepancy, ID on labels v.s ID on COCs, thanks.
Hanh

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Monday, June 06, 2005 4:39 PM
To: Hanh Bui
Subject: RE: COC changes (NM/Caltrans 105388009)

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E254-03 to -06 and F009-02, 03, 07.
5

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E233-10 to 12 and E271-02, 04, 06.

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Monday, June 06, 2005 4:20 PM
To: Scott Snyder
Subject: RE: COC changes (NM/Caltrans 105388009)

Hi Scott,
I just want to verify with you that we already extracted all samples for PCBs, (05E254, 05F009), so we cann't cancel this method.
For Tittle 22 Metals, we already analyze 05E254. Do you want us to analyze total Lead for sample E254-03 to -06?
5
F009 we cancel Metals, and analyze Total Lead for samples F009-02, -03 to -07?

Samples with NM03-B5 and B7
Samples were extracted for PCBs and SVOCs 05E233, 05E271. We will analyze these methods.
You want to cancel Metals for samples E233-10 to -12, and analyze total Lead?
COCs did not have any check marked for Metals. Do you want us to analyze total Lead for samples E271-02, -04, -06 ?

Enclosed COCs and please give me advise, thanks
Hanh

-----Original Message-----
From: Scott Snyder [mailto:ssnyder@ninyoandmoore.com]
Sent: Friday, June 03, 2005 5:22 PM
To: Hanh Bui
Subject: COC changes

Hanh,

I have changes to the following samples:

Samples with NM03-B6 and NM03-B8 and their associated field blanks:
Do not analyze soil or groundwater for PCBs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Samples with NM03-B5, NM03-B7, NM03-B9, and NM03-B10 and their associated field blanks:
Do not analyze soil or groundwater for PCBs or SVOCs

1005

Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Please reply to let me know you have received this and it is OK.

Thanks,
Scott

Scott Snyder PG, CHG

Senior Hydrogeologist

Ninyo & Moore

5710 Ruffin Road

San Diego, California 92123

(858) 576-1000 x1255

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E254

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

One (1) water sample was received on 05/26/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit except 1,2-DCA-d4 in LCS1W/LCD1W was above QC, but all target analytes met QC limits.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Sample was analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

2001

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : T-001

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V001E46Q	1	NA	05/30/0512:26	05/30/0512:26	REV590	REV175	V001E46	Method Blank
LCS1W	V001E46L	1	NA	05/30/0510:55	05/30/0510:55	REV587	REV175	V001E46	Lab Control Sample (LCS)
LCD1W	V001E46C	1	NA	05/30/0511:24	05/30/0511:24	REV588	REV175	V001E46	LCS Duplicate
NM03 TB06	E254-01	1	NA	05/30/0512:56	05/30/0512:56	REV591	REV175	V001E46	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/30/05 12:56
Sample ID: NM03 TB06	Date Analyzed: 05/30/05 12:56
Lab Samp ID: E254-01	Dilution Factor: 1
Lab File ID: REV591	Matrix : WATER
Ext Btch ID: V001E46	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	136	63-143
4-BROMOFLUOROBENZENE	100	63-143
TOLUENE-D8	97	63-143

2004

QC SUMMARIES

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/30/05
Batch No. : 05E254	Date Extracted: 05/30/05 12:26
Sample ID: MBLK1W	Date Analyzed: 05/30/05 12:26
Lab Samp ID: V001E46Q	Dilution Factor: 1
Lab File ID: REV590	Matrix : WATER
Ext Btch ID: V001E46	% Moisture : NA
Calib. Ref.: REV175	Instrument ID : T-001

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	128	70-130
4-BROMOFLUOROBENZENE	103	70-130
TOLUENE-D8	97	70-130

2006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V001E46Q V001E46L V001E46C
LAB FILE ID: REV590 REV587 REV588
DATE EXTRACTED: 05/30/0512:26 05/30/0510:55 05/30/0511:24 DATE COLLECTED: NA
DATE ANALYZED: 05/30/0512:26 05/30/0510:55 05/30/0511:24 DATE RECEIVED: 05/30/05
PREP. BATCH: V001E46 V001E46 V001E46
CALIB. REF: REV175 REV175 REV175

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	11.3	113	10	11.9	119	5	60-130	30
Benzene	ND	10	11.1	111	10	10.7	107	3	70-130	30
Chlorobenzene	ND	10	9.75	98	10	9.96	100	2	70-120	30
Toluene	ND	10	10.3	103	10	10.1	101	1	70-130	30
Trichloroethene	ND	10	10.3	103	10	10.6	106	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	13.5	135*	10	13.7	137*	70-130
4-Bromofluorobenzene	10	10.4	104	10	10.3	103	70-130
Toluene-d8	10	10.7	107	10	10.3	103	70-130

2007

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E254

2008

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/26/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

2009

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006E39B	1	NA	06/01/0500:58	06/01/0500:58	REW480	REW378	V006E39	Method Blank
LCS1S	V006E39L	1	NA	05/31/0523:40	05/31/0523:40	REW478	REW378	V006E39	Lab Control Sample (LCS)
LCD1S	V006E39C	1	NA	06/01/0500:19	06/01/0500:19	REW479	REW378	V006E39	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	06/01/0503:32	06/01/0503:32	REW484	REW378	V006E39	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	06/01/0504:11	06/01/0504:11	REW485	REW378	V006E39	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	06/01/0504:50	06/01/0504:50	REW486	REW378	V006E39	Field Sample

FN - Filename
% Moist - Percent Moisture

2010

SAMPLE RESULTS

2011

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 06/01/05 03:32
Sample ID: NM03 B06 5.5-6	Date Analyzed: 06/01/05 03:32
Lab Samp ID: E254-03	Dilution Factor: 1
Lab File ID: REW484	Matrix : SOIL
Ext Btch ID: V006E39	% Moisture : 10.5
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	ND	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	115	54-154
4-BROMOFLUOROBENZENE	109	63-143
TOLUENE-D8	99	63-143

2012

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 06/01/05 04:11
Sample ID: NM03 B06 15.5-16	Date Analyzed: 06/01/05 04:11
Lab Samp ID: E254-04	Dilution Factor: 1
Lab File ID: REW485	Matrix : SOIL
Ext Btch ID: V006E39	% Moisture : 10.5
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	7.4J	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	111	54-154
4-BROMOFLUOROBENZENE	106	63-143
TOLUENE-D8	97	63-143

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 06/01/05 04:50
Sample ID: NM03 B06 25-25.5	Date Analyzed: 06/01/05 04:50
Lab Samp ID: E254-05	Dilution Factor: 1
Lab File ID: REW486	Matrix : SOIL
Ext Btch ID: V006E39	% Moisture : 6.8
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.4	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.4	2.1
1,1,2-TRICHLOROETHANE	ND	5.4	2.1
1,1-DICHLOROETHANE	ND	5.4	2.1
1,1-DICHLOROETHENE	ND	5.4	2.1
1,2-DICHLOROETHANE	ND	5.4	2.1
1,2-DICHLOROPROPANE	ND	5.4	2.1
2-BUTANONE	ND	11	5.4
2-HEXANONE	ND	11	5.4
4-METHYL-2-PENTANONE	ND	11	5.4
ACETONE	10J	11	5.4
BENZENE	ND	5.4	2.1
BROMODICHLOROMETHANE	ND	5.4	2.1
BROMOFORM	ND	5.4	2.1
BROMOMETHANE	ND	11	2.1
CARBON DISULFIDE	ND	5.4	2.1
CARBON TETRACHLORIDE	ND	5.4	2.1
CHLOROBENZENE	ND	5.4	2.1
CHLOROETHANE	ND	5.4	2.1
CHLOROFORM	ND	5.4	2.1
CHLOROMETHANE	ND	11	2.1
CIS-1,2-DICHLOROETHENE	ND	5.4	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.4	2.1
DIBROMOCHLOROMETHANE	ND	5.4	2.1
ETHYLBENZENE	ND	5.4	2.1
M/P-XYLENES	ND	11	2.1
MTBE	ND	5.4	2.1
METHYLENE CHLORIDE	ND	11	2.1
O-XYLENE	ND	5.4	2.1
STYRENE	ND	5.4	2.1
TETRACHLOROETHENE	ND	5.4	2.1
TOLUENE	ND	5.4	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.4	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.4	2.1
TRICHLOROETHENE	ND	5.4	2.1
VINYL CHLORIDE	ND	5.4	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	113	54-154
4-BROMOFLUOROBENZENE	104	63-143
TOLUENE-D8	96	63-143

2014

QC SUMMARIES

2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05E254	Date Extracted: 06/01/05 00:58
Sample ID: MBLK1S	Date Analyzed: 06/01/05 00:58
Lab Samp ID: V006E39B	Dilution Factor: 1
Lab File ID: REW480	Matrix : SOIL
Ext Btch ID: V006E39	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	60-140
4-BROMOFLUOROBENZENE	109	70-130
TOLUENE-D8	98	70-130

2016

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: V006E39B V006E39L V006E39C
LAB FILE ID: REW480 REW478 REW479
DATE EXTRACTED: 06/01/0500:58 05/31/0523:40 06/01/0500:19 DATE COLLECTED: NA
DATE ANALYZED: 06/01/0500:58 05/31/0523:40 06/01/0500:19 DATE RECEIVED: 06/01/05
PREP. BATCH: V006E39 V006E39 V006E39
CALIB. REF: REW378 REW378 REW378

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	18.5	93	20	18.9	94	2	60-140	50
Benzene	ND	20	20.7	103	20	20.9	105	1	70-130	50
Chlorobenzene	ND	20	20.1	101	20	20.5	103	2	70-130	50
Toluene	ND	20	20.9	104	20	20.9	105	0	70-130	50
Trichloroethene	ND	20	19	95	20	19.1	95	0	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	55.1	110	50	57.9	116	60-140
4-Bromofluorobenzene	50	54.7	109	50	57.4	115	70-130
Toluene-d8	50	48.4	97	50	50.7	101	70-130

2017

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E254

3060

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/26/05 for Semi Volatile Organic analysis by Method 3550B/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit except one analyte was out of QC in LCS but met QC in LCD.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : T-042

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVE059SB	1	NA	06/01/0519:19	05/31/0517:30	RFX016	RCX291	SVE059S	Method Blank
LCS1S	SVE059SL	1	NA	06/01/0519:48	05/31/0517:30	RFX017	RCX291	SVE059S	Lab Control Sample (LCS)
LCD1S	SVE059SC	1	NA	06/01/0520:17	05/31/0517:30	RFX018	RCX291	SVE059S	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	06/01/0520:46	05/31/0517:30	RFX019	RCX291	SVE059S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	06/01/0521:15	05/31/0517:30	RFX020	RCX291	SVE059S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	06/01/0521:44	05/31/0517:30	RFX021	RCX291	SVE059S	Field Sample

FN - Filename
% Moist - Percent Moisture

3102

SAMPLE RESULTS

3003

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/25/05
Project	: CALTRANS	Date Received:	05/26/05
Batch No.	: 05E254	Date Extracted:	05/31/05 17:30
Sample ID	: NM03 B06 5.5-6	Date Analyzed:	06/01/05 20:46
Lab Samp ID	: E254-03	Dilution Factor:	1
Lab File ID	: RFX019	Matrix	: SOIL
Ext Btch ID	: SVE059S	% Moisture	: 10.5
Calib. Ref.	: RCX291	Instrument ID	: T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	58	36-143
2-FLUOROBIPHENYL	54	36-143
2-FLUOROPHENOL	51	36-143
NITROBENZENE-D5	52	36-143
PHENOL-D5	51	36-143
TERPHENYL-D14	73	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/31/05 17:30
Sample ID: NM03 B06 15.5-16	Date Analyzed: 06/01/05 21:15
Lab Samp ID: E254-04	Dilution Factor: 1
Lab File ID: RFX020	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 10.5
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	44	36-143
2-FLUOROBIPHENYL	45	36-143
2-FLUOROPHENOL	42	36-143
NITROBENZENE-D5	44	36-143
PHENOL-D5	44	36-143
TERPHENYL-D14	54	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/31/05 17:30
Sample ID: NM03 B06 25-25.5	Date Analyzed: 06/01/05 21:44
Lab Samp ID: E254-05	Dilution Factor: 1
Lab File ID: RFX021	Matrix : SOIL
Ext Btch ID: SVE059S	% Moisture : 6.8
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	350	180
1,2-DICHLOROBENZENE	ND	350	180
1,3-DICHLOROBENZENE	ND	350	180
1,4-DICHLOROBENZENE	ND	350	180
2,4,5-TRICHLOROPHENOL	ND	350	180
2,4,6-TRICHLOROPHENOL	ND	350	200
2,4-DICHLOROPHENOL	ND	350	180
2,4-DIMETHYLPHENOL	ND	350	180
2,4-DINITROPHENOL	ND	710	180
2,4-DINITROTOLUENE	ND	350	180
2,6-DINITROTOLUENE	ND	350	180
2-CHLORONAPHTHALENE	ND	350	180
2-CHLOROPHENOL	ND	350	180
2-METHYLNAPHTHALENE	ND	350	180
2-METHYLPHENOL	ND	350	180
2-NITROANILINE	ND	350	180
2-NITROPHENOL	ND	350	180
3,3'-DICHLOROBENZIDINE	ND	350	180
3-NITROANILINE	ND	350	180
4,6-DINITRO-2-METHYLPHENOL	ND	710	180
4-BROMOPHENYL-PHENYL ETHER	ND	350	180
4-CHLORO-3-METHYLPHENOL	ND	350	180
4-CHLOROANILINE	ND	350	180
4-CHLOROPHENYL-PHENYL ETHER	ND	350	180
4-METHYLPHENOL (1)	ND	350	180
4-NITROANILINE	ND	350	180
4-NITROPHENOL	ND	710	180
ACENAPHTHENE	ND	350	180
ACENAPHTHYLENE	ND	350	180
ANTHRACENE	ND	350	180
BENZO(A)ANTHRACENE	ND	350	180
BENZO(A)PYRENE	ND	350	180
BENZO(B)FLUORANTHENE	ND	350	180
BENZO(K)FLUORANTHENE	ND	350	180
BENZO(G,H,I)PERYLENE	ND	350	180
BIS(2-CHLOROETHOXY)METHANE	ND	350	180
BIS(2-CHLOROETHYL)ETHER	ND	350	180
BIS(2-CHLOROISOPROPYL)ETHER	ND	350	180
BIS(2-ETHYLHEXYL)PHTHALATE	ND	350	180
BUTYLBENZYLPHTHALATE	ND	350	180
CHRYSENE	ND	350	180
DI-N-BUTYLPHTHALATE	ND	350	180
DI-N-OCTYLPHTHALATE	ND	350	180
DIBENZO(A,H)ANTHRACENE	ND	350	180
DIBENZOFURAN	ND	350	180
DIETHYLPHTHALATE	ND	350	180
DIMETHYLPHTHALATE	ND	350	180
FLUORANTHENE	ND	350	180
FLUORENE	ND	350	180
HEXACHLOROBENZENE	ND	350	180
HEXACHLOROBUTADIENE	ND	350	200
HEXACHLOROCYCLOPENTADIENE	ND	350	180
HEXACHLOROETHANE	ND	350	180
INDENO(1,2,3-CD)PYRENE	ND	350	180
ISOPHORONE	ND	350	180
N-NITROSO-DI-N-PROPYLAMINE	ND	350	180
N-NITROSODIPHENYLAMINE (2)	ND	350	180
NAPHTHALENE	ND	350	180
NITROBENZENE	ND	350	180
PENTACHLOROPHENOL	ND	710	190
PHENANTHRENE	ND	350	180
PHENOL	ND	350	180
PYRENE	ND	350	180

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	55	36-143
2-FLUOROBIPHENYL	57	36-143
2-FLUOROPHENOL	53	36-143
NITROBENZENE-D5	54	36-143
PHENOL-D5	54	36-143
TERPHENYL-D14	75	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARY

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/31/05
Batch No. : 05E254	Date Extracted: 05/31/05 17:30
Sample ID: MBLK1S	Date Analyzed: 06/01/05 19:19
Lab Samp ID: SVE059SB	Dilution Factor: 1
Lab File ID: RFX016	Matrix : SOIL
Ext.Btch ID: SVE059S	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	64	40-130
2-FLUOROBIPHENYL	53	40-130
2-FLUOROPHENOL	51	40-130
NITROBENZENE-D5	55	40-130
PHENOL-D5	51	40-130
TERPHENYL-D14	73	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: SW 3550B/8270C

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	SVE059SB	SVE059SL	SVE059SC		
LAB FILE ID:	RFX016	RFX017	RFX018		
DATE EXTRACTED:	05/31/0517:30	05/31/0517:30	05/31/0517:30	DATE COLLECTED:	NA
DATE ANALYZED:	06/01/0519:19	06/01/0519:48	06/01/0520:17	DATE RECEIVED:	05/31/05
PREP. BATCH:	SVE059S	SVE059S	SVE059S		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	1110	42	2670	1330	50	18	40-130	50
1,4-Dichlorobenzene	ND	2670	1080	41	2670	1300	49	18	30-130	50
2,4-Dinitrotoluene	ND	2670	1010	38*	2670	1310	49	26	40-130	50
2-Chlorophenol	ND	2670	1100	41	2670	1270	48	15	40-130	50
4-Chloro-3-Methylphenol	ND	2670	1090	41	2670	1290	48	16	40-130	50
4-Nitrophenol	ND	2670	1040	39	2670	1200	45	15	25-130	50
Acenaphthene	ND	2670	1060	40	2670	1280	48	18	40-130	50
n-Nitroso-di-n-propylamine	ND	2670	1070	40	2670	1290	48	19	40-130	50
Pentachlorophenol	ND	2670	1120	42	2670	1300	49	14	30-130	50
Phenol	ND	2670	1070	40	2670	1220	46	13	40-130	50
Pyrene	ND	2670	1420	53	2670	1750	66	21	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	2390	48	5000	3070	61	40-130
2-Fluorobiphenyl	3330	1410	42	3330	1720	52	40-130
2-Fluorophenol	5000	2080	42	5000	2400	48	40-130
Nitrobenzene-d5	3330	1440	43	3330	1710	51	40-130
Phenol-d5	5000	2030	41	5000	2400	48	40-130
Terphenyl-d14	3330	2240	67	3330	2780	83	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05E254

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Three (3) soil samples were received on 05/26/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. Soil samples were extracted with methanol on 05/26/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour interval and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blank was free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : GCT039

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	SOIL Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME020SB	1	NA	05/26/0518:48	05/26/0518:48	EE26003A	EE26002A	VME020S	Method Blank
LCS1S	VME020SL	1	NA	05/26/0519:23	05/26/0519:23	EE26004A	EE26002A	VME020S	Lab Control Sample (LCS)
LCD1S	VME020SC	1	NA	05/26/0519:59	05/26/0519:59	EE26005A	EE26002A	VME020S	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	05/27/0512:12	05/27/0512:12	EE26030A	EE26027A	VME020S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	05/27/0512:48	05/27/0512:48	EE26031A	EE26027A	VME020S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	05/27/0513:24	05/27/0513:24	EE26032A	EE26027A	VME020S	Field Sample

FN - Filename
% Moist - Percent Moisture

2004

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E254

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME020SB	ND	98	1	NA	1	.5	05/26/0518:48	05/26/0518:48	EE26003A	EE26002A	VME020S	NA	05/26/05
LCS1S	VME020SL	24.7	107	1	NA	1	.5	05/26/0519:23	05/26/0519:23	EE26004A	EE26002A	VME020S	NA	05/26/05
LCD1S	VME020SC	26.4	110	1	NA	1	.5	05/26/0519:59	05/26/0519:59	EE26005A	EE26002A	VME020S	NA	05/26/05
NM03 B06 5.5-6	E254-03	ND	91	1	10.5	1.1	.56	05/27/0512:12	05/27/0512:12	EE26030A	EE26027A	VME020S	05/25/05	05/26/05
NM03 B06 15.5-16	E254-04	ND	89	1	10.5	1.1	.56	05/27/0512:48	05/27/0512:48	EE26031A	EE26027A	VME020S	05/25/05	05/26/05
NM03 B06 25-25.5	E254-05	ND	89	1	6.8	1.1	.54	05/27/0513:24	05/27/0513:24	EE26032A	EE26027A	VME020S	05/25/05	05/26/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction: 05/26/05 16:10

4004

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VME020SB	VME020SL	VME020SC		
LAB FILE ID:	EE26003A	EE26004A	EE26005A		
DATE EXTRACTED:	05/26/0518:48	05/26/0519:23	05/26/0519:59	DATE COLLECTED:	NA
DATE ANALYZED:	05/26/0518:48	05/26/0519:23	05/26/0519:59	DATE RECEIVED:	05/26/05
PREP. BATCH:	VME020S	VME020S	VME020S		
CALIB. REF:	EE26002A	EE26002A	EE26002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	24.7	99	25	26.4	105	7	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.14	107	2	2.2	110	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E254

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Three (3) soil samples were received on 05/26/05 for Total Petroleum Hydrocarbons by Extraction by Method M8015 in accordance with SW846 3RD Edition.

1. **Holding Time**

   Analytical holding time was met. Extraction was performed and completed on 05/27/05.

2. **Calibration**

   Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   All recoveries were within QC limits.

5. **Lab Control Sample**

   Recovery was within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : GCT072

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE035SB	1	NA	05/28/0508:52	05/27/0514:00	BE26052A	BE26049A	DSE035S	Method Blank
LCS1S	DSE035SL	1	NA	05/28/0508:08	05/27/0514:00	BE26051A	BE26049A	DSE035S	Lab Control Sample (LCS)
NM03 B06 5.5-6	E254-03	1	10.5	05/28/0509:36	05/27/0514:00	BE26053A	BE26049A	DSE035S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	05/28/0510:19	05/27/0514:00	BE26054A	BE26049A	DSE035S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	05/28/0511:03	05/27/0514:00	BE26055A	BE26049A	DSE035S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E254

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE035SB	ND	96	107	1	NA	10	5	05/28/0508:52	05/27/0514:00	BE26052A	BE26049A	DSE035S	NA	05/27/05
LCS1S	DSE035SL	426	104	104	1	NA	10	5	05/28/0508:08	05/27/0514:00	BE26051A	BE26049A	DSE035S	NA	05/27/05
NM03 B06 5.5-6	E254-03	ND	96	109	1	10.5	11	5.6	05/28/0509:36	05/27/0514:00	BE26053A	BE26049A	DSE035S	05/25/05	05/26/05
NM03 B06 15.5-16	E254-04	ND	100	110	1	10.5	11	5.6	05/28/0510:19	05/27/0514:00	BE26054A	BE26049A	DSE035S	05/25/05	05/26/05
NM03 B06 25-25.5	E254-05	ND	97	107	1	6.8	11	5.4	05/28/0511:03	05/27/0514:00	BE26055A	BE26049A	DSE035S	05/25/05	05/26/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

QC SUMMARIES

5905

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: METHOD LUFT/M8015

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	DSE035SB	DSE035SL		
LAB FILE ID:	BE26052A	BE26051A		
DATE EXTRACTED:	05/27/0514:00	05/27/0514:00	DATE COLLECTED:	NA
DATE ANALYZED:	05/28/0508:52	05/28/0508:08	DATE RECEIVED:	05/27/05
PREP. BATCH:	DSE035S	DSE035S		
CALIB. REF:	BE26049A	BE26049A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Diesel	ND	500	426	85	60-150

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	QC LIMIT (%)
Bromobenzene	100	104	104	60-150
Hexacosane	25	26.1	104	60-160

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3550B/8082
PCBs

SDG#: 05E254

5007

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

SW3550B/8082
PCBs

Three (3) soil samples were received on 05/26/05 for PCBs analysis by Method 3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12 hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE040SB	1	NA	05/31/0516:11	05/31/0512:30	SE31014A	SE31006A	CPE040S	Method Blank
LCS1S	60E040SL	1	NA	05/31/0517:27	05/31/0512:30	SE31017A	SE31006A	CPE040S	Lab Control Sample (LCS)
LCD1S	60E040SC	1	NA	05/31/0517:52	05/31/0512:30	SE31018A	SE31006A	CPE040S	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	06/01/0501:53	05/31/0512:30	SE31037A	SE31033A	CPE040S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	06/01/0502:18	05/31/0512:30	SE31038A	SE31033A	CPE040S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	06/01/0502:43	05/31/0512:30	SE31039A	SE31033A	CPE040S	Field Sample

FN - Filename
% Moist - Percent Moisture

5 of 19

SAMPLE RESULTS

5010

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/31/05 12:30
Sample ID: NM03 B06 5.5-6	Date Analyzed: 06/01/05 01:53
Lab Samp ID: E254-03	Dilution Factor: 1
Lab File ID: SE31037A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 10.5
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	56	22|22
PCB-1221	(ND)|ND	56	22|22
PCB-1232	(ND)|ND	56	22|22
PCB-1242	(ND)|ND	56	22|22
PCB-1248	(ND)|ND	56	22|22
PCB-1254	(ND)|ND	56	22|22
PCB-1260	(ND)|ND	56	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79)|92	45-154
DECACHLOROBIPHENYL	(94)|93	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/31/05 12:30
Sample ID: NM03 B06 15.5-16	Date Analyzed: 06/01/05 02:18
Lab Samp ID: E254-04	Dilution Factor: 1
Lab File ID: SE31038A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 10.5
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	56	22|22
PCB-1221	(ND)|ND	56	22|22
PCB-1232	(ND)|ND	56	22|22
PCB-1242	(ND)|ND	56	22|22
PCB-1248	(ND)|ND	56	22|22
PCB-1254	(ND)|ND	56	22|22
PCB-1260	(ND)|ND	56	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(69)|76	45-154
DECACHLOROBIPHENYL	(91)|92	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/25/05
Project : CALTRANS	Date Received: 05/26/05
Batch No. : 05E254	Date Extracted: 05/31/05 12:30
Sample ID: NM03 B06 25-25.5	Date Analyzed: 06/01/05 02:43
Lab Samp ID: E254-05	Dilution Factor: 1
Lab File ID: SE31039A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 6.8
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	54	21|21
PCB-1221	(ND)|ND	54	21|21
PCB-1232	(ND)|ND	54	21|21
PCB-1242	(ND)|ND	54	21|21
PCB-1248	(ND)|ND	54	21|21
PCB-1254	(ND)|ND	54	21|21
PCB-1260	(ND)|ND	54	21|21

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(79)|92	45-154
DECACHLOROBIPHENYL	(93)|94	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

5014

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/31/05
Batch No. : 05E254	Date Extracted: 05/31/05 12:30
Sample ID: MBLK1S	Date Analyzed: 05/31/05 16:11
Lab Samp ID: CPE040SB	Dilution Factor: 1
Lab File ID: SE31014A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : NA
Calib. Ref.: SE31006A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	50	20|20
PCB-1221	(ND)|ND	50	20|20
PCB-1232	(ND)|ND	50	20|20
PCB-1242	(ND)|ND	50	20|20
PCB-1248	(ND)|ND	50	20|20
PCB-1254	(ND)|ND	50	20|20
PCB-1260	(ND)|ND	50	20|20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76)|82	50-140
DECACHLOROBIPHENYL	(94)|93	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1
SAMPLE ID:	MBLK1S		
LAB SAMP ID:	CPE040SB	60E040SL	60E040SC
LAB FILE ID:	SE31014A	SE31017A	SE31018A
DATE EXTRACTED:	05/31/0512:30	05/31/0512:30	05/31/0512:30
DATE ANALYZED:	05/31/0516:11	05/31/0517:27	05/31/0517:52
PREP. BATCH:	CPE040S	CPE040S	CPE040S
CALIB. REF:	SE31006A	SE31006A	SE31006A

DATE COLLECTED: NA
DATE RECEIVED: 05/31/05

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(115) | 115	(69) | 69	167	(112) | 125	(67) | 75	(3) | 8	50-130	50
PCB-1260	(ND) | ND	167	(149) | 151	(89) | 91	167	(153) | 145	(92) | 87	(3) | 4	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(8.61) | 9.26	(65) | 69	13.3	(8.39) | 9.08	(63) | 68	50-140
Decachlorobiphenyl	13.3	(12.3) | 12.3	(93) | 92	13.3	(12.2) | 12.1	(91) | 91	50-140

5016

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METALS BY ICP / MERCURY

SDG#: 05E254

7006

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

METHOD 3050B/6010B
METALS BY ICP

Four (4) soil samples were received on 05/26/05 for Metals analysis by Method 3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample E253-01 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   MS/MSD sample was not designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedure. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE087SB	1	NA	05/28/0521:54	05/27/0510:00	I73E036024	I73E036021	IPE087S	Method Blank
LCS1S	IPE087SL	1	NA	05/28/0522:00	05/27/0510:00	I73E036025	I73E036021	IPE087S	Lab Control Sample (LCS)
LCD1S	IPE087SC	1	NA	05/28/0522:06	05/27/0510:00	I73E036026	I73E036021	IPE087S	LCS Duplicate
NM03 B06 1-1.5	E254-02	1	7.8	05/29/0500:32	05/27/0510:00	I73E036049	I73E036045	IPE087S	Field Sample
I5NB-MAN-HA47-1.0AS	E253-01A	1	3.3	05/28/0522:12	05/27/0510:00	I73E036027	I73E036021	IPE087S	Analytical Spike Sample
I5NB-MAN-HA47-1.0	E253-01	1	3.3	05/28/0522:32	05/27/0510:00	I73E036030	I73E036021	IPE087S	Field Sample
I5NB-MAN-HA47-1.0DL	E253-01T	5	3.3	05/28/0522:38	05/27/0510:00	I73E036031	I73E036021	IPE087S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

7002

LAB CHRONICLE
METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : I-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE087SB	1	NA	05/28/0521:54	05/27/0510:00	I73E036024	I73E036021	IPE087S	Method Blank
LCS1S	IPE087SL	1	NA	05/28/0522:00	05/27/0510:00	I73E036025	I73E036021	IPE087S	Lab Control Sample (LCS)
LCD1S	IPE087SC	1	NA	05/28/0522:06	05/27/0510:00	I73E036026	I73E036021	IPE087S	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	05/29/0500:38	05/27/0510:00	I73E036050	I73E036045	IPE087S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	05/29/0500:44	05/27/0510:00	I73E036051	I73E036045	IPE087S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	05/29/0500:50	05/27/0510:00	I73E036052	I73E036045	IPE087S	Field Sample
I5NB-MAN-HA47-1.0AS	E253-01A	1	3.3	05/28/0522:12	05/27/0510:00	I73E036027	I73E036021	IPE087S	Analytical Spike Sample
I5NB-MAN-HA47-1.0	E253-01	1	3.3	05/28/0522:32	05/27/0510:00	I73E036030	I73E036021	IPE087S	Field Sample
I5NB-MAN-HA47-1.0DL	E253-01T	5	3.3	05/28/0522:38	05/27/0510:00	I73E036031	I73E036021	IPE087S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

7003

SAMPLE RESULTS

7004

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E254

Matrix : SOIL
Instrument ID : T-I73

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE087SB	ND	1	NA	1	.2	05/28/0521:54	05/27/0510:00	I73E036024	I73E036021	IPE087S	NA	05/27/05
LCS1S	IPE087SL	101	1	NA	1	.2	05/28/0522:00	05/27/0510:00	I73E036025	I73E036021	IPE087S	NA	05/27/05
LCD1S	IPE087SC	99.3	1	NA	1	.2	05/28/0522:06	05/27/0510:00	I73E036026	I73E036021	IPE087S	NA	05/27/05
NM03 B06 1-1.5	E254-02	13.5	1	7.8	1.08	.217	05/29/0500:32	05/27/0510:00	I73E036049	I73E036045	IPE087S	05/25/05	05/26/05

7005

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/25/05
Project	: CALTRANS	Date Received:	05/26/05
SDG NO.	: 05E254	Date Extracted:	05/27/05 10:00
Sample ID:	NM03 B06 5.5-6	Date Analyzed:	05/29/05 00:38
Lab Samp ID:	E254-03	Dilution Factor:	1
Lab File ID:	I73E036050	Matrix	: SOIL
Ext Btch ID:	IPE087S	% Moisture	: 10.5
Calib. Ref.:	I73E036045	Instrument ID	: EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.2	2.23
Arsenic	4.15	1.12	.447
Barium	9	1.12	.223
Beryllium	.479J	1.12	.223
Cadmium	ND	1.12	.112
Chromium	3.71	1.12	.223
Cobalt	3.04	1.12	.223
Copper	1.84	1.12	.223
Lead	3.09	1.12	.223
Molybdenum	ND	5.59	.559
Nickel	3.02	1.12	.223
Selenium	ND	1.12	.559
Silver	ND	1.12	.279
Thallium	1.89	1.12	.559
Vanadium	8.65	1.12	.559
Zinc	10.4	1.12	.559

7066

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/25/05
Project	: CALTRANS	Date Received:	05/26/05
SDG NO.	: 05E254	Date Extracted:	05/27/05 10:00
Sample ID:	NM03 B06 15.5-16	Date Analyzed:	05/29/05 00:44
Lab Samp ID:	E254-04	Dilution Factor:	1
Lab File ID:	I73E036051	Matrix :	SOIL
Ext Btch ID:	IPE087S	% Moisture :	10.5
Calib. Ref.:	I73E036045	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.2	2.23
Arsenic	2.03	1.12	.447
Barium	5.55	1.12	.223
Beryllium	.469J	1.12	.223
Cadmium	ND	1.12	.112
Chromium	3.05	1.12	.223
Cobalt	1.37	1.12	.223
Copper	1.18	1.12	.223
Lead	1.31	1.12	.223
Molybdenum	ND	5.59	.559
Nickel	2.74	1.12	.223
Selenium	ND	1.12	.559
Silver	ND	1.12	.279
Thallium	1.55	1.12	.559
Vanadium	7.23	1.12	.559
Zinc	11.2	1.12	.559

7007

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/25/05
Project	: CALTRANS	Date Received:	05/26/05
SDG NO.	: 05E254	Date Extracted:	05/27/05 10:00
Sample ID:	NM03 B06 25-25.5	Date Analyzed:	05/29/05 00:50
Lab Samp ID:	E254-05	Dilution Factor:	1
Lab File ID:	I73E036052	Matrix :	SOIL
Ext Btch ID:	IPE087S	% Moisture :	6.8
Calib. Ref.:	I73E036045	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10.7	2.15
Arsenic	.789J	1.07	.429
Barium	54.6	1.07	.215
Beryllium	.648J	1.07	.215
Cadmium	ND	1.07	.107
Chromium	7.55	1.07	.215
Cobalt	3.41	1.07	.215
Copper	7.87	1.07	.215
Lead	12.1	1.07	.215
Molybdenum	ND	5.36	.536
Nickel	3.52	1.07	.215
Selenium	ND	1.07	.536
Silver	ND	1.07	.268
Thallium	5.43	1.07	.536
Vanadium	18.5	1.07	.536
Zinc	41.6	1.07	.536

7008

QC SUMMARIES

7009

METHOD 3050B/6010B
METALS BY ICP

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/27/05
SDG NO. : 05E254	Date Extracted: 05/27/05 10:00
Sample ID: MBLK1S	Date Analyzed: 05/28/05 21:54
Lab Samp ID: IPE087SB	Dilution Factor: 1
Lab File ID: I73E036024	Matrix : SOIL
Ext Btch ID: IPE087S	% Moisture : NA
Calib. Ref.: I73E036021	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	.483J	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	.556J	1	.5
Vanadium	ND	1	.5
Zinc	ND	1	.5

7010

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E254
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPE087SB IPE087SL IPE087SC
LAB FILE ID: I73E036024 I73E036025 I73E036026
DATIME EXTRCTD: 05/27/0510:00 05/27/0510:00 05/27/0510:00 DATE COLLECTED: NA
DATIME ANALYZD: 05/28/0521:54 05/28/0522:00 05/28/0522:06 DATE RECEIVED: 05/27/05
PREP. BATCH: IPE087S IPE087S IPE087S
CALIB. REF: I73E036021 I73E036021 I73E036021

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	509	102	500	502	100	1	80-120	20
Arsenic	.483J	100	100	100	100	99.6	99	1	80-120	20
Barium	ND	100	92.3	92	100	90.9	91	2	80-120	20
Beryllium	ND	100	103	103	100	102	102	2	80-120	20
Cadmium	ND	100	97.5	97	100	96.2	96	1	80-120	20
Chromium	ND	100	97.6	98	100	96.2	96	1	80-120	20
Cobalt	ND	100	97.9	98	100	96.6	97	1	80-120	20
Copper	ND	100	101	101	100	99	99	2	80-120	20
Lead	ND	100	101	101	100	99.3	99	1	80-120	20
Molybdenum	ND	100	97.4	97	100	96.6	97	1	80-120	20
Nickel	ND	100	98.5	98	100	97.2	97	1	80-120	20
Selenium	ND	100	103	103	100	102	102	0	80-120	20
Silver	ND	100	97	97	100	95.9	96	1	80-120	20
Thallium	.556J	100	98.4	98	100	97	96	1	80-120	20
Vanadium	ND	100	98.3	98	100	96.8	97	1	80-120	20
Zinc	ND	100	99.9	100	100	98.9	99	1	80-120	20

7011

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 3.3

DILUTION FACTOR:	1	5
SAMPLE ID:	I5NB-MAN-HA47-1.0	I5NB-MAN-HA47-1.0DL
EMAX SAMP ID:	E253-01	E253-01T
LAB FILE ID:	I73E036030	I73E036031
DATE EXTRACTED:	05/27/0510:00	05/27/0510:00
DATE ANALYZED:	05/28/0522:32	05/28/0522:38
PREP. BATCH:	IPE087S	IPE087S
CALIB. REF:	I73E036021	I73E036021

DATE COLLECTED: 05/25/05
DATE RECEIVED: 05/26/05

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	4.16	4.33J	NA	10
Barium	21	20.9	0	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	16.7	16.7	0	10
Cobalt	6	6.05	1	10
Copper	4.25	4.89J	NA	10
Lead	9.43	9.27	2	10
Molybdenum	ND	ND	0	10
Nickel	9.64	10.1	5	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	2.57	2.77J	NA	10
Vanadium	7.27	7.17	1	10
Zinc	19.5	19.8	2	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E254
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	3.3
DILTN FACTR:	1	1		
SAMPLE ID:	I5N8-MAN-HA47-1.0			
CONTROL NO.:	E253-01	E253-01A		
LAB FILE ID:	I73E036030	I73E036027		
DATIME EXTRCTD:	05/27/0510:00	05/27/0510:00	DATE COLLECTED:	05/25/05
DATIME ANALYZD:	05/28/0522:32	05/28/0522:12	DATE RECEIVED:	05/26/05
PREP. BATCH:	IPE087S	IPE087S		
CALIB. REF:	I73E036021	I73E036021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	517	492	95	75-125
Arsenic	4.16	103	101	94	75-125
Barium	21	103	111	87	75-125
Beryllium	ND	103	100	97	75-125
Cadmium	ND	103	94.8	92	75-125
Chromium	16.7	103	112	92	75-125
Cobalt	6	103	101	92	75-125
Copper	4.25	103	104	96	75-125
Lead	9.43	103	106	94	75-125
Molybdenum	ND	103	96.7	93	75-125
Nickel	9.64	103	105	92	75-125
Selenium	ND	103	97.3	94	75-125
Silver	ND	103	95	92	75-125
Thallium	2.57	103	97.2	92	75-125
Vanadium	7.27	103	104	94	75-125
Zinc	19.5	103	115	92	75-125

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E254

METHOD 7471A
MERCURY BY COLD VAPOR

Three (3) soil samples were received on 05/26/05 for Mercury analysis by Method 7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample E147-01 from another SDG was analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E254
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGE059SB	1	NA	05/28/0512:00	05/27/0515:00	M47E041039	M47E041032	HGE059S	Method Blank
LCS1S	HGE059SL	1	NA	05/28/0512:03	05/27/0515:00	M47E041040	M47E041032	HGE059S	Lab Control Sample (LCS)
LCD1S	HGE059SC	1	NA	05/28/0512:05	05/27/0515:00	M47E041041	M47E041032	HGE059S	LCS Duplicate
NM03 B06 5.5-6	E254-03	1	10.5	05/28/0512:56	05/27/0515:00	M47E041062	M47E041056	HGE059S	Field Sample
NM03 B06 15.5-16	E254-04	1	10.5	05/28/0512:59	05/27/0515:00	M47E041063	M47E041056	HGE059S	Field Sample
NM03 B06 25-25.5	E254-05	1	6.8	05/28/0513:02	05/27/0515:00	M47E041064	M47E041056	HGE059S	Field Sample
A3058AS	E147-01A	1	2.4	05/28/0512:07	05/27/0515:00	M47E041042	M47E041032	HGE059S	Analytical Spike Sample
A3058	E147-01	1	2.4	05/28/0512:10	05/27/0515:00	M47E041043	M47E041032	HGE059S	Field Sample
A3058DL	E147-01T	5	2.4	05/28/0512:17	05/27/0515:00	M47E041046	M47E041032	HGE059S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2015

SAMPLE RESULTS

7016

METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E254

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGE059SB	ND	1	NA	.1	.033	05/28/0512:00	05/27/0515:00	M47E041039	M47E041032	HGE059S	NA	05/27/05
LCS1S	HGE059SL	.785	1	NA	.1	.033	05/28/0512:03	05/27/0515:00	M47E041040	M47E041032	HGE059S	NA	05/27/05
LCD1S	HGE059SC	.783	1	NA	.1	.033	05/28/0512:05	05/27/0515:00	M47E041041	M47E041032	HGE059S	NA	05/27/05
NM03 B06 5.5-6	E254-03	ND	1	10.5	.112	.0369	05/28/0512:56	05/27/0515:00	M47E041062	M47E041056	HGE059S	05/25/05	05/26/05
NM03 B06 15.5-16	E254-04	ND	1	10.5	.112	.0369	05/28/0512:59	05/27/0515:00	M47E041063	M47E041056	HGE059S	05/25/05	05/26/05
NM03 B06 25-25.5	E254-05	ND	1	6.8	.107	.0354	05/28/0513:02	05/27/0515:00	M47E041064	M47E041056	HGE059S	05/25/05	05/26/05

7017

QC SUMMARIES

7018

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E254
METHOD: METHOD 7471A

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	HGE059SB	HGE059SL	HGE059SC		
LAB FILE ID:	M47E041039	M47E041040	M47E041041		
DATIME EXTRCTD:	05/27/0515:00	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	NA
DATIME ANALYZD:	05/28/0512:00	05/28/0512:03	05/28/0512:05	DATE RECEIVED:	05/27/05
PREP. BATCH:	HGE059S	HGE059S	HGE059S		
CALIB. REF:	M47E041032	M47E041032	M47E041032		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.785	94	.833	.783	94	0	80-120	20

7019

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E254
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	2.4
DILUTION FACTOR:	1	5		
SAMPLE ID:	A3058	A3058DL		
EMAX SAMP ID:	E147-01	E147-01T		
LAB FILE ID:	M47E041043	M47E041046		
DATE EXTRACTED:	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	05/17/05
DATE ANALYZED:	05/28/0512:10	05/28/0512:17	DATE RECEIVED:	05/18/05
PREP. BATCH:	HGE059S	HGE059S		
CALIB. REF:	M47E041032	M47E041032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7020

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E254
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	2.4
DILTN FACTR:	1	1		
SAMPLE ID:	A3058			
CONTROL NO.:	E147-01	E147-01A		
LAB FILE ID:	M47E041043	M47E041042		
DATIME EXTRCTD:	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	05/17/05
DATIME ANALYZD:	05/28/0512:10	05/28/0512:07	DATE RECEIVED:	05/18/05
PREP. BATCH:	HGE059S	HGE059S		
CALIB. REF:	M47E041032	M47E041032		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.341	.33	97	85-115

2021

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CLIENT: **NINYO & MOORE**

PROJECT: **CALTRANS**

SDG: **05E271**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1010
GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2012 2013 – 2022
GC/MS-SVOA	**	3000 –
GC-VOA	METHOD 5030B/M8015	4000 – 4008
GC-SVOA	METHOD 3520C/LUFT/M8015	5000 – 5008
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B	7000 – 7013
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-21-2005
EMAX Batch No.: 05E271

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/28/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B7-1	E271-01	05/26/05	SOIL	LEAD
NM03-B7-5	E271-02	05/26/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B7-10	E271-03	05/26/05	SOIL	HOLD
NM03-B7-15	E271-04	05/26/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B7-20	E271-05	05/26/05	SOIL	HOLD
NM03-B7-25	E271-06	05/26/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B7-30	E271-07	05/26/05	SOIL	HOLD
NM03-B7-EQ	E271-08	05/26/05	WATER	VOLATILE ORGANICS BY GC/MS
				TPH GASOLINE
				TPH DIESEL

Sample ID	Control #	Col Date	Matrix	Analysis
				LEAD
NM03-B7-TRIP	E271-09	05/26/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B7-GW	E271-10	05/26/05	WATER	VOLATILE ORGANICS BY GC/MS
				TPH GASOLINE
				TPH DIESEL
				LEAD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

Sheet 1 of 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE G2 / VW01-20

EMAX CONTROL NO. * 05E271

PROJECT CODE: 105388009

CLIENT NINYO + MOORE
PROJECT CALTRANS / I-5 WIDENING
COORDINATOR SCOTT SNYDER
TEL (858) 576-1000 FAX (858) 576-9600 EMAIL SSNYDER@NINYOANDMOORE.COM
SEND REPORT TO MR. SCOTT SNYDER
COMPANY NINYO + MOORE
ADDRESS 5710 RUFFIN ROAD
SAN DIEGO, CALIFORNIA 92123
EMAX PM

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O=

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: TPH - GAS 8015M; TPH - DIESEL 8015M; VOCs + OXYGENATES 8260B; SVOCs 8270C; PCBs 8082; TITLE 22 METALS 6010B/7471; TOTAL LEAD 6010B

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☒ STANDARD

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
* 1	NM03 - B7 - 1		5/26/05	9:45	1	4oz	GLASS JAR	SS		TPH - GAS	
* 2	NM03 - B7 - 5			9:55	1	6 INCH	SLEEVE			TPH - DIESEL, VOCs + OXYGENATES, TITLE 22 METALS	
* 3	NM03 - B7 - 10			10:00	1						
* 4	NM03 - B7 - 15			10:10	1					TPH - GAS, TPH - DIESEL, VOCs + OXYGENATES	
* 5	NM03 - B7 - 20			10:20	1						
* 6	NM03 - B7 - 25			10:33	1					TPH - GAS, TPH - DIESEL, VOCs + OXYGENATES	
* 7	NM03 - B7 - 30			10:42	1						
* 8											
* 9											
* 0											

Instructions ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR ANY METALS

Cooler #	Temp. (°C)	Sample #s
1	5.0	

SAMPLER PETER DAVID CLARK NINYO + MOORE

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
	05.28.05	11:30	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Sheet 2 of 3

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE

EMAX CONTROL NO. *
PROJECT CODE: 105388009

CLIENT: NINYO & MOORE
PROJECT: CALTRANS / I-5 WIDENING
COORDINATOR
TEL FAX EMAIL
SEND REPORT TO
COMPANY
ADDRESS
EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOCs + FULL 8260B 8260M; SVOCs 8270C; PCBs 8082; TITLE 22 METAL 6010B/7421; TOTAL LEAD 6010B

TAT:
- ☐ Rush ____ hrs.
- ☐ Rush ____ days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____ days
- ☒ STANDARD

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	SAMPLING DATE	SAMPLING TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	TPH-GAS (HL)	TPH-DIESEL	VOCs (HC)	SVOCs	PCBs	TITLE 22 METAL	TOTAL LEAD	COMMENTS
1	NM03-B7-EQ		5/26/05	11:00	3	40ML	VOAs	W		X							
2	NM03-B7-EQ		↓	11:05	1	1 LITER	GLASS	↓			X						
3	NM03-B7-EQ		↓	11:00	3	40ML	VOAs	↓				X					
4	NM03-B7-EQ		↓	11:05	1	1 LITER	GLASS	↓									
5	NM03-B7-EQ		↓	11:05	1	1 LITER	GLASS	↓									
6	NM03-B7-EQ		↓	11:10	1	250ML	PLASTIC	↓								X	
7																	
9	NM03-B7-TRIP		5/26/05		2	40ML	VOA	W				X					
9																	
0																	

8.

Instructions: ☒ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR ANY METALS

Cooler #	Temp. (°C)	Sample #s
1	5.0	

SAMPLER: PETER DAVID CLARK NINYO & MOORE
COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter David Clark	05.28.05	11:30	[signature]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1003

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:
SAMPLE STORAGE

EMAX CONTROL NO. *
PROJECT CODE: 105388009

CLIENT NIMOAMOORE
PROJECT CALTRANS / I-5 WIDENING
COORDINATOR SCOTT SNYDER
TEL FAX EMAIL
SEND REPORT TO
COMPANY
ADDRESS
EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: TPH-GAS 8015M; TPH-DIESEL 8015M; VOC + FUEL OXYGENATES 8260B; SVOC 8270C; PCBS 8082; TITLE 22 METALS 6010B/7471; TOTAL LEAD 6010B

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☒ STANDARD

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE (HC)							COMMENTS
1	NM03-B7-GW		5/24/05	12:01	4	40ML	VOA	GW		X							
2	NM03-B7-GW			12:08	1	1 LITER	GLASS				X						
3	NM03-B7-GW			12:01	5	40ML	VOA					X					
4	NM03-B7-GW			12:08	1	1 LITER	GLASS										
5	NM03-B7-GW			12:08	1	1 LITER	GLASS										
6	NM03-B7-GW		↓	12:15	1	250ML	PLASTIC	↓								X	
7																	
8																	
9																	
10																	

Instructions ☆ FILTER WATER SAMPLES PRIOR TO ANALYSIS FOR MM METALS

Cooler #	Temp. (°C)	Sample #s
1	5.0	

SAMPLER PETER DAVID CLARK NIMOAMOORE

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Peter David Clark	05.28.05	11:30	

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Monday, June 06, 2005 4:39 PM
To: Hanh Bui
Subject: RE: COC changes (NM/Caltrans 105388009)

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E254-03 to -06 and F009-02, 03, 07.

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E233-10 to 12 and E271-02, 04, 06.

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Monday, June 06, 2005 4:20 PM
To: Scott Snyder
Subject: RE: COC changes (NM/Caltrans 105388009)

Hi Scott,
I just want to verify with you that we already extracted all samples for PCBs, (05E254, 05F009), so we cann't cancel this method.
For Tittle 22 Metals, we already analyze 05E254. Do you want us to analyze total Lead for sample E254-03 to -06?
F009 we cancel Metals, and analyze Total Lead for samples F009-02, -03 to -07?

Samples with NM03-B5 and B7
Samples were extracted for PCBs and SVOCs 05E233, 05E271. We will analyze these methods.
You want to cancel Metals for samples E233-10 to -12, and analyze total Lead?
COCs did not have any check marked for Metals. Do you want us to analyze total Lead for samples E271-02, -04, -06 ?

Enclosed COCs and please give me advise, thanks
Hanh

-----Original Message-----
From: Scott Snyder [mailto:ssnyder@ninyoandmoore.com]
Sent: Friday, June 03, 2005 5:22 PM
To: Hanh Bui
Subject: COC changes

Hanh,

I have changes to the following samples:

Samples with NM03-B6 and NM03-B8 and their associated field blanks:
Do not analyze soil or groundwater for PCBs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Samples with NM03-B5, NM03-B7, NM03-B9, and NM03-B10 and their associated field blanks:
Do not analyze soil or groundwater for PCBs or SVOCs

1005

Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Please reply to let me know you have received this and it is OK.

Thanks,
Scott

Scott Snyder PG, CHG

Senior Hydrogeologist

Ninyo & Moore

5710 Ruffin Road

San Diego, California 92123

(858) 576-1000 x1255

1006

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Wednesday, June 01, 2005 10:23 AM
To: Hanh Bui
Cc: Lauren Hedges
Subject: RE: Question for samples received on May/28 SDG: 05E271 (NM/Caltrans)

We do not need to analyze for PCBs or SVOCs on this field blank and water sample. Please also note that we are only requesting lead not the full Title 22 metals.

Thanks

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Wednesday, June 01, 2005 10:00 AM
To: Scott Snyder
Subject: Question for samples received on May/28 SDG: 05E271 (NM/Caltrans)

-----Original Message-----
From: Hanh Bui
Sent: Tuesday, May 31, 2005 3:29 PM
To: 'Lauren Hedges'
Subject: Question for samples received on May/28 SDG: 05E271 (NM/Caltrans)

Please give me advise for discrepancy, SVOC and PCBs did not request on COCs for samples E271-08 and -10, thanks.
Hanh

1007

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E271
☐ EMAX Courier		Recepient	Sergey. S
☐ Client Delivery		Date	5/28/05
☑ ~~Third Party~~ Fedex	7905 2799 9258	Time	11:30 Am

COC Inspection

☑ ~~Client Name~~	☑ ~~Sampler Name~~	☑ ~~Sampling Date/Time/Location~~
☑ ~~Address~~	☐ Courier Signature/Date/Time	☑ ~~Analysis Required~~
☑ ~~Client PM/FC~~	☑ ~~TAT~~	☑ ~~Matrix~~
☑ ~~Tel #/Fax #~~	☑ ~~Sample ID~~	☑ ~~Preservative (if any)~~
Safety Issues ☑ ~~None~~	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ ~~Cooler~~	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ ~~Intact~~	☐ Damaged	☐
Packaging	☑ ~~Bubble Pack~~	☐ Styrofoam	☑ ~~Sufficient~~	☑ ~~plastic Bag~~
~~Temperatures~~	☐ Cooler 1 5.0 C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
01TO-07		* No Analysis on Labels	Follow COC
		* No Time on Labels.	
-08		RCD Sample Containers for	Follow COC
		SVOCs & PCBs & ~~Diesel~~ @ 5/28/05	Do not analyze for
		But NOT Requested on COC	PCBs & SVOC
-10		RCD Sample Containers for	per Scott's instruction
		SVOCs & PCBs But NOT	6/1/05
		Requested on COC.	
		Also Collection DATE 5/25/05	
		on Labels.	~~Analyze~~ Total Lead
			#2, 4, 6 per Scott
			6/6/05
		@ 5/28/05	

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ Date 5/28/05

SRF _____ Date 5/31/05

PM CR Date 6/2/05

From: Origin ID: (858)576-1000
Rachel Bourus
Ninyo and Moore
5710 Ruffin Road

San Diego, CA 92123

FedEx Express

CLS122504/06/10

Ship Date: 27MAY05
Actual Wgt: 46 LB
System#: 4541513/INET2000
Account#: S *********

REF: 105388009-ELH

Delivery Address Bar Code

SHIP TO: (310)618-8889 **BILL RECIPIENT**

Emax Laboratories
Emax Laboratories
1835 W. 205th Street

Torrance, CA 90501

05E271
05.28.05.
11:30

##
PRIORITY SATURDAY
##

TRK# 7905 2799 9258 FORM 0201

Deliver By: 28MAY05

LAX A1

90501 -CA-US

Q0 AVXA

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

1009

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E271

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E271

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 05/28/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E271
Instrument ID : T-002

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V002F07Q	1	NA	06/03/0501:36	06/03/0501:36	RFP059	REP269	V002F07	Method Blank
LCS1W	V002F07L	1	NA	06/02/0523:41	06/02/0523:41	RFP056	REP269	V002F07	Lab Control Sample (LCS)
LCD1W	V002F07C	1	NA	06/03/0500:20	06/03/0500:20	RFP057	REP269	V002F07	LCS Duplicate
NM03-B7-TRIP	E271-09	1	NA	06/03/0502:15	06/03/0502:15	RFP060	REP269	V002F07	Field Sample
NM03-B7-EQ	E271-08	1	NA	06/03/0504:10	06/03/0504:10	RFP063	REP269	V002F07	Field Sample
NM03-B7-GW	E271-10	1	NA	06/03/0504:48	06/03/0504:48	RFP064	REP269	V002F07	Field Sample
MBLK2W	V002F09Q	1	NA	06/03/0514:40	06/03/0514:40	RFP079	REP269	V002F09	Method Blank
LCS2W	V002F09L	1	NA	06/03/0512:45	06/03/0512:45	RFP076	REP269	V002F09	Lab Control Sample (LCS)
LCD2W	V002F09C	1	NA	06/03/0513:23	06/03/0513:23	RFP077	REP269	V002F09	LCS Duplicate
NM03-B7-GWDL	E271-10T	25	NA	06/03/0521:04	06/03/0521:04	RFP089	REP269	V002F09	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/03/05 04:10
Sample ID: NM03-B7-EQ	Date Analyzed: 06/03/05 04:10
Lab Samp ID: E271-08	Dilution Factor: 1
Lab File ID: RFP063	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	63-143
4-BROMOFLUOROBENZENE	93	63-143
TOLUENE-D8	93	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/03/05 02:15
Sample ID: NM03-B7-TRIP	Date Analyzed: 06/03/05 02:15
Lab Samp ID: E271-09	Dilution Factor: 1
Lab File ID: RFP060	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	63-143
4-BROMOFLUOROBENZENE	95	63-143
TOLUENE-D8	96	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/03/05 04:48
Sample ID: NM03-B7-GW	Date Analyzed: 06/03/05 04:48
Lab Samp ID: E271-10	Dilution Factor: 1
Lab File ID: RFP064	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	320E	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	59	10	5
DIPE	1.5	1	.2
ETBE	.47J	1	.2
TAME	1.1	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	63-143
4-BROMOFLUOROBENZENE	94	63-143
TOLUENE-D8	96	63-143

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/03/05 21:04
Sample ID: NM03-B7-GWDL	Date Analyzed: 06/03/05 21:04
Lab Samp ID: E271-10T	Dilution Factor: 25
Lab File ID: RFP089	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	25	5
ETHYLBENZENE	ND	25	5
M/P-XYLENES	ND	50	12
MTBE	350	25	5
O-XYLENE	ND	25	5
TOLUENE	ND	25	5
TERT-BUTANOL	ND	250	120
DIPE	ND	25	5
ETBE	ND	25	5
TAME	ND	25	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	92	63-143
4-BROMOFLUOROBENZENE	90	63-143
TOLUENE-D8	100	63-143

2007

QC SUMMARIES

2008

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E271	Date Extracted: 06/03/05 01:36
Sample ID: MBLK1W	Date Analyzed: 06/03/05 01:36
Lab Samp ID: V002F07Q	Dilution Factor: 1
Lab File ID: RFP059	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	70-130
4-BROMOFLUOROBENZENE	95	70-130
TOLUENE-D8	97	70-130

2009

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V002F07Q	V002F07L	V002F07C		
LAB FILE ID:	RFP059	RFP056	RFP057		
DATE EXTRACTED:	06/03/0501:36	06/02/0523:41	06/03/0500:20	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0501:36	06/02/0523:41	06/03/0500:20	DATE RECEIVED:	06/03/05
PREP. BATCH:	V002F07	V002F07	V002F07		
CALIB. REF:	REP269	REP269	REP269		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	10	9.86	99	10	10	100	2	70-130	30
Ethylbenzene	ND	10	11	110	10	11.1	111	1	70-120	30
m/p-Xylenes	ND	20	22.7	113	20	22.9	115	1	70-130	30
MTBE	ND	10	10.5	105	10	10.9	109	4	60-140	30
o-Xylene	ND	10	11.7	117	10	12	120	2	70-130	30
Toluene	ND	10	10.5	105	10	10.6	106	1	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.26	93	10	9.17	92	70-130
4-Bromofluorobenzene	10	9.97	100	10	9.35	93	70-130
Toluene-d8	10	9.75	97	10	9.74	97	70-130

2010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E271	Date Extracted: 06/03/05 14:40
Sample ID: MBLK2W	Date Analyzed: 06/03/05 14:40
Lab Samp ID: V002F09Q	Dilution Factor: 1
Lab File ID: RFP079	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
BENZENE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
O-XYLENE	ND	1	.2
TOLUENE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	70-130
4-BROMOFLUOROBENZENE	90	70-130
TOLUENE-D8	95	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V002F09Q	V002F09L	V002F09C		
LAB FILE ID:	RFP079	RFP076	RFP077		
DATE EXTRACTED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE RECEIVED:	06/03/05
PREP. BATCH:	V002F09	V002F09	V002F09		
CALIB. REF:	REP269	REP269	REP269		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	10	10.3	103	10	10.5	105	2	70-130	30
Ethylbenzene	ND	10	11.1	111	10	11.3	113	2	70-120	30
m/p-Xylenes	ND	20	22.8	114	20	23.1	115	1	70-130	30
MTBE	ND	10	10.7	107	10	10	100	7	60-140	30
o-Xylene	ND	10	11.8	118	10	12	120	1	70-130	30
Toluene	ND	10	10.7	107	10	11.1	111	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.33	93	10	8.92	89	70-130
4-Bromofluorobenzene	10	8.95	89	10	9.19	92	70-130
Toluene-d8	10	9.6	96	10	9.97	100	70-130

2012

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E271

2013

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E271

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 05/28/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E271
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006F15B	1	NA	06/07/0503:20	06/07/0503:20	RFW143	REW378	V006F15	Method Blank
LCS1S	V006F15L	1	NA	06/07/0502:04	06/07/0502:04	RFW141	REW378	V006F15	Lab Control Sample (LCS)
LCD1S	V006F15C	1	NA	06/07/0502:42	06/07/0502:42	RFW142	REW378	V006F15	LCS Duplicate
NM03-B7-5	E271-02R	1	6.2	06/07/0503:59	06/07/0503:59	RFW144	REW378	V006F15	Field Sample
NM03-B7-15	E271-04R	1	11.4	06/07/0504:38	06/07/0504:38	RFW145	REW378	V006F15	Field Sample
NM03-B7-25	E271-06R	1	17.7	06/07/0505:16	06/07/0505:16	RFW146	REW378	V006F15	Field Sample

FN - Filename
% Moist - Percent Moisture

2015

SAMPLE RESULTS

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/26/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E271	Date Extracted:	06/07/05 03:59
Sample ID:	NM03-B7-5	Date Analyzed:	06/07/05 03:59
Lab Samp ID:	E271-02R	Dilution Factor:	1
Lab File ID:	RFW144	Matrix :	SOIL
Ext Btch ID:	VOO6F15	% Moisture :	6.2
Calib. Ref.:	REW378	Instrument ID :	T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5.3	2.1
ETHYLBENZENE	ND	5.3	2.1
M/P-XYLENES	ND	11	2.1
MTBE	ND	5.3	2.1
O-XYLENE	ND	5.3	2.1
TOLUENE	ND	5.3	2.1
TERT-BUTANOL	ND	21	11
DIPE	ND	5.3	2.1
ETBE	ND	5.3	2.1
TAME	ND	5.3	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	54-154
4-BROMOFLUOROBENZENE	100	63-143
TOLUENE-D8	95	63-143

2017

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/07/05 04:38
Sample ID: NM03-B7-15	Date Analyzed: 06/07/05 04:38
Lab Samp ID: E271-04R	Dilution Factor: 1
Lab File ID: RFW145	Matrix : SOIL
Ext Btch ID: VOO6F15	% Moisture : 11.4
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5.6	2.3
ETHYLBENZENE	ND	5.6	2.3
M/P-XYLENES	ND	11	2.3
MTBE	ND	5.6	2.3
O-XYLENE	ND	5.6	2.3
TOLUENE	ND	5.6	2.3
TERT-BUTANOL	ND	23	11
DIPE	ND	5.6	2.3
ETBE	ND	5.6	2.3
TAME	ND	5.6	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	54-154
4-BROMOFLUOROBENZENE	99	63-143
TOLUENE-D8	92	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/26/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E271	Date Extracted: 06/07/05 05:16
Sample ID: NM03-B7-25	Date Analyzed: 06/07/05 05:16
Lab Samp ID: E271-06R	Dilution Factor: 1
Lab File ID: RFW146	Matrix : SOIL
Ext Btch ID: VO06F15	% Moisture : 17.7
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	6.1	2.4
ETHYLBENZENE	ND	6.1	2.4
M/P-XYLENES	ND	12	2.4
MTBE	ND	6.1	2.4
O-XYLENE	ND	6.1	2.4
TOLUENE	ND	6.1	2.4
TERT-BUTANOL	ND	24	12
DIPE	ND	6.1	2.4
ETBE	ND	6.1	2.4
TAME	ND	6.1	2.4

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	54-154
4-BROMOFLUOROBENZENE	98	63-143
TOLUENE-D8	94	63-143

QC SUMMARIES

2020

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/07/05
Batch No. : 05E271	Date Extracted: 06/07/05 03:20
Sample ID: MBLK1S	Date Analyzed: 06/07/05 03:20
Lab Samp ID: V006F15B	Dilution Factor: 1
Lab File ID: RFW143	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
BENZENE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
O-XYLENE	ND	5	2
TOLUENE	ND	5	2
TERT-BUTANOL	ND	20	10
DIPE	ND	5	2
ETBE	ND	5	2
TAME	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	60-140
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	92	70-130

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V006F15B	V006F15L	V006F15C		
LAB FILE ID:	RFW143	RFW141	RFW142		
DATE EXTRACTED:	06/07/0503:20	06/07/0502:04	06/07/0502:42	DATE COLLECTED:	NA
DATE ANALYZED:	06/07/0503:20	06/07/0502:04	06/07/0502:42	DATE RECEIVED:	06/07/05
PREP. BATCH:	V006F15	V006F15	V006F15		
CALIB. REF:	REW378	REW378	REW378		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Benzene	ND	20	20.2	101	20	18.9	95	6	70-130	50
Ethylbenzene	ND	20	19.6	98	20	19.4	97	1	70-130	50
m/p-Xylenes	ND	40	39.6	99	40	39.3	98	1	70-130	50
MTBE	ND	20	20.8	104	20	20	100	4	60-140	50
o-Xylene	ND	20	19.1	96	20	18.9	95	1	70-130	50
Toluene	ND	20	20.6	103	20	19.6	98	5	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	54.4	109	50	51.2	102	60-140
4-Bromofluorobenzene	50	52.3	105	50	52.8	106	70-130
Toluene-d8	50	49.9	100	50	47.4	95	70-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

SDG#: 05E271

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E271

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and three (3) soil samples were received on 05/28/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 06/02/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour intervals and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method Blanks were free of contamination at the Reporting Limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was designated for MS/MSD.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E271
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39F01B	1	NA	06/02/0515:48	06/02/0515:48	EF02004A	EF02002A	VA39F01	Method Blank
LCS1W	VA39F01L	1	NA	06/02/0516:24	06/02/0516:24	EF02005A	EF02002A	VA39F01	Lab Control Sample (LCS)
LCD1W	VA39F01C	1	NA	06/02/0516:59	06/02/0516:59	EF02006A	EF02002A	VA39F01	LCS Duplicate
NM03-B7-EQ	E271-08	1	NA	06/03/0510:15	06/03/0510:15	EF02035A	EF02031A	VA39F01	Field Sample
NM03-B7-GW	E271-10	1	NA	06/03/0510:51	06/03/0510:51	EF02036A	EF02031A	VA39F01	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VMF001SB	1	NA	06/03/0514:31	06/03/0514:31	EF02042A	EF02040A	VMF001S	Method Blank
LCS1S	VMF001SL	1	NA	06/03/0515:07	06/03/0515:07	EF02043A	EF02040A	VMF001S	Lab Control Sample (LCS)
LCD1S	VMF001SC	1	NA	06/03/0515:43	06/03/0515:43	EF02044A	EF02040A	VMF001S	LCS Duplicate
NM03-B7-5	E271-02	1	6.2	06/03/0516:19	06/03/0516:19	EF02045A	EF02040A	VMF001S	Field Sample
NM03-B7-15	E271-04	1	11.4	06/03/0516:54	06/03/0516:54	EF02046A	EF02040A	VMF001S	Field Sample
NM03-B7-25	E271-06	1	17.7	06/03/0517:30	06/03/0517:30	EF02047A	EF02040A	VMF001S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39F01B	ND	98	1	NA	.1	.02	06/02/0515:48	06/02/0515:48	EF02004A	EF02002A	VA39F01	NA	06/02/05
LCS1W	VA39F01L	.427	107	1	NA	.1	.02	06/02/0516:24	06/02/0516:24	EF02005A	EF02002A	VA39F01	NA	06/02/05
LCD1W	VA39F01C	.391	98	1	NA	.1	.02	06/02/0516:59	06/02/0516:59	EF02006A	EF02002A	VA39F01	NA	06/02/05
NM03-B7-EQ	E271-08	ND	90	1	NA	.1	.02	06/03/0510:15	06/03/0510:15	EF02035A	EF02031A	VA39F01	05/26/05	05/28/05
NM03-B7-GW	E271-10	ND	90	1	NA	.1	.02	06/03/0510:51	06/03/0510:51	EF02036A	EF02031A	VA39F01	05/26/05	05/28/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VMF001SB	ND	94	1	NA	1	.5	06/03/0514:31	06/03/0514:31	EF02042A	EF02040A	VMF001S	NA	06/03/05
LCS1S	VMF001SL	21.4	105	1	NA	1	.5	06/03/0515:07	06/03/0515:07	EF02043A	EF02040A	VMF001S	NA	06/03/05
LCD1S	VMF001SC	22.6	105	1	NA	1	.5	06/03/0515:43	06/03/0515:43	EF02044A	EF02040A	VMF001S	NA	06/03/05
NM03-B7-5	E271-02	ND	91	1	6.2	1.1	.53	06/03/0516:19	06/03/0516:19	EF02045A	EF02040A	VMF001S	05/26/05	05/28/05
NM03-B7-15	E271-04	ND	88	1	11.4	1.1	.56	06/03/0516:54	06/03/0516:54	EF02046A	EF02040A	VMF001S	05/26/05	05/28/05
NM03-B7-25	E271-06	ND	88	1	17.7	1.2	.61	06/03/0517:30	06/03/0517:30	EF02047A	EF02040A	VMF001S	05/26/05	05/28/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction : 06/02/05 17:50

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39F01B	VA39F01L	VA39F01C		
LAB FILE ID:	EF02004A	EF02005A	EF02006A		
DATE EXTRACTED:	06/02/0515:48	06/02/0516:24	06/02/0516:59	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0515:48	06/02/0516:24	06/02/0516:59	DATE RECEIVED:	06/02/05
PREP. BATCH:	VA39F01	VA39F01	VA39F01		
CALIB. REF:	EF02002A	EF02002A	EF02002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.427	85	.5	.391	78	9	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0426	107	.04	.0392	98	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VMF001SB	VMF001SL	VMF001SC		
LAB FILE ID:	EF02042A	EF02043A	EF02044A		
DATE EXTRACTED:	06/03/0514:31	06/03/0515:07	06/03/0515:43	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0514:31	06/03/0515:07	06/03/0515:43	DATE RECEIVED:	06/03/05
PREP. BATCH:	VMF001S	VMF001S	VMF001S		
CALIB. REF:	EF02040A	EF02040A	EF02040A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	21.4	86	25	22.6	90	6	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.1	105	2	2.11	105	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E271

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E271

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water samples and three (3) soil samples were received on 05/28/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 06/01/05 and completed on 06/02/05. Extraction for soil samples was performed and completed on 06/01/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

Recoveries in sample E271-02 could not be evaluated due to dilution. All others were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No sample was designated for MS/MSD.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

Sample E271-02 displayed motor oil-like fuel pattern.

Sample E271-10 displayed mixed fuel pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E271
Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF002WB	1	NA	06/03/0515:41	06/01/0515:30	TF03009A	TF03002A	DSF002W	Method Blank
LCS1W	DSF002WL	1	NA	06/03/0514:06	06/01/0515:30	TF03007A	TF03002A	DSF002W	Lab Control Sample (LCS)
LCD1W	DSF002WC	1	NA	06/03/0514:59	06/01/0515:30	TF03008A	TF03002A	DSF002W	LCS Duplicate
NM03-B7-EQ	E271-08	.94	NA	06/03/0516:23	06/01/0515:30	TF03010A	TF03002A	DSF002W	Field Sample
NM03-B7-GW	E271-10	.94	NA	06/03/0517:47	06/01/0515:30	TF03012A	TF03002A	DSF002W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSF001SB	1	NA	06/01/0522:28	06/01/0516:35	TF01017A	TF01013A	DSF001S	Method Blank
LCS1S	DSF001SL	1	NA	06/01/0521:04	06/01/0516:35	TF01015A	TF01013A	DSF001S	Lab Control Sample (LCS)
LCD1S	DSF001SC	1	NA	06/01/0521:46	06/01/0516:35	TF01016A	TF01013A	DSF001S	LCS Duplicate
NM03-B7-5	E271-02T	10	6.2	06/03/0513:24	06/01/0516:35	TF03006A	TF03002A	DSF001S	Diluted Sample
NM03-B7-15	E271-04	1	11.4	06/01/0523:52	06/01/0516:35	TF01019A	TF01013A	DSF001S	Field Sample
NM03-B7-25	E271-06	1	17.7	06/02/0500:34	06/01/0516:35	TF01020A	TF01013A	DSF001S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : WATER
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSF002WB	ND	72	105	1	NA	.5	.1	06/03/0515:41	06/01/0515:30	TF03009A	TF03002A	DSF002W	NA	06/01/05
LCS1W	DSF002WL	5.18	79	111	1	NA	.5	.1	06/03/0514:06	06/01/0515:30	TF03007A	TF03002A	DSF002W	NA	06/01/05
LCD1W	DSF002WC	5.19	79	108	1	NA	.5	.1	06/03/0514:59	06/01/0515:30	TF03008A	TF03002A	DSF002W	NA	06/01/05
NM03-B7-EQ	E271-08	ND	79	108	.94	NA	.47	.094	06/03/0516:23	06/01/0515:30	TF03010A	TF03002A	DSF002W	05/26/05	05/28/05
NM03-B7-GW	E271-10	.32J	79	116	.94	NA	.47	.094	06/03/0517:47	06/01/0515:30	TF03012A	TF03002A	DSF002W	05/26/05	05/28/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : SOIL
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSF001SB	ND	88	104	1	NA	10	5	06/01/0522:28	06/01/0516:35	TF01017A	TF01013A	DSF001S	NA	06/01/05
LCS1S	DSF001SL	530	95	108	1	NA	10	5	06/01/0521:04	06/01/0516:35	TF01015A	TF01013A	DSF001S	NA	06/01/05
LCD1S	DSF001SC	535	92	103	1	NA	10	5	06/01/0521:46	06/01/0516:35	TF01016A	TF01013A	DSF001S	NA	06/01/05
NM03-B7-5	E271-02T	1100	DO	DO	10	6.2	110	53	06/03/0513:24	06/01/0516:35	TF03006A	TF03002A	DSF001S	05/26/05	05/28/05
NM03-B7-15	E271-04	ND	98	118	1	11.4	11	5.6	06/01/0523:52	06/01/0516:35	TF01019A	TF01013A	DSF001S	05/26/05	05/28/05
NM03-B7-25	E271-06	ND	100	125	1	17.7	12	6.1	06/02/0500:34	06/01/0516:35	TF01020A	TF01013A	DSF001S	05/26/05	05/28/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

DO : Diluted Out

5005

QC SUMMARIES

5006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 3520C/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSF002WB	DSF002WL	DSF002WC		
LAB FILE ID:	TF03009A	TF03007A	TF03008A		
DATE EXTRACTED:	06/01/0515:30	06/01/0515:30	06/01/0515:30	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0515:41	06/03/0514:06	06/03/0514:59	DATE RECEIVED:	06/01/05
PREP. BATCH:	DSF002W	DSF002W	DSF002W		
CALIB. REF:	TF03002A	TF03002A	TF03002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	5.18	104	5	5.19	104	0	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.795	79	1	.794	79	50-140
Hexacosane	.25	.277	111	.25	.271	108	70-150

5007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD LUFT/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSF001SB	DSF001SL	DSF001SC		
LAB FILE ID:	TF01017A	TF01015A	TF01016A		
DATE EXTRACTED:	06/01/0516:35	06/01/0516:35	06/01/0516:35	DATE COLLECTED:	NA
DATE ANALYZED:	06/01/0522:28	06/01/0521:04	06/01/0521:46	DATE RECEIVED:	06/01/05
PREP. BATCH:	DSF001S	DSF001S	DSF001S		
CALIB. REF:	TF01013A ✓	TF01013A	TF01013A		
ACCESSION:					

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	530	106	500	535	107	1	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	95	95	100	91.8	92	60-150
Hexacosane	25	27.1	108	25	25.7	103	60-160

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

SDG#: 05E271

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E271

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

Two (2) water and four (4) soil samples were received on 05/28/05 for Lead analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples from another SDGs E232-09, F196-06 and E233-07 were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E271
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
LCS1W	IPF021WL	1	NA	06/07/0522:45	06/06/0516:00	I73F015031	I73F015021	IPF021W	Lab Control Sample (LCS)
LCD1W	IPF021WC	1	NA	06/07/0522:51	06/06/0516:00	I73F015032	I73F015021	IPF021W	LCS Duplicate
MBLK1W	IPF021WB	1	NA	06/07/0523:10	06/06/0516:00	I73F015035	I73F015033	IPF021W	Method Blank
NM03-B7-EQ	E271-08	1	NA	06/07/0523:42	06/06/0516:00	I73F015040	I73F015033	IPF021W	Field Sample
NM03-B7-GW	E271-10	1	NA	06/07/0523:48	06/06/0516:00	I73F015041	I73F015033	IPF021W	Field Sample
NM03-GW05AS	E233-07A	1	NA	06/07/0523:16	06/06/0516:00	I73F015036	I73F015033	IPF021W	Analytical Spike Sample
NM03-GW05	E233-07	1	NA	06/07/0523:24	06/06/0516:00	I73F015037	I73F015033	IPF021W	Field Sample
NM03-GW05DL	E233-07T	5	NA	06/07/0523:30	06/06/0516:00	I73F015038	I73F015033	IPF021W	Diluted Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPF019SB	1	NA	06/08/0514:16	06/06/0509:00	I73F016011	I73F016009	IPF019S	Method Blank
LCS1S	IPF019SL	1	NA	06/08/0514:23	06/06/0509:00	I73F016012	I73F016009	IPF019S	Lab Control Sample (LCS)
LCD1S	IPF019SC	1	NA	06/08/0514:29	06/06/0509:00	I73F016013	I73F016009	IPF019S	LCS Duplicate
NM03-B7-1	E271-01	1	4.5	06/08/0516:20	06/06/0509:00	I73F016030	I73F016021	IPF019S	Field Sample
I5NB-MAN-HA46 1.0DL	E232-09T	5	8.2	06/08/0515:41	06/06/0509:00	I73F016024	I73F016021	IPF019S	Diluted Sample
I5NB-MAN-HA46 1.0	E232-09	1	8.2	06/08/0515:47	06/06/0509:00	I73F016025	I73F016021	IPF019S	Field Sample
I5NB-MAN-HA46 1.0AS	E232-09A	1	8.2	06/08/0515:54	06/06/0509:00	I73F016026	I73F016021	IPF019S	Analytical Spike Sample
MBLK2S	IPF059SB	1	NA	06/23/0512:37	06/22/0513:30	I73F043014	I73F043012	IPF059S	Method Blank
LCS2S	IPF059SL	1	NA	06/23/0512:43	06/22/0513:30	I73F043015	I73F043012	IPF059S	Lab Control Sample (LCS)
LCD2S	IPF059SC	1	NA	06/23/0512:49	06/22/0513:30	I73F043016	I73F043012	IPF059S	LCS Duplicate
NM03-B7-5	E271-02	1	6.2	06/23/0513:15	06/22/0513:30	I73F043020	I73F043012	IPF059S	Field Sample
NM03-B7-15	E271-04	1	11.4	06/23/0513:21	06/22/0513:30	I73F043021	I73F043012	IPF059S	Field Sample
NM03-B7-25	E271-06	1	17.7	06/23/0513:28	06/22/0513:30	I73F043022	I73F043012	IPF059S	Field Sample
IZP-T26-SL1	F196-06	1	47.6	06/23/0514:02	06/22/0513:30	I73F043027	I73F043023	IPF059S	Field Sample
IZP-T26-SL1DL	F196-06T	5	47.6	06/23/0514:08	06/22/0513:30	I73F043028	I73F043023	IPF059S	Diluted Sample
IZP-T26-SL1AS	F196-06A	1	47.6	06/23/0514:14	06/22/0513:30	I73F043029	I73F043023	IPF059S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

7002

METHOD 3010A/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : WATER
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
LCS1W	IPF021WL	1.1	1	NA	.01	.003	06/07/0522:45	06/06/0516:00	I73F015031	I73F015021	IPF021W	NA	06/06/05
LCD1W	IPF021WC	1.05	1	NA	.01	.003	06/07/0522:51	06/06/0516:00	I73F015032	I73F015021	IPF021W	NA	06/06/05
MBLK1W	IPF021WB	ND	1	NA	.01	.003	06/07/0523:10	06/06/0516:00	I73F015035	I73F015033	IPF021W	NA	06/06/05
NM03-B7-EQ	E271-08	ND	1	NA	.01	.003	06/07/0523:42	06/06/0516:00	I73F015040	I73F015033	IPF021W	05/26/05	05/28/05
NM03-B7-GW	E271-10	ND	1	NA	.01	.003	06/07/0523:48	06/06/0516:00	I73F015041	I73F015033	IPF021W	05/26/05	05/28/05

7003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E271
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPF021WB	IPF021WL	IPF021WC		
LAB FILE ID:	I73F015035	I73F015031	I73F015032		
DATIME EXTRCTD:	06/06/0516:00	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	NA
DATIME ANALYZD:	06/07/0523:10	06/07/0522:45	06/07/0522:51	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF021W	IPF021W	IPF021W		
CALIB. REF:	I73F015033	I73F015021	I73F015021		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	1	1.1	110	1	1.05	105	4	80-120	20

7004

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-GW05	NM03-GW05DL		
EMAX SAMP ID:	E233-07	E233-07T		
LAB FILE ID:	I73F015037	I73F015038		
DATE EXTRACTED:	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	05/24/05
DATE ANALYZED:	06/07/0523:24	06/07/0523:30	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF021W	IPF021W		
CALIB. REF:	I73F015033	I73F015033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Lead	ND	ND	0	10

7005

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E271
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-GW05			
CONTROL NO.:	E233-07	E233-07A		
LAB FILE ID:	I73F015037	I73F015036		
DATIME EXTRCTD:	06/06/0516:00	06/06/0516:00	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/07/0523:24	06/07/0523:16	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF021W	IPF021W		
CALIB. REF:	I73F015033	I73F015033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Lead	ND	1	.95	95	75-125

7006

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E271

Matrix : SOIL
Instrument ID : T-I73

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPF019SB	ND	1	NA	1	.2	06/08/0514:16	06/06/0509:00	I73F016011	I73F016009	IPF019S	NA	06/06/05
LCS1S	IPF019SL	96.6	1	NA	1	.2	06/08/0514:23	06/06/0509:00	I73F016012	I73F016009	IPF019S	NA	06/06/05
LCD1S	IPF019SC	96.5	1	NA	1	.2	06/08/0514:29	06/06/0509:00	I73F016013	I73F016009	IPF019S	NA	06/06/05
NM03-B7-1	E271-01	6.55	1	4.5	1.05	.209	06/08/0516:20	06/06/0509:00	I73F016030	I73F016021	IPF019S	05/26/05	05/28/05
MBLK2S	IPF059SB	ND	1	NA	1	.2	06/23/0512:37	06/22/0513:30	I73F043014	I73F043012	IPF059S	NA	06/22/05
LCS2S	IPF059SL	102	1	NA	1	.2	06/23/0512:43	06/22/0513:30	I73F043015	I73F043012	IPF059S	NA	06/22/05
LCD2S	IPF059SC	99.8	1	NA	1	.2	06/23/0512:49	06/22/0513:30	I73F043016	I73F043012	IPF059S	NA	06/22/05
NM03-B7-5	E271-02	5.16	1	6.2	1.07	.213	06/23/0513:15	06/22/0513:30	I73F043020	I73F043012	IPF059S	05/26/05	05/28/05
NM03-B7-15	E271-04	5.8	1	11.4	1.13	.226	06/23/0513:21	06/22/0513:30	I73F043021	I73F043012	IPF059S	05/26/05	05/28/05
NM03-B7-25	E271-06	2.42	1	17.7	1.22	.243	06/23/0513:28	06/22/0513:30	I73F043022	I73F043012	IPF059S	05/26/05	05/28/05

7007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E271
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPF019SB	IPF019SL	IPF019SC		
LAB FILE ID:	I73F016011	I73F016012	I73F016013		
DATIME EXTRCTD:	06/06/0509:00	06/06/0509:00	06/06/0509:00	DATE COLLECTED:	NA
DATIME ANALYZD:	06/08/0514:16	06/08/0514:23	06/08/0514:29	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF019S	IPF019S	IPF019S		
CALIB. REF:	I73F016009	I73F016009	I73F016009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	96.6	97	100	96.5	97	0	80-120	20

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E271
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK2S				
CONTROL NO.:	IPF059SB	IPF059SL	IPF059SC		
LAB FILE ID:	I73F043014	I73F043015	I73F043016		
DATIME EXTRCTD:	06/22/0513:30	06/22/0513:30	06/22/0513:30	DATE COLLECTED:	NA
DATIME ANALYZD:	06/23/0512:37	06/23/0512:43	06/23/0512:49	DATE RECEIVED:	06/22/05
PREP. BATCH:	IPF059S	IPF059S	IPF059S		
CALIB. REF:	I73F043012	I73F043012	I73F043012		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	102	102	100	99.8	100	2	80-120	20

7009

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 8.2
DILUTION FACTOR: 1 5
SAMPLE ID: I5NB-MAN-HA46 1.0 I5NB-MAN-HA46 1.0DL
EMAX SAMP ID: E232-09 E232-09T
LAB FILE ID: I73F016025 I73F016024
DATE EXTRACTED: 06/06/0509:00 06/06/0509:00 DATE COLLECTED: 05/24/05
DATE ANALYZED: 06/08/0515:47 06/08/0515:41 DATE RECEIVED: 05/25/05
PREP. BATCH: IPF019S IPF019S
CALIB. REF: I73F016021 I73F016021

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	49.5	51.7	4	10

7010 M

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E271
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	8.2
DILTN FACTR:	1	1		
SAMPLE ID:	I5NB-MAN-HA46 1.0			
CONTROL NO.:	E232-09	E232-09A		
LAB FILE ID:	I73F016025	I73F016026		
DATIME EXTRCTD:	06/06/0509:00	06/06/0509:00	DATE COLLECTED:	05/24/05
DATIME ANALYZD:	06/08/0515:47	06/08/0515:54	DATE RECEIVED:	05/25/05
PREP. BATCH:	IPF019S	IPF019S		
CALIB. REF:	I73F016021	I73F016021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	49.5	109	141	84	75-125

7011

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E271
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	47.6
DILUTION FACTOR:	1	5		
SAMPLE ID:	IZP-T26-SL1	IZP-T26-SL1DL		
EMAX SAMP ID:	F196-06	F196-06T		
LAB FILE ID:	I73F043027	I73F043028		
DATE EXTRACTED:	06/22/0513:30	06/22/0513:30	DATE COLLECTED:	06/21/05
DATE ANALYZED:	06/23/0514:02	06/23/0514:08	DATE RECEIVED:	06/21/05
PREP. BATCH:	IPF059S	IPF059S		
CALIB. REF:	I73F043023	I73F043023		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	4.63	3.75J	NA	10

7012

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT:	NINYO & MOORE			
PROJECT:	CALTRANS			
SDG NO.:	05E271			
METHOD:	METHOD 3050B/6010B			
MATRIX:	SOIL		% MOISTURE:	47.6
DILTN FACTR:	1	1		
SAMPLE ID:	IZP-T26-SL1			
CONTROL NO.:	F196-06	F196-06A		
LAB FILE ID:	I73F043027	I73F043029		
DATIME EXTRCTD:	06/22/0513:30	06/22/0513:30	DATE COLLECTED:	06/21/05
DATIME ANALYZD:	06/23/0514:02	06/23/0514:14	DATE RECEIVED:	06/21/05
PREP. BATCH:	IPF059S	IPF059S		
CALIB. REF:	I73F043023	I73F043023		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	4.63	191	198	101	75-125

7013

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CLIENT: **NINYO & MOORE**

PROJECT: **CALTRANS**

SDG: **05F009**

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GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2007 2008 – 2019
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METALS	METHOD 3010A/3050B/6010B	7000 – 7010
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-23-2005
EMAX Batch No.: 05F009

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 06/01/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B08-TRIP	F009-01	05/31/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B08-1-1.5	F009-02	05/31/05	SOIL	LEAD
NM03-B08-5.5-6	F009-03	05/31/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				LEAD
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B08-55.5-56	F009-04	05/31/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				LEAD
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B08-60.5-61	F009-05	05/31/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				LEAD

Sample ID	Control #	Col Date	Matrix	Analysis
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B08-65.5-66	F009-06	05/31/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				LEAD
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B08-EQUIP	F009-07	05/31/05	WATER	LEAD
				VOLATILE ORGANICS BY GC/MS
				TPH GASOLINE
				TPH DIESEL
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning
these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: J3 | VW01-29

EMAX CONTROL NO. * 05F009

PROJECT CODE:

CLIENT: Caltrans
PROJECT: I-5 Extension | 105388009
COORDINATOR: Scott Snyder
TEL: 858-576-1000 FAX: ssnyder EMAIL: @ nuyo & moore
SEND REPORT TO: Scott Snyder
COMPANY: 5710 Ruffin Rd - San Diego CA
ADDRESS: Nuyo & Moore
EMAX PM:

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O= Blank Water	

ANALYSIS REQUIRED

TAT
- ☐ Rush ____hrs.
- ☒ Rush 3 days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☐ 30 days
- ☐ ____days
- ☐

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	Total Lead	VOC	TPH-gas	TPH-diesel	SVOC	PCB	Metals	COMMENTS
1	NM03-B08-Trip	B08	5-31-05	0900	2	40ml	VOA	O			X						
2	NM03-B08-1-1.5	B08	↓	0940	1	8 oz	JAR	SS		X							
3	NM03-B08-5.5-6	↓	↓	1005	1	6"	Sleeve	SS			X	X	X	X	X	X	
4	NM03-B08-55.5-56	↓	↓	1205	1	↓	↓	↓			X	X	X	X	X	X	
5	NM03-B08-60.5-61	↓	↓	1225	1	↓	↓	↓			X	X	X	X	X	X	
6	NM03-B08-65.5-66	↓	↓	1235	1	↓	↓	↓			X	X	X	X	X	X	
7	NM03-B08-Equip	↓	↓	1400	10			O		X	X	X	X	X	X	X	
8																	
9																	
0																	

Instructions

Cooler #	Temp. (°C)	Sample #s
	3.2°C	

SAMPLER: Matt Fuller

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fuller	5-31-05	1230	Phil Hatcher
Phil Hatcher	5-1-05	1800	[illegible]

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Thursday, June 02, 2005 5:06 PM
To: Hanh Bui
Subject: RE: Question for samples received on June/1 (NM/ Caltrans)

For 05F009: Yes hold the extra tubes and change the turn around time to standard 5 days.
For 05F006: Yes analyze the samples for total lead, sorry for the oversight. Standard turn around time, 5 days.
For 05F012: Total lead was checked on all samples on the COC. Standard turn around time, 5 days.

Thanks

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Thursday, June 02, 2005 4:56 PM
To: Scott Snyder
Subject: Question for samples received on June/1 (NM/ Caltrans)

Hi Scott,
Please find the attached of COCs and SRF of SDGs:
1/ 05F009
Can we hold some extra tubes we received ?
3 days TAT will changed to 5 days TAT?

2/ 05F006
We will analyze total Lead for samples F006-11 to -18 (No check marked on COC) ?
Still 3 days TAT ? (not project 105388009, please check COCs)

3/ 05F012
Total Lead requested for samples F012-08 and F012-09? (No check marked on COC)?
3 days TAT changed to 5 days TAT?
Please give me advise, thanks.
Hanh

1003

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Monday, June 06, 2005 4:39 PM
To: Hanh Bui F009
Subject: RE: COC changes (NM/Caltrans 105388009)

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E254-03 to -06 and F009-02, 03, 07.

Yes cancel the Title 22 metals for what ever has not been analyzed and instead analyze for total lead only E233-10 to 12 and E271-02, 04, 06.

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Monday, June 06, 2005 4:20 PM
To: Scott Snyder
Subject: RE: COC changes (NM/Caltrans 105388009)

Hi Scott,
I just want to verify with you that we already extracted all samples for PCBs, (05E254, 05F009), so we cann't cancel this method.
For Tittle 22 Metals, we already analyze 05E254. Do you want us to analyze total Lead for sample E254-03 to -06?
F009 we cancel Metals, and analyze Total Lead for samples F009-02, -03 to -07?

Samples with NM03-B5 and B7
Samples were extracted for PCBs and SVOCs 05E233, 05E271. We will analyze these methods.
You want to cancel Metals for samples E233-10 to -12, and analyze total Lead?
COCs did not have any check marked for Metals. Do you want us to analyze total Lead for samples E271-02, -04, -06 ?

Enclosed COCs and please give me advise, thanks
Hanh

-----Original Message-----
From: Scott Snyder [mailto:ssnyder@ninyoandmoore.com]
Sent: Friday, June 03, 2005 5:22 PM
To: Hanh Bui
Subject: COC changes

Hanh,

I have changes to the following samples:

Samples with NM03-B6 and NM03-B8 and their associated field blanks:
Do not analyze soil or groundwater for PCBs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Samples with NM03-B5, NM03-B7, NM03-B9, and NM03-B10 and their associated field blanks:
Do not analyze soil or groundwater for PCBs or SVOCs

1004

Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Please reply to let me know you have received this and it is OK.

Thanks,
Scott

Scott Snyder PG, CHG

Senior Hydrogeologist

Ninyo & Moore

5710 Ruffin Road

San Diego, California 92123

(858) 576-1000 x1255

1005

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05F009
☑ EMAX Courier	PHIL HATCHER	Recepient	I-PATEL
☐ Client Delivery		Date	06-01-05
☐ Third Party		Time	1800

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☑ Address	☐ Courier Signature/Date/Time	☑ Analysis Required
☐ Client PM/FC	☑ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☐ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ PLASTIC BAG
Temperatures	☑ Cooler 1 T-3.2°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
- 07 -		METAL CONTAINER RECD UNPRESERVED PH-7	Preserved & filtration
-03 THRU-06		NO ANALYSIS ON ALL TUBES	Follow COC
		RECD EXTRA TUBES W/ THIS SDG	
		BUT NO C.O.C	
	NM03-B8	5-31-05 / 10:15 / 10.5	Hold
	NM03-B8	5-31-05 / 10:28 / 20.5	
	NM03-B8	5-31-05 / 10:22 / 15.5	
	NM03-B8	5-31-05 / 10:37 / 26.5	
	NM03-B8	5-31-05 / 11:00 / 30.5	
	NM03-B8	5-31-05 / 11:12 / 35.5	
	NM03-B8	5-31-05 / 11:24 / 42.5	
	NM03-B8	5-31-05 / 11:38 / 45.5	
	NM03-B8	5-31-05 / 11:48 / 50.5	
			5 days TAT per Scott's instruction 6/2/05

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling ____ Date 6-01-05

SRF. ____ Date 6/2/05

PM ____ Date 6/6/05

Note: Cancel Metals, analyze Total lead #2 → 7 per Scott's email 6/6/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05F009

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Two (2) water samples were received on 06/01/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : T-005

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V005F07Q	1	NA	06/03/0520:36	06/03/0520:36	RFQ084	REQA30	V005F07	Method Blank
LCS1W	V005F07L	1	NA	06/03/0518:46	06/03/0518:46	RFQ081	REQA30	V005F07	Lab Control Sample (LCS)
LCD1W	V005F07C	1	NA	06/03/0519:23	06/03/0519:23	RFQ082	REQA30	V005F07	LCS Duplicate
NM03-B08-TRIP	F009-01	1	NA	06/03/0523:04	06/03/0523:04	RFQ088	REQA30	V005F07	Field Sample
NM03-B08-EQUIP	F009-07	1	NA	06/03/0523:41	06/03/0523:41	RFQ089	REQA30	V005F07	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/03/05 23:04
Sample ID: NM03-B08-TRIP	Date Analyzed: 06/03/05 23:04
Lab Samp ID: F009-01	Dilution Factor: 1
Lab File ID: RFQ088	Matrix : WATER
Ext Btch ID: VQ05F07	% Moisture : NA
Calib. Ref.: REQA30	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	63-143
4-BROMOFLUOROBENZENE	102	63-143
TOLUENE-D8	101	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/03/05 23:41
Sample ID: NM03-B08-EQUIP	Date Analyzed: 06/03/05 23:41
Lab Samp ID: F009-07	Dilution Factor: 1
Lab File ID: RFQ089	Matrix : WATER
Ext Btch ID: VQ05F07	% Moisture : NA
Calib. Ref.: REQA30	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	100	63-143
4-BROMOFLUOROBENZENE	99	63-143
TOLUENE-D8	99	63-143

2005

QC SUMMARIES

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05F009	Date Extracted: 06/03/05 20:36
Sample ID: MBLK1W	Date Analyzed: 06/03/05 20:36
Lab Samp ID: V005F07Q	Dilution Factor: 1
Lab File ID: RFQ084	Matrix : WATER
Ext Btch ID: V005F07	% Moisture : NA
Calib. Ref.: REQA30	Instrument ID : T-005

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	70-130
4-BROMOFLUOROBENZENE	103	70-130
TOLUENE-D8	101	70-130

2007

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05F009

2008

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Four (4) soil samples were received on 06/01/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

2009

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V006F15B	1	NA	06/07/0503:20	06/07/0503:20	RFW143	REW378	V006F15	Method Blank
LCS1S	V006F15L	1	NA	06/07/0502:04	06/07/0502:04	RFW141	REW378	V006F15	Lab Control Sample (LCS)
LCD1S	V006F15C	1	NA	06/07/0502:42	06/07/0502:42	RFW142	REW378	V006F15	LCS Duplicate
NM03-B08-5.5-6	F009-03R	1	12.7	06/07/0505:54	06/07/0505:54	RFW147	REW378	V006F15	Field Sample
NM03-B08-55.5-56	F009-04R	1	24.5	06/07/0506:33	06/07/0506:33	RFW148	REW378	V006F15	Field Sample
NM03-B08-60.5-61	F009-05R	1	19.0	06/07/0507:12	06/07/0507:12	RFW149	REW378	V006F15	Field Sample
NM03-B08-65.5-66	F009-06R	1	14.4	06/07/0507:50	06/07/0507:50	RFW150	REW378	V006F15	Field Sample

FN - Filename
% Moist - Percent Moisture

2010

SAMPLE RESULTS

2011

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/07/05 05:54
Sample ID: NM03-B08-5.5-6	Date Analyzed: 06/07/05 05:54
Lab Samp ID: F009-03R	Dilution Factor: 1
Lab File ID: RFW147	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : 12.7
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.7	2.3
1,1,2,2-TETRACHLOROETHANE	ND	5.7	2.3
1,1,2-TRICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHANE	ND	5.7	2.3
1,1-DICHLOROETHENE	ND	5.7	2.3
1,2-DICHLOROETHANE	ND	5.7	2.3
1,2-DICHLOROPROPANE	ND	5.7	2.3
2-BUTANONE	ND	11	5.7
2-HEXANONE	ND	11	5.7
4-METHYL-2-PENTANONE	ND	11	5.7
ACETONE	ND	11	5.7
BENZENE	ND	5.7	2.3
BROMODICHLOROMETHANE	ND	5.7	2.3
BROMOFORM	ND	5.7	2.3
BROMOMETHANE	ND	11	2.3
CARBON DISULFIDE	ND	5.7	2.3
CARBON TETRACHLORIDE	ND	5.7	2.3
CHLOROBENZENE	ND	5.7	2.3
CHLOROETHANE	ND	5.7	2.3
CHLOROFORM	ND	5.7	2.3
CHLOROMETHANE	ND	11	2.3
CIS-1,2-DICHLOROETHENE	ND	5.7	2.3
CIS-1,3-DICHLOROPROPENE	ND	5.7	2.3
DIBROMOCHLOROMETHANE	ND	5.7	2.3
ETHYLBENZENE	ND	5.7	2.3
M/P-XYLENES	ND	11	2.3
MTBE	ND	5.7	2.3
METHYLENE CHLORIDE	ND	11	2.3
O-XYLENE	ND	5.7	2.3
STYRENE	ND	5.7	2.3
TETRACHLOROETHENE	ND	5.7	2.3
TOLUENE	ND	5.7	2.3
TRANS-1,2-DICHLOROETHENE	ND	5.7	2.3
TRANS-1,3-DICHLOROPROPENE	ND	5.7	2.3
TRICHLOROETHENE	ND	5.7	2.3
VINYL CHLORIDE	ND	5.7	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	54-154
4-BROMOFLUOROBENZENE	98	63-143
TOLUENE-D8	94	63-143

2012

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/07/05 06:33
Sample ID: NM03-B08-55.5-56	Date Analyzed: 06/07/05 06:33
Lab Samp ID: F009-04R	Dilution Factor: 1
Lab File ID: RFW148	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : 24.5
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.6	2.6
1,1,2,2-TETRACHLOROETHANE	ND	6.6	2.6
1,1,2-TRICHLOROETHANE	ND	6.6	2.6
1,1-DICHLOROETHANE	ND	6.6	2.6
1,1-DICHLOROETHENE	ND	6.6	2.6
1,2-DICHLOROETHANE	ND	6.6	2.6
1,2-DICHLOROPROPANE	ND	6.6	2.6
2-BUTANONE	ND	13	6.6
2-HEXANONE	ND	13	6.6
4-METHYL-2-PENTANONE	ND	13	6.6
ACETONE	ND	13	6.6
BENZENE	ND	6.6	2.6
BROMODICHLOROMETHANE	ND	6.6	2.6
BROMOFORM	ND	6.6	2.6
BROMOMETHANE	ND	13	2.6
CARBON DISULFIDE	ND	6.6	2.6
CARBON TETRACHLORIDE	ND	6.6	2.6
CHLOROBENZENE	ND	6.6	2.6
CHLOROETHANE	ND	6.6	2.6
CHLOROFORM	ND	6.6	2.6
CHLOROMETHANE	ND	13	2.6
CIS-1,2-DICHLOROETHENE	ND	6.6	2.6
CIS-1,3-DICHLOROPROPENE	ND	6.6	2.6
DIBROMOCHLOROMETHANE	ND	6.6	2.6
ETHYLBENZENE	ND	6.6	2.6
M/P-XYLENES	ND	13	2.6
MTBE	ND	6.6	2.6
METHYLENE CHLORIDE	ND	13	2.6
O-XYLENE	ND	6.6	2.6
STYRENE	ND	6.6	2.6
TETRACHLOROETHENE	ND	6.6	2.6
TOLUENE	ND	6.6	2.6
TRANS-1,2-DICHLOROETHENE	ND	6.6	2.6
TRANS-1,3-DICHLOROPROPENE	ND	6.6	2.6
TRICHLOROETHENE	ND	6.6	2.6
VINYL CHLORIDE	ND	6.6	2.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	104	54-154
4-BROMOFLUOROBENZENE	96	63-143
TOLUENE-D8	92	63-143

2013

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/07/05 07:12
Sample ID: NM03-B08-60.5-61	Date Analyzed: 06/07/05 07:12
Lab Samp ID: F009-05R	Dilution Factor: 1
Lab File ID: RFW149	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : 19.0
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.2	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.2	2.5
1,1,2-TRICHLOROETHANE	ND	6.2	2.5
1,1-DICHLOROETHANE	ND	6.2	2.5
1,1-DICHLOROETHENE	ND	6.2	2.5
1,2-DICHLOROETHANE	ND	6.2	2.5
1,2-DICHLOROPROPANE	ND	6.2	2.5
2-BUTANONE	ND	12	6.2
2-HEXANONE	ND	12	6.2
4-METHYL-2-PENTANONE	ND	12	6.2
ACETONE	ND	12	6.2
BENZENE	ND	6.2	2.5
BROMODICHLOROMETHANE	ND	6.2	2.5
BROMOFORM	ND	6.2	2.5
BROMOMETHANE	ND	12	2.5
CARBON DISULFIDE	ND	6.2	2.5
CARBON TETRACHLORIDE	ND	6.2	2.5
CHLOROBENZENE	ND	6.2	2.5
CHLOROETHANE	ND	6.2	2.5
CHLOROFORM	ND	6.2	2.5
CHLOROMETHANE	ND	12	2.5
CIS-1,2-DICHLOROETHENE	ND	6.2	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.2	2.5
DIBROMOCHLOROMETHANE	ND	6.2	2.5
ETHYLBENZENE	ND	6.2	2.5
M/P-XYLENES	ND	12	2.5
MTBE	ND	6.2	2.5
METHYLENE CHLORIDE	ND	12	2.5
O-XYLENE	ND	6.2	2.5
STYRENE	ND	6.2	2.5
TETRACHLOROETHENE	ND	6.2	2.5
TOLUENE	ND	6.2	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.2	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.2	2.5
TRICHLOROETHENE	ND	6.2	2.5
VINYL CHLORIDE	ND	6.2	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	54-154
4-BROMOFLUOROBENZENE	98	63-143
TOLUENE-D8	94	63-143

2014

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/07/05 07:50
Sample ID: NM03-B08-65.5-66	Date Analyzed: 06/07/05 07:50
Lab Samp ID: F009-06R	Dilution Factor: 1
Lab File ID: RFW150	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : 14.4
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.8	2.3
1,1,2,2-TETRACHLOROETHANE	ND	5.8	2.3
1,1,2-TRICHLOROETHANE	ND	5.8	2.3
1,1-DICHLOROETHANE	ND	5.8	2.3
1,1-DICHLOROETHENE	ND	5.8	2.3
1,2-DICHLOROETHANE	ND	5.8	2.3
1,2-DICHLOROPROPANE	ND	5.8	2.3
2-BUTANONE	ND	12	5.8
2-HEXANONE	ND	12	5.8
4-METHYL-2-PENTANONE	ND	12	5.8
ACETONE	ND	12	5.8
BENZENE	ND	5.8	2.3
BROMODICHLOROMETHANE	ND	5.8	2.3
BROMOFORM	ND	5.8	2.3
BROMOMETHANE	ND	12	2.3
CARBON DISULFIDE	ND	5.8	2.3
CARBON TETRACHLORIDE	ND	5.8	2.3
CHLOROBENZENE	ND	5.8	2.3
CHLOROETHANE	ND	5.8	2.3
CHLOROFORM	ND	5.8	2.3
CHLOROMETHANE	ND	12	2.3
CIS-1,2-DICHLOROETHENE	ND	5.8	2.3
CIS-1,3-DICHLOROPROPENE	ND	5.8	2.3
DIBROMOCHLOROMETHANE	ND	5.8	2.3
ETHYLBENZENE	ND	5.8	2.3
M/P-XYLENES	ND	12	2.3
MTBE	ND	5.8	2.3
METHYLENE CHLORIDE	ND	12	2.3
O-XYLENE	ND	5.8	2.3
STYRENE	ND	5.8	2.3
TETRACHLOROETHENE	ND	5.8	2.3
TOLUENE	ND	5.8	2.3
TRANS-1,2-DICHLOROETHENE	ND	5.8	2.3
TRANS-1,3-DICHLOROPROPENE	ND	5.8	2.3
TRICHLOROETHENE	ND	5.8	2.3
VINYL CHLORIDE	ND	5.8	2.3

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	54-154
4-BROMOFLUOROBENZENE	99	63-143
TOLUENE-D8	94	63-143

2015

QC SUMMARIES

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/07/05
Batch No. : 05F009	Date Extracted: 06/07/05 03:20
Sample ID: MBLK1S	Date Analyzed: 06/07/05 03:20
Lab Samp ID: V006F15B	Dilution Factor: 1
Lab File ID: RFW143	Matrix : SOIL
Ext Btch ID: V006F15	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	103	60-140
4-BROMOFLUOROBENZENE	99	70-130
TOLUENE-D8	92	70-130

2017

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: V006F15B V006F15L V006F15C
LAB FILE ID: RFW143 RFW141 RFW142
DATE EXTRACTED: 06/07/0503:20 06/07/0502:04 06/07/0502:42 DATE COLLECTED: NA
DATE ANALYZED: 06/07/0503:20 06/07/0502:04 06/07/0502:42 DATE RECEIVED: 06/07/05
PREP. BATCH: V006F15 V006F15 V006F15
CALIB. REF: REW378 REW378 REW378

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	16.2	81	20	16.2	81	0	60-140	50
Benzene	ND	20	20.2	101	20	18.9	95	6	70-130	50
Chlorobenzene	ND	20	20.2	101	20	19.8	99	2	70-130	50
Toluene	ND	20	20.6	103	20	19.6	98	5	70-130	50
Trichloroethene	ND	20	20	100	20	19.4	97	3	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	54.4	109	50	51.2	102	60-140
4-Bromofluorobenzene	50	52.3	105	50	52.8	106	70-130
Toluene-d8	50	49.9	100	50	47.4	95	70-130

2018

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: V005F07Q V005F07L V005F07C
LAB FILE ID: RFQ084 RFQ081 RFQ082
DATE EXTRACTED: 06/03/0520:36 06/03/0518:46 06/03/0519:23 DATE COLLECTED: NA
DATE ANALYZED: 06/03/0520:36 06/03/0518:46 06/03/0519:23 DATE RECEIVED: 06/03/05
PREP. BATCH: V005F07 V005F07 V005F07
CALIB. REF: REQA30 REQA30 REQA30

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	10.7	107	10	10.3	103	4	60-130	30
Benzene	ND	10	10.7	107	10	10.3	103	4	70-130	30
Chlorobenzene	ND	10	10.6	106	10	10.2	102	4	70-120	30
Toluene	ND	10	11.4	114	10	10.8	108	5	70-130	30
Trichloroethene	ND	10	11.1	111	10	10.7	107	4	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.46	95	10	9.72	97	70-130
4-Bromofluorobenzene	10	9.76	98	10	9.73	97	70-130
Toluene-d8	10	9.64	96	10	9.73	97	70-130

2019

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05F009

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

One (1) water and four (4) soil samples were received on 06/01/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

3000A

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : T-041

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVF004SB	1	NA	06/04/0516:21	06/02/0512:00	RFH063	REH231	SVF004S	Method Blank
LCS1S	SVF004SL	1	NA	06/04/0516:48	06/02/0512:00	RFH064	REH231	SVF004S	Lab Control Sample (LCS)
LCD1S	SVF004SC	1	NA	06/04/0517:16	06/02/0512:00	RFH065	REH231	SVF004S	LCS Duplicate
NM03-B08-5.5-6	F009-03	1	12.7	06/04/0517:44	06/02/0512:00	RFH066	REH231	SVF004S	Field Sample
NM03-B08-55.5-56	F009-04	1	24.5	06/04/0518:11	06/02/0512:00	RFH067	REH231	SVF004S	Field Sample
NM03-B08-60.5-61	F009-05	1	19.0	06/04/0518:38	06/02/0512:00	RFH068	REH231	SVF004S	Field Sample
NM03-B08-65.5-66	F009-06	1	14.4	06/04/0519:06	06/02/0512:00	RFH069	REH231	SVF004S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVF003WB	1	NA	06/04/0514:29	06/02/0512:00	RFH059	REH231	SVF003W	Method Blank
LCS1W	SVF003WL	1	NA	06/04/0514:57	06/02/0512:00	RFH060	REH231	SVF003W	Lab Control Sample (LCS)
LCD1W	SVF003WC	1	NA	06/04/0515:25	06/02/0512:00	RFH061	REH231	SVF003W	LCS Duplicate
NM03-B08-EQUIP	F009-07	.95	NA	06/04/0517:52	06/02/0512:00	RFH062	REH231	SVF003W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/31/05
Project	: CALTRANS	Date Received:	06/01/05
Batch No.	: 05F009	Date Extracted:	06/02/05 12:00
Sample ID	: NM03-B08-5.5-6	Date Analyzed:	06/04/05 17:44
Lab Samp ID	: F009-03	Dilution Factor:	1
Lab File ID	: RFH066	Matrix :	SOIL
Ext Btch ID	: SVF004S	% Moisture :	12.7
Calib. Ref.	: REH231	Instrument ID :	T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	380	190
1,2-DICHLOROBENZENE	ND	380	190
1,3-DICHLOROBENZENE	ND	380	190
1,4-DICHLOROBENZENE	ND	380	190
2,4,5-TRICHLOROPHENOL	ND	380	190
2,4,6-TRICHLOROPHENOL	ND	380	210
2,4-DICHLOROPHENOL	ND	380	190
2,4-DIMETHYLPHENOL	ND	380	190
2,4-DINITROPHENOL	ND	760	190
2,4-DINITROTOLUENE	ND	380	190
2,6-DINITROTOLUENE	ND	380	190
2-CHLORONAPHTHALENE	ND	380	190
2-CHLOROPHENOL	ND	380	190
2-METHYLNAPHTHALENE	ND	380	190
2-METHYLPHENOL	ND	380	190
2-NITROANILINE	ND	380	190
2-NITROPHENOL	ND	380	190
3,3'-DICHLOROBENZIDINE	ND	380	190
3-NITROANILINE	ND	380	190
4,6-DINITRO-2-METHYLPHENOL	ND	760	190
4-BROMOPHENYL-PHENYL ETHER	ND	380	190
4-CHLORO-3-METHYLPHENOL	ND	380	190
4-CHLOROANILINE	ND	380	190
4-CHLOROPHENYL-PHENYL ETHER	ND	380	190
4-METHYLPHENOL (1)	ND	380	190
4-NITROANILINE	ND	380	190
4-NITROPHENOL	ND	760	190
ACENAPHTHENE	ND	380	190
ACENAPHTHYLENE	ND	380	190
ANTHRACENE	ND	380	190
BENZO(A)ANTHRACENE	ND	380	190
BENZO(A)PYRENE	ND	380	190
BENZO(B)FLUORANTHENE	ND	380	190
BENZO(K)FLUORANTHENE	ND	380	190
BENZO(G,H,I)PERYLENE	ND	380	190
BIS(2-CHLOROETHOXY)METHANE	ND	380	190
BIS(2-CHLOROETHYL)ETHER	ND	380	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	380	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	380	190
BUTYLBENZYLPHTHALATE	ND	380	190
CHRYSENE	ND	380	190
DI-N-BUTYLPHTHALATE	ND	380	190
DI-N-OCTYLPHTHALATE	ND	380	190
DIBENZO(A,H)ANTHRACENE	ND	380	190
DIBENZOFURAN	ND	380	190
DIETHYLPHTHALATE	ND	380	190
DIMETHYLPHTHALATE	ND	380	190
FLUORANTHENE	ND	380	190
FLUORENE	ND	380	190
HEXACHLOROBENZENE	ND	380	190
HEXACHLOROBUTADIENE	ND	380	220
HEXACHLOROCYCLOPENTADIENE	ND	380	190
HEXACHLOROETHANE	ND	380	190
INDENO(1,2,3-CD)PYRENE	ND	380	190
ISOPHORONE	ND	380	190
N-NITROSO-DI-N-PROPYLAMINE	ND	380	190
N-NITROSODIPHENYLAMINE (2)	ND	380	190
NAPHTHALENE	ND	380	190
NITROBENZENE	ND	380	190
PENTACHLOROPHENOL	ND	760	200
PHENANTHRENE	ND	380	190
PHENOL	ND	380	190
PYRENE	ND	380	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	58	36-143
2-FLUOROBIPHENYL	55	36-143
2-FLUOROPHENOL	46	36-143
NITROBENZENE-D5	54	36-143
PHENOL-D5	47	36-143
TERPHENYL-D14	77	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/31/05
Project	: CALTRANS	Date Received:	06/01/05
Batch No.	: 05F009	Date Extracted:	06/02/05 12:00
Sample ID:	NM03-B08-55.5-56	Date Analyzed:	06/04/05 18:11
Lab Samp ID:	F009-04	Dilution Factor:	1
Lab File ID:	RFH067	Matrix :	SOIL
Ext Btch ID:	SVF004S	% Moisture :	24.5
Calib. Ref.:	REH231	Instrument ID :	T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	440	220
1,2-DICHLOROBENZENE	ND	440	220
1,3-DICHLOROBENZENE	ND	440	220
1,4-DICHLOROBENZENE	ND	440	220
2,4,5-TRICHLOROPHENOL	ND	440	220
2,4,6-TRICHLOROPHENOL	ND	440	240
2,4-DICHLOROPHENOL	ND	440	220
2,4-DIMETHYLPHENOL	ND	440	220
2,4-DINITROPHENOL	ND	870	220
2,4-DINITROTOLUENE	ND	440	220
2,6-DINITROTOLUENE	ND	440	220
2-CHLORONAPHTHALENE	ND	440	220
2-CHLOROPHENOL	ND	440	220
2-METHYLNAPHTHALENE	ND	440	220
2-METHYLPHENOL	ND	440	220
2-NITROANILINE	ND	440	220
2-NITROPHENOL	ND	440	220
3,3'-DICHLOROBENZIDINE	ND	440	220
3-NITROANILINE	ND	440	220
4,6-DINITRO-2-METHYLPHENOL	ND	870	220
4-BROMOPHENYL-PHENYL ETHER	ND	440	220
4-CHLORO-3-METHYLPHENOL	ND	440	220
4-CHLOROANILINE	ND	440	220
4-CHLOROPHENYL-PHENYL ETHER	ND	440	220
4-METHYLPHENOL (1)	ND	440	220
4-NITROANILINE	ND	440	220
4-NITROPHENOL	ND	870	220
ACENAPHTHENE	ND	440	220
ACENAPHTHYLENE	ND	440	220
ANTHRACENE	ND	440	220
BENZO(A)ANTHRACENE	ND	440	220
BENZO(A)PYRENE	ND	440	220
BENZO(B)FLUORANTHENE	ND	440	220
BENZO(K)FLUORANTHENE	ND	440	220
BENZO(G,H,I)PERYLENE	ND	440	220
BIS(2-CHLOROETHOXY)METHANE	ND	440	220
BIS(2-CHLOROETHYL)ETHER	ND	440	220
BIS(2-CHLOROISOPROPYL)ETHER	ND	440	220
BIS(2-ETHYLHEXYL)PHTHALATE	ND	440	220
BUTYLBENZYLPHTHALATE	ND	440	220
CHRYSENE	ND	440	220
DI-N-BUTYLPHTHALATE	ND	440	220
DI-N-OCTYLPHTHALATE	ND	440	220
DIBENZO(A,H)ANTHRACENE	ND	440	220
DIBENZOFURAN	ND	440	220
DIETHYLPHTHALATE	ND	440	220
DIMETHYLPHTHALATE	ND	440	220
FLUORANTHENE	ND	440	220
FLUORENE	ND	440	220
HEXACHLOROBENZENE	ND	440	220
HEXACHLOROBUTADIENE	ND	440	250
HEXACHLOROCYCLOPENTADIENE	ND	440	220
HEXACHLOROETHANE	ND	440	220
INDENO(1,2,3-CD)PYRENE	ND	440	220
ISOPHORONE	ND	440	220
N-NITROSO-DI-N-PROPYLAMINE	ND	440	220
N-NITROSODIPHENYLAMINE (2)	ND	440	220
NAPHTHALENE	ND	440	220
NITROBENZENE	ND	440	220
PENTACHLOROPHENOL	ND	870	230
PHENANTHRENE	ND	440	220
PHENOL	ND	440	220
PYRENE	ND	440	220

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	57	36-143
2-FLUOROBIPHENYL	53	36-143
2-FLUOROPHENOL	42	36-143
NITROBENZENE-D5	50	36-143
PHENOL-D5	44	36-143
TERPHENYL-D14	78	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/02/05 12:00
Sample ID: NM03-B08-60.5-61	Date Analyzed: 06/04/05 18:38
Lab Samp ID: F009-05	Dilution Factor: 1
Lab File ID: RFH068	Matrix : SOIL
Ext Btch ID: SVF004S	% Moisture : 19.0
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	410	210
1,2-DICHLOROBENZENE	ND	410	210
1,3-DICHLOROBENZENE	ND	410	210
1,4-DICHLOROBENZENE	ND	410	210
2,4,5-TRICHLOROPHENOL	ND	410	210
2,4,6-TRICHLOROPHENOL	ND	410	230
2,4-DICHLOROPHENOL	ND	410	210
2,4-DIMETHYLPHENOL	ND	410	210
2,4-DINITROPHENOL	ND	810	210
2,4-DINITROTOLUENE	ND	410	210
2,6-DINITROTOLUENE	ND	410	210
2-CHLORONAPHTHALENE	ND	410	210
2-CHLOROPHENOL	ND	410	210
2-METHYLNAPHTHALENE	ND	410	210
2-METHYLPHENOL	ND	410	210
2-NITROANILINE	ND	410	210
2-NITROPHENOL	ND	410	210
3,3'-DICHLOROBENZIDINE	ND	410	210
3-NITROANILINE	ND	410	210
4,6-DINITRO-2-METHYLPHENOL	ND	810	210
4-BROMOPHENYL-PHENYL ETHER	ND	410	210
4-CHLORO-3-METHYLPHENOL	ND	410	210
4-CHLOROANILINE	ND	410	210
4-CHLOROPHENYL-PHENYL ETHER	ND	410	210
4-METHYLPHENOL (1)	ND	410	210
4-NITROANILINE	ND	410	210
4-NITROPHENOL	ND	810	210
ACENAPHTHENE	ND	410	210
ACENAPHTHYLENE	ND	410	210
ANTHRACENE	ND	410	210
BENZO(A)ANTHRACENE	ND	410	210
BENZO(A)PYRENE	ND	410	210
BENZO(B)FLUORANTHENE	ND	410	210
BENZO(K)FLUORANTHENE	ND	410	210
BENZO(G,H,I)PERYLENE	ND	410	210
BIS(2-CHLOROETHOXY)METHANE	ND	410	210
BIS(2-CHLOROETHYL)ETHER	ND	410	210
BIS(2-CHLOROISOPROPYL)ETHER	ND	410	210
BIS(2-ETHYLHEXYL)PHTHALATE	ND	410	210
BUTYLBENZYLPHTHALATE	ND	410	210
CHRYSENE	ND	410	210
DI-N-BUTYLPHTHALATE	ND	410	210
DI-N-OCTYLPHTHALATE	ND	410	210
DIBENZO(A,H)ANTHRACENE	ND	410	210
DIBENZOFURAN	ND	410	210
DIETHYLPHTHALATE	ND	410	210
DIMETHYLPHTHALATE	ND	410	210
FLUORANTHENE	ND	410	210
FLUORENE	ND	410	210
HEXACHLOROBENZENE	ND	410	210
HEXACHLOROBUTADIENE	ND	410	230
HEXACHLOROCYCLOPENTADIENE	ND	410	210
HEXACHLOROETHANE	ND	410	210
INDENO(1,2,3-CD)PYRENE	ND	410	210
ISOPHORONE	ND	410	210
N-NITROSO-DI-N-PROPYLAMINE	ND	410	210
N-NITROSODIPHENYLAMINE (2)	ND	410	210
NAPHTHALENE	ND	410	210
NITROBENZENE	ND	410	210
PENTACHLOROPHENOL	ND	810	220
PHENANTHRENE	ND	410	210
PHENOL	ND	410	210
PYRENE	ND	410	210

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	57	36-143
2-FLUOROBIPHENYL	59	36-143
2-FLUOROPHENOL	47	36-143
NITROBENZENE-D5	55	36-143
PHENOL-D5	48	36-143
TERPHENYL-D14	74	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/31/05
Project	: CALTRANS	Date Received:	06/01/05
Batch No.	: 05F009	Date Extracted:	06/02/05 12:00
Sample ID	: NM03-B08-65.5-66	Date Analyzed:	06/04/05 19:06
Lab Samp ID	: F009-06	Dilution Factor:	1
Lab File ID	: RFH069	Matrix	: SOIL
Ext Btch ID	: SVF004S	% Moisture	: 14.4
Calib. Ref.	: REH231	Instrument ID	: T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	390	200
1,2-DICHLOROBENZENE	ND	390	200
1,3-DICHLOROBENZENE	ND	390	200
1,4-DICHLOROBENZENE	ND	390	200
2,4,5-TRICHLOROPHENOL	ND	390	200
2,4,6-TRICHLOROPHENOL	ND	390	210
2,4-DICHLOROPHENOL	ND	390	200
2,4-DIMETHYLPHENOL	ND	390	200
2,4-DINITROPHENOL	ND	770	200
2,4-DINITROTOLUENE	ND	390	200
2,6-DINITROTOLUENE	ND	390	200
2-CHLORONAPHTHALENE	ND	390	200
2-CHLOROPHENOL	ND	390	200
2-METHYLNAPHTHALENE	ND	390	200
2-METHYLPHENOL	ND	390	200
2-NITROANILINE	ND	390	200
2-NITROPHENOL	ND	390	200
3,3'-DICHLOROBENZIDINE	ND	390	200
3-NITROANILINE	ND	390	200
4,6-DINITRO-2-METHYLPHENOL	ND	770	200
4-BROMOPHENYL-PHENYL ETHER	ND	390	200
4-CHLORO-3-METHYLPHENOL	ND	390	200
4-CHLOROANILINE	ND	390	200
4-CHLOROPHENYL-PHENYL ETHER	ND	390	200
4-METHYLPHENOL (1)	ND	390	200
4-NITROANILINE	ND	390	200
4-NITROPHENOL	ND	770	200
ACENAPHTHENE	ND	390	200
ACENAPHTHYLENE	ND	390	200
ANTHRACENE	ND	390	200
BENZO(A)ANTHRACENE	ND	390	200
BENZO(A)PYRENE	ND	390	200
BENZO(B)FLUORANTHENE	ND	390	200
BENZO(K)FLUORANTHENE	ND	390	200
BENZO(G,H,I)PERYLENE	ND	390	200
BIS(2-CHLOROETHOXY)METHANE	ND	390	200
BIS(2-CHLOROETHYL)ETHER	ND	390	200
BIS(2-CHLOROISOPROPYL)ETHER	ND	390	200
BIS(2-ETHYLHEXYL)PHTHALATE	ND	390	200
BUTYLBENZYLPHTHALATE	ND	390	200
CHRYSENE	ND	390	200
DI-N-BUTYLPHTHALATE	ND	390	200
DI-N-OCTYLPHTHALATE	ND	390	200
DIBENZO(A,H)ANTHRACENE	ND	390	200
DIBENZOFURAN	ND	390	200
DIETHYLPHTHALATE	ND	390	200
DIMETHYLPHTHALATE	ND	390	200
FLUORANTHENE	ND	390	200
FLUORENE	ND	390	200
HEXACHLOROBENZENE	ND	390	200
HEXACHLOROBUTADIENE	ND	390	220
HEXACHLOROCYCLOPENTADIENE	ND	390	200
HEXACHLOROETHANE	ND	390	200
INDENO(1,2,3-CD)PYRENE	ND	390	200
ISOPHORONE	ND	390	200
N-NITROSO-DI-N-PROPYLAMINE	ND	390	200
N-NITROSODIPHENYLAMINE (2)	ND	390	200
NAPHTHALENE	ND	390	200
NITROBENZENE	ND	390	200
PENTACHLOROPHENOL	ND	770	200
PHENANTHRENE	ND	390	200
PHENOL	ND	390	200
PYRENE	ND	390	200

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	59	36-143
2-FLUOROBIPHENYL	62	36-143
2-FLUOROPHENOL	51	36-143
NITROBENZENE-D5	57	36-143
PHENOL-D5	53	36-143
TERPHENYL-D14	82	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/31/05
Project	: CALTRANS	Date Received:	06/01/05
Batch No.	: 05F009	Date Extracted:	06/02/05 12:00
Sample ID:	NM03-B08-EQUIP	Date Analyzed:	06/04/05 17:52
Lab Samp ID:	F009-07	Dilution Factor:	.95
Lab File ID:	RFH062	Matrix :	WATER
Ext Btch ID:	SVF003W	% Moisture :	NA
Calib. Ref.:	REH231	Instrument ID :	T-041

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.5	4.8
1,2-DICHLOROBENZENE	ND	9.5	4.8
1,3-DICHLOROBENZENE	ND	9.5	4.8
1,4-DICHLOROBENZENE	ND	9.5	4.8
2,4,5-TRICHLOROPHENOL	ND	9.5	4.8
2,4,6-TRICHLOROPHENOL	ND	9.5	4.8
2,4-DICHLOROPHENOL	ND	9.5	4.8
2,4-DIMETHYLPHENOL	ND	9.5	4.8
2,4-DINITROPHENOL	ND	19	4.8
2,4-DINITROTOLUENE	ND	9.5	4.8
2,6-DINITROTOLUENE	ND	9.5	4.8
2-CHLORONAPHTHALENE	ND	9.5	4.8
2-CHLOROPHENOL	ND	9.5	4.8
2-METHYLNAPHTHALENE	ND	9.5	4.8
2-METHYLPHENOL	ND	9.5	4.8
2-NITROANILINE	ND	9.5	4.8
2-NITROPHENOL	ND	9.5	4.8
3,3'-DICHLOROBENZIDINE	ND	9.5	4.8
3-NITROANILINE	ND	9.5	4.8
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.8
4-BROMOPHENYL-PHENYL ETHER	ND	9.5	4.8
4-CHLORO-3-METHYLPHENOL	ND	9.5	4.8
4-CHLOROANILINE	ND	9.5	4.8
4-CHLOROPHENYL-PHENYL ETHER	ND	9.5	4.8
4-METHYLPHENOL (1)	ND	9.5	4.8
4-NITROANILINE	ND	9.5	4.8
4-NITROPHENOL	ND	19	4.8
ACENAPHTHENE	ND	9.5	4.8
ACENAPHTHYLENE	ND	9.5	4.8
ANTHRACENE	ND	9.5	4.8
BENZO(A)ANTHRACENE	ND	9.5	4.8
BENZO(A)PYRENE	ND	9.5	4.8
BENZO(B)FLUORANTHENE	ND	9.5	4.8
BENZO(K)FLUORANTHENE	ND	9.5	4.8
BENZO(G,H,I)PERYLENE	ND	9.5	4.8
BIS(2-CHLOROETHOXY)METHANE	ND	9.5	4.8
BIS(2-CHLOROETHYL)ETHER	ND	9.5	4.8
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.5	4.8
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.5	4.8
BUTYLBENZYLPHTHALATE	ND	9.5	4.8
CHRYSENE	ND	9.5	4.8
DI-N-BUTYLPHTHALATE	ND	9.5	4.8
DI-N-OCTYLPHTHALATE	ND	9.5	4.8
DIBENZO(A,H)ANTHRACENE	ND	9.5	4.8
DIBENZOFURAN	ND	9.5	4.8
DIETHYLPHTHALATE	ND	9.5	4.8
DIMETHYLPHTHALATE	ND	9.5	4.8
FLUORANTHENE	ND	9.5	4.8
FLUORENE	ND	9.5	4.8
HEXACHLOROBENZENE	ND	9.5	4.8
HEXACHLOROBUTADIENE	ND	9.5	4.8
HEXACHLOROCYCLOPENTADIENE	ND	9.5	4.8
HEXACHLOROETHANE	ND	9.5	4.8
INDENO(1,2,3-CD)PYRENE	ND	9.5	4.8
ISOPHORONE	ND	9.5	4.8
N-NITROSO-DI-N-PROPYLAMINE	ND	9.5	4.8
N-NITROSODIPHENYLAMINE (2)	ND	9.5	4.8
NAPHTHALENE	ND	9.5	4.8
NITROBENZENE	ND	9.5	4.8
PENTACHLOROPHENOL	ND	19	4.8
PHENANTHRENE	ND	9.5	4.8
PHENOL	ND	9.5	4.8
PYRENE	ND	9.5	4.8

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	49	36-143
2-FLUOROBIPHENYL	52	36-143
2-FLUOROPHENOL	43	36-143
NITROBENZENE-D5	53	36-143
PHENOL-D5	44	36-143
TERPHENYL-D14	75	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARY

3008

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/02/05
Batch No. : 05F009	Date Extracted: 06/02/05 12:00
Sample ID: MBLK1W	Date Analyzed: 06/04/05 14:29
Lab Samp ID: SVF003WB	Dilution Factor: 1
Lab File ID: RFH059	Matrix : WATER
Ext Btch ID: SVF003W	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	52	40-130
2-FLUOROBIPHENYL	51	40-130
2-FLUOROPHENOL	45	40-130
NITROBENZENE-D5	57	40-130
PHENOL-D5	47	40-130
TERPHENYL-D14	89	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW 3520C/8270C

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVF003WB	SVF003WL	SVF003WC		
LAB FILE ID:	RFH059	RFH060	RFH061		
DATE EXTRACTED:	06/02/0512:00	06/02/0512:00	06/02/0512:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/04/0514:29	06/04/0514:57	06/04/0515:25	DATE RECEIVED:	06/02/05
PREP. BATCH:	SVF003W	SVF003W	SVF003W		
CALIB. REF:	REH231	REH231	REH231		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	33.5	42	80	33.7	42	0	30-130	30
1,4-Dichlorobenzene	ND	80	32.3	40	80	31.5	39	2	30-130	30
2,4-Dinitrotoluene	ND	80	51	64	80	50.7	63	1	50-130	30
2-Chlorophenol	ND	80	40.2	50	80	39.1	49	3	30-130	30
4-Chloro-3-Methylphenol	ND	80	37.5	47	80	39.3	49	5	40-130	30
4-Nitrophenol	ND	80	53.7	67	80	51.1	64	5	40-130	30
Acenaphthene	ND	80	39	49	80	37.7	47	4	40-130	30
n-Nitroso-di-n-propylamine	ND	80	36.6	46	80	36.8	46	0	40-130	30
Pentachlorophenol	ND	80	52.4	65	80	51.8	65	1	40-130	30
Phenol	ND	80	35	44	80	34.3	43	2	30-130	30
Pyrene	ND	80	55	69	80	50.9	64	8	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	81.3	54	150	84.6	56	40-130
2-Fluorobiphenyl	100	52.2	52	100	50.7	51	40-130
2-Fluorophenol	150	68.3	46	150	68.3	46	40-130
Nitrobenzene-d5	100	56.2	56	100	57.6	58	40-130
Phenol-d5	150	71.1	47	150	71.4	48	40-130
Terphenyl-d14	100	85.8	86	100	80.1	80	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/02/05
Batch No. : 05F009	Date Extracted: 06/02/05 12:00
Sample ID: MBLK1S	Date Analyzed: 06/04/05 16:21
Lab Samp ID: SVF004SB	Dilution Factor: 1
Lab File ID: RFH063	Matrix : SOIL
Ext Btch ID: SVF004S	% Moisture : NA
Calib. Ref.: REH231	Instrument ID : T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	66	40-130
2-FLUOROBIPHENYL	65	40-130
2-FLUOROPHENOL	56	40-130
NITROBENZENE-D5	67	40-130
PHENOL-D5	57	40-130
TERPHENYL-D14	82	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW 3550B/8270C

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: SVF004SB SVF004SL SVF004SC
LAB FILE ID: RFH063 RFH064 RFH065
DATE EXTRACTED: 06/02/0512:00 06/02/0512:00 06/02/0512:00 DATE COLLECTED: NA
DATE ANALYZED: 06/04/0516:21 06/04/0516:48 06/04/0517:16 DATE RECEIVED: 06/02/05
PREP. BATCH: SVF004S SVF004S SVF004S
CALIB. REF: REH231 REH231 REH231

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	2670	1320	49	2670	1420	53	7	40-130	50
1,4-Dichlorobenzene	ND	2670	1260	47	2670	1390	52	10	30-130	50
2,4-Dinitrotoluene	ND	2670	1570	59	2670	1650	62	5	40-130	50
2-Chlorophenol	ND	2670	1280	48	2670	1400	53	9	40-130	50
4-Chloro-3-Methylphenol	ND	2670	1380	52	2670	1420	53	3	40-130	50
4-Nitrophenol	ND	2670	1490	56	2670	1560	58	5	25-130	50
Acenaphthene	ND	2670	1470	55	2670	1550	58	5	40-130	50
n-Nitroso-di-n-propylamine	ND	2670	1290	48	2670	1360	51	6	40-130	50
Pentachlorophenol	ND	2670	1520	57	2670	1570	59	3	30-130	50
Phenol	ND	2670	1140	43	2670	1230	46	7	40-130	50
Pyrene	ND	2670	1690	63	2670	1600	60	5	40-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	2960	59	5000	3260	65	40-130
2-Fluorobiphenyl	3330	1740	52	3330	1930	58	40-130
2-Fluorophenol	5000	2150	43	5000	2470	49	40-130
Nitrobenzene-d5	3330	1690	51	3330	1920	58	40-130
Phenol-d5	5000	2240	45	5000	2560	51	40-130
Terphenyl-d14	3330	2540	76	3330	2470	74	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05F009

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

One (1) water and four (4) soil samples were received on 06/01/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 06/02/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour intervals and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD ample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : GCT039

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39F01B	1	NA	06/02/0515:48	06/02/0515:48	EF02004A	EF02002A	VA39F01	Method Blank
LCS1W	VA39F01L	1	NA	06/02/0516:24	06/02/0516:24	EF02005A	EF02002A	VA39F01	Lab Control Sample (LCS)
LCD1W	VA39F01C	1	NA	06/02/0516:59	06/02/0516:59	EF02006A	EF02002A	VA39F01	LCS Duplicate
NM03-B08-EQUIP	F009-07	1	NA	06/03/0509:40	06/03/0509:40	EF02034A	EF02031A	VA39F01	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VMF001SB	1	NA	06/03/0514:31	06/03/0514:31	EF02042A	EF02040A	VMF001S	Method Blank
LCS1S	VMF001SL	1	NA	06/03/0515:07	06/03/0515:07	EF02043A	EF02040A	VMF001S	Lab Control Sample (LCS)
LCD1S	VMF001SC	1	NA	06/03/0515:43	06/03/0515:43	EF02044A	EF02040A	VMF001S	LCS Duplicate
NM03-B08-5.5-6	F009-03	1	12.7	06/03/0518:06	06/03/0518:06	EF02048A	EF02040A	VMF001S	Field Sample
NM03-B08-55.5-56	F009-04	1	24.5	06/03/0518:42	06/03/0518:42	EF02049A	EF02040A	VMF001S	Field Sample
NM03-B08-60.5-61	F009-05	1	19.0	06/03/0519:18	06/03/0519:18	EF02050A	EF02040A	VMF001S	Field Sample
NM03-B08-65.5-66	F009-06	1	14.4	06/03/0519:54	06/03/0519:54	EF02051A	EF02040A	VMF001S	Field Sample

FN - Filename
% Moist - Percent Moisture

4002

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39F01B	ND	98	1	NA	.1	.02	06/02/0515:48	06/02/0515:48	EF02004A	EF02002A	VA39F01	NA	06/02/05
LCS1W	VA39F01L	.427	107	1	NA	.1	.02	06/02/0516:24	06/02/0516:24	EF02005A	EF02002A	VA39F01	NA	06/02/05
LCD1W	VA39F01C	.391	98	1	NA	.1	.02	06/02/0516:59	06/02/0516:59	EF02006A	EF02002A	VA39F01	NA	06/02/05
NM03-B08-EQUIP	F009-07	ND	95	1	NA	.1	.02	06/03/0509:40	06/03/0509:40	EF02034A	EF02031A	VA39F01	05/31/05	06/01/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VMF001SB	ND	94	1	NA	1	.5	06/03/0514:31	06/03/0514:31	EF02042A	EF02040A	VMF001S	NA	06/03/05
LCS1S	VMF001SL	21.4	105	1	NA	1	.5	06/03/0515:07	06/03/0515:07	EF02043A	EF02040A	VMF001S	NA	06/03/05
LCD1S	VMF001SC	22.6	105	1	NA	1	.5	06/03/0515:43	06/03/0515:43	EF02044A	EF02040A	VMF001S	NA	06/03/05
NM03-B08-5.5-6	F009-03	ND	88	1	12.7	1.1	.57	06/03/0518:06	06/03/0518:06	EF02048A	EF02040A	VMF001S	05/31/05	06/01/05
NM03-B08-55.5-56	F009-04	ND	86	1	24.5	1.3	.66	06/03/0518:42	06/03/0518:42	EF02049A	EF02040A	VMF001S	05/31/05	06/01/05
NM03-B08-60.5-61	F009-05	ND	87	1	19.0	1.2	.62	06/03/0519:18	06/03/0519:18	EF02050A	EF02040A	VMF001S	05/31/05	06/01/05
NM03-B08-65.5-66	F009-06	ND	89	1	14.4	1.2	.58	06/03/0519:54	06/03/0519:54	EF02051A	EF02040A	VMF001S	05/31/05	06/01/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction : 06/02/05 17:50

4005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39F01B	VA39F01L	VA39F01C		
LAB FILE ID:	EF02004A	EF02005A	EF02006A		
DATE EXTRACTED:	06/02/0515:48	06/02/0516:24	06/02/0516:59	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0515:48	06/02/0516:24	06/02/0516:59	DATE RECEIVED:	06/02/05
PREP. BATCH:	VA39F01	VA39F01	VA39F01		
CALIB. REF:	EF02002A	EF02002A	EF02002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.427	85	.5	.391	78	9	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0426	107	.04	.0392	98	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD 5030B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VMF001SB	VMF001SL	VMF001SC		
LAB FILE ID:	EF02042A	EF02043A	EF02044A		
DATE EXTRACTED:	06/03/0514:31	06/03/0515:07	06/03/0515:43	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0514:31	06/03/0515:07	06/03/0515:43	DATE RECEIVED:	06/03/05
PREP. BATCH:	VMF001S	VMF001S	VMF001S		
CALIB. REF:	EF02040A	EF02040A	EF02040A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	21.4	86	25	22.6	90	6	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.1	105	2	2.11	105	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05F009

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

METHOD 3520C/LUFT//M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

One (1) water and four (4) soil samples were received on 06/01/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 06/02/05 and completed on 06/03/05. Extraction for soil samples was performed and completed on 06/02/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : GCT072

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF004WB	1	NA	06/03/0516:08	06/02/0516:00	BF03003A	BF03002A	DSF004W	Method Blank
LCS1W	DSF004WL	1	NA	06/03/0516:51	06/02/0516:00	BF03004A	BF03002A	DSF004W	Lab Control Sample (LCS)
LCD1W	DSF004WC	1	NA	06/03/0517:35	06/02/0516:00	BF03005A	BF03002A	DSF004W	LCS Duplicate
NM03-B08-EQUIP	F009-07	.95	NA	06/03/0518:19	06/02/0516:00	BF03006A	BF03002A	DSF004W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSF003SB	1	NA	06/02/0515:42	06/02/0512:05	BF02003A	BF02002A	DSF003S	Method Blank
LCS1S	DSF003SL	1	NA	06/02/0516:25	06/02/0512:05	BF02004A	BF02002A	DSF003S	Lab Control Sample (LCS)
LCD1S	DSF003SC	1	NA	06/02/0517:09	06/02/0512:05	BF02005A	BF02002A	DSF003S	LCS Duplicate
NM03-B08-5.5-6	F009-03	1	12.7	06/02/0517:53	06/02/0512:05	BF02006A	BF02002A	DSF003S	Field Sample
NM03-B08-55.5-56	F009-04	1	24.5	06/02/0518:37	06/02/0512:05	BF02007A	BF02002A	DSF003S	Field Sample
NM03-B08-60.5-61	F009-05	1	19.0	06/02/0519:21	06/02/0512:05	BF02008A	BF02002A	DSF003S	Field Sample
NM03-B08-65.5-66	F009-06	1	14.4	06/02/0520:05	06/02/0512:05	BF02009A	BF02002A	DSF003S	Field Sample

FN - Filename
% Moist - Percent Moisture

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SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : WATER
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSF004WB	ND	96	100	1	NA	.5	.1	06/03/0516:08	06/02/0516:00	BF03003A	BF03002A	DSF004W	NA	06/02/05
LCS1W	DSF004WL	4.7	103	119	1	NA	.5	.1	06/03/0516:51	06/02/0516:00	BF03004A	BF03002A	DSF004W	NA	06/02/05
LCD1W	DSF004WC	4.65	104	121	1	NA	.5	.1	06/03/0517:35	06/02/0516:00	BF03005A	BF03002A	DSF004W	NA	06/02/05
NM03-B08-EQUIP	F009-07	ND	100	111	.95	NA	.48	.095	06/03/0518:19	06/02/0516:00	BF03006A	BF03002A	DSF004W	05/31/05	06/01/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

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METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSF003SB	ND	103	107	1	NA	10	5	06/02/0515:42	06/02/0512:05	BF02003A	BF02002A	DSF003S	NA	06/02/05
LCS1S	DSF003SL	410	100	108	1	NA	10	5	06/02/0516:25	06/02/0512:05	BF02004A	BF02002A	DSF003S	NA	06/02/05
LCD1S	DSF003SC	443	101	110	1	NA	10	5	06/02/0517:09	06/02/0512:05	BF02005A	BF02002A	DSF003S	NA	06/02/05
NM03-B08-5.5-6	F009-03	ND	106	113	1	12.7	11	5.7	06/02/0517:53	06/02/0512:05	BF02006A	BF02002A	DSF003S	05/31/05	06/01/05
NM03-B08-55.5-56	F009-04	ND	101	107	1	24.5	13	6.6	06/02/0518:37	06/02/0512:05	BF02007A	BF02002A	DSF003S	05/31/05	06/01/05
NM03-B08-60.5-61	F009-05	ND	109	113	1	19.0	12	6.2	06/02/0519:21	06/02/0512:05	BF02008A	BF02002A	DSF003S	05/31/05	06/01/05
NM03-B08-65.5-66	F009-06	ND	114	117	1	14.4	12	5.8	06/02/0520:05	06/02/0512:05	BF02009A	BF02002A	DSF003S	05/31/05	06/01/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1 : Bromobenzene	Water	1 mg/L	45-154%	50-140%
	Soil	100 mg/kg	54-165%	60-150%
SURR2 : Hexacosane	Water	.25 mg/L	63-165%	70-150%
	Soil	25 mg/kg	54-176%	60-160%

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QC SUMMARIES

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EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD 3520C/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSF004WB	DSF004WL	DSF004WC		
LAB FILE ID:	BF03003A	BF03004A	BF03005A		
DATE EXTRACTED:	06/02/0516:00	06/02/0516:00	06/02/0516:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0516:08	06/03/0516:51	06/03/0517:35	DATE RECEIVED:	06/02/05
PREP. BATCH:	DSF004W	DSF004W	DSF004W		
CALIB. REF:	BF03002A	BF03002A	BF03002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.7	94	5	4.65	93	1	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	1.03	103	1	1.04	104	50-140
Hexacosane	.25	.297	119	.25	.303	121	70-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD LUFT/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSF003SB	DSF003SL	DSF003SC		
LAB FILE ID:	BF02003A	BF02004A	BF02005A		
DATE EXTRACTED:	06/02/0512:05	06/02/0512:05	06/02/0512:05	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0515:42	06/02/0516:25	06/02/0517:09	DATE RECEIVED:	06/02/05
PREP. BATCH:	DSF003S	DSF003S	DSF003S		
CALIB. REF:	BF02002A	BF02002A	BF02002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	410	82	500	443	89	8	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	100	100	100	101	101	60-150
Hexacosane	25	27	108	25	27.4	110	60-160

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LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3520C/3550B/8082
PCBs

SDG#: 05F009

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CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

SW3520C/3550B/8082
PCBs

One (1) water and four (4) soil samples were received on 06/01/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five-point for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All QC criteria were met.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	60F001SB	1	NA	06/02/0517:35	06/02/0514:00	SF02003A	SF02002A	60F001S	Method Blank
LCS1S	60F001SL	1	NA	06/02/0518:00	06/02/0514:00	SF02004A	SF02002A	60F001S	Lab Control Sample (LCS)
LCD1S	60F001SC	1	NA	06/02/0518:25	06/02/0514:00	SF02005A	SF02002A	60F001S	LCS Duplicate
NM03-B08-5.5-6	F009-03	1	12.7	06/02/0518:50	06/02/0514:00	SF02006A	SF02002A	60F001S	Field Sample
NM03-B08-55.5-56	F009-04	1	24.5	06/02/0519:16	06/02/0514:00	SF02007A	SF02002A	60F001S	Field Sample
NM03-B08-60.5-61	F009-05	1	19.0	06/02/0519:41	06/02/0514:00	SF02008A	SF02002A	60F001S	Field Sample
NM03-B08-65.5-66	F009-06	1	14.4	06/02/0520:06	06/02/0514:00	SF02009A	SF02002A	60F001S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60F003WB	1	NA	06/03/0511:48	06/02/0513:00	SF02020A	SF02019A	60F003W	Method Blank
LCS1W	60F003WL	1	NA	06/03/0512:13	06/02/0513:00	SF02021A	SF02019A	60F003W	Lab Control Sample (LCS)
LCD1W	60F003WC	1	NA	06/03/0512:39	06/02/0513:00	SF02022A	SF02019A	60F003W	LCS Duplicate
NM03-B08-EQUIP	F009-07	.95	NA	06/03/0513:04	06/02/0513:00	SF02023A	SF02019A	60F003W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/02/05 14:00
Sample ID: NM03-B08-5.5-6	Date Analyzed: 06/02/05 18:50
Lab Samp ID: F009-03	Dilution Factor: 1
Lab File ID: SF02006A	Matrix : SOIL
Ext Btch ID: 60F001S	% Moisture : 12.7
Calib. Ref.: SF02002A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	57	23|23
PCB-1221	(ND)|ND	57	23|23
PCB-1232	(ND)|ND	57	23|23
PCB-1242	(ND)|ND	57	23|23
PCB-1248	(ND)|ND	57	23|23
PCB-1254	(ND)|ND	57	23|23
PCB-1260	(ND)|ND	57	23|23

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(72)|80	45-154
DECACHLOROBIPHENYL	(96)|98	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/31/05
Project	: CALTRANS	Date Received:	06/01/05
Batch No.	: 05F009	Date Extracted:	06/02/05 14:00
Sample ID:	NM03-B08-55.5-56	Date Analyzed:	06/02/05 19:16
Lab Samp ID:	F009-04	Dilution Factor:	1
Lab File ID:	SF02007A	Matrix :	SOIL
Ext Btch ID:	60F001S	% Moisture :	24.5
Calib. Ref.:	SF02002A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	66	26 | 26
PCB-1221	(ND) | ND	66	26 | 26
PCB-1232	(ND) | ND	66	26 | 26
PCB-1242	(ND) | ND	66	26 | 26
PCB-1248	(ND) | ND	66	26 | 26
PCB-1254	(ND) | ND	66	26 | 26
PCB-1260	(ND) | ND	66	26 | 26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(73) | 84	45-154
DECACHLOROBIPHENYL	(96) | 98	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/02/05 14:00
Sample ID: NM03-B08-60.5-61	Date Analyzed: 06/02/05 19:41
Lab Samp ID: F009-05	Dilution Factor: 1
Lab File ID: SF02008A	Matrix : SOIL
Ext Btch ID: 60F001S	% Moisture : 19.0
Calib. Ref.: SF02002A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	62	25 | 25
PCB-1221	(ND) | ND	62	25 | 25
PCB-1232	(ND) | ND	62	25 | 25
PCB-1242	(ND) | ND	62	25 | 25
PCB-1248	(ND) | ND	62	25 | 25
PCB-1254	(ND) | ND	62	25 | 25
PCB-1260	(ND) | ND	62	25 | 25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(68) | 75	45-154
DECACHLOROBIPHENYL	(93) | 94	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/02/05 14:00
Sample ID: NM03-B08-65.5-66	Date Analyzed: 06/02/05 20:06
Lab Samp ID: F009-06	Dilution Factor: 1
Lab File ID: SF02009A	Matrix : SOIL
Ext Btch ID: 60F001S	% Moisture : 14.4
Calib. Ref.: SF02002A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	58	23 | 23
PCB-1221	(ND) | ND	58	23 | 23
PCB-1232	(ND) | ND	58	23 | 23
PCB-1242	(ND) | ND	58	23 | 23
PCB-1248	(ND) | ND	58	23 | 23
PCB-1254	(ND) | ND	58	23 | 23
PCB-1260	(ND) | ND	58	23 | 23

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75) | 82	45-154
DECACHLOROBIPHENYL	(95) | 97	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/31/05
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05F009	Date Extracted: 06/02/05 13:00
Sample ID: NM03-B08-EQUIP	Date Analyzed: 06/03/05 13:04
Lab Samp ID: F009-07	Dilution Factor: .95
Lab File ID: SF02023A	Matrix : WATER
Ext Btch ID: 60F003W	% Moisture : NA
Calib. Ref.: SF02019A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	.95	.48|.48
PCB-1221	(ND)|ND	.95	.48|.48
PCB-1232	(ND)|ND	.95	.48|.48
PCB-1242	(ND)|ND	.95	.48|.48
PCB-1248	(ND)|ND	.95	.48|.48
PCB-1254	(ND)|ND	.95	.48|.48
PCB-1260	(ND)|ND	.95	.48|.48

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(83)|88	45-165
DECACHLOROBIPHENYL	(95)|98	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	06/02/05
Batch No.	: 05F009	Date Extracted:	06/02/05 13:00
Sample ID:	MBLK1W	Date Analyzed:	06/03/05 11:48
Lab Samp ID:	60F003WB	Dilution Factor:	1
Lab File ID:	SF02020A	Matrix :	WATER
Ext Btch ID:	60F003W	% Moisture :	NA
Calib. Ref.:	SF02019A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1	.5|.5
PCB-1221	(ND)|ND	1	.5|.5
PCB-1232	(ND)|ND	1	.5|.5
PCB-1242	(ND)|ND	1	.5|.5
PCB-1248	(ND)|ND	1	.5|.5
PCB-1254	(ND)|ND	1	.5|.5
PCB-1260	(ND)|ND	1	.5|.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75)|81	50-150
DECACHLOROBIPHENYL	(97)|99	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	60F003WB	60F003WL	60F003WC		
LAB FILE ID:	SF02020A	SF02021A	SF02022A		
DATE EXTRACTED:	06/02/0513:00	06/02/0513:00	06/02/0513:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0511:48	06/03/0512:13	06/03/0512:39	DATE RECEIVED:	06/02/05
PREP. BATCH:	60F003W	60F003W	60F003W		
CALIB. REF:	SF02019A	SF02019A	SF02019A		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(4.28) | 4.41	(86) | 88	5	(4) | 4.1	(80) | 82	(7) | 7	50-130	30
PCB-1260	(ND) | ND	5	(4.77) | 5.04	(95) | 101	5	(4.77) | 4.97	(95) | 99	(0) | 1	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.331) | .356	(83) | 89	.4	(.29) | .312	(73) | 78	50-150
Decachlorobiphenyl	.4	(.409) | .416	(102) | 104	.4	(.391) | .395	(98) | 99	70-150

5020

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/02/05
Batch No. : 05F009	Date Extracted: 06/02/05 14:00
Sample ID: MBLK1S	Date Analyzed: 06/02/05 17:35
Lab Samp ID: 60F001SB	Dilution Factor: 1
Lab File ID: SF02003A	Matrix : SOIL
Ext Btch ID: 60F001S	% Moisture : NA
Calib. Ref.: SF02002A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(71) | 76	50-140
DECACHLOROBIPHENYL	(92) | 95	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: 60F001SB 60F001SL 60F001SC
LAB FILE ID: SF02003A SF02004A SF02005A
DATE EXTRACTED: 06/02/0514:00 06/02/0514:00 06/02/0514:00 DATE COLLECTED: NA
DATE ANALYZED: 06/02/0517:35 06/02/0518:00 06/02/0518:25 DATE RECEIVED: 06/02/05
PREP. BATCH: 60F001S 60F001S 60F001S
CALIB. REF: SF02002A SF02002A SF02002A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(140) | 138	(84) | 83	167	(129) | 132	(77) | 79	(8) | 4	50-130	50
PCB-1260	(ND) | ND	167	(152) | 158	(91) | 95	167	(155) | 162	(93) | 97	(2) | 2	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(10.1) | 11.1	(76) | 83	13.3	(9.03) | 9.89	(68) | 74	50-140
Decachlorobiphenyl	13.3	(13) | 13.3	(98) | 100	13.3	(12.7) | 12.9	(96) | 97	50-140

5023

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

SDG#: 05F009

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F009

METHOD 3010A/3050B/6010B
LEAD METALS BY TRACE ICP

One (1) water and five (5) soil samples were received on 06/01/05 for Lead analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples F009-03 and F024-03 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedure. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F009
Instrument ID : T-I73

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPF006WB	1	NA	06/03/0514:26	06/02/0514:50	I73F008011	I73F008009	IPF006W	Method Blank
LCS1W	IPF006WL	1	NA	06/03/0514:32	06/02/0514:50	I73F008012	I73F008009	IPF006W	Lab Control Sample (LCS)
LCD1W	IPF006WC	1	NA	06/03/0514:39	06/02/0514:50	I73F008013	I73F008009	IPF006W	LCS Duplicate
NM03-B08-EQUIP	F009-07	1	NA	06/03/0515:17	06/02/0514:50	I73F008019	I73F008009	IPF006W	Field Sample
844013-534DL	F024-03T	5	NA	06/03/0515:51	06/02/0514:50	I73F008024	I73F008021	IPF006W	Diluted Sample
844013-534	F024-03	1	NA	06/03/0515:57	06/02/0514:50	I73F008025	I73F008021	IPF006W	Field Sample
844013-534AS	F024-03A	1	NA	06/03/0516:03	06/02/0514:50	I73F008026	I73F008021	IPF006W	Analytical Spike Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPF009SB	1	NA	06/06/0516:00	06/03/0508:30	I73F013017	I73F013009	IPF009S	Method Blank
LCS1S	IPF009SL	1	NA	06/06/0516:07	06/03/0508:30	I73F013018	I73F013009	IPF009S	Lab Control Sample (LCS)
LCD1S	IPF009SC	1	NA	06/06/0516:13	06/03/0508:30	I73F013019	I73F013009	IPF009S	LCS Duplicate
NM03-B08-1-1.5	F009-02	1	9.2	06/06/0516:20	06/03/0508:30	I73F013020	I73F013009	IPF009S	Field Sample
NM03-B08-5.5-6DL	F009-03T	5	12.7	06/06/0516:42	06/03/0508:30	I73F013023	I73F013021	IPF009S	Diluted Sample
NM03-B08-5.5-6	F009-03	1	12.7	06/06/0516:49	06/03/0508:30	I73F013024	I73F013021	IPF009S	Field Sample
NM03-B08-5.5-6AS	F009-03A	1	12.7	06/06/0516:55	06/03/0508:30	I73F013025	I73F013021	IPF009S	Analytical Spike Sample
NM03-B08-55.5-56	F009-04	1	24.5	06/06/0517:03	06/03/0508:30	I73F013026	I73F013021	IPF009S	Field Sample
NM03-B08-60.5-61	F009-05	1	19.0	06/06/0517:09	06/03/0508:30	I73F013027	I73F013021	IPF009S	Field Sample
NM03-B08-65.5-66	F009-06	1	14.4	06/06/0517:15	06/03/0508:30	I73F013028	I73F013021	IPF009S	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3010A/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : WATER
Instrument ID : T-I73

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	IPF006WB	ND	1	NA	.01	.003	06/03/0514:26	06/02/0514:50	I73F008011	I73F008009	IPF006W	NA	06/02/05
LCS1W	IPF006WL	1.07	1	NA	.01	.003	06/03/0514:32	06/02/0514:50	I73F008012	I73F008009	IPF006W	NA	06/02/05
LCD1W	IPF006WC	1.05	1	NA	.01	.003	06/03/0514:39	06/02/0514:50	I73F008013	I73F008009	IPF006W	NA	06/02/05
NM03-B08-EQUIP	F009-07	ND	1	NA	.01	.003	06/03/0515:17	06/02/0514:50	I73F008019	I73F008009	IPF006W	05/31/05	06/01/05

7003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F009
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPF006WB	IPF006WL	IPF006WC		
LAB FILE ID:	I73F008011	I73F008012	I73F008013		
DATIME EXTRCTD:	06/02/0514:50	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	NA
DATIME ANALYZD:	06/03/0514:26	06/03/0514:32	06/03/0514:39	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W	IPF006W		
CALIB. REF:	I73F008009	I73F008009	I73F008009		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	1	1.07	107	1	1.05	105	2	80-120	20

0004

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	844013-534	844013-534DL		
EMAX SAMP ID:	F024-03	F024-03T		
LAB FILE ID:	I73F008025	I73F008024		
DATE EXTRACTED:	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	06/02/05
DATE ANALYZED:	06/03/0515:57	06/03/0515:51	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W		
CALIB. REF:	I73F008021	I73F008021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Lead	ND	ND	0	10

7005

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F009
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	844013-534			
CONTROL NO.:	F024-03	F024-03A		
LAB FILE ID:	I73F008025	I73F008026		
DATIME EXTRCTD:	06/02/0514:50	06/02/0514:50	DATE COLLECTED:	06/02/05
DATIME ANALYZD:	06/03/0515:57	06/03/0516:03	DATE RECEIVED:	06/02/05
PREP. BATCH:	IPF006W	IPF006W		
CALIB. REF:	I73F008021	I73F008021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Lead	ND	1	.957	96	75-125

7005

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F009

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPF009SB	ND	1	NA	1	.2	06/06/0516:00	06/03/0508:30	I73F013017	I73F013009	IPF009S	NA	06/03/05
LCS1S	IPF009SL	96.9	1	NA	1	.2	06/06/0516:07	06/03/0508:30	I73F013018	I73F013009	IPF009S	NA	06/03/05
LCD1S	IPF009SC	101	1	NA	1	.2	06/06/0516:13	06/03/0508:30	I73F013019	I73F013009	IPF009S	NA	06/03/05
NM03-B08-1-1.5	F009-02	2.37	1	9.2	1.1	.22	06/06/0516:20	06/03/0508:30	I73F013020	I73F013009	IPF009S	05/31/05	06/01/05
NM03-B08-5.5-6DL	F009-03T	2.58J	5	12.7	5.73	1.15	06/06/0516:42	06/03/0508:30	I73F013023	I73F013021	IPF009S	05/31/05	06/01/05
NM03-B08-5.5-6	F009-03	2.66	1	12.7	1.15	.229	06/06/0516:49	06/03/0508:30	I73F013024	I73F013021	IPF009S	05/31/05	06/01/05
NM03-B08-5.5-6AS	F009-03A	108	1	12.7	1.15	.229	06/06/0516:55	06/03/0508:30	I73F013025	I73F013021	IPF009S	05/31/05	06/01/05
NM03-B08-55.5-56	F009-04	4.17	1	24.5	1.32	.265	06/06/0517:03	06/03/0508:30	I73F013026	I73F013021	IPF009S	05/31/05	06/01/05
NM03-B08-60.5-61	F009-05	2.65	1	19.0	1.23	.247	06/06/0517:09	06/03/0508:30	I73F013027	I73F013021	IPF009S	05/31/05	06/01/05
NM03-B08-65.5-66	F009-06	4.62	1	14.4	1.17	.234	06/06/0517:15	06/03/0508:30	I73F013028	I73F013021	IPF009S	05/31/05	06/01/05

2002

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F009
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPF009SB	IPF009SL	IPF009SC		
LAB FILE ID:	I73F013017	I73F013018	I73F013019		
DATIME EXTRCTD:	06/03/0508:30	06/03/0508:30	06/03/0508:30	DATE COLLECTED:	NA
DATIME ANALYZD:	06/06/0516:00	06/06/0516:07	06/06/0516:13	DATE RECEIVED:	06/03/05
PREP. BATCH:	IPF009S	IPF009S	IPF009S		
CALIB. REF:	I73F013009	I73F013009	I73F013009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	96.9	97	100	101	101	4	80-120	20

7008

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F009
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	12.7
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B08-5.5-6	NM03-B08-5.5-6		
EMAX SAMP ID:	F009-03	F009-03T		
LAB FILE ID:	I73F013024	I73F013023		
DATE EXTRACTED:	06/03/0508:30	06/03/0508:30	DATE COLLECTED:	05/31/05
DATE ANALYZED:	06/06/0516:49	06/06/0516:42	DATE RECEIVED:	06/01/05
PREP. BATCH:	IPF009S	IPF009S		
CALIB. REF:	I73F013021	I73F013021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	2.66	2.58J	NA	10

7009

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F009
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	12.7
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B08-5.5-6			
CONTROL NO.:	F009-03	F009-03A		
LAB FILE ID:	I73F013024	I73F013025		
DATIME EXTRCTD:	06/03/0508:30	06/03/0508:30	DATE COLLECTED:	05/31/05
DATIME ANALYZD:	06/06/0516:49	06/06/0516:55	DATE RECEIVED:	06/01/05
PREP. BATCH:	IPF009S	IPF009S		
CALIB. REF:	I73F013021	I73F013021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	2.66	115	108	92	75-125

0102

TABLE OF CONTENTS

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1004
GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2011 2012 – 2024
GC/MS-SVOA	SW 3520C/3550B/8270C	3000 – 3014
GC-VOA	METHOD 5030B/M8015	4000 – 4008
GC-SVOA	METHOD 3520C/LUFT/M8015 SW3520C/3550B/8082	5000 – 5008 5009 – 5023
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B METHOD 7470A/7471A	7000 – 7022 7023 – 7033
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-17-2005
EMAX Batch No.: 05E273

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/28/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B08-1-1.5	E273-01	05/27/05	SOIL	LEAD
NM03-B08-TRIP	E273-02	05/27/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B09-1.5-2	E273-03	05/27/05	SOIL	LEAD
NM03-B09-6-6.5	E273-04	05/27/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B09-10.5-11	E273-05	05/27/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B09-15-15.5	E273-06	05/27/05	SOIL	TPH GASOLINE
				TPH DIESEL

Sample ID	Control #	Col Date	Matrix	Analysis
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B09-20.5-21	E273-07	05/27/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				SEMIVOLATILE ORGANICS BY GCMS
				METALS CAM
				MERCURY
				POLYCHLORINATED BIPHENYLS (PCBS)
NM03-B09-EQUIP	E273-08	05/27/05	WATER	TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
				TPH DIESEL
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED
NM03-B09-GW	E273-09	05/27/05	WATER	TPH GASOLINE
				VOLATILE ORGANICS BY GC/MS
				TPH DIESEL
				SEMIVOLATILE ORGANICS BY GCMS
				POLYCHLORINATED BIPHENYLS (PCBS)
				METALS DISSOLVED BY ICP
				MERCURY DISSOLVED

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: G2/VW01-20

EMAX CONTROL NO. * 05 E 273

PROJECT CODE:

CLIENT: Caltrans
PROJECT: I-5 Extension - 105388009
COORDINATOR: Scott Snyder
TEL: 858.576.1000 FAX: EMAIL: ssnyder@mayoandmoore.com
SEND REPORT TO: Scott Snyder
COMPANY: Mayo & Moore
ADDRESS: 5710 Ruffin Rd
San Diego CA 92107
EMAX PM:

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O= Blank Water

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

TAT: ☐ Rush ____hrs. ☑ ~~Rush~~ 3 days ☐ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	Total Lead	TPH-GAS	VOC	TPH-Diesel	SVOC	PCB	Metals	COMMENTS
* 1	NM03-B08-1-1.5	B08	5-27-15	0950	01	6"	sleeve	SS			X							
* 2	NM03-B08-Trip	FQC		0930	02	40ml	VOA	O					X					
* 3	NM03-B09-1.5-2	B09		1100	01	6"	sleeve	SS			X							
* 4	NM03-B09-6-6.5	B09		1103	01	↓	↓	↓			~~X~~	X	X	X	X	X	X	
* 5	NM03-B09-10.5-11	B09		1120	01							X	X	X	X	X	X	
* 6	NM03-B09-15-15.5	B09		1125	01							X	X	X	X	X	X	
* 7	NM03-B09-20.5-21	B09		1135	01							X	X	X	X	X	X	
* 8	NM03-B09-Equip	FQC		1105	10	multi		O				X	X	X	X	X	X	
* 9	NM03-B09-GW	B09		1230	60	multi		GW				X	X	X	X	X	X	
* 10																		

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.0 C	

SAMPLER: Matt Fall

COURIER/AIRBILL: Fed Ex

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fall	5-27-15	1500	
	5/28/15	11:30	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

2001

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E273
☐ EMAX Courier		Recepient	I. PATEL
☐ Client Delivery		Date	05.28.05.
☑ Third Party FEDEX	7922940250 70	Time	11:30

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location	
☑ Address	☐ Courier Signature/Date/Time	☑ Analysis Required	
☑ Client PM/FC	☑ TAT	☑ Matrix	
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)	
Safety Issues	☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments:	☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler ONE	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ PLASTIC BAGS
Temperatures	☑ Cooler 1 4.0°	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
		ALL SOIL SAMPLES REC'D W/OUT ANALYSIS REQUEST. ON CONTAINERS.	
-02	NMO3-B08-TRIP.	LABELS ON VIALS NOT READEABLE.	
-08	NMO3-B09-Equip.	ONE VIAL FOR TPH-GAS REC'D BROKEN.	Use the second vial
-08/-09		Metals containers aren't preserved.	Preserved and filtered.

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ SRF Cecilia PM C Price

Date 05.28.05. Date 5/31/05 Date 5/31/05

From: Origin ID: (858)576-1000
Rachel Bourus
Ninyo and Moore
5710 Ruffin Road

San Diego, CA 92123

CLS122804/86/18

Ship Date: 27MAY05
Actual Wgt: 40 LB
System#: 4541513/INET2000
Account#: S *********

REF: 105388009-MLF

Delivery Address Bar Code

05E273
5-28-05
11:30a

SHIP TO: (310)618-8889 BILL SENDER

Emax Laboratories
Emax Laboratories
1835 W. 205th Street

Torrance, CA 90501

##########
PRIORITY SATURDAY
##########

TRK# 7922 9402 5070 FORM 0201

Deliver By: 28MAY05

LAX A1

90501 -CA-US

Q0 AVXA

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

1003A

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05E273

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 05/28/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-002

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Prep. Data FN	Prep. Batch	Notes
MBLK1W	V002F07Q	1	NA	06/03/0501:36	06/03/0501:36	RFP059	REP269	V002F07	Method Blank
LCS1W	V002F07L	1	NA	06/02/0523:41	06/02/0523:41	RFP056	REP269	V002F07	Lab Control Sample (LCS)
LCD1W	V002F07C	1	NA	06/03/0500:20	06/03/0500:20	RFP057	REP269	V002F07	LCS Duplicate
NM03-B08-TRIP	E273-02	1	NA	06/03/0503:32	06/03/0503:32	RFP062	REP269	V002F07	Field Sample
NM03-B09-GW	E273-09	1	NA	06/03/0506:04	06/03/0506:04	RFP066	REP269	V002F07	Field Sample
MBLK2W	V002F09Q	1	NA	06/03/0514:40	06/03/0514:40	RFP079	REP269	V002F09	Method Blank
LCS2W	V002F09L	1	NA	06/03/0512:45	06/03/0512:45	RFP076	REP269	V002F09	Lab Control Sample (LCS)
LCD2W	V002F09C	1	NA	06/03/0513:23	06/03/0513:23	RFP077	REP269	V002F09	LCS Duplicate
NM03-B09-EQUIP	E273-08R	1	NA	06/03/0517:13	06/03/0517:13	RFP083	REP269	V002F09	Field Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/03/05 03:32
Sample ID: NM03-B08-TRIP	Date Analyzed: 06/03/05 03:32
Lab Samp ID: E273-02	Dilution Factor: 1
Lab File ID: RFP062	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	91	63-143
4-BROMOFLUOROBENZENE	96	63-143
TOLUENE-D8	99	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/03/05 17:13
Sample ID: NM03-B09-EQUIP	Date Analyzed: 06/03/05 17:13
Lab Samp ID: E273-08R	Dilution Factor: 1
Lab File ID: RFP083	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	88	63-143
4-BROMOFLUOROBENZENE	90	63-143
TOLUENE-D8	100	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/03/05 06:04
Sample ID: NM03-B09-GW	Date Analyzed: 06/03/05 06:04
Lab Samp ID: E273-09	Dilution Factor: 1
Lab File ID: RFP066	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	2.5	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	93	63-143
4-BROMOFLUOROBENZENE	91	63-143
TOLUENE-D8	101	63-143

2006

QC SUMMARIES

2007

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E273	Date Extracted: 06/03/05 01:36
Sample ID: MBLK1W	Date Analyzed: 06/03/05 01:36
Lab Samp ID: V002F07Q	Dilution Factor: 1
Lab File ID: RFP059	Matrix : WATER
Ext Btch ID: V002F07	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	90	70-130
4-BROMOFLUOROBENZENE	95	70-130
TOLUENE-D8	97	70-130

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V002F07Q	V002F07L	V002F07C		
LAB FILE ID:	RFP059	RFP056	RFP057		
DATE EXTRACTED:	06/03/0501:36	06/02/0523:41	06/03/0500:20	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0501:36	06/02/0523:41	06/03/0500:20	DATE RECEIVED:	06/03/05
PREP. BATCH:	V002F07	V002F07	V002F07		
CALIB. REF:	REP269	REP269	REP269		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	9.11	91	10	8.99	90	1	60-130	30
Benzene	ND	10	9.86	99	10	10	100	2	70-130	30
Chlorobenzene	ND	10	10.3	103	10	10.4	104	1	70-120	30
Toluene	ND	10	10.5	105	10	10.6	106	1	70-130	30
Trichloroethene	ND	10	8.94	89	10	9.21	92	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.26	93	10	9.17	92	70-130
4-Bromofluorobenzene	10	9.97	100	10	9.35	93	70-130
Toluene-d8	10	9.75	97	10	9.74	97	70-130

2009

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/03/05
Batch No. : 05E273	Date Extracted: 06/03/05 14:40
Sample ID: MBLK2W	Date Analyzed: 06/03/05 14:40
Lab Samp ID: V002F09Q	Dilution Factor: 1
Lab File ID: RFP079	Matrix : WATER
Ext Btch ID: V002F09	% Moisture : NA
Calib. Ref.: REP269	Instrument ID : T-002

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	89	70-130
4-BROMOFLUOROBENZENE	90	70-130
TOLUENE-D8	95	70-130

2010

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 5030B/8260B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V002F09Q	V002F09L	V002F09C		
LAB FILE ID:	RFP079	RFP076	RFP077		
DATE EXTRACTED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE COLLECTED:	NA
DATE ANALYZED:	06/03/0514:40	06/03/0512:45	06/03/0513:23	DATE RECEIVED:	06/03/05
PREP. BATCH:	V002F09	V002F09	V002F09		
CALIB. REF:	REP269	REP269	REP269		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	8.77	88	10	8.57	86	2	60-130	30
Benzene	ND	10	10.3	103	10	10.5	105	2	70-130	30
Chlorobenzene	ND	10	10.6	106	10	10.6	106	0	70-120	30
Toluene	ND	10	10.7	107	10	11.1	111	3	70-130	30
Trichloroethene	ND	10	9.32	93	10	9.59	96	3	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	9.33	93	10	8.92	89	70-130
4-Bromofluorobenzene	10	8.95	89	10	9.19	92	70-130
Toluene-d8	10	9.6	96	10	9.97	100	70-130

2011

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05E273

2012

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Four (4) soil samples were received on 05/28/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-006

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VO06F03B	1	NA	06/01/0515:07	06/01/0515:07	RFW009	REW378	VO06F03	Method Blank
LCS1S	VO06F03L	1	NA	06/01/0513:50	06/01/0513:50	RFW007	REW378	VO06F03	Lab Control Sample (LCS)
LCD1S	VO06F03C	1	NA	06/01/0514:29	06/01/0514:29	RFW008	REW378	VO06F03	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	06/01/0520:17	06/01/0520:17	RFW017	REW378	VO06F03	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/01/0520:56	06/01/0520:56	RFW018	REW378	VO06F03	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	06/01/0522:13	06/01/0522:13	RFW020	REW378	VO06F03	Field Sample
MBLK2S	VO06F07B	1	NA	06/02/0521:22	06/02/0521:22	RFW057	REW378	VO06F07	Method Blank
LCS2S	VO06F07L	1	NA	06/02/0520:05	06/02/0520:05	RFW055	REW378	VO06F07	Lab Control Sample (LCS)
LCD2S	VO06F07C	1	NA	06/02/0520:44	06/02/0520:44	RFW056	REW378	VO06F07	LCS Duplicate
NM03-B09-15-15.5	E273-06R	1	23.1	06/02/0522:01	06/02/0522:01	RFW058	REW378	VO06F07	Field Sample

FN - Filename
% Moist - Percent Moisture

2014

SAMPLE RESULTS

2015

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 20:17
Sample ID: NM03-B09-6-6.5	Date Analyzed: 06/01/05 20:17
Lab Samp ID: E273-04	Dilution Factor: 1
Lab File ID: RFW017	Matrix : SOIL
Ext Btch ID: V006F03	% Moisture : 10.8
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.6	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.6	2.2
1,1,2-TRICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHANE	ND	5.6	2.2
1,1-DICHLOROETHENE	ND	5.6	2.2
1,2-DICHLOROETHANE	ND	5.6	2.2
1,2-DICHLOROPROPANE	ND	5.6	2.2
2-BUTANONE	ND	11	5.6
2-HEXANONE	ND	11	5.6
4-METHYL-2-PENTANONE	ND	11	5.6
ACETONE	ND	11	5.6
BENZENE	ND	5.6	2.2
BROMODICHLOROMETHANE	ND	5.6	2.2
BROMOFORM	ND	5.6	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.6	2.2
CARBON TETRACHLORIDE	ND	5.6	2.2
CHLOROBENZENE	ND	5.6	2.2
CHLOROETHANE	ND	5.6	2.2
CHLOROFORM	ND	5.6	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.6	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.6	2.2
DIBROMOCHLOROMETHANE	ND	5.6	2.2
ETHYLBENZENE	ND	5.6	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.6	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.6	2.2
STYRENE	ND	5.6	2.2
TETRACHLOROETHENE	ND	5.6	2.2
TOLUENE	ND	5.6	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.6	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.6	2.2
TRICHLOROETHENE	ND	5.6	2.2
VINYL CHLORIDE	ND	5.6	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	114	54-154
4-BROMOFLUOROBENZENE	107	63-143
TOLUENE-D8	96	63-143

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 20:56
Sample ID: NM03-B09-10.5-11	Date Analyzed: 06/01/05 20:56
Lab Samp ID: E273-05	Dilution Factor: 1
Lab File ID: RFW018	Matrix : SOIL
Ext Btch ID: V006F03	% Moisture : 20.5
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.3	2.5
1,1,2,2-TETRACHLOROETHANE	ND	6.3	2.5
1,1,2-TRICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHANE	ND	6.3	2.5
1,1-DICHLOROETHENE	ND	6.3	2.5
1,2-DICHLOROETHANE	ND	6.3	2.5
1,2-DICHLOROPROPANE	ND	6.3	2.5
2-BUTANONE	ND	13	6.3
2-HEXANONE	ND	13	6.3
4-METHYL-2-PENTANONE	ND	13	6.3
ACETONE	15	13	6.3
BENZENE	ND	6.3	2.5
BROMODICHLOROMETHANE	ND	6.3	2.5
BROMOFORM	ND	6.3	2.5
BROMOMETHANE	ND	13	2.5
CARBON DISULFIDE	ND	6.3	2.5
CARBON TETRACHLORIDE	ND	6.3	2.5
CHLOROBENZENE	ND	6.3	2.5
CHLOROETHANE	ND	6.3	2.5
CHLOROFORM	ND	6.3	2.5
CHLOROMETHANE	ND	13	2.5
CIS-1,2-DICHLOROETHENE	ND	6.3	2.5
CIS-1,3-DICHLOROPROPENE	ND	6.3	2.5
DIBROMOCHLOROMETHANE	ND	6.3	2.5
ETHYLBENZENE	ND	6.3	2.5
M/P-XYLENES	ND	13	2.5
MTBE	ND	6.3	2.5
METHYLENE CHLORIDE	ND	13	2.5
O-XYLENE	ND	6.3	2.5
STYRENE	ND	6.3	2.5
TETRACHLOROETHENE	ND	6.3	2.5
TOLUENE	ND	6.3	2.5
TRANS-1,2-DICHLOROETHENE	ND	6.3	2.5
TRANS-1,3-DICHLOROPROPENE	ND	6.3	2.5
TRICHLOROETHENE	ND	6.3	2.5
VINYL CHLORIDE	ND	6.3	2.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	112	54-154
4-BROMOFLUOROBENZENE	112	63-143
TOLUENE-D8	96	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/02/05 22:01
Sample ID: NM03-B09-15-15.5	Date Analyzed: 06/02/05 22:01
Lab Samp ID: E273-06R	Dilution Factor: 1
Lab File ID: RFW058	Matrix : SOIL
Ext Btch ID: V006F07	% Moisture : 23.1
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.5	2.6
1,1,2,2-TETRACHLOROETHANE	ND	6.5	2.6
1,1,2-TRICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHENE	ND	6.5	2.6
1,2-DICHLOROETHANE	ND	6.5	2.6
1,2-DICHLOROPROPANE	ND	6.5	2.6
2-BUTANONE	ND	13	6.5
2-HEXANONE	ND	13	6.5
4-METHYL-2-PENTANONE	ND	13	6.5
ACETONE	ND	13	6.5
BENZENE	ND	6.5	2.6
BROMODICHLOROMETHANE	ND	6.5	2.6
BROMOFORM	ND	6.5	2.6
BROMOMETHANE	ND	13	2.6
CARBON DISULFIDE	ND	6.5	2.6
CARBON TETRACHLORIDE	ND	6.5	2.6
CHLOROBENZENE	ND	6.5	2.6
CHLOROETHANE	ND	6.5	2.6
CHLOROFORM	ND	6.5	2.6
CHLOROMETHANE	ND	13	2.6
CIS-1,2-DICHLOROETHENE	ND	6.5	2.6
CIS-1,3-DICHLOROPROPENE	ND	6.5	2.6
DIBROMOCHLOROMETHANE	ND	6.5	2.6
ETHYLBENZENE	ND	6.5	2.6
M/P-XYLENES	ND	13	2.6
MTBE	ND	6.5	2.6
METHYLENE CHLORIDE	ND	13	2.6
O-XYLENE	ND	6.5	2.6
STYRENE	ND	6.5	2.6
TETRACHLOROETHENE	ND	6.5	2.6
TOLUENE	ND	6.5	2.6
TRANS-1,2-DICHLOROETHENE	ND	6.5	2.6
TRANS-1,3-DICHLOROPROPENE	ND	6.5	2.6
TRICHLOROETHENE	ND	6.5	2.6
VINYL CHLORIDE	ND	6.5	2.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	107	54-154
4-BROMOFLUOROBENZENE	112	63-143
TOLUENE-D8	97	63-143

2018

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 22:13
Sample ID: NM03-B09-20.5-21	Date Analyzed: 06/01/05 22:13
Lab Samp ID: E273-07	Dilution Factor: 1
Lab File ID: RFW020	Matrix : SOIL
Ext Btch ID: VOO6F03	% Moisture : 22.6
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	6.5	2.6
1,1,2,2-TETRACHLOROETHANE	ND	6.5	2.6
1,1,2-TRICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHANE	ND	6.5	2.6
1,1-DICHLOROETHENE	ND	6.5	2.6
1,2-DICHLOROETHANE	ND	6.5	2.6
1,2-DICHLOROPROPANE	ND	6.5	2.6
2-BUTANONE	ND	13	6.5
2-HEXANONE	ND	13	6.5
4-METHYL-2-PENTANONE	ND	13	6.5
ACETONE	ND	13	6.5
BENZENE	ND	6.5	2.6
BROMODICHLOROMETHANE	ND	6.5	2.6
BROMOFORM	ND	6.5	2.6
BROMOMETHANE	ND	13	2.6
CARBON DISULFIDE	8	6.5	2.6
CARBON TETRACHLORIDE	ND	6.5	2.6
CHLOROBENZENE	ND	6.5	2.6
CHLOROETHANE	ND	6.5	2.6
CHLOROFORM	ND	6.5	2.6
CHLOROMETHANE	ND	13	2.6
CIS-1,2-DICHLOROETHENE	ND	6.5	2.6
CIS-1,3-DICHLOROPROPENE	ND	6.5	2.6
DIBROMOCHLOROMETHANE	ND	6.5	2.6
ETHYLBENZENE	ND	6.5	2.6
M/P-XYLENES	ND	13	2.6
MTBE	ND	6.5	2.6
METHYLENE CHLORIDE	ND	13	2.6
O-XYLENE	ND	6.5	2.6
STYRENE	ND	6.5	2.6
TETRACHLOROETHENE	ND	6.5	2.6
TOLUENE	ND	6.5	2.6
TRANS-1,2-DICHLOROETHENE	ND	6.5	2.6
TRANS-1,3-DICHLOROPROPENE	ND	6.5	2.6
TRICHLOROETHENE	ND	6.5	2.6
VINYL CHLORIDE	ND	6.5	2.6

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	112	54-154
4-BROMOFLUOROBENZENE	110	63-143
TOLUENE-D8	97	63-143

2019

QC SUMMARIES

2020

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05E273	Date Extracted: 06/01/05 15:07
Sample ID: MBLK1S	Date Analyzed: 06/01/05 15:07
Lab Samp ID: V006F03B	Dilution Factor: 1
Lab File ID: RFW009	Matrix : SOIL
Ext Btch ID: V006F03	% Moisture : NA
Calib. Ref.: REW378	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	60-140
4-BROMOFLUOROBENZENE	113	70-130
TOLUENE-D8	99	70-130

2021

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: V006F03B V006F03L V006F03C
LAB FILE ID: RFW009 RFW007 RFW008
DATE EXTRACTED: 06/01/0515:07 06/01/0513:50 06/01/0514:29 DATE COLLECTED: NA
DATE ANALYZED: 06/01/0515:07 06/01/0513:50 06/01/0514:29 DATE RECEIVED: 06/01/05
PREP. BATCH: V006F03 V006F03 V006F03
CALIB. REF: REW378 REW378 REW378

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	19.6	98	20	18.5	93	6	60-140	50
Benzene	ND	20	21.7	108	20	21.9	110	1	70-130	50
Chlorobenzene	ND	20	21	105	20	20.5	102	2	70-130	50
Toluene	ND	20	22	110	20	21.6	108	2	70-130	50
Trichloroethene	ND	20	20.2	101	20	20.4	102	1	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	56.6	113	50	54.9	110	60-140
4-Bromofluorobenzene	50	56	112	50	56.3	113	70-130
Toluene-d8	50	49.9	100	50	50.7	101	70-130

2022

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/02/05
Batch No. : 05E273	Date Extracted: 06/02/05 21:22
Sample ID: MBLK2S	Date Analyzed: 06/02/05 21:22
Lab Samp ID: V006F07B	Dilution Factor: 1
Lab File ID: RFW057	Matrix : SOIL
Ext Btch ID: V006F07	% Moisture : NA
Calib. Ref.: REW37B	Instrument ID : T-006

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	99	60-140
4-BROMOFLUOROBENZENE	112	70-130
TOLUENE-D8	95	70-130

2023

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2S				
LAB SAMP ID:	V006F07B	V006F07L	V006F07C		
LAB FILE ID:	RFW057	RFW055	RFW056		
DATE EXTRACTED:	06/02/0521:22	06/02/0520:05	06/02/0520:44	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0521:22	06/02/0520:05	06/02/0520:44	DATE RECEIVED:	06/02/05
PREP. BATCH:	V006F07	V006F07	V006F07		
CALIB. REF:	REW378	REW378	REW378		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	17.6	88	20	17.6	88	0	60-140	50
Benzene	ND	20	20.4	102	20	20.8	104	2	70-130	50
Chlorobenzene	ND	20	19.9	99	20	20.1	100	1	70-130	50
Toluene	ND	20	20.5	102	20	20.8	104	2	70-130	50
Trichloroethene	ND	20	19.2	96	20	19.9	99	3	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	54.1	108	50	53.8	108	60-140
4-Bromofluorobenzene	50	54.2	108	50	53.7	107	70-130
Toluene-d8	50	47.5	95	50	47.8	96	70-130

2024

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

SDG#: 05E273

3000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

SW 3520C/3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Two (2) water and four (4) soil samples were received on 05/28/05 for Semi Volatile Organic analysis by Method 3520C/3550B/8270C in accordance with USEPA SW846, 3rd edition.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12 hours interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC criteria except in LCS1W.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits except two analytes in LCS1W and 2,4-Dinitrotoluene in both LCS1W/LCD1W. Samples were not reextracted because only one bottle was provided. RPDs of five analytes were above QC.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met with the aforementioned exception.

LAB CHRONICLE
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-042

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	SVE060WB	1	NA	06/02/0516:10	05/31/0516:00	RFX029	RCX291	SVE060W	Method Blank
LCS1W	SVE060WL	1	NA	06/02/0516:39	05/31/0516:00	RFX030	RCX291	SVE060W	Lab Control Sample (LCS)
LCD1W	SVE060WC	1	NA	06/02/0517:08	05/31/0516:00	RFX031	RCX291	SVE060W	LCS Duplicate
NM03-B09-EQUIP	E273-08	.94	NA	06/02/0518:35	05/31/0516:00	RFX034	RCX291	SVE060W	Field Sample
NM03-B09-GW	E273-09	1.0	NA	06/02/0519:04	05/31/0516:00	RFX035	RCX291	SVE060W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	SVF001SB	1	NA	06/02/0519:34	06/01/0511:30	RFX036	RCX291	SVF001S	Method Blank
LCS1S	SVF001SL	1	NA	06/02/0520:02	06/01/0511:30	RFX037	RCX291	SVF001S	Lab Control Sample (LCS)
NM03-B09-6-6.5	E273-04	1	10.8	06/03/0501:49	06/01/0511:30	RFX049	RCX291	SVF001S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/03/0502:18	06/01/0511:30	RFX050	RCX291	SVF001S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	06/03/0502:46	06/01/0511:30	RFX051	RCX291	SVF001S	Field Sample
NM03-B09-20.5-21!	E273-07	1	22.6	06/04/0519:33	06/01/0511:30	RFH070	REH231	SVF001S	Field Sample

! Instrument ID : T-041
FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 11:30
Sample ID: NM03-B09-6-6.5	Date Analyzed: 06/03/05 01:49
Lab Samp ID: E273-04	Dilution Factor: 1
Lab File ID: RFX049	Matrix : SOIL
Ext Btch ID: SVF001S	% Moisture : 10.8
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	370	190
1,2-DICHLOROBENZENE	ND	370	190
1,3-DICHLOROBENZENE	ND	370	190
1,4-DICHLOROBENZENE	ND	370	190
2,4,5-TRICHLOROPHENOL	ND	370	190
2,4,6-TRICHLOROPHENOL	ND	370	210
2,4-DICHLOROPHENOL	ND	370	190
2,4-DIMETHYLPHENOL	ND	370	190
2,4-DINITROPHENOL	ND	740	190
2,4-DINITROTOLUENE	ND	370	190
2,6-DINITROTOLUENE	ND	370	190
2-CHLORONAPHTHALENE	ND	370	190
2-CHLOROPHENOL	ND	370	190
2-METHYLNAPHTHALENE	ND	370	190
2-METHYLPHENOL	ND	370	190
2-NITROANILINE	ND	370	190
2-NITROPHENOL	ND	370	190
3,3'-DICHLOROBENZIDINE	ND	370	190
3-NITROANILINE	ND	370	190
4,6-DINITRO-2-METHYLPHENOL	ND	740	190
4-BROMOPHENYL-PHENYL ETHER	ND	370	190
4-CHLORO-3-METHYLPHENOL	ND	370	190
4-CHLOROANILINE	ND	370	190
4-CHLOROPHENYL-PHENYL ETHER	ND	370	190
4-METHYLPHENOL (1)	ND	370	190
4-NITROANILINE	ND	370	190
4-NITROPHENOL	ND	740	190
ACENAPHTHENE	ND	370	190
ACENAPHTHYLENE	ND	370	190
ANTHRACENE	ND	370	190
BENZO(A)ANTHRACENE	ND	370	190
BENZO(A)PYRENE	ND	370	190
BENZO(B)FLUORANTHENE	ND	370	190
BENZO(K)FLUORANTHENE	ND	370	190
BENZO(G,H,I)PERYLENE	ND	370	190
BIS(2-CHLOROETHOXY)METHANE	ND	370	190
BIS(2-CHLOROETHYL)ETHER	ND	370	190
BIS(2-CHLOROISOPROPYL)ETHER	ND	370	190
BIS(2-ETHYLHEXYL)PHTHALATE	ND	370	190
BUTYLBENZYLPHTHALATE	ND	370	190
CHRYSENE	ND	370	190
DI-N-BUTYLPHTHALATE	ND	370	190
DI-N-OCTYLPHTHALATE	ND	370	190
DIBENZO(A,H)ANTHRACENE	ND	370	190
DIBENZOFURAN	ND	370	190
DIETHYLPHTHALATE	ND	370	190
DIMETHYLPHTHALATE	ND	370	190
FLUORANTHENE	ND	370	190
FLUORENE	ND	370	190
HEXACHLOROBENZENE	ND	370	190
HEXACHLOROBUTADIENE	ND	370	210
HEXACHLOROCYCLOPENTADIENE	ND	370	190
HEXACHLOROETHANE	ND	370	190
INDENO(1,2,3-CD)PYRENE	ND	370	190
ISOPHORONE	ND	370	190
N-NITROSO-DI-N-PROPYLAMINE	ND	370	190
N-NITROSODIPHENYLAMINE (2)	ND	370	190
NAPHTHALENE	ND	370	190
NITROBENZENE	ND	370	190
PENTACHLOROPHENOL	ND	740	200
PHENANTHRENE	ND	370	190
PHENOL	ND	370	190
PYRENE	ND	370	190

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	62	36-143
2-FLUOROBIPHENYL	58	36-143
2-FLUOROPHENOL	50	36-143
NITROBENZENE-D5	53	36-143
PHENOL-D5	51	36-143
TERPHENYL-D14	79	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 11:30
Sample ID: NM03-B09-10.5-11	Date Analyzed: 06/03/05 02:18
Lab Samp ID: E273-05	Dilution Factor: 1
Lab File ID: RFX050	Matrix : SOIL
Ext Btch ID: SVF001S	% Moisture : 20.5
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	420	210
1,2-DICHLOROBENZENE	ND	420	210
1,3-DICHLOROBENZENE	ND	420	210
1,4-DICHLOROBENZENE	ND	420	210
2,4,5-TRICHLOROPHENOL	ND	420	210
2,4,6-TRICHLOROPHENOL	ND	420	230
2,4-DICHLOROPHENOL	ND	420	210
2,4-DIMETHYLPHENOL	ND	420	210
2,4-DINITROPHENOL	ND	830	210
2,4-DINITROTOLUENE	ND	420	210
2,6-DINITROTOLUENE	ND	420	210
2-CHLORONAPHTHALENE	ND	420	210
2-CHLOROPHENOL	ND	420	210
2-METHYLNAPHTHALENE	ND	420	210
2-METHYLPHENOL	ND	420	210
2-NITROANILINE	ND	420	210
2-NITROPHENOL	ND	420	210
3,3'-DICHLOROBENZIDINE	ND	420	210
3-NITROANILINE	ND	420	210
4,6-DINITRO-2-METHYLPHENOL	ND	830	210
4-BROMOPHENYL-PHENYL ETHER	ND	420	210
4-CHLORO-3-METHYLPHENOL	ND	420	210
4-CHLOROANILINE	ND	420	210
4-CHLOROPHENYL-PHENYL ETHER	ND	420	210
4-METHYLPHENOL (1)	ND	420	210
4-NITROANILINE	ND	420	210
4-NITROPHENOL	ND	830	210
ACENAPHTHENE	ND	420	210
ACENAPHTHYLENE	ND	420	210
ANTHRACENE	ND	420	210
BENZO(A)ANTHRACENE	ND	420	210
BENZO(A)PYRENE	ND	420	210
BENZO(B)FLUORANTHENE	ND	420	210
BENZO(K)FLUORANTHENE	ND	420	210
BENZO(G,H,I)PERYLENE	ND	420	210
BIS(2-CHLOROETHOXY)METHANE	ND	420	210
BIS(2-CHLOROETHYL)ETHER	ND	420	210
BIS(2-CHLOROISOPROPYL)ETHER	ND	420	210
BIS(2-ETHYLHEXYL)PHTHALATE	ND	420	210
BUTYLBENZYLPHTHALATE	ND	420	210
CHRYSENE	ND	420	210
DI-N-BUTYLPHTHALATE	ND	420	210
DI-N-OCTYLPHTHALATE	ND	420	210
DIBENZO(A,H)ANTHRACENE	ND	420	210
DIBENZOFURAN	ND	420	210
DIETHYLPHTHALATE	ND	420	210
DIMETHYLPHTHALATE	ND	420	210
FLUORANTHENE	ND	420	210
FLUORENE	ND	420	210
HEXACHLOROBENZENE	ND	420	210
HEXACHLOROBUTADIENE	ND	420	240
HEXACHLOROCYCLOPENTADIENE	ND	420	210
HEXACHLOROETHANE	ND	420	210
INDENO(1,2,3-CD)PYRENE	ND	420	210
ISOPHORONE	ND	420	210
N-NITROSO-DI-N-PROPYLAMINE	ND	420	210
N-NITROSODIPHENYLAMINE (2)	ND	420	210
NAPHTHALENE	ND	420	210
NITROBENZENE	ND	420	210
PENTACHLOROPHENOL	ND	830	220
PHENANTHRENE	ND	420	210
PHENOL	ND	420	210
PYRENE	ND	420	210

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	54	36-143
2-FLUOROBIPHENYL	45	36-143
2-FLUOROPHENOL	42	36-143
NITROBENZENE-D5	40	36-143
PHENOL-D5	42	36-143
TERPHENYL-D14	82	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 06/01/05 11:30
Sample ID: NM03-B09-15-15.5	Date Analyzed: 06/03/05 02:46
Lab Samp ID: E273-06	Dilution Factor: 1
Lab File ID: RFX051	Matrix : SOIL
Ext Btch ID: SVF001S	% Moisture : 23.1
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	430	220
1,2-DICHLOROBENZENE	ND	430	220
1,3-DICHLOROBENZENE	ND	430	220
1,4-DICHLOROBENZENE	ND	430	220
2,4,5-TRICHLOROPHENOL	ND	430	220
2,4,6-TRICHLOROPHENOL	ND	430	240
2,4-DICHLOROPHENOL	ND	430	220
2,4-DIMETHYLPHENOL	ND	430	220
2,4-DINITROPHENOL	ND	860	220
2,4-DINITROTOLUENE	ND	430	220
2,6-DINITROTOLUENE	ND	430	220
2-CHLORONAPHTHALENE	ND	430	220
2-CHLOROPHENOL	ND	430	220
2-METHYLNAPHTHALENE	ND	430	220
2-METHYLPHENOL	ND	430	220
2-NITROANILINE	ND	430	220
2-NITROPHENOL	ND	430	220
3,3'-DICHLOROBENZIDINE	ND	430	220
3-NITROANILINE	ND	430	220
4,6-DINITRO-2-METHYLPHENOL	ND	860	220
4-BROMOPHENYL-PHENYL ETHER	ND	430	220
4-CHLORO-3-METHYLPHENOL	ND	430	220
4-CHLOROANILINE	ND	430	220
4-CHLOROPHENYL-PHENYL ETHER	ND	430	220
4-METHYLPHENOL (1)	ND	430	220
4-NITROANILINE	ND	430	220
4-NITROPHENOL	ND	860	220
ACENAPHTHENE	ND	430	220
ACENAPHTHYLENE	ND	430	220
ANTHRACENE	ND	430	220
BENZO(A)ANTHRACENE	ND	430	220
BENZO(A)PYRENE	ND	430	220
BENZO(B)FLUORANTHENE	ND	430	220
BENZO(K)FLUORANTHENE	ND	430	220
BENZO(G,H,I)PERYLENE	ND	430	220
BIS(2-CHLOROETHOXY)METHANE	ND	430	220
BIS(2-CHLOROETHYL)ETHER	ND	430	220
BIS(2-CHLOROISOPROPYL)ETHER	ND	430	220
BIS(2-ETHYLHEXYL)PHTHALATE	ND	430	220
BUTYLBENZYLPHTHALATE	ND	430	220
CHRYSENE	ND	430	220
DI-N-BUTYLPHTHALATE	ND	430	220
DI-N-OCTYLPHTHALATE	ND	430	220
DIBENZO(A,H)ANTHRACENE	ND	430	220
DIBENZOFURAN	ND	430	220
DIETHYLPHTHALATE	ND	430	220
DIMETHYLPHTHALATE	ND	430	220
FLUORANTHENE	ND	430	220
FLUORENE	ND	430	220
HEXACHLOROBENZENE	ND	430	220
HEXACHLOROBUTADIENE	ND	430	250
HEXACHLOROCYCLOPENTADIENE	ND	430	220
HEXACHLOROETHANE	ND	430	220
INDENO(1,2,3-CD)PYRENE	ND	430	220
ISOPHORONE	ND	430	220
N-NITROSO-DI-N-PROPYLAMINE	ND	430	220
N-NITROSODIPHENYLAMINE (2)	ND	430	220
NAPHTHALENE	ND	430	220
NITROBENZENE	ND	430	220
PENTACHLOROPHENOL	ND	860	230
PHENANTHRENE	ND	430	220
PHENOL	ND	430	220
PYRENE	ND	430	220

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	67	36-143
2-FLUOROBIPHENYL	52	36-143
2-FLUOROPHENOL	48	36-143
NITROBENZENE-D5	48	36-143
PHENOL-D5	49	36-143
TERPHENYL-D14	88	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E273	Date Extracted:	06/01/05 11:30
Sample ID	: NM03-B09-20.5-21	Date Analyzed:	06/04/05 19:33
Lab Samp ID	: E273-07	Dilution Factor:	1
Lab File ID	: RFH070	Matrix	: SOIL
Ext Btch ID	: SVF001S	% Moisture	: 22.6
Calib. Ref.	: REH231	Instrument ID	: T-041

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	430	220
1,2-DICHLOROBENZENE	ND	430	220
1,3-DICHLOROBENZENE	ND	430	220
1,4-DICHLOROBENZENE	ND	430	220
2,4,5-TRICHLOROPHENOL	ND	430	220
2,4,6-TRICHLOROPHENOL	ND	430	240
2,4-DICHLOROPHENOL	ND	430	220
2,4-DIMETHYLPHENOL	ND	430	220
2,4-DINITROPHENOL	ND	850	220
2,4-DINITROTOLUENE	ND	430	220
2,6-DINITROTOLUENE	ND	430	220
2-CHLORONAPHTHALENE	ND	430	220
2-CHLOROPHENOL	ND	430	220
2-METHYLNAPHTHALENE	ND	430	220
2-METHYLPHENOL	ND	430	220
2-NITROANILINE	ND	430	220
2-NITROPHENOL	ND	430	220
3,3'-DICHLOROBENZIDINE	ND	430	220
3-NITROANILINE	ND	430	220
4,6-DINITRO-2-METHYLPHENOL	ND	850	220
4-BROMOPHENYL-PHENYL ETHER	ND	430	220
4-CHLORO-3-METHYLPHENOL	ND	430	220
4-CHLOROANILINE	ND	430	220
4-CHLOROPHENYL-PHENYL ETHER	ND	430	220
4-METHYLPHENOL (1)	ND	430	220
4-NITROANILINE	ND	430	220
4-NITROPHENOL	ND	850	220
ACENAPHTHENE	ND	430	220
ACENAPHTHYLENE	ND	430	220
ANTHRACENE	ND	430	220
BENZO(A)ANTHRACENE	ND	430	220
BENZO(A)PYRENE	ND	430	220
BENZO(B)FLUORANTHENE	ND	430	220
BENZO(K)FLUORANTHENE	ND	430	220
BENZO(G,H,I)PERYLENE	ND	430	220
BIS(2-CHLOROETHOXY)METHANE	ND	430	220
BIS(2-CHLOROETHYL)ETHER	ND	430	220
BIS(2-CHLOROISOPROPYL)ETHER	ND	430	220
BIS(2-ETHYLHEXYL)PHTHALATE	ND	430	220
BUTYLBENZYLPHTHALATE	ND	430	220
CHRYSENE	ND	430	220
DI-N-BUTYLPHTHALATE	ND	430	220
DI-N-OCTYLPHTHALATE	ND	430	220
DIBENZO(A,H)ANTHRACENE	ND	430	220
DIBENZOFURAN	ND	430	220
DIETHYLPHTHALATE	ND	430	220
DIMETHYLPHTHALATE	ND	430	220
FLUORANTHENE	ND	430	220
FLUORENE	ND	430	220
HEXACHLOROBENZENE	ND	430	220
HEXACHLOROBUTADIENE	ND	430	250
HEXACHLOROCYCLOPENTADIENE	ND	430	220
HEXACHLOROETHANE	ND	430	220
INDENO(1,2,3-CD)PYRENE	ND	430	220
ISOPHORONE	ND	430	220
N-NITROSO-DI-N-PROPYLAMINE	ND	430	220
N-NITROSODIPHENYLAMINE (2)	ND	430	220
NAPHTHALENE	ND	430	220
NITROBENZENE	ND	430	220
PENTACHLOROPHENOL	ND	850	230
PHENANTHRENE	ND	430	220
PHENOL	ND	430	220
PYRENE	ND	430	220

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	56	36-143
2-FLUOROBIPHENYL	51	36-143
2-FLUOROPHENOL	41	36-143
NITROBENZENE-D5	46	36-143
PHENOL-D5	43	36-143
TERPHENYL-D14	78	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E273	Date Extracted:	05/31/05 16:00
Sample ID	: NM03-B09-EQUIP	Date Analyzed:	06/02/05 18:35
Lab Samp ID	: E273-08	Dilution Factor:	.94
Lab File ID	: RFX034	Matrix	: WATER
Ext Btch ID	: SVE060W	% Moisture	: NA
Calib. Ref.	: RCX291	Instrument ID	: T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	9.4	4.7
1,2-DICHLOROBENZENE	ND	9.4	4.7
1,3-DICHLOROBENZENE	ND	9.4	4.7
1,4-DICHLOROBENZENE	ND	9.4	4.7
2,4,5-TRICHLOROPHENOL	ND	9.4	4.7
2,4,6-TRICHLOROPHENOL	ND	9.4	4.7
2,4-DICHLOROPHENOL	ND	9.4	4.7
2,4-DIMETHYLPHENOL	ND	9.4	4.7
2,4-DINITROPHENOL	ND	19	4.7
2,4-DINITROTOLUENE	ND	9.4	4.7
2,6-DINITROTOLUENE	ND	9.4	4.7
2-CHLORONAPHTHALENE	ND	9.4	4.7
2-CHLOROPHENOL	ND	9.4	4.7
2-METHYLNAPHTHALENE	ND	9.4	4.7
2-METHYLPHENOL	ND	9.4	4.7
2-NITROANILINE	ND	9.4	4.7
2-NITROPHENOL	ND	9.4	4.7
3,3'-DICHLOROBENZIDINE	ND	9.4	4.7
3-NITROANILINE	ND	9.4	4.7
4,6-DINITRO-2-METHYLPHENOL	ND	19	4.7
4-BROMOPHENYL-PHENYL ETHER	ND	9.4	4.7
4-CHLORO-3-METHYLPHENOL	ND	9.4	4.7
4-CHLOROANILINE	ND	9.4	4.7
4-CHLOROPHENYL-PHENYL ETHER	ND	9.4	4.7
4-METHYLPHENOL (1)	ND	9.4	4.7
4-NITROANILINE	ND	9.4	4.7
4-NITROPHENOL	ND	19	4.7
ACENAPHTHENE	ND	9.4	4.7
ACENAPHTHYLENE	ND	9.4	4.7
ANTHRACENE	ND	9.4	4.7
BENZO(A)ANTHRACENE	ND	9.4	4.7
BENZO(A)PYRENE	ND	9.4	4.7
BENZO(B)FLUORANTHENE	ND	9.4	4.7
BENZO(K)FLUORANTHENE	ND	9.4	4.7
BENZO(G,H,I)PERYLENE	ND	9.4	4.7
BIS(2-CHLOROETHOXY)METHANE	ND	9.4	4.7
BIS(2-CHLOROETHYL)ETHER	ND	9.4	4.7
BIS(2-CHLOROISOPROPYL)ETHER	ND	9.4	4.7
BIS(2-ETHYLHEXYL)PHTHALATE	ND	9.4	4.7
BUTYLBENZYLPHTHALATE	ND	9.4	4.7
CHRYSENE	ND	9.4	4.7
DI-N-BUTYLPHTHALATE	ND	9.4	4.7
DI-N-OCTYLPHTHALATE	ND	9.4	4.7
DIBENZO(A,H)ANTHRACENE	ND	9.4	4.7
DIBENZOFURAN	ND	9.4	4.7
DIETHYLPHTHALATE	ND	9.4	4.7
DIMETHYLPHTHALATE	ND	9.4	4.7
FLUORANTHENE	ND	9.4	4.7
FLUORENE	ND	9.4	4.7
HEXACHLOROBENZENE	ND	9.4	4.7
HEXACHLOROBUTADIENE	ND	9.4	4.7
HEXACHLOROCYCLOPENTADIENE	ND	9.4	4.7
HEXACHLOROETHANE	ND	9.4	4.7
INDENO(1,2,3-CD)PYRENE	ND	9.4	4.7
ISOPHORONE	ND	9.4	4.7
N-NITROSO-DI-N-PROPYLAMINE	ND	9.4	4.7
N-NITROSODIPHENYLAMINE (2)	ND	9.4	4.7
NAPHTHALENE	ND	9.4	4.7
NITROBENZENE	ND	9.4	4.7
PENTACHLOROPHENOL	ND	19	4.7
PHENANTHRENE	ND	9.4	4.7
PHENOL	ND	9.4	4.7
PYRENE	ND	9.4	4.7

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	48	36-143
2-FLUOROBIPHENYL	40	36-143
2-FLUOROPHENOL	36	36-143
NITROBENZENE-D5	36	36-143
PHENOL-D5	37	36-143
TERPHENYL-D14	95	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 05/31/05 16:00
Sample ID: NM03-B09-GW	Date Analyzed: 06/02/05 19:04
Lab Samp ID: E273-09	Dilution Factor: 1.0
Lab File ID: RFX035	Matrix : WATER
Ext Btch ID: SVE060W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	11	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	70	36-143
2-FLUOROBIPHENYL	53	36-143
2-FLUOROPHENOL	52	36-143
NITROBENZENE-D5	46	36-143
PHENOL-D5	54	36-143
TERPHENYL-D14	71	45-143

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

QC SUMMARY

SW 3520C/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 05/31/05
Batch No. : 05E273	Date Extracted: 05/31/05 16:00
Sample ID: MBLK1W	Date Analyzed: 06/02/05 16:10
Lab Samp ID: SVE060WB	Dilution Factor: 1
Lab File ID: RFX029	Matrix : WATER
Ext Btch ID: SVE060W	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,2,4-TRICHLOROBENZENE	ND	10	5
1,2-DICHLOROBENZENE	ND	10	5
1,3-DICHLOROBENZENE	ND	10	5
1,4-DICHLOROBENZENE	ND	10	5
2,4,5-TRICHLOROPHENOL	ND	10	5
2,4,6-TRICHLOROPHENOL	ND	10	5
2,4-DICHLOROPHENOL	ND	10	5
2,4-DIMETHYLPHENOL	ND	10	5
2,4-DINITROPHENOL	ND	20	5
2,4-DINITROTOLUENE	ND	10	5
2,6-DINITROTOLUENE	ND	10	5
2-CHLORONAPHTHALENE	ND	10	5
2-CHLOROPHENOL	ND	10	5
2-METHYLNAPHTHALENE	ND	10	5
2-METHYLPHENOL	ND	10	5
2-NITROANILINE	ND	10	5
2-NITROPHENOL	ND	10	5
3,3'-DICHLOROBENZIDINE	ND	10	5
3-NITROANILINE	ND	10	5
4,6-DINITRO-2-METHYLPHENOL	ND	20	5
4-BROMOPHENYL-PHENYL ETHER	ND	10	5
4-CHLORO-3-METHYLPHENOL	ND	10	5
4-CHLOROANILINE	ND	10	5
4-CHLOROPHENYL-PHENYL ETHER	ND	10	5
4-METHYLPHENOL (1)	ND	10	5
4-NITROANILINE	ND	10	5
4-NITROPHENOL	ND	20	5
ACENAPHTHENE	ND	10	5
ACENAPHTHYLENE	ND	10	5
ANTHRACENE	ND	10	5
BENZO(A)ANTHRACENE	ND	10	5
BENZO(A)PYRENE	ND	10	5
BENZO(B)FLUORANTHENE	ND	10	5
BENZO(K)FLUORANTHENE	ND	10	5
BENZO(G,H,I)PERYLENE	ND	10	5
BIS(2-CHLOROETHOXY)METHANE	ND	10	5
BIS(2-CHLOROETHYL)ETHER	ND	10	5
BIS(2-CHLOROISOPROPYL)ETHER	ND	10	5
BIS(2-ETHYLHEXYL)PHTHALATE	ND	10	5
BUTYLBENZYLPHTHALATE	ND	10	5
CHRYSENE	ND	10	5
DI-N-BUTYLPHTHALATE	ND	10	5
DI-N-OCTYLPHTHALATE	ND	10	5
DIBENZO(A,H)ANTHRACENE	ND	10	5
DIBENZOFURAN	ND	10	5
DIETHYLPHTHALATE	ND	10	5
DIMETHYLPHTHALATE	ND	10	5
FLUORANTHENE	ND	10	5
FLUORENE	ND	10	5
HEXACHLOROBENZENE	ND	10	5
HEXACHLOROBUTADIENE	ND	10	5
HEXACHLOROCYCLOPENTADIENE	ND	10	5
HEXACHLOROETHANE	ND	10	5
INDENO(1,2,3-CD)PYRENE	ND	10	5
ISOPHORONE	ND	10	5
N-NITROSO-DI-N-PROPYLAMINE	ND	10	5
N-NITROSODIPHENYLAMINE (2)	ND	10	5
NAPHTHALENE	ND	10	5
NITROBENZENE	ND	10	5
PENTACHLOROPHENOL	ND	20	5
PHENANTHRENE	ND	10	5
PHENOL	ND	10	5
PYRENE	ND	10	5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	42	40-130
2-FLUOROBIPHENYL	44	40-130
2-FLUOROPHENOL	40	40-130
NITROBENZENE-D5	41	40-130
PHENOL-D5	39*	40-130
TERPHENYL-D14	91	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 3520C/8270C

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	SVE060WB	SVE060WL	SVE060WC		
LAB FILE ID:	RFX029	RFX030	RFX031		
DATE EXTRACTED:	05/31/0516:00	05/31/0516:00	05/31/0516:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0516:10	06/02/0516:39	06/02/0517:08	DATE RECEIVED:	05/31/05
PREP. BATCH:	SVE060W	SVE060W	SVE060W		
CALIB. REF:	RCX291	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,2,4-Trichlorobenzene	ND	80	26.4	33	80	36.4	45	32*	30-130	30
1,4-Dichlorobenzene	ND	80	24.8	31	80	34.1	43	31*	30-130	30
2,4-Dinitrotoluene	ND	80	30.9	39*	80	38	47*	20	50-130	30
2-Chlorophenol	ND	80	26.6	33	80	35.9	45	30	30-130	30
4-Chloro-3-Methylphenol	ND	80	30.9	39*	80	41.3	52	29	40-130	30
4-Nitrophenol	ND	80	32.9	41	80	36.2	45	10	40-130	30
Acenaphthene	ND	80	32.7	41	80	45.1	56	32*	40-130	30
n-Nitroso-di-n-propylamine	ND	80	28	35*	80	39.7	50	35*	40-130	30
Pentachlorophenol	ND	80	33.9	42	80	38.9	49	14	40-130	30
Phenol	ND	80	26	33	80	35.4	44	31*	30-130	30
Pyrene	ND	80	51.1	64	80	56	70	9	40-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
2,4,6-Tribromophenol	150	90.8	61	150	111	74	40-130
2-Fluorobiphenyl	100	43.6	44	100	60.6	61	40-130
2-Fluorophenol	150	53.6	36*	150	72.8	49	40-130
Nitrobenzene-d5	100	38.3	38*	100	54.4	54	40-130
Phenol-d5	150	56.8	38*	150	73.5	49	40-130
Terphenyl-d14	100	91.5	91	100	98	98	50-130

SW 3550B/8270C
SEMI VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/01/05
Batch No. : 05E273	Date Extracted: 06/01/05 11:30
Sample ID: MBLK1S	Date Analyzed: 06/02/05 19:34
Lab Samp ID: SVF001SB	Dilution Factor: 1
Lab File ID: RFX036	Matrix : SOIL
Ext Btch ID: SVF001S	% Moisture : NA
Calib. Ref.: RCX291	Instrument ID : T-042

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,2,4-TRICHLOROBENZENE	ND	330	170
1,2-DICHLOROBENZENE	ND	330	170
1,3-DICHLOROBENZENE	ND	330	170
1,4-DICHLOROBENZENE	ND	330	170
2,4,5-TRICHLOROPHENOL	ND	330	170
2,4,6-TRICHLOROPHENOL	ND	330	180
2,4-DICHLOROPHENOL	ND	330	170
2,4-DIMETHYLPHENOL	ND	330	170
2,4-DINITROPHENOL	ND	660	170
2,4-DINITROTOLUENE	ND	330	170
2,6-DINITROTOLUENE	ND	330	170
2-CHLORONAPHTHALENE	ND	330	170
2-CHLOROPHENOL	ND	330	170
2-METHYLNAPHTHALENE	ND	330	170
2-METHYLPHENOL	ND	330	170
2-NITROANILINE	ND	330	170
2-NITROPHENOL	ND	330	170
3,3'-DICHLOROBENZIDINE	ND	330	170
3-NITROANILINE	ND	330	170
4,6-DINITRO-2-METHYLPHENOL	ND	660	170
4-BROMOPHENYL-PHENYL ETHER	ND	330	170
4-CHLORO-3-METHYLPHENOL	ND	330	170
4-CHLOROANILINE	ND	330	170
4-CHLOROPHENYL-PHENYL ETHER	ND	330	170
4-METHYLPHENOL (1)	ND	330	170
4-NITROANILINE	ND	330	170
4-NITROPHENOL	ND	660	170
ACENAPHTHENE	ND	330	170
ACENAPHTHYLENE	ND	330	170
ANTHRACENE	ND	330	170
BENZO(A)ANTHRACENE	ND	330	170
BENZO(A)PYRENE	ND	330	170
BENZO(B)FLUORANTHENE	ND	330	170
BENZO(K)FLUORANTHENE	ND	330	170
BENZO(G,H,I)PERYLENE	ND	330	170
BIS(2-CHLOROETHOXY)METHANE	ND	330	170
BIS(2-CHLOROETHYL)ETHER	ND	330	170
BIS(2-CHLOROISOPROPYL)ETHER	ND	330	170
BIS(2-ETHYLHEXYL)PHTHALATE	ND	330	170
BUTYLBENZYLPHTHALATE	ND	330	170
CHRYSENE	ND	330	170
DI-N-BUTYLPHTHALATE	ND	330	170
DI-N-OCTYLPHTHALATE	ND	330	170
DIBENZO(A,H)ANTHRACENE	ND	330	170
DIBENZOFURAN	ND	330	170
DIETHYLPHTHALATE	ND	330	170
DIMETHYLPHTHALATE	ND	330	170
FLUORANTHENE	ND	330	170
FLUORENE	ND	330	170
HEXACHLOROBENZENE	ND	330	170
HEXACHLOROBUTADIENE	ND	330	190
HEXACHLOROCYCLOPENTADIENE	ND	330	170
HEXACHLOROETHANE	ND	330	170
INDENO(1,2,3-CD)PYRENE	ND	330	170
ISOPHORONE	ND	330	170
N-NITROSO-DI-N-PROPYLAMINE	ND	330	170
N-NITROSODIPHENYLAMINE (2)	ND	330	170
NAPHTHALENE	ND	330	170
NITROBENZENE	ND	330	170
PENTACHLOROPHENOL	ND	660	170
PHENANTHRENE	ND	330	170
PHENOL	ND	330	170
PYRENE	ND	330	170

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
2,4,6-TRIBROMOPHENOL	52	40-130
2-FLUOROBIPHENYL	51	40-130
2-FLUOROPHENOL	48	40-130
NITROBENZENE-D5	49	40-130
PHENOL-D5	47	40-130
TERPHENYL-D14	83	50-130

RL: Reporting Limit
(1): Cannot be separated from 3-Methylphenol
(2): Cannot be separated from Diphenylamine

EMAX QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW 3550B/8270C

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	1		
SAMPLE ID:	MBLK1S			
LAB SAMP ID:	SVF001SB	SVF001SL		
LAB FILE ID:	RFX036	RFX037		
DATE EXTRACTED:	06/01/0511:30	06/01/0511:30	DATE COLLECTED:	NA
DATE ANALYZED:	06/02/0519:34	06/02/0520:02	DATE RECEIVED:	06/01/05
PREP. BATCH:	SVF001S	SVF001S		
CALIB. REF:	RCX291	RCX291		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
1,2,4-Trichlorobenzene	ND	2670	1220	46	40-130
1,4-Dichlorobenzene	ND	2670	1210	45	30-130
2,4-Dinitrotoluene	ND	2670	1090	41	40-130
2-Chlorophenol	ND	2670	1190	45	40-130
4-Chloro-3-Methylphenol	ND	2670	1120	42	40-130
4-Nitrophenol	ND	2670	1040	39	25-130
Acenaphthene	ND	2670	1230	46	40-130
n-Nitroso-di-n-propylamine	ND	2670	1090	41	40-130
Pentachlorophenol	ND	2670	1200	45	30-130
Phenol	ND	2670	1140	43	40-130
Pyrene	ND	2670	1760	66	40-130

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	QC LIMIT (%)
2,4,6-Tribromophenol	5000	2770	55	40-130
2-Fluorobiphenyl	3330	1600	48	40-130
2-Fluorophenol	5000	2210	44	40-130
Nitrobenzene-d5	3330	1540	46	40-130
Phenol-d5	5000	2160	43	40-130
Terphenyl-d14	3330	2820	85	50-130

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS
BY PURGE AND TRAP

SDG#: 05E273

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and four (4) soil samples were received on 05/28/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 05/30/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour interval and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE

TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : GCT039

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VME024SB	1	NA	05/30/0519:24	05/30/0519:24	EE30013A	EE30011A	VME024S	Method Blank
LCS1S	VME024SL	1	NA	05/30/0520:00	05/30/0520:00	EE30014A	EE30011A	VME024S	Lab Control Sample (LCS)
LCD1S	VME024SC	1	NA	05/30/0520:36	05/30/0520:36	EE30015A	EE30011A	VME024S	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	05/31/0504:57	05/31/0504:57	EE30029A	EE30023A	VME024S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	05/31/0505:32	05/31/0505:32	EE30030A	EE30023A	VME024S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	05/31/0506:08	05/31/0506:08	EE30031A	EE30023A	VME024S	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	05/31/0506:44	05/31/0506:44	EE30032A	EE30023A	VME024S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39E21B	1	NA	05/31/0512:16	05/31/0512:16	EE31003A	EE31002A	VA39E21	Method Blank
LCS1W	VA39E21L	1	NA	05/31/0512:52	05/31/0512:52	EE31004A	EE31002A	VA39E21	Lab Control Sample (LCS)
LCD1W	VA39E21C	1	NA	05/31/0513:28	05/31/0513:28	EE31005A	EE31002A	VA39E21	LCS Duplicate
NM03-B09-EQUIP	E273-08	1	NA	05/31/0515:53	05/31/0515:53	EE31009A	EE31002A	VA39E21	Field Sample
NM03-B09-GW	E273-09	1	NA	05/31/0516:29	05/31/0516:29	EE31010A	EE31002A	VA39E21	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39E21B	ND	94	1	NA	.1	.02	05/31/0512:16	05/31/0512:16	EE31003A	EE31002A	VA39E21	NA	05/31/05
LCS1W	VA39E21L	.4	106	1	NA	.1	.02	05/31/0512:52	05/31/0512:52	EE31004A	EE31002A	VA39E21	NA	05/31/05
LCD1W	VA39E21C	.348	107	1	NA	.1	.02	05/31/0513:28	05/31/0513:28	EE31005A	EE31002A	VA39E21	NA	05/31/05
NM03-B09-EQUIP	E273-08	ND	99	1	NA	.1	.02	05/31/0515:53	05/31/0515:53	EE31009A	EE31002A	VA39E21	05/27/05	05/28/05
NM03-B09-GW	E273-09	ND	97	1	NA	.1	.02	05/31/0516:29	05/31/0516:29	EE31010A	EE31002A	VA39E21	05/27/05	05/28/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VME024SB	ND	100	1	NA	1	.5	05/30/0519:24	05/30/0519:24	EE30013A	EE30011A	VME024S	NA	05/30/05
LCS1S	VME024SL	25.2	109	1	NA	1	.5	05/30/0520:00	05/30/0520:00	EE30014A	EE30011A	VME024S	NA	05/30/05
LCD1S	VME024SC	22.3	106	1	NA	1	.5	05/30/0520:36	05/30/0520:36	EE30015A	EE30011A	VME024S	NA	05/30/05
NM03-B09-6-6.5	E273-04	ND	89	1	10.8	1.1	.56	05/31/0504:57	05/31/0504:57	EE30029A	EE30023A	VME024S	05/27/05	05/28/05
NM03-B09-10.5-11	E273-05	ND	86	1	20.5	1.3	.63	05/31/0505:32	05/31/0505:32	EE30030A	EE30023A	VME024S	05/27/05	05/28/05
NM03-B09-15-15.5	E273-06	ND	88	1	23.1	1.3	.65	05/31/0506:08	05/31/0506:08	EE30031A	EE30023A	VME024S	05/27/05	05/28/05
NM03-B09-20.5-21	E273-07	ND	80	1	22.6	1.3	.65	05/31/0506:44	05/31/0506:44	EE30032A	EE30023A	VME024S	05/27/05	05/28/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

Methanol Extraction : 05/30/05 12:00

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39E21B	VA39E21L	VA39E21C		
LAB FILE ID:	EE31003A	EE31004A	EE31005A		
DATE EXTRACTED:	05/31/0512:16	05/31/0512:52	05/31/0513:28	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0512:16	05/31/0512:52	05/31/0513:28	DATE RECEIVED:	05/31/05
PREP. BATCH:	VA39E21	VA39E21	VA39E21		
CALIB. REF:	EE31002A	EE31002A	EE31002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.4	80	.5	.348	70	14	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0424	106	.04	.0429	107	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: VME024SB VME024SL VME024SC
LAB FILE ID: EE30013A EE30014A EE30015A
DATE EXTRACTED: 05/30/0519:24 05/30/0520:00 05/30/0520:36 DATE COLLECTED: NA
DATE ANALYZED: 05/30/0519:24 05/30/0520:00 05/30/0520:36 DATE RECEIVED: 05/30/05
PREP. BATCH: VME024S VME024S VME024S
CALIB. REF: EE30011A EE30011A EE30011A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	25.2	101	25	22.3	89	12	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.19	109	2	2.13	106	70-150

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05E273

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water and four (4) soil samples were received on 05/28/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 05/31/05 and completed on 06/01/05. Extraction for soil samples was performed and completed on 05/31/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (TOTAL) calibration factors.

Samples E273-09 displayed heavier hydrocarbon pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : GCT072

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSE038WB	1	NA	06/01/0514:08	05/31/0516:00	BE31029A	BE31027A	DSE038W	Method Blank
LCS1W	DSE038WL	1	NA	06/01/0514:52	05/31/0516:00	BE31030A	BE31027A	DSE038W	Lab Control Sample (LCS)
LCD1W	DSE038WC	1	NA	06/01/0515:36	05/31/0516:00	BE31031A	BE31027A	DSE038W	LCS Duplicate
NM03-B09-EQUIP	E273-08	.94	NA	06/01/0517:47	05/31/0516:00	BE31034A	BE31027A	DSE038W	Field Sample
NM03-B09-GW	E273-09	.94	NA	06/01/0518:30	05/31/0516:00	BE31035A	BE31027A	DSE038W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	DSE037SB	1	NA	05/31/0519:05	05/31/0517:20	BE31003A	BE31002A	DSE037S	Method Blank
LCS1S	DSE037SL	1	NA	05/31/0519:49	05/31/0517:20	BE31004A	BE31002A	DSE037S	Lab Control Sample (LCS)
LCD1S	DSE037SC	1	NA	05/31/0520:33	05/31/0517:20	BE31005A	BE31002A	DSE037S	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	06/01/0506:48	05/31/0517:20	BE31019A	BE31013A	DSE037S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/01/0507:32	05/31/0517:20	BE31020A	BE31013A	DSE037S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	06/01/0508:16	05/31/0517:20	BE31021A	BE31013A	DSE037S	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	06/01/0509:00	05/31/0517:20	BE31022A	BE31013A	DSE037S	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : WATER
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSE038WB	ND	93	108	1	NA	.5	.1	06/01/0514:08	05/31/0516:00	BE31029A	BE31027A	DSE038W	NA	05/31/05
LCS1W	DSE038WL	4.36	90	107	1	NA	.5	.1	06/01/0514:52	05/31/0516:00	BE31030A	BE31027A	DSE038W	NA	05/31/05
LCD1W	DSE038WC	4.35	94	109	1	NA	.5	.1	06/01/0515:36	05/31/0516:00	BE31031A	BE31027A	DSE038W	NA	05/31/05
NM03-B09-EQUIP	E273-08	ND	90	112	.94	NA	.47	.094	06/01/0517:47	05/31/0516:00	BE31034A	BE31027A	DSE038W	05/27/05	05/28/05
NM03-B09-GW	E273-09	.51	61	67	.94	NA	.47	.094	06/01/0518:30	05/31/0516:00	BE31035A	BE31027A	DSE038W	05/27/05	05/28/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSE037SB	ND	96	104	1	NA	10	5	05/31/0519:05	05/31/0517:20	BE31003A	BE31002A	DSE037S	NA	05/31/05
LCS1S	DSE037SL	438	102	110	1	NA	10	5	05/31/0519:49	05/31/0517:20	BE31004A	BE31002A	DSE037S	NA	05/31/05
LCD1S	DSE037SC	428	100	109	1	NA	10	5	05/31/0520:33	05/31/0517:20	BE31005A	BE31002A	DSE037S	NA	05/31/05
NM03-B09-6-6.5	E273-04	ND	106	113	1	10.8	11	5.6	06/01/0506:48	05/31/0517:20	BE31019A	BE31013A	DSE037S	05/27/05	05/28/05
NM03-B09-10.5-11	E273-05	ND	106	114	1	20.5	13	6.3	06/01/0507:32	05/31/0517:20	BE31020A	BE31013A	DSE037S	05/27/05	05/28/05
NM03-B09-15-15.5	E273-06	ND	105	113	1	23.1	13	6.5	06/01/0508:16	05/31/0517:20	BE31021A	BE31013A	DSE037S	05/27/05	05/28/05
NM03-B09-20.5-21	E273-07	ND	107	114	1	22.6	13	6.5	06/01/0509:00	05/31/0517:20	BE31022A	BE31013A	DSE037S	05/27/05	05/28/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1 : Bromobenzene	Water	1 mg/L	45-154%	50-140%
	Soil	100 mg/kg	54-165%	60-150%
SURR2 : Hexacosane	Water	.25 mg/L	63-165%	70-150%
	Soil	25 mg/kg	54-176%	60-160%

5005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 3520C/M8015

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSE038WB	DSE038WL	DSE038WC		
LAB FILE ID:	BE31029A	BE31030A	BE31031A		
DATE EXTRACTED:	05/31/0516:00	05/31/0516:00	05/31/0516:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/01/0514:08	06/01/0514:52	06/01/0515:36	DATE RECEIVED:	05/31/05
PREP. BATCH:	DSE038W	DSE038W	DSE038W		
CALIB. REF:	BE31027A	BE31027A	BE31027A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.36	87	5	4.35	87	0	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.903	90	1	.943	94	50-140
Hexacosane	.25	.267	107	.25	.273	109	70-150

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD LUFT/M8015

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	DSE037SB	DSE037SL	DSE037SC		
LAB FILE ID:	BE31003A	BE31004A	BE31005A		
DATE EXTRACTED:	05/31/0517:20	05/31/0517:20	05/31/0517:20	DATE COLLECTED:	NA
DATE ANALYZED:	05/31/0519:05	05/31/0519:49	05/31/0520:33	DATE RECEIVED:	05/31/05
PREP. BATCH:	DSE037S	DSE037S	DSE037S		
CALIB. REF:	BE31002A	BE31002A	BE31002A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	438	88	500	428	86	2	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	102	102	100	100	100	60-150
Hexacosane	25	27.5	110	25	27.1	109	60-160

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW3520C/3550B/8082
PCBs

SDG#: 05E273

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

SW3520C/3550B/8082
PCBs

Two (2) water and four (4) soil samples were received on 05/28/05 for PCBs analysis by Method 3520C/3550B/8082 in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Instrument Performance and Calibration**

   Initial calibration was five points for PCB-1016 and PCB-1260, all RSDs were within 20%. All continue calibrations were analyzed at 12-hour interval and all recoveries were within 85-115%.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   All recoveries were within QC limits.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
PCBs

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : GCT008

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	CPE040SB	1	NA	05/31/0516:11	05/31/0512:30	SE31014A	SE31006A	CPE040S	Method Blank
LCS1S	60E040SL	1	NA	05/31/0517:27	05/31/0512:30	SE31017A	SE31006A	CPE040S	Lab Control Sample (LCS)
LCD1S	60E040SC	1	NA	05/31/0517:52	05/31/0512:30	SE31018A	SE31006A	CPE040S	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	06/01/0503:09	05/31/0512:30	SE31040A	SE31033A	CPE040S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/01/0503:34	05/31/0512:30	SE31041A	SE31033A	CPE040S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	06/01/0503:59	05/31/0512:30	SE31042A	SE31033A	CPE040S	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	06/01/0504:24	05/31/0512:30	SE31043A	SE31033A	CPE040S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	60E041WB	1	NA	06/01/0514:30	05/31/0516:00	SF01003A	SF01002A	60E041W	Method Blank
LCS1W	60E041WL	1	NA	06/01/0514:56	05/31/0516:00	SF01004A	SF01002A	60E041W	Lab Control Sample (LCS)
LCD1W	60E041WC	1	NA	06/01/0515:21	05/31/0516:00	SF01005A	SF01002A	60E041W	LCS Duplicate
NM03-B09-EQUIP	E273-08	.94	NA	06/01/0515:46	05/31/0516:00	SF01006A	SF01002A	60E041W	Field Sample
NM03-B09-GW	E273-09	.94	NA	06/01/0516:37	05/31/0516:00	SF01007A	SF01002A	60E041W	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 05/31/05 12:30
Sample ID: NM03-B09-6-6.5	Date Analyzed: 06/01/05 03:09
Lab Samp ID: E273-04	Dilution Factor: 1
Lab File ID: SE31040A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 10.8
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	56	22|22
PCB-1221	(ND)|ND	56	22|22
PCB-1232	(ND)|ND	56	22|22
PCB-1242	(ND)|ND	56	22|22
PCB-1248	(ND)|ND	56	22|22
PCB-1254	(ND)|ND	56	22|22
PCB-1260	(ND)|ND	56	22|22

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(82)|91	45-154
DECACHLOROBIPHENYL	(95)|96	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E273	Date Extracted:	05/31/05 12:30
Sample ID:	NM03-B09-10.5-11	Date Analyzed:	06/01/05 03:34
Lab Samp ID:	E273-05	Dilution Factor:	1
Lab File ID:	SE31041A	Matrix :	SOIL
Ext Btch ID:	CPE040S	% Moisture :	20.5
Calib. Ref.:	SE31033A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	63	25|25
PCB-1221	(ND)|ND	63	25|25
PCB-1232	(ND)|ND	63	25|25
PCB-1242	(ND)|ND	63	25|25
PCB-1248	(ND)|ND	63	25|25
PCB-1254	(ND)|ND	63	25|25
PCB-1260	(ND)|ND	63	25|25

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(69)|80	45-154
DECACHLOROBIPHENYL	(91)|91	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 05/31/05 12:30
Sample ID: NM03-B09-15-15.5	Date Analyzed: 06/01/05 03:59
Lab Samp ID: E273-06	Dilution Factor: 1
Lab File ID: SE31042A	Matrix : SOIL
Ext Btch ID: CPE040S	% Moisture : 23.1
Calib. Ref.: SE31033A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	65	26|26
PCB-1221	(ND)|ND	65	26|26
PCB-1232	(ND)|ND	65	26|26
PCB-1242	(ND)|ND	65	26|26
PCB-1248	(ND)|ND	65	26|26
PCB-1254	(ND)|ND	65	26|26
PCB-1260	(ND)|ND	65	26|26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(75)|81	45-154
DECACHLOROBIPHENYL	(91)|92	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E273	Date Extracted:	05/31/05 12:30
Sample ID:	NM03-B09-20.5-21	Date Analyzed:	06/01/05 04:24
Lab Samp ID:	E273-07	Dilution Factor:	1
Lab File ID:	SE31043A	Matrix :	SOIL
Ext Btch ID:	CPE040S	% Moisture :	22.6
Calib. Ref.:	SE31033A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND)|ND	65	26|26
PCB-1221	(ND)|ND	65	26|26
PCB-1232	(ND)|ND	65	26|26
PCB-1242	(ND)|ND	65	26|26
PCB-1248	(ND)|ND	65	26|26
PCB-1254	(ND)|ND	65	26|26
PCB-1260	(ND)|ND	65	26|26

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(80)|83	45-154
DECACHLOROBIPHENYL	(91)|93	45-154

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
Batch No.	: 05E273	Date Extracted:	05/31/05 16:00
Sample ID:	NM03-B09-EQUIP	Date Analyzed:	06/01/05 15:46
Lab Samp ID:	E273-08	Dilution Factor:	.94
Lab File ID:	SF01006A	Matrix :	WATER
Ext Btch ID:	60E041W	% Moisture :	NA
Calib. Ref.:	SF01002A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND) | ND	.94	.47 | .47
PCB-1221	(ND) | ND	.94	.47 | .47
PCB-1232	(ND) | ND	.94	.47 | .47
PCB-1242	(ND) | ND	.94	.47 | .47
PCB-1248	(ND) | ND	.94	.47 | .47
PCB-1254	(ND) | ND	.94	.47 | .47
PCB-1260	(ND) | ND	.94	.47 | .47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(58) | 61	45-165
DECACHLOROBIPHENYL	(100) | 102	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

SW3520C/8082
PCBs

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
Batch No. : 05E273	Date Extracted: 05/31/05 16:00
Sample ID: NM03-B09-GW	Date Analyzed: 06/01/05 16:37
Lab Samp ID: E273-09	Dilution Factor: .94
Lab File ID: SF01007A	Matrix : WATER
Ext Btch ID: 60E041W	% Moisture : NA
Calib. Ref.: SF01002A	Instrument ID : GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	.94	.47|.47
PCB-1221	(ND)|ND	.94	.47|.47
PCB-1232	(ND)|ND	.94	.47|.47
PCB-1242	(ND)|ND	.94	.47|.47
PCB-1248	(ND)|ND	.94	.47|.47
PCB-1254	(ND)|ND	.94	.47|.47
PCB-1260	(ND)|ND	.94	.47|.47

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(58)|61	45-165
DECACHLOROBIPHENYL	(100)|102	63-165

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

QC SUMMARIES

SW3520C/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/31/05
Batch No.	: 05E273	Date Extracted:	05/31/05 16:00
Sample ID:	MBLK1W	Date Analyzed:	06/01/05 14:30
Lab Samp ID:	60E041WB	Dilution Factor:	1
Lab File ID:	SF01003A	Matrix :	WATER
Ext Btch ID:	60E041W	% Moisture :	NA
Calib. Ref.:	SF01002A	Instrument ID :	GCT008

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
PCB-1016	(ND)|ND	1	.5|.5
PCB-1221	(ND)|ND	1	.5|.5
PCB-1232	(ND)|ND	1	.5|.5
PCB-1242	(ND)|ND	1	.5|.5
PCB-1248	(ND)|ND	1	.5|.5
PCB-1254	(ND)|ND	1	.5|.5
PCB-1260	(ND)|ND	1	.5|.5

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(74)|79	50-150
DECACHLOROBIPHENYL	(98)|100	70-150

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW3520C/8082

MATRIX: WATER % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1W
LAB SAMP ID: 60E041WB 60E041WL 60E041WC
LAB FILE ID: SF01003A SF01004A SF01005A
DATE EXTRACTED: 05/31/0516:00 05/31/0516:00 05/31/0516:00 DATE COLLECTED: NA
DATE ANALYZED: 06/01/0514:30 06/01/0514:56 06/01/0515:21 DATE RECEIVED: 05/31/05
PREP. BATCH: 60E041W 60E041W 60E041W
CALIB. REF: SF01002A SF01002A SF01002A

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	5	(3.79) | 3.76	(76) | 75	5	(3.63) | 3.62	(73) | 72	(4) | 4	50-130	30
PCB-1260	(ND) | ND	5	(4.79) | 4.87	(96) | 97	5	(4.61) | 4.57	(92) | 91	(4) | 6	70-150	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	.4	(.258) | .272	(64) | 68	.4	(.252) | .266	(63) | 66	50-150
Decachlorobiphenyl	.4	(.394) | .401	(98) | 100	.4	(.387) | .394	(97) | 99	70-150

5021

SW3550B/8082
PCBs

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/31/05
Batch No.	: 05E273	Date Extracted:	05/31/05 12:30
Sample ID:	MBLK1S	Date Analyzed:	05/31/05 16:11
Lab Samp ID:	CPE040SB	Dilution Factor:	1
Lab File ID:	SE31014A	Matrix	: SOIL
Ext Btch ID:	CPE040S	% Moisture	: NA
Calib. Ref.:	SE31006A	Instrument ID	: GCT008

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
PCB-1016	(ND) | ND	50	20 | 20
PCB-1221	(ND) | ND	50	20 | 20
PCB-1232	(ND) | ND	50	20 | 20
PCB-1242	(ND) | ND	50	20 | 20
PCB-1248	(ND) | ND	50	20 | 20
PCB-1254	(ND) | ND	50	20 | 20
PCB-1260	(ND) | ND	50	20 | 20

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
TETRACHLORO-M-XYLENE	(76) | 82	50-140
DECACHLOROBIPHENYL	(94) | 93	50-140

RL: Reporting Limit
Left of | is related to first column ; Right of | related to second column
Final result indicated by ( )
* Out side of QC Limit

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: SW3550B/8082

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: CPE040SB 60E040SL 60E040SC
LAB FILE ID: SE31014A SE31017A SE31018A
DATE EXTRACTED: 05/31/0512:30 05/31/0512:30 05/31/0512:30 DATE COLLECTED: NA
DATE ANALYZED: 05/31/0516:11 05/31/0517:27 05/31/0517:52 DATE RECEIVED: 05/31/05
PREP. BATCH: CPE040S CPE040S CPE040S
CALIB. REF: SE31006A SE31006A SE31006A

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
PCB-1016	(ND) | ND	167	(115) | 115	(69) | 69	167	(112) | 125	(67) | 75	(3) | 8	50-130	50
PCB-1260	(ND) | ND	167	(149) | 151	(89) | 91	167	(153) | 145	(92) | 87	(3) | 4	60-150	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
Tetrachloro-m-xylene	13.3	(8.61) | 9.26	(65) | 69	13.3	(8.39) | 9.08	(63) | 68	50-140
Decachlorobiphenyl	13.3	(12.3) | 12.3	(93) | 92	13.3	(12.2) | 12.1	(91) | 91	50-140

5023

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

TOTAL AND DISSOLVED METALS BY ICP / MERCURY

SDG#: 05E273

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

METHOD 3010A/3050B/6010B
TOTAL AND DISSOLVED METALS BY ICP

Two (2) water and six (6) soil samples were received on 05/28/05 for Total and Dissolved Metals analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples E272-05 and -11 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-I73

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE092SB	1	NA	06/02/0505:48	05/30/0510:35	I73F004011	I73F004009	IPE092S	Method Blank
LCS1S	IPE092SL	1	NA	06/02/0505:54	05/30/0510:35	I73F004012	I73F004009	IPE092S	Lab Control Sample (LCS)
LCD1S	IPE092SC	1	NA	06/02/0506:00	05/30/0510:35	I73F004013	I73F004009	IPE092S	LCS Duplicate
NM03-B08-1-1.5	E273-01	1	10.4	06/02/0507:45	05/30/0510:35	I73F004029	I73F004021	IPE092S	Field Sample
NM03-B09-1.5-2	E273-03	1	11.0	06/02/0507:51	05/30/0510:35	I73F004030	I73F004021	IPE092S	Field Sample
B-12-20.0DL	E272-11T	5	16.1	06/02/0507:13	05/30/0510:35	I73F004024	I73F004021	IPE092S	Diluted Sample
B-12-20.0	E272-11	1	16.1	06/02/0507:19	05/30/0510:35	I73F004025	I73F004021	IPE092S	Field Sample
B-12-20.0AS	E272-11A	1	16.1	06/02/0507:25	05/30/0510:35	I73F004026	I73F004021	IPE092S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE092SB	ND	1	NA	1	.2	06/02/0505:48	05/30/0510:35	I73F004011	I73F004009	IPE092S	NA	05/30/05
LCS1S	IPE092SL	98.5	1	NA	1	.2	06/02/0505:54	05/30/0510:35	I73F004012	I73F004009	IPE092S	NA	05/30/05
LCD1S	IPE092SC	99.5	1	NA	1	.2	06/02/0506:00	05/30/0510:35	I73F004013	I73F004009	IPE092S	NA	05/30/05
NM03-B08-1-1.5	E273-01	5.78	1	10.4	1.12	.223	06/02/0507:45	05/30/0510:35	I73F004029	I73F004021	IPE092S	05/27/05	05/28/05
NM03-B09-1.5-2	E273-03	3.47	1	11.0	1.12	.225	06/02/0507:51	05/30/0510:35	I73F004030	I73F004021	IPE092S	05/27/05	05/28/05

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA

DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE092SB	IPE092SL	IPE092SC		
LAB FILE ID:	I73F004011	I73F004012	I73F004013		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/02/0505:48	06/02/0505:54	06/02/0506:00	DATE RECEIVED:	05/30/05
PREP. BATCH:	IPE092S	IPE092S	IPE092S		
CALIB. REF:	I73F004009	I73F004009	I73F004009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	98.5	98	100	99.5	100	1	80-120	20

004

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 16.1

DILUTION FACTOR:	1	5		
SAMPLE ID:	B-12-20.0	B-12-20.0DL		
EMAX SAMP ID:	E272-11	E272-11T		
LAB FILE ID:	I73F004025	I73F004024		
DATE EXTRACTED:	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	05/27/05
DATE ANALYZED:	06/02/0507:19	06/02/0507:13	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE092S	IPE092S		
CALIB. REF:	I73F004021	I73F004021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	2.05	ND	NA	10

2095

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	16.1
DILTN FACTR:	1	1		
SAMPLE ID:	B-12-20.0			
CONTROL NO.:	E272-11	E272-11A		
LAB FILE ID:	I73F004025	I73F004026		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	05/27/05
DATIME ANALYZD:	06/02/0507:19	06/02/0507:25	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE092S	IPE092S		
CALIB. REF:	I73F004021	I73F004021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	2.05	119	108	89	75-125

LAB CHRONICLE
METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-I73

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE092SB	1	NA	06/02/0505:48	05/30/0510:35	I73F004011	I73F004009	IPE092S	Method Blank
LCS1S	IPE092SL	1	NA	06/02/0505:54	05/30/0510:35	I73F004012	I73F004009	IPE092S	Lab Control Sample (LCS)
LCD1S	IPE092SC	1	NA	06/02/0506:00	05/30/0510:35	I73F004013	I73F004009	IPE092S	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	06/02/0507:58	05/30/0510:35	I73F004031	I73F004021	IPE092S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/02/0508:04	05/30/0510:35	I73F004032	I73F004021	IPE092S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	06/02/0508:26	05/30/0510:35	I73F004035	I73F004033	IPE092S	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	06/02/0508:32	05/30/0510:35	I73F004036	I73F004033	IPE092S	Field Sample
B-12-20.0DL	E272-11T	5	16.1	06/02/0507:13	05/30/0510:35	I73F004024	I73F004021	IPE092S	Diluted Sample
B-12-20.0	E272-11	1	16.1	06/02/0507:19	05/30/0510:35	I73F004025	I73F004021	IPE092S	Field Sample
B-12-20.0AS	E272-11A	1	16.1	06/02/0507:25	05/30/0510:35	I73F004026	I73F004021	IPE092S	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:35
Sample ID	: NM03-B09-6-6.5	Date Analyzed:	06/02/05 07:58
Lab Samp ID	: E273-04	Dilution Factor:	1
Lab File ID	: I73F004031	Matrix :	SOIL
Ext Btch ID	: IPE092S	% Moisture :	10.8
Calib. Ref.	: I73F004021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	11.2	2.24
Arsenic	3.35	1.12	.448
Barium	8.22	1.12	.224
Beryllium	.363J	1.12	.224
Cadmium	ND	1.12	.112
Chromium	3.43	1.12	.224
Cobalt	1.4	1.12	.224
Copper	.959J	1.12	.224
Lead	2.88	1.12	.224
Molybdenum	ND	5.61	.561
Nickel	1.8	1.12	.224
Selenium	ND	1.12	.561
Silver	ND	1.12	.28
Thallium	1.2	1.12	.561
Vanadium	6.91	1.12	.561
Zinc	11.3	1.12	.561

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:35
Sample ID	: NM03-B09-10.5-11	Date Analyzed:	06/02/05 08:04
Lab Samp ID	: E273-05	Dilution Factor:	1
Lab File ID	: I73F004032	Matrix :	SOIL
Ext Btch ID	: IPE092S	% Moisture :	20.5
Calib. Ref.	: I73F004021	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	12.6	2.52
Arsenic	2.68	1.26	.503
Barium	6.28	1.26	.252
Beryllium	ND	1.26	.252
Cadmium	ND	1.26	.126
Chromium	3.34	1.26	.252
Cobalt	1.48	1.26	.252
Copper	1.52	1.26	.252
Lead	1.64	1.26	.252
Molybdenum	ND	6.29	.629
Nickel	1.61	1.26	.252
Selenium	ND	1.26	.629
Silver	ND	1.26	.314
Thallium	1.18J	1.26	.629
Vanadium	8.54	1.26	.629
Zinc	11.7	1.26	.629

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:35
Sample ID:	NM03-B09-15-15.5	Date Analyzed:	06/02/05 08:26
Lab Samp ID:	E273-06	Dilution Factor:	1
Lab File ID:	I73F004035	Matrix :	SOIL
Ext Btch ID:	IPE092S	% Moisture :	23.1
Calib. Ref.:	I73F004033	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	13	2.6
Arsenic	3.41	1.3	.52
Barium	20.2	1.3	.26
Beryllium	.388J	1.3	.26
Cadmium	ND	1.3	.13
Chromium	7.76	1.3	.26
Cobalt	2.14	1.3	.26
Copper	5	1.3	.26
Lead	3.31	1.3	.26
Molybdenum	.936J	6.5	.65
Nickel	2.63	1.3	.26
Selenium	ND	1.3	.65
Silver	ND	1.3	.325
Thallium	2.07	1.3	.65
Vanadium	11.6	1.3	.65
Zinc	16.1	1.3	.65

METHOD 3050B/6010B
METALS BY ICP

Client : NINYO & MOORE	Date Collected: 05/27/05
Project : CALTRANS	Date Received: 05/28/05
SDG NO. : 05E273	Date Extracted: 05/30/05 10:35
Sample ID: NM03-B09-20.5-21	Date Analyzed: 06/02/05 08:32
Lab Samp ID: E273-07	Dilution Factor: 1
Lab File ID: I73F004036	Matrix : SOIL
Ext Btch ID: IPE092S	% Moisture : 22.6
Calib. Ref.: I73F004033	Instrument ID : EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	12.9	2.58
Arsenic	1.45	1.29	.517
Barium	14	1.29	.258
Beryllium	ND	1.29	.258
Cadmium	ND	1.29	.129
Chromium	5.21	1.29	.258
Cobalt	1.1J	1.29	.258
Copper	2.09	1.29	.258
Lead	.555J	1.29	.258
Molybdenum	3.3J	6.46	.646
Nickel	1.76	1.29	.258
Selenium	ND	1.29	.646
Silver	.324J	1.29	.323
Thallium	1.91	1.29	.646
Vanadium	11.1	1.29	.646
Zinc	11.5	1.29	.646

METHOD 3050B/6010B
METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/30/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:35
Sample ID:	MBLK1S	Date Analyzed:	06/02/05 05:48
Lab Samp ID:	IPE092SB	Dilution Factor:	1
Lab File ID:	I73F004011	Matrix :	SOIL
Ext Btch ID:	IPE092S	% Moisture :	NA
Calib. Ref.:	I73F004009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/kg)	RL (mg/kg)	MDL (mg/kg)
Antimony	ND	10	2
Arsenic	ND	1	.4
Barium	ND	1	.2
Beryllium	ND	1	.2
Cadmium	ND	1	.1
Chromium	ND	1	.2
Cobalt	ND	1	.2
Copper	ND	1	.2
Lead	ND	1	.2
Molybdenum	ND	5	.5
Nickel	ND	1	.2
Selenium	ND	1	.5
Silver	ND	1	.25
Thallium	ND	1	.5
Vanadium	ND	1	.5
Zinc	ND	1	.5

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPE092SB	IPE092SL	IPE092SC		
LAB FILE ID:	I73F004011	I73F004012	I73F004013		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/02/0505:48	06/02/0505:54	06/02/0506:00	DATE RECEIVED:	05/30/05
PREP. BATCH:	IPE092S	IPE092S	IPE092S		
CALIB. REF:	I73F004009	I73F004009	I73F004009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	500	497	99	500	499	100	0	80-120	20
Arsenic	ND	100	101	101	100	101	101	1	80-120	20
Barium	ND	100	94.6	95	100	94.4	94	0	80-120	20
Beryllium	ND	100	104	104	100	105	105	1	80-120	20
Cadmium	ND	100	95.4	95	100	96.2	96	1	80-120	20
Chromium	ND	100	99.3	99	100	99.9	100	1	80-120	20
Cobalt	ND	100	97.8	98	100	98.6	99	1	80-120	20
Copper	ND	100	104	104	100	104	104	0	80-120	20
Lead	ND	100	98.5	98	100	99.5	100	1	80-120	20
Molybdenum	ND	100	101	101	100	102	102	1	80-120	20
Nickel	ND	100	97	97	100	98	98	1	80-120	20
Selenium	ND	100	97.3	97	100	98.3	98	1	80-120	20
Silver	ND	100	96.7	97	100	96.7	97	0	80-120	20
Thallium	ND	100	101	101	100	103	103	1	80-120	20
Vanadium	ND	100	102	102	100	103	103	0	80-120	20
Zinc	ND	100	99.4	99	100	100	100	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	16.1
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-12-20.0	B-12-20.0DL		
EMAX SAMP ID:	E272-11	E272-11T		
LAB FILE ID:	I73F004025	I73F004024		
DATE EXTRACTED:	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	05/27/05
DATE ANALYZED:	06/02/0507:19	06/02/0507:13	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE092S	IPE092S		
CALIB. REF:	I73F004021	I73F004021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	ND	ND	0	10
Barium	131	140	6	10
Beryllium	ND	ND	0	10
Cadmium	.22J	ND	NA	10
Chromium	16.9	18.1	7	10
Cobalt	8.51	9.03	6	10
Copper	26.5	26.7	1	10
Lead	2.05	ND	NA	10
Molybdenum	.724J	ND	NA	10
Nickel	8.92	9.63	8	10
Selenium	ND	ND	0	10
Silver	1.13J	1.83J	NA	10
Thallium	10	11	10	10
Vanadium	59.5	62.8	6	10
Zinc	39.7	47.7	20*	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	16.1
DILTN FACTR:	1	1		
SAMPLE ID:	B-12-20.0			
CONTROL NO.:	E272-11	E272-11A		
LAB FILE ID:	I73F004025	I73F004026		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	05/27/05
DATIME ANALYZD:	06/02/0507:19	06/02/0507:25	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE092S	IPE092S		
CALIB. REF:	I73F004021	I73F004021		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Antimony	ND	596	538	90	75-125
Arsenic	ND	119	109	92	75-125
Barium	131	119	227	81	75-125
Beryllium	ND	119	111	93	75-125
Cadmium	.22J	119	102	86	75-125
Chromium	16.9	119	123	89	75-125
Cobalt	8.51	119	113	88	75-125
Copper	26.5	119	140	95	75-125
Lead	2.05	119	108	89	75-125
Molybdenum	.724J	119	108	90	75-125
Nickel	8.92	119	112	87	75-125
Selenium	ND	119	107	90	75-125
Silver	1.13J	119	107	89	75-125
Thallium	10	119	118	90	75-125
Vanadium	59.5	119	167	90	75-125
Zinc	39.7	119	146	89	75-125

LAB CHRONICLE
DISSOLVED METALS BY ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : T-173

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPE091WB	1	NA	06/03/0510:35	05/30/0510:30	I73F007011	I73F007009	IPE091W	Method Blank
LCS1W	IPE091WL	1	NA	06/03/0510:41	05/30/0510:30	I73F007012	I73F007009	IPE091W	Lab Control Sample (LCS)
LCD1W	IPE091WC	1	NA	06/03/0510:47	05/30/0510:30	I73F007013	I73F007009	IPE091W	LCS Duplicate
NM03-B09-EQUIP	E273-08	1	NA	06/03/0511:24	05/30/0510:30	I73F007019	I73F007009	IPE091W	Field Sample
NM03-B09-GW	E273-09	1	NA	06/03/0511:30	05/30/0510:30	I73F007020	I73F007009	IPE091W	Field Sample
B-11-GWAS	E272-05A	1	NA	06/03/0510:53	05/30/0510:30	I73F007014	I73F007009	IPE091W	Analytical Spike Sample
B-11-GW	E272-05	1	NA	06/03/0511:00	05/30/0510:30	I73F007015	I73F007009	IPE091W	Field Sample
B-11-GWDL	E272-05T	5	NA	06/03/0511:06	05/30/0510:30	I73F007016	I73F007009	IPE091W	Diluted Sample

FN - Filename
% Moist - Percent Moisture

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:30
Sample ID:	NM03-B09-EQUIP	Date Analyzed:	06/03/05 11:24
Lab Samp ID:	E273-08	Dilution Factor:	1
Lab File ID:	I73F007019	Matrix :	WATER
Ext Btch ID:	IPE091W	% Moisture :	NA
Calib. Ref.:	I73F007009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	.00823J	.01	.005

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	05/27/05
Project	: CALTRANS	Date Received:	05/28/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:30
Sample ID:	NM03-B09-GW	Date Analyzed:	06/03/05 11:30
Lab Samp ID:	E273-09	Dilution Factor:	1
Lab File ID:	I73F007020	Matrix :	WATER
Ext Btch ID:	IPE091W	% Moisture :	NA
Calib. Ref.:	I73F007009	Instrument ID :	EMAXTI73

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	.0299	.01	.005
Barium	.0571	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	.00366J	.01	.002
Lead	ND	.01	.003
Molybdenum	.0541	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	.0154	.01	.005
Zinc	.00828J	.01	.005

METHOD 3010A/6010B
DISSOLVED METALS BY ICP

Client	: NINYO & MOORE	Date Collected:	NA
Project	: CALTRANS	Date Received:	05/30/05
SDG NO.	: 05E273	Date Extracted:	05/30/05 10:30
Sample ID:	MBLK1W	Date Analyzed:	06/03/05 10:35
Lab Samp ID:	IPE091WB	Dilution Factor:	1
Lab File ID:	I73F007011	Matrix :	WATER
Ext Btch ID:	IPE091W	% Moisture :	NA
Calib. Ref.:	I73F007009	Instrument ID :	EMAXT173

PARAMETERS	RESULTS (mg/L)	RL (mg/L)	MDL (mg/L)
Antimony	ND	.1	.014
Arsenic	ND	.01	.005
Barium	ND	.01	.002
Beryllium	ND	.01	.001
Cadmium	ND	.01	.001
Chromium	ND	.01	.0025
Cobalt	ND	.01	.0025
Copper	ND	.01	.002
Lead	ND	.01	.003
Molybdenum	ND	.05	.005
Nickel	ND	.01	.0025
Selenium	ND	.01	.005
Silver	ND	.01	.003
Thallium	ND	.01	.005
Vanadium	ND	.01	.005
Zinc	ND	.01	.005

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPE091WB	IPE091WL	IPE091WC		
LAB FILE ID:	I73F007011	I73F007012	I73F007013		
DATIME EXTRCTD:	05/30/0510:30	05/30/0510:30	05/30/0510:30	DATE COLLECTED:	NA
DATIME ANALYZD:	06/03/0510:35	06/03/0510:41	06/03/0510:47	DATE RECEIVED:	05/30/05
PREP. BATCH:	IPE091W	IPE091W	IPE091W		
CALIB. REF:	I73F007009	I73F007009	I73F007009		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Antimony	ND	5	5.06	101	5	5	100	1	80-120	20
Arsenic	ND	1	1.06	106	1	1.05	105	1	80-120	20
Barium	ND	1	.927	93	1	.915	91	1	80-120	20
Beryllium	ND	1	1.04	104	1	1.04	104	0	80-120	20
Cadmium	ND	1	.97	97	1	.966	97	0	80-120	20
Chromium	ND	1	.989	99	1	.987	99	0	80-120	20
Cobalt	ND	1	.981	98	1	.976	98	1	80-120	20
Copper	ND	1	1.02	102	1	1.01	101	1	80-120	20
Lead	ND	1	1	100	1	.999	100	0	80-120	20
Molybdenum	ND	1	1	100	1	1	100	0	80-120	20
Nickel	ND	1	.981	98	1	.974	97	1	80-120	20
Selenium	ND	1	1.07	107	1	1.06	106	1	80-120	20
Silver	ND	1	.988	99	1	.98	98	1	80-120	20
Thallium	ND	1	1.04	104	1	1.03	103	1	80-120	20
Vanadium	ND	1	1.01	101	1	1	100	0	80-120	20
Zinc	ND	1	1.02	102	1	1.01	101	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA

DILUTION FACTOR:	1	5		
SAMPLE ID:	B-11-GW	B-11-GWDL		
EMAX SAMP ID:	E272-05	E272-05T		
LAB FILE ID:	I73F007015	I73F007016		
DATE EXTRACTED:	05/30/0510:30	05/30/0510:30	DATE COLLECTED:	05/27/05
DATE ANALYZED:	06/03/0511:00	06/03/0511:06	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE091W	IPE091W		
CALIB. REF:	I73F007009	I73F007009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Antimony	ND	ND	0	10
Arsenic	ND	ND	0	10
Barium	.0528	.0543	3	10
Beryllium	ND	ND	0	10
Cadmium	ND	ND	0	10
Chromium	ND	ND	0	10
Cobalt	ND	ND	0	10
Copper	.0028J	ND	NA	10
Lead	ND	ND	0	10
Molybdenum	.00863J	ND	NA	10
Nickel	.00526J	ND	NA	10
Selenium	ND	ND	0	10
Silver	ND	ND	0	10
Thallium	ND	ND	0	10
Vanadium	.00866J	ND	NA	10
Zinc	.0106	.0355J	NA	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	B-11-GW			
CONTROL NO.:	E272-05	E272-05A		
LAB FILE ID:	I73F007015	I73F007014		
DATIME EXTRCTD:	05/30/0510:30	05/30/0510:30	DATE COLLECTED:	05/27/05
DATIME ANALYZD:	06/03/0511:00	06/03/0510:53	DATE RECEIVED:	05/28/05
PREP. BATCH:	IPE091W	IPE091W		
CALIB. REF:	I73F007009	I73F007009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Antimony	ND	5	4.8	96	75-125
Arsenic	ND	1	1.01	101	75-125
Barium	.0528	1	.952	90	75-125
Beryllium	ND	1	.996	100	75-125
Cadmium	ND	1	.918	92	75-125
Chromium	ND	1	.952	95	75-125
Cobalt	ND	1	.936	94	75-125
Copper	.0028J	1	1.02	102	75-125
Lead	ND	1	.951	95	75-125
Molybdenum	.00863J	1	.975	97	75-125
Nickel	.00526J	1	.93	92	75-125
Selenium	ND	1	.977	98	75-125
Silver	ND	1	.955	96	75-125
Thallium	ND	1	.982	98	75-125
Vanadium	.00866J	1	.988	98	75-125
Zinc	.0106	1	.979	97	75-125

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E273

METHOD 7470A/7471A
TOTAL AND DISSOLVED MERCURY BY COLD VAPOR

Two (2) water and four (4) soil samples were received on 05/28/05 for Total and Dissolved Mercury analysis by Method 7470A/7471A in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples E273-08 and E272-11 from other SDGs were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : TI047

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	HGF003SB	1	NA	06/02/0514:19	06/01/0517:00	M47F006010	M47F006008	HGF003S	Method Blank
LCS1S	HGF003SL	1	NA	06/02/0514:22	06/01/0517:00	M47F006011	M47F006008	HGF003S	Lab Control Sample (LCS)
LCD1S	HGF003SC	1	NA	06/02/0514:25	06/01/0517:00	M47F006012	M47F006008	HGF003S	LCS Duplicate
NM03-B09-6-6.5	E273-04	1	10.8	06/02/0514:58	06/01/0517:00	M47F006026	M47F006020	HGF003S	Field Sample
NM03-B09-10.5-11	E273-05	1	20.5	06/02/0515:01	06/01/0517:00	M47F006027	M47F006020	HGF003S	Field Sample
NM03-B09-15-15.5	E273-06	1	23.1	06/02/0515:03	06/01/0517:00	M47F006028	M47F006020	HGF003S	Field Sample
NM03-B09-20.5-21	E273-07	1	22.6	06/02/0515:05	06/01/0517:00	M47F006029	M47F006020	HGF003S	Field Sample
B-12-20.0AS	E272-11A	1	16.1	06/02/0514:27	06/01/0517:00	M47F006013	M47F006008	HGF003S	Analytical Spike Sample
B-12-20.0	E272-11	1	16.1	06/02/0514:29	06/01/0517:00	M47F006014	M47F006008	HGF003S	Field Sample
B-12-20.0DL	E272-11T	5	16.1	06/02/0514:33	06/01/0517:00	M47F006015	M47F006008	HGF003S	Diluted Sample

FN - Filename
% Moist - Percent Moisture

1024

METHOD 7471A
MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : D5E273

Matrix : SOIL
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	HGF003SB	ND	1	NA	.1	.033	06/02/0514:19	06/01/0517:00	M47F006010	M47F006008	HGF003S	NA	06/01/05
LCS1S	HGF003SL	.823	1	NA	.1	.033	06/02/0514:22	06/01/0517:00	M47F006011	M47F006008	HGF003S	NA	06/01/05
LCD1S	HGF003SC	.82	1	NA	.1	.033	06/02/0514:25	06/01/0517:00	M47F006012	M47F006008	HGF003S	NA	06/01/05
NM03-B09-6-6.5	E273-04	ND	1	10.8	.112	.037	06/02/0514:58	06/01/0517:00	M47F006026	M47F006020	HGF003S	05/27/05	05/28/05
NM03-B09-10.5-11	E273-05	ND	1	20.5	.126	.0415	06/02/0515:01	06/01/0517:00	M47F006027	M47F006020	HGF003S	05/27/05	05/28/05
NM03-B09-15-15.5	E273-06	ND	1	23.1	.13	.0429	06/02/0515:03	06/01/0517:00	M47F006028	M47F006020	HGF003S	05/27/05	05/28/05
NM03-B09-20.5-21	E273-07	ND	1	22.6	.129	.0426	06/02/0515:05	06/01/0517:00	M47F006029	M47F006020	HGF003S	05/27/05	05/28/05

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 7471A

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: HGF003SB HGF003SL HGF003SC
LAB FILE ID: M47F006010 M47F006011 M47F006012
DATIME EXTRCTD: 06/01/0517:00 06/01/0517:00 06/01/0517:00 DATE COLLECTED: NA
DATIME ANALYZD: 06/02/0514:19 06/02/0514:22 06/02/0514:25 DATE RECEIVED: 06/01/05
PREP. BATCH: HGF003S HGF003S HGF003S
CALIB. REF: M47F006008 M47F006008 M47F006008

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	.833	.823	99	.833	.82	98	0	80-120	20

926

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	16.1
DILUTION FACTOR:	1	5		
SAMPLE ID:	B-12-20.0	B-12-20.0DL		
EMAX SAMP ID:	E272-11	E272-11T		
LAB FILE ID:	M47F006014	M47F006015		
DATE EXTRACTED:	06/01/0517:00	06/01/0517:00	DATE COLLECTED:	05/27/05
DATE ANALYZED:	06/02/0514:29	06/02/0514:33	DATE RECEIVED:	05/28/05
PREP. BATCH:	HGF003S	HGF003S		
CALIB. REF:	M47F006008	M47F006008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7021

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 7471A

MATRIX:	SOIL		% MOISTURE:	16.1
DILTN FACTR:	1	1		
SAMPLE ID:	B-12-20.0			
CONTROL NO.:	E272-11	E272-11A		
LAB FILE ID:	M47F006014	M47F006013		
DATIME EXTRCTD:	06/01/0517:00	06/01/0517:00	DATE COLLECTED:	05/27/05
DATIME ANALYZD:	06/02/0514:29	06/02/0514:27	DATE RECEIVED:	05/28/05
PREP. BATCH:	HGF003S	HGF003S		
CALIB. REF:	M47F006008	M47F006008		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Mercury	ND	.396	.354	89	85-115

7028

LAB CHRONICLE
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E273
Instrument ID : TI047

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	HGF002WB	1	NA	06/01/0516:50	06/01/0512:30	M47F002010	M47F002008	HGF002W	Method Blank
LCS1W	HGF002WL	1	NA	06/01/0516:52	06/01/0512:30	M47F002011	M47F002008	HGF002W	Lab Control Sample (LCS)
LCD1W	HGF002WC	1	NA	06/01/0516:55	06/01/0512:30	M47F002012	M47F002008	HGF002W	LCS Duplicate
NM03-B09-EQUIPAS	E273-08A	1	NA	06/01/0516:57	06/01/0512:30	M47F002013	M47F002008	HGF002W	Analytical Spike Sample
NM03-B09-EQUIP	E273-08	1	NA	06/01/0516:59	06/01/0512:30	M47F002014	M47F002008	HGF002W	Field Sample
NM03-B09-EQUIPDL	E273-08T	5	NA	06/01/0517:02	06/01/0512:30	M47F002015	M47F002008	HGF002W	Diluted Sample
NM03-B09-GW	E273-09	1	NA	06/01/0517:04	06/01/0512:30	M47F002016	M47F002008	HGF002W	Field Sample

FN - Filename
% Moist - Percent Moisture

METHOD 7470A
DISSOLVED MERCURY BY COLD VAPOR

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E273

Matrix : WATER
Instrument ID : TI047

SAMPLE ID	EMAX SAMPLE ID	RESULTS (ug/L)	DLF	MOIST	RL (ug/L)	MDL (ug/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	HGF002WB	ND	1	NA	.5	.1	06/01/0516:50	06/01/0512:30	M47F002010	M47F002008	HGF002W	NA	06/01/05
LCS1W	HGF002WL	4.74	1	NA	.5	.1	06/01/0516:52	06/01/0512:30	M47F002011	M47F002008	HGF002W	NA	06/01/05
LCD1W	HGF002WC	4.76	1	NA	.5	.1	06/01/0516:55	06/01/0512:30	M47F002012	M47F002008	HGF002W	NA	06/01/05
NM03-B09-EQUIPAS	E273-08A	1.94	1	NA	.5	.1	06/01/0516:57	06/01/0512:30	M47F002013	M47F002008	HGF002W	05/27/05	05/28/05
NM03-B09-EQUIP	E273-08	ND	1	NA	.5	.1	06/01/0516:59	06/01/0512:30	M47F002014	M47F002008	HGF002W	05/27/05	05/28/05
NM03-B09-EQUIPDL	E273-08T	ND	5	NA	2.5	.5	06/01/0517:02	06/01/0512:30	M47F002015	M47F002008	HGF002W	05/27/05	05/28/05
NM03-B09-GW	E273-09	ND	1	NA	.5	.1	06/01/0517:04	06/01/0512:30	M47F002016	M47F002008	HGF002W	05/27/05	05/28/05

7030

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E273
METHOD: METHOD 7470A

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	HGF002WB	HGF002WL	HGF002WC		
LAB FILE ID:	M47F002010	M47F002011	M47F002012		
DATIME EXTRCTD:	06/01/0512:30	06/01/0512:30	06/01/0512:30	DATE COLLECTED:	NA
DATIME ANALYZD:	06/01/0516:50	06/01/0516:52	06/01/0516:55	DATE RECEIVED:	06/01/05
PREP. BATCH:	HGF002W	HGF002W	HGF002W		
CALIB. REF:	M47F002008	M47F002008	M47F002008		

ACCESSION:

PARAMETER	BLNK RSLT ug/L	SPIKE AMT ug/L	BS RSLT ug/L	BS % REC	SPIKE AMT ug/L	BSD RSLT ug/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Mercury	ND	5	4.74	95	5	4.76	95	0	80-120	20

7031

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E273
METHOD: METHOD 7470A

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B09-EQUIP	NM03-B09-EQUIP		
EMAX SAMP ID:	E273-08	E273-08T		
LAB FILE ID:	M47F002014	M47F002015		
DATE EXTRACTED:	06/01/0512:30	06/01/0512:30	DATE COLLECTED:	05/27/05
DATE ANALYZED:	06/01/0516:59	06/01/0517:02	DATE RECEIVED:	05/28/05
PREP. BATCH:	HGF002W	HGF002W		
CALIB. REF:	M47F002008	M47F002008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SERIAL DIL RSLT (ug/L)	DIF RSLT %	QC LIMIT (%)
Mercury	ND	ND	0	10

7032

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT:	NINYO & MOORE			
PROJECT:	CALTRANS			
SDG NO.:	05E273			
METHOD:	METHOD 7470A			
MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B09-EQUIP			
CONTROL NO.:	E273-08	E273-08A		
LAB FILE ID:	M47F002014	M47F002013		
DATIME EXTRCTD:	06/01/0512:30	06/01/0512:30	DATE COLLECTED:	05/27/05
DATIME ANALYZD:	06/01/0516:59	06/01/0516:57	DATE RECEIVED:	05/28/05
PREP. BATCH:	HGF002W	HGF002W		
CALIB. REF:	M47F002008	M47F002008		

ACCESSION:

PARAMETER	SMPL RSLT (ug/L)	SPIKE AMT (ug/L)	AS RSLT (ug/L)	AS % REC	QC LIMIT (%)
Mercury	ND	2	1.94	97	85-115

7033

TABLE OF CONTENTS

CLIENT: **NINYO & MOORE**

PROJECT: **CALTRANS**

SDG: **05F060**

SECTION		PAGE
Cover Letter, COC/Sample Receipt Form		1000 – 1005
GC/MS-VOA	SW 5030B/8260B (WATER) SW 5030B/8260B (SOIL)	2000 – 2012 2013 – 2022
GC/MS-SVOA	**	3000 –
GC-VOA	METHOD 5030B/M8015	4000 – 4009
GC-SVOA	METHOD 3520C/LUFT/M8015	5000 – 5008
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B	7000 – 7010
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-23-2005
EMAX Batch No.: 05F060

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 06/06/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
NM03-B10 TRIP	F060-01	06/03/05	WATER	VOLATILE ORGANICS BY GC/MS
NM03-B10 1-1.5	F060-02	06/03/05	SOIL	LEAD
NM03-B10 5-5.5	F060-03	06/03/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B10 10-10.5	F060-04	06/03/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B10 20-20.5	F060-05	06/03/05	SOIL	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B10 EQUIP	F060-06	06/03/05	WATER	TPH GASOLINE
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD
NM03-B10 GW	F060-07	06/03/05	WATER	TPH GASOLINE

Sample ID	Control #	Col Date	Matrix	Analysis
				TPH DIESEL
				VOLATILE ORGANICS BY GC/MS
				LEAD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

1001

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE H2 / VW01-35

EMAX CONTROL NO. * 05F060

PROJECT CODE:

CLIENT Caltrans
PROJECT I-5 exhusca / 10538800 9
COORDINATOR Scott Snyder
TEL 858-576-1000 FAX EMAIL ssnyder@ninyoandmoore.com
SEND REPORT TO Scott Snyder
COMPANY Ninyo and Moore
ADDRESS 5710 Ruffin Road
San Diego CA 92107
EMAX PM

MATRIX CODE: DW=Drinking Water; GW=Ground Water; WW=Waste Water; SD=Solid Waste SL=Sludge; SS=Soil/ Sediment; WP=Wipes PP=Pure Products; AR=Air; O= Blank H_2O

PRESERVATIVE CODE: IC = Ice; HC = HCl; HN=HNO3; SH=NaOH; ST=Na2S2O3; ZA=Zinc Acetate; HS=H_2SO_4

ANALYSIS REQUIRED: VOC; TPH-gas; BTEX; PAH; TPH-diesel; Metals (Total Lead)

TAT: ☐ Rush ____hrs. ☐ Rush ____days ☒ 7 days ☐ 14 days ☐ 21 days ☐ 30 days ☐ ____days ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	ANALYSIS REQUIRED	COMMENTS
* 1	NM03-B10-Trip	FQC	6-3-05	0900	2	40 ml	VOA	O			VOC X	
* 2	NM03 - B10 1-1.5'	B10		0910	1	6"	sleeve	SS			Total Lead X	
* 3	NM03-B10 5-5.5	B10		0918							VOC X TPH-gas X BTEX X PAH X TPH-diesel X Metals (Total Lead) X	
* 4	NM03-B10 10-10.5			0934							VOC X TPH-gas X BTEX X PAH X TPH-diesel X Metals (Total Lead) X	
* 5	NM03-B10 20-20.5			0955							VOC X TPH-gas X BTEX X PAH X TPH-diesel X Metals (Total Lead) X	
* 6	NM03-B10 Equip			1100	10	VAT	VAT	O			VOC X TPH-gas X BTEX X PAH X TPH-diesel X Metals (Total Lead) X	
* 7	NM03-B10 GW			1140	10	VAT	VAT	GW			VOC X TPH-gas X BTEX X PAH X TPH-diesel X Metals (Total Lead) X	
* 8												
* 9												
* 0												

Instructions

Cooler #	Temp. (°C)	Sample #s
1	2.5°C	

SAMPLER Matt Fuller

COURIER/AIRBILL Fed Ex

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fuller	6/6/05	1145	
Phil Hatches	6/6/05	1510	

1500

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

Hanh Bui

From: Scott Snyder [ssnyder@ninyoandmoore.com]
Sent: Friday, June 03, 2005 5:22 PM
To: Hanh Bui
Subject: COC changes NAM/ Caltrans 10538809

05F060

Hanh,

I have changes to the following samples:

Samples with NM03-B6 and NM03-B8 and their associated field blanks:
Do not analyze soil or groundwater for PCBs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Samples with NM03-B5, NM03-B7, NM03-B9, and NM03-B10 and their associated field blanks:
Do not analyze soil or groundwater for PCBs or SVOCs
Analyze soil and groundwater for lead only, not Title 22 metals
All the rest is OK

Please reply to let me know you have received this and it is OK.

Thanks,
Scott

Scott Snyder PG, CHG

Senior Hydrogeologist

Ninyo & Moore

5710 Ruffin Road

San Diego, California 92123

(858) 576-1000 x1255

1003

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05F060
☑ EMAX Courier	SEE COC	Recepient	I PATEL
☐ Client Delivery		Date	6-6-05
☐ Third Party		Time	1510

COC Inspection

☑ Client Name	☐ Sampler Name	☐ Sampling Date/Time/Location
☑ Address	☑ Courier Signature/Date/Time	☑ Analysis Required
☑ Client PM/FC	☐ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☑ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler	☐ Box	☐	☐
Condition	☐ Custody Seal	☑ Intact	☐ Damaged	☐
Packaging	☑ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ Plastic Bar
Temperatures	☑ Cooler 1 2.5°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
		No Analysis on Soil-Sleeves.	Follow COC
-06	NM03-B10-Equip.	Rec'd Containers for	Do not analyze
		8270 & PCBs 1L Amber	8270 & PCB per Scott's
		But NO Analysis on COC	email 6/3/05
		Also metal Container	
		Rec'd unPreserved	
-07	NM03-B10-GW	Same as above #6	Sample "

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling [signature] Date 6-6-05

SRF [signature] Date 6/7/05

PM [signature] Date 6/8/05

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(WATER)

SDG#: 05F060

2000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F060

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) water samples were received on 06/06/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F060
Instrument ID : T-067

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	V067F15B	1	NA	06/08/0513:46	06/08/0513:46	RFC241	REC670	V067F15	Method Blank
LCS1W	V067F15L	1	NA	06/08/0512:34	06/08/0512:34	RFC239	REC670	V067F15	Lab Control Sample (LCS)
LCD1W	V067F15C	1	NA	06/08/0513:11	06/08/0513:11	RFC240	REC670	V067F15	LCS Duplicate
NM03-B10 TRIP	F060-01	1	NA	06/08/0521:40	06/08/0521:40	RFC254	REC670	V067F15	Field Sample
NM03-B10 EQUIP	F060-06	1	NA	06/08/0522:17	06/08/0522:17	RFC255	REC670	V067F15	Field Sample
NM03-B10 GW	F060-07	1	NA	06/08/0522:53	06/08/0522:53	RFC256	REC670	V067F15	Field Sample
MBLK2W	V067F18Q	1	NA	06/10/0503:30	06/10/0503:30	RFC303	REC670	V067F18	Method Blank
LCS2W	V067F18L	1	NA	06/10/0501:40	06/10/0501:40	RFC300	REC670	V067F18	Lab Control Sample (LCS)
LCD2W	V067F18C	1	NA	06/10/0502:16	06/10/0502:16	RFC301	REC670	V067F18	LCS Duplicate
NM03-B10 GWDL	F060-07T	250	NA	06/10/0504:07	06/10/0504:07	RFC304	REC670	V067F18	Diluted Sample

FN - Filename
% Moist - Percent Moisture

2002

SAMPLE RESULTS

2003

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/08/05 21:40
Sample ID: NM03-B10 TRIP	Date Analyzed: 06/08/05 21:40
Lab Samp ID: F060-01	Dilution Factor: 1
Lab File ID: RFC254	Matrix : WATER
Ext Btch ID: V067F15	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	101	63-143
4-BROMOFLUOROBENZENE	106	63-143
TOLUENE-D8	104	63-143

2004

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/08/05 22:17
Sample ID: NM03-B10 EQUIP	Date Analyzed: 06/08/05 22:17
Lab Samp ID: F060-06	Dilution Factor: 1
Lab File ID: RFC255	Matrix : WATER
Ext Btch ID: V067F15	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	34	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	.54J	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	109	63-143
4-BROMOFLUOROBENZENE	105	63-143
TOLUENE-D8	104	63-143

2005

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/08/05 22:53
Sample ID: NM03-B10 GW	Date Analyzed: 06/08/05 22:53
Lab Samp ID: F060-07	Dilution Factor: 1
Lab File ID: RFC256	Matrix : WATER
Ext Btch ID: V067F15	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	310E	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2
TERT-BUTANOL	72	10	5
DIPE	ND	1	.2
ETBE	.63J	1	.2
TAME	6.7	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	63-143
4-BROMOFLUOROBENZENE	101	63-143
TOLUENE-D8	105	63-143

2006

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/10/05 04:07
Sample ID: NM03-B10 GWDL	Date Analyzed: 06/10/05 04:07
Lab Samp ID: F060-07T	Dilution Factor: 250
Lab File ID: RFC304	Matrix : WATER
Ext Btch ID: VO67F18	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	250	50
1,1,2,2-TETRACHLOROETHANE	ND	250	50
1,1,2-TRICHLOROETHANE	ND	250	50
1,1-DICHLOROETHANE	ND	250	50
1,1-DICHLOROETHENE	ND	250	50
1,2-DICHLOROETHANE	ND	250	50
1,2-DICHLOROPROPANE	ND	250	50
2-BUTANONE	ND	2500	1200
2-HEXANONE	ND	2500	1200
4-METHYL-2-PENTANONE	ND	2500	1200
ACETONE	ND	2500	1200
BENZENE	ND	250	50
BROMODICHLOROMETHANE	ND	250	50
BROMOFORM	ND	250	75
BROMOMETHANE	ND	250	50
CARBON DISULFIDE	ND	250	50
CARBON TETRACHLORIDE	ND	250	50
CHLOROBENZENE	ND	250	50
CHLOROETHANE	ND	250	50
CHLOROFORM	ND	250	50
CHLOROMETHANE	ND	250	50
CIS-1,2-DICHLOROETHENE	ND	250	50
CIS-1,3-DICHLOROPROPENE	ND	250	50
DIBROMOCHLOROMETHANE	ND	250	50
ETHYLBENZENE	ND	250	50
M/P-XYLENES	ND	500	120
MTBE	990	250	50
METHYLENE CHLORIDE	ND	250	120
O-XYLENE	ND	250	50
STYRENE	ND	250	50
TETRACHLOROETHENE	ND	250	50
TOLUENE	ND	250	50
TRANS-1,2-DICHLOROETHENE	ND	250	50
TRANS-1,3-DICHLOROPROPENE	ND	250	50
TRICHLOROETHENE	ND	250	50
VINYL CHLORIDE	ND	250	50
TERT-BUTANOL	ND	2500	1200
DIPE	ND	250	50
ETBE	ND	250	50
TAME	ND	250	50

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	110	63-143
4-BROMOFLUOROBENZENE	103	63-143
TOLUENE-D8	103	63-143

2007

QC SUMMARIES

2008

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/08/05
Batch No. : 05F060	Date Extracted: 06/08/05 13:46
Sample ID: MBLK1W	Date Analyzed: 06/08/05 13:46
Lab Samp ID: V067F15B	Dilution Factor: 1
Lab File ID: RFC241	Matrix : WATER
Ext Btch ID: V067F15	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	105	70-130
4-BROMOFLUOROBENZENE	104	70-130
TOLUENE-D8	105	70-130

2009

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	V067F15B	V067F15L	V067F15C		
LAB FILE ID:	RFC241	RFC239	RFC240		
DATE EXTRACTED:	06/08/0513:46	06/08/0512:34	06/08/0513:11	DATE COLLECTED:	NA
DATE ANALYZED:	06/08/0513:46	06/08/0512:34	06/08/0513:11	DATE RECEIVED:	06/08/05
PREP. BATCH:	V067F15	V067F15	V067F15		
CALIB. REF:	REC670	REC670	REC670		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	9.58	96	10	9.6	96	0	60-130	30
Benzene	ND	10	10.1	101	10	10.2	102	1	70-130	30
Chlorobenzene	ND	10	10.2	102	10	10.3	103	2	70-120	30
Toluene	ND	10	10.2	102	10	10.2	102	0	70-130	30
Trichloroethene	ND	10	10.3	103	10	10.2	102	1	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	10.6	106	10	10.9	109	70-130
4-Bromofluorobenzene	10	10.2	102	10	9.75	97	70-130
Toluene-d8	10	10.7	107	10	10.5	105	70-130

2010

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/10/05
Batch No. : 05F060	Date Extracted: 06/10/05 03:30
Sample ID: MBLK2W	Date Analyzed: 06/10/05 03:30
Lab Samp ID: V067F18Q	Dilution Factor: 1
Lab File ID: RFC303	Matrix : WATER
Ext Btch ID: V067F18	% Moisture : NA
Calib. Ref.: REC670	Instrument ID : T-067

PARAMETERS	RESULTS (ug/L)	RL (ug/L)	MDL (ug/L)
1,1,1-TRICHLOROETHANE	ND	1	.2
1,1,2,2-TETRACHLOROETHANE	ND	1	.2
1,1,2-TRICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHANE	ND	1	.2
1,1-DICHLOROETHENE	ND	1	.2
1,2-DICHLOROETHANE	ND	1	.2
1,2-DICHLOROPROPANE	ND	1	.2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	1	.2
BROMODICHLOROMETHANE	ND	1	.2
BROMOFORM	ND	1	.3
BROMOMETHANE	ND	1	.2
CARBON DISULFIDE	ND	1	.2
CARBON TETRACHLORIDE	ND	1	.2
CHLOROBENZENE	ND	1	.2
CHLOROETHANE	ND	1	.2
CHLOROFORM	ND	1	.2
CHLOROMETHANE	ND	1	.2
CIS-1,2-DICHLOROETHENE	ND	1	.2
CIS-1,3-DICHLOROPROPENE	ND	1	.2
DIBROMOCHLOROMETHANE	ND	1	.2
ETHYLBENZENE	ND	1	.2
M/P-XYLENES	ND	2	.5
MTBE	ND	1	.2
METHYLENE CHLORIDE	ND	1	.5
O-XYLENE	ND	1	.2
STYRENE	ND	1	.2
TETRACHLOROETHENE	ND	1	.2
TOLUENE	ND	1	.2
TRANS-1,2-DICHLOROETHENE	ND	1	.2
TRANS-1,3-DICHLOROPROPENE	ND	1	.2
TRICHLOROETHENE	ND	1	.2
VINYL CHLORIDE	ND	1	.2
TERT-BUTANOL	ND	10	5
DIPE	ND	1	.2
ETBE	ND	1	.2
TAME	ND	1	.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	109	70-130
4-BROMOFLUOROBENZENE	101	70-130
TOLUENE-D8	103	70-130

2011

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: SW 5030B/8260B

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK2W				
LAB SAMP ID:	V067F18Q	V067F18L	V067F18C		
LAB FILE ID:	RFC303	RFC300	RFC301		
DATE EXTRACTED:	06/10/0503:30	06/10/0501:40	06/10/0502:16	DATE COLLECTED:	NA
DATE ANALYZED:	06/10/0503:30	06/10/0501:40	06/10/0502:16	DATE RECEIVED:	06/10/05
PREP. BATCH:	V067F18	V067F18	V067F18		
CALIB. REF:	REC670	REC670	REC670		

ACCESSION:

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	10	9.73	97	10	9.86	99	1	60-130	30
Benzene	ND	10	10	100	10	10.2	102	1	70-130	30
Chlorobenzene	ND	10	10.3	103	10	10.5	105	1	70-120	30
Toluene	ND	10	10.2	102	10	10.3	103	1	70-130	30
Trichloroethene	ND	10	10.2	102	10	10.2	102	0	70-130	30

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	10	11.3	113	10	11.5	115	70-130
4-Bromofluorobenzene	10	9.88	99	10	10.2	102	70-130
Toluene-d8	10	10.5	105	10	10.9	109	70-130

2012

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS
(SOIL)

SDG#: 05F060

2013

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F060

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Three (3) soil samples were received on 06/06/05 for Volatile Organic analysis by Method 5030B/8260B in accordance with USEPA SW846, 3rd ed.

1. **Holding Time**

   Analytical holding time was met.

2. **Tuning and Calibration**

   Tuning and calibration were carried out at 12-hour interval. All QC requirements were met.

3. **Method Blank**

   Method blank was free of contamination at the reporting limit.

4. **Surrogate Recovery**

   Recoveries were within QC limit.

5. **Lab Control Sample/Lab Control Sample Duplicate**

   Recoveries were within QC limit.

6. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

7. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F060
Instrument ID : T-003

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	V003F25B	1	NA	06/11/0519:45	06/11/0519:45	RFB229	RFB208	V003F25	Method Blank
LCS1S	V003F25L	1	NA	06/11/0517:12	06/11/0517:12	RFB225	RFB208	V003F25	Lab Control Sample (LCS)
LCD1S	V003F25C	1	NA	06/11/0517:50	06/11/0517:50	RFB226	RFB208	V003F25	LCS Duplicate
NM03-B10 5-5.5	F060-03R	1	5.1	06/12/0500:55	06/12/0500:55	RFB237	RFB208	V003F25	Field Sample
NM03-B10 10-10.5	F060-04R	1	9.0	06/12/0501:34	06/12/0501:34	RFB238	RFB208	V003F25	Field Sample
NM03-B10 20-20.5	F060-05	1	5.9	06/12/0502:12	06/12/0502:12	RFB239	RFB208	V003F25	Field Sample

FN - Filename
% Moist - Percent Moisture

2015

SAMPLE RESULTS

2016

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/12/05 00:55
Sample ID: NM03-B10 5-5.5	Date Analyzed: 06/12/05 00:55
Lab Samp ID: F060-03R	Dilution Factor: 1
Lab File ID: RFB237	Matrix : SOIL
Ext Btch ID: VO03F25	% Moisture : 5.1
Calib. Ref.: RFB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.3	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.3	2.1
1,1,2-TRICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHENE	ND	5.3	2.1
1,2-DICHLOROETHANE	ND	5.3	2.1
1,2-DICHLOROPROPANE	ND	5.3	2.1
2-BUTANONE	ND	11	5.3
2-HEXANONE	ND	11	5.3
4-METHYL-2-PENTANONE	ND	11	5.3
ACETONE	ND	11	5.3
BENZENE	ND	5.3	2.1
BROMODICHLOROMETHANE	ND	5.3	2.1
BROMOFORM	ND	5.3	2.1
BROMOMETHANE	ND	11	2.1
CARBON DISULFIDE	ND	5.3	2.1
CARBON TETRACHLORIDE	ND	5.3	2.1
CHLOROBENZENE	ND	5.3	2.1
CHLOROETHANE	ND	5.3	2.1
CHLOROFORM	ND	5.3	2.1
CHLOROMETHANE	ND	11	2.1
CIS-1,2-DICHLOROETHENE	ND	5.3	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.3	2.1
DIBROMOCHLOROMETHANE	ND	5.3	2.1
ETHYLBENZENE	ND	5.3	2.1
M/P-XYLENES	ND	11	2.1
MTBE	ND	5.3	2.1
METHYLENE CHLORIDE	ND	11	2.1
O-XYLENE	ND	5.3	2.1
STYRENE	ND	5.3	2.1
TETRACHLOROETHENE	ND	5.3	2.1
TOLUENE	ND	5.3	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.3	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.3	2.1
TRICHLOROETHENE	ND	5.3	2.1
VINYL CHLORIDE	ND	5.3	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	136	54-154
4-BROMOFLUOROBENZENE	126	63-143
TOLUENE-D8	121	63-143

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/12/05 01:34
Sample ID: NM03-B10 10-10.5	Date Analyzed: 06/12/05 01:34
Lab Samp ID: F060-04R	Dilution Factor: 1
Lab File ID: RFB238	Matrix : SOIL
Ext Btch ID: V003F25	% Moisture : 9.0
Calib. Ref.: RFB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.5	2.2
1,1,2,2-TETRACHLOROETHANE	ND	5.5	2.2
1,1,2-TRICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHANE	ND	5.5	2.2
1,1-DICHLOROETHENE	ND	5.5	2.2
1,2-DICHLOROETHANE	ND	5.5	2.2
1,2-DICHLOROPROPANE	ND	5.5	2.2
2-BUTANONE	ND	11	5.5
2-HEXANONE	ND	11	5.5
4-METHYL-2-PENTANONE	ND	11	5.5
ACETONE	ND	11	5.5
BENZENE	ND	5.5	2.2
BROMODICHLOROMETHANE	ND	5.5	2.2
BROMOFORM	ND	5.5	2.2
BROMOMETHANE	ND	11	2.2
CARBON DISULFIDE	ND	5.5	2.2
CARBON TETRACHLORIDE	ND	5.5	2.2
CHLOROBENZENE	ND	5.5	2.2
CHLOROETHANE	ND	5.5	2.2
CHLOROFORM	ND	5.5	2.2
CHLOROMETHANE	ND	11	2.2
CIS-1,2-DICHLOROETHENE	ND	5.5	2.2
CIS-1,3-DICHLOROPROPENE	ND	5.5	2.2
DIBROMOCHLOROMETHANE	ND	5.5	2.2
ETHYLBENZENE	ND	5.5	2.2
M/P-XYLENES	ND	11	2.2
MTBE	ND	5.5	2.2
METHYLENE CHLORIDE	ND	11	2.2
O-XYLENE	ND	5.5	2.2
STYRENE	ND	5.5	2.2
TETRACHLOROETHENE	ND	5.5	2.2
TOLUENE	ND	5.5	2.2
TRANS-1,2-DICHLOROETHENE	ND	5.5	2.2
TRANS-1,3-DICHLOROPROPENE	ND	5.5	2.2
TRICHLOROETHENE	ND	5.5	2.2
VINYL CHLORIDE	ND	5.5	2.2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	128	54-154
4-BROMOFLUOROBENZENE	115	63-143
TOLUENE-D8	112	63-143

2018

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: 06/03/05
Project : CALTRANS	Date Received: 06/06/05
Batch No. : 05F060	Date Extracted: 06/12/05 02:12
Sample ID: NM03-B10 20-20.5	Date Analyzed: 06/12/05 02:12
Lab Samp ID: F060-05	Dilution Factor: 1
Lab File ID: RFB239	Matrix : SOIL
Ext Btch ID: V003F25	% Moisture : 5.9
Calib. Ref.: RFB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5.3	2.1
1,1,2,2-TETRACHLOROETHANE	ND	5.3	2.1
1,1,2-TRICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHANE	ND	5.3	2.1
1,1-DICHLOROETHENE	ND	5.3	2.1
1,2-DICHLOROETHANE	ND	5.3	2.1
1,2-DICHLOROPROPANE	ND	5.3	2.1
2-BUTANONE	ND	11	5.3
2-HEXANONE	ND	11	5.3
4-METHYL-2-PENTANONE	ND	11	5.3
ACETONE	ND	11	5.3
BENZENE	ND	5.3	2.1
BROMODICHLOROMETHANE	ND	5.3	2.1
BROMOFORM	ND	5.3	2.1
BROMOMETHANE	ND	11	2.1
CARBON DISULFIDE	ND	5.3	2.1
CARBON TETRACHLORIDE	ND	5.3	2.1
CHLOROBENZENE	ND	5.3	2.1
CHLOROETHANE	ND	5.3	2.1
CHLOROFORM	ND	5.3	2.1
CHLOROMETHANE	ND	11	2.1
CIS-1,2-DICHLOROETHENE	ND	5.3	2.1
CIS-1,3-DICHLOROPROPENE	ND	5.3	2.1
DIBROMOCHLOROMETHANE	ND	5.3	2.1
ETHYLBENZENE	ND	5.3	2.1
M/P-XYLENES	ND	11	2.1
MTBE	ND	5.3	2.1
METHYLENE CHLORIDE	ND	11	2.1
O-XYLENE	ND	5.3	2.1
STYRENE	ND	5.3	2.1
TETRACHLOROETHENE	ND	5.3	2.1
TOLUENE	ND	5.3	2.1
TRANS-1,2-DICHLOROETHENE	ND	5.3	2.1
TRANS-1,3-DICHLOROPROPENE	ND	5.3	2.1
TRICHLOROETHENE	ND	5.3	2.1
VINYL CHLORIDE	ND	5.3	2.1

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	102	54-154
4-BROMOFLUOROBENZENE	89	63-143
TOLUENE-D8	86	63-143

2019

QC SUMMARIES

2020

SW 5030B/8260B
VOLATILE ORGANICS BY GC/MS

Client : NINYO & MOORE	Date Collected: NA
Project : CALTRANS	Date Received: 06/11/05
Batch No. : 05F060	Date Extracted: 06/11/05 19:45
Sample ID: MBLK1S	Date Analyzed: 06/11/05 19:45
Lab Samp ID: V003F25B	Dilution Factor: 1
Lab File ID: RFB229	Matrix : SOIL
Ext Btch ID: V003F25	% Moisture : NA
Calib. Ref.: RFB208	Instrument ID : T-003

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)	MDL (ug/kg)
1,1,1-TRICHLOROETHANE	ND	5	2
1,1,2,2-TETRACHLOROETHANE	ND	5	2
1,1,2-TRICHLOROETHANE	ND	5	2
1,1-DICHLOROETHANE	ND	5	2
1,1-DICHLOROETHENE	ND	5	2
1,2-DICHLOROETHANE	ND	5	2
1,2-DICHLOROPROPANE	ND	5	2
2-BUTANONE	ND	10	5
2-HEXANONE	ND	10	5
4-METHYL-2-PENTANONE	ND	10	5
ACETONE	ND	10	5
BENZENE	ND	5	2
BROMODICHLOROMETHANE	ND	5	2
BROMOFORM	ND	5	2
BROMOMETHANE	ND	10	2
CARBON DISULFIDE	ND	5	2
CARBON TETRACHLORIDE	ND	5	2
CHLOROBENZENE	ND	5	2
CHLOROETHANE	ND	5	2
CHLOROFORM	ND	5	2
CHLOROMETHANE	ND	10	2
CIS-1,2-DICHLOROETHENE	ND	5	2
CIS-1,3-DICHLOROPROPENE	ND	5	2
DIBROMOCHLOROMETHANE	ND	5	2
ETHYLBENZENE	ND	5	2
M/P-XYLENES	ND	10	2
MTBE	ND	5	2
METHYLENE CHLORIDE	ND	10	2
O-XYLENE	ND	5	2
STYRENE	ND	5	2
TETRACHLOROETHENE	ND	5	2
TOLUENE	ND	5	2
TRANS-1,2-DICHLOROETHENE	ND	5	2
TRANS-1,3-DICHLOROPROPENE	ND	5	2
TRICHLOROETHENE	ND	5	2
VINYL CHLORIDE	ND	5	2

SURROGATE PARAMETERS	% RECOVERY	QC LIMIT
1,2-DICHLOROETHANE-D4	112	60-140
4-BROMOFLUOROBENZENE	111	70-130
TOLUENE-D8	108	70-130

2021

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: SW 5030B/8260B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	V003F25B	V003F25L	V003F25C		
LAB FILE ID:	RFB229	RFB225	RFB226		
DATE EXTRACTED:	06/11/0519:45	06/11/0517:12	06/11/0517:50	DATE COLLECTED:	NA
DATE ANALYZED:	06/11/0519:45	06/11/0517:12	06/11/0517:50	DATE RECEIVED:	06/11/05
PREP. BATCH:	V003F25	V003F25	V003F25		
CALIB. REF:	RFB208	RFB208	RFB208		

ACCESSION:

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
1,1-Dichloroethene	ND	20	21.4	107	20	24	120	12	60-140	50
Benzene	ND	20	20.4	102	20	20.8	104	2	70-130	50
Chlorobenzene	ND	20	20.4	102	20	21.2	106	4	70-130	50
Toluene	ND	20	19.9	99	20	21.1	106	6	70-130	50
Trichloroethene	ND	20	20.6	103	20	22	110	6	70-130	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT (%)
1,2-Dichloroethane-d4	50	53.3	107	50	56.2	112	60-140
4-Bromofluorobenzene	50	49.4	99	50	56.4	113	70-130
Toluene-d8	50	52.7	105	50	55.9	112	70-130

2022

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

SDG#: 05F060

4000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F060

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Two (2) water and three (3) soil samples were received on 06/05/05 for Total Petroleum Hydrocarbons by Purge and Trap analysis by Method 5030B/M8015 in accordance with SW846 3rd Edition.

1. Holding Time

Analytical holding time was met. All water samples were preserved. Soil samples were extracted with methanol on 06/08/05.

2. Calibration

Initial calibration was seven points. %RSD was within 20%. Continuing calibrations were carried out every 12-hour interval and at the end of the analytical sequence. All recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

Recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

Sample F060-03 was spiked. Recoveries were within QC limits.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Samples were quantitated from C6 to C10 using GRO (C6-C10) calibration factor.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
SDG NO. : 05F060
Instrument ID : GCT039

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	VMF007SB	1	NA	06/08/0519:37	06/08/0519:37	EF08013A	EF08012A	VMF007S	Method Blank
LCS1S	VMF007SL	1	NA	06/08/0520:13	06/08/0520:13	EF08014A	EF08012A	VMF007S	Lab Control Sample (LCS)
LCD1S	VMF007SC	1	NA	06/08/0520:49	06/08/0520:49	EF08015A	EF08012A	VMF007S	LCS Duplicate
NM03-B10 5-5.5	F060-03	1	5.1	06/08/0521:25	06/08/0521:25	EF08016A	EF08012A	VMF007S	Field Sample
NM03-B10 5-5.5MS	F060-03M	1	5.1	06/08/0522:01	06/08/0522:01	EF08017A	EF08012A	VMF007S	Matrix Spike Sample (MS)
NM03-B10 5-5.5MSD	F060-03S	1	5.1	06/08/0522:37	06/08/0522:37	EF08018A	EF08012A	VMF007S	MS Duplicate (MSD)
NM03-B10 10-10.5	F060-04	1	9.0	06/08/0523:13	06/08/0523:13	EF08019A	EF08012A	VMF007S	Field Sample
NM03-B10 20-20.5	F060-05	1	5.9	06/08/0523:48	06/08/0523:48	EF08020A	EF08012A	VMF007S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	VA39F08B	1	NA	06/09/0517:10	06/09/0517:10	EF08047A	EF08039A	VA39F08	Method Blank
LCS1W	VA39F08L	1	NA	06/09/0517:46	06/09/0517:46	EF08048A	EF08039A	VA39F08	Lab Control Sample (LCS)
LCD1W	VA39F08C	1	NA	06/09/0518:22	06/09/0518:22	EF08049A	EF08039A	VA39F08	LCS Duplicate
NM03-B10 EQUIP	F060-06	1	NA	06/09/0520:48	06/09/0520:48	EF08053A	EF08050A	VA39F08	Field Sample
NM03-B10 GW	F060-07	1	NA	06/09/0521:24	06/09/0521:24	EF08054A	EF08050A	VA39F08	Field Sample

FN - Filename
% Moist - Percent Moisture

SAMPLE RESULTS

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : WATER
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SURR (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	VA39F08B	ND	98	1	NA	.1	.02	06/09/0517:10	06/09/0517:10	EF08047A	EF08039A	VA39F08	NA	06/09/05
LCS1W	VA39F08L	.391	106	1	NA	.1	.02	06/09/0517:46	06/09/0517:46	EF08048A	EF08039A	VA39F08	NA	06/09/05
LCD1W	VA39F08C	.445	108	1	NA	.1	.02	06/09/0518:22	06/09/0518:22	EF08049A	EF08039A	VA39F08	NA	06/09/05
NM03-B10 EQUIP	F060-06	ND	98	1	NA	.1	.02	06/09/0520:48	06/09/0520:48	EF08053A	EF08050A	VA39F08	06/03/05	06/06/05
NM03-B10 GW	F060-07	.039J	98	1	NA	.1	.02	06/09/0521:24	06/09/0521:24	EF08054A	EF08050A	VA39F08	06/03/05	06/06/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4004

METHOD 5030B/M8015
TOTAL PETROLEUM HYDROCARBONS BY PURGE AND TRAP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : SOIL
Instrument ID : GCT039

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SURR (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	VMF007SB	ND	96	1	NA	1	.5	06/08/0519:37	06/08/0519:37	EF08013A	EF08012A	VMF007S	NA	06/08/05
LCS1S	VMF007SL	20.6	107	1	NA	1	.5	06/08/0520:13	06/08/0520:13	EF08014A	EF08012A	VMF007S	NA	06/08/05
LCD1S	VMF007SC	21.2	109	1	NA	1	.5	06/08/0520:49	06/08/0520:49	EF08015A	EF08012A	VMF007S	NA	06/08/05
NM03-B10 5-5.5	F060-03	ND	95	1	5.1	1.1	.53	06/08/0521:25	06/08/0521:25	EF08016A	EF08012A	VMF007S	06/03/05	06/06/05
NM03-B10 5-5.5MS	F060-03M	20	102	1	5.1	1.05	.527	06/08/0522:01	06/08/0522:01	EF08017A	EF08012A	VMF007S	06/03/05	06/06/05
NM03-B10 5-5.5MSD	F060-03S	19.6	103	1	5.1	1.05	.527	06/08/0522:37	06/08/0522:37	EF08018A	EF08012A	VMF007S	06/03/05	06/06/05
NM03-B10 10-10.5	F060-04	ND	90	1	9.0	1.1	.55	06/08/0523:13	06/08/0523:13	EF08019A	EF08012A	VMF007S	06/03/05	06/06/05
NM03-B10 20-20.5	F060-05	ND	92	1	5.9	1.1	.53	06/08/0523:48	06/08/0523:48	EF08020A	EF08012A	VMF007S	06/03/05	06/06/05

RL : Reporting Limit

		Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR : Bromofluorobenzene	Water	0.04 mg/L	63-154%	70-140%
	Soil	2 mg/kg	63-165%	70-150%

4005

QC SUMMARIES

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 5030B/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	VA39F08B	VA39F08L	VA39F08C		
LAB FILE ID:	EF08047A	EF08048A	EF08049A		
DATE EXTRACTED:	06/09/0517:10	06/09/0517:46	06/09/0518:22	DATE COLLECTED:	NA
DATE ANALYZED:	06/09/0517:10	06/09/0517:46	06/09/0518:22	DATE RECEIVED:	06/09/05
PREP. BATCH:	VA39F08	VA39F08	VA39F08		
CALIB. REF:	EF08039A	EF08039A	EF08039A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	.5	.391	78	.5	.445	89	13	60-130	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	.04	.0425	106	.04	.0431	108	70-140

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 5030B/M8015

MATRIX:	SOIL			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1S				
LAB SAMP ID:	VMF007SB	VMF007SL	VMF007SC		
LAB FILE ID:	EF08013A	EF08014A	EF08015A		
DATE EXTRACTED:	06/08/0519:37	06/08/0520:13	06/08/0520:49	DATE COLLECTED:	NA
DATE ANALYZED:	06/08/0519:37	06/08/0520:13	06/08/0520:49	DATE RECEIVED:	06/08/05
PREP. BATCH:	VMF007S	VMF007S	VMF007S		
CALIB. REF:	EF08012A	EF08012A	EF08012A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	25	20.6	82	25	21.2	85	3	70-140	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromofluorobenzene	2	2.14	107	2	2.17	109	70-150

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 5030B/M8015

MATRIX: SOIL % MOISTURE: 5.1
DILUTION FACTOR: 1 1 1
SAMPLE ID: NM03-B10 5-5.5
LAB SAMP ID: F060-03 F060-03M F060-03S
LAB FILE ID: EF08016A EF08017A EF08018A
DATE EXTRACTED: 06/08/0521:25 06/08/0522:01 06/08/0522:37 DATE COLLECTED: 06/03/05
DATE ANALYZED: 06/08/0521:25 06/08/0522:01 06/08/0522:37 DATE RECEIVED: 06/06/05
PREP. BATCH: VMF007S VMF007S VMF007S
CALIB. REF: EF08012A EF08012A EF08012A

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Gasoline	ND	26.3	20	76	26.3	19.6	74	2	63-154	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	MS RSLT (mg/kg)	MS % REC	SPIKE AMT (mg/kg)	MSD RSLT (mg/kg)	MSD % REC	QC LIMIT (%)
Bromofluorobenzene	2.11	2.16	102	2.11	2.16	103	63-165

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 05F060

5000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F060

METHOD 3520C/LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Two (2) water samples and three (3) soil samples were received on 06/06/05 for Total Petroleum Hydrocarbons by Extraction by Method 3520C/LUFT/M8015 in accordance with SW846 3RD Edition.

1. Holding Time

Analytical holding time was met. Extraction for water samples was performed on 06/07/05 and completed on 06/08/05. Extraction for soil samples was performed and completed on 06/08/05.

2. Calibration

Initial calibration was seven points for Diesel. %RSDs were within 20%. Continuing calibrations were carried out at 12-hour intervals and all recoveries were within 85-115%.

3. Method Blank

Method blanks were free of contamination at the reporting limit.

4. Surrogate Recovery

All recoveries were within QC limits.

5. Lab Control Sample/Lab Control Sample Duplicate

All recoveries were within QC limits.

6. Matrix Spike/Matrix Spike Duplicate

No MS/MSD sample was designated in this SDG.

7. Sample Analysis

Samples were analyzed according to the prescribed QC procedures. All criteria were met. Quantitation was done full pattern using the Diesel (Total) calibration factors.

Sample F060-07 displayed a mixed fuel pattern.

LAB CHRONICLE
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F060
Instrument ID : GCT050

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	DSF007WB	1	NA	06/08/0519:40	06/07/0517:00	TF06070A	TF06063A	DSF007W	Method Blank
LCS1W	DSF007WL	1	NA	06/08/0517:34	06/07/0517:00	TF06067A	TF06063A	DSF007W	Lab Control Sample (LCS)
LCD1W	DSF007WC	1	NA	06/08/0518:58	06/07/0517:00	TF06069A	TF06063A	DSF007W	LCS Duplicate
NM03-B10 EQUIP	F060-06	.94	NA	06/08/0520:22	06/07/0517:00	TF06071A	TF06063A	DSF007W	Field Sample
NM03-B10 GW	F060-07	.99	NA	06/08/0521:04	06/07/0517:00	TF06072A	TF06063A	DSF007W	Field Sample

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S!	DSF009SQ	1	NA	06/08/0517:40	06/08/0512:50	BF08003A	BF08002A	DSF009S	Method Blank
LCS1S!	DSF009SX	1	NA	06/08/0518:24	06/08/0512:50	BF08004A	BF08002A	DSF009S	Lab Control Sample (LCS)
LCD1S!	DSF009SY	1	NA	06/08/0519:07	06/08/0512:50	BF08005A	BF08002A	DSF009S	LCS Duplicate
NM03-B10 5-5.5!	F060-03	1	5.1	06/08/0519:51	06/08/0512:50	BF08006A	BF08002A	DSF009S	Field Sample
NM03-B10 10-10.5!	F060-04	1	9.0	06/08/0520:35	06/08/0512:50	BF08007A	BF08002A	DSF009S	Field Sample
NM03-B10 20-20.5!	F060-05	1	5.9	06/08/0521:18	06/08/0512:50	BF08008A	BF08002A	DSF009S	Field Sample

! Instrument ID : GCT072
FN - Filename
% Moist - Percent Moisture

2005

SAMPLE RESULTS

5003

METHOD 3520C/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : WATER
Instrument ID : GCT050

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	DSF007WB	ND	66	97	1	NA	.5	.1	06/08/0519:40	06/07/0517:00	TF06070A	TF06063A	DSF007W	NA	06/07/05
LCS1W	DSF007WL	4.82	78	101	1	NA	.5	.1	06/08/0517:34	06/07/0517:00	TF06067A	TF06063A	DSF007W	NA	06/07/05
LCD1W	DSF007WC	4.73	80	104	1	NA	.5	.1	06/08/0518:58	06/07/0517:00	TF06069A	TF06063A	DSF007W	NA	06/07/05
NM03-B10 EQUIP	F060-06	ND	70	95	.94	NA	.47	.094	06/08/0520:22	06/07/0517:00	TF06071A	TF06063A	DSF007W	06/03/05	06/06/05
NM03-B10 GW	F060-07	.32J	70	93	.99	NA	.5	.099	06/08/0521:04	06/07/0517:00	TF06072A	TF06063A	DSF007W	06/03/05	06/06/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5004

METHOD LUFT/M8015
TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : SOIL
Instrument ID : GCT072

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	SUR1 (%)	SUR2 (%)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	DSF009SQ	ND	85	97	1	NA	10	5	06/08/0517:40	06/08/0512:50	BF08003A	BF08002A	DSF009S	NA	06/08/05
LCS1S	DSF009SX	414	96	99	1	NA	10	5	06/08/0518:24	06/08/0512:50	BF08004A	BF08002A	DSF009S	NA	06/08/05
LCD1S	DSF009SY	396	93	98	1	NA	10	5	06/08/0519:07	06/08/0512:50	BF08005A	BF08002A	DSF009S	NA	06/08/05
NM03-B10 5-5.5	F060-03	ND	86	98	1	5.1	11	5.3	06/08/0519:51	06/08/0512:50	BF08006A	BF08002A	DSF009S	06/03/05	06/06/05
NM03-B10 10-10.5	F060-04	ND	86	97	1	9.0	11	5.5	06/08/0520:35	06/08/0512:50	BF08007A	BF08002A	DSF009S	06/03/05	06/06/05
NM03-B10 20-20.5	F060-05	ND	83	94	1	5.9	11	5.3	06/08/0521:18	06/08/0512:50	BF08008A	BF08002A	DSF009S	06/03/05	06/06/05

RL : Reporting Limit

Parameter	H-C Range
Diesel	C10-C24

			Spike Conc	QC Limit Sample	QC Limit Blank & LCS
SURR1	: Bromobenzene	Water	1 mg/L	45-154%	50-140%
		Soil	100 mg/kg	54-165%	60-150%
SURR2	: Hexacosane	Water	.25 mg/L	63-165%	70-150%
		Soil	25 mg/kg	54-176%	60-160%

5003

QC SUMMARIES

5006

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 3520C/M8015

MATRIX:	WATER			% MOISTURE:	NA
DILUTION FACTOR:	1	1	1		
SAMPLE ID:	MBLK1W				
LAB SAMP ID:	DSF007WB	DSF007WL	DSF007WC		
LAB FILE ID:	TF06070A	TF06067A	TF06069A		
DATE EXTRACTED:	06/07/0517:00	06/07/0517:00	06/07/0517:00	DATE COLLECTED:	NA
DATE ANALYZED:	06/08/0519:40	06/08/0517:34	06/08/0518:58	DATE RECEIVED:	06/07/05
PREP. BATCH:	DSF007W	DSF007W	DSF007W		
CALIB. REF:	TF06063A	TF06063A	TF06063A		

ACCESSION:

PARAMETER	BLNK RSLT (mg/L)	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	5	4.82	96	5	4.73	95	2	60-140	30

SURROGATE PARAMETER	SPIKE AMT (mg/L)	BS RSLT (mg/L)	BS % REC	SPIKE AMT (mg/L)	BSD RSLT (mg/L)	BSD % REC	QC LIMIT (%)
Bromobenzene	1	.783	78	1	.8	80	50-140
Hexacosane	.25	.253	101	.25	.259	104	70-150

5007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD LUFT/M8015

MATRIX: SOIL % MOISTURE: NA
DILUTION FACTOR: 1 1 1
SAMPLE ID: MBLK1S
LAB SAMP ID: DSF009SQ DSF009SX DSF009SY
LAB FILE ID: BF08003A BF08004A BF08005A
DATE EXTRACTED: 06/08/0512:50 06/08/0512:50 06/08/0512:50 DATE COLLECTED: NA
DATE ANALYZED: 06/08/0517:40 06/08/0518:24 06/08/0519:07 DATE RECEIVED: 06/08/05
PREP. BATCH: DSF009S DSF009S DSF009S
CALIB. REF: BF08002A BF08002A BF08002A

ACCESSION:

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD (%)	QC LIMIT (%)	MAX RPD (%)
Diesel	ND	500	414	83	500	396	79	4	60-150	50

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT (%)
Bromobenzene	100	95.9	96	100	93.2	93	60-150
Hexacosane	25	24.7	99	25	24.4	98	60-160

5008

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

SDG#: 05F060

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05F060

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

Two (2) water and four (4) soil samples were received on 06/06/05 for Lead analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Sample F060-07 and sample F059-14 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   No MS/MSD sample was designated in this SDG.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05F060
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
LCS1S	IPF027SL	1	NA	06/09/0515:25	06/08/0513:20	I73F019019	I73F019009	IPF027S	Lab Control Sample (LCS)
LCD1S	IPF027SC	1	NA	06/09/0515:31	06/08/0513:20	I73F019020	I73F019009	IPF027S	LCS Duplicate
MBLK1S	IPF027SB	1	NA	06/09/0515:53	06/08/0513:20	I73F019023	I73F019021	IPF027S	Method Blank
NM03-B10 1-1.5	F060-02	1	3.1	06/09/0518:05	06/08/0513:20	I73F019044	I73F019033	IPF027S	Field Sample
NM03-B10 5-5.5	F060-03	1	5.1	06/09/0518:25	06/08/0513:20	I73F019047	I73F019045	IPF027S	Field Sample
NM03-B10 10-10.5	F060-04	1	9.0	06/09/0518:31	06/08/0513:20	I73F019048	I73F019045	IPF027S	Field Sample
NM03-B10 20-20.5	F060-05	1	5.9	06/09/0518:37	06/08/0513:20	I73F019049	I73F019045	IPF027S	Field Sample
15SB-DMH-HA152-3.0'	F059-14	1	9.9	06/09/0517:32	06/08/0513:20	I73F019039	I73F019033	IPF027S	Field Sample
15SB-DMH-HA152-3.0'DL	F059-14T	5	9.9	06/09/0517:39	06/08/0513:20	I73F019040	I73F019033	IPF027S	Diluted Sample
15SB-DMH-HA152-3.0'AS	F059-14A	1	9.9	06/09/0517:45	06/08/0513:20	I73F019041	I73F019033	IPF027S	Analytical Spike Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPF028WB	1	NA	06/09/0514:32	06/09/0507:35	I73F019011	I73F019009	IPF028W	Method Blank
LCS1W	IPF028WL	1	NA	06/09/0514:38	06/09/0507:35	I73F019012	I73F019009	IPF028W	Lab Control Sample (LCS)
LCD1W	IPF028WC	1	NA	06/09/0514:44	06/09/0507:35	I73F019013	I73F019009	IPF028W	LCS Duplicate
NM03-B10 EQUIP	F060-06	1	NA	06/09/0514:58	06/09/0507:35	I73F019015	I73F019009	IPF028W	Field Sample
NM03-B10 GW	F060-07	1	NA	06/09/0515:04	06/09/0507:35	I73F019016	I73F019009	IPF028W	Field Sample
NM03-B10 GWDL	F060-07T	5	NA	06/09/0515:11	06/09/0507:35	I73F019017	I73F019009	IPF028W	Diluted Sample
NM03-B10 GWAS	F060-07A	1	NA	06/09/0515:17	06/09/0507:35	I73F019018	I73F019009	IPF028W	Analytical Spike Sample

FN - Filename
% Moist - Percent Moisture

2002

METHOD 3010A/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : WATER
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	IPF028WB	ND	1	NA	.01	.003	06/09/0514:32	06/09/0507:35	I73F019011	I73F019009	IPF028W	NA	06/09/05
LCS1W	IPF028WL	1.02	1	NA	.01	.003	06/09/0514:38	06/09/0507:35	I73F019012	I73F019009	IPF028W	NA	06/09/05
LCD1W	IPF028WC	.995	1	NA	.01	.003	06/09/0514:44	06/09/0507:35	I73F019013	I73F019009	IPF028W	NA	06/09/05
NM03-B10 EQUIP	F060-06	ND	1	NA	.01	.003	06/09/0514:58	06/09/0507:35	I73F019015	I73F019009	IPF028W	06/03/05	06/06/05
NM03-B10 GW	F060-07	ND	1	NA	.01	.003	06/09/0515:04	06/09/0507:35	I73F019016	I73F019009	IPF028W	06/03/05	06/06/05
NM03-B10 GWDL	F060-07T	ND	5	NA	.05	.015	06/09/0515:11	06/09/0507:35	I73F019017	I73F019009	IPF028W	06/03/05	06/06/05
NM03-B10 GWAS	F060-07A	.986	1	NA	.01	.003	06/09/0515:17	06/09/0507:35	I73F019018	I73F019009	IPF028W	06/03/05	06/06/05

2003

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F060
METHOD: METHOD 3010A/6010B

MATRIX:	WATER			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1W				
CONTROL NO.:	IPF028WB	IPF028WL	IPF028WC		
LAB FILE ID:	I73F019011	I73F019012	I73F019013		
DATIME EXTRCTD:	06/09/0507:35	06/09/0507:35	06/09/0507:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/09/0514:32	06/09/0514:38	06/09/0514:44	DATE RECEIVED:	06/09/05
PREP. BATCH:	IPF028W	IPF028W	IPF028W		
CALIB. REF:	I73F019009	I73F019009	I73F019009		

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	1	1.02	102	1	.995	99	2	80-120	20

2004

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B10 GW	NM03-B10 GWDL		
EMAX SAMP ID:	F060-07	F060-07T		
LAB FILE ID:	173F019016	173F019017		
DATE EXTRACTED:	06/09/0507:35	06/09/0507:35	DATE COLLECTED:	06/03/05
DATE ANALYZED:	06/09/0515:04	06/09/0515:11	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF028W	IPF028W		
CALIB. REF:	173F019009	173F019009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Lead	ND	ND	0	10

7005

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F060
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILTN FACTR:	1	1		
SAMPLE ID:	NM03-B10 GW			
CONTROL NO.:	F060-07	F060-07A		
LAB FILE ID:	I73F019016	I73F019018		
DATIME EXTRCTD:	06/09/0507:35	06/09/0507:35	DATE COLLECTED:	06/03/05
DATIME ANALYZD:	06/09/0515:04	06/09/0515:17	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF028W	IPF028W		
CALIB. REF:	I73F019009	I73F019009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Lead	ND	1	.986	99	75-125

9004

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05F060

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
LCS1S	IPF027SL	101	1	NA	1	.2	06/09/0515:25	06/08/0513:20	I73F019019	I73F019009	IPF027S	NA	06/08/05
LCD1S	IPF027SC	100	1	NA	1	.2	06/09/0515:31	06/08/0513:20	I73F019020	I73F019009	IPF027S	NA	06/08/05
MBLK1S	IPF027SB	ND	1	NA	1	.2	06/09/0515:53	06/08/0513:20	I73F019023	I73F019021	IPF027S	NA	06/08/05
NM03-B10 1-1.5	F060-02	2.24	1	3.1	1.03	.206	06/09/0518:05	06/08/0513:20	I73F019044	I73F019033	IPF027S	06/03/05	06/06/05
NM03-B10 5-5.5	F060-03	2.54	1	5.1	1.05	.211	06/09/0518:25	06/08/0513:20	I73F019047	I73F019045	IPF027S	06/03/05	06/06/05
NM03-B10 10-10.5	F060-04	2.13	1	9.0	1.1	.22	06/09/0518:31	06/08/0513:20	I73F019048	I73F019045	IPF027S	06/03/05	06/06/05
NM03-B10 20-20.5	F060-05	1.66	1	5.9	1.06	.213	06/09/0518:37	06/08/0513:20	I73F019049	I73F019045	IPF027S	06/03/05	06/06/05

7007

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F060
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK1S				
CONTROL NO.:	IPF027SB	IPF027SL	IPF027SC		
LAB FILE ID:	I73F019023	I73F019019	I73F019020		
DATIME EXTRCTD:	06/08/0513:20	06/08/0513:20	06/08/0513:20	DATE COLLECTED:	NA
DATIME ANALYZD:	06/09/0515:53	06/09/0515:25	06/09/0515:31	DATE RECEIVED:	06/08/05
PREP. BATCH:	IPF027S	IPF027S	IPF027S		
CALIB. REF:	I73F019021	I73F019009	I73F019009		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	101	101	100	100	100	1	80-120	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05F060
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA

DILUTION FACTOR:	1	5		
SAMPLE ID:	I5SB-DMH-HA152	I5SB-DMH-HA152		
EMAX SAMP ID:	F059-14	F059-14T		
LAB FILE ID:	I73F019039	I73F019040		
DATE EXTRACTED:	06/08/0513:20	06/08/0513:20	DATE COLLECTED:	06/03/05
DATE ANALYZED:	06/09/0517:32	06/09/0517:39	DATE RECEIVED:	06/06/05
PREP. BATCH:	IPF027S	IPF027S		
CALIB. REF:	I73F019033	I73F019033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	1.88	1.75J	NA	10

6002

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05F060
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 9.9
DILTN FACTR: 1 1
SAMPLE ID: I5SB-DMH-HA152-3.0'
CONTROL NO.: F059-14 F059-14A
LAB FILE ID: I73F019039 I73F019041
DATIME EXTRCTD: 06/08/0513:20 06/08/0513:20 DATE COLLECTED: 06/03/05
DATIME ANALYZD: 06/09/0517:32 06/09/0517:45 DATE RECEIVED: 06/06/05
PREP. BATCH: IPF027S IPF027S
CALIB. REF: I73F019033 I73F019033

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	1.88	111	105	93	75-125

0102

TABLE OF CONTENTS

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E190

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GC/MS-VOA	**	2000 –
GC/MS-SVOA	**	3000 –
GC-VOA	**	4000 –
GC-SVOA	**	5000 –
HPLC	**	6000 –
METALS	METHOD 3010A/3050B/6010B	7000 – 7015
WET	**	8000 –
OTHERS	**	9000 –

** - Not Requested

EMAX
LABORATORIES, INC.
1835 W. 205th Street
Torrance, CA 90501
Tel: (310) 618-8889
Fax: (310) 618-0818

Date: 06-13-2005
EMAX Batch No.: 05E190

Attn: Scott Snyder

Ninyo & Moore
5710 Ruffin Rd
San Diego CA 92123

Subject: Laboratory Report
Project: Caltrans

Enclosed is the Laboratory report for samples received on 05/20/05. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
I5NB-DMH-HA01 5'	E190-01	05/18/05	SOIL	LEAD
I5NB-DMH-HA02 0.5'	E190-02	05/18/05	SOIL	LEAD
I5NB-DMH-HA03 1.0'	E190-03	05/18/05	SOIL	LEAD
I5NB-DMH-HA04 2.5'	E190-04	05/18/05	SOIL	LEAD
I5NB-DMH-HA05 3.5'	E190-05	05/18/05	SOIL	LEAD
I5NB-DMH-HA06 0.5'	E190-06	05/18/05	SOIL	LEAD
I5NB-DMH-HA07 5'	E190-07	05/18/05	SOIL	LEAD
I5NB-DMH-HA08 5'	E190-08	05/18/05	SOIL	LEAD
I5NB-DMH-HA09 5'	E190-09	05/18/05	SOIL	LEAD
I5NB-DMH-HA10 2.5'	E190-10	05/18/05	SOIL	LEAD
I5NB-VDLV-HA12 2.5'	E190-11	05/19/05	SOIL	LEAD
I5NB-VDLV-HA13 0.5'	E190-12	05/19/05	SOIL	LEAD
I5NB-VDLV-HA14 2.5'	E190-13	05/19/05	SOIL	LEAD
I5NB-VDLV-HA15 5.0'	E190-14	05/19/05	SOIL	LEAD
I5NB-VDLV-HA16 0.5'	E190-15	05/19/05	SOIL	LEAD
I5NB-VDLV-HA17 5.0'	E190-16	05/19/05	SOIL	LEAD
I5NB-LSF-HA18 0.5'	E190-17	05/19/05	SOIL	LEAD
I5NB-LSF-HA19 2'	E190-18	05/19/05	SOIL	LEAD
I5NB-LSF-HA20 0.5'	E190-19	05/19/05	SOIL	LEAD

Sample ID	Control #	Col Date	Matrix	Analysis
I5NB-LSF-HA21 2'	E190-20	05/19/05	SOIL	LEAD
I5NB-LSF-HA22 2.5'	E190-21	05/19/05	SOIL	LEAD
I5NB-LSF-HA23 0.5'	E190-22	05/19/05	SOIL	LEAD
I5NB-FB-02	E190-23	05/19/05	WATER	LEAD
I5NB-DMH-HA11 3'	E190-24	05/18/05	SOIL	LEAD
I5NB-DMH-FB1	E190-25	05/18/05	WATER	LEAD

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

EMAX LABORATORIES, INC. 1835 W. 205th Street, Torrance, CA 90501 Tel: (310) 618-8889 Fax: (310) 618-0818

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: (310) 618-8889 Fax #: (310) 618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE: H5

EMAX CONTROL NO. * 05E190

PROJECT CODE:

CLIENT 105388009 / Caltrans

PROJECT 105388009 I-5 exclusion

COORDINATOR Scott Snyder

TEL 858-576-1000 FAX EMAIL ssnyder@nmyo&moore.com

SEND REPORT TO Scott Snyder

COMPANY Nmyo & Moore

ADDRESS 5710 Ruffin Road
San Diego CA 92123

EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW= Drinking Water	IC=Ice
GW=Ground Water	HC=HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
Oil	

ANALYSIS REQUIRED: total lead

TAT:
- ☐ Rush _____ hrs.
- ☐ Rush _____ days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☒ 30 days
- ☐ _____ days
- ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	CONTAINER SIZE	CONTAINER TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
* 1	ISNB-DMH-HA01 5'	HA01	5-18-05	1000	2	4oz	jar	SS		X	
* 2	ISNB-DMH-HA02 ~~0.5~~	HA02		1025						X	
* 3	ISNB-DMH-HA03 10'	HA03		1035						X	
* 4	ISNB-DMH-HA04 2.5'	HA04		1055						X	
* 5	ISNB-DMH-HA05 3.5'	HA05		1125						X	
* 6	ISNB-DMH-HA06 0.5'	HA06		1200						XX	
* 7	ISNB-DMH-HA07 5'	HA07		1230						XX	
* 8	ISNB-DMH-HA08 5'	HA08		1310						XX	
* 9	ISNB-DMH-HA09 5'	HA09		1330						X	
*10	ISNB-DMH-HA10 2.5'	HA10		1435						X	

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.5	

SAMPLER Matt Fall

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fall	5-20-05	1240	Phil Haden
Phil Haden	5-20-05	1500	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs. TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

2005

GRAPHICS EXPRESS (626) 333-8585

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE

EMAX CONTROL NO. * 05E190

PROJECT CODE:

CLIENT CALTRANS / 105388009
PROJECT I-5 explora
COORDINATOR Scott Snyder
TEL 858-576-1000 FAX EMAIL SSnyder@nmyo.com
SEND REPORT TO Scott Snyder
COMPANY Nmyo & Moore
ADDRESS 5710 Ruffin Road
San Diego CA 92107
EMAX PM

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O=	

ANALYSIS REQUIRED: Total Lead

TAT:
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☒ ~~30 days~~
- ☐ ____days
- ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
*11	ISNB - ~~DMH~~ VDLV - HA12 2.5	HA12	5-19-05	0945	2	4oz	jar	SS		X	
*12	ISNB - ~~DMH~~ VDLV - HA13 0.5'	HA13		1000	2					X	
*13	ISNB - VDLV - HA14 2.5	HA14		1015	2					X	
*14	ISNB - VDLV - HA15 5.0	HA15		1040	2					X	
*15	ISNB - VDLV - HA16 0.5	HA16		1055	2					X	
*16	ISNB - VDLV - HA17 5.0	HA17		1120	2					X	
*17	ISNB - LSF - HA18 0.5	HA18		1140	2					X	
*18	ISNB - LSF - HA19 2'	HA19		1210	2					X	
*19	ISNB - LSF - HA20 0.5'	HA20		1335	2					X	
*20	ISNB - LSF - HA21 2'	HA21		1400	2					X	

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.5	

SAMPLER Matt Fell

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fell	5-20-05	1240	Phil Hsu
Phil Hsu	5-20-05	1500	

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE

EMAX CONTROL NO. * 05E190

PROJECT CODE:

CLIENT	Cations / 105388009
PROJECT	105388009 · I-5 extension
COORDINATOR	Scott Snyder
TEL	858-576-1000
FAX	
EMAIL	SSnyder@nnyoandmoon
SEND REPORT TO	Scott Snyder
COMPANY	5710 Ruffin Road
ADDRESS	San Diego CA 92123
EMAX PM	

MATRIX CODE	PRESERVATIVE CODE
DW=Drinking Water	IC = Ice
GW=Ground Water	HC = HCl
WW=Waste Water	HN=HNO3
SD=Solid Waste SL=Sludge	SH=NaOH
SS=Soil/ Sediment	ST=Na2S2O3
WP=Wipes PP=Pure Products	ZA=Zinc Acetate
AR=Air	HS=H_2SO_4
O= Blank Water	

ANALYSIS REQUIRED: Total lead

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☒ 30 days
- ☐ ____days
- ☐

LAB	SAMPLE ID / CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
21	I5NB-LSF-HA22 2.5'	HA22	5-19-05	1412	1	4 oz	Tar	SS		X	
22	I5NB-LSF-HA23 0.5'	HA23	↓	1430	1	↓	↓	SS		X	
23	I5NB-FB-02	FB	↓	1520	1	250ml	Poly	BW		X	
4											
5											
6											
7											
8											
9											
0											

wf 5.19.05

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.5	

SAMPLER Matt Fil

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fil	5-20-05	1240	Phil Holm
Phil Holm	5200S	1500	

NOTICE: Turn-around-time (TAT) for samples shall not begin untill all discrepancies have been resolved. For samples received and discrepacies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associted with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

1004

CHAIN OF CUSTODY

EMAX LABORATORIES, INC.
1835 W. 205th Street, Torrance, CA 90501
Tel #: 310-618-8889 Fax #: 310-618-0818
Email: info@emaxlabs.com

PO NUMBER:

SAMPLE STORAGE

EMAX CONTROL NO. * 05E190

PROJECT CODE:

CLIENT 105388009 / CalTrans

PROJECT 105388009 I-5 expansion

COORDINATOR Scott Snyder

TEL 858 576-1000 FAX EMAIL snyders@nmyd&moore.com

SEND REPORT TO Scott Snyder

COMPANY Ninyo & Moore

ADDRESS 5710 Ruffin Road
San Diego CA 92123

EMAX PM

MATRIX CODE		PRESERVATIVE CODE	
DW=Drinking Water		IC = Ice	
GW=Ground Water		HC = HCl	
WW=Waste Water		HN=HNO3	
SD=Solid Waste SL=Sludge		SH=NaOH	
SS=Soil/ Sediment		ST=Na2S2O3	
WP=Wipes PP=Pure Products		ZA=Zinc Acetate	
AR=Air		HS=H_2SO_4	
O= Blank Water			

ANALYSIS REQUIRED: Total Lead

TAT
- ☐ Rush ____hrs.
- ☐ Rush ____days
- ☐ 7 days
- ☐ 14 days
- ☐ 21 days
- ☒ 30 days
- ☐ ____days
- ☐

LAB	SAMPLE ID CLIENT	SAMPLING LOCATION	DATE	TIME	CONTAINER NO.	SIZE	TYPE	MATRIX CODE	QC	PRESERVATIVE CODE	COMMENTS
24	ISNB-DMH-HA11 3'	HA11	5-18-05	1500	2	4oz	jar	SS		X	
25	ISNB-DMH-FB1	FB1	5-18-05	0520	1	250	250 poly	O	FB	X	
3											
4											
5											
6											
7											
8											
9											
10											

Instructions

Cooler #	Temp. (°C)	Sample #s
1	4.5	

SAMPLER Matt Fuller

COURIER/AIRBILL

RELINQUISHED BY	Date	Time	RECEIVED BY
Matt Fuller	5-20-05	1240	Phil Helm
Phil Helm	5-20-05	1500	

NOTICE: Turn-around-time (TAT) for samples shall not begin until all discrepancies have been resolved. For samples received and discrepancies resolved after 1500 hrs, TAT shall start at 0800 hrs the next business day. The client is responsible for all cost associated with sample disposal. Samples shall be disposed of as soon as practical (but not prior to fifteen (15) calendar days) after issuance of analytical report unless a different sample disposal schedule is pre-arranged with EMAX. Disposal fee for samples defined by CA Title 22 as non-hazardous shall be $5.00 per sample. EMAX will return hazardous samples to the client at the client's expense unless directed in writing otherwise.

EMAX

Hanh Bui

From: Lauren Hedges [lhedges@ninyoandmoore.com]
Sent: Monday, May 23, 2005 11:50 AM
To: Hanh Bui
Cc: Scott Snyder
Subject: RE: Question for samples I5NB received on May/20 SDG: 05E190 (NM/Catrans)

Hi Hanh,
Please follow the COC to correct differences in times and dates. As far as the field blank that came in unpreserved, please preserve in the lab after filtration. Feel free to contact me with any other questions. Thanks,

Lauren

-----Original Message-----
From: Hanh Bui [mailto:HDBui@emaxlabs.com]
Sent: Monday, May 23, 2005 11:28 AM
To: Lauren Hedges
Subject: Question for samples I5NB received on May/20 SDG: 05E190 (NM/Catrans)

Hi Lauren,
Please find the attached of COCs and SRF, and give me advise for discrepency.
Also, I already add PCB for samples E154-08, -09 and -10. Hopefully, we try to get the result on 5/24
Thanks

-----Original Message-----
From: Lauren Hedges [mailto:lhedges@ninyoandmoore.com]
Sent: Monday, May 23, 2005 10:40 AM
To: Hanh Bui
Subject: RE: Review Login Sheets SDGs : 05E154 (N&M/8663 N Magnolia)

Hi Hanh,
Please also analyze B-6 (1.0', 3.5', and 5.5') for PCBs. Thanks,

Lauren

SAMPLE RECEIPT FORM 1

Type of Delivery	Delivered By/Airbill	ECN	05E190
☑ EMAX Courier	P- HATCHER	Recepient	SITNIKOV
☐ Client Delivery		Date	5-20-05
☐ Third Party		Time	1500

COC Inspection

☑ Client Name	☑ Sampler Name	☑ Sampling Date/Time/Location
☑ Address	☑ Courier Signature/Date/Time	☑ Analysis Required
☑ Client PM/FC	☑ TAT	☑ Matrix
☑ Tel #/Fax #	☑ Sample ID	☐ Preservative (if any)
Safety Issues ☑ None	☐ High Concentrations expected	☐ Superfund Site Samples
Comments: ☐ Rad Screening Required		

Packaging Inspection

Container	☑ Cooler	☑ Box	☐	☐
Condition	☐ Custody Seal	☐ Intact	☐ Damaged	☐
Packaging	☐ Bubble Pack	☐ Styrofoam	☑ Sufficient	☑ plastic bag
Temperatures	☑ Cooler 1 4.5°C	☑ Cooler 2 ____	☐ Cooler 3 ____	☐ Cooler 4 ____
	☐ Cooler 5 ____	☐ Cooler 6 ____	☐ Cooler 7 ____	☐ Cooler 8 ____
	☐ Cooler 9 ____	☐ Cooler 10 ____	☐ Cooler 11 ____	☐ Cooler 12 ____

Comments:

LSCID	Client ID	Discrepancy	Corrective Action
EJ90-02	ISNB-DMH-HA02-05	LABEL ID READS ISNB-DMH-	
		HA02-6"	Follow COC
-04		DATE/TIME ON LABEL READS 5-17-05/	
		1056 (5-18-05/1055 ON COC)	"
-07		DATE/TIME ON LABEL READS 5-17-05/	
		1234 (5-18-05/1230 ON COC)	"
-08		TIME ON LABEL READS 1310 (1310 ON COC)	
-09		TIME ON LABEL READS 1340 (1330 ON COC)	"
-21/22		RCVD 2 CONTAINERS EACH (1 ON COC)	
-23		NO DATE ON LABEL	"
-24		DATE ON LABEL READS 8-15-05	
			Preserve in Lab
23/25		RCVD UNPRESERVED SAMPLE FOR T-LEAD	after filtration per Lauren's instruction 5/23/05

LSCID : Lab Sample Container ID

REVIEWS

Sample Labeling _____ Date 5-20-05

SRF _____ Date 5/23/05

PM _____ Date 5/31/05

1007

REPORTING CONVENTIONS

DATA QUALIFIERS:

Lab Qualifier	AFCEE Qualifier	Description
J	F	Indicates that the analyte is positively identified and the result is less than RL but greater than MDL.
N		Indicates presumptive evidence of a compound.
B	B	Indicates that the analyte is found in the associated method blank as well as in the sample at above QC level.
E	J	Indicates that the result is above the maximum calibration range.
*	*	Out of QC limit.

Note: The above qualifiers are used to flag the results unless the project requires a different set of qualification criteria.

ACRONYMS AND ABBREVIATIONS:

CRDL	Contract Required Detection Limit
RL	Reporting Limit
MRL	Method Reporting Limit
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
DO	Diluted out

DATES

The date and time information for leaching and preparation reflect the beginning date and time of the procedure unless the method, protocol, or project specifically requires otherwise.

LABORATORY REPORT FOR

NINYO & MOORE

CALTRANS

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

SDG#: 05E190

7000

CASE NARRATIVE

CLIENT: NINYO & MOORE

PROJECT: CALTRANS

SDG: 05E190

METHOD 3010A/3050B/6010B
LEAD BY TRACE ICP

Two (2) water and twenty-three (23) soil samples were received on 05/20/05 for Lead analysis by Method 3010A/3050B/6010B in accordance with "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW846, 3rd edition.

1. **Holding Time**

   Analysis met holding time criteria.

2. **Method Blank**

   Method blanks were free of contamination at the reporting limit.

3. **Lab Control Sample/Lab Control Sample Duplicate**

   Lab control results were within QC limit.

4. **Serial Dilution / Post-Analytical Spike**

   Samples E190-20 and 21 and sample E172-13 from another SDG were analyzed for serial dilution and post-analytical spike. All QC requirements were met.

5. **Matrix Spike/Matrix Spike Duplicate**

   Sample E190-20 was spiked. All recoveries were within QC limit.

6. **Sample Analysis**

   Samples were analyzed according to the prescribed QC procedures. All criteria were met.

LAB CHRONICLE
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS

SDG NO. : 05E190
Instrument ID : T-173

SOIL

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1S	IPE094SB	1	NA	06/02/0500:00	05/30/0510:40	I73F002011	I73F002009	IPE094S	Method Blank
LCS1S	IPE094SL	1	NA	06/02/0500:06	05/30/0510:40	I73F002012	I73F002009	IPE094S	Lab Control Sample (LCS)
LCD1S	IPE094SC	1	NA	06/02/0500:12	05/30/0510:40	I73F002013	I73F002009	IPE094S	LCS Duplicate
I5NB-DMH-HA01 5'	E190-01	1	10.5	06/02/0500:20	05/30/0510:40	I73F002014	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA02 0.5'	E190-02	1	1.7	06/02/0500:26	05/30/0510:40	I73F002015	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA03 1.0'	E190-03	1	8.9	06/02/0500:32	05/30/0510:40	I73F002016	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA04 2.5'	E190-04	1	10.2	06/02/0500:38	05/30/0510:40	I73F002017	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA05 3.5'	E190-05	1	7.3	06/02/0500:44	05/30/0510:40	I73F002018	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA06 0.5'	E190-06	1	9.2	06/02/0500:51	05/30/0510:40	I73F002019	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA07 5'	E190-07	1	16.4	06/02/0500:57	05/30/0510:40	I73F002020	I73F002009	IPE094S	Field Sample
I5NB-DMH-HA08 5'	E190-08	1	7.7	06/02/0501:19	05/30/0510:40	I73F002023	I73F002021	IPE094S	Field Sample
I5NB-DMH-HA09 5'	E190-09	1	9.4	06/02/0501:25	05/30/0510:40	I73F002024	I73F002021	IPE094S	Field Sample
I5NB-DMH-HA10 2.5'	E190-10	1	5.9	06/02/0501:31	05/30/0510:40	I73F002025	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA12 2.5'	E190-11	1	2.8	06/02/0501:37	05/30/0510:40	I73F002026	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA13 0.5'	E190-12	1	4.3	06/02/0501:43	05/30/0510:40	I73F002027	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA14 2.5'	E190-13	1	3.4	06/02/0501:49	05/30/0510:40	I73F002028	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA15 5.0'	E190-14	1	13.0	06/02/0501:56	05/30/0510:40	I73F002029	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA16 0.5'	E190-15	1	6.9	06/02/0502:02	05/30/0510:40	I73F002030	I73F002021	IPE094S	Field Sample
I5NB-VDLV-HA17 5.0'	E190-16	1	9.4	06/02/0502:08	05/30/0510:40	I73F002031	I73F002021	IPE094S	Field Sample
I5NB-LSF-HA18 0.5'	E190-17	1	4.2	06/02/0502:14	05/30/0510:40	I73F002032	I73F002021	IPE094S	Field Sample
I5NB-LSF-HA19 2'	E190-18	1	6.9	06/02/0502:36	05/30/0510:40	I73F002035	I73F002033	IPE094S	Field Sample
I5NB-LSF-HA20 0.5'	E190-19	1	1.8	06/02/0502:42	05/30/0510:40	I73F002036	I73F002033	IPE094S	Field Sample
I5NB-LSF-HA21 2'DL	E190-20T	5	5.4	06/02/0502:48	05/30/0510:40	I73F002037	I73F002033	IPE094S	Diluted Sample
I5NB-LSF-HA21 2'	E190-20	1	5.4	06/02/0502:54	05/30/0510:40	I73F002038	I73F002033	IPE094S	Field Sample
I5NB-LSF-HA21 2'AS	E190-20A	1	5.4	06/02/0503:00	05/30/0510:40	I73F002039	I73F002033	IPE094S	Analytical Spike Sample
I5NB-LSF-HA21 2'MS	E190-20M	1	5.4	06/02/0503:07	05/30/0510:40	I73F002040	I73F002033	IPE094S	Matrix Spike Sample (MS)
I5NB-LSF-HA21 2'MSD	E190-20S	1	5.4	06/02/0503:13	05/30/0510:40	I73F002041	I73F002033	IPE094S	MS Duplicate (MSD)
MBLK2S	IPE093SB	1	NA	06/02/0503:21	05/30/0510:35	I73F002042	I73F002033	IPE093S	Method Blank
LCS2S	IPE093SL	1	NA	06/02/0503:27	05/30/0510:35	I73F002043	I73F002033	IPE093S	Lab Control Sample (LCS)
LCD2S	IPE093SC	1	NA	06/02/0503:33	05/30/0510:35	I73F002044	I73F002033	IPE093S	LCS Duplicate
I5NB-LSF-HA22 2.5'DL	E190-21T	5	2.8	06/02/0503:53	05/30/0510:35	I73F002047	I73F002045	IPE093S	Diluted Sample
I5NB-LSF-HA22 2.5'	E190-21	1	2.8	06/02/0503:59	05/30/0510:35	I73F002048	I73F002045	IPE093S	Field Sample
I5NB-LSF-HA22 2.5'AS	E190-21A	1	2.8	06/02/0504:05	05/30/0510:35	I73F002049	I73F002045	IPE093S	Analytical Spike Sample
I5NB-LSF-HA23 0.5'	E190-22	1	3.3	06/02/0504:13	05/30/0510:35	I73F002050	I73F002045	IPE093S	Field Sample
I5NB-DMH-HA11 3'	E190-24	1	14.8	06/02/0504:19	05/30/0510:35	I73F002051	I73F002045	IPE093S	Field Sample

WATER

Client Sample ID	Laboratory Sample ID	Dilution Factor	% Moist	Analysis DateTime	Extraction DateTime	Sample Data FN	Calibration Data FN	Prep. Batch	Notes
MBLK1W	IPE090WB	1	NA	05/31/0514:14	05/27/0515:00	I73E039011	I73E039009	IPE090W	Method Blank
LCS1W	IPE090WL	1	NA	05/31/0514:21	05/27/0515:00	I73E039012	I73E039009	IPE090W	Lab Control Sample (LCS)
LCD1W	IPE090WC	1	NA	05/31/0514:27	05/27/0515:00	I73E039013	I73E039009	IPE090W	LCS Duplicate

I5NB-FB-02	E190-23	1	NA	05/31/0516:31	05/27/0515:00	I73E039031	I73E039021	IPE090W	Field Sample
I5NB-DMH-FB1	E190-25	1	NA	05/31/0516:37	05/27/0515:00	I73E039032	I73E039021	IPE090W	Field Sample
NM03-B2-EQAS	E172-13A	1	NA	05/31/0514:34	05/27/0515:00	I73E039014	I73E039009	IPE090W	Analytical Spike Sample
NM03-B2-EQ	E172-13	1	NA	05/31/0514:42	05/27/0515:00	I73E039015	I73E039009	IPE090W	Field Sample
NM03-B2-EQDL	E172-13T	5	NA	05/31/0514:48	05/27/0515:00	I73E039016	I73E039009	IPE090W	Diluted Sample

FN - Filename
% Moist - Percent Moisture

0003

METHOD 3010A/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E190

Matrix : WATER
Instrument ID : T-I73

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/L)	DLF	MOIST	RL (mg/L)	MDL (mg/L)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1W	IPE090WB	ND	1	NA	.01	.003	05/31/0514:14	05/27/0515:00	I73E039011	I73E039009	IPE090W	NA	05/27/05
LCS1W	IPE090WL	1	1	NA	.01	.003	05/31/0514:21	05/27/0515:00	I73E039012	I73E039009	IPE090W	NA	05/27/05
LCD1W	IPE090WC	1.01	1	NA	.01	.003	05/31/0514:27	05/27/0515:00	I73E039013	I73E039009	IPE090W	NA	05/27/05
I5NB-FB-02	E190-23	ND	1	NA	.01	.003	05/31/0516:31	05/27/0515:00	I73E039031	I73E039021	IPE090W	05/19/05	05/20/05
I5NB-DMH-FB1	E190-25	ND	1	NA	.01	.003	05/31/0516:37	05/27/0515:00	I73E039032	I73E039021	IPE090W	05/18/05	05/20/05

1004

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1W
CONTROL NO.: IPE090WB IPE090WL IPE090WC
LAB FILE ID: I73E039011 I73E039012 I73E039013
DATIME EXTRCTD: 05/27/0515:00 05/27/0515:00 05/27/0515:00 DATE COLLECTED: NA
DATIME ANALYZD: 05/31/0514:14 05/31/0514:21 05/31/0514:27 DATE RECEIVED: 05/27/05
PREP. BATCH: IPE090W IPE090W IPE090W
CALIB. REF: I73E039009 I73E039009 I73E039009

ACCESSION:

PARAMETER	BLNK RSLT mg/L	SPIKE AMT mg/L	BS RSLT mg/L	BS % REC	SPIKE AMT mg/L	BSD RSLT mg/L	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	1	1	100	1	1.01	101	1	80-120	20

7005

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E190
METHOD: METHOD 3010A/6010B

MATRIX:	WATER		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	NM03-B2-EQ	NM03-B2-EQDL		
EMAX SAMP ID:	E172-13	E172-13T		
LAB FILE ID:	I73E039015	I73E039016		
DATE EXTRACTED:	05/27/0515:00	05/27/0515:00	DATE COLLECTED:	05/18/05
DATE ANALYZED:	05/31/0514:42	05/31/0514:48	DATE RECEIVED:	05/19/05
PREP. BATCH:	IPE090W	IPE090W		
CALIB. REF:	I73E039009	I73E039009		

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SERIAL DIL RSLT (mg/L)	DIF RSLT %	QC LIMIT (%)
Lead	ND	ND	0	10

1006

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3010A/6010B

MATRIX: WATER % MOISTURE: NA
DILTN FACTR: 1 1
SAMPLE ID: NM03-B2-EQ
CONTROL NO.: E172-13 E172-13A
LAB FILE ID: I73E039015 I73E039014
DATIME EXTRCTD: 05/27/0515:00 05/27/0515:00 DATE COLLECTED: 05/18/05
DATIME ANALYZD: 05/31/0514:42 05/31/0514:34 DATE RECEIVED: 05/19/05
PREP. BATCH: IPE090W IPE090W
CALIB. REF: I73E039009 I73E039009

ACCESSION:

PARAMETER	SMPL RSLT (mg/L)	SPIKE AMT (mg/L)	AS RSLT (mg/L)	AS % REC	QC LIMIT (%)
Lead	ND	1	.976	98	75-125

2007

METHOD 3050B/6010B
LEAD BY TRACE ICP

Client : NINYO & MOORE
Project : CALTRANS
Batch No. : 05E190

Matrix : SOIL
Instrument ID : T-173

SAMPLE ID	EMAX SAMPLE ID	RESULTS (mg/kg)	DLF	MOIST	RL (mg/kg)	MDL (mg/kg)	Analysis DATETIME	Extraction DATETIME	LFID	CAL REF	PREP BATCH	Collection DATETIME	Received DATETIME
MBLK1S	IPE094SB	ND	1	NA	1	.2	06/02/0500:00	05/30/0510:40	I73F002011	I73F002009	IPE094S	NA	05/30/05
LCS1S	IPE094SL	101	1	NA	1	.2	06/02/0500:06	05/30/0510:40	I73F002012	I73F002009	IPE094S	NA	05/30/05
LCD1S	IPE094SC	101	1	NA	1	.2	06/02/0500:12	05/30/0510:40	I73F002013	I73F002009	IPE094S	NA	05/30/05
I5NB-DMH-HA01 5'	E190-01	1.47	1	10.5	1.12	.223	06/02/0500:20	05/30/0510:40	I73F002014	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA02 0.5'	E190-02	4.72	1	1.7	1.02	.203	06/02/0500:26	05/30/0510:40	I73F002015	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA03 1.0'	E190-03	4.25	1	8.9	1.1	.22	06/02/0500:32	05/30/0510:40	I73F002016	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA04 2.5'	E190-04	9.85	1	10.2	1.11	.223	06/02/0500:38	05/30/0510:40	I73F002017	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA05 3.5'	E190-05	12.3	1	7.3	1.08	.216	06/02/0500:44	05/30/0510:40	I73F002018	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA06 0.5'	E190-06	15.9	1	9.2	1.1	.22	06/02/0500:51	05/30/0510:40	I73F002019	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA07 5'	E190-07	21.1	1	16.4	1.2	.239	06/02/0500:57	05/30/0510:40	I73F002020	I73F002009	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA08 5'	E190-08	5.87	1	7.7	1.08	.217	06/02/0501:19	05/30/0510:40	I73F002023	I73F002021	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA09 5'	E190-09	14.7	1	9.4	1.1	.221	06/02/0501:25	05/30/0510:40	I73F002024	I73F002021	IPE094S	05/18/05	05/20/05
I5NB-DMH-HA10 2.5'	E190-10	1.7	1	5.9	1.06	.213	06/02/0501:31	05/30/0510:40	I73F002025	I73F002021	IPE094S	05/18/05	05/20/05
I5NB-VDLV-HA12 2.5'	E190-11	2.3	1	2.8	1.03	.206	06/02/0501:37	05/30/0510:40	I73F002026	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-VDLV-HA13 0.5'	E190-12	1.45	1	4.3	1.04	.209	06/02/0501:43	05/30/0510:40	I73F002027	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-VDLV-HA14 2.5'	E190-13	1.85	1	3.4	1.04	.207	06/02/0501:49	05/30/0510:40	I73F002028	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-VDLV-HA15 5.0'	E190-14	4.55	1	13.0	1.15	.23	06/02/0501:56	05/30/0510:40	I73F002029	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-VDLV-HA16 0.5'	E190-15	9.84	1	6.9	1.07	.215	06/02/0502:02	05/30/0510:40	I73F002030	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-VDLV-HA17 5.0'	E190-16	2.16	1	9.4	1.1	.221	06/02/0502:08	05/30/0510:40	I73F002031	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA18 0.5'	E190-17	4.51	1	4.2	1.04	.209	06/02/0502:14	05/30/0510:40	I73F002032	I73F002021	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA19 2'	E190-18	2.65	1	6.9	1.07	.215	06/02/0502:36	05/30/0510:40	I73F002035	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA20 0.5'	E190-19	10.4	1	1.8	1.02	.204	06/02/0502:42	05/30/0510:40	I73F002036	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA21 2'DL	E190-20T	3.41J	5	5.4	5.29	1.06	06/02/0502:48	05/30/0510:40	I73F002037	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA21 2'	E190-20	3.27	1	5.4	1.06	.211	06/02/0502:54	05/30/0510:40	I73F002038	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA21 2'AS	E190-20A	101	1	5.4	1.06	.211	06/02/0503:00	05/30/0510:40	I73F002039	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA21 2'MS	E190-20M	98.3	1	5.4	1.06	.211	06/02/0503:07	05/30/0510:40	I73F002040	I73F002033	IPE094S	05/19/05	05/20/05
I5NB-LSF-HA21 2'MSD	E190-20S	98	1	5.4	1.06	.211	06/02/0503:13	05/30/0510:40	I73F002041	I73F002033	IPE094S	05/19/05	05/20/05
MBLK2S	IPE093SB	ND	1	NA	1	.2	06/02/0503:21	05/30/0510:35	I73F002042	I73F002033	IPE093S	NA	05/30/05
LCS2S	IPE093SL	100	1	NA	1	.2	06/02/0503:27	05/30/0510:35	I73F002043	I73F002033	IPE093S	NA	05/30/05
LCD2S	IPE093SC	101	1	NA	1	.2	06/02/0503:33	05/30/0510:35	I73F002044	I73F002033	IPE093S	NA	05/30/05
I5NB-LSF-HA22 2.5'DL	E190-21T	14.3	5	2.8	5.14	1.03	06/02/0503:53	05/30/0510:35	I73F002047	I73F002045	IPE093S	05/19/05	05/20/05
I5NB-LSF-HA22 2.5'	E190-21	13.5	1	2.8	1.03	.206	06/02/0503:59	05/30/0510:35	I73F002048	I73F002045	IPE093S	05/19/05	05/20/05
I5NB-LSF-HA22 2.5'AS	E190-21A	112	1	2.8	1.03	.206	06/02/0504:05	05/30/0510:35	I73F002049	I73F002045	IPE093S	05/19/05	05/20/05
I5NB-LSF-HA23 0.5'	E190-22	246	1	3.3	1.03	.207	06/02/0504:13	05/30/0510:35	I73F002050	I73F002045	IPE093S	05/19/05	05/20/05
I5NB-DMH-HA11 3'	E190-24	12.4	1	14.8	1.17	.235	06/02/0504:19	05/30/0510:35	I73F002051	I73F002045	IPE093S	05/18/05	05/20/05

2008

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: NA
DILTN FACTR: 1 1 1
SAMPLE ID: MBLK1S
CONTROL NO.: IPE094SB IPE094SL IPE094SC
LAB FILE ID: I73F002011 I73F002012 I73F002013
DATIME EXTRCTD: 05/30/0510:40 05/30/0510:40 05/30/0510:40 DATE COLLECTED: NA
DATIME ANALYZD: 06/02/0500:00 06/02/0500:06 06/02/0500:12 DATE RECEIVED: 05/30/05
PREP. BATCH: IPE094S IPE094S IPE094S
CALIB. REF: I73F002009 I73F002009 I73F002009

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	101	101	100	101	101	1	80-120	20

2009

EMAX QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL			% MOISTURE:	NA
DILTN FACTR:	1	1	1		
SAMPLE ID:	MBLK2S				
CONTROL NO.:	IPE093SB	IPE093SL	IPE093SC		
LAB FILE ID:	I73F002042	I73F002043	I73F002044		
DATIME EXTRCTD:	05/30/0510:35	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	NA
DATIME ANALYZD:	06/02/0503:21	06/02/0503:27	06/02/0503:33	DATE RECEIVED:	05/30/05
PREP. BATCH:	IPE093S	IPE093S	IPE093S		
CALIB. REF:	I73F002033	I73F002033	I73F002033		

ACCESSION:

PARAMETER	BLNK RSLT mg/kg	SPIKE AMT mg/kg	BS RSLT mg/kg	BS % REC	SPIKE AMT mg/kg	BSD RSLT mg/kg	BSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	ND	100	100	100	100	101	101	0	80-120	20

1040

EMAX QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 5.4
DILTN FACTR: 1 1 1
SAMPLE ID: I5NB-LSF-HA21 2'
CONTROL NO.: E190-20 E190-20M E190-20S
LAB FILE ID: I73F002038 I73F002040 I73F002041
DATIME EXTRCTD: 05/30/0510:40 05/30/0510:40 05/30/0510:40 DATE COLLECTED: 05/19/05
DATIME ANALYZD: 06/02/0502:54 06/02/0503:07 06/02/0503:13 DATE RECEIVED: 05/20/05
PREP. BATCH: IPE094S IPE094S IPE094S
CALIB. REF: I73F002033 I73F002033 I73F002033

ACCESSION:

PARAMETER	SMPL RSLT mg/kg	SPIKE AMT mg/kg	MS RSLT mg/kg	MS % REC	SPIKE AMT mg/kg	MSD RSLT mg/kg	MSD % REC	RPD %	QC LIMIT %	MAX RPD %
Lead	3.27	106	98.3	90	106	98	90	0	75-125	20

EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	I5NB-LSF-HA21	I5NB-LSF-HA21		
EMAX SAMP ID:	E190-20	E190-20T		
LAB FILE ID:	I73F002038	I73F002037		
DATE EXTRACTED:	05/30/0510:40	05/30/0510:40	DATE COLLECTED:	05/19/05
DATE ANALYZED:	06/02/0502:54	06/02/0502:48	DATE RECEIVED:	05/20/05
PREP. BATCH:	IPE094S	IPE094S		
CALIB. REF:	I73F002033	I73F002033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	3.27	3.41J	NA	10

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EMAX QUALITY CONTROL DATA
SERIAL DILUTION ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
BATCH NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	NA
DILUTION FACTOR:	1	5		
SAMPLE ID:	I5NB-LSF-HA22	I5NB-LSF-HA22		
EMAX SAMP ID:	E190-21	E190-21T		
LAB FILE ID:	I73F002048	I73F002047		
DATE EXTRACTED:	05/30/0510:35	05/30/0510:35	DATE COLLECTED:	05/19/05
DATE ANALYZED:	06/02/0503:59	06/02/0503:53	DATE RECEIVED:	05/20/05
PREP. BATCH:	IPE093S	IPE093S		
CALIB. REF:	I73F002045	I73F002045		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SERIAL DIL RSLT (mg/kg)	DIF RSLT %	QC LIMIT (%)
Lead	13.5	14.3	6	10

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX:	SOIL		% MOISTURE:	5.4
DILTN FACTR:	1	1		
SAMPLE ID:	I5NB-LSF-HA21 2'			
CONTROL NO.:	E190-20	E190-20A		
LAB FILE ID:	I73F002038	I73F002039		
DATIME EXTRCTD:	05/30/0510:40	05/30/0510:40	DATE COLLECTED:	05/19/05
DATIME ANALYZD:	06/02/0502:54	06/02/0503:00	DATE RECEIVED:	05/20/05
PREP. BATCH:	IPE094S	IPE094S		
CALIB. REF:	I73F002033	I73F002033		

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	3.27	106	101	92	75-125

EMAX QUALITY CONTROL DATA
ANALYTICAL SPIKE ANALYSIS

CLIENT: NINYO & MOORE
PROJECT: CALTRANS
SDG NO.: 05E190
METHOD: METHOD 3050B/6010B

MATRIX: SOIL % MOISTURE: 2.8
DILTN FACTR: 1 1
SAMPLE ID: I5NB-LSF-HA22 2.5'
CONTROL NO.: E190-21 E190-21A
LAB FILE ID: I73F002048 I73F002049
DATIME EXTRCTD: 05/30/0510:35 05/30/0510:35 DATE COLLECTED: 05/19/05
DATIME ANALYZD: 06/02/0503:59 06/02/0504:05 DATE RECEIVED: 05/20/05
PREP. BATCH: IPE093S IPE093S
CALIB. REF: I73F002045 I73F002045

ACCESSION:

PARAMETER	SMPL RSLT (mg/kg)	SPIKE AMT (mg/kg)	AS RSLT (mg/kg)	AS % REC	QC LIMIT (%)
Lead	13.5	103	112	95	75-125

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