DEPARTMENT OF TRANSPORTATION

BOX 23660 OAKLAND, CA 94623-0660 (510) 286-4444 TDD (510) 286-4454

March 10, 1998



TOM PEACOCK
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Dear Mr. Peacock:

Accompanying this letter is a Hazardous Waste Site Investigation Report regarding a land parcel at 6th Street and Castro Street in the City of Oakland, and a land parcel at the corner of Foothill Boulevard and Mattox Road in the City of Hayward. During the site investigation we discovered contaminants within the soil and groundwater that could require monitoring and/or remediation. It is the desire of Caltrans to sell these parcels; however, we require further guidance from your office on how to proceed before we agree upon any potential sale of the parcels. In order to expedite your review, we are providing funds to compensate the review costs for each site. Attached with this letter are the following:

- Site Investigation Report, International Technology Corporation, December 1996 The report
 provides information regarding both the Hayward and Oakland sites. The report contains soils
 analyses, groundwater analyses, boring logs, and laboratory reports.
- 2) A check payable to the Alameda County Department of Environmental Health in the amount of \$500 to used for review costs associated with the Hayward site.
- 3) A check payable to the Alameda County Department of Environmental Health in the amount of \$500 to used for review costs associated with the Oakland site.

Previous documents that were sent to your office on July 1, 1997, that may facilitate your review include:

- Site Investigation Report, Geocon Environmental, October 1995 The report is a result of an initial site investigation of both parcels. The report contains soils analyses, historical background information, and a geophysical survey.
- 2) Fire District Permit, April 1979 A copy of the permit for removal of underground tanks at the Hayward parcel.

3) Correspondence, Caltrans & Exxon, 1991 - Copies of letters between Caltrans and Exxon to confirm the removal of tanks at the Hayward parcel.

If you have any questions concerning these parcels or the information provided in this letter, please contact Michael Flake at (510) 286-5664.

Sincerely,

HARRY Y. YAHATA District Director

By

FO RON MORIGUCHI

District Office Chief

Office of Environmental Engineering

mf:MF

cc: S. Dondero - Caltrans HQ

AUG 1999

HAZARDOUS WASTE PRELIMINARY SITE INVESTIGATION REPORT TASK ORDER NUMBER 04-952137-ES CONTRACT NUMBER 43A0012

VACANT PARCEL
INTERSECTION OF MATTOX ROAD
AND FOOTHILL BOULEVARD
HAYWARD, CALIFORNIA

prepared for

CALIFORNIA DEPARTMENT OF TRANSPORTATION District 4

P.O. Box 23660 Oakland, California

prepared by

Professional Service Industries, Inc.

1320 West Winton Avenue Hayward, California 94545 (510) 785-1111

> August 30, 1999 575-9G034

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STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

Information provided in this Site Investigation Report, prepared by Professional Service Industries, Inc. (PSI), is intended exclusively for the use of Caltrans for the evaluation of subsurface conditions as it pertains to the subject site. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted identified any or all sources or locations of contamination.

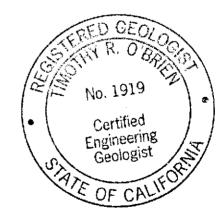
This report is issued with the understanding that Caltrans is responsible for ensuring that the information contained herein is brought to the attention of the appropriate regulatory agency. This report has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

Frank R. Poss, R.E.A. Senior Hydrogeologist

Timothy R. O'Brien RG/CEG/CHG

Senior Geologist

Scott A. Bowers Staff Geologist



1. INTRODUCTION

Professional Service Industries, Inc. (PSI) has been retained by the California Department of Transportation (Caltrans), under Task Order Number 04-952137-ES and Contract Number 43A0012, to conduct a hazardous waste site assessment of current soil and groundwater conditions at the vacant parcel located at the southwest corner of Mattox Road and Foothill Boulevard in Hayward, California. The subject site location is presented in Figure 1.

The scope of work for this investigation included:

- Obtain drilling permits and notify Underground Service Alert,
- Drill ten soil borings to collect soil and groundwater samples,
- Excavate three trenches in areas where magnetic anomalies were identified,
- Perform chemical analyses on soil and groundwater samples; and
- Prepare a technical report describing the investigation and interpretation of the data generated.

1.1 SITE DESCRIPTION AND HISTORY

The subject site is an asphalt/gravel covered vacant lot measuring approximately 37 m by 49 m (120 feet by 160 feet). A reinforced concrete slab, where a structure was formerly located, lies in the center of the property to the western boundary. The site is relatively flat and is bound by a 2 m chain-link fence. The site is bordered by Mattox Road to the north, Foothill Boulevard to the east, a commercial building to the south, and a residential property to the west.

The site was formerly occupied by a service station. In 1995, at the request of Caltrans, Geocon Environmental Consultants conducted a subsurface investigation. Geocon drilled five soil borings, collecting soil and groundwater samples. Samples were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G), Total Petroleum Hydrocarbons as Diesel (TPH-D), Benzene, Toluene, Ethylbenzene, total Xylenes (BTEX), total lead, and Total Oil and Grease (TOG). Analysis of the soil samples identified elevated levels of total lead (up to 2,400 milligrams per kilogram [mg/kg]), and TOG (7,200 mg/kg) (Caltrans, 1999).

In 1995, Norcal Geophysical Consultants, Inc performed a geophysical survey on the property. The results of the survey identified three magnetic anomalies at the site. It was suspected that the anomalies represented Underground Storage Tanks (USTs) left in place at the site (Caltrans, 1999).

In 1996, IT Corporation conducted a subsurface investigation. Analysis of soil samples identified concentrations of total lead (92 mg/kg), and TOG (480 mg/kg) (Caltrans, 1999).

1.2 PROJECT OBJECTIVE

The objectives of the project are to determine the concentrations of selected potentially hazardous constituents in soil and groundwater, evaluate their potential impact to construction activities, and determine the source of the magnetic anomalies identified by Norcal in 1995. Analytical results from PSI's soil and groundwater investigation were examined with respect to regulatory requirements and guidelines.

2. SUBSURFACE INVESTIGATION

2.1 PRE-FIELD ACTIVITIES

Prior to initiation of field activities, PSI marked the boring and trenching locations in white paint and contacted Underground Service Alert a minimum of 48-hours prior to beginning work to locate any potential buried utilities.

A site-specific Health and Safety Plan (HSP) was developed in compliance with 29 CFR 1910.120, and reviewed and signed by a Certified Industrial Hygienist. The HSP was designed to address the potential hazardous materials that may be encountered during field activities at the site and to minimize the exposure to potentially hazardous materials and unsafe working conditions to on-site personnel.

2.2 SOIL BORINGS

On June 1 and 2, 1999, ten soil borings (HAY1 through HAY10) were drilled at the site. The boring locations are presented on Figure 2. All borings were drilled using a Geoprobe 5400 direct-push sampling rig. Drilling services were provided by V & W Drilling of Rio Vista, California.

The borings were drilled using a 0.038 meter (1.5-inch) diameter core sampler fitted with a retractable tip and lined with acetate sleeves. Soil sampling was conducted in accordance with procedures described in Appendix A. Soil samples were collected from each boring at depths of 0.15, 0.3, 0.9, 1.5, 3, and 4.5 meters (0.5, 1, 3, 5, 10 and 15 feet) with the exception of borings HAY2 and HAY5 (refusals at 10 feet bgs), and HAY1 (refusal at 5 feet bgs). The total depth of borings are presented in Table 3. Borings were terminated when groundwater or refusal was encountered. Soil samples were not collected beneath first groundwater. The borings were grouted with neat cement to grade.

Soil borings were logged according to the "Soil and Rock Logging Classification Manual" prepared by the State of California, Department of Transportation. The logging classification manual is consistent with the Unified Soil Classification System. Boring logs are presented in Appendix B.

Soils observed during drilling activities were primarily silty clays and silty sands. Groundwater was encountered in only one boring (HAY3) at approximately 5.8 meters (19 feet) below ground surface (bgs).

A Photo-Ionization Detector (PID) was used to field screen soil samples for Volatile Organic Compounds (VOCs). No VOC concentrations were detected during sampling. PID readings were recorded on the boring logs.

Soil samples were logged on chain-of-custody records and transported to Centrum Analytical of Redlands, California, a California Department of Health Services certified hazardous materials testing laboratory, following chain-of-custody protocol. The analytical results are described in Section 4.

2.3 GRAB GROUNDWATER SAMPLING

A grab groundwater sample was collected from boring HAY3 only. The groundwater level in this boring stabilized at approximately 5.8 meters (19 feet) bgs. It was not possible to drill the remainder of the borings to depths sufficient to collect groundwater samples due to underlying bedrock material.

Figures 4 and 5 present cross sections of subsurface lithology and the groundwater encountered in boring HAY3. The grab groundwater sample was collected using disposable polyethylene tubing lowered through the drill stem. Groundwater samples were collected using positive displacement and a check valve. Groundwater sampling was conducted in accordance with the procedures described in Appendix A.

The grab groundwater sample was logged on a chain-of-custody record and transported to Centrum Analytical. The analytical results are described in Section 4.

2.4 EXPLORATORY TRENCHING

On June 1, 1999, eight exploratory trenches were excavated to determine the source of the magnetic anomalies identified by Norcal in 1995. Trenches were excavated using a John Deere 310 backhoe. Trench depths varied from five to seven feet bgs. Trench lengths ranged from 12 to 13 feet with widths of 4 to 4.5 feet. At least two trenches were dug at each magnetic anomaly.

The exploratory trenches in the areas of the magnetic anomalies did not reveal any evidence of Underground Storage Tanks (USTs). However, electrical conduit and small pieces of metallic debris were uncovered during the excavations. Though Norcal's discussion of the magnetic anomalies states that the low magnitude anomalies typically represent small USTs or large isolated metallic objects, the magnetometer used by Norcal in 1995 will detect any accumulation of ferrous objects (Norcal, 1999). The electrical

conduit and metallic piping debris unearthed from the excavations are likely the source of the magnetic anomalies.

3. LABORATORY ANALYSIS PROGRAM

The soil and groundwater samples collected during this investigation were submitted to Centrum Analytical, a State of California Department of Health Services certified hazardous waste laboratory. Soil and groundwater samples were analyzed by the following methods:

- EPA Method 1664 Oil and Grease;
- EPA Method 8015 modified Total Petroleum Hydrocarbons as Gasoline (TPH-G);
- EPA Method 8015 modified Total Petroleum Hydrocarbons as Diesel (TPH-D);
- EPA Method 8260

 Volatile Organic Compounds (VOCs);
- EPA Method 6010 for Total Lead; and
- EPA Method 7000 Waste Extraction Test.

Grab groundwater sample HAY3 was measured for the following parameters during its collection.

- pH (field measurement)
- Conductivity (field measurement)
- Temperature (field measurement)

4. LABORATORY RESULTS

4.1 SOIL

A summary of the analytical results for soil samples is presented in Table 1. The analytical report is included in Appendix C. Figure 3 presents the vertical and horizontal extents of contaminants reported in samples collected in PSI's investigation.

Concentrations of oil and grease were detected in all of the soil samples. Oil and grease concentrations ranged from 10 to 30,000 mg/kg. A previous subsurface investigation conducted in 1995 reported oil and grease concentrations in 15 of 19 soil samples ranging from 50 to 7,200 mg/kg. Generally, oil and grease concentrations decreased with depth (Geocon, 1995). Based on the fact that oil and grease concentrations generally decrease with depth, the source of the oil and grease may be related to asphalt pavement at the site. Pavement of an area with asphalt is typically preceded with spraying the area with an oil sealant. The analytical results are consistent with a previous subsurface investigation conducted by Geocon in 1995.

TPH-G was detected in soil samples HAY1-1.5 (0.62 mg/kg), and HAY2-0.15 (0.51 mg/kg). These samples were collected at shallow depth along the eastern portion of the site. No other soil samples contained detectable concentrations of TPH-G.

TPH-D concentrations were detected in 52 of the 56 soil samples. Eleven soil samples contained TPH-D concentrations in excess of 100 mg/kg. The sample concentrations ranged from below the laboratory detection limit to 970 mg/kg. TPH-D concentrations at the site typically decrease with depth.

The VOCs ethylbenzene, naphthalene, 1,1,2,2-tetrachloroethane, 1,2,4-trimethylbenzene, and xylenes were detected in 16 of the 56 soil samples at concentrations ranging from 0.001 to 0.009 mg/kg.

Concentrations of ethylbenzene and xylenes were detected in only one boring (HAY7). Ethylbenzene concentrations were detected at the surface and 0.90 meter (three foot) samples.

Xylene concentrations were detected in the surface (0.006 mg/kg), 0.90 meter (0.034 mg/kg), and 3 meter (0.004 mg/kg) samples. The concentrations detected are below the Preliminary Remediation Goal (PRG) set by the US EPA of 210 mg/kg for industrial

soil. Likewise, site ethylbenzene concentrations are below the PRG for ethylbenzene in industrial soil (230 mg/kg).

One sample each from borings HAY2, HAY4, and HAY6 contained detectable naphthalene concentrations ranging from 0.002 to 0.004 mg/kg. The concentrations of naphthalene detected are below the PRG in industrial soils (190 mg/kg). Based on the various depths and locations of naphthalene concentrations, the source of the naphthalene cannot be determined.

One sample (HAY6-0.90) contained 1,1,2,2-tetrachloroethane at a concentration of 0.002 mg/kg. This concentration is below the PRG for 1,1,2,2-tetrachloroethane in industrial soil (6.8 mg/kg). Twelve samples contained 1,2,4-trimethylbenzene concentrations ranging from 0.001 to 0.003 mg/kg. These concentrations were detected at shallow depths (1.5 meters or shallower) across the site. Detected concentrations of 1,2,4-trimethylbenzene at the site are below the PRG for 1,2,4-trimethylbenzene in industrial soil (170 mg/kg).

Total lead concentrations in soil samples ranged from below the laboratory detection limit to 200 mg/kg. Eight samples exceeded ten times the Soluble Threshold Limit Concentration (STLC) criterion. The results of the Waste Extraction Test (WET) for lead on these samples indicated that only two samples (HAY9-0.90 [6.3 mg/l] and HAY10-0.30 [6.6 mg/l]) remain in excess of the STLC criterion of five mg/l in soil. These samples are localized to the southeast portion of the property. Approximately 200 cubic meters of soil at the site may be classified as hazardous, if excavated and classified for disposal.

4.2 GROUNDWATER

A summary of the analytical results for groundwater samples is presented in Table 2. The analytical report is included in Appendix C.

A previous subsurface investigation conducted in 1995 by Geocon did not encounter groundwater prior to experiencing drilling refusal.

Groundwater was encountered in only one boring (HAY3) during PSI's subsurface investigation. Grab groundwater sample WHAY3 contained concentrations of TPH-D (0.48 mg/l) and Methyl Tertiary Butyl Ether (MTBE [2.4 µg/l]). TOG, TPH-G, and lead were not detected in the laboratory analysis.

Because the service station was closed in the late 1970s the previous use of the subject site is unlikely to be the source of the MTBE detected. Unauthorized dumping or an off-site source may be the source of the MTBE reported in the groundwater.

The low concentration of TPH-D is not considered significant. The source of the TPH-D may be from the contaminated soil reported on-site.

5. SUMMARY AND CONCLUSIONS

Based on the information presented in this report, the following conclusions have been reached:

- Fifty-six soil samples and one groundwater sample were collected in this investigation.
 Eight exploratory trenches were excavated to determine the source of magnetic anomalies.
- Soils observed during drilling activities primarily consisted of silty clays and silty sands. Groundwater was encountered in only one boring (HAY3) approximately 5.5 to 5.8 meters (18 to 19 feet) bgs. The site is underlain with bedrock material ranging from 1.9 to 6.8 meters (6.5 to 22.5 feet) bgs. A groundwater sample was collected from boring HAY3. Refusal was encountered in all the other borings.
- TPH-G was detected in two soil samples (HAY1-1.5 [0.62 mg/kg] and HAY2-0.15 [0.51 mg/kg]). TPH-G was not detected in a previous subsurface investigation conducted in July of 1995. Based on the low concentrations detected, TPH-G does not present an environmental risk at the site.
- TPH-D concentrations were detected in most of the soil samples. TPH-D concentrations ranged from below the laboratory detection limit to 970 mg/kg. Eleven soil samples contained TPH-D concentrations in excess of 100 mg/kg. TPH-D concentrations generally decreased with depth.
- Concentrations of ethylbenzene and xylenes were detected in only one boring (HAY7). Ethylbenzene concentrations were detected at the surface and 0.90 meter (three foot) samples. Xylene concentrations were detected in the surface (0.006 mg/kg), 0.90 meter (0.034 mg/kg), and 3 meter (0.004 mg/kg) samples. One sample each from borings HAY2, HAY4, and HAY6 contained detectable naphthalene concentrations ranging from 0.002 to 0.004 mg/kg. Based on the various depths and locations of naphthalene concentrations, the source of the naphthalene cannot be determined. One sample (HAY6-0.90) contained 1,1,2,2-tetrachloroethane at a concentration of 0.002 mg/kg. Twelve samples contained 1,2,4-trimethylbenzene concentrations ranging from 0.001 to 0.003 mg/kg. These concentrations were detected at shallow depths (1.5 meters or shallower) across the site. All VOC concentrations detected at the site are below PRG values for industrial soil.

- Concentrations of oil and grease were detected in all of the soil samples. Oil and grease concentrations ranged from 10 to 30,000 mg/kg. A previous subsurface investigation conducted by Geocon in 1995 reported oil and grease concentrations in 15 of 19 soil samples ranging from 50 to 7,200 mg/kg. Generally, oil and grease concentrations decreased with depth. Based on the fact that oil and grease concentrations generally decrease with depth, the source of the oil and grease may be related to asphalt pavement at the site. Pavement of an area with asphalt is typically preceded with spraying the area with an oil sealant. The analytical results are consistent with a previous subsurface investigation conducted by Geocon in 1995. The issue of elevated oil and grease concentrations at the site may be further investigated by conducting a Tier II Risk Based Corrective Action (RBCA) study. A RBCA study will evaluate the potential for contaminants to impact sensitive receptors, and determine clean-up standards, if appropriate.
- Total lead concentrations were detected in most of the soil samples. Eight samples were in excess of ten times the STLC criterion. Most of the detected lead concentrations from this investigation, and Geocon's 1995 investigation, are consistent with natural background concentrations (Scott, 1991). Two of the three soil samples with elevated lead concentrations from Geocon's investigation are also located in the southern portion of the property. The eight samples with elevated concentrations in PSI's investigation are located in the southern portion of the property. An estimated 200 cubic meters of soil at the site may be classified as hazardous, if excavated and classified for disposal.
- One groundwater sample has been collected in the site investigations performed at the site. The groundwater sample (WHAY3) did not contain concentrations of TOG, TPH-G, or lead. Trace concentrations of TPH-D (0.48 mg/l) and MTBE (2.4 μg/l) were reported in the groundwater sample.

The concentration of TPH-D is not considered significant. This is based on the lack of a Maximum Concentration Limit (MCL) for TPH-D in drinking water, the low mobility of TPH-D in the subsurface, and published regulatory guidelines encouraging natural attenuation of low concentrations of petroleum hydrocarbon contaminants (RWQCB, 1996; LLNL, 1995).

The concentration of MTBE is not considered significant. The observed concentration in the groundwater sample is likely the result of an off-site source given that the tanks were removed from the site in the late 1970s (Geocon, 1995). The concentration reported in sample WHAY3 is below the secondary drinking water standard (5.0 μ g/l). Because MTBE was not detected in any of the soil samples collected from the site, it is not considered a significant site contaminant.

• The exploratory trenches in the areas of the magnetic anomalies did not reveal the presence of Underground Storage Tanks (USTs). However, electrical conduit and small pieces of metallic piping debris were uncovered during the excavations. Though Norcal's discussion of the magnetic anomalies states that the low magnitude anomalies typically represent small USTs or large isolated metallic objects, the magnetometer used by Norcal in 1995 will detect any accumulation of ferrous objects (Norcal, 1999). The electrical conduit and metallic piping debris unearthed from the excavations are likely the source of the magnetic anomalies.

PSI does not recommend further characterization of the site with the possible exception of a Tier II RBCA study. This is consistent with Regional Water Quality Control Board guidelines and published documents (LLNL, 1995; RWQCB, 1996). If the site is redeveloped, a soil management and construction worker health and safety plan should be prepared to minimize potential exposure and waste disposal problems.

REFERENCES

Caltrans, 1997, Task Order # 04-952137-ES, Hazardous Waste Preliminary Site investigation, prepared for Caltrans, March 31.

Geocon, 1995, Site investigation Report, Foothill Boulevard and Mattox Road Parcel, October.

Scott, 1991, Background Metal Concentrations in Soils in Northern Santa Clara County, California, M.S. Thesis at the University of San Francisco Environmental Management Program, December 1991.

Norcal, 1995, Geophysical Report for Caltrans properties in Hayward and Oakland, September 1.

Norcal, 1999, Personal communication on the geophysical investigation performed at the site, with Mr. Donald J. Kirker, GP, August 11.

Lawrence Livermore National Laboratory, 1995a, Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks, prepared for California State Water Resources Control Board, October 16.

Lawrence Livermore National Laboratory, 1995b, California Leaking Underground Fuel Tank Historical Case Analyses, prepared for California State Water Resources Control Board, November 16.

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES
INTERSECTION OF MATTOX AND FOOTHILL
HAYWARD, CALIFORNIA

(meters)

| | (MICHOLD) | | | ACCORDANGE OF THE PROPERTY OF | acquired to the second | | | | | | |
|----------|-----------|--------------|----------|---|---|------------|--------------|------------|------------|-----------|-----------|
| | | | | | | | 1,1,2,2- | 1,2,4 | XYLENES | - 100 | TOTAL |
| SAMPLE | DEPTH | TOTAL OIL & | TPH-G | TPH-D | ETHYLBENZENE | NAPTHALENE | TETRACHLORO- | TRIMETHYL. | (TOTAL) | EPA 8260* | LEAD |
| NUMBER | | GREASE mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | ETHANE | BENZENE 4 | mg/kg | mg/kg | mg/kg |
| | | | | | | | mg/kg | mg/kg | | 200 700 | |
| HAY1 | 0.15 | 8,300 | ND (0.5) | 220 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| | 0.30 | 73 | ND (0.5) | 22 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 7.7 |
| | 0.90 | 41 | ND (0.5) | 13 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 6.8 |
| | 1.5 | 19 | 0.62 | 11 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 9.6 |
| HAY2 | 0.15 | 7,300 | 0.51 | 22 | ND (0.001) | 0.002 | ND (0.002) | 0.002 | ND (0.003) | ND* | 31 |
| Ī | 0.30 | 380 | ND | 41 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| | 0.90 | 1,600 | ND (0.5) | 13 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| | 1.5 | 32 | ND (0.5) | 13 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| Ī | 3.0 | 13 | ND (0.5) | 16 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| HAY3 | 0.15 | 10,000 | ND (0.5) | 800 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 27 |
| | 0.30 | 310 | ND (0.5) | 22 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 27 |
| ļ | 0.90 | 17 | ND (0.5) | 44 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 12 |
| | 1.5 | 34 | ND (0.5) | 22 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 61(ND) |
| 1 | 3.0 | 13 | ND (0.5) | 13 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 14 |
| 1 | 4.5 | 20 | ND (0.5) | 11 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| HAY4 C 3 | 0.15 | 30,000 | ND (0.5) | 970 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 16 |
| | 0.30 | 22,000 | ND (0.5) | 780 | ND (0.001) | ND (0.002) | ND (0.002) | 0.003 | ND (0.003) | ND* | 15 |
| l . | 0.90 | 23,000 | ND (0.5) | 17 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 12 |
| ,- | 1.5 | 10 | ND (0.5) | 130 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 18 |
| | 3.0 | 14 | ND (0.5) | ND (10) | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| | 4.5 | 7,500 | ND (0.5) | 130 | ND (0.001) | 0.002 | ND (0.002) | 0.002 | ND (0.003) | ND* | 9.3 |
| HAY5 | 0.15 | 570 | ND (0.5) | 34 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 31 |
| | 0.30 | 330 | ND (0.5) | 37 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 55 (2.8) |
| | 0.90 | 29 | ND (0.5) | 31 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 160 (2.8) |
| | 1.5 | 28 | ND (0.5) | 10 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 100 (ND) |
| | 3.0 | 44 | ND (0.5) | 18 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND (5.0) |
| HAY6 | 0.15 | 290 | ND (0.5) | 690 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 15 |
| | 0.30 | 270 | ND (0.5) | 37 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 22 |
| | 0.90 | 73 | ND (0.5) | 10 | ND (0.001) | 0.004 | 0.002 | 0.001 | ND (0.003) | ND* | 52 (3.0) |
| | 1.5 | 29 | ND (0.5) | 23 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 34 |
|] | 3.0 | 82 | ND (0.5) | 16 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 7.7 |
| | 4.5 | 35 | ND (0.5) | 17 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 7.7 |

TABLE 1
ANALYTICAL RESULTS FOR SOIL SAMPLES
INTERSECTION OF MATTOX AND FOOTHILL
HAYWARD, CALIFORNIA

| | | | | | IIA I WAND, VALII | | 1,1,2,2- | 1,2,4- | | | |
|----------|-------|--------------|-----------|----------|-------------------|------------|------------------|--------------------------|---------------------|-----------|------------|
| | | | Tour a | | | | | | XYLENES | EDA OSCOT | TOTAL |
| SAMPLE | DEPTH | OIL & GREASE | TPH-G | TPH-D | ETHYLBENZENE | NAPTHALENE | TETRACHLORO- | TRIMETHYL. | (TOTAL) | EPA 8260* | LEAD |
| NUMBER | | mg/kg | mg/kg | mg/kg | mg/kg | mg/kg | ETHANE ma/ka | BENZENE | mg/kg | mg/kg | mg/kg |
| 1145/7 | 0.45 | 450 | ND (C.E.) | ND (40) | 0.002 | ND | mg/kg ND (0.002) | mg/kg ND (0.002) | 0.006 | ND* | 23 |
| HAY7 | 0.15 | 450 | ND (0.5) | ND (10) | | | | | | ND* | 39 |
| | 0.30 | 150 | ND (0.5) | 22 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) ND (0.002) | ND (0.003) 0.034 | ND* | 33 |
| | 0.90 | 8,200 | ND (0.5) | 420 | 0.009 | ND (0.002) | ND (0.002) | | | ND* | 24 |
| | 1.5 | 4,700 | ND (0.5) | 260 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | | |
| | 3.0 | 670 | ND (0.5) | 27 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | 0.004 | ND* | 11 |
| | 4.5 | 50 | ND (0.5) | 12 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 8.2 |
| HAY8 | 0.15 | 420 | ND (0.5) | 36 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 27 |
| | 0.30 | 200 | ND (0.5) | 180 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 200 (ND) |
| | 0.90 | 15,000 | ND (0.5) | 93 | ND (0.001) | ND (0.002) | ND (0.002) | 0.002 | ND (0.003) | ND* | 28 |
| | 1.5 | 180 | ND (0.5) | 27 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 9.1 |
| | 3.0 | 140 | ND (0.5) | 30 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 9.1 |
| | 4.5 | 48 | ND (0.5) | 16 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 15 |
| HAY9 | 0.15 | 2,200 | ND (0.5) | 520 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 30 |
| | 0.30 | . 110 | ND (0.5) | 10 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 18 |
| | 0.90 | 74 | ND (0.5) | 29 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 190 (6.3)∉ |
| | 1.5 | 96 | ND (0.5) | 34 | ND (0.001) | ND (0.002) | ND (0.002) | 0.002 | ND (0.003) | ND* | 15 |
| | 3.0 | 39 | ND (0.5) | 30 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 14 |
| | 4.5 | 120 | ND (0.5) | 26 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 8.4 |
| HAY10 | 0.15 | 14,000 | ND (0.5) | ND (10) | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | ND |
| | 0.30 | 34 | ND (0.5) | ND (10) | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 78 (6.6) 🗁 |
| | 0.90 | 6,100 | ND (0.5) | 12 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 20 |
| | 1.5 | 720 | ND (0.5) | 17 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 9.2 |
| | 3.0 | 930 | ND (0.5) | 36 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 9.7 |
| | 4.5 | 160 | ND (0.5) | 23 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 8.6 |
| RO-1 | NA. | 270 | ND (0.5) | 26 | ND (0.001) | 0.003 | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 33 |
| RO-2 | NA. | 310 | ND (0.5) | 51 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 32 |
| RO-3 | NA. | 350 | ND (0.5) | 54 | ND (0.001) | ND (0.002) | ND (0.002) | 0.001 | ND (0.003) | ND* | 33 |
| RO-4 | NA. | 390 | ND (0.5) | 47 | ND (0.001) | ND (0.002) | ND (0.002) | ND (0.002) | ND (0.003) | ND* | 29 |
| (HAY1-1) | 0.30 | 320 | NA NA | NA NA | NA NA | NA NA | NA NA | NA | NA | NA | 20 |
| (HAY1-2) | 0.61 | 280 | NA. | NA NA | NA NA | NA NA | NA NA | NA NA | NA NA | NA NA | 20 |
| (HAY1-3) | 0.90 | 200 | NA | NA NA | NA NA | NA NA | NA NA | NA | NA NA | NA NA | 41 |
| | 5.2 | 50 | <1.0 | <1.0 | ND (0.005) | NA NA | NA NA | NA NA | ND (0.005) | NA NA | NA NA |
| (HAY1-4) | | 120 | NA | NA | ND (0.003) | NA NA | NA NA | NA NA | NA (0.003) | NA NA | 29 |
| (HAY2-1) | 0.30 | | | NA NA | NA NA | NA NA | NA NA | NA NA | NA NA | NA NA | 29 |
| (HAY2-2) | 0.61 | 3,000 | NA NA | | | | | | NA NA | NA NA | 4.6 |
| (HAY2-3) | 0.90 | 55 | NA | NA . | NA NA | NA NA | NA NA | NA NA | | | NA NA |
| (HAY2-4) | 5.2 | <50 | <1.0 | <1.0 | ND (0.005) | NA | NA NA | NA NA | ND (0.005) | NA | |
| (HAY3-1) | 0.30 | 190 | NA | NA | NA | NA NA | NA NA | NA | NA | NA | 100 |
| (HAY3-2) | 0.61 | 160 | NA | NA | NA | NA NA | NA NA | NA | NA | NA | 14 |
| (HAY3-3) | 0.90 | <50 | NA | NA | NA | NA | NA | NA | NA | NA NA | <1.0 |

TABLE 1 ANALYTICAL RESULTS FOR SOIL SAMPLES INTERSECTION OF MATTOX AND FOOTHILL HAYWARD, CALIFORNIA

| SAMP E | DEPTH | OIL & GREASE | TPH-G mg/kg | TPH-D mg/kg | ETHYLBENZENE mg/kg | NAPTHALENE mg/kg | 171,2,2- TETRACHLORO- ETHANE | 1,2,4- TRIMETHYL- BENZENE | XYLENES (TOTAL) | EPA 8260* mg/kg | TOTAL LEAD | |
|----------|-------|--------------|----------------|----------------|-----------------------|---------------------|------------------------------------|---------------------------------|--------------------|--------------------|-------------------|--------|
| | | | | | | | mg/kg | mg/kg | mg/kg | | mg/kg | |
| (HAY4-1) | 0.30 | 2,300 | NA | NA NA | NA | NA | NA | NA | NA | NA | 12 | |
| (HAY4-2) | 0.61 | 150 | NA | NA | NA | NA | NA | NA | NA | NA | <1.0 | |
| (HAY4-3) | 0.90 | <50 | NA | NA | NA | NA | NA | NA | NA | NA | 19 | |
| (HAY4-4) | 5.2 | 7,200 | <1.0 | <1.0 | ND (0.005) | NA | NA | NA | ND (0.005) | NA | NA | |
| (HAY5-1) | 0.30 | 85 | NA. | NA | NA | NA | NA | NA | NA | NA | 11 | |
| (HAY5-2) | 0.61 | 260 | NA. | NA | NA | NA | NA | NA | NA | NA | 4.9 | 1 . |
| (HAY5-3) | 0.90 | <50 | NA. | NA | NA | NA | NA | NA | NA | NA | - 64160 22 | Q 3° 6 |
| (HAY5-4) | 2.3 | 90 | <1.0 | <1.0 | ND (0.005) | NA | NA | NA | ND (0.005) | NA | NA |] |

Notes:

Sample number listed in parentheses () from Geocon, 1995.

Sample depths reported in meters below ground surface.

TPH-G = Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015M.

TPH-D = Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M.

RO-1/4 = Soil samples collected from the roll off bin storing soil cuttings.

EPA 8260* denotes all analytes included in EPA Method 8260 not listed in table.

ND* denotes not detected analytes in EPA Method 8260*, see analytical report for detection limits.

NA = Not analyzed

TABLE 2

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES INTERSECTION OF MATTOX AND FOOTHILL HAYWARD, CALIFORNIA

ugh

| | ND* |
|---|------------------------|
| SAMPLE TOTAL OIL & TPH-G TPH-D MTBE TOTAL LEA NUMBER GREASE mg/l mg/l mg/l mg/l | 5 EPA 8260* mg/l |

Notes:

TPH-G = Total Petroleum Hydrocarbons as Gasoline by EPA Method 8015M.

TPH-D = Total Petroleum Hydrocarbons as Diesel by EPA Method 8015M.

MTBE = Methyl Tertiary Butyl Ether by EPA Method 8260.

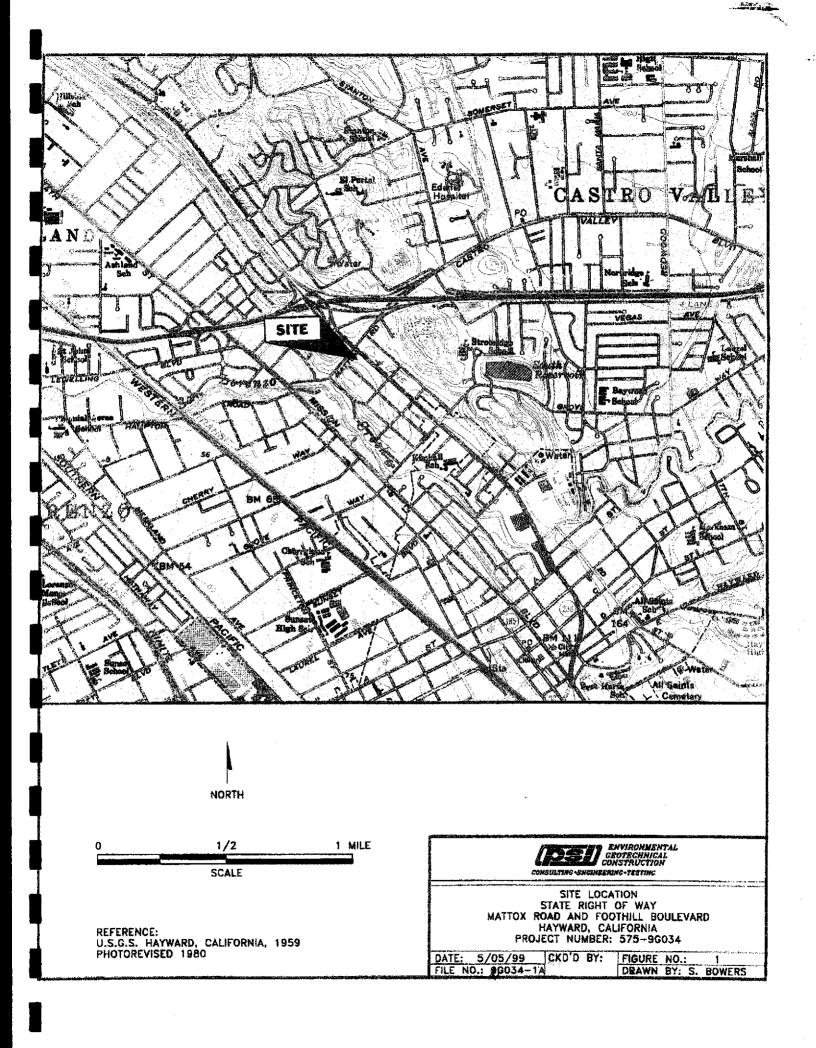
EPA 8260 denotes all analytes included in EPA Method 8260 for Volatile Organic Compounds.

ND = Not detected at or above laboratory detection limit. Detection limit shown in parentheses.

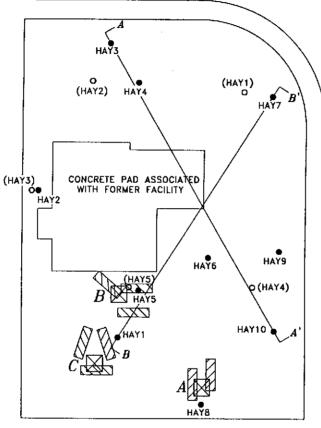
ND* see analytical reports for detection limits.

TABLE 3 BORING DEPTHS INTERSECTION OF MATTOX AND FOOTHILL HAYWARD, CALIFORNIA

| BORING NUMBER | TOTAL DEPTH (FEET BGS) | TOTAL DEPTH (METERS BGS) |
|---------------|---------------------------|-----------------------------|
| HAY1 | 6.5 | 1.98 |
| HAY2 | 6.5 | 1.98 |
| HAY3 | 22.5 | 6.86 |
| HAY4 | 22.5 | 6.86 |
| HAY5 | 10 | 3.05 |
| HAY6 | 15 | 4.57 |
| HAY7 | 15 | 4.57 |
| HAY8 | 16.5 | 5.03 |
| HAY9 | 17 | 5.18 |
| HAY10 | 16.5 | 5.03 |

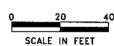


MATTOX ROAD



BOULEVARD





LEGEND

● HAY1 SOIL BORING LOCATION

O (HAY1) PREVIOUS SOIL BORING LOCATION (GEOCON, 7/95)



AREA OF GEOPHYSICAL ANOMALY AND PSI TRENCHING



EXPLORATORY TRENCH



GEOLOGIC CROSS SECTION

SOURCE: NORCAL, 1999

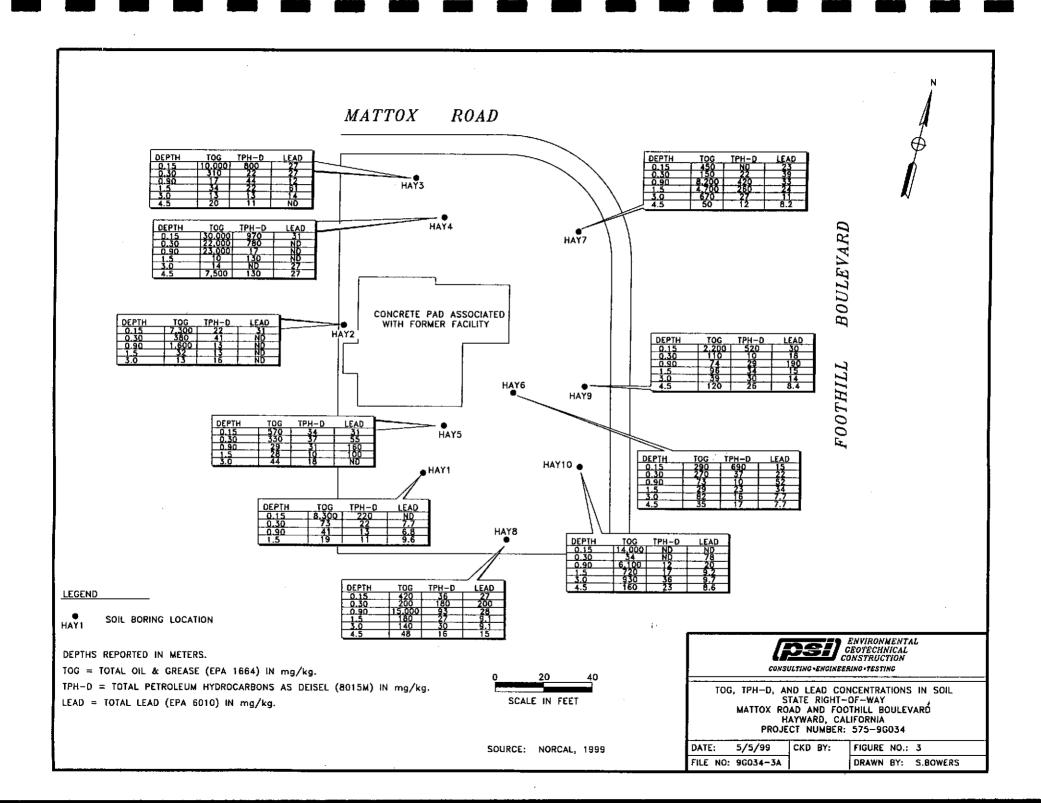


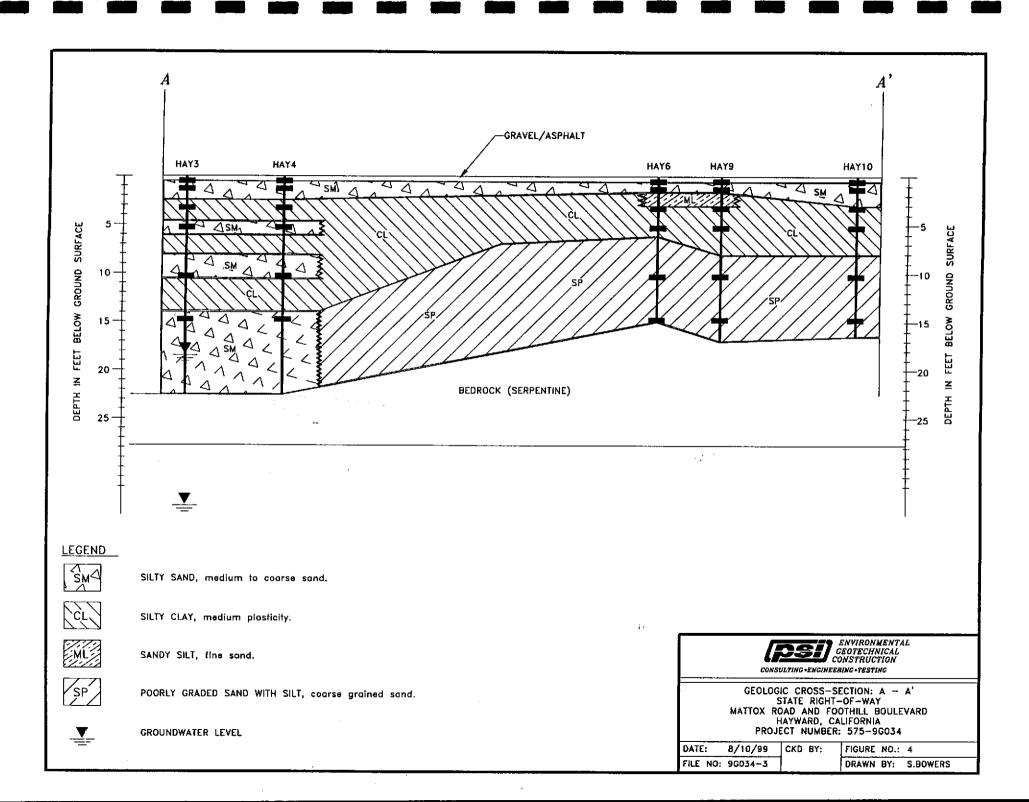
BORING AND TRENCH LOCATIONS
STATE RIGHT-OF-WAY
MATTOX ROAD AND FOOTHILL BOULEVARD
HAYWARD, CALIFORNIA
PROJECT NUMBER: 575-96034

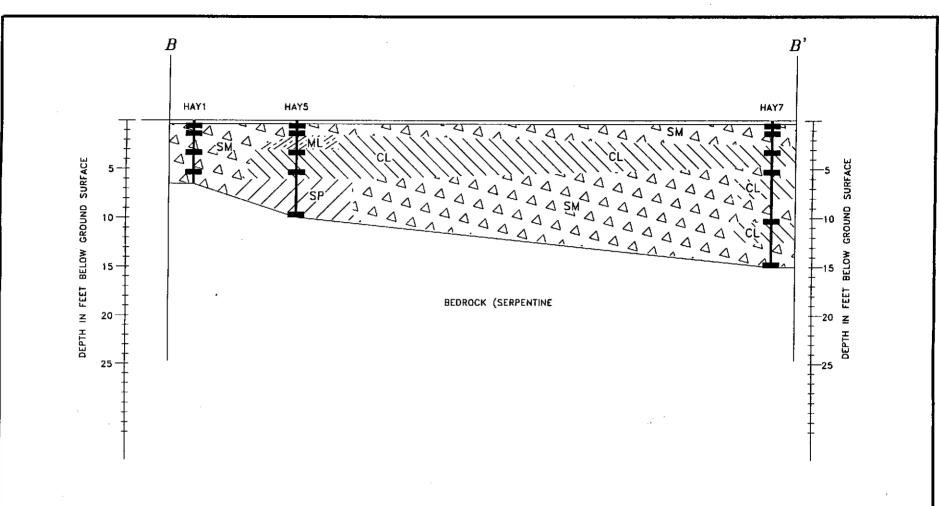
DATE: 5/5/99 FILE NO: 9G034-2A CKD BY:

FIGURE NO.: 2

DRAWN BY: S.BOWERS







LEGEND



SILTY SAND, medium to coarse sand.



SILTY CLAY, medium plasticity.



SANDY SILT, fine sand.



POORLY GRADED SAND WITH SILT, coorse grained sand.



GEOLOGIC CROSS-SECTION: B - B'
STATE RIGHT-OF-WAY
MATTOX ROAD AND FOOTHILL BOULEVARD
HAYWARD, CALIFORNIA
PROJECT NUMBER: 575-96034

DATE: 8/10/99

CKD BY:

FIGURE NO.: 5

FILE NO: 9G034-4

DRAWN BY: S.BOWERS

<u>APPENDIX A</u>

FIELD PROCEDURES

APPENDIX A FIELD PROCEDURES

I. FIELD DOCUMENTATION OF SAMPLING PROCEDURES

The following outline describes the procedures adhered by PSI for proper sampling documentation.

- 1. Sampling procedures will be documented in field notes that contain:
 - 1. Sample collection procedures
 - 2. Date and time of collection
 - 3. Date of shipping
 - 4. Sample collection location
 - 5. Sample identification number(s)
 - 6. Intended analysis
 - 7. Quality control samples
 - 8. Sample preservation
 - 9. Name of sampler
 - 10. Any pertinent observations
- 2. Samples will be labeled with the following information:
 - 1. Sample designation number
 - 2. Date and time sample was collected
 - 3. Sampler's name
 - 4. Sample preservatives (if required)
- 3. The following is the sample designation system for the site:

For Borings the samples will be labeled B-(Boring Number)-(Depth) (i.e. sample collected from boring 4 at 5 meters (feet) would be B4-5).

- 4. Handling of the samples will be recorded on a chain of custody form which shall include:
 - 1. Project name
 - 2. Site location
 - 3. Signature of Collector
 - 4. Date and time of collection
 - 5. Sample identification number
 - 6. Number of containers in sample set
 - 7. Description of sample and container
 - 8. Name and signature of persons, and the companies or agencies they represent, who are involved in the chain of possession
 - 9. Inclusive dates and times of possession
 - 10. Analyses to be completed

II. ADVANCING OF SOIL BORINGS AND COLLECTION OF SOIL SAMPLES

The following procedures were used for advancing soil borings and collecting soil samples at the site:

- 1. Prior to the commencement of soil boring activities at the site, soil boring locations were marked with white paint. Underground Service Alert (USA) was contacted to identify underground utilities in the vicinity of the soil borings.
- 2. Soil boring and sampling activities were conducted by Fisch Environmental of Valley Springs, California. The soil borings were advanced using GeoProbe direct push method. Flush-threaded rods with a stainless steel sampler were advanced into the ground using a hydraulic press and percussion hammer. The opening of the sampler was sealed with a drive tip held in place by a threaded pin.
- 3. Soil samples were collected using a 0.45 meter (1.5-foot) long, 0.02 meter (1-inch) inside diameter macro-core stainless steel sampler. Soil samplers were washed between sampling intervals with Alconox soap followed by two deionized water rinses. The sampler was lined with clean brass, stainless steel, or acetate sleeves. When the boring was advanced to the desired sampling depth the threaded pin was removed allowing the drive tip to retract as the sampler was advanced 0.45 meter (1.5-foot) into native soil using a percussion hammer.

- 4. After the sampler was retrieved the sleeves were extracted from the sampler without disturbing the sample. The sample was collected for analyses from the lowest tube in the sampler. The ends of the sample were covered with Teflon™ sheets and capped with polyethylene end caps. The sample was labeled and placed in a ziplock bag in a chilled cooler prior to delivery to the laboratory for analyses.
- 5. Soil samples were assigned identification numbers such as B1-5, where B1 indicates the boring designation and -5 indicates that the sample was collected at 5 feet bgs. The samples were labeled with the project name, date and time of sample collection, sampling depth, and client name.
- 6. Chain-of-custody procedures using chain-of-custody records were implemented during handling and transportation of the samples to the laboratory for analyses.
- 7. Boring logs were prepared for the soil borings under the supervision of a California-Registered Geologist. Soil from each sample was described in accordance with Unified Soil Classification System by a PSI geologist and recorded on a field boring log. The data recorded on the logs were based on examination of soil samples retrieved in the tubes, and drilling conditions observed in the field. Boring logs include information regarding the location of each boring, geologic descriptions of materials encountered, occurrence of groundwater (if applicable) and organic vapor analyzer (OVA) measurements in the soil samples collected.
- 8. An HNU photoionizer (PID) was used to monitor volatile organic compounds (VOCs) in the ambient air during drilling at the site in accordance with the site health and safety plan. VOC concentrations in the soil were measured at the sampling depths by partially filling a zip-loc bag and closing the top. The components of the soil were allowed to volatilize and fill the head space in the bag for approximately 15 to 30 minutes prior to inserting the OVA probe through the top of the bag and recording the measurements.
- 9. No soil cuttings were generated during drilling, due to the use of a geoprobe drill rig.

III. BACKFILL OF SOIL BORINGS

The following procedures were used to backfill the soil borings at the site:

1. Soil borings were backfilled to grade with Portland grout slurry. The slurry consisted of neat cement and 5% bentonite powder.

APPENDIX B

BORING LOGS

| SOII | L B | OR | 115 | ٧G | LOG | | | Ì | BORING NO | : HAY1 | | | |
|-----------------|------------|---------------|-----|--------------|--|--|--|-----------|--|-------------|---------------------------------------|--|--|
| | | | | | | | | ŀ | SHEET 1 | OF | 1 | | |
| | | | | | PROJECT NA | ME: Caltrans: | Mattox a | | nill, Hayward | | | | |
| | | | | | | PROJECT NUMBER: 575-9G034 DATE: 6/2/99 | | | | | | | |
| | | | | | DRILLING CO | | / & W Dr | illing | | | | | |
| | | | | | | DRILLING PERSONNEL: Travis Mills | | | | | | | |
| | | | | | DRILLING ME | | Direct Pu | sh (Geor | | | | | |
| | | | | | BORING DIA | | ?-inch | | DEPTH: 6.5 f | eet | | | |
| | | | | | | | GROUNI | OWATER | LEVELS | | | | |
| | | | | | | DATE | | COMM | ENTS | DEPT | H BGS | | |
| | | | | | | N | o ground | iwater er | countered | | | | |
| | | | | | | | | | | <u> </u> | | | |
| | SAMPLE NO. | RECOVERY (IN) | | BLOW COUNT | DESCRIPTION | | PID (PPM) | USCS | | REMARKS | | | |
| | HAY1-Q 13 | | | | Sitty Sand, fine to medium sands, brown, dar | np, no odor. | O | SM | Asphalt surface | | | | |
| ' _ | | 1 [| Ι | | | | | ļ | | | | | |
| | HAY1-0.30 | | Ŧ | <u> </u> | | | 0 | 1 | | | | | |
| _ | 1 | | | \vdash | Silty Sand with Gravel, fine to medium sand, | orown, damp, no | | 1 | | | | | |
| _ | | 1 1 | | | odor. | | | 1 | | | | | |
| _ | | | _ | | aton. | | | 1 | | | | | |
| _ | HAY1-E90 | | Т | | - | | | 1 | | | | | |
| | | | ╅ | - | | | | 1 | | | | | |
| | | | | | | | |] | | | | | |
| | HAY1-1.5 | | | | | | 0 | | | | | | |
| _ | | | | | | | | 4 | | | | | |
| | 1 | 1 1 | | | | | | | Total Depth = 6. | 5 foot has | | | |
| | | | | \vdash | | | | 4 | | | | | |
| _ | | | | | | | | - | Refusal at 6.5 feet bgs No groundwater encountered | | | | |
| · — | | 1 | | - | | | | - | Boring grouted with neat cement. | | | | |
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| Reviev | ved By | : Tim | O'B | rien | | LOGGED BY: S | cott Bow | ers | | | 2 | | |

ı

| OIL BORING LOG | | | [1 | BORING NO: | HAY2 | |
|---|---|--|---------|--------------------|----------------|-------------|
| | | | ļ | SHEET 1 | OF | 1 |
| | PROJECT NAME: Caltrans | : Mattox a | nd Foot | nill, Hayward | | |
| | PROJECT NUMBER: 575-9G | 34 | | DATE: | 6/2/99 | |
| | DRILLING COMPANY: | V & W Dril | lling | | | |
| | DRILLING PERSONNEL: | Travis Mill | s | | | |
| | DRILLING METHOD: | Direct Pus | | | | |
| | | 2-inch | | DEPTH: 6.5 fe | eet | |
| | | GROUND | | | T | |
| | DATE | | COMME | ENTS | DEPTH | BGS |
| | | | | | <u> </u> | |
| | | | | | <u> 1</u> | |
| . 2 k L | | | | | | |
| SAMPLE NO. RECOVERY (IN) SAMPLE INTERVAL BLOW COUNT | | | | | | |
| | DESCRIPTION | PID | uscs | | REMARKS | |
| | - | (PPM) | | | | |
| SA SA SA | • | [() | | | | |
| | | | | | | |
| Silty Sand, fine to media | um sands, brown, damp, no odor. | 0 | SM | Asphalt surface | | |
| | · | 0 | | | <u>:</u> | |
| PMY20.30 | fine to medium sand, brown, damp, no | | | | | |
| odor. | inte of medium send, protest, destroy, no | - | | | | |
| | | | | | | |
| HAY2-G 200 | | 0 | | | | |
| | | | | | | |
| | | | | | | |
| | | 0 | | | | |
| HAY2-1.5 | | | | | | |
| | | | | | | |
| | | | | Total Depth = 6.5 | | |
| | | | | Refusal at 6.5 fee | | |
| | | - | | No groundwater | | |
| _ | | | | Boring grouted w | un neat cement | |
| | · · · · · · · · · · · · · · · · · · · | <u> </u> | | | | |
| , — — — — — — — — — — — — — — | | <u> </u> | | | | |
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| eviewed By: Tim O'Brien | LOGGED BY: | Scott Bo | wers | | | |

| SO |)IL I | BC |)R | RIN | G LOG | | | | | BORING | NO: | HAY3 | |
|-----------|-------------|---------------|-----------------|------------|------------------------------|-----------------------|---------------|--|-----------|-------------|---------|--------------|-------------|
| | | | | | | 1 | | | ı | SHEET | 1 | OF | 2 |
| | | | | | | PROJECT NAME | : Caltran: | : Mattox | and Footi | nill, Haywa | ırd | | |
| | | | | | | PROJECT NUME | | | | DATE: | | 6/1/99 | |
| | | | | | | DRILLING COMP | | V & W Dr | illing | | | | |
| | | | | | | DRILLING PERS | ONNEL: | Travis Mi | lls | | | | |
| | | | | | | DRILLING METH | OD: | Direct Pu | sh (Geop | robe) | | | |
| | | | | | | BORING DIAMET | | 2-inch | | DEPTH: | 22.5 fe | et | |
| | | | | | | | | GROUND | WATER | LEVELS | | | |
| | | | | | | DA | TE | | COMMI | ENTS | | DEF | TH BGS |
| | | | | | | 6/1/ | /99 | | initi | al | | no gr | oundwater |
| | | | | | | 6/2 | /99 | | stat | ic | | 1 | 9 feet |
| | SAMPLE NO. | RECOVERY (IN) | SAMPLE INTERVAL | BLOW COUNT | DE | SCRIPTION | i M | PID (PPM) | USCS | | i | REMARK | S |
| _ | HAY1-0.15 | | | | Silty Sand, medium coarse | sands, brown, damp, | no odor. | 0 | SM | Gravel/soil | surface | 1 | |
| 1 - | - | | П | | | | | |] | | | | |
| | HAY1-0.30 | 1 | | | | | | 0 | | | | | |
| 2 _ | | | | | | | | | | | | | |
| | _ | | 1 | \perp | | | | | CL | | | | |
| з _ | | | Ш | | Silty Clay, dark brown, dam | p, medium plasticity, | no odor. | ō | L CL | | | | |
| , - | HAY1-0.00 | | | - | | | | | 1 | | | | |
| ٠ - | - | | H | + | | | | <u> </u> | 1 | | | | |
| 5 ~ | | | | | Silty Sand, medium coarse | sands, brown, damp, | no odor. | | SM | | | | |
| - | HAY1-1.8 | | | | | | | 0 |] | | | | |
| 6 | | 1 | П | | | | | | | | | | |
| _ | _ | | Ш | ┵ | Silty Clay, dark brown, dam | p, medium plasticity, | no odor. | | CL | | | | |
| 7_ | | 1 | | \perp | | | | | - | | | | |
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| 8 _ | _ | | 1 | \vdash | Gravelly Silty Sand, fine to | coarse gravel fine sa | nd. tao. | - | SM | | | | |
| 9 - | - | | | \vdash | damp, no odor. | ocarse grave, mie se | | 1 | 1 | - | | | |
| - | _ | | \sqcap | _ | ., | | | | 1 | | | | |
| 10 - | - | | | | | | | |] | | | | |
| | HAY3-3.0 | | | | | | | | ļ | | | <u> </u> | |
| 11 _ | | | i I | Ĺ | Silty Clay, dark brown, dam | p, medium plasticity, | no odor. | | CL | | | | |
| | | 1 | \sqcup | Ц. | | | | | - | | | | |
| 12 _ | _ | ł | | \vdash | | | | -} - | 4 | | | | |
| 13 | _ | | | \vdash | | - | | - | 1 | | | | |
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| 14 | _ | | | \sqcap | | <u></u> | | 1 | 1 | | | | |
| • | _ | | | | Gravelly Silty Sand, fine to | medium coarse, med | ium to coarse | | SM | | | | |
| 15 | HAY34.6 | | | | sand, tan, damp, no odor. | | | | | | | | |
| | _ | | | <u> </u> | | | | | 4 | | | | |
| 16 . | _ | 1 | \vdash | Ц. | <u> </u> | | | + | 4 | - | | | |
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| 20 | _ | | 1 | | | | | | | | | | |
| | | _[| | | log continues downward | | | | |] | | | |
| | | D | · | 200-1 | | | LOGGED BY: | Soot A | Bowers | | | | |
| (ev | iewed l | oy. I | im (| \ DU€ | 51 i | | FOGGED D1. | Jour M | | | | | |

| 3011 | LE | 30 | R | IN | G LOG | | | | | BORING N | NO: HAY3 | |
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| | | | | | | | | | | | 2 OF | 2 |
| | | | | | PRO. | JECT NAME: | Caltrans | s: Mattox | and Foot | hill, Hayward | | |
| | | | | | | JECT NUMBER: | 575-9G | | | DATE: | 6/1/99 | |
| | | | | | | LING COMPANY: | | V & W Di | rilling | | | |
| | | | | | | LING PERSONNEL | | Travis Mi | | | | |
| | | | | | | LING METHOD: | | Direct Pu | sh (Geo | probe) | | |
| | | | | | | NG DIAMETER: | | 2-inch | | DEPTH: 2 | 2.5 feet | |
| | | | | | | | | GROUN | | RLEVELS | | |
| | | | | | · | DATE | | | СОММ | | DE | PTH BGS |
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| ≘ ∣, | <u>.</u> | RECOVERY (IN) | ₹ | 늘 | | | | | | | | |
| DEPTH (FEET) | SAMPLE NO. | Σ | Ĭ | BLOW COUNT | | | | | 1 | | | |
| - ' | <u>"</u> | 損 | Ž | | DESCRI | PTION | | PID | USCS | | REMARKS | 3 |
| = : | ₹ | l 6 l | 4 | ≶ | | | | (PPM) | | İ | | |
| בַּ ; | ξ | 입 | ⇟ | 띭 | | | • • | (| | | | |
| 」 | | اعا | ò | " | | | | | | | | |
| | | | Т | | Gravelly Silty Sand as described at | oove | | | SM | | | |
| 21 _ | | | | | | | | |] | | | |
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| 22 _ | | | ┸ | | | | | | L | | | |
| | | [| | | | | | | | Total Depth = | 22.5 feet bgs. | |
| 23 | | | | Ш | | | | | 1 | | to sufficient depth | |
| _ | | | | | | | | |] | | encountered at 19 | |
| _ | | | | | | | | | | Boring groute | d with neat cemer | YŁ, |
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| JUIL E | 30 | RI | N(| G LOG | | | | | BORING | NO: | HAY4 | |
|-------------------|---------------|---------|------------|--|---------------------------------------|---------------|---------------|---|-------------|--------------|---------|--------|
| | | - | | | | | | | SHEET | 1 | OF | 2 |
| | | | | | PROJECT NAME: | Caltr | ans: Mattox a | and Foot | hill, Haywa | ard | | |
| | | | | | PROJECT NUMBI | | 9G034 | | DATE: | | 6/1/99 | |
| | | | | | DRILLING COMPA | | V & W Dr | illing | | | | |
| | | | | | DRILLING PERSO | NNEL: | Travis Mi | lls | | | | |
| | | | | | DRILLING METH | OD: | Direct Pu | | | | | |
| | | | | | BORING DIAMET | ER: | 2-inch | | DEPTH: | 22.5 f | eet | |
| | | | | | | | GROUNE | _ | | | | |
| | | | | | DAT | E | | COMM | ENTS | | DEP | TH BGS |
| | | | | | | | No ground | lwater en | countered | <u> </u> | | |
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| SAMPLE NO. | RECOVERY (IN) | | BLOW COUNT | DE | SCRIPTION | | PID (PPM) | USCS | | I | REMARKS | |
| HAYAGIB | | | | Silty Sand, medium coarse : | sands, brown, damp, r | no odor. | 0 | SM | Gravel/soll | surface | • | |
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| HAY4-0.30 | | | | | | | 0 | 1 | | | | |
| 2 _ | | | Ш | | ·· | | | 4 | | | | _ |
| ' | | | | | | | _ | CL | | - | | |
| 3 | | Ι. | \vdash | Silty Clay, dark brown, dam | p, medium plasticity, n | o odor. | 0 | - 65 | | | | |
| HAV4-0.90 | | 7 | | | · · · · · · · · · · · · · · · · · · · | | | 1 | | | | 10.1 |
| - | - | +- | H | | | | | 1 | | - | | |
| 5 | | | H | Silty Sand, medium coarse | sands, brown, damo. 1 | no odor. | | SM | | | | |
| — HAVE-1.8 | | | | | | | 0 | 1 | | | · | |
| 6 — | | Т | | | | | | | | | | |
| _ | [| \perp | | Silty Clay, dark brown, dam | p, medium plasticity, r | no odor. | | CL | | | | |
| 7 _ | | | | | | | | 4 | | | | |
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| 8 _ | | | | Carrelly City Cand madica | n to occure armial figure | a condition | _ | SM | | | | |
| ₉ — | | | | Gravelly Silty Sand, medium damp, no odor. | n to coarse graver, nix | e sanu, ian, | | ┤ | | | | |
| <u> </u> | | Т | + | GENTP, NO GGOT. | | | | 1 | | | | |
| 10 — | | | | | | | | 1 | - | | | |
| — HAY444 | 1 | ٠. | | | | | | † | | | | |
| 11 | | T | | Silty Clay, dark brown, dam | p, medium plasticity, i | no odor. | | CL | | | | |
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| ¹⁴ — | | | \vdash | Convolte Cite. Const. Const. | madium sesses as all | im to sooms | | SM | + | | | ··· |
| | | ┛ | \vdash | Gravelly Sitty Sand, fine to sand, tan, damp, no odor. | medium gravet, medit | ALL IO COSTSE | _ | ┤ ~ ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | | |
| 15 <u>mayaa</u> s | | | • | seria, can, damp, no odor. | | | | 7 | - " | | | · |
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| 19 _ | | | | log continues downward | | | | 4 | - | | | |

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|-----------|-------------|---------------|---|-------------|--|------------------|----------|---------------------------------------|-----------------|--|
| | | | | | | | | SHEET 2 | OF | 2 |
| | | | | | PROJECT NAME: | Caltrans: Mattox | and Foot | hill, Hayward | | |
| | | | | | PROJECT NUMBE | R: 575-9G034 | | DATE: | 6/1/99 | |
| | | | | | DRILLING COMPA | | rilling | | | |
| | | | | | DRILLING PERSOI | NNEL: Travis M | | | | |
| | | | | | DRILLING METHO | D: Direct Pu | | | | |
| | | | | | BORING DIAMETE | | | DEPTH: 22.5 | feet | |
| | | | | | | GROUN | DWATER | LEVELS | | |
| | | | | | DATE | | COMM | ENTS | DEP | TH BGS |
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| , | | 24 | Τ. | \top | | | | · · · · · · · · · · · · · · · · · · · | <u> </u> | |
| | SAMPLE NO. | RECOVERY (IN) | | BLOW COUNT | | | | | | |
| - | 뿌 | 原屋 | | ರ _ | DESCRIPTION | PID | USCS | | REMARKS | , |
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| 1 | | 1 or 19 | · | - | | | <u> </u> | | | |
| | | | T^{\dagger} | | Gravelly Silty Sand as described above | | SM | | | |
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| 22 _ | - | 1 L | $oldsymbol{ol}}}}}}}}}}}}}}}}}}}}}$ | \Box | | | ļ | | | |
| | | 1 [| | | | | 4 | Total Depth = 22 | | |
| 23 _ | _ | | - [| | | | _ | Boring drilled to | | for investiga |
| | • | | | | | | _ | No groundwater | | |
| _ | - | | ſ | | | | _ | Boring grouted v | vith neat cemen | <u>. </u> |
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| | | | | | | | | | ŀ | SHEET 1 | OF | 1 |
| 1 | | | | | PR | OJECT NAME | Caltrans | Mattox | | thill, Hayward | | |
| | | | | | | OJECT NUMB | | | | DATE: | 6/2/99 | |
| | | | | | | ILLING COMP | | / & W Di | rilling | | | |
| | | | | | | ILLING PERS | | ravis Mi | | | | |
| | | | | | DR | ILLING METH | OD: I | Direct Pu | ısh (Geo | probe) | | |
| 1 | | | | | BC | RING DIAMET | | 2-inch | | DEPTH: 10 fe | et | |
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| | | | | | _ | DAŢ | | | COMM | | DEPT | H BGS |
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| <u> </u> | | , | | | | | | | | | | |
| ОЕРТН (FEET) | SAMPLE NO. | RECOVERY (IN) | SAMPLE INTERVAL | BLOW COUNT | DESC | RIPTION | | PID (PPM) | uscs | | REMARKS | |
| - - | HAY 5-0.15 | - | | | Silty Sand, fine to medium sands | . brown, damp, no | odor. | 0 | SM | Asphalt surface | · · · · · · · · · · · · · · · · · · · | |
| 1 - | C. P. P. P. | | | | - y , | , | | |] | | | |
| _ | HAYIS-D.SD | | | | | | | 0 | | | | |
| 2 | | | Н | \vdash | Sandy Silt, fine sand, brown, dan | np. | | | ML | | _ | |
| 1 | | | | - | | | | | 1 | | | |
| 3 — | HAY5-0.96 | | | i | Silty Clay, dark brown, moist, me | dium plasticity. | , | 0 | CL | | | |
| 4 - | PA.75-0.60 | | | | City Olay, care crown, more me | | | | 1 | | | |
| - | 1 | | ΠŤ | 1 | | | | |] | | | |
| 5 _ | | | Ш | | | | | | 4 | | | |
| _ | HAY5-1.5 | | | — | <u> </u> | | | 0 | - | | <u></u> | |
| 6 | -[| | H | - | Poorly graded sand with silt, coa | rse arained sand | hrown/olive. | | SP | | <u>-</u> - | |
| ,- | | | H | +- | damp. | inte granica saria, | 2/01/10/1901 | | 1 | | | |
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| 9 — | | | Ш | - | | | | | ┪ . | | | |
| 10 — | HAY5-3.0 | | | - | | | · | 0 | - | | *** | |
| " - | | | | | | | | | | Total Deoth = 10 | | |
| 11 | : | | | | | | | | _ | Boring drilled to s | | r investigation. |
| 1 = | | | 1 | | | | | | | No groundwater | | |
| 12 | - | | | | | | | | - | Boring grouted w | nn near cement. | |
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| '3 | - | | | - | <u> </u> | | | · · · · · | 1 | | | |
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| Revie | wed By | r; Tja | n ()'I | Brien | | | LOGGED BY: | Scott B | lowers | | | |

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SOIL BORING LOG BORING NO: HAY6 OF SHEET 1 Caltrans: Mattox and Foothill, Hayward PROJECT NAME: 6/2/99 PROJECT NUMBER: 575-9G034 DATE: DRILLING COMPANY: V & W Drilling Travis Mills DRILLING PERSONNEL: Direct Push (Geoprobe) DRILLING METHOD: DEPTH: 15 feet BORING DIAMETER: 2-inch **GROUNDWATER LEVELS DEPTH BGS COMMENTS** DATE RECOVERY (IN) SAMPLE INTERVAL DEPTH (FEET) BLOW COUNT SAMPLE NO. USCS REMARKS DESCRIPTION PID (PPM) SM 0 Asphalt surface Silty Sand, fine to medium sands, brown, damp, no odor. 0 ML Sandy Silt, fine sand, brown, damp. CL Silty Clay, dark brown, moist, medium plasticity. 0 SP Poorly graded sand with sltt, coarse grained sand, brown/olive. 8 ō 10 11 12 13 0 15 Total Depth = 15 feet bgs. Refusal at 15 feet bgs. 16 No groundwater encountered Boring grouted with neat cement. 17 18 19 20 LOGGED BY: Scott Bowers Reviewed By: Tim O'Brien

| SOI | L B | Ol | RII | NG | LOG | | | | ſ | BORING NO: | НАҮ7 |
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| | | | | | | 1 | | | İ | SHEET 1 | OF 1 |
| | | | | | | PROJECT NAME | : Caltran | s: Mattox | and Foo | thill, Hayward | |
| | | | | | | PROJECT NUMB | | | | DATE: | 6/1/99 |
| | | | | | | DRILLING COMP | | V&WD | | | |
| | | | | | | DRILLING PERS | | Travis M | | | |
| | | | | | | DRILLING METH | | Direct Pu | | probe) | |
| | | | | | | BORING DIAME | | 2-inch | | DEPTH: 15 fee | et |
| | | | | | | | | | DWATER | RLEVELS | |
| | | | | | | DA1 | | | COMM | | DEPTH BGS |
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| . | اۃا | [3] | MΑ | 눌 | | | | 1 | | | |
| DEPIH (PEEI) | SAMPLE NO. | RECOVERY (IN) | Ę. | BLOW COUNT | | | | ٠. | | | B-0144 B175 |
| _ T | | 间 | E. | ĮΫ | DE | SCRIPTION | | PID | uscs | | REMARKS |
| = | \$ | Ó | Ë | ð | | | | (PPM) | | | |
| Ī. | & | ĺÄ ¦ | ¥. | 占 | • | | | | | | |
| | 1 | 1- | " | Ш | | | | | 614 | 4 h lk | |
| | H4Y7-IL 18 | | H | | Slity Sand, medium to coars | e sands, brown, damp | , no odor. | 0 | SM | Asphalt surface | |
| 1 | | | | <u> </u> | | | | - | 1 | | <u></u> |
| , — | HAY7-0.30 | | 7 | | | | | | 1 | | |
| ² — | | | | \vdash | | | | \vdash | 1 | | |
| ₃ — | | | | \vdash | Lean clay with silt, dark brow | wn, damp, medium pla | sticity. | | CL | | |
| • — | HAY7-GUED | 1 | | _ | | | | 0 | 1 | | |
| 4 — | | 1 | T | | | <u></u> | | |] | | |
| | | 1 | 丌 | L | | | | | | | |
| 5 _ | 1 | | | | Sitty Sand, medium to coars | se sands, brown, damp |). | | SM | | |
| _ | HAYT-1.6 | | | | | | | 0 | 4 | <u></u> | |
| 6 | | 1 | | | | | - t-t | | CL | | |
| _ — | 1 | | ш | + | Lean clay with silt, dark bro | wn, damp, medium pla | sucity. | 1 | - " | —— | <u> </u> |
| 7 | 1 | | l | \vdash | - | | | + | - | | <u> </u> |
| 8 — | | | 1 | - | <u> </u> | | | | | | |
| - | | - | | - | Gravelly Silty Sand, fine to | coarse gravel, fine san | d, tan, damo. | 1 | SM | | |
| 9 — | · | | 1 | \vdash | | | | | | | |
| | 1 | | \Box | | <u> </u> | | | | | | |
| 10 | | | | | | | | | 1 | | <u> </u> |
| | HAV7-3.0 | | | | | | | 0 | ļ. <u>.</u> | <u> </u> | |
| 11 | . | | Ш | 1 | Lean clay with silt, dark bro | wn, damp, medium pia | eticity. | | CL | | |
| | . | | 1 | <u> </u> | ļ | | | | -{ | | |
| ¹² — | - [| | | _ | <u> </u> | | | | - | | |
| | -[| | | - | Gravelly Silly Sand, fine to | coarse gravel fine cor | nd tan damo | | SM | | <u></u> . |
| 13 — | - [| | \vdash | + | Graveny Silty Salitu, line to | ∾काउद शिवश्वा, सा त 29 ा | io, with verify. | 1 | - | - | |
| 14 | - | | | - | | | | + | ⊣ | | |
| ' - | - | 1 | | \vdash | | | | + | 1 | · · · · · · · · · · · · · · · · · · · | |
| 15 | - HAY7-4.6 | | | | 1 | | | 0 | 1 | | |
| | - | | | 1 | | | | | | Total Depth = 15 | |
| 16 | - | | | | | | | | | Refusal at 15 fee | |
| _ | _ | | | | | | | <u> </u> | _ | No groundwater | |
| 17 _ | _ | | | | | | | - | 4 | Boring grouted w | ith neat cement. |
| | <u>.</u> | | 1 | <u>_</u> | | | | <u> </u> | - | | |
| 18 | | | İ | \vdash | · | ······ | | | - | | |
| | - | | 1 | - | | | | | - | - | |
| ¹⁹ – | -1 | | | | | | | + | ┪ | | |
| 20 - | - | | | - | | · | | + | ┪ | | |
| | - ' | | | - | + | · | | | \dashv | | |
| | Ц.,, | | | | ! | | | | | | |
| Revie | wed By | r: Tin | O | 3rien | | | LOGGED BY: | Scott B | lowers | | • |

| SOI | L B | Ol | RII | NG | LOG | | | | [i | BORING NO: | HAY8 |
|------------------|------------|---------------|-----------------|---------------|--------------------------------|---------------------------|---------------|--|----------|------------------------------------|---------------------|
| | | | | | | 1 | | | <u> </u> | SHEET 1 | OF 1 |
| | | | | | | PROJECT NAME: | Caltrans | Mattox | | hill, Hayward | |
| | | | | | | PROJECT NUMBER | | | | DATE: | 6/1/99 |
| | | | | | | DRILLING COMPA | | / & W Di | | | |
| | | | | | | DRILLING PERSON | | Travis Mi | | | |
| | | | | | | DRILLING METHOL | | | sh (Geor | probe) | |
| | | | | | | BORING DIAMETE | | 2-inch | | DEPTH: 16.5 | feet |
| | | | | | | | - | | | LEVELS | |
| | | | | | | DATE | | | COMME | | DEPTH BGS |
| | | | | | | | | lo groud | | countered | |
| | | | | | | | | | | | |
| DEPTH (FEET) | SAMPLE NO. | RECOVERY (IN) | SAMPLE INTERVAL | BLOW COUNT | DE | SCRIPTION | | PID (PPM) | USCS | | REMARKS |
| | HAY8-0.15 | \vdash | | | Silty Sand, fine to medium sa | ands, brown, damp, no o | dor. | 0 | SM | Gravel/Asphalt sur | face |
| 1 _ | | | | | | | | |] [| | |
| _ | HAYE-0.30 | | | | | - | | 0 | | | |
| 2 _ | | | | \sqsubseteq | | | ' | | | | - |
| . — | | | Н | _ | · | - | | | } | | |
| 3 | <u> </u> | | ╙ | _ | Lean clay with silt, dark brov | un moist madium alaaka | itv | 0 | CL | | |
| | HAVS-0.00 | | 1 | | Loan Gay with Sit, Gair, Olov | m, moiar, madium piasuc | | | 1 - | | |
| · — | | | $\vdash \vdash$ | 1 | | | | |] | | |
| 5 _ | | 1 | | | | | | |] | | |
| _ | HAY9-1.5 | | | | | | | 0 | 4 | | |
| 6 _ | | | | - | | | | | 4 | | |
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| 7 | | | | | | | | | 1 | | |
| 8 — | ł | | | - | | | | | 1 | | |
| _ | | | П | 1 | Poorly graded sand with silt | , coarse grained sand, br | own/olive, | | SP | | |
| 9 _ | | | | | moist. | | | | | | |
| _ | | i | Ш | | | | | | 4 | | |
| ¹⁰ — | HAYBAO | | | - | _ | | | 0 | - | | |
| — | | | | | | | | | - | | |
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| 13 | 1 . | | | | | | | |] | | |
| |] | | | | | | | | 1 | <u></u> | |
| 14 | .1 | | | <u></u> | ļ | | | | 4 | | |
| — | | | Ш | \bot | ļ | | - | 0 | -{ | | |
| 15 | H4Y8-4,5 | 1 | | - | 1 | | | | - | | |
| 16 | ·[| | 1 | - | | | | <u> </u> | ┪ | | |
| · - — | 1 | | | \vdash | | | | | <u> </u> | | |
| 17 | • | | ì | | | | | | | Total Depth = 16 | |
| _ | _ | 1. | | | | | | <u> </u> | 4 | Refusal at 16.5 fe | |
| 18 | - | | 1 | | <u> </u> | · | | | 4 | No groundwater Boring grouted w | |
| <u></u> – | - | | | - | | . | | <u> </u> | - | poning grouted W | nu i neat certerit. |
| 19 | - | | | \vdash | | | | - | 1 | 1 | <u> </u> |
| 20 — | - | - | | - | | | | | 1 | ··· - | |
| ¯ ¯ | - | | 1. | - | 1 | - ·- | | 1 | <u> </u> | | |
| Revie | wed By | : Tin | 1 O'E | Brien | | L | OGGED BY: | Scott B | cwers | | |

| SOI | LΒ | OI | RII | NG | LOG | | | | [| BORING NO: | HAY9 |
|--------------|------------|---------------|----------|------------|--------------------------------|-------------------------|--------------|--|-----------|------------------------------------|---------------------------------------|
| | | | | | | 7 | | | ļ | SHEET 1 | OF 1 |
| | | | | | | PROJECT NAME: | Caltrans | Mattox | | hill, Hayward | |
| | | | | | | PROJECT NUMB | | | | DATE: | 6/1/99 |
| | | | | | | DRILLING COMP | | / & W D | | w | |
| | | | | | | DRILLING PERSO | | Travis Mi | | | |
| | | | | | | DRILLING METH | | | ish (Geor | mbe) | |
| | | | | | | BORING DIAMET | | 2-inch | | DEPTH: 17 fe | et |
| | | | | | | BORING BIAMET | | | | LEVELS | |
| | | | | | | DAT | | 31100111 | COMME | | DEPTH BGS |
| | | | | | | DA. | | o oround | | countered | |
| | | | | | | | i | o ground | | | |
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| FEET) | Ŏ. | (III) | IERVAL | ZNZ | | | | | | | |
| ОЕРТН (FEET) | SAMPLE NO. | RECOVERY (IN) | WPCETIN | BLOW COUNT | DE | SCRIPTION | | PID (PPM) | USCS | | REMARKS |
| 8 | S | 쮼 | ₹S | | | | | | | | |
| | HAYS-0.15 | | Į. | | Silty Sand, fine to medium sa | ands, brown, damp, no | odor. | 0 | SM | Asphalt surface | |
| 1 _ | | | | Щ | <u> </u> | | | ö | | | |
| l <u>.</u> — | HAY9-0.30 | | 4 | | Cont. Dit for and brown | | | | ML | | |
| 2 | | | | \vdash | Sandy Silt, fine sand, brown | , camp. | | | - ""- | | - |
| 3 - | ļ | | П | \vdash | | | | | 1 | | · · · · · · · · · · · · · · · · · · · |
| | HAYBO.BD | | Н | - | Lean clay with silt, dark brov | wn, moist, medium plas | ticity. | 0 | CL | | |
| 4 - | | | | | | | | | | | |
| 1 - | | | П | † | | | | | | | |
| 5 — | | | П | | | | | |] ' | | |
| | HAY9-1.5 | | | | | | | 0 | _ | | |
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| 7 — | | | | - | | | | | | | |
| 8 - | | | | | | | | | † | | |
|] ~ — | | | Н | + | Poorly graded sand with silt | t, coarse grained sand, | brown/olive, | | SP | i ii | |
| 9 | | | | | damp. | <u> </u> | | |] | | |
| - | | | 11 | | | | | | | | |
| 10 | MAY9-3.0 | | | | | | | 0 | _ | | <u> </u> |
| | | | | | | | | | 4 | | |
| 11 | | | | \vdash | <u> </u> | .= | | | - | | |
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| 12 — | | | - | \vdash | | | | | - | | |
| 13 | | 1 | l | \vdash | | | · | | 4 | | |
| " - | | | \vdash | + | | | | | 7 | | |
| 14 — | | 1 | | | | -, | | | 1 | | |
| 1 - | | | | \vdash | <u> </u> | | | |] | | |
| 15 | HAY9-4.5 | | | | | | | |] . | | |
| 1 _ | .1 | | | | | | <u></u> | | 4 | | <u> </u> |
| 16 | | | | | | | | | - | | |
| 17 _ | : | | | | | | | | | | |
| 1 _ | _ | | | | | | | | 4 | Total Depth = 17 | |
| 18 | - | | | | ļ | | | | - | Refusal at 17 fee | |
| 1 | - | | | - | | . | | | - | No groundwater Boring grouted w | |
| 19 — | - | | | - | | <u>.</u> | | | ┥ | Donning Gronned A | nui neat connent |
| 20 — | - | 1 | | _ | | | | | - | | |
| 4" - | - . | | 1 | - | | *** | | | ┪ | | |
| Revie | wed By | r: Tin | n O'! | 3rien | ,1 | · | LOGGED BY: | Scott B | owers | 1. | |

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| SOI | LB | OF | RII | NC | LOG | | | | | BORING NO | : HAY10 | |
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| | | | | | · · · · · · · · · · · · · · · · · · · | ì | | | | SHEET 1 | OF | 1 |
| | | | | | | PROJECT NAM | E: Caltrac | e: Mattay | | thill, Hayward | | ' |
| | | | | | | PROJECT NUM | | | | DATE: | 6/1/99 | |
| | | | | | | DRILLING COM | | V & W D | | DATE. | 0/1/33 | |
| | | | | | | DRILLING PER | | Travis M | | | | |
| | | | | | | DRILLING MET | | Direct P | | nmhe) | | |
| | | | | | | BORING DIAME | | 2-inch | | DEPTH: 16.5 | feet | |
| | | | | | | BOILING BIAME | - I Larvi | | | R LEVELS | IEGL | |
| | | | | | | | TE | CINCOIN | COMM | | DEPTI | I BGS |
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| ОЕРТН (FEET) | SAMPLE NO. | RECOVERY (IN) | SAMPLE INTERVAL | BLOW COUNT | DE | SCRIPTION | | PID (PPM) | uscs | | REMARKS | |
| | | | | | 005.0 | | | | CNA | | | |
| - | HAYBO 15 | | 7 | | Silty Sand, fine to medium sa | inos, brown, damp, r | io odor. | . 0 | SM | Asphalt surface | • | |
| ' - | HAY8-0.30 | | ┪ | | | | | 0 | | | | |
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| 3 | • | ļ [| | | | | | , | 1 | | | |
| | HAY9-0.90 | | | | Lean clay with silt, dark brow | n, moist, medlum pla | sticity. | 0 | CL | | | |
| 4 — | | i l | \bot | | | | | | | | | |
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| 6 | HAVE-9.5 | 1 | | | | ******* | | 0 | | | | |
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| 8 | | | | | | | | | | | | |
| 1. — | | | | <u></u> | Poorly graded sand with silt, | coarse grained sand | l, brown/olive, | | SP | | | |
| 9 — | | | | _ | damp. | | | | | | | |
| 10 — | HAYD-30 | | _ | | | | | 0 | ł | | | |
| " | 10.00 | | | | | | | <u> </u> | 1 | ļ | | |
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| 12 | | | | | | | | |] | | | |
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| 13 | | | | | | · | | ļ | 1 | | | |
| 14 — | | | . | - | | | | - | ł | <u> </u> | | |
| " — | 1 | 1 | | _ | <u> </u> | | · | | 1 | <u> </u> | | |
| 15 — | HAYS-4.5 | | | - | | | | - | 1 | | - | |
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| 16 | | | | | | | | | 1 | | | |
| 1 = | | | | | | | | | | | | |
| 17 — | | | | | | | | | | Total Depth = 16. | | |
| 1,, | 1 | | | \vdash | | | | <u> </u> | 1 | Refusal at 18.5 fe | | |
| 18 — | | | | - | | <u> </u> | | <u> </u> | ł | No groundwater of | | |
| 19 — | | | | - | | | | 1 | 1 | Boring grouted w | ui deat cement, | |
| " - | | | | \vdash | | . | · · · · · · · · · · · · · · · · · · · | | 1 | | | |
| 20 — | | | ĺ | | | · | · | t | 1 | | | |
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| Review | ed By: | Tim | O'Br | rien | | | LOGGED BY: | Scott Bo | wers | | | |

APPENDIX C

LABORATORY RESULTS AND CHAIN-OF-CUSTODY RECORDS

M

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY . CHEMICAL AND BIOLOGICAL ANALYSES

Client:

PSI

1320 W. Winton Ave.

Hayward, CA 94545

Project: Caltrans:Mattox & Foothill

Date Sampled:

06/01/99

Date Received: Job Number: 06/02/99

14981

CASE NARRATIVE

The following information applies to samples which were received on 06/02/99:

The samples were received at the laboratory chilled and sample containers were intact.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

8260: Some surrogate recoveries were outside the acceptance limits due to reproducible sample matrix effects.

Report approved

Robert R. Clark, Ph.D. Laboratory Director

ELAP # 1184

DL: Detection Limit - The lowest level at which the compound can reliably be detected under normal laboratory conditions.

ND: Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.

NA: Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.



Lead By ICP

Client: PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: RLB Date Sampled: 06/01/99
Date Received: 06/02/99
Date Digested: 06/09/99

Date Analyzed: 06/14-15/99
Batch Number: 6010S1231

Method Number: 6010

| | Detection Limit | Lead |
|--|-----------------|--------------------------------------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5.0 | ND |
| Hay3-0.15 | 5.0 | . 27 |
| Hay3-0,3 | 5:0 | 27 |
| Hay3-0.9 | 5.0 | 12 |
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Lead By ICP

Client: PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: RLB

 Date Sampled:
 06/01/99

 Date Received:
 06/02/99

 Date Digested:
 06/10/99

 Date Analyzed:
 06/16-23/99

6010S1232

Method Number: 6010

Batch Number:

| · | Detection Limit | Lead |
|--------------|-----------------|--|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5.0 | ND |
| Hay3-1.5 | 5.0 | 61 |
| Hay3-3.0 | 5.0 | 14 |
| Hay4-0.15 | 5.0 | 16 |
| Hay4-0:3 | 5.0 | 15 |
| Hay4-0.9 | 10 | 12 |
| Hay4-1.5 | 5.0 | 18 |
| Hay4-4.5 | 5.0 | 9.3 |
| Hay7-0.15 | 10 | 23 |
| Hay7-0.30 | 5.0 | 39 |
| Hay7-0.90 | 5.0 | 33 |
| Hay7-1.5 | 5.0 | 24 |
| Hay7-3.0 | 5.0 | 11 |
| Hay7-4.5 | 5.0 | 8.2 |
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Lead By ICP

Client: PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: RLB Date Sampled: 06/01/99
Date Received: 06/02/99
Date Digested: 06/11/99
Date Analyzed: 06/22/99
Batch Number: 6010S1233

Method Number: 6010

Detection Limit Lead Sample ID mg/kg mg/kg Method Blank 5.0 ND Hav9-0.15 5.0 30 Hay9-0.30 5.0 Hay9-0.90 5.0 190 Hay9-1.5 5.0 15 Hay9-3.0 5.0 14 Hay9-4.5 5.0 8,4 Hay10-0.30 5.0 78 Hay10-0.90 5.0 20 Hay10-1.5 5.0 9.2 Hay10-3.0 5.0 9.7 Hay10-4.5 5.0 8.6 Hay8-0.15 5.0 27 Hay8-0.3 5.0 200 Hay8-0.9 5.0 28 Hay8-1.5 5.0 9.1 Hay8-3.0 Hay8-4.5 5.0



QC Sample Report - Metals

Matrix: Soil

Batch #: 6010S1232 Method: 6010

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Spike Concentration

Wass/Fail

Compound

Spike Concentration

Spike Concentration

Spike Concentration

Wass/Fail

Compound

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Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: 15022-10

Spike Sample Spike Sample Spike Duplicate Recovery mg/Kg Relative Percent Difference (RPD)

Compound Spike Duplicate Recovery mg/Kg Relative Percent Difference (RPD)

Compound Spike Sample Spike Sample Spike Sample Spike Sample Spike Sample Spike Sample Spike

| <u>A</u> nalyt | tical Notes: |
|----------------|--------------|
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QC Sample Report - Metals

Matrix: Soil

Batch #: 6010S1233 Method: 6010

Batch Accuracy Results

Sample ID: Laboratory Control Sample

Spike Concentration

Spike Concentration

Wass/Fail

Compound

Spike Concentration

Spike Concentration

Spike Concentration

Wass/Fail

Spike Concentration

Spike Concentration

Spike Concentration

Spike Concentration

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Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

Spike Sample Recovery mg/Kg
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Lead By FLAA

Client; PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: RVJ Date Sampled:

06/01/99

Date Received: Date Digested: 06/02/99

Date Digested:
Date Analyzed:

06/10-11/99 06/24/99

Batch Number:

6010S1232 6010S1233

Method Number: 7420

| | Detection Limit | Lead |
|---------------------|-----------------|-------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5.0 | ND |
| Hay3-4.5 | 5.0 | ND |
| Hay4-3.0 | 5.0 | ND |
| Hay10 -0 .15 | 5.0 | ND |
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QC Sample Report - Metals

Matrix: Soil

Batch #: 6010S1232 Method: 7420

Batch Accuracy Results

| Lead | 50 | 110.2 | 75 - 125 | Pass |
|----------------------------|------------------------------|----------------|---------------------------------|-----------|
| Compound | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Sample ID: Laboratory Cont | rol Sampl | е | | |

| Analytical | Notes: | | |
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Batch Precision Results

| Analytical | Notes: |
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QC Sample Report - Metals

Matrix: Soil

Batch #: 6010S1233 Method: 7420

Batch Accuracy Results

| Lead | 50 | 111.9 | 75 - 125 | Pass |
|----------|------------------------------|----------------|---------------------------------|----------|
| Compound | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | ass/Fail |

| | Analytical Notes: | | | | | | |
|---|-------------------|---|--|--|---|--|--|
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Batch Precision Results

| Compound | 64.7 | <u>ග් ජී</u> 69.4 | 7% | 20% | Pass |
|----------|------------------------------|----------------------------------|--------------------------------------|-------------------|-----------|
| Commonad | Spike Sample Recovery mg/ | Spike Duplicate Recovery mg/K | Relative Percent Difference (RPD) | pper Contro PD | Pass/Fail |
| | nple mg/Kg | plicate .mg/Kg | ercent (RPD) | I Limit | |

| Analytical Notes: | |
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EPA 413.2 - Oil & Grease

Client:

PSI

14981

Project:

Caltrans: Mattox & Foothill

Job No.; Matrix:

Matrix: ... Analyst: Soil NG , "<u>L</u>

~ Date Sampled: 06/01/99

Date Received: 06/02/99

Date Extracted: 06/04/99

Date Analyzed: 06/04/99

Batch Number: 4132S1039

| | Detection Limit | Total Oil & Grease |
|--------------|-----------------|-----------------------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 10 | ND |
| Hay 3-0.15 | 1,000 | 10,000 |
| Hay 3-0.3 | 10 | 310 |
| Hay 3-0.9 | 10 | · 17 |
| Hay 3-1.5 | 10 | 34 |
| Hay 3-3.0 | · 10 | 13 |
| Hay 3-4.5 | 10 | 20 |
| Hay 4-0.15 | 1,000 | 30,000 |
| Hay 4-0.3 | 1,000 | 22,000 |
| Hay 4-0.9 | 1,000 | 23,000 |
| Hay 4-1.5 | 10 | 23,000 |
| Hay 4-3.0 | 10 | |
| Hay 4-4.5 | 1,000 | 14 |
| Hay 7-0.15 | 10 | 7,500 |
| Hay 7-0.30 | 10 | 450 |
| Hay 7-0.90 | | 150 |
| Hay 7-1.5 | 1,000 | 8,200 |
| | 1,000 | 4,700 |
| Hay 7-3.0 | 10 | 670 |
| Hay 7-4.5 | 10 | 50 |
| Hay 9-0.15 | 100 | 2,200 |
| Hay 9-0.30 | 10 | 110 |



EPA 413.2 - Oil & Grease

Client: PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: NG Date Sampled: 06/01/99
Date Received: 06/02/99
Date Extracted: 06/07/99
Date Analyzed: 06/07/99
Batch Number: 4132S1040

| | Detection Limit | Total Oil & Grease |
|--------------|---|-----------------------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 10 | ND |
| Hay 9-0.90 | 10 | 74 |
| Hay 9-1.5 | 10 | 96 |
| Hay 9-3.0 | 10 | 39 |
| Hay 9-4.5 | 10 | 120 |
| Hay 10-0.15 | 1,000 | 14,000 |
| Hay 10-0.30 | 10 | 34 |
| Hay 10-0.90 | 1,000 | 6,100 |
| Hay 10-1.5 | 10 | 720 |
| Hay 10-3.0 | 10 | 930 |
| Hay 10-4.5 | . 10 | 160 |
| Hay 8-0.15 | 10 | |
| Hay 8-0.3 | 10 | 420 |
| Hay 8-0.9 | 1,000 | 200 |
| Hay 8-1.5 | Signatura (Contrata de Contrata ,000 |
| Hay 8-3.0 | 10 | 180 |
| Hay 8-4.5 | 10 | 140 |
| nay 0-4.5 | 10 | 48 |
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QC Report - EPA 413.2 Oil & Grease

Matrix: Soil

Batch #: 4132S1039

Batch Accuracy Results

| Reference Oil | 40 | 124 | 72 - 131 | Pass |
|----------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Sample ID: Laboratory Cont | rol Sample | | | |

| Analytical No | ites: | |
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Batch Precision Results

| Sample Sample Duplica mg/Kg mg/Kg mg/Kg | Relative Different Upper C | Pass/F |
|---|---|--------|
| e Recovery | e Percent nce (RPD) Control Limit | jje |

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QC Report - EPA 413.2 Oil & Grease

Matrix: Soil

Batch #: 4132S1040

Batch Accuracy Results -

| Reference Oil | 40 | 124 | | Pass |
|----------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Sample ID: Laboratory Conf | trol Sample | | | |

| Analytical Notes | <u>:</u> |
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Batch Precision Results

| Duplicate Sample ID: 1498 | 8-4 | | <u>and a</u> | | |
|---------------------------|--------------------------|--------------------------|--------------------------------------|------------------|--------|
| | Sample Recovery mg/Kg | Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | er Control Limit | s/Fail |
| Analyte | Sar | Duplica mg/Kg | Z Ret | Upper RPD | Pass |
| Petroleum Hydrocarbons | 29.17 | 30.53 | 5% | 22% | Pass |

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Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

Matrix: Analyst: 14981 Soil

NBP

Date Sampled: 06/01/99

Date Received: 06/02/99

Date Extracted: 06/08/99

Date Analyzed: 06/08-09/99

Batch Number: 8015DS1654

| | Detection Limit | Diesel | Surrogate (OTP) |
|--------------|-----------------|--------|--|
| Sample ID | mg/kg | mg/kg | Limit: 50 - 150% |
| Method Blank | 10 | ND | 105 % |
| Hay 3-0.15 | 10 | 800* | 94 % |
| Hay 3-0.3 | 10 | .22* | 104.% |
| Hay 3-0,9 | 10 | 44* | 100 % |
| Hay 3-1.5 | 10 | 22* | 98 % |
| Hay 3-3.0 | 10 | 13* | 97 % |
| Hay 3-4.5 | 10 | 11* | 98 % |
| Hay 4-0.15 | 200 | 970* | 102 % |
| Hay 4-0.3 | 200 | 780* | UNIONI SERVICIO E EXPRENDE PROPERTO DE SERVICIO DE CONTRACTOR DE LA CONTRA |
| Hay 4-0.9 | 10 | 17* | 106 % |
| Hay 4-1.5 | .50 | 130* | 100 % |
| Hay 4-3.0 | 10 | | 124 % |
| Hay 4-4.5 | 50 | ND | 95 % |
| Hay 7-0.15 | 200 | 130* | 126 % |
| Hay 7-0.30 | | ND | 100 % |
| Hay 7-0.90 | 10 | 22* | 101 % |
| Hay 7-1.5 | 200 | 420* | 100 % |
| | 100 | 260* | 105 % |
| Hay 7-3.0 | 10 | 27* | 104 % |
| Hay 7-4.5 | 10 | 12* | 108 % |
| Hay 9-0.15 | 200 | 520* | 99 % |
| Hay 9-0,30 | 10 | 10* | 106 % |

^{*}The chromatographic pattern displayed by this sample indicates the presence of petroleum hydrocarbons other than diesel. The concentration of petroleum hydrocarbons has been quantitated against diesel and reported here as diesel.



Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client:

PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981 Matrix: Soil Analyst: NBP Date Sampled: 06/01/99

Date Received: 06/02/99 Date Extracted: 06/08/99 Date Analyzed: 06/08-09/99

Batch Number: 8015DS1655

| | Detection Limit | Diesel | Surrogate (OTP) |
|---------------------------------------|---|--|---|
| Sample ID | mg/kg | mg/kg | Limit: 50 - 150% |
| Method Blank | 10 | ND | 1.06 % |
| Hay 9-0.90 | 10 | 29* | 100 % |
| Hay 9-1.5 | 10 | 34* | 98.% |
| Hay 9-3.0 | 10 | 30* | 102 % |
| Hay 9-4.5 | 10 | 26* | 102 % |
| Hay 10-0.15 | 10 | ND | 99 % |
| Hay 10-0.30 | 10 | ND | 102 % |
| Hay 10-0.90 | 10 | 12* | 102 % |
| Hay 10-1,5 | 10 | 17* | 108 % |
| Hay 10-3.0 | 10 | 36* | 113 % |
| Hay 10-4.5 | 10 | 23* | 101 % |
| Hay 8-0.15 | 10 | 36* | |
| Hay 8-0.3 | 20 | 180° | 99 % |
| Hay 8-0.9 | | | 106 % |
| Hay 8-1.5 | 20 10 | 93* | 104 % |
| Hay 8-3.0 | | 27* | 101 % |
| Hay 8-4:5 | 10 | 30* | 105 % |
| nay 0-4,5 | 10 | 16* | 108 % |
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^{*}The chromatographic pattern displayed by this sample indicates the presence of petroleum hydrocarbons other than diesel. The concentration of petroleum hydrocarbons has been quantitated against diesel and reported here as diesel.



QC Sample Report - EPA 8015M Diesel

Matrix: Soil

Batch #: 8015DS1654

Batch Accuracy Results

| Diesel | 100 | 100 | 70 - 130 | Pass |
|---------|------------------------------|--------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |

| Analytical Notes: | | | | |
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Batch Precision Results

| Diesel | 100 | 101 | 1% | 29% | Pass |
|---------|--------------------------------|-----------------------------------|--------------------------------------|--------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Lin RPD | Pass/Fail |
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QC Sample Report - EPA 8015M Diesel

Matrix: Soil

Batch #: 8015DS1655

Batch Accuracy Results

| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | ∂ass/Fail |
|---------|------------------------------|----------------|---------------------------------|-----------|
| Diesel | 100 | 111 | 70 - 130 | Pass |

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Batch Precision Results

| Diesel | 111 | 110 | 1% | 29% | Pass |
|-------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| MS/MSD Sample ID: Labor | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |

| Analytica | al Notes: | |
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Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981 Soil

Matrix: Analyst:

GR

Date Sampled:

Date Received:

06/01/99 06/02/99

Date Analyzed:

06/06/99

Batch Number: 8015GS2249

| | Detection Limit | Petroleum Hydrocarbons as Gasoline |
|-------------------|--------------------|---------------------------------------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 0.50 | ND |
| Hay 3-0.15 | 0.50 | ND · |
| Hay 3-0.3 | 0.50 | ND |
| Hay 3-0.9 | 0.50 | . ND |
| Hay 3-1.5 | 0.50 | ND |
| Hay 3-3.0 | 0,50 | ND |
| Hay 3-4.5 | 0.50 | ND |
| Hay 4-0.15 | 0.50 | . ND |
| Hay 4-0.3 | 0.50 | ND . |
| Hay 4-0.9 | 0.50 | ND |
| Hay 4-1.5 | 0.50 | ND |
| Hay 4-3.0 | 0.50 | ND |
| Hay 4-4 .5 | 0.50 | ND |
| Hay 7-0.15 | 0.50 | ND |
| Hay 7-0.30 | 0.50 | ND |
| Hay 7-0.90 | 0.50 | ND |
| lay 7-1,5 | 0.50 | ND. |
| lay 7-3.0 | 0.50 | ND |
| lay 7-4.5 | 0.50 | ND. |
| lay 9-0.15 | 0.50 | ND |
| lay 9-0.30 | 0.50 | ND ND |
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Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client:

Project:

Job No.:

Matrix:

Analyst:

PSI

Caltrans:Mattox & Foothill 14981

Soil GR

Date Sampled:

06/01/99 06/02/99

Date Received: Date Analyzed;

06/07/99

Batch Number:

8015GS2250

| | Detection | Petroleum Hydrocarbons as |
|--------------|-----------|---|
| Sample ID | Limit | Gasoline |
| Method Blank | mg/kg | mg/kg |
| | 0.50 | ND |
| Hay 9-0.90 | 0.50 | ND |
| Hay 9-1.5 | 0.50 | ND |
| Hay 9-3.0 | 0.50 | ND |
| Hay 9-4.5 | 0.50 | ND |
| Hay 10-0.15 | 0.50 | . ND |
| Hay 10-0.30 | 0.50 | ND |
| Hay 10-0.90 | 0.50 | ND . |
| Hay 10-1.5 | 0.50 | ND |
| Hay 10-3.0 | 0.50 | ND |
| Hay 10-4.5 | 0.50 | ND |
| Hay 8-0.15 | 0.50 | ND |
| Hay 8-0.3 | 0.50 | ND ND |
| Hay 8-0.9 | 0.50 | ND ND |
| Hay B-1.5 | 0.50 | ND |
| Hay 8-3.0 | 0.50 | |
| Hay 8-4.5 | 0.50 | ND |
| | 0.50 | IND |
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QC Sample Report - EPA 8015M Gasoline

Matrix: Soil

Batch #: 8015GS2249

Batch Accuracy Results

| Spike Concentration mg/Kg Acceptance Limits Recovery Pass/Fail | Gasoline | 10.0 | 100 | 70 - 130 | Pass |
|--|----------|------------------------------|-------------|----------|-----------|
| | Analyte | Spike Concentration mg/Kg | Recovery LC | | Pass/Fail |

| Analytical Notes: | | | | | |
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Batch Precision Results

| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|----------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Gasoline | 10.05 | 10.09 | 0% | 25% | Pass |

| MS. Matrix Spike Sample | |
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| MSD: Matrix Spike Duplicat | t |

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| Analytic | al Notes: | | |
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QC Sample Report - EPA 8015M Gasoline

Matrix: Soil

Batch #: 8015GS2250

Batch Accuracy Results

| Gasoline | 10.0 | 101 | 70 - 130 | Pass |
|----------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Sample ID: Laboratory Cont | rol Sample | 9 | | |

| Analytical Notes: | |
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Batch Precision Results

| MS/MSD Sample ID: 14988 | _ | | | | |
|-------------------------|--------------------------------|-----------------------------------|--------------------------------------|---------------------------|-----------|
| Απalyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limi RPD | Pass/Fail |
| Gasoline | 9.55 | 9.39 | 2% | 25% | Pass |

| Analytical Notes: | |
|-------------------|--|
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EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix:

14981 Soil

Analyst:

MBH/JMR

Date Sampled:

06/01/99

Date Received:

06/02/99

Date Analyzed:

06/09-11/99

Batch Number: 8260\$1728, 8260\$1729

8260\$1730, 8260\$1731

| | Sample ID: | Blank | Hay3-0.15 | Hay3-0.3 | Hay3-0.9 | Hay3-1.5 | Hay3-3.0 |
|-------------------------------|------------|-------|-----------|----------|----------|----------|----------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.20 | ND | ND | ND | ND | ND | ND |
| tert-Amyl Methyl Ether (TAI | ME 0:005 | ND | ND | NĐ | ND | ND | ND |
| Benzene | 0.001 | ND | ND. | ND | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | 0.005 | ND. | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND . | ND | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | 0.01 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | .ND | ND | ND | ND | ND | DI |
| tert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | ND | ND . | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND . | ND | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND |
| Chloromethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 2-Chloroto l uene | 0.002 | ND. | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dibromochlor o methane | 0.00 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND. | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | ne 0.01 | ND | ND | ND | ND | ND | ND |
| Dibromomethane ** | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | ND | ND . |
| 1,1-Dichloroethane | 0.001 | ND | : ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND | ND | ND | ND | ND | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND - | ND |
| 1,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | 0.001 | ND | ND | ND | ND. | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND | ND | ND | ND ND | ND |

EPA 8260 - Volatile Organics with Oxygenates

_____Centrum

(800) 798-9336

Client:

PSI

Project:

Cattrans:Mattox & Foothill

Job No.:

14981

Matrix:

Soil

Analyst:

Soil MBH/JMR Date Sampled:

Date Received:

Date Analyzed:

:

06/02/99 06/09-11/99

06/01/99

Batch Number: 8260S

8260\$1728, 8260\$1729

8260S1730, 8260S1731

| | Sample ID: | <u>Blank</u> | Hay3-0.15 | Hay3-0.3 | Hay3-0.9 | Hay3-1.5 | Hay3-3.0 |
|------------------------------|------------|--------------|-----------|----------|-------------------------------------|------------------------------------|--|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE | 0.005 | , ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | מא | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| lsopropylbenzene | 0.001 | ND | ND | ND | ND | ND | ON |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | ND | ND | ND. |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | ND | ND | ND | ND | ND |
| Napthalene | 0.002 | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | ND. |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachioroethane | 0:001 | ΝĎ | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND | ND | ND |
| Tetrachioroethene | 0.001 | ND | ND | ND | D | ND | ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND | ND | and and the contract of the co |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND ND |
| Trichlorpethene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND ND | ND |
| Trichlorofluoromethane | 0.001 | ND | DI | ND | ND | ND | ND ND |
| Trichlorotrifluoroethane | 0.05 | ND | ND | ND | ND | ND | ND ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.00 | ND | ND | ND | ND | auramanan mendebirki bibabb bibabb | ND |
| Vinyl chloride | 0.002 | ND | ND | ND | ND | ND ND | ND |
| Kylenes (total) | 0.003 | ND ND | ND | ND ND | nervana v razavnosti nodebe bodađe: | ND ND | ND |
| | 0.000 | - 110 | טא | טאו | ND | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| | -y, <u>=1111123.</u> 0 | <u> </u> | | • | | | |
|-----------------------|------------------------|----------|-----------|----------|----------|----------|---------------------|
| | Sample ID: | Blank | Hay3-0.15 | Hay3-0,3 | Hay3-0.9 | Hav3-1.5 | Hav3-3.0 |
| Dibromofluoromethane. | | 97 | 107 | 107 | 105 | 104 | 108 |
| Toluene-d8 | | 98 | 98 | 94 | 100 | 00 | 101 |
| Bromofluorobenzene | | 100 | Q1 | 80 | 08 | 100 | 101 3 3 64 3 3 3 |



EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix: 14981 Soil

Analyst:

MBH/JMR

Date Sampled:

oled: 06

Date Received:

06/01/99 06/02/99

Date Analyzed:

06/09-11/99

Batch Number:

8260\$1728, 8260\$1729

8260\$1730, 8260\$1731

| Compounds | Sample ID: | Hay3-4.5 | Hay4-0.15 | Hay4-0.3 | Hay4-0.9 | Hay4-1.5 | Hay4-3.0 |
|-------------------------------------|--|----------|---|---|---|---|--|
| Acetone | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Markov was a first transport to the | 0.20 | ND | ND | ND | ND | ND | ND |
| terf-Arnyl Methyl Ether (T | Control of the second of the s | ND | ND | ND | ND | ND | ND |
| Benzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | DM | ND | ND | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | 0.01 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | ND | ND | ND | ND | ND | ND |
| ert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND - | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND ND |
| Chloromethane | 0.002 | ND | ND | ND | ND | ND | ND - |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND - |
| 1-Chlorotoluene | 0.002 | ND | ND | ND . | ND | ND | ND ND |
| Dibromochloromethane | 0.00 | ND | ND | ND | ND | ND | De la controla de la controla de la controla de la controla de la controla de la controla de la controla de la |
| 1,2-Dibromoethane | 0.002 | ND | ND · | ND | ND | ND | ND |
| l,2-Dibromo-3-chloropro | pane 0.01 | ND | ND | ND | ND | ND | ND . |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| ,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND. | ND ND | ND |
| 3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | energen angewaar na historiaan di distribuit. | ND |
| .4-Dichtorobenzene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | ND | ND . |
| ,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND ND | ND |
| ,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| ,1-Dichloroethene | 0.005 | ND | ND | ND | 88 995 9 (2014) 1944 - 1949 - 1949 - 1949 | ND | ND |
| is-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND. | ND | ND |
| rans-1,2-Dichlorcethene | 0.002 | ND | ND | ND ND | ND | ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND ND | contraverse included 600000000000000000000000000000000000 | ND | ND | ND : |
| ,3-Dichloropropane | 0.001 | ND | 940000000000000000000000000000000000000 | ND ND | ND | ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| .1-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| | V.UU1 | · INL | ND | ND | ND | ND | DN D |



Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix:

Soil

Analyst:

MBH/JMR

Date Sampled:

Date Sampled:

Date Received:

Date Analyzed:

06/01/99 06/02/99

Batch Number:

06/09-11/99 8260S1728, 8260S1729 8260S1730, 8260S1731

| | Sample ID: | Hay3-4.5 | Hay4-0.15 | Hay4-0.3 | Hay4-0.9 | Hay4-1.5 | Hay4-3.0 |
|-------------------------------|---------------|--|-----------|----------|---------------------------|---|--|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | ND | ND | ON CON | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND - | ND | ND |
| isopropylbenzene | 0.001 | ND | ND | ND | DO | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | . ND | ND | . DND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | The second section of the second seco |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | ND | ND | ND | Albanda in the Albanda in the Committee of the Committee | ND |
| Napthalene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| n-Propylbenzene | 0:001 | ND | ND | ND | ND | ND. | ND |
| Styrene | 0.001 | ND | ND | ND | ND | variantam populopulitie populoti (197 | ND |
| 1,1,1,2-Tetrachioroethane | 0.001 | ND | ND | ND | ND | ND . | ND |
| 1,1,2,2-Tetrachioroethane | 0.002 | . ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | DI | ND | ND | ND ND | ND |
| Toluene | 0.001 | ND | ND | ND | randa as a cha dasarranda | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND . | ND ND | ND NB | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | D | ND | ND | ND | ND 1 | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.001 | ND ND | ON - | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | | ND | ND | ND. |
| Trichlorofluoromethane | 0.001 | ND | | ND | ND | ND | ND |
| Trichlorotrifluoroethane | 0.05 | ND | ND. | ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND ND | ND | ND | ND | ND . | ND |
| 1,3,5-Trimethylbenzene | 0.00 | para para dan 100 da 100 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 da 60 d | 0.001 | 0.003 | ND | ND | ND |
| Vinyl chloride | 0.00 0.002 | ND ND | ND | ND | ND | ND | ND |
| Xylenes (total) | | ND | ND | ND | ND . | ND | . ND |
| Alones (rotal) | 0.003 | ND | ND | ND | ND | ND | ND |
| | | | | | | | |

Surrogates (% recovery) Limits: 80 - 130

| | ample ID: | _Hay3-4.5 | Hay4-0.15 | Hay4-0.3 | Hay4-0.9 | Hay4-1.5 | Hav4-3.0 |
|----------------------|----------------------------------|--|-----------|--|----------|----------|----------|
| Dibromofluoromethane | | 106 | 114 | 112 | 444 | 106 | 400 |
| Toluene-d8 | no assurantes apecados (n. 1860) | -0000000000000000000000000000000000000 | | and the second s | | IUO | JUZ |
| | es acces accession becomes | 100 | 64 | 89 | 89 | 92 | 101 |
| Bromofluorobenzene | | 104 | 72* | 82 | 88 | 85 | 00 |

^{*}See Case Narrative regarding surrogate recoveries outside the acceptance limits.



Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix: 14981 Soil

Analyst:

MBH/JMR

Date Sampled:

Date Received:

06/01/99 06/02/99

Date Analyzed:

06/09-11/99

Batch Number:

8260S1728, 8260S1729

8260\$1730, 8260\$1731

| 0 | Sample ID: | Hay4-4.5 | Hay7-0.15 | Hay7-0.30 | Hay7-0.90 | Hay7-1.5 | Hay7-3.0 |
|----------------------------|------------|----------|-----------|-------------------------------------|---|---|--|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.20 | ND | ND | ND | ND | ND | ND |
| tert-Amyl Methyl Ether (TA | | ND | ND | ND | ND | ND | ND |
| Benzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromoform _ | 0.005 | ND | ND | ND | ND | ND | ND |
| 3romomethane | 0.01 | ND | ND | ND | ND | ND | ND |
| ert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0,00 | ND | ND | ND | ND | ND | ND |
| ert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | ND | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | . ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Shloroform | 0.002 | ND | ND | ND | ND | ND | ND ND |
| Chloromethane | 0.002 | ND | ND | ND | ND | ND | ND ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND ND | ND ND |
| I-Chiorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | 0.00 | ND | ND | ND | ND | ND | enenenen viitaan kunna valaan ka |
| 1,2-Dibromoethane | 0.002 | . ND | ND | ND | ND | ND | ND ND |
| l,2-Dibromo-3-chloropropa | ine 0.01 | ND | ND | ND | ND | ND | ND ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND ND |
| ,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND | eranakan kanan baran baran baran baran baran baran baran baran baran baran baran baran baran baran baran baran |
| ,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| ,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | `ND | ND | ND | ND | ND |
| ,1-Dichtoroethane | 0.001 | ND | ND | ND | ND | Market State Company of the Company | ND |
| ,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| ,1-Dichloroethene | 0.005 | ND | ND | ND | ND | ND ND | ND |
| is-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| ans-1,2-Dichloroethene | 0.002 | ND | ND | ND D | MARKANIA SOCIOLO DO CARROLLA DE LA CARROLLA DE LA CARROLLA DE LA CARROLLA DE LA CARROLLA DE LA CARROLLA DE LA C | ND ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND | ND | ND ND | ND | ND |
| ,3-Dichloropropane | 0.001 | סא | ND | ND ND | ND ND | ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND | account of the second of the second | ND | ND | ND |
| ,1-Dichloropropene | 0.001 | ND | ND ND | ND ND | ND ON | ND ND | ND ND |

entrum (800) 798-9336

EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix: Analyst:

Soil MBH/JMR Date Sampled:

Date Received:

06/01/99 06/02/99

Date Analyzed: Batch Number:

06/09-11/99

8260\$1728, 8260\$1729

8260S1730, 8260S1731

| | Sample ID: | Hay4-4.5 | Hay7-0.15 | Hay7-0.30 | Hay7-0.90 | Hay7-1.5 | Hay7-3.0 |
|-------------------------------|--|--|----------------------------------|-----------|--|---|---|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | , DO | ND | ND | ND | ND. |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | 0.002 | ND | 0.009 | ND | OM D |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| lexachlorobutadiene | 0.00 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| sopropylbenzene | 0.001 | ND | ND | ND | ND | ND | ND DN |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | ND | ND . | ND ND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | er titlet till i i halde skrivet i et i |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | ND | ND | ND | No. 100 No. 200 April 100 | ND |
| Napthalene | 0.002 | 0.002 | ND | ND | ND | ND | ND . |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ON CIN | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND: | accounts with with respect 6000000000000000000000000000000000000 | ND ND | ND |
| Tetrachioroethene | 0.001 | ND | ND | ND | ND | ND | ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND ND | ND ND | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND. | ND | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | s accessors for the mesos become | ND | ND | ND | ND |
| Trichloroethene | 0.003 | ND ND | ND | ND | ND | ND | ND |
| I,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0.003 | Mariana and Company of the Company o | ND | ND | ND | ND | ND |
| Frichlorotrifluoroethane | 0.05 | ND | ND | " ND | ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.05 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.00 | 0.002 | ND | ND | ND | ND | , ND |
| /inyl chloride | Contract Con | ND | ND: | ND | ND | ND | ND |
| (ylenes (total) | D.002 | ND | DM | ND | ND | ND | . DO |
| vyrenes (total) | 0.003 | ND | 0.006 | ND | 0.034 | ND | 0.004 |

Surrogates (% recovery) Limits: 80 - 130

| | <u> </u> | | | | | | |
|----------------------|--|---------------------------|---------------------|------------------------------------|---------------------------|----------|--|
| | Sample ID: | Hay4-4.5 | Hay7-0.15 | Hay7-0.30 | Hay7-0.90 | Hay7-1.5 | Hav7-3.0 |
| Dibromofluoromethane | | ં લાતના છે. | 108 | 806866 86 4 to 14 338 888 8 | 2000 C | | N 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| Toluene-d8 | | | 100 | 104 | 106 | 108 | 108 |
| | | 86 | 94 | 94 | 87 | 101 | 105 |
| Bromofluorobenzene | | R1 | 20 | 99 | Sicher July in der | | BUTANESS CONTRACTOR |
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See Case Narrative regarding surrogate recoveries outside the acceptance limits.



Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix:

14981

Analyst:

Soil MBH/JMR Date Sampled:

06/01/99

Date Received:

06/02/99 06/09-11/99

Date Analyzed: Batch Number:

8260\$1728, 8260\$1729

8260\$1730, 8260\$1731

| Sample ID: | Hay7-4.5 | Hay9-0.15 | Hay9-0.30 | Hay9-0.90 | Hay9-1.5 | Hay9-3.0 |
|--|--|--|--|--|--|--|
| DL | mg/Kg | mg/Kg | mg/Kg | | | mg/Kg |
| 0.20 | ND | ND | ND | | | ND |
| AME 0.005 | ND | ND | ND | Charles Salar American | enten konstruenten bis | ND |
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Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix: Analyst: Soil

MBH/JMR

Date Sampled:

Date Received:

Date Analyzed:

Batch Number:

06/01/99

06/02/99 06/09-11/99

8260\$1728, 8260\$1729

8260\$1730, 8260\$1731

| | Sample ID: | Hay7-4.5 | Hay9-0.15 | Hay9-0.30 | Hay9-0.90 | Hay9-1.5 | Hay9-3.0 |
|-------------------------------|------------|----------|-----------|-----------|-----------|------------------------|-----------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | DI |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 0,001 | ND | MD | ND | ND | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | ND | ND | ND | ND | ND |
| Napthalene | 0.002 | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | סמ |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachioroethane | 0.001 | ND | ND | ND | ND | ND | DI |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND . | ND | ND | ND · |
| Tetrachloroethene | 0.001 | ND | ND | ND | ND | ND | ND. |
| Toluene | 0.001 | ND | ND | ND | ND | ND . | ND ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND. | ND | ND | ND | ND | ND DN |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND | ND | DI DI |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichtoroethene | 0.001 | ND | ND | ND | NO | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0:001 | ND | ND | ND | ND | ND. | ND ND |
| Trichlorotrifluoroethane | 0.05 | ND | ND | ND | ND | ND | ND ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND | ND | 0.001 | 0.002 | CONCORDANCIA SUBJETIC |
| 1,3,5-Trimethylbenzene | 0.00 | ND | ND | ND | ND | ND | ND ND |
| Vinyl chloride | 0.002 | ND | ND | ND | ND | CONTRACTOR PROGRAMMENT | ND ND |
| Xylenes (total) | 0.003 | ND | ND | ND | ND | ND ND | ND |
| | | | 110 | IAD | UU | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| - | Sample ID: | Hay7-4.5 | Hay9-0.15 | Hay9-0.30 | Hay9-0.90 | Hav9-1.5 | Hav9-3.0 |
|---------------------|------------|-------------------|--------------------------|--------------------------------|-----------|-------------------------|----------|
| Dibromofluoromethan | e | 112 | 109 | 104 | 107 | 102 | 107 |
| Toluene-d8 | • | 101 | 84 | 94 | 94 | QZ | 93 |
| Bromofluorobenzene | | 87 | 77* | 82 | 7/1+ | | |
| ****** | | and the second of | Description of Section 2 | errouger and exciting the ter- | | 00000 O D (1896) | 69 |

*See Case Narrative regarding surrogate recoveries outside the acceptance limits.

(800) 798-9336

EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix:

14981 Soil

Analyst:

MBH/JMR

Date Sampled:

06/01/99

Date Received:

06/02/99

Date Analyzed:

06/09-11/99

Batch Number:

8260\$1728, 8260\$1729

8260S1730, 8260S1731

| Compounds Acetone tert-Amyl Methyl Ether (TAME Benzene Bromobenzene Bromochloromethane Bromodichloromethane Bromomethane Bromomethane tert-Butanol (TBA) 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chlorotethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane 1,2-Dibromo-3-chloropropane | 0.001 0.005 0.005 0.001 0.005 0.01 0.005 0.00 0.00 | mg/Kg ND ND ND ND ND ND ND ND ND ND ND ND ND | mg/Kg ND ND ND ND ND ND ND ND ND ND ND ND ND | Hay10-0.30 mg/Kg ND ND ND ND ND ND ND ND ND N | mg/Kg ND ND ND ND ND ND ND ND ND ND ND ND ND | May10-1.5 mg/Kg ND ND ND ND ND ND ND ND ND ND ND ND ND | Hay10-3.0 mg/Kg ND ND ND ND ND ND ND ND ND ND ND ND ND |
|---|--|--|--|--|--|--|--|
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| Bromobenzene Bromochloromethane Bromodichloromethane Bromoform Bromomethane tert-Butanol (TBA) 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disuifide Carbon tetrachloride Chlorobenzene Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.005 0.001 0.005 0.01 0.05 0.01 0.002 0.00 0.002 0.001 0.001 0.001 0.005 0.005 | ND ND ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND ND |
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| Bromomethane tert-Butanol (TBA) 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.01 0.05 0.01 0.002 0.00 0.002 0.01 0.001 0.005 0.002 | ND ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND ND |
| tert-Butanol (TBA) 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.05 0.01 0.002 0.00 0.002 0.01 0.001 0.005 0.005 | ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND |
| 2-Butanone (MEK) n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chlorobenzene Chloroform Chloromethane 2-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.01 0.002 0.00 0.002 0.01 0.001 0.001 0.005 0.002 | ND ND ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND | ND ND ND ND ND ND ND | ND ND ND ND ND ND | ND ND ND ND ND |
| n-Butylbenzene sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.002 0.00 0.002 0.01 0.001 0.001 0.005 0.002 | ND ND ND ND ND ND ND | ND ND ND ND ND ND | ND ND ND ND ND | ND ND ND ND ND | ND ND ND ND | ND ND ND ND |
| sec-Butylbenzene tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.00 0.002 0.01 0.001 0.001 0.005 0.002 | ND ND ND ND ND ND | ND ND ND ND ND | ND ND ND ND | ND ND ND ND ND | ND ND ND ND | ND ND ND ND |
| tert-Butylbenzene Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.002 0.01 0.001 0.001 0.005 0.002 | ND ND ND ND ND | ND ND ND ND | ND ND ND | ND ND ND ND | ND ND ND | ND ND ND |
| Carbon disulfide Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorofoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.01 0.001 0.001 0.005 0.002 | ND ND ND ND | ND ND ND | ND ND | ND ND ND | ND ND | ND ND |
| Carbon tetrachloride Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.001 0.001 0.005 0.002 | ND ND ND | ND ND | ND | ND ND | ND | ND |
| Chlorobenzene Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.001 0.005 0.002 | ND ND | ND | ND | ND | action and a second and a second and a second and a second and a second and a second and a second and a second | processing and a second of the |
| Chloroethane Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.005 0.002 | ND | e anna agus an an an an an ann an an an an an an an | ND | NAME AND ADDRESS OF THE PARTY O | | ND |
| Chloroform Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.002 | ** **** | ND | | ND | ND | ND |
| Chloromethane 2-Chlorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | | | 146 | ND | ND . | ND | ND |
| 2-Chiorotoluene 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | | ND | ND | ND | ND | ND | ND. |
| 4-Chlorotoluene Dibromochloromethane 1,2-Dibromoethane | 0.002 | ND. | ND . | ND | ND | ND | ND |
| Dibromochloromethane 1,2-Dibromoethane | 0.002 | ND | NĐ | ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| | 0:00 | ND | ND | ND | ND | ND | ND |
| 1.2-Dibromo-3-chloropropage | 0.002 | ND | - ND | ND | ND | ND | ND |
| | 0.01 | ND | ND | ND | ND | ND | ND- |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | NĐ | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND . | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND . | ND | . ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | ND | en en en en en en en en en en en en en e |
| 1,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | 'ND |
| 1,1-Dichloroethene | 0.005 | ND | ND | DA | ND | and the second s | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| 1,2-Dichlorорторапе | 0.001 | ND | ND | ND | ND | ND | ND |
| I,3-Dichloropropane | 0.001 | ND | ND | ND ND | ND ND | ND NB | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND | enember von 1997 i Antonia Antonia (1990) | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND ND | ND | ND ND | ND ND | ND ND |



Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix.

Soil

Analyst:

MBH/JMR

Date Sampled:

Date Received:

06/01/99

Date-Analyzed:

06/02/99 06/09-11/99

Batch Number:

8260S1728, 8260S1729

8260\$1730, 8260\$1731

| | Sample ID: | Hay9-4.5 | Hay10-0.15 | Hay10-0.30 | Hay10-0.90 | Hay10-1.5 | Hay10-3.0 |
|-------------------------------|------------|----------|------------|------------|---|---|--------------------------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND . | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | ND | ND. | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| lsopropylbenzene | 0,001 | ND | ND | ND | ND | ND | ND |
| p-Isopropyttoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtBl | E) 0.005 | ND | ND | ND | ND | ND | OM |
| Vapthalene | 0.002 | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | 0.000,000,000,000,000,000 |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | פא | ND | ND | ND | ND ON |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ************************************ |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | Marananan merekatan 1960-1965 |
| 1,1,1-Trichloroethane | 0.001 | ND | ND N | ND | ND | ND' | ND ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND ND | ND |
| Frichloroethene | 0.001 | ND | DO | ND | ND ND | ND ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND . | ND - | ND | MD ND | ND |
| Frichlorofluoromethane | 0.001 | ND | ND | ND | DM | annonarios establishes establishes establishes and a second | . ND |
| Trichlorotrifluoroethane | 0.05 | ND | ND | ND | ND ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND | ND | ND ND | ND 0.00# | ND |
| 1,3,5-Trimethylbenzene | 0.00 | ND | ND | ND | ND · | 0.001 | ND |
| Vinyl chloride | 0.002 | ND | ND | ND | ND ND | ND | ND |
| (ylenes (total) | 0.003 | ND | ND. | ND | 22.550000000000000000000000000000000000 | ND | ND |
| | | | - ND- | | ND | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| | Sample ID: | Hay9-4.5 | Hay10-0.15 | Hay10-0.30 | Hay10-0.90 | Hay10-1.5 | Hav10-3.0 |
|----------------------|--|----------|------------|------------|------------|-----------|-----------|
| Dibromofluoromethane | | 101 | 102 | 102 | 109 | | 103 |
| Toluene-d8 | Di 1860 de martin martin de conservation de conservation de la conservation de la conservation de la conservat | 99 | 89 | 100 | 94 | 95 | 97 |
| Bromofluorobenzene | | 93 | 103 | 99 | 95 | 89 | 90 |



Client;

Project:

Caltrans:Mattox & Foothill

Job No.: Matrix:

14981 Soil

Analyst:

MBH/JMR

Date Sampled:

Date Received:

06/01/99 06/02/99

Date Analyzed:

06/09-11/99

Batch Number:

8260S1728, 8260S1729

8260S1730, 8260S1731

| | Sample ID: | Hay10-4.5 | Hay8-0.15 | Hay8-0.3 | Hay8-0.9 | Hay8-1.5 | Hay8-3.0 |
|---------------------------|------------|-----------|-----------|----------|--|---|---|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.20 | ND | ND | ND | ND | ND | ND |
| tert-Amyl Methyl Ether (1 | FAME 0.005 | ND | ND | ND | ND | ND | ND |
| Benzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND. | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | 0.01 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND | ND | ND | ND ND |
| n-Butyibenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | ND | ND | ND | ND | D | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | · ND | ND | ND | ND | ND | ND UND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND ND |
| Chloromethane | 0.002 | ND | ND | ND | ND | ND ND | ND |
| 2-Chiorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| 4-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane : | 0.00 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropro | pane 0.01 | ND ' | ND | ND | ND | ND | ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND. |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | DM | ND | ND | ND. | . ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | . ND | ND | ND | ND |
| I,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| l,1-Dichloroethene | 0.005 | ND | ND | ND | ND | ND | \$000 00 0000000000000000000000000000000 |
| sis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND ND | ND ND |
| 1,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| ,3-Dichloropropane | 0.001 | ND | ND | ND | ND ND | ND ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND | - COUNTRY TO TAKE A SECTION OF SECTION | and a contract of the state of | ND ND |
| I,1-Dichloropropene | 0.001 | ND | ND ND | ND | ND ND | ND ND | ND ND |

(800) 798-9336

EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix: Analyst:

Soil MBH/JMR

Date Sampled:

Date Received:

Date Analyzed: Batch Number: 06/01/99 06/02/99

06/09-11/99

8260\$1728, 8260\$1729 8260\$1730, 8260\$1731

| | Sample ID: | Hay10-4.5 | Hay8-0.15 | Hay8-0.3 | Hay8-0.9 | Hay8-1.5 | Hay8-3.0 |
|---------------------------------------|------------|-----------|---|--|--|----------|---|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | - ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0,001 | ND: | ND | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | . ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND | ND | ND | ND | NO |
| p-isopropyitoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.05 | ND | ND | ND | ND | ND . | NO |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | ND | ND | ND | ND | ND |
| Napthalene Napthalene | 0.002 | ND | ND | ND | ND | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ND | ND | ND ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND GN |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND. |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | 55.900000000000000000000000000000000000 |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND | ND | ND NO |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | , ND | ND | | ND |
| Trichloroethene | 0:001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND | ND | ND | ND · |
| Trichlorotrifluoroethane | 0.05 | ND | ND | ND | ND ND | ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND | 0.001 | u desemble estado en entre en entre en el entre en el entre en el entre en el entre en el entre en el entre en | ND | ND |
| 1,3,5-Trimethylbenzene | 0.00 | ND | ND | ND | 0.002 | ND | ND |
| Vinyl chloride | 0.002 | ND | DI | on de la companya de la companya de la companya de la companya de la companya de la companya de la companya de | ND | ND | . ND |
| Xylenes (total) | 0.002 | ND ND | anamananan karamanan manaman di babbab babbab | ND | ND | ND | ND |
| · · · · · · · · · · · · · · · · · · · | 5.003 | NU , | ND | ND | ND | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| · · · · · · · · · · · · · · · · · · · | Sample ID: | Hay10-4.5 | Hay8-0.15 | Hav8-0.3 | Hav8-0.9 | Hav8-1.5 | Hav8-3.0 |
|---------------------------------------|---|--|-----------|----------|----------|---------------------------------------|------------|
| Dibromofluoromethane | 100000000000000000000000000000000000000 | 104 | 488 | 114 | 118 | 98 | |
| Toluene-d8 | | | | | 110 | 95 | 104 |
| | V VIII VOMANA ARABAN TATA ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN ARABAN A | 101 | 96 | 96 | 90 | 96 | 100 |
| Bromofluorobenzene | | 89 | 90 | 84 | 67* | e e e e e e e e e e e e e e e e e e e | A STANDARD |
| Con Constallation | | 3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3.3. | | | | 24 | 99 |

^{*}See Case Narrative regarding surrogate recoveries outside the acceptance limits.



Client:

PSI

14981

Project:

Caltrans:Mattox & Foothill

Job No.:

Matrix:

Soil Analyst: MBH/JMR Date Sampled:

Date Received:

Date Analyzed: Batch Number:

06/02/99

06/01/99

06/09-11/99

8260S1728, 8260S1729

8260\$1730, 8260\$1731

| | Sample ID: | Hay8-4.5 | _ |
|----------------------------|------------|----------|---------------|
| Compounds | DL | mg/Kg | |
| Acetone | 0.20 | ND | |
| tert-Amyl Methyl Ether (TA | ME 0.005 | ND | ۇرىن ئارىن |
| Benzene | 0.001 | ND | 4.3 |
| Bromobenzene | 0.005 | ND | 3 |
| Bromochloromethane | 0.005 | ND | 1 23 |
| Bromodichloromethane | 0.001 | ND | |
| Bromoform | 0.005 | ND | She? |
| Bromomethane | 0.01 | ND | |
| tert-Butanol (TBA) | 0.05 | ND | 4778 |
| 2-Butanone (MEK) | 0.01 | ND | 3 8 |
| n-Butylbenzene | 0.002 | ND | 91,4 S |
| sec-Butylbenzene | 0.00 | ND | ar g |
| tert-Butylbenzene | 0.002 | ND | rind |
| Carbon disulfide | 0.01 | ND | : 3.99 |
| Carbon tetrachloride | 0.001 | ND . | #88 • |
| Chlorobenzene | 0,001 | ND | 407 |
| Chloroethane | 0.005 | ND | (10%) |
| Chloroform | 0.002 | ND | |
| Chloromethane | 0.002 | ND | 69.3 |
| 2-Chlorotofuene | 0.002 | ND | |
| 4-Chlorotoluene | 0.002 | ND | 418.S |
| Dibromochloromethane | 0.00 | ND | |
| 1,2-Dibromoethane | 0.002 | ND | 434 |
| 1,2-Dibromo-3-chloropropa | ine 0.01 | ND | |
| Dibromomethane | 0.001 | ND | 888 |
| 1,2-Dichlorobenzene | 0.001 | ND | des Ses |
| 1,3-Dichlorobenzene | 0.002 | ND | .00888 |
| 1,4-Dichlorobenzene | 0.002 | ND | |
| Dichlorodifluoromethane | 0.005 | ND | 12553 |
| 1,1-Dichloroethane | 0.001 | ND | |
| 1,2-Dichloroethane | 0.001 | ND | 1000 |
| 1,1-Dichloroethene | 0.005 | ND | |
| cis-1,2-Dichloroethene | 0.002 | ND | #19\$ |
| trans-1,2-Dichloroethene | 0.002 | ND | |
| 1,2-Dichloropropane | 0.001 | ND | 26.33 2 |
| 1,3-Dichloropropane | 0.001 | ND | , es |
| 2,2-Dichloropropane | 0.001 | ND | şş kê |
| 1,1-Dichtoropropene | 0.001 | ND | (4.2) |



Client:

PSI

Project:

Caltrans:Mattox & Foothill

Job No.:

14981

Matrix:

Analyst:

Soil

MBH/JMR

Date Sampled:

Date Received: Date Analyzed:

Batch Number:

06/01/99

06/02/99 06/09-11/99

8260S1728, 8260S1729

8260\$1730, 8260\$1731

| | Sample ID: | Hay8-4.5 | _ |
|------------------------------|------------|----------|------------------|
| Compounds | DL | mg/Kg | _ |
| cis-1,3-Dichloropropene | 0.001 | ND | _ |
| trans-1,3-Dichloropropene | 0.001 | ND | aję. |
| Diisopropyl Ether (DIPE) | 0.005 | ND | -1100 |
| Ethylbenzene | 0.001 | ND | 33.70 94.83 |
| Ethyl tert-Butyl Ether (EtBE |) 0.005 | ND | 18 Vice |
| Hexachlorobutadiene | 0.00 | ND | 3800 S |
| 2-Hexanone | 0.01 | ND | 856.F |
| isopropy i benzene | 0.001 | ND | elliğe Silişe |
| p-Isopropyitoiuene | 0.002 | ND | 800 |
| Methylene chloride | 0.05 | ND | gari. |
| 4-Methyl-2-pentanone | 0.01 | ND | Ç. |
| Methyl tert-Butyl Ether (MtB | E) 0.005 | ND | |
| Napthalene | 0.002 | ND | side in the |
| n-Propylbenzene | 0.001 | ND . | egger G |
| Styrene | 0.001 | ND | |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | 8864 |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | SSEC. |
| Tetrachloroethene | 0.001 | ND | 3763 |
| Toluene | 0.001 | ND | 885 () |
| 1,2,3-Trichlorobenzene | 0.002 | ND | 2422 |
| 1,2,4-Trichlorobenzene | 0.002 | ND | 1000 |
| 1,1,1-Trichloroethane | 0.001 | ND | ¥358 |
| 1,1,2-Trichloroethane | 0.003 | ND | 8800 |
| Trichtoraethene | 0,001 | ND | 336a |
| 1,2,3-Trichloropropane | 0.003 | ND | 33353 • |
| Trichlorofluoromethane | 0.001 | ND | 2220 |
| Trichlorotrifluoroethane | 0.05 | ND | |
| 1,2,4-Trimethylbenzene | 0.001 | ND | |
| 1,3,5-Trimethylbenzene | 0.00 | ND | 400 |
| Vinyl chloride | 0.002 | ND | |
| Xylenes (total) | 0.003 | ND | 3.883 |
| | | | |

Surrogates (% recovery) Limits: 80 - 130

| Sample II | Hay8-4.5 | |
|----------------------|----------|--|
| Dibromofluoromethane | 103 | |
| l oluene-d8 | 99 | |
| Bromofluorobenzene | 102 | |



Matrix: Soil

Batch #: 8260\$1728

Batch Accuracy Results

| Sample ID: Laboratory Con | trol Sampl | e | | |
|---------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | ⊃ass/Fail |
| 1,1-Dichloroethene | 0.020 | 103 | 59 - 172 | Pass |
| Benzene | 0.020 | 96 | 66 - 142 | Pass |
| Trichioroethene | 0.020 | 104 | 71 - 137 | Pass |
| Toluene | 0.020 | 97 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 96 | 60 - 133 | Pass |

| Analytical Notes: | |
|-------------------|---|
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| <u> </u> | |

Batch Precision Posuite

| MS/MSD Sample ID: Hay4 | - 4.5 | | | | * |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| 1,1-Dichloroethene | 0.0305 | 0.0268 | 13% | 22% | Pass |
| Benzene | 0.0254 | 0.0228 | 11% | 21% | Pass |
| Trichloroethene | 0.0230 | 0.0209 | 10% | 24% | Pass |
| Toluene | 0.0228 | 0.0195 | 15% | 21% | Pass |
| Chlorobenzene | 0.0252 | 0.0222 | 12% | 21% | Pass |

| ٠ | Analytical Notes: | |
|---|-------------------|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | • |
| | | |

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate



Matrix: Soil

Batch #: 8260S1729

Batch Accuracy Results

| Sample ID: Laboratory Con | trol Samp | le | | |
|---------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 128 | 59 - 172 | Pass |
| Benzene | 0.020 | 117 | 66 - 142 | Pass |
| Trichloroethene | 0.020 | 117 | 71 - 137 | Pass |
| Toluene | 0.020 | 111 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 113 | 60 - 133 | Pass |

| Analytical Notes: | |
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Batch Precision Results

| MS/MSD Sample ID: HAY9 | -3.0 | | | | |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| 1,1-Dichloroethene | 0.0276 | 0.0276 | 0% | 22% | Pass |
| Benzene | 0.0237 | 0.0249 | 5% | 21% | Pass |
| Trichloroethene | 0.0231 | 0.0240 | 3% | 24% | Pass |
| Toluene | 0.0231 | 0.0240 | 4% | 21% | Pass |
| Chlorobenzene | 0.0240 | 0.0234 | 3% | 21% | Pass |

| MS: Matrix Spike Sample | |
|-----------------------------|---|
| MSD: Matrix Spike Duplicate | • |

| Ana | lytical N | lotes: | |
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Matrix: Soil

Batch #: 8260S1730

Batch Accuracy Results

| Sample ID: Laboratory Con | trol Sampl | e | | |
|---------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 131 | 59 - 172 | Pass |
| Benzene | 0.020 | 114 | 66 - 142 | Pass |
| Trichloroethene | 0.020 | 127 | 71 - 137 | Pass |
| Toluene | 0.020 | 118 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 115 | 60 - 133 | Pass |

| Analytical | Notes: | • | |
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Batch Precision Results

| MS/MSD Sample ID: Labo | ratory Con | trol Samp | le | | |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| 1,1-Dichloroethene | 0.0262 | 0.0232 | 12% | 22% | Pass |
| Benzene | 0.0228 | 0.0213 | 7% | 21% | Pass |
| Trichloroethene | 0.0254 | 0.0248 | 2% | 24% | Pass |
| Toluene | 0.0236 | 0.0215 | 9% | 21% | Pass |
| Chlorobenzene | 0.0231 | 0.0206 | 11% | 21% | Pass |

| | Analytica | Note | s: | | |
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MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate



Matrix: Soil
Batch #: 8260S1731

Batch Accuracy Results

| Sample ID: Laboratory Con | trol Sampl | le | , | |
|---------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 120 | 59 - 172 | Pass |
| Benzene | 0.020 | 107 | 66 - 142 | Pass |
| Trichloroethene | 0.020 | 100 | 71 - 137 | Pass |
| Toluene | 0.020 | 106 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 112 | 60 - 133 | Pass |

| Δ | nalytic | al Note | es: | | |
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Batch Precision Results

| MS/MSD Sample ID: Hay8- | 1.5 | | | | |
|-------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| 1,1-Dichloroethene | 0.0228 | 0.0224 | 2% | 22% | Pass |
| Benzene | 0.0213 | 0.0211 | 1% | 21% | Pass |
| Trichloroethene | 0.0214 | 0.0200 | 7% | 24% | Pass |
| Toluene | 0.0240 | 0.0218 | 9% | 21% | Pass |
| Chlorobenzene | 0.0225 | 0.0220 | 2% | 21% | Pass |

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Analytical Notes:

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

Centrum Analytical Laboratories, Inc.

Centrum Job # 14988

290 TENNESSEE STREET REDLANDS, CA 92373

(909) 798-9336 • (800) 798-9336 FAX (909) 793-1559

Chain of Custody Record

| · · · · · · | | | | ·: | | _ · | | | | | | Anal | yses | Requ | ested | | | | | | |
|---|--|-----------------|-----------------|------------------|--|--|---------------------------|-------------------|------------------|---------------|-----------------|------------------------------|----------------|-------------------|---------------|------------|-------|------------|----------|------------------------|--|
| Project No. | 75-96036 | i i | Project N | Vame: | · M du set | : //- | // | 1. | m | | K | | | T | | | | ঝ | | | Turn-around time |
| Project Mar | 75-96034 hager: E Poss | | Phone: | +mis | : Mattex = For Fax: -1111 (570) 70 | other | 7 | F | Pest/PCE | ١, | | 1 1 | l | RCP& | 8 | Hex Chrome | Ι. | 100 | Ы | | |
| Fa | E Poss | . (| 5705 | 785 | -1111 (57A) 7 | 85- | 1192 | Ė | | | | [| 625 | ě. | 1 | Š | N | 3 | 199 | | ☐ 24 Hr. RUSH* |
| Client Name | s: | | | | | | | F | PCBs | 1 | | 1 1 | | ŝ | Concluctivity | Ĭ | ` | 곅. | | | □ Normal TAT |
| (Company) | PSI | | 1320 | W. | Winton Aces | 1/4 | ywad | \$ | | 1 * | E E | | 8 | ₫ | ů S | Ĕ | , | 3 | | | * Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site Incetion | | Containers: # and type | GCMS: 8260 | 8080: Pesticides | 8015M: Diesel | 8015M: Gasoline | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) | PH TOS TSS | hpoir | | 10/21 | 0170 | | Remarks/ Special Instructions |
| / | Hay6-0.15 | 6/2/99 | 915 | -5 | | . 1 | | X | | X | X | | | | | | | $\sqrt{}$ | X | | |
| 2 | -0.30 | | 920 | | | | | | | 1 | | | | | | | 1 | | | | |
| 3 | -0.90 | | 925 | | | | | | | | | | | | | | | | | | |
| 4 | -1.5 | | 930 | | | | · | | | | | | | | | | | | | | |
| 5 | -3.0 | , | 935 | | | | | | | | | | | | | | | | | | |
| 6 | -4,5 | <u> </u> | 940 | | | | | | | | | | | | | | | | | | |
| 7 | Hay 5-0.15 | | | | | ` ' | | | | Ш | | | | | | L | Ш | | | 2 | |
| 8 | -0.30 | | 1020 | | | | - • | $\perp \parallel$ | | Ш | \perp | | | | | | | | | | |
| 9 | -0.90 | _/_ | 1025 | _/_ | | | · | | | | 1/ | | | | | | Ц | | 1 | | |
| 10 | -1,5 | Ŋ | 1030 | (₩ | | ĺ | | V | | V۱ | ۷I | | | | | | 1 | /[γ | y | | |
| Refinautshed by | r-(Sampler's Signature) | ÷: | Dete /2/99 | Time 1700 | Relinquished by: | | | Date | | Time | | To be | comp | leted by | labori | itory p | erso | nnel: | I | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | | | Date | | Time | | | | illed?_6 | | | | | | | ☐ Client will pick up |
| | samples and the signatur | | | | Relinquished by: | ······································ | | Date | ` | Time | | Ali sar | | | - | | Çes | □ N | ło | | Return to client |
| constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof. | | | | | | |) | 9 | Пте 9 : / | 5- | <u>K</u>] | rier Δ: | D UPS | Fed E | c 🗆 F | Hand | carri | eđ | | ☐ Lab disposal fee \$5 | |
| aboratory N | otes: Place | j | nelva | 2 | ethyl dibormed | le_ | ad | eth | ryl | No | chlo | 1000 2012 2012 2012 | | , h | , | 8 Z | 60 | , | | 1 | Sample Locator No. |
| | <u>-</u> | ۔ جے | ^ _ | Th. | ethyl dibornia | | | | | | | | | | | | | | | | D-Z |

Centrum Job # /4988

290 TENNESSEE STREET REDLANDS, CA 92373

(909) 798-9336 • (800) 798-9336 FAX (909) 793-1559

Chain of Custody Record

| | | | | | | | | | | | | Ana | lyse | s Rec | juest | ed . | | | $\overline{}$ | | |
|------------------------------|---|-----------------|-----------------|--|------------------|-----|---------------------------|--------------------|------------------|--|----------------|--------------|----------------|------------------|-----------|--------------------|--------------------------------|--------|---------------|-----------|---|
| Project No.: | 575-96 | 034 | Project N | lame: | . 1 | | | 1 | g | | ¥ | | | 4 | | 8 | ٤ | 10 | | $\sqrt{}$ | Turn-around time |
| Project Mar | 575-96. | | Phone: | | Fax: | | | 30 10 524.2 | Pest/PCB | 1 | | | | AC R | | Conductivity COD | 5 | | | 9 | □ 24 Hr. RUSH* |
| Client Name | | <u> </u> | Address. | | | •• | | | PCB. | 1 6 | 923 | | 825 | 윮 | | ŧ | ž | 7 | 1,~ | 3 | 48 Hr. RUSH* |
| (Company) | PSI | | Address: | , | | | | \$ B | | 100 100 100 100 100 100 100 100 100 100 | ¥ | ۽ ا | 8270 | (CAM) | | S | Pluoride | 1 | | 1 | □ Normal TAT *Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site location | . • | Containers: # and type | GCMS: 8260 | 8080: Pesticides | 8015M: Dieset | 8015M: Gasolin | 418.1 (TRPH) | Semivolatiles: | Metals: TTC(CAM) | Lead Only | PH TDS TSS | Flashpoint Fluoride Hex Chrome | Total | 140 | | Remarks/ Special Instructions |
| 5.8// | Hay 5- 3.0 | 6/2/99 | 1040 | | | | | X | | X | X | | | | | | | X | X | | |
| | 74.5 | | | | | | | | | + | + | \vdash | | | | | | H- | 14 | | |
| 12 | Hay 1-0.15 | | 1045 | | | | | | | | | | | | | | | | | | |
| 13 | -0.3 | | 1650 | | | | | | | | | | | | | | | | П | | |
| 14 | -0.9 | | 1055 | | | | * | | | | | | | | | | | | | | |
| 15 | 1.5 | | 1100 | | | | | ٧ | | V | J | | | | | | | V | V | | |
| SB | / -/3,6 | | 1 | | | / | / / | 1 | | | | | | $\overline{}$ | | | | | | | /// |
| | 1-4.8 | | | | // | / | | | 6 | | | | | f | | 4 | | | | | |
| 16 | Hay 2-0.15 | | 1105 | | , | | | X | ` | X | X | | | | | | | X | X | | |
| 17 | -0.3 | V | 1110 | | | | | X | | X | Х | | | | | | | χ | X | | |
| Relinquished by | (Sampler's Signature) | • | Date 42/99 | Time /700 | Relinquished by: | • | , | Date | | Time | | To be | e com | pieted | by la | borato | ory pe | rsonr | nei: | | Sample Disposal |
| Received by: | | | | Time | Received by: | • | | Date | | Time | | | | | XY. | | | | | | ☐ Client will pick up |
| | samples and the signatur | | | tody form | Relinquished by: | • | | Date | | Time | Custody seals? | | | | | ☐ Return to client | | | | | |
| | horization to perform the a Conditions set forth on th | | | Ove under Received for Laboratory by: Date Time Courier UPS/Fed Ex Hand carried | | | | | | [] Lab disposal fee \$5 | | | | | | | | | | | |
| aboratory N | otes: | | , | · · · | / | | | | | | | - | | | ¥ | | | | | | Sample Locator No. |
| | | | | | | | | | | | | | | | | | | | | | D-Z |

Centrum Job #

14988

290 TENNESSEE STREET REDLANDS, CA 92373 (909) 798-9336 • (800) 798-9336 FAX (909) 793-1559

Chain of Custody Record

Page 3 of 3

| (5. 1. 11) | | | · · · · · · · · · · · · · · · · · · · | | | | | _ | | | Ana | lyse | s Re | ques | ted | | | | | |
|------------------------------|--|----------------------------|---------------------------------------|------------------|--|---------------------------|---------------|-----------------------|-------------------|-----------------|--------------|----------------------|-------------------|-----------|--------------|---------------------|-------|---------|--------|--|
| Project No. | 75-9603 Fack Pos | 4 | Project N | lame: | • | • . | 4 | 8 | | 刺 | | | | | 8 | 2 | 7 | | 7 | Turn-around time |
| Project Mar | nager: | | Phone: | | Fax: | | 1 | PestPCB | | 1 | | | RCRA | | | Hex Chrome | 1 | ر ق | 7 | ☐ 24 Hr. RUSH* |
| ļ | Tark los | 5 <u>></u> | · <u>·</u> | | | | | | 1 | 1 | | 625 | 8 | | Conductivity | ě | 1 | 4: | 3 | ☐ 48 Hr. RUSH* |
| Client Nam (Company) | P31 | | Address: | | | | ╢ | ŭ | | B | 1 | | \$ | l | 를 | | 1.4 | 1 / | Ψ. | □ Normal TAT |
| (Company) | 124 | · | | , | | <u> </u> | 1 | ges | <u> 5</u> | 를 | _ | 88 | 8 | | | 5 | | ۱,۱ | XI . | * Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | l ' | | Sample matrix | Site location | Containers: # and type | GCMS: 8260 | 8080: Pesticides PCBs | 8015M: Diesel | 8015M: Gasoline | 418.1 (TRPH) | Serrivolatiles: 8270 | Metals: TTLC(CAM) | Lead Only | PH TOS TSS | Flashpoint Fluoride | 7041 | 3 4 | , | Remarks/ Special Instructions |
| 18 | Hay 2-0.9 | 6/2/99 | 1115 | 5 | | | X | | X | X | | | | | | | X | 15 | 1 | |
| 19 | - 1.5 | | 1120 | | | | 1 | | ľ | 7 | | | | | | | 1 | Á | 1 | |
| 20 | RO-1 | | 1200 | | | | | , ' | | | | | | | | | | П | \top | |
| 21 | RO-2 | | 1202 | | | | | | | | | | | | | | | \prod | | |
| 22 | 20-3 | | 1204 | | 1 11 | | | | | | | | | | | | | | | |
| 23 | RO-4 | 1/- | 1206 | Á | a service of the serv | | | | | | | | | | | | | \prod | | |
| 24 | WHay3 | | | W | | | V | | 1 | Y | | | | | | | | Ш | | , |
| 25 | HAY 2 -3.0 | _₩ | 11:25 | 5 | | | \$ | | $\overline{\Psi}$ | J | | | | | | | V | ₩ | | |
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| | | | | | | | | | $\overline{}$ | \neg | 7 | | | | | | | | | |
| Seinquished by | (Sampler's Signature) | • | Duty 0/2/99 | 11me 1700 | Relinquished by: | | Date | | Time | | To be | com | pleted | by lai | borato | ry per | rsonn | nel: | · | Sample Disposal |
| Received by: | | | | | Received by: | | Date | | lime | | Samp | | • | | | | | | | ☐ Client will pick up |
| The delivery of | samples and the signature | | | | Relinquished by: | | Date | | lime | \dashv | Custo | | | | | | | | | |
| onstitutes aut | horization to perform the a | e on this cr nalvses sp | nam or custo ecified abov | | | <u> </u> | _ | | | _ [| All sa | | | | | | | | | Return to client |
| ne Terms and | Conditions set forth on the | back here | of. | | Received for Laboratory by: | | Date/ 0/3/ | 99 | 1me | 5- | 12X | | | | | □ He | nd ca | arried | | ☐ Lab disposal fee \$5 |
| aboratory No | tes: | | | | / 0. | - | | | | | | | | 7. | | | | | | Sample Locator No. |
| | | | | | | | | | | | | | | | | | | | | T)-) |
| sample: | 25 added pa | or ph | longe C | €bV&C | ention W/Scott F | 2 JANUER | | , | 3-9 | 9 | े ॥ | .3 | 3 | Γ | | | | | | |

Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY . CHEMICAL AND BIOLOGICAL ANALYSES

Client:

PSI

1320 W. Winton Ave.

Hayward, CA 94545

Date Sampled:

06/02/99

Date Received:

06/03/99

Job Number:

14988

Project: Caltrans: Mattox & Foothill

CASE NARRATIVE

The following information applies to samples which were received on 06/03/99:

The samples were received at the laboratory chilled and sample containers were intact

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

Report approved by

Robert R. Clark, Ph.D. Laboratory Director

ELAP # 1184

DL: Detection Limit - The lowest level at which the compound can reliably be detected under normal laboratory conditions.

ND: Not Detected – The compound was analyzed for but was not found to be present at or above the detection limit.

NA: Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.



Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: RLB

 Date Sampled:
 06/02/99

 Date Received:
 06/03/99

 Date Digested:
 06/11/99

 Date Analyzed:
 06/22-23/99

 Batch Number:
 6010S1233

Method Number: 6010

| | Detection Limit | Lead |
|--|---|--|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5.0 | ND |
| Hay6-0.15 | 10 | 15 |
| Hay6-0.30 | 5.0 | 22 |
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Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: RLB

Date Sampled: 06/02/99 Date Received: 06/03/99 Date Digested: 06/20/99 Date Analyzed: 06/21/99

6010S1241 Method Number: 6010

Batch Number:

| Detection Limit | Lead |
|--|-----------------------------------|
| mg/kg | mg/kg |
| 5.0 | ND |
| 5.0 | 52 |
| 5.0 | 34 |
| 5.0 | 7.7 |
| 5.0 | 7.7 |
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| The state of the s | mg/kg 5.0 5.0 5.0 5.0 |



Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: RLB Date Sampled: 06/02/99
Date Received: 06/03/99
Date Digested: 06/22/99

Date Analyzed: 06/23-24/99 Batch Number: 6010S1243

Method Number: 6010

| | Detection Limit | Lead |
|---|--|-----------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5:0 | ND |
| Hay5-0.15 | 5.0 | 31 |
| Hay5-0,3 | 5.Q | 55 |
| Hay5-0.9 | 5.0 | |
| Hay5-1.5 | 5.0 | 160 |
| Hay1-0.3 | 5.0 | 100 |
| Hay1-0.9 | 5.0 | 7.7 |
| Hay1-1.5 | 5.0 | 6.8 |
| Hay2-0,15 | 5.0 | 9.6 |
| RO-1 | | 31 |
| RO-2 | 5.0 | 33 |
| RO-3 | 5.0 | 32 |
| .00 R0-4 | 5.0 | 33 |
| 10-4 | 5.0 | 29 |
| | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | |
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Matrix: Soil

Batch #: 6010S1233

Batch Accuracy Results

| Spike Concentration mg/Kg % Recovery LCS % Recovery | Compound | g Bill | <u> </u> | Acc % F | Pas |
|--|----------|-----------|--------------|--------------------------|--------|
| # | | Concent | Recovery LCS | eptance Limi tecovery | s/Fail |
| g | | tion | | ø | |

| Analytical Notes: | | | | | |
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Batch Precision Results

| Spike Sample Recovery mg/Kg Spike Duplicate Recovery mg/Kg Relative Percent Difference (RPD) Upper Control Limit RPD | Lead | 47.9 | 47.4 | 1% | 20% | Pass |
|--|----------|------|------|-----|--------------------|-------|
| | Compound | Sar | or t | ሷ እ | pper Control PD | ass/F |

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Analytical Notes:

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

Matrix: Soil

Batch #: 6010S1241

Batch Accuracy Results

| Sample ID: Laboratory Conf | centration | le SO | mits | 14 |
|----------------------------|-----------------------|--------------|------------------------------|-----------|
| Compound | Spike Concen mg/Kg | % Recovery L | Acceptance Lii % Recovery | Pass/Fail |
| Lead | 50 | 94.05 | 75 - 125 | Pass |

| Analytical | Notes: |
|------------|--------|
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Batch Precision Results

| Lead | 53.3 | 53.8 | 1% | 20% | Pass |
|----------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|----------|
| Compound | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | ass/Fail |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

| Analytical Notes: | |
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Matrix: Soil

Batch #: 6010S1243

Batch Accuracy Results

| Sample ID: Laboratory Cont | | s | mits | |
|----------------------------|------------------------------|--------------|---------------|-----------|
| Compound | Spike Concentration mg/Kg | % Recovery L | Acceptance Li | Pass/Fail |
| Lead | 50 | 99.86 | 75 - 125 | Pass |

| Anal | ytical N | otes: | | | |
|------|----------|-------|---|-------|---|
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Batch Precision Results

| MS/MSD Sample ID: Hay1 | -1.5 | <u>-</u> | | - | |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Compound | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Lead | 56.4 | 51.1 | 10% | 20% | Pass |

| MS: Matrix Spike Sample | • |
|--------------------------|---|
| MSD: Matrix Spike Duplic | |

| Analytical Notes: | | | | | | |
|-------------------|---|--|--|--|--|--|
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Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Water Analyst: RLB Date Sampled: 06/02/99
Date Received: 06/03/99
Date Digested: 06/21/99

Date Analyzed: 06/22/99 Batch Number: 6010W1242

Method Number: 6010

| | Detection Limit | Lead |
|---|---|--|
| Sample ID | mg/L_ | mg/L |
| Method Blank | 0.10 | ND |
| WHay3 | 0.10 | ND |
| Ī | | ND |
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Matrix: Water

Batch #: 6010W1242

Batch Accuracy Results

| Compound | Spike Conce | % Recovery | Acceptance I % Recovery | Pass/Fail |
|----------|---------------|------------|----------------------------|-----------|
| | Concentration | รวา | imits | |

| Analytical | Notes: | |
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Batch Precision Results

| MS/MSD Sample ID: 150 | 63-25 | | | | |
|-----------------------|-------------------------------|----------------------------------|--------------------------------------|----------------------------|-----------|
| Compound | Spike Sample Recovery mg/L | Spike Duplicate Recovery mg/L | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Lead | 1.065 | 1.073 | 1% | 20% | Pass |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

| Analy | rtical No | tes: | ٠. | |
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Lead By FLAA

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix. Soil Analyst: RLB

 Date Sampled:
 06/02/99

 Date Received:
 06/03/99

 Date Digested:
 06/11/99

 Date Analyzed:
 06/24/99

 Batch Number:
 6010S1243

Method Number: 7420

| | Detection Limit | Lead |
|--------------|-----------------|-------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 5.0 | ND |
| Hay5-3.0 | 5.0 | ND |
| Hay1-0.15 | 5.0 | ND |
| Hay2-0.3 | 5.0 | ND |
| Hay2-0.9 | 5.0 | ND |
| Hay2-1.5 | 5.0 | . ND |
| Hay2-3.0 | 5,0 | ND ND |
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Matrix: Soil

Batch #: 60101243 Method: 7420

Batch Accuracy Results

| Lead | 50 | 105.9 | 75 - 125 | Pass |
|----------------------------|------------------------------|----------------|---------------------------------|-----------|
| Compound | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Sample ID: Laboratory Conf | trol Sampl | e | | |

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|-------------------|-----|--|--|--|--|--|
| Analytical Notes: | | | | | | |
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Batch Precision Results

| MS/MSD Sample ID: Hay1 | -1.5 | | | | |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Compound | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Lead | 61.6 | 58.0 | 6% | 20% | Pass |

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MS: Matrix Spike Sample MSD: Matrix Spike Duplicate



EPA 413.2 - Oil & Grease

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: NG Date Sampled: 06/02/99
Date Received: 06/03/99
Date Extracted: 06/07/99
Date Analyzed: 06/07/99
Batch Number: 41321S1040

| | Detection Limit | Total Oil & Grease |
|--------------|-----------------|-----------------------|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 10 | ND ND |
| Hay6-0.15 | 10 | 290 |
| Hay6-0,30 | 10 | 270 |
| Hay6-0.90 | . 10 | |
| Hay6-1:5 | 10 | 73 29 |
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EPA 413.2 - Oil & Grease

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: NG Date Sampled: 06/02/99
Date Received: 06/03/99
Date Extracted: 06/08/99
Date Analyzed: 06/08/99
Batch Number: 41321S1041

| | Detection Limit | Total Oil & Grease |
|--------------|-----------------|---|
| Sample ID | mg/kg | mg/kg |
| Method Blank | 10 | ND ND |
| Hay6-3.0 | 10 | 82 |
| Hay6-4.5 | 10 | 35 |
| Hay5-0.15 | 10 | 570 |
| Hay5-0.30 | 10 | 330 |
| Hay5-0.90 | 10 | 29 |
| Hay5-1.5 | 10 | 28 |
| Hay5-3.0 | 10 . | 44 |
| Hay1-0.15 | 1000 | 8,300 |
| Hay1-0.3 | 10 | 73 |
| Hay1-0.9 | 10 | B CALCARACIC Participation of the control of the |
| Hay1-1.5 | 10 | 41 |
| Hay2-0.15 | | 19 |
| Hay2-0.3 | 100 | 7,390 |
| | 10 | 380 |
| Hay2-0.9 | 100 | 1,600 |
| Hay2-1.5 | 10 | 32 |
| R0-1 | 10 | 270 |
| RO-2 | 10 | · 310 |
| RO-3 | 10 | 350 |
| RO-4 | 10 | 390 |
| HAY2-3,0 | 10 | 13 |

QC Report - EPA 413.2 Oil & Grease

Matrix: Soil

Batch #: 4132S1040

Batch Accuracy Results

| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
|---------------|------------------------------|----------------|---------------------------------|-----------|
| Reference Oil | 40 | 124 | 72 - 131 | Pass |

Analytical Notes:

Batch Precision Results

| | Sample Recovery mg/Kg | Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | pper Control Limit PD | ass/Fail |
|------------------------|--------------------------|--------------------------|--------------------------------------|--------------------------|----------|
| Analyte | Sa | | 8 <u>0</u> | 공윤 | G. |
| Petroleum Hydrocarbons | 30.53 | 29.17 | 5% | 22% | Pass |

Analytical Notes:

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

QC Report - EPA 413.2 Oil & Grease

Matrix: Soil

Batch #: 4132S1041

Batch Accuracy Results

| | Analyte Reference Oil | Spike (| ₩ % | 72 - 131 | ss/Fai |
|---|-----------------------|---------------|------------|------------------------------|-----------|
| 8 | | Concentration | covery LCS | cceptance Limits Recovery | :: |

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| | Analytical Notes: |
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Batch Precision Results

| Duplicate Sample ID: HAY2 | 2-3.0 | · | | <u> </u> | |
|---------------------------|--------------------------|-----------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Sample Recovery mg/Kg | Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Petroleum Hydrocarbons | 12.61 | 13.60 | 8% | 22% | Pass |

| MS: | Matrix | Spike | Sample | |
|-----|----------|--------|-----------|-----|
| MSE |): Matri | x Spik | e Duolica | ate |

| Analytical Notes: | | | | | | | |
|-------------------|---|---|--|--|--|--|--|
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EPA 413.2 - Oil & Grease

Analyst:

JL

Client: PSI
Project: Caltrans: Mattox & Foothill
Job No.: 14988
Matrix: Water

Date Analyzed: 06/11/99 Batch Number: 4132W1043

Date Sampled: 06/02/99

Date Received: 06/03/99

Date Extracted: 06/11/99

| | | Total |
|--|-----------------|--------------|
| | Detection Limit | Oil & Grease |
| Sample ID | mg/L | mg/L |
| Method Blank | 2.0 | ND |
| WHay3 | 2.7 | ND |
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QC Report - EPA 413.2 Oil & Grease

Matrix: Water

Batch #: 4132W1043

Batch Accuracy Results

| applie Concentration Spike Concentration mg/Kg % Recovery LCS Acceptance Limits % Recovery | Reference Oil | 10 | 108 | 70 - 130 | Pass |
|--|---------------|---------|-------------|---------------------------------|-------|
| | Analyte | Concent | Recovery LC | Acceptance Limits % Recovery | 11. 1 |

Analytical Notes:

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|---------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Reference Oil | 10.75 | 10.68 | 1% | 25% | Pass |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate Analytical Notes:

Insufficient amount of sample available for MS/MSD analysis. An LCS/LCSD pair were analyzed to provide precision data for this batch.

Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client: PSI
Project: Caltrans: Mattox & Foothill
Job No.: 14988
Matrix: Soil
Analyst: NBP

Date Sampled: 06/02/99 Date Received: 06/03/99 Date Extracted: 06/10/99 Date Analyzed: 06/10/99 Batch Number: 8015DS1657

| | Detection Limit | Diesel | Surrogate (OTP) |
|--|--|---|--|
| Sample ID | mg/kg | mg/kg | |
| Method Blank | 10 | ND | <u>Limit: 50 - 150%</u> 110 % |
| Hay6-0.15 | , 200 | 690* | |
| Hay6-0.30 | 10 | 37* | 101 % |
| Hay6-0.90 | 10 | 10* | 102 % |
| Hay6-1.5 | 10 | PRESIDE COMO DISCONIGRADA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA CONTRACTOR DE LA | 111 % |
| Hay6-3.0 | 10 | 23* | 104 % |
| Hay6-4,5 | 10 | 16* | 111 % |
| Hay5-0.15 | | 17* | 104 % |
| Hay5-0.30 | 10 | 34* | 101 % |
| Hay5-0.90 | 10 | 37* | 101 % |
| Print (1900) Secretary of the Control of the Contro | 10 | 31* | 102 % |
| Hay5-1:5 | 10 | 10* | 110 % |
| Hay5-3.0 | 10 | 18* | 107 % |
| Hay1-0.15 | 100 | 220* | 92 % |
| Hay1-0.3 | 10 | 22* | 102 % |
| tay1-0.9 | 10 | 13* | 111 % |
| lay1-1.5 | 10 | 11* | 110 % |
| lay2-0.15 | 10 | 22* | 00000000000000000000000000000000000000 |
| tay2-0.3 | 10 | 41* | 101 % |
| łay2-0.9 | 10 | SSS VSS GOGGE GOODER OOF DE ONDER HOOF DE ONDER HOOF DE ONDER HOOF DE ONDER HOOF DE ONDER HOOF DE ONDER HOOF DE | 101 % |
| lay2-1.5 | 10 | 13* | 103 % |
| RO-1 | William Commence of the Commen | 13* | 111 % |
| | 10 | 26* | 101 % |

^{*}The chromatographic pattern displayed by this sample indicates the presence of petroleum hydrocarbons other than diesel. The concentration of petroleum hydrocarbons has been quantitated against diesel and reported here as diesel.

Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client: PSI Date Sampled: 06/02/99
Project: Caltrans: Mattox & Foothill Date Received: 06/03/99
Job No.: 14988 Date Extracted: 06/10/99
Matrix: Soil Date Analyzed: 06/10/99
Analyst: NBP Batch Number: 8015DS1658

| | Detection Limit | Diesel | Surrogate (OTP) |
|--------------|-----------------|--------|------------------|
| Sample ID | mg/kg | mg/kg | Limit: 50 - 150% |
| Method Blank | 10 | ND | 112 % |
| RO-2 | 10 | 51* | 107 % |
| RO-3 | 10 | 54* | 101 % |
| RO-4 | 10 | 47* | 104 % |
| HAY2-3.0 | 10 | 16* | 111 % |
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^{*}The chromatographic pattern displayed by this sample indicates the presence of petroleum hydrocarbons other than diesel. The concentration of petroleum hydrocarbons has been quantitated against diesel and reported here as diesel.

QC Sample Report - EPA 8015M Diesel

Matrix: Soil

Batch #: 8015DS1657

Batch Accuracy Results

| | ntration | SOT | _imits | |
|---------|-----------------------|------------|----------------------------|-----------|
| Analyte | Spike Concer mg/Kg | % Recovery | Acceptance I % Recovery | Pass/Fail |
| Diesel | 100 | 91 | 70 - 130 | Pass |

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Batch Precision Results

| MS/MSD Sample ID: Labo | pratory Cont | rol Samp | le | | • |
|------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Diesel | 91 | 93 | 2% | 29% | Pass |

| Analytica | al Note | s: | | |
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MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

QC Sample Report - EPA 8015M Diesel

Matrix: Soil

Batch #: 8015DS1658

Batch Accuracy Results

| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
|---------|------------------------------|----------------|---------------------------------|-----------|

| Analytica | Il Notes | :- <u>-</u> | | |
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Batch Precision Results

| Analytical Notes: | |
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MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

Modified 8015 - Total Extractable Petroleum Hydrocarbons as Diesel

Client: Project: PSI

Caltrans: Mattox & Foothill

Job No.:

14988

Matrix: Analyst: Water NBP

Date Sampled: 06/02/99

Date Received: 06/03/99 Date Extracted: 06/11/99

Date Analyzed: 06/11/99

Batch Number: 8015DW1659

| | Detection Limit | Diesel | Surrogate (OTP) |
|--------------|-----------------|--------|------------------|
| Sample ID | mg/L | mg/L | Limit: 50 - 150% |
| Method Blank | 0.40 | ND | 95 % |
| WHay3 | 0.45 | 0.48* | 95 % |
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^{*}The chromatographic pattern displayed by this sample indicates the presence of petroleum hydrocarbons lighter than diesel. The concentration of petroleum hydrocarbons has been quantitated against diesel and reported here as diesel.



QC Sample Report - EPA 8015M Diesel

Matrix: Water

Batch #: 8015DW1659

Batch Accuracy Results

| Analyte Diesel | Spike mg/L | % % 87 | 8 | /sse D |
|----------------|------------------|--------------|------------------------------|-----------|
| | ce Concentration | ecovery L(| Acceptance Lir % Recovery | s/Fail |
| | ration | တ္သ | nits | |

| | Analytical Notes: |
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Batch Precision Results

| Arialytical notes. | |
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MS: Matrix Spike Sample MSD: Matrix Spike Duplicate



Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: GR Date Sampled: 06/02/99
Date Received: 06/03/99

Date Analyzed: 06/07/99
Batch Number: 8015GS2250

| | Detection | Petroleum Hydrocarbons as | |
|--------------|-----------|---------------------------|-----------------------|
| <u> </u> | Limit | Gasoline | |
| Sample ID | mg/kg | mg/kg | |
| Method Blank | 0.50 | ND | |
| Hay 6-0.15 | 0.50 | ND | ÷1 |
| Hay 6-0.30 | 0,50 | ND | Charles and Carlo |
| Hay 6-0.90 | 0.50 | ND | saladas na kinan kina |
| Hay 6-1.5 | 0.50 | ND | |
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Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client:

PSI

Project: Job No.: Caltrans: Mattox & Foothill

14988

Matrix: Soil Analyst: GR Date Sampled:

06/02/99

Date Received: Date Analyzed: 06/03/99 06/08/99

Batch Number:

8015GS2252

| | Petroleum Hydrocarbons as |
|--|--|
| | Gasoline |
| A GARAGO CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONTRA CONT | mg/kg |
| 0.50 | ND |
| 0.50 | ND . |
| 0.50 | ND . |
| 0.50 | 0.62 |
| 0.50 | 0.51 |
| 0.50 | ND |
| 0.50 | ND |
| 0.50 | ND |
| 1745-1864-1865-156-15-18-18-18-18-18-18-18-18-18-18-18-18-18- | ND |
| | ND ND |
| 00000000000000000000000000000000000000 | ND ND |
| | ND |
| State of the state of the state of the state of the state of the state of the state of the state of the state of | ND |
| | 0.50 0.50 9.50 0.50 0.50 0.50 0.50 0.50 0.50 0.50 |

QC Sample Report - EPA 8015M Gasoline

Matrix: Soil

Batch #: 8015GS2250

Batch Accuracy Results

| Sample ID: Laboratory Cont | rol Sample | <u> </u> | | |
|----------------------------|------------------------------|----------------|-------------------|---------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits | |
| Gasoline | 10.0 | 101 | 70 - 1 | 30 Pass |

| Analytic | al Not | es: | | |
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Batch Precision Results

| MS/MSD Sample ID: Hay 6- | Spike Sample G | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|--------------------------|----------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Gasoline | 9.55 | 9.39 | 2% | 25% | Pass |

| MS: Matrix Spike Sample | |
|----------------------------|---|
| MSD: Matrix Spike Duplicat | e |

| Analytical Notes | : |
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QC Sample Report - EPA 8015M Gasoline

Matrix: Soil

Batch #: 8015GS2252

Batch Accuracy Results

| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
|----------|------------------------------|----------------|---------------------------------|-----------|
| Gasoline | 10.0 | 97 | 70 - 130 | Pass |

Analytical Notes:

Batch Precision Results

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

| Analytical Notes: | | | | | | |
|-------------------|--|---|---|--|--|--|
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Modified 8015 - Total Volatile Hydrocarbons as Gasoline

Client: PSI Date Sampled: 06/02/99 Project: Caltrans: Mattox & Foothill Date Received: 06/03/99 Job No.: 14988 Date Analyzed: 06/03/99 Matrix: Water Batch Number: 8015GW2245 Analyst: GR

| | Detection | Petroleum Hydrocarbons as |
|--|--|--|
| 0 | Limit | Gasoline |
| Sample ID | mg/L | mg/L |
| Method Blank | 0.5 | ND ND |
| WHay3 | 0.5 | ND ND |
| | | NO. |
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QC Sample Report - EPA 8015M Gasoline

Matrix: Water

Batch #: 8015GW2145

Batch Accuracy Results

| Sample ID: Laboratory Cont | rol Sampl | е | 1 . | |
|----------------------------|-----------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/L | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| Gasoline | 10.0 | 97 | 70 - 130 | Pass |

| Analy | ical N | otes: | | * |
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Batch Precision Results

| | Analytical Notes: |
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| | e e e e e e e e e e e e e e e e e e e |
| | |
| • | • |
| | |
| | |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate



Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.:

Soil

Matrix: Analyst: 14988

MBH

Date Sampled:

06/02/99

Date Received:

06/03/99

Date Analyzed: 06/11-13/99

Batch Number: 8260S1731

8260S1733

8260\$1734

| | Sample ID: | Blank | Hay6-0.15 | Hay6-0.30 | Hay6-0.90 | Hay6-1.5 | Hay6-3.0 |
|-----------------------------|-------------|--|---|--|-------------------------------------|--------------------------------------|------------------------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.10 | ND | ND | ND | . ND | ND | ND |
| tert-Amyl Methyl Ether (TAN | VIE 0.005 | ND | ND | ND | .ND | ND | ND |
| Benzene | 0.001 | ND / | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | ND | ND | ND _ | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND | , ND | ND | ND |
| Bromodichloromethane | 0.001 | ND / | CIM | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | 0.01 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND . | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | ND | NĐ | ND | ND | ND | ND |
| ert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | ND | ND * | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND |
| Chloromethane | 0.001 | ND | · ND | ND | ND | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1-Chiorotoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Dibromochloromethane | 0.00 | ND | DM | ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | | ND | ND | ND | ND ND | ND | ND ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | energy of the second of the second |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | D D | et folkvet samme blade over | ND ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND ND | ND ND |
| l,4-Dichlorobenzene | 0.002 | ДИ | ND | ND | DND. | ND ND | ND ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND ND | ND ND | ND |
| l,1-Dichloroethane | 0.001 | ND | NĐ | ND | ND ND | er i erektoren bilanti ibarri i erri | ND ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND ND | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND. | ND | ND ND | a and accept a construction assumes | ND | ND ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND ND | ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND | NO | ND ND | ND MD | ND | ND |
| 1,2-Dichloropropane | 0.002 | ND | and the rest of the first first first first first of the | A COMPANY OF THE PROPERTY OF THE PARTY OF TH | ND ND | ND | ND |
| I,3-Dichloropropane | 0.001 | the state of the state of the state of the | ND ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND ND | ND | ND ND | ND | ND |
| 1,1-Dichloropropene | *********** | ND ND | ND | ND | ND | ND | ND |
| а сълсиоторгорене | 0.001 | ND | ND | ND | ND | ND | ND |

(800) 798-9336

Client:

PSI

Project:

ect: Caltrans: Mattox & Foothill

Job No.: Matrix: 14988

Analyst:

Soil

t: MBH

Date Sampled:

Date Received:

Date Received: Date Analyzed:

06/02/99 06/03/99 06/11-13/

Batch Number:

06/11-13/99 8260S1731

8260S1733 8260S1734

| | Sample ID: | Blank | Hay6-0.15 | Hay6-0.30 | Hay6-0.90 | Hay6-1.5 | Hay6-3.0 |
|------------------------------|--------------|----------------|-----------|-----------|-----------|----------------------------------|-------------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | . ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE | 0.005 | ND - | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | .0.00 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND · | ND | ND | ND | ND | ND |
| lsopropylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.01 | ND | ND | * ND | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (Mti | 3E) 0.005 | ND | ND | ND | ND | ND | ND |
| Napthalene | 0.002 | ND | ND | ND | 0.004 | ND | ND |
| n-Propylbenzene | 0.001 | ND | ND | ND - | ND | ND | ND |
| Styrene | 0.001 | ND. | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ND | ND | . ND |
| 1,1,2,2-Tetrachioroethane | 0.002 | ND | ND | ND | 0.002 | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND | ND | ND | ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND: | ND. | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | ND | ND | ND | ND | ND. |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND | : ND | 0.001 | ND | ND. |
| 1,3,5-Trimethylbenzene | 0.001 | ND | ND | ND | ND | ND | sa assentución and chi- |
| Vinyl chloride | 0.002 | ND | ND | NÐ | ND ND | ND | ND ND |
| Xylenes (total) | 0.003 | ND | ND | ND | ND | ୍ୟରତେ ଶବରରେ ଅବସ୍ଥାନ ବର୍ଷ୍ଟର ଓଡ଼ି | ND |
| | 3.555 | ليا1 ا مالا | 1717 | IND | UNU | ND | ND: |

Surrogates (% recovery) Limits: 80 - 130

| | mple ID: B | ank Hay6-4 | 0.15 Hay6-0. | 30 Hay6-0.90 | Hav6-1.5 | Hav6-3.0 |
|----------------------|---|------------|--|--------------|-----------------------------|----------|
| Dibromofluoromethane | | 04 109 | | | | 101 |
| Toluene-d8 | noncon contrata de la contrata de la contrata de la contrata de la contrata de la contrata de la contrata de l • | 00 100 | The second of th | 99 | 97 | 95 |
| Bromofluorobenzene | | 04 101 | 3 91 | 81 | Sedance | 81 |



Client: PSI

Project:

Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: MBH .

Date Sampled: 06/02/99

Date Received: 06/03/99 Date Analyzed: 06/11-13/99

Batch Number: 8260S1731 8260S1733

8260\$1734

| | Sample ID: | Hay6-4.5 | Hay5-0.15 | Hay5-0.30 | Hay5-0.90 | Hay5-1.5 | Hay5-3.0 |
|-----------------------------|--|----------|---|--|----------------------------|--|---|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.10 | ND | ND | ND | ND . | . ND | ND |
| tert-Amyl Methyl Ether (TA) | en en en en eliferación en elegación de proprieta por el altificada. | ND | ND | ND | ND | ND | ND |
| Benzene | 0.001 | ND | . ND | ND | ND | ND | ND |
| Bromobenzene - | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromochloromethane | 0.005 | ND | ND | ND - | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND | ND . | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromomethane | .0.01 | ND | ND | ND | ND | ND | ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | GN | ND | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | ND | ND | ND | ND | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| Carbon disulfide | 0.01 | NĐ | ND | ND | ND | ND | ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND . | - ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND | ND | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND | ND |
| Chloromethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | Security Market Security and a security |
| 4-Chlorotoluene | 0.002 | ND | ND | ND | ND | ND | ND. |
| Dibromochloromethane | 0.00 | ND | ND | DN | ND | ND . | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropar | ne 0.01 | ND | ND | ND | ND | \$4504M60000000000000000000000000000000000 | ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | NĐ | ND |
| l,1-Dichloroethane | 0.001 | ND | ND | ND | 1.00000 na na manaka san s | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | er er er er er er er er er er er er er e | ND ND | ,ND | ND |
| l,1-Dichlaraethene | 0.005 | ND | ND | ND ND | ND ND | ND | ND |
| sis-1,2-Dichloroethene | 0.002 | ND | percent reaction and appropriate decide | ND | ND | ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND ND | ND ND | ND NO | ND | ND | ND |
| ,2-Dichloropropane | 0.002 | | ND ND | NO | ND | ND. | ND |
| I,3-Dichloropropane | 0.001 | ND ND | ND ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | Annual Control of the | ND | ND | ND | ND | ND | »ND |
| ,1-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| di-premorabrobette | 0.001 | ND | ND | ND | ND | ND | ND |

(800) 798-9336

Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.:

14988

Matrix: Analyst:

Soil MBH Date Sampled:

Date Received:

Date Analyzed: Batch Number:

06/02/99 06/03/99

06/11-13/99

8260S1731 8260S1733

8260\$1734

| | Sample ID: | Hay6-4.5 | Hay5-0.15 | Hay5-0.30 | Hay5-0.90 | Hay5-1.5 | Hay5-3.0 |
|------------------------------|------------|----------|-----------|---|---------------------------|------------------------------------|---|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | ND | ND | ND | ND |
| Diisopropyl Ether (DIPE) | 0.005 | ND . | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | NĐ | ND | ND | ND |
| Ethyl tert-Butyl Ether (EtBE |) 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | NĐ | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| p-Isopropyltoluene | 0.002 | ND | ND | ND | ND | ND | ND |
| Methylene chloride | 0.01 | ND | ND | ND | ND | ND | ND |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtE | E) 0.005 | ND | ND | ND | ND | ND | ND |
| Napthalene | 0.002 | ND | ND | ND . | ND | ND | ND ND |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND | ND ND |
| Styrene | 0.001 | ND | ND | ND | ND | ND | energe en en en en en en en en en en en en en |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | ND | ND | ND | ND | ND NO |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND | | ND | ND ND |
| Toluene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND GN | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.001 | ND | ND | ND | ND : | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | victorii interestiti (CIII) (CIII) | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND | ACCOUNTED AN INCIDENCE OF | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | ND | ND | ND ND | ND ND | ND |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND ND | ND ND | ND ND | ND | ND |
| 1,3,5-Trimethylbenzene | 0.001 | ND | ND ND | anna ann ann an an an an an an an an an | ND ND | ND | ND |
| Vinyl chloride | 0.002 | ND | UD DN | ND Ne | ND | ND | ND |
| Xylenes (total) | 0.003 | ND . | ND | ND | ND | ND | ND |
| | | IND. | טא | ND | ND | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| Sample ID: | Hay6-4.5 | Hay5-0.15 | Hay5-0.30 | Hay5-0.90 | Hav5-1.5 | Hav5-3.0 |
|----------------------|----------|-----------|-----------|-----------|----------|----------|
| Dibromofluoromethane | 101 | 108 | | | 102 | 109 |
| Toluene-d8 | 97 | 98 | 97 | 97 | 96 | 101 |
| Bromofluorobenzene | 99 | 99 | 98 | 99 | 82 | 98 |

(800) 798-9336

EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.:

Matrix; Analyst:

Soil

MBH.

Date Sampled: 06/02/99

Date Received: 06/03/99

Date Analyzed: 06/11-13/99

Batch Number: 8260S1731

8260\$1733 8260S1734

| | Sample ID: | Hav1-0.15 | Hay1-0.3 | Hay1-0.9 | Hay1-1.5 | Hay2-0.15 | Have C C |
|-----------------------------|------------|----------------------------------|-------------------------------|-------------------------------------|--|--|-------------------------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | Hay2-0.3 |
| Acetone | 0.10 | ND | ND | ND | ND | ND | mg/Kg ND |
| tert-Amyl Methyl Ether (TAN | AE 0.005 | ND | ND | ND | ND. | ND | DND. |
| Benzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Bromobenzene | 0.005 | NĐ | ND | ND | ND | ND | ND. |
| Bromochloromethane | 0.005 | ND | ND | ND | ND | ND | ND ND |
| Bromodichloromethane | 0.001 | ND | ND * | ND | ND | ND | ND ND |
| Bromoform | 0.005 | ND | ND | ND. | ND | ND | perental and analysis of the second |
| 3romomethane | 0.01 | ND | ND | ND | ND | ND | ND ND |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND ON | ND | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| sec-Butylbenzene | 0.00 | ND | ND | ND | ND | ND - | ND |
| ert-Butylbenzene | 0.002 | ND | ND | ND | ND. | ND ND | ND |
| Carbon disulfide | 0.01 | ND | ND | ND | ND | ND ND | ND ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND ND | ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND | on the second of the contraction of the state of the second of the secon | ND |
| Chloroform | 0.002 | ND | ND | ND | ND | ND ND | ND |
| Chloromethane | 0.001 | ND | ND | ND | ND ND | ND | ND |
| 2-Chlorotoluene | 0.002 | ND | ND | ND | ND ND | D GN | ND |
| 1-Chlorotoluene | 0.002 | ND | ND | ND | ND | anang marin na mang padabat 1996 | ND |
| Dibromochloromethane | 0.00 | ND | ND | ND | ND | ND ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND ND | ND ND | ND |
| l,2-Dibromo-3-chloropropar | ne 0.01 | ND | ND | ND | ND ND | ND NB | ND |
| Dibromomethane | 0.001 | ND | ND | ND | en in a some a constitution of the second of | ND | ND |
| l,2-Dichlorobenzene | 0.001 | ND | ND | ND ND | ND ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND ND | ND | ND |
| .4-Dichlorobenzene | 0.002 | ND | ND | ND ND | ND Ma | ND ND | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND ND | ND | ND |
| ,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| ,2-Dichloroethane | 0.001 | ND | ND | 20,000,000,000,000,000,000,000,000 | ND. | ND | ND |
| ,1-Dichloroethene | 0.005 | ND | ND ND | ND | ND ' | ND: | ND |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| rans-1,2-Dichloroethene | 0.002 | ND | ND ND | ND ND | ND ND | ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND ND | and the second of the second second | ND ND | ND | ND |
| ,3-Dichloropropane | 0.001 | ND | er receive a region of a con- | ND ND | ND | ND | ND |
| ,2-Dichloropropane | 0.001 | ND | ND ND | ND | ND | ND | ND |
| ,1-Dichloropropene | 0.001 | and processing the second of the | ND | ND | ND | ND | ND |
| r amoropropene | 0,001 | ND | ND. | ND | ND | ND | ND |

(800) 798-9336

Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.: Matrix:

Analyst:

14988 Soil MBH

Date Sampled: Date Received: Date Analyzed: 06/02/99 06/03/99

Batch Number:

06/11-13/99 8260S1731

8260\$1733

8260\$1734

| | Sample ID: | Hay1-0.15 | Hay1-0.3 | Hay1-0.9 | Hay1-1.5 | Hay2-0.15 | Hay2-0.3 |
|-------------------------------|------------|------------------------------------|-------------------|--|------------------------------------|--------------------------------|---------------------------------|
| Compounds | DL | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| cis-1,3-Dichloropropene | 0.001 | ND. | ND | ND · | ND | ND | ND |
| trans-1,3-Dichloropropene | 0.001 | ND | ND | NĐ | ON | ND | MD |
| Diisopropyl Ether (DIPE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Ethylbenzene | 0.001 | ND | ND | ND | | ND | ND |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | ND | ND | ND | ND | ND |
| Hexachlorobutadiene | 0.00 | ND | ND | ND | ND | ND | ND |
| 2-Hexanone | 0.01 | ND | ND . | ND | ND | ND | ND |
| Isopropylbenzene | 0.001 | ND | ND | NĐ | ND | ND | ND |
| p-Isopropyitoluene | 0.002 | ND | ND | ND | ND | ND | ND. |
| Methylene chloride | 0.01 | ND | ND | ND | ND | ND | ND. |
| 4-Methyl-2-pentanone | 0.01 | ND | ND | ND | ND | ND | ND |
| Methyl tert-Butyl Ether (MtBl | E) 0.005 | ND | ND | ND | ND | ND . | OND |
| Napthalene | 0.002 | ND | ND | ND | ND | 0.002 | re and recognitional publishing |
| n-Propylbenzene | 0.001 | ND | ND | ND | ND | ND ND | ND ND |
| Styrene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | D | ND | ND | ND | ND ND |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | ND | ND | ND. | ND | ND |
| Tetrachloroethene | 0.001 | ND | ND | ND | ND | ND ND | ND |
| Toluene | 0.001 | ND | ND | ND | ND | annanasian maali soossoo, maga | ND |
| 1,2,3-Trichlorobenzene | 0.002 | ND | ND | ND | ND ND | ND | ND |
| 1,2,4-Trichlorobenzene | 0.002 | ND | ND | ND | ensa nel est i constant (f. 1956). | ND | ND |
| 1,1,1-Trichloroethane | 0.001 | ND | ND | ND | ND ND | ND | ND |
| 1,1,2-Trichloroethane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichloroethene | 0.001 | ND | ND | Contraction of Contraction (Contraction) | ND | ND | ND |
| 1,2,3-Trichloropropane | 0.003 | ND | ND | ND | ND | ND | ND |
| Trichlorofluoromethane | 0.001 | ND | ND | ND ND | ND | ND | ND |
| Trichlorotrifluoroethane | 0.005 | ND | | ND | ND | ND | ND : |
| 1,2,4-Trimethylbenzene | 0.001 | ND | ND ND | ND ND | ND . | ND | ND |
| 1,3,5-Trimethylbenzene | 0.001 | ND | www.www.compagggg | ND | ND | 0.002 | ND |
| /inyl chloride | 0.002 | ND ND | ND | ND | ND | ND | ND |
| Kylenes (total) | 0.002 | annama sesanar na sesanda da babba | ND | ND | ND | ND | ND |
| , () | 0.003 | ND | ND | ND | ND | ND | ND |

Surrogates (% recovery) Limits: 80 - 130

| | Sample ID: | Hay1-0.15 | Hay1-0.3 | Hay1-0.9 | Hay1-1.5 | Hay2-0.15 | Hav2-0.3 |
|----------------------|--|-----------|----------|----------|----------|-----------|----------|
| Dibromofluoromethane | • | 105 | 103 | 103 | 97 | 101 | 105 |
| Toluene d8 | . Madicusto repressues despues a succe | 97 | 100 | 99 | 99 | 89 | 93 |
| Bromofluorobenzene | | 95 | 98 | 101 | 96 | 84 | 96 |



Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.: Matrix:

14988

Analyst:

Soil MBH Date Sampled:

06/02/99

Date Received:

06/03/99

Date Analyzed: 06/11-13/99 Batch Number:

8260S1731

8260S1733

826051734

| | ample ID: | Hay2-0.9 | Hay2-1.5 | RO-1 | RO-2 | RO-3 | RO-4 |
|----------------------------|-----------|----------|----------|-------|-------|-------|-------|
| Compounds | DL · | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| Acetone | 0.10 | ND | ND | ND | ND | ND | ND |
| ert-Amyl Methyl Ether (TAN | IE 0.005 | ND | NÐ | ND | ND | ND | ND. |
| Benzene | 0.001 | ND | ND | ND | ND | . ND | ND |
| Bromobenzen e | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromochloromethane *** | 0.005 | ND | ND | ND | ND | ND | ND |
| Bromodichloromethane | 0.001 | ND. | ND - | ND | ND | ND | ND |
| Bromoform | 0.005 | ND | ND : | ND | ND | ND | ND |
| Bromomethane | 0.01 | ND | ND | ND | ND | ND | ND. |
| tert-Butanol (TBA) | 0.05 | ND | ND | ND | ND | ND | ND |
| 2-Butanone (MEK) | 0.01 | ND | ND | ND : | ND | ND | ND |
| n-Butylbenzene | 0.002 | ND | . ND | ND | ND | . ND | ND |
| sec-Butylbenzene | 0.00 | ND. | ND . | ND | ND | ND | ND |
| tert-Butylbenzene | 0.002 | ND | ND | ND | ND ND | , ND | ND |
| Carbon disulfide | 0.01 | ND | - ND | ND | ND | ND | - ND |
| Carbon tetrachloride | 0.001 | ND | ND | ND | ND | ND | . ND |
| Chlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| Chloroethane | 0.005 | ND | ND | ND | ND - | ND | ND |
| Chloroform | 0,002 | ND | ND | ND | ND | NĐ | ND |
| Chloromethane | 0.001 | ND | ND | ND | ND | ND | 'ND |
| 2-Chlorotoluene | 0.002 | ND | ND | GN | ND | ND | ND. |
| 4-Chlorotoluene | 0.002 | . ND | ND | · ND | ND | ND | ND |
| Dibromochloromethane | 0.00 | ND | ND | . ND | ND | ND | ND |
| 1,2-Dibromoethane | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,2-Dibromo-3-chloropropa | ne 0.01 | ND | ND | ND | ND | ND | ND |
| Dibromomethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichlorobenzene | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND | ND |
| 1,4-Dichlorobenzene | 0.002 | ND | ND | ND | ND | ND // | ND |
| Dichlorodifluoromethane | 0.005 | ND | ND | ND | ND | ND ' | ND |
| 1,1-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,2-Dichloroethane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloroethene | 0.005 | ND | ND | ND | ND | ND | ND. |
| cis-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | ND |
| trans-1,2-Dichloroethene | 0.002 | ND | ND | ND | ND | ND | NĐ: |
| 1,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,3-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 2,2-Dichloropropane | 0.001 | ND | ND | ND | ND | ND | ND |
| 1,1-Dichloropropene | 0.001 | ND | ND | ND | ND | ON | ND |

(800) 798-9336

Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.:

14988

Matrix: Analyst:

Soil

MBH

Date Sampled:

06/02/99

Date Received:

06/03/99 06/11-13/99

Date Analyzed: Batch Number:

8260S1731

| | • | - | - | - | _ | - |
|-----|---|---|---|---|---|---|
| 826 | 0 | S | 1 | 7 | 3 | 3 |
| 826 | 0 | S | 1 | 7 | 3 | 4 |
| | | | | | | |

| Sample ID: | Hay2-0.9 | Hay2-1.5 | RO-1 | RO-2 | RO-3 | RO-4 |
|--|--|--|--|--|--|--|
| DL . | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg |
| 0.001 | ND . | ND | ND | ND | ND | ND: |
| 0.001 | ND | ND | ND | ND | OM) | ND |
| 0.005 | ND | ND | ND | ND | eg ang ang ang ang ang ang ang ang ang an | ND |
| 0.001 | ND | ND | ND | ND | Concentration of the contration ND |
| 0.005 | ND | ND | ND | ND | 20200222412229000000000 | ND |
| 0.00 | ND | ND | ND | ND | SANTAN AMERICAN AND AND AND AND AND AND AND AND AND A | ND |
| 0.01 | ND · | ND | ND | ND | 2000-200-200-200-200-200-200-200-200- | ND |
| 0.001 | ND | ⊸ NĐ | ND | Market Market Charles and Committee | e a constante de la contraction de la con- | DIN |
| 0.002 | ND | en en en en en en en en en en en en en e | MANAGE STATE ON \$110,50 | van konneren verste her vilk 1990 (| enter i la la la la la la la la la la la la la | ND |
| 0.01 | ND | | | AND THE STREET WAS A VIOLENCE OF | Signi atmonto a la recebación de | ND |
| 0.01 | ND | A CONTRACTOR AND A PART AND A PAR | ANY COLORODO DE DECIMINA (COCO) | australia ir svi svi svendepodde | e pa procure de la company de la company de la company de la company de la company de la company de la company | ND |
| E) 0.005 | toric concentration are a re- | CARROLLER | and consider the second second second second | Notice and the second of the s | | ND |
| 0.002 | an ing a sakatan nanggongggo | ARMANY COORDING BOWN BOOKS COUNT OF A | www.come.com/ | Annual properties and Annual School | war war in construction and a second of the | ND |
| 0.001 | ND | | | annanasasan makaban kecal | Control concentration of the second | DN |
| 0.001 | ND | erren erane tanna kunanasan Apus. | anadula de museus que en constituir que en constituir de la constituir de la constituir de la constituir de la | wasasasa man noosoo jees | aragasassas ina ini manananassassas | ND |
| 0.001 | ND | | enterior contrator and follows | See a company was a constant. | and the arrange and book of the | ND |
| 0.002 | CONTRACTOR AND AND AND AND AND AND AND AND AND AND | a concession on managements. | contract agency and an angle (c). | an an an an tagair an an an an an an an an an an an an an | na makati waki wasanangisa | ND |
| 0.001 | CO CONTRACTOR CONTRACTOR CONTRACTOR | 1855 1856 Assessment and accommodition | MANUAL PROPERTY. | والمراورين والمعالج والمناطقة والمتحاصرة والمتحاكم | | DM |
| 0.001 | u w was in with a ware could a | Sala pecas add Sebberes 20 | an a se a se a se a se a se a se a se a | MCS-MCDN-VACCOURAGES | 5 GO GO BURNES A SANTONAS | ND |
| 0.002 | Section 2 to 20 content of the residence | tinting of the second second second second | and make the second | and the second second | a de la constanta de la consta | ND |
| 0.002 | * M. V. V. GATANY BOOKS BOOKS BOOKS BOOKS | andocedes acontinues de la la la la la la la la la la la la la | rennes es accellace, accellace | unu unu nu na manan padan daga b | out in the second of the secon | ND |
| 0.001 | | Contraction of the contract of | ubace proportion was also have | China casa a kalendaran wasan k | State of the second second second second second second second second second second second second second second | ND |
| 0.003 | ne a wicologiech eigelichtet | www.hans.annarmoocooc.poc | na mesas production (a policido) | rave es dece la selette espet e signific | na mado asocia e in pado o sécolo | ND |
| 0.001 | Special and the second second | 100 Juliongongon vinasias lasasa | ed too te too barer beneave wil | oppoparative Military Award | AND AND ADDRESS OF THE REAL PROPERTY. | ND |
| Control of the second section of the first of the second s | Service and entered and an experience of the contract of the c | el el Pelol Pelol (1964) de la la como en entre de la como en el como en el como en el como en el como en el c | and a service of the first of t | AMB AMB AND A STATE OF | 666 kilondi manan mannan sakit (196) | ND |
| 0.001 | January and the second and the second | | | Contracted the second of the contracted the contrac | ASSESSMENT NOTES | ND |
| nedaniania ny madakaisa | annanaetharmed desceisió | ANN AMBARA MARAMANA (1996) 1996 (1996) | | www.www.www. | ana an nasa ne seo na espesso (1900) | ND |
| Contraction and Contraction and | والمرابي والمرابية مرميات فالمتأثرة والمتاريق | googleges was a same was a second | monación a la monación de | CONTRACTOR | AND DOMESTIC OF THE PARTY OF THE PARTY. | Carrier and the second |
| s pour la marier ma architecture de des dipe | n manananan karan dan da da da da da da da da da da da da da | Anny var many avais degeleese | Annual Annual Control of St. | r walk uwa walang proped bill | province contract contract for the site | ND |
| Management and the control of the co | and the second second second second second | COORDINATION ATTENDED AND | e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno e Anno | NAMES AND STREET | AND AND AND AND AND AND AND AND AND AND | ND |
| 0.003 | ND | ND | ND | ND | ND ND | ND ND |
| | 0.001 0.005 0.001 0.005 0.001 0.005 0.000 0.01 0.002 0.01 0.001 | DL mg/Kg 0.001 ND 0.005 ND 0.001 ND 0.001 ND 0.000 ND 0.001 ND | DL mg/Kg mg/Kg 0.001 ND ND ND ND ND ND ND N | DL mg/Kg mg/Kg mg/Kg 0.001 ND ND ND ND ND ND ND N | DL mg/Kg mg/Kg mg/Kg mg/Kg | DL mg/Kg mg/Kg mg/Kg mg/Kg mg/Kg |

Surrogates (% recovery) Limits: 80 - 130

| Same (sectors) | | | | | | |
|--|------------------|----------|------|---|---|------------------------|
| Sample ID: | Hay2-0.9 | Hay2-1.5 | RO-1 | RO-2 | RO-3 | RO-4 |
| Dibromofluoromethane | 105 | 107 | 103 | 110 | 104 | 180 |
| Toluene-d8 | 102 | GE | 05 | 0.000 | 150 30 35 47 119 41 07 | 9 10.14 ,2 ,334 |
| Bromafluorobenzene | 0.02 | 90 | 9J | · 97 ````` ~ | . 91 Juga Wille | 95 |
| PARTITION OF THE PROPERTY OF T | - A A A L D C AN | 98 | 64 | 82 | 94 | 84 |



Client: PSI
Project: Caltrans: Mattox & Foothill

MBH

Job No.: 14988 Matrix: Soil

Analyst:

Date Sampled: 06/02/99
Date Received: 06/03/99

Date Analyzed: 06/11-13/99
- Batch Number: 8260S1731

8260S1733 8260S1734

| | nple ID: | HAY2-3.0 | |
|--|----------------------------|----------|---|
| Compounds | DL | mg/Kg | |
| Acetone | 0.10 | ND - | |
| tert-Amyl Methyl Ether (TAME | 0.005 | ' ND | |
| Benzene | 0.001 | ND | |
| Bromobenzene | 0.005 | ND | |
| Bromochloromethane | 0.005 | ND | |
| Bromodichloromethane | 0.001 | ND | |
| Bromoform | 0.005 | ND | |
| Bromomethane | 0.01 | ND | |
| tert-Butanol (TBA) | 0.05 | ND | |
| 2-Butanone (MEK) | 0.01 | ND | |
| n-Butylbenzene | 0.002 | ND | CCCCMAD (17000000000000000000000000000000000000 |
| sec-Butylbenzene | 0.00 | ND | |
| tert-Butylbenzene | 0.002 | ND | |
| Carbon disulfide | 0.01 | ND | |
| Carbon tetrachloride | 0.001 | ND | |
| Chlorobenzene | 0.001 | ND | |
| Chloroethane | 0.005 | ND | |
| Chloroform | 0.002 | ND | |
| Chloromethane | 0.001 | ND | |
| 2-Chlorotoluene | 0.002 | ND | |
| 4-Chlorotoluene | 0.002 | ND | |
| Dibromochloromethane | 0.00 | ND | |
| 1,2-Dibromoethane | 0.002 | ND | |
| 1,2-Dibromo-3-chloropropane | 0.01 | ND | |
| Dibromomethane | 0.001 | ND | |
| 1,2-Dichlorobenzene | 0.001 | ND | |
| 1,3-Dichlorobenzene | 0.002 | ND | |
| 1,4-Dichlorobenzene | 0.002 | ND | |
| Dichlorodifluoromethane | 0.005 | ND | |
| 1,1-Dichloroethane | 0.001 | ND | |
| 1,2-Dichloroethane | 0.001 | ND . | 1989: \$18000000000000000000000000000000000000 |
| 1,1-Dichloroethene | 0.005 | ND | |
| cis-1,2-Dichloroethene trans-1,2-Dichloroethene | 0.002 | ND ND | |
| trans=1;2-Dic⊓ioroetnene 1,2-Dichloropropane | accessoration and a second | ND ND | |
| 1,3-Dichloropropane | 0.001 | ND ND | Oproces action grow with the Control Control Control Control Control Control Control Control Control Control Co |
| | 0.001 | ND ND | |
| 2,2-Dichloropropane | 0.001 | ND | |
| 1,1-Dichloropropene | 0.001 | ND | |

(800) 798-9336

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988 Matrix: Soil Analyst: MBH Date Sampled: Date Received: Date Analyzed:

Batch Number:

06/02/99 06/03/99 06/11-13/99 8260S1731

8260S1733 8260S1734

| Si | ample ID: | HAY2-3.0 | |
|-------------------------------|-----------|----------|----------|
| Compounds | DL | mg/Kg | <u> </u> |
| cis-1,3-Dichloropropene | 0.001 | ND | |
| trans-1,3-Dichloropropene | 0.001 | ND | |
| Diisopropyl Ether (DIPE) | 0.005 | ND - | |
| Ethylbenzene | 0.001 | NÐ | |
| Ethyl tert-Butyl Ether (EtBE) | 0.005 | ND | . 3 |
| Hexachlorobutadiene | 0.00 | ND | |
| 2-Hexanone | 0.01 | ND | |
| Isopropylbenzene | 0.001 | ND | |
| p-Isopropyltoluene | 0.002 | ND | |
| Methylene chloride | 0.01 | ND | |
| 4-Methyl-2-pentanone | 0.01 | ND | |
| Methyl tert-Butyl Ether (MtBE | 0.005 | ND | |
| Napthalene | 0.002 | ND | · |
| n-Propylbenzene | 0.001 | ND | |
| Styrene | 0.001 | ND | |
| 1,1,1,2-Tetrachloroethane | 0.001 | ND | |
| 1,1,2,2-Tetrachloroethane | 0.002 | ND | |
| Tetrachioroethene | 0.001 | ND | |
| Toluene | 0.001 | ND | |
| 1,2,3-Trichlorobenzene | 0.002 | ND | |
| 1,2,4-Trichlorobenzene | 0.002 | ND | |
| 1,1,1-Trichloroethane | 0.001 | ND | |
| 1,1,2-Trichloroethane | 0.003 | ND | |
| Trichlorgethene | 0.001 | ND | |
| 1,2,3-Trichloropropane | 0.003 | ND | |
| Trichlorofluoromethane | 0.001 | ND | |
| Trichlorotrifluoroethane | 0.005 | ND | |
| 1,2,4-Trimethylbenzene | 0.001 | ND | |
| 1,3,5-Trimethylbenzene | 0.001 | ND | |
| Vinyl chloride | 0.002 | ND | |
| Xylenes (total) | 0.003 | ND | |
| | | | |

Surrogates (% recovery) Limits: 80 - 130

| | <u> </u> |
|----------------------|---------------------|
| | Sample ID: HAY2-3.0 |
| Dibromofluoromethane | 99 |
| Toluene-d8 | 102 |
| Bromofluorobenzene | |

Matrix: Soil Batch #: 8260S1731

Batch Accuracy Results

Sample ID: Laboratory Control Sample

| | <u></u> | | | | |
|--------------------|------------------------------|----------------|------------------------|------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | 0 Acceptance Limits | % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 120 | 59 - | | Pass |
| Benzene | 0.020 | 107 | 66 - | 142 | Pass |
| Trichloroethene | 0.020 | 100 | 71 - | 137 | Pass |
| Toluene | 0.020 | 106 | - 59 - | 139 | Pass |
| Chlorobenzene | 0.020 | 112 | 60 - | 133 | Pass |

| Analytical Not | es: | • | |
|----------------|-----|---|--|
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Batch Precision Results

MS/MSD Sample ID: 14981-34

| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|--------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| 1,1-Dichloroethene | 0.0228 | 0.0224 | 2% | 22% | Pass . |
| Benzene | 0.0213 | 0.0211 | 1% | 21% | Pass |
| Trichloroethene | 0.0214 | 0.0200 | 7% | 24% | Pass |
| Toluene | 0.0240 | 0.0218 | 9% | 21% | Pass |
| Chlorobenzene | 0.0225 | 0.0220 | 2% | 21% | Pass |

| , 11101,7 | uçui i | 1000 | · | | |
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MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Matrix: Soil

Batch #: 8260S1733

Batch Accuracy Results

| Sample ID: Laboratory Con | trol Samp | <u>le - 2</u> - | | |
|---------------------------|------------------------------|-----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 115 | 59 - 172 | Pass |
| Benzene | 0:020 | 110 | 66 - 142 | Pass |
| Trichloroethene | 0.020 | 102 | 71 - 137 | Pass |
| Toluene | 0.020 | 105 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 109 | 60 - 133 | Pass |

| | * . | | | | |
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| Analytica | Note | s: | • | | |
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Batch Precision Results

MS/MSD Sample ID: Hay2-1.5

| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|--------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| 1,1-Dichloroethene | 0.0261 | 0.0242 | 7% | 22% | Pass |
| Benzene | 0,0237 | 0.0235 | 1% | 21% | Pass |
| Trichloroethene | 0.0222 | 0.0230 | 4% | 24% | Pass |
| Toluene | 0.0238 | 0.0229 | 4% | 21% | Pass |
| Chlorobenzene | 0.0257 | 0.0234 | 9% | 21% | Pass |

| Analy | tica! | Notes: |
|-------|-------|--------|
| | | |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate



Matrix: Soil

Batch #: 8260S1734

Batch Accuracy Results

| Sample ID: Laboratory Con | troi Sampi | e · | | |
|---------------------------|------------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration mg/Kg | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 0.020 | 107 | 59 - 172 | Pass |
| Benzene | 0.020 | 99 | 66 - 142 | Pass |
| Trichloroethene | 0.020 | 94 | 71 - 137 | Pass |
| Toluene | 0.020 | 94 | 59 - 139 | Pass |
| Chlorobenzene | 0.020 | 101 | 60 - 133 | Pass |

| | Analytical Notes: | |
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Batch Precision Results

| MS/MSD Sample ID: Hay2- | 3.0 | | | | |
|-------------------------|--------------------------------|-----------------------------------|--------------------------------------|----------------------------|-----------|
| Analyte | Spike Sample Recovery mg/Kg | Spike Duplicate Recovery mg/Kg | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| 1,1-Dichloroethene | 0.0256 | 0.0229 | 11% | 22% | Pass |
| Benzene | 0.0238 | 0.0225 | 5% | 21% | Pass |
| Trichloroethene | 0.0236 | 0.0213 | 10% | 24% | Pass |
| Toluene | 0.0248 | 0.0222 | 11% | 21% | Pass |
| Chlorobenzene | 0.0249 | 0.0220 | 12% | 21% | Pass |

| MS: Matrix Spike Sample |
|-----------------------------|
| MSD: Matrix Spike Duplicate |

| Analytical N | lotes: | <u> </u> |
|--------------|--------|--------------|
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(800) 798-9336

EPA 8260 - Volatile Organics with Oxygenates

Client:

PSI

Project:

Caltrans: Mattox & Foothill

Job No.:

14988

Matrix: Analyst: Water

vvate :: JMR Date Sampled: 06/02/99 Date Received: 06/03/99

Date Analyzed: 06/14/99

Batch Number: 8260W1737

| | Sample ID: | Blank | WHay3 | | , , |
|-----------------------------|------------|-------|---|---|--|
| Compounds | DL | μg/L | μg/L | | |
| Acetone | 50 | ND | ND | | |
| tert-Amyl Methyl Ether (TAM | E) 5.0 | ND | ND | | |
| Benzene | 0.5 | ND | ND | area a conservant e synere | |
| Bromobenzene | 1.0 | ND | ND | | |
| Bromochloromethane 🕝 | 1.0 | ND | ND | obot sociolos, pospe, poss | an area necessaries (1900) |
| Bromodichloromethane | 0,5 | ND | ND | dations in accommon | |
| Bromoform | 0.5 | ND | ND | 40790000 0000000000 | |
| Bromomethane | 0.5 | ND | ND | . 1000 (1001) | |
| tert-Butanol (TBA) | 50 | ND | ND | a a second or such a contract of \$10 | 000.0100.00000 |
| 2-Butanone (MEK) | 10 | ND | ND | | |
| n-Butylbenzene | 0.5 | ND | ND | dddddar 1000 yeleidd ar gyraeleddd | -0000101-15();) |
| sec-Butylbenzene | 0.5 | ND | ND | | |
| tert-Butylbenzene | 0.5 | ND | ND | s 2000000000000000000000000000000000000 | -Ballings (BS) |
| Carbon disulfide | 10 | ND | ND | | 20000000 2 000 8000000 1 000 9000000 1 800 |
| Carbon tetrachloride | 0.5 | ND | ND | c a saar on gloog oo it to the Light Lints (to | 30,420,41,52 |
| Chlorobenzene | 0.5 | ND | ND | ¥ 96 (1) | |
| Chloroethane | 0.5 | ND | ND | 2008888777 575455555 550 | |
| Chleroform | 0.5 | ND | ND | | 0.000000 h n-n 808808 h R |
| Chloromethane | 0.5 | ND | ND | VVXV = 1.84 x 83 8 x 6 (1) 51 | legape neda |
| 2-Chlorotoluene | 0.5 | ND | ND | | |
| 4-Chlorotoluene | 0.5 | ND | ND | | 36000764 |
| Dibromochloromethane | 0.5 | ND | ND | | 77.863 68.666.865 |
| 1,2-Dibromoethane | 0.5 | ND | ND | | 3444.00 |
| 1,2-Dibromo-3-chloropropan | | ND | ND | 2000 1000 2000 2000 | 0000000 |
| Dibromomethane | 0.5 | ND | ND | 3888 X 860 860 965 (10), <u>1</u> 955 | 0.279939 |
| 1,2-Dichlorobenzene | 0.5 | ND | ND | (1888) (2018) (2018) | 38780 |
| 1,3-Dichlorobenzene | 0.5 | ND | ND | -3000 x 000 x 150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | |
| 1,4-Dichlorobenzene | 0.5 | ND | ND | | X0 X 0 X |
| Dichlorodifluoromethane | 0.5 | ND | ND · | | 875.660 |
| 1,1-Dichloroethane | 0.5 | ND | ND | | 2000 2000 |
| 1,2-Dichloroethane | 0.5 | ND | ND | | Muserica Racinosci |
| 1,1-Dichloroethene | 0.5 | ND | ND | 1868 | 95797R |
| cis-1,2-Dichloroethene | 0,5 | ND | ND | | 0486038 |
| trans-1,2-Dichloroethene | 0.5 | ND | ND | 3450 gr 11310 seb vers | 53450.38 |
| 1,2-Dichloropropane | 0.5 | ND: | ND | \$1000 HOA 1000 1900 1900 1 | ar liftago |
| 1,3-Dichloropropane | 0.5 | ND | ND | \$088/488 (540)\$810345 | 68482438 |
| 2,2-Dichloropropane | 0.5 | ND | ND ND | | |
| 1,1-Dichloropropene | 0.5 | ND ND | A. A. L. 121, L. 1 - 136, 124, 4. | Birinisi dalah sakit | 1941 (15) |
| | | NU | ND | g resett justilija i Alija | |



Client: PSI Date Sampled: 06/02/99 Caltrans: Mattox & Foothill Project: Date Received: 06/03/99 Job No.: 14988 Date Analyzed: 06/14/99 Matrix: Water Batch Number: 8260W1737 Analyst: JMR

| | Sample ID: | Blank | WHay3 | |
|-------------------------------|------------|-------|-------|---|
| Compounds | DL | μg/L | μg/L | |
| cis-1,3-Dichloropropene | 0.5 | ND | ND | |
| trans-1,3-Dichloropropene | 0.5 | ND | ND | |
| Diisopropyl Ether (DIPE) | 5.0 | ND | ND | |
| Ethylbenzene : | 0.5 | ND | ND | |
| Ethyl tert-Butyl Ether (EtBE |) 5.0 | ND | ND | |
| Hexachlorobutadiene | 0.5 | ND 1 | ND | |
| 2-Hexanone | 10 | ND | ND | |
| Isopropylbenzene | 0.5 | ND | ND | |
| p-Isopropyltoluene | 0.5 | ND | ND | 000 x 879 8 8 8 2 1 1 1 1 2 2 0 0 1 1 2 2 2 0 0 0 0 0 0 |
| Methylene chloride | 10 | ND | ND | Kurasi induser italia |
| 4-Methyl-2-pentanone | 5.0 | ND | ND | |
| Methyl-tert-butyl ether (MtBl | | ND | 2.4 | |
| Napthalene - | 0.5 | ND | ND | |
| n-Propylbenzene | 0.5 | ND | ND | |
| Styrene | 0.5 | ND | ND | |
| 1,1,1,2-Tetrachloroethane | 0,5 | ND | ND | |
| 1,1,2,2-Tetrachloroethane | 1.0 | ND | ND | |
| Tetrachloroethene | 0.5 | ND | ND | |
| Toluene | 0.5 | ND | ND | |
| 1,2,3-Trichlorabenzene | 0,5 | ND | ND | |
| 1,2,4-Trichlorobenzene | 0.5 | ND | ND | |
| 1,1,1-Trichloroethane | 0.5 | ND | ND | |
| 1,1,2-Trichloroethane | 0.5 | ND | ND | |
| Trichloroethene | 0.5 | ND | ND | |
| 1,2,3-Trichloropropane | 0.5 | ND | ND | |
| Trichlorofluoromethane | 0,5 | ND | ND | |
| Trichlorotrifluoroethane | 5.0 | ND | ND | |
| 1,2,4-Trimethylbenzene | 0.5 | ND | ND | |
| 1,3,5-Trimethylbenzene | 0.5 | ND | ND | |
| Vinyl chloride | 0.5 | ND | ND | |
| Xylenes (total) | 1.5 | ND | ND | |

Surrogates (% recovery) Limits: 80 - 130

| | | - 150 | • | |
|----------------------|------------|-------|-------|--|
| | Sample ID: | Blank | WHay3 | |
| Dibromofluoromethane | | 102 | 103 | |
| . 5.00.10 00 | | - uu | 7117 | |
| Bromofluorobenzene | | ിവട | 98 | |

Matrix: Water

Batch #: 8260W1737

Batch Accuracy Results

| Sample | e ID: | Laborat | ory (| ontrol | Sample |
|--------|-------|---------|-------|--------|--------|
| | | | | | |

| | | | <u>.</u> | |
|--------------------|--------------------------|----------------|---------------------------------|-----------|
| Analyte | Spike Concentration µg/L | % Recovery LCS | Acceptance Limits % Recovery | Pass/Fail |
| 1,1-Dichloroethene | 20.0 | 107 | 59 - 172 | Pass |
| Benzene | 20.0 | 97. | 66 - 142 | Pass |
| Trichloroethene | 20.0 | 92 | 71 - 137 | Pass |
| Toluene | 20.0 | 93 | 59 - 139 | Pass |
| Chlorobenzene | 20.0 | 100 | 60 - 133 | Pass |

Analytical Notes:

| 1 | | | | | ٠, |
|---|-------|---|---|---|----|
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| I | | | | - | |
| Į | _ | | | - | |

Batch Precision Results

MS/MSD Sample ID: Laboratory Control Sample

| Analyte | Spike Sample Recovery µg/L | Spike Duplicate Recovery µg/L | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Faii |
|--------------------|-------------------------------|----------------------------------|--------------------------------------|----------------------------|-----------|
| 1,1-Dichloroethene | 21.4 | 19.5 | 9% | 22% | Pass |
| Benzene | 19,4 | 19.1 | 1% | 21% | Pass |
| Trichloroethene | 18.5 | 18.7 | 1% | 24% | Pass |
| Toluene | 18.8 | 19.7 | 4% | 21% | Pass |
| Chlorobenzene | 19.9 | 20.1 | 1% | 21% | Pass |

Analytical Notes:

MS: Matrix Spike Sample
MSD: Matrix Spike Duplicate

Centrum Job # 14981
Page 1 of 4

290 TENNESSEE STREET REDLANDS, CA 92373

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| | | | | | | | | | | | Ana | lyses | Requ | ested | | | _ | | |
|------------------------------|---|-------------|--------------|--------------------|-----------------------------|---------------------------|---------------|------------------|---------------------|-----------------|-------------------|---------------|-------------------|-----------------|------------|-----------|---------------|---------------|--------------------------------------|
| Project No. | 15-96034 | , | Project N | | A - | | | 80 | | k | $\prod_{i=1}^{n}$ | | | | | 7 | 3/~ | $\overline{}$ | Turn-around time |
| | | | | rans: | | | - \$ | Pest/PCB | <u> </u> | Ē | | | RCRA | 8 | Hex Chrome | 3 | | 5 | |
| Project Mar | nager: Pass | | Phone: | 7~~ | Fax: | | 1 | | TE. | 3 | | ا يا | | I≩ | ភ្ជ | 1 | ، اذ | 3 | ☐ 24 Hr. RUSH* |
| | | | (570) | 783 | -111 (570) 783 | -1192 | - ₿ | PCBs | | 8 | ł | 625 | 8 | Conductivity | £ | 1 | \ | J | ☐ 48 Hr. RUSH* |
| Client Name (Company) | PSI | | Address: | | | .1 |] \$ | | 3 | 8 | | 8270 | 3 | Įš | ۇ | 1: | <u>د</u> ا (۱ | 7 | Normal TAT *Requires prior approval. |
| (Company) | <u> </u> | | 1320 | WI | Wiston Ave, | Haywad | | 20 Z | <u>8</u> | 를 | l _⊋ | ۰۵ اوز | 8 | TSS (| | | | 2 | additional charges apply |
| 1 | | Date | Time | Cample | / | 1 ' | 82 | 8080: Pesticides | 8015M: Diesel | 8015M: Gasoline | 418.1 (TRPH) | Semvolatiles: | Metals: TT.C(CAM) | <u> </u> | | 1 | 71 | ٦ | Damaskat j |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | 1 | 1 | Sample matrix | Site location | Containers: # and type | GCMS: | Q: D | Š | 5M: | 5 | § | <u> </u> | နီ မြ | Flashpoint | 1,7 | | | Remarks/ Special Instructions |
| , , | } | | 1 ' | l main | | , and type |] 🞖] | 808 | ğ | 801 | 2 | 8 | Metals: TT | § £ | Ē | 1-5 | Ų | | opecial mediactions |
| 1 | Hay3-0.15 | 6/1/19 | 850 | 5 | | | X | | X | X | | | | | | X | \Diamond | | |
| 2 | -0.3 | 1 | 855 | 1 | | | 1 | | | | | . | | · | | | 1 | | |
| 3 | -0.9 | 1. | 900 | | | | | | | \perp | | \bot | | | | \coprod | \coprod | | |
| 4 | - 1.5 | | 905 | | | | | | | Ц | | | | | | Ш | \prod | <u> </u> | |
| 5 | - 3.0 | | 910 | | | i. | | | | Ш | | | | | ļ | | Ц | _ | |
| 4 | - 4.5 | _ | 915 | V | | | | | | | | | | L | | | \prod | _ | |
| | MATERIAL | | are | W (2) | MARINE | | 20 | | | | | 4 | | | 1 | 1 | | 1 | lec |
| 7 | Hay 4-0.15 | | 1000 | 5 | | | | | | | | | | | | 1 | | | |
| 8 | - 0.3 | | 1005 | | | | | | | | | | | | | | $\ j \ $ | | |
| 9 | -0.7 | V | 1010 | 1 | | | V | | $\sqrt{}$ | V | | | | | | | V | | |
| Relinguished b | y: (Sampler's Signature) | | Date Of 1/99 | Time 700 | Relinquished by: | | Date | | Time | | To be | comp | leted b | y labora | itory p | erson | nel: | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | . ! | Date | | Time | | | | • | 27es Yes-E | | | | - | · ☐ Client will pick up |
| | of samples and the signatur | | | ody form | Relinquished by: | | Date | | Time | | | | | ers intac | | Yes I | □ No | | ☐ Return to client |
| | thorization to perform the a | | | ve under | Received for Laboratory by: | | Date 0/2/4 | 24 | 11me <i>9:</i> 2 | 1 | K) | Ai | | /Fed E) (N-C | - | and c | arried | | ☐ Lab disposal fee \$5 |
| Laboratory N | lotes: Ple | عد_ | inclu | de | ethyl dibromin | | nol | < | +1 | ryl | عدارجد | <u>.</u> | | hlo | | a | | | Sample Locator No. |
| · | in | ð | 8260 | sæ. | n Thirks | | | | | | | | | | | | | | D-1 |

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Chain of Custody Record

Centrum Job # 14981
Page Z of 4

| | · | · · · · · · · · · · · · · · · · · · · | | | 47.00 | | | | | ٠. | Ana | lyses | s Red | ques | ted | | | | | |
|------------------------------|--|---------------------------------------|--------------|------------------|-----------------------------|---------------------------|-------------------|-------------------|---------------|-----------------|---------------|----------------|-------------------|------------|----------------|--------------------|-----------|--------|----|---|
| Project No. | 575 - 960. nager: mk Poss | 34 | Project N | lame: | is: Mattax 1 | Foothill | 1 | 808 | | X | | | \$ | | 8 | ome | | 1 | 3 | Turn-around time |
| Project Mar | nager: | | Phone: | | Fax: | | 1 | Pes | 5 | 6 | | ñ. | RCRA | | | Hex Chrome | 1 | 16 | | ☐ 24 Hr. RUSH* |
| Client Name (Company) | PSI | | Address: | | | | 2 | des PCBs Pest/PCB | S Table | oline Stare | | 8270 625 | (CAM) PP | | S Conductivity | Fluoride He | 100 | 15 | | ☐ 48 Hr. RUSH* ☐ Normal TAT "Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | | 1 | Sample matrix | Site location | Containers: # and type | GCMS: 8260 | 8080: Pesticides | 8015M: Diesel | 8015M: Gasoline | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) | Lead Only | SZT SQT HE | Flashpoint F | Jak.1 | 1741 | | Remarks/ Special Instructions |
| 10 | Hay 4-1.5 | 6/1/99 | 1015 | ک | | | X | | X | X | | | | | | | X | X | | |
| 1/ | 7 ~ 3,0 | | 1020 | 1 | | | | | | \overline{I} | | | | | | | 1 | 1 | | |
| 12 | -4.5 | | 1025 | V | | | V | | V | | | | | | | | V | V | | |
| | MAKEY 4 | | ~ | 2 | 200 | 7 | | 7 | | | 7 | 7 | ~ | | 7 | | 7 | _ | - | |
| 13 | 4ax7-0.15 | | 1110 | ح | | | χ | | X | X | | | · | | • | , | X | X | | |
| 14 | -0.30 | | 1115 | | | | | , | 1 | 1 | | | | | | | 1 | 1 | | |
| 15 | -0.90 | | 1120 | | | | | | | | | | | " | | | | П | , | |
| 1Co | -1.5 | | 1125 | | | | | | | | | \Box | | | | | T | | | , |
| 17 | - 3,0 | | 1130 | | | | | | | | | | | | · | | ١, | | | |
| 18 | -4.5 | \bigvee | 1135 | · V | | | $ \checkmark $ | | \bigvee | $\sqrt{ }$ | | | | | | | $\sqrt{}$ | V | | |
| (elinquished b) | (Sampler's Signature) | | Date (| Time (700 | Relinquished by: | · . | Date | | Time | | To be | com | pieted | by la | borate | огу ре | rsonr | nel: | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | | Date _: | | Time | . | Samp Custo | des ch | | | | • | | | | ☐ Client will pick up |
| The delivery of | f samples and the signatur thorization to perform the a | e on this c | hain of cust | ody form | Relinguished by: | | Date | | Time | | All sa | mple | contai | iners I | intact: | ? ['] D Y | es [| J No Ç | :: | ☐ Return to client |
| he Terms and | Conditions set forth on the | naiyses sp e back her | eof. | ve under | Received for Laboratory by: | | Date (d/2/4 | - 1 | Time | ы | п с.)Д | ٠. | n un Vib | | | □ Ha | ınd cı | arried | | ☐ Lab disposal fee \$5 |
| aboratory N | otes: | | | ٠. | 7 | <u>.</u> | 7-1! | | <u> </u> | - 1 | 74 | | . 13 | 7. N. F.L. | | • • | | | | Sample Locator No. |
| | | | | | | | | | | | | | | | | | | | | D-I |

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Chain of Custody Record

Centrum Job # 14981
Page 3 of 4

| | | | | | | | | | | | | Ana | yses | Requ | ested | | | | | |
|------------------------------|---|-----------------|-----------------|------------------|---------------------|---------------------------------------|---------------------------|------------|-----------------------|---------------|-----------------|--------------|----------------|----------------------|--|---------------------|---------------|--|------------|--|
| Project No.: | F7= 0 · - · | | Project N | ame: | Ni II | L + | 141 | | 89 | | þ | | | | ۽ | ءِ د | - | (0,00) | \uparrow | Turn-around time |
| Project Man | 575-96034 Frak Po | · << | Phone: | - ENG | Ma Hox Fax: | Foot | 3/11 | 324 | s Pest/PCB | É | - Gas/BTEX | | 625 | P RCRA | Constitution of the Consti | Hex Chrome | 1 | ı. | 9+0 | ☐ 24 Hr. RUSH* |
| Client Name (Company) | PSI | <u></u> | Address: | ···· | | | | 25 E | des PCB | Sei frank | oline-6024 | ٥ | 8270 | CCAM) P | | Hooride H | , | 100 | 1799 | Normal TAT Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site loo | ation | Containers: # and type | GCMS, 8260 | 8080: Pesticides PCBs | 8015M: Diesei | 8015M: Gasoline | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) PP | Lette Only | Flashpoint Fluoride | į | 4 | LVH II | Remarks/ Special Instructions |
| | WHAVIT | | | W | | \ | | X | - | X | X | | 4 | - | ~ | - | \rightarrow | | | -5. B. |
| 19 | Hay 9-0.15 | 6/1/9 | 1200 | 3 | | | | \geq | | X | X | | ` [| | | | <u> </u> | $\langle \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \! \!$ | | |
| 20 | -0.30 | | 1205 | | | | | | | Ш | | | | | | | | Ш | | |
| 2/ | -0,90 | | 1210 | | : | <u>.</u> | ŧ | | | | | | | | | | Ш | | | |
| 22 | ~1.5 | | 1215 | | | | ٠. | | | | | | | | | | Ц | | | |
| 23 | - 3.0 | | 1220 | | | · .· | | | | | | | _ . | | | | \coprod | | | |
| 24 | -4,5 | | 1225 | Ψ_ | | <u>.</u> | | | | Ш | | | | | | <u>.</u> | \prod | \perp | 3 | |
| 25 | Hay 10-0.15 | | 1240 | | | | | Щ | | | | | | | | | \coprod | | | |
| 26 | -0.30 | _/_ | 1245 | // | | · · · · · · · · · · · · · · · · · · · | : . | \coprod | | | | | _ | | | | Ц, | Ш | <u> </u> | |
| 27 | - 0.90 | 1 | 1245 | V | | | | V | | V | | · | | | | | V | ٧ | | |
| Relinguished by | y: (Sampler's Signature) | • | Date, 1/99 | Time | Relinquished by: | | | Date | | Time | | To be | comp | deted i | y labo | ratory p | erso | nnel: | - | Sample Disposal |
| Received by: | | | Date | Time | Received by: | | | Date | | Time | | | | illed? als?`E | | □ No □-Ño | | | | ☐ Cilent will pick up |
| | of samples and the signatu | | | | Relinquished by: | | | Date | • | Time | | | | | _ | sct? | Yos | o N | 0 | ☐ Return to client |
| | thorization to perform the disconditions set forth on the | | | ove under | Received for Labora | atory by: | 1 1 1 | Date 6/2 | 199 | Time 9:2 | 0 | п co | | o up: | | x 🗆 l | land | carrie | d | (1) Lab disposal fee \$5 |
| Laboratory N | lotes: | | | | 1 | , | | | | | | | • | | : | | | | : | Sample Locator No. |
| | | | | | | | | | | | | | | | | | | | | D-1 |

CHAIN-OF-CUSTODY RECORD

GEOTEST
PROJECT NO:
DATE 6/1/99 PAGE 4 OF 4

| PROJECT NAME | 1+ms | ' Mat | Yar & Foothill | _[| | | | MET | HODS | | | | | | | " | SPECIAL HAND | LING |
|--|-------------------------|------------------------|-------------------|--------------|--------------|-------|-------------|--------|------------|---|----------|--------|---------|--------|----------------|---------------|--------------|------|
| ADDRESS | 5 ~41 575 | Bones -9CO L Pos | 34 | TPH GASOLINE | TPH DIESEL | втех | 418.1 | 8260 | Total lead | 4 1562 | | | | MATRIX | CONTAINER TYPE | OF CONTAINERS | | |
| SAMPLE NO. | DATE | TIME | LOCATION | │ | <u> </u> | | 4 | Ĺ., | K | 12 | 1 | | _ | _ | | # | | |
| Hay 10-1.5 | 6/1/99 | 1250 | | X | \bigvee | | | \geq | X | X | | | _ | | | | | |
| Hay 10 - 3.0 | | 1255 | • | 11 | | | | | | | ļ | | | | | | | |
| Hay10 - 4.5 | | 1300 | | | | | | | | | | | | | | | | |
| Hay 10 - 3.0 Hay 10 - 4.5 Hay 8 - 0.15 | | 1410 | | | | | | | | | | | \perp | | | | | |
| - 0.3 | | 1415 | | | | | | | | | | | | | | | | |
| -0.9 | | 1420 | | | | | | | | | | | | | | | | |
| - 1.5 | • | 1425 | | | | , | | | | | | | | | | | | |
| - 3.0 | | 1430 | | | | | | | | | | | | | | | | |
| -4.5 | | 1435 | | V | | / | | V | \bigvee | \bigvee | | | | | | S. | | |
| | V | | | - | \downarrow | | | | | | | | _ | | | | | |
| 1 RELINQUISHED BY | | DATE | 8 RELINQUISHED BY | D. | ATE | 5 F | ELING | UISHE | D BY | | 1 | DAT | E | BEC | | AMPL ON IC | E CONDITIONS | S/NO |
| SIGNATURE | | 9/1/99 | SIGNATURE | | | SIGN | ATURE | | | | | 7 | | | | | | S/NO |
| PRINTED NAME | we/>_ | TIME | PRINTED NAME | T | ME | PRINT | ED NA | ИE | | | | TIMI | E | | PRO | DJEC | T COMMENTS | |
| PSI COMPANY | | 1700 | COMPANY | | | COMP | ANY | ., | | | | | | | | | • | ļ |
| 2 RECEIVED BY | | DATE | 4 RECEIVED BY | D, | ATE | 6 R | ECEIV | ED BY | (LAB) | 1 | | DAT | - [| | | | | |
| SIGNATURE | | - | SIGNATURE | \dashv | | SIGNI | AVORE | Dell | 1 | <u>, </u> | | -1d2/a | 7 | | | | | |
| PRINTED NAME | | TIME | PRINTED NAME | TI | ME | PRINT | ED NAN | AE E | N 4 | 7 | | TIM | | | | | | |
| COMPANY | | _ | COMPANY | | | COMP | whre ANY | البرا | TVEL | Jybi | <u> </u> | 9:20 | | CI | ĩı. | 1 ^ | Laborat | |



Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY . CHEMICAL AND BIOLOGICAL ANALYSES

Client: PSI

1320 W. Winton Ave.

Hayward, CA 94545

Date Sampled:

06/01/99

Date Received:

06/02/99

Job Number:

14981A

Project: Caltrans:Mattox & Foothill

CASE NARRATIVE

The following information applies to samples which were received on 06/02/99:

The samples were received at the laboratory chilled and sample containers were intact.

This report is an addendum to Centrum Job #14981 and contains data not included in the original report. The results reported previously have not been changed. The date of issue for this addendum is 08/04/99.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested,

Report approved by

Robert R. Clark, Ph.D. Laboratory Director

ELAP # 1184

DL: Detection Limit - The lowest level at which the compound can reliably be detected under normal laboratory conditions.

ND: Not Detected - The compound was analyzed for but was not found to be present at or above the detection limit.

NA: Not Analyzed – Per client request, this analyte was not on the list of compounds to be analyzed for.



STLC Lead by ICP

Client: PSI

Project: Caltrans:Mattox & Foothill

Job No.: 14981A

Matrix: STLC Leachate*

Analyst: RLI

Date Sampled: 06/01/99
Date Received: 06/02/99
Date Extracted: 07/30/99
Date Analyzed: 08/02/99

Batch Number: 6010W1280 Method Number: 6010

| | Detection Limit | Lead |
|--------------|-----------------|-------|
| Sample ID | mg/L | mg/L |
| Method Blank | 2.5 | ND |
| Hay3-1.5 | 2.5 | ND ND |
| Hay9-0.90 | 2.5 | 6.3 |
| Hay10-0.30 | 2.5 | 6.6 |
| Hay8-0.3 | 2.5 | ND |
| | | |
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| | | |
| | | |

^{*} Sample was prepared by CAC Title 22 Method 66700 (STLC).

QC Sample Report - Metals

Matrix: Water

Batch #: 6010W1280

Batch Accuracy Results

| Lead | 1.0 98.1 75 - 125 Pass |
|----------|--|
| Compound | Spike Concentration mg/L % Recovery LCS Acceptance Limits % Recovery |

| Analytical Notes: | |
|-------------------|--|
| | |
| | |
| | |

Batch Precision Results

| · · · · · · · · · · · · · · · · · · · | | |
|---------------------------------------|---|--|
| Compound | Spike Sar Recovery Recovery Relative P Difference Upper Cor RPD | |
| | Sample ery mg/L. Duplicate ery mg/L re Percent nce (RPD) Control Limit | |

MS: Matrix Spike Sample MSD: Matrix Spike Duplicate

Centrum Job # 14981

Page 1 of 4

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| | | | | | | | <u>,</u> | | | Analyse | s Rec | rueste | d | | | | |
|------------------------------|--|---------------|---------------|------------------|-----------------------------|---|------------------------------------|-----------------------|-----------------|--------------------------------|-------------------|-----------|---|--------|-------------------|----------|--|
| Project No.: | 5-96034 | | Project N | lame: انوسود | Ma | ; | | | Ĭ | | _ | | 8 8 | (2) | | + | Turn-around time |
| Project Man | ager: | • | Phone: (570) | | -1111 (510) 785. | 4197 | PRO-SERVE | 1 16 1 | 0-east | \$3 | PP RCRA | | celivity C | 1/6 | 1 | | ☐ 24 Hr. RUSH* |
| Client Name Company) | | , | Address: | | Wiston Ave, H | 24 ward | O DE PCBs | 144 | oline 802 | 8270 | (CAM) | | TSS Conductivity COD 1 Fluoride Hex Chrome | | 77 | ے ا | □ Normal TAT Requires prior approval, additional charges apply |
| Centrum (D (Lab use only) | 3. | 2 3 | | Sample matrix | | Containers: # and type | GCMS: 8260 *82 8080: Pesticides | 8036M: Diesel | 8015M: Gasoline | 418.1 (TRPH) Semivolatiles: | Metals: TT.C(CAM) | o o | pH TDS TSS Conductivity COF Flashpoint Fluoride Hex Chrome | 101/ | 4 | 7 | Remarks/ Special Instructions |
| 1 | Hav3-0.15 | 6/1/2 | 850 | 5 | | | X | X | X | | | | | X | $\langle \rangle$ | | |
| 2, 4, | = 0.3 | 1. | 855 | 13 | 1.0 | | 1 | | | | | | | | | | |
| 3 | 70.9 | | 900 | | , | | | | \perp | | | | | | | | |
| 4 | - 1.5 | | 905 | | 72- | | | $\parallel \parallel$ | Ц | | | | | Ш | \prod | 8 | |
| 5 | - 3.0 | | 910 | | | | | | Ш | | | | | Ш | Щ | ļ | |
| 4 | - 4.5 | | 915 | V | | · · | | | | | | | - | | \coprod | <u> </u> | |
| | MILY | - | 425 | 49 | Chappy | | | | | | | | | 1 | K | 1 | ecc |
| 7 | Hay 4-0.15 | | 1000 | 5 | | | 11 | | \perp | | | | | 11 | \parallel | | |
| 8 | - 0.3 | 1/2 | 1005 | 1 | | | | $\frac{1}{1}$ | | | | | | Ш_ | ╢, | <u> </u> | |
| 9 | -0.9 | 1 | 1010 | V | 1945 | 1 da 1/4 | V | 1 | ٧ | | | | | V | V | | |
| elinquished by | y: (Sampler's Signature) | | Date Olyga | Time | Relinquished by: | \$ | Date | Time | | To be co | mplete | d by lab | oratory | person | nel: | | Sample Disposal |
| eceived by: | | | Date | Time | Received by: | | Date | Time | `. | Samples Custody | | - | | | | | ☐ Cillent Will pick up |
| he delivery o | of samples and the signatu | re on this | chain of cus | stody form | Relinquished by: | | Date | Time | , | All sampl | e conti | ainers in | ntact?_E | Yes | □ No | | ☐ Return to client |
| | thorization to perform the d Conditions set forth on th | | | ove under | Received for Laboratory by: | | Date G/2/CRA | 11me | 0 | Courie | | | | Hand (| carried | 1 | ☐ Lab disposal fee \$5 |
| aboratory N | lotes: Pl | | Sach | .0 . | Plive dibromid | , | n co | ا 4م | 14 | lene | d | ic h | ler.c | لم | | | Sample Locator No. |
| • | 1 je | " > | inclu 8260 | الاسو الاستان | n Thicks | | | | | | | | | | | | D-1 |

290 TENNESSEE STREET REDLANDS, CA 92373

(909) 798-9336 • (800) 798-9336 FAX (909) 793-1559

Chain of Custody Record

Centrum Job # 14981

Page 2 of 4

| | | | | | | | 4 | | | | | Anal | yses | Req | ueste | ed | | | | | |
|------------------------------|---|-----------------|-----------------|------------------|-------------------------|-----------------|---------------------------|---------------|------------------|------------------|------------|--------------|----------------|-------------------|-----------|--------------|---------------------|----------|--------------------|---|---|
| Project No.: | 75 - 960 | | Project N | ame: | s: MaHax | K Fa | oth:11 | 4 | Pest/PCB | | Ĭ | , | | ¥. | | 8 | ome | (000) | 10) | . | Turn-around time |
| Project Man | ager: | | Phone: | | Fax: | | 2. A. | I | | 1 | | | 52 | PP RCRA | | Conductivity | ₹ Ş | | O | | ☐ 24 Hr. RUSH* ☐ 48 Hr. RUSH* |
| Client Name (Company) | | • | Address: | | | | ن الجويد | ŭ | des PCBs | 9 | oline 80 | e | 8270 | | | TSS Cond | Fluoride Hex Chrome | Load | 1664 | | Normal TAT Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site location | | Containers: # and type | GCMS: 8260 | 8080: Pesticides | 8015M: Diesel | 8015M: Gas | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) | Lead Only | | Plashpoint | Total | V43 | | Remarks/ Special Instructions |
| 10 | Hay 4-1.5 | 6/1/99 | 1015 | ح | | | | X | | X | X | | | | | | _ | X | X | | |
| 11 | ~ 3.0 | | 1020 | 1. | | | | | | | Ц, | | | | \dashv | _ | \dashv | | $\perp \downarrow$ | | |
| 12 | -4.5 | | 1025 | V | | | | V | | V | ,₩ | | | _ | _ | اسد | | <u>*</u> | ¥ | | |
| | arate 4 C | _ | | r | 7 | | | | | | | | _ | 7 | 1 | 7 | = | | | | |
| 13 | Hay 7-0.15 | | 1110 | 5 | N. | Tribba. | | X. | _ | Ķ | X | | | | _ | | _4 | X. | Ÿ | | |
| 14 | -0.30 | | 1115 | | | | r · | | 1 | | | | | | _ | \dashv | | | | | |
| 15 | - 0.90 | | 1120 | | | 1-11-11 | - | | _ | | | | . 1- | | _ | | | + | 4 | | |
| 16 | - 1.5 | | 1125 | | | | | | | \coprod | | | | | | - | | + | - | | |
| 17 | - 3,0 | | 1130 | | | <u> </u> | <u>.</u> | 4 | | Ц | ╁ | | | | \dashv | | | 1 | 1 | | |
| 18 | -4.5 | . √ | 1135 | V | |) in the second | | Date | | Time | 1 | _ | | | | | | V | Y | | |
| Relinquished t | y: (Sampler's Signature) | *** | Data V | Time / Foc | Relinquished by: | | 7 | | | (11.1.2 | | Tot | e con | npiete | d by la | borate | ory pe | ersoni | nel: | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | | | Date | _ | Time | ì | 1 | | chilled seals? | | | | | | | Cilent will pick up |
| | of samples and the signatu | re on this | chain of cus | stody form | Relinquished by: | | | Date | • | Time | | 1 | | e conti | | | | Yes I | □ No | | ☐ Return to client |
| constitutes a | or samples and the signatural the high and the conditions set forth on the conditions set forth on the conditions are conditions. | analyses s | pecified ab | ove under | Received for Laboratory | by: | · · · | Dajo Vd 21 | | Time | 70 | | ď | n ou | | | αн | land o | arried | l | ☐ Lab disposal fee \$5 |
| Laboratory I | Notes: | ············· | <u> </u> | | w/mon | | • | 7:1 | ••• | ا الله الله الله | | <u>,</u> | * | | | | | | | | Sample Locator No. |
| | guide. | | | | • | | | | | | , | | • | | | | | | , ,: | | D-I |

Centrum Analytical Laboratories, Inc.

Centrum Job # 14981
Page 3 of 4

290 TENNESSEE STREET REDLANDS, CA 92373

(909) 798-9336 • (800) 798-9336 FAX (909) 793-1559 Chain of Custody Record

| | | | 35 | , <u></u> | | - P | | | | Analys | es Re | quest | ed | | | | | |
|------------------------------|--|-----------------|-----------------|------------------|--------------------------------|-------------------------------|----------------------|-------------|---------------|-------------------------------|-------------------|-----------|----------------|--------------|----------|----------|---------------|---|
| Project No.: | 575-9G0 3 4 | | Project N | ame: | Ma Hox + Food | | . 8 | | Į | | | | COD | ş | 1000 | (| | Turn-around time |
| Project Man | 908" - 275 | | Phone: | | Fax: | | Pest/PC | | P | | R R | | 0 | Į į | 1/2 | + | | ☐ 24 Hr. RUSH* |
| i rojoot man | ager ruk Po | SS. | | | | | : 1 | | 1 | 8 | 8 | | ctv | Hex Chrome | 1 | 10 | | ☐ 48 Hr. RUSH* |
| Client Name (Company) | PSI | • | Address: | | | - P.O. | 1.45 | 1 T | oline - 662 | 0,23 | ₹ | | S Conductivity | Fluoride | ر | 1797) | 5 | Normal TAT *Requires prior approvel, additional charges apply |
| Centrum ID (Labruse only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site location Contain # and to | | 8080: Pesticid | 8015M; Dies | 5015M: Gasofi | 418.1 (TRPH) Semivolatics: | Metals: TTLC(CAM) | Lead Only | PH TOS TSS | Flashpoint F | Total | FPAI | 27.5 | Remarks/ Special Instructions |
| | WALLY | | | W | | \nearrow | $\langle \! \langle$ | X | X | | <u> </u> | | \preceq | | \times | X | | < 5. V. |
| 19 | Hay 9-0.15 | 6/1/9 | 1200 | 5. | | _2 | <u>(</u>) | K | X | | \perp | | | | X | X | | |
| 28 | -0.30 | | 1205 | 1 1 | | $\perp \downarrow \downarrow$ | | 1 | 1 | | | | | | 4 | | | <u> </u> |
| 2/ | 1-0,90 | | 1210 | | | | igg | <u> </u> | | | ` | | | | | Ц | \mathcal{X} | |
| 22 | -1.5 | | 1215 | | | \perp | · | | | | | | | | | | | |
| 23 | - 3.0 | | *1224 |) | | | | | | | | | | | | | | |
| 24 | -4,5 | - 1 | 1,225 | Y | | _ | | - | | | <u> </u> - | | | | | | | |
| 25 | Hay 10- 0.15 | | 1240 | | 70.2 | $-\parallel$ | _ | | | | | | | | | | | |
| 26 | -0.30 | / | 1245 | 1 | | $-\prod$ | _ | <u> </u> , | 1 | | 1 | | | | | V | X/ | |
| 27 | 0.90 | 1 | 1245 | I V | | _ √ | / | V | Ψ | | <u> </u> | | | | Y | 4 | | |
| Relinquished b | y: (Sampler's Signature) | | 2/1/09 | Time 1700 | Relinquished by: | Dal | te | Time | - | To be c | - | | _ | | erson/ | nel: | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | 🤼 Dat | te · | Time | | Sample Custod | | _ | | | | | | ☐ Client will pick up |
| The delivery | of samples and the signatu | re on this | chain of cu: | stody form | Retinquished by: | Dat | te . | Time | | All sam | | | - | | Yes (| ⊒ No | | ☐ Return to client ⁻¹ |
| constitutes a | thorization to perform the discontinuous conditions set forth on the | analyses: | specified ab | ove under | Received for Laboratory by: | Dai 6 | 2/19 | Time 9:2 | | II Cour | ier 🗆 l | | | "⊡н | and c | arried | | ☐ Lab disposal fee \$5 |
| Laboratory I | Notes: | | | | | · | | | | | | | | | | | | Sample Locator No. |
| | · . | | | | | | | | | · | | | | | | ; | | D-1 |

3950 F. Minan Street. A NALYTICAL, Jone Beach, 98815 Gelephone (310) 498 8015 (300) 624 5744 Fax: (310) 59 20786

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CHAIN-OF-CUSTODY RECORD

PROJECT NO:

DATE 6/1/99 PAGE 4 OF 4

| PROJECT NAME | 1400 | 4,5 | ' Matte | or + Footbill | -[| | | | | MET | HODS | | | | · · · | | ш | ည္သ | SPECIAL HANDLING |
|-------------------------------|---------------------|-------------|---------|-------------------|------|----------|------------|----------|--|----------|--------------|--|--|----------------|----------|----------|----------------|------------|-------------------------|
| ADDRESSSAMPLER'S SIGNATUR | | | | | | | | | | : | 7 | | | | | | CONTAINER TYPE | CONTAINERS | : |
| PRINTED NAMECLIENT PROJECT NO | <u>ئر سے ج</u> ت | 75 - | Severs | 2 <i>(</i> / | — Ş | 5 | ESEL | | | $Q \mid$ | 133 | 156.5 | 1 | | | × | | Š | |
| PROJECT MANAGER_ | F | me | Poss | | _ 0 |) - | | <u> </u> | 418.1 | 8260 | otal | 40 | ولا | | | MATRIX | Ě | P. | |
| SAMPLE NO. | DA | TE | TIME | LOCATION | — P | Ľ. | Ħ, | 10 | 4 | W | 701 | 47 | 17.9 | | | Ž | ŏ | # | |
| | | | | , | _ 2 | 7 | V | | | V | X | X | | | | | | | |
| Hay 10-1.5 | 77 | 99 | 1250 | | + | \dashv | | | | | | | | | | ļ | | | |
| Hay 10 - 3.0 | | | 1255 | | | | 1 | No. | | | - | igwdapper | | | | | , | | |
| Hay 10 - 3.0 Hay 10 - 4.5 | | | 1300 | | | | \perp | | | 1 | | | - | | <u> </u> | | _ | | |
| Hay8-0.15 | . y | | 1410 | _ | | | _ | | | <u> </u> | - | | | <u> </u> | ļ | | | | |
| - 0.3 | | ٠ . | 1415 | 1 | | | | | | | | \coprod | $\langle \underline{\lambda} \rangle$ | | | | | | |
| - 0.9 | | | 1420 | | | | 3 | | | ي | | | | | | | | | |
| - 1.5 | | i, | 1425 | | | | | | | | \prod_{-} | | | | | | | | |
| - 3.0 | | | 1430 | , | | | 7 | | | | | | | | | | | | · |
| -4.5 | F. T | | 1435 | | | / | 1 | _ | <u> </u> | V | V | V | | | | | | | |
| 7.3 | Y | | 1775 | | | | _ | | | | | | 1- | | | - | | | |
| | V | | | | 1 | | \geq | | | <u> </u> | | | | | ATE | | | | |
| 1 RELINQUISHED BY | , | - | | 3 RELINQUISHED BY | İ | DA | TE | 5 F | ELING | UISH | ED BY | ' | | יין | ATE | | | | LE CONDITIONS |
| 8 | | | 41/ | <u> </u> | | | . } | CION | , ATURE | | | - | · | - | | 1 | CEIVE | | CE YES/NO YES/NO YES/NO |
| SIGNATURE SCHOOL BC | wer, | | 71/99 | SIGNATURE | | | - | , | _ | | | | | _ - | **** | | AIN OF | | ODT SEAL TEOMS |
| PRINTED NAME | 100 | | TIME | PRINTED NAME | | TII | ME | PRIN | ED NA | ME | _ | | | ' | IME |] | PR | OJE | CT COMMENTS |
| PSI | , | | 1700 | COMPANY | | | | СОМ | ANY | | | | | \neg | | | | | |
| COMPANI | | | | | | | | | | | | | | | ATE | ł | | | |
| 2 RECEIVED BY | | | DATE | 4 RECEIVED BY | | DA | TE | 6 F | RECEIV 1.10 | /EDB | YILAI | 3) | | -1.1 | 1 | Ì | | | |
| SIGNATURE | | | ┨. ┃ | SIGNATURE | | | S , | SION | | T- | ~ | <u>.</u> | | - 1 <i>d</i> 2 | lf19 | | | | |
| PRINTED NAME | | | TIME | PRINTED NAME | | TI | ME | PRIN | LED NV | ME | سکت | 1 | • | + | IME | 1 | | į į | · |
| PHINIED NAME | | | | | | , ,, | | | <u>, fr</u> | UM | Ane | طهلة | ion | <u>-</u> a | 20 | | | | 1 1 1 |
| COMPANY | | | 1 | COMPANY | | | | СОМІ | 'ANY | | | Į. | | ' | | 10 | باليا | ., < | destict_ |



Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY . CHEMICAL AND BIOLOGICAL ANALYSES

Client:

1320 W. Winton Ave.

Hayward, CA 94545

Date Sampled:

06/02/99

Date Received: 06/03/99

Job Number:

Project: Caltrans: Mattox & Foothill

CASE NARRATIVE

The following information applies to samples which were received on 06/03/99:

The samples were received at the laboratory chilled and sample containers were intact.

This report is an addendum to Centrum Job #14988 and contains data not included in the original report. The results reported previously have not been changed. The date of issue for this addendum is 08/04/99,

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

Report/approved by:

Laboratory Director

ELAP # 1184

DL: Detection Limit - The lowest level at which the compound can reliably be detected under normal laboratory conditions.

ND: Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.

NA: Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.



STLC Lead By ICP

Client: PS

Project: Caltrans: Mattox & Foothill

Job No.: 14988B

Matrix: STLC Leachate*

Analyst: RLE

Date Sampled:

06/02/99

Date Received: 06/03/99

Date Extracted: 07/30/99 Date Analyzed: 08/02/99

Date Analyzed: 08/02/99
Batch Number: 6010W1280

Method Number: 6010

| | Detection Limit | Lead |
|--------------|-----------------|------|
| Sample ID | mg/L | mg/L |
| Method Blank | 2.5 | , ND |
| Hay6-0.90 | 2.5 | 3.0 |
| Hay5-0.30 | 2.5 | 2.8 |
| Hay5-0.90 | 2.5 | 2.8 |
| Hay5-1.5 | 2.5 | ND |
| | | |
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| | | |

^{*} Sample was prepared by CAC Title 22 Method 66700 (STLC).

QC Sample Report - Metals

Matrix: Water Batch #: 6010W1280

Batch Accuracy Results

| Compound | Spike Concentration mg/L % Recovery LCS Acceptance Limits % Recovery |
|----------|--|
| Lead | 1.0 98.5 75 - 125 Pass |

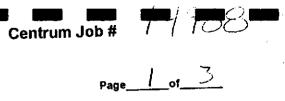
| Analytical Notes: |
|-------------------|
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| |

Batch Precision Results

| MS/MSD Sample ID: Initial | Calibration | n Verificat | tion Star | ndard | · · · |
|---------------------------|-------------------------------|----------------------------------|--------------------------------------|----------------------------|-----------|
| Compound | Spike Sample Recovery mg/L | Spike Duplicate Recovery mg/L | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
| Lead | 0.985 | 1.034 | 5% | 20% | Pass |

| · · | - |
|--------------------------|------|
| MS: Matrix Spike Sample | |
| | |
| MSD: Matrix Spike Duplic | cate |

| Analytical | Notes: | |
|------------|--------|------|
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Centrum Analytical Laboratories, Inc.

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| | 1 | | | | | | | | | | Ana | lyses | Rec | uest | ed | | - | | 1 1 | |
|---------------|--|--|---|------------|---|---------------------------|---------------|---|--------------------|----------------------|--------------|------------------|---|--|------------------|--------------------------------|-------------------|-------------------|----------|--|
| | E Post | | / (/ 1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 795- | 14 - 40x - 1 2 41.11 Fax: 1111 (510) 785- | 119 Z | 242 0010 2242 | 8080: Pesticides PCBs Pest/PCB | Fuffrettilla, | e sourcements | | 6270 625 | DAM) PP RCRA | | Conductivity COD | Flashpoint Fluoride Hex Chrome | (6010) Lead | 166 | | Turn-around time 24 Hr. RUSH* 48 Hr. RUSH* Normal TAT *Requires prior approval. additional charges apply |
| (Company) | Sample ID (As it should appear on report) | Date sample | Time | Sample | Site location | Containers: # and type | GCMS: 8260-6 | 8080; Pesticide | 8015M: Diesel | 8015M: Gasoline Jozo | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) | Lead Only | PH TDS TSS | Flashpoint Fit | Total 1 | | | Remarks/ Special Instructions |
| | Hay 6-31- | 6/;/; | 915 | 5 | | : | X | | X | X | | _ | _ | | | | X | X | | |
| | 7),7) | | 900 | | 1. | | \prod | - | H | H | - | ╁ | - | - | - | <u> </u> | H | ╁ | | |
| | -0.1. | | 725 | | | | ╢ | +- | ╫ | ╁╂ | - | +- | \vdash | | + | ╁ | $\dagger \dagger$ | $\dagger \dagger$ | 52 | |
| | -, ; | - | 5 30 | | | | ╁ | + | H | +1 | ╁┈ | - | + | - | + | - | $\dagger \dagger$ | H | - | |
| | <u> </u> | | 9.75 | - | | 6 h | H | - | + | +1 | +- | - | ╁╌ | ╀ | \dagger | - | 11 | $\dagger \dagger$ | | , |
| | 705 | | 940 | | | | ┼╂ | - | ╂ | +† | 十 | | - | | 1- | + | | 1 | | |
| | 1/ | $\vdash \vdash$ | 1 | | | | | - | # | 11 | - | 1 | - | T | 十 | 1 | \prod | | X | |
| | | + | 1020 | | | | 1 | † | | 1 | | | | | | | | | X | <u> </u> |
| 11 | | + / | 1030 | 1 1 | | <u> </u> | V | <u> </u> | V | V | | | | | | ┸ | 1 | / 1 | X | <u> </u> |
| Relinquished | by: (Sampler's Signature) | 1 7 | Date. | Time | Relinquished by: | | Dat | te | Tin | . en | T | o be c | ompie | ted by | labo | ratory | perso | nnel: | | Sample Disposal |
| Received by: | According to the Control of the Cont | | Date | / Zoo | Received by: | | Dai | te | TIn | ne | | emple: ustody | | - | | | | | | ☐ Client will pick up |
| | | | | stody form | Relinquished by: | | Da | te | . Tin | rie . | _ | Ji sam | | | | | | ΠN | 0 | ☐ Return to client |
| constitutes a | of samples and the signal authorization to perform the and Conditions set forth on | e analyse | s specified at | ooye unge | Deschard for Laboratory MC | | Da | | - π _r | | | Cour | | | | | | | ed | Lab disposal fee \$5 |
| Laboratory | | | _ —— | × • | May deline Co | Too gt | <u> </u> | <u>, , , , , , , , , , , , , , , , , , , </u> | , i o | | <u></u> / | _ 1964 _ 1 00 | <u>- 1 </u> | . , | | ′. | | <u> </u> | | Sample Locator No. |

Centrum Job # / L/ / Page Z of 3

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| | | | | | | | | | | | Ana | lyses | Rec | uest | ed | | | | | T |
|---|---|-----------------|-----------------------------|------------------|------------------|---------------------------|-----------------------|--|-----------------------------------|-----------------------|--|----------------|--------------------|-----------------------|----------------------------------|--------------------------------|------------|---------|----------|--|
| Project No.: | 575-960 | 534 | Project N | ame: | | | 3 | 8 | . | 1 | | | 5 | | S | 9 | 10/0 | | } | Turn-around time |
| Project Man | nager: | | Phone: | | Fax: | | 9010 524? | • Pest/PCB | Arrest I | | PP RCPA Hex Chrom | | | 3 | ☐ 24 Hr. RUSH* ☐ 48 Hr. RUSH* | | | | | |
| Client Name (Company) | | | Address: | | | | 98 | des PCBs | 100 | | | 6270 | | | S Condu | Nortde 1 | 7 | 1 | 1 | Normal TAT Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site location | Containers: # and type | GCMS: 8260 | 8080: Pesticides | 8015M: Diesel-Fuel Screen | 8015M: Gasoline_3020- | 418.1 (TRPH) | Semivolatiles: | Metals: TTLC(CAM) | Lead Only | pH TDS TSS Conductivity COD | Flashpoint Fluoride Hex Chrome | 1047 | 740 | | Remarks/ Special Instructions |
| ¿// | Hay 5- 3.0 | 1/:/1 | 1040 | | | | X | | X | X | | | | | | | X | X | | |
| ```` | =4,5 | 1 | | | | | | | 1 | # | | | - | | | | | | <u> </u> | |
| 12 | 11-1-0.15 | | 1045 | | | | | <u> </u> | | \coprod | <u> </u> | | | | | | | \prod | _ | |
| | - 6.7 | | 150 | | | | _ | | - | | <u> </u> | | | | | | | | <u> </u> | |
| 14 | - 0.9 | | 1655 | | . ; | 18 | 1 | _ | ₩ | | | | | | | | - | - | | |
| <i>'</i> ; | 1.5 | - | 1160 | | | | V | | V | V | <u> </u> | | | | | | V | V | | |
| | 7 - 30 | 4 | | // | | | | | | | | | | | | | | - | | |
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| 14 | 4., 2 - 0.15 - 0.3 | | 1110 | | | | $\stackrel{()}{\sim}$ | - | X | X | | 19- | | | | | X | X | | : |
| | y: (Sampler's Signature) | Ψ | | Time / 700 | Relinquished by: | | Date | <u>. </u> | Пте | | Tot | e con | npiete | d by la | borat | ory p | erson | nel: | ·I | Sample Disposal |
| Received by: | | . , | | Time | Received by: | | Date | | Time | | Samples chilled? If Yes I No Custody seals? I Yes I No | | | ☐ Client will pick up | | | | | | |
| The delivery of samples and the signature on this chain of custody form | | | | | Date Time | | | All sample containers intact? | | | | | ☐ Return to client | | | | | | | |
| constitutes authorization to perform the analyses specified above under the Terms and Conditions set forth on the back hereof. | | | Received for Laboratory by: | | | Date Time | | | Courier DUPS/Fed Ex DHand carried | | | | | ! | ☐ Lab disposal fee \$5 | | | | | |
| aboratory N | lotes: | | | | | • | | | | | | | | | | | | | | Sample Locator No. |
| ; | | | | | | | | | | | | | | | | | | | | D-2 |

Centrum Job # 74788

290 TENNESSEE STREET REDLANDS, CA 92373

(909) 798-9336 • (800) 798-9336 FAX (909) 793-1559

| | | | | | | | | | | | Ana | lyses | Req | uest | ed | | · | | | |
|------------------------------|--|-----------------|---------------------------------------|------------------|-----------------------------|---------------------------|------------|-----------------------|---------------|-----------------|-----------------------------------|-------------------------|----------------------|-------------------------|--------------------------|--------------------------------|--------------|---------|--------------|---|
| Project No.: | 7-9607 | 4 | Project N | ame: | | | e de | Pest/PCB | | k) | | | RCRA | - | | тотне | (6610) | | 7 7 | Turn-around time |
| Project Man | ager: | | Phone: | | Fax: | | | Bs Pes | Į. | Ĭ | | 625 | PP RC | ٠. | uctivity | ξ ¥ | 100 |](= | 3 | ☐ 24 Hr. RUSH* ☐ 48 Hr. RUSH* |
| Client Name (Company) | PI | | Address: | | | | * | ides PCI | 3 | ofine 35 | - | s: 8270 | C(CAM) | | TDS TSS Conductivity COD | Fluoride | / | j | | □ Normal TAT *Requires prior approval, additional charges apply |
| Centrum ID (Lab use only) | Sample ID (As it should appear on report) | Date sampled | Time sampled | Sample matrix | Site location | Containers: # and type | GCMS: 8260 | 8080: Pesticides PCBs | 8015M: Diesel | 8015M: Gasoline | 418.1 (TRPH) | Semivolatiles: 8270 625 | Metals: TTLC(CAM) PP | VinO bead | PH TOS TS | Flashpoint Fluoride Hex Chrome | Tut | 7 | | Remarks/ Special Instructions |
| / | H-142-09 | 6/2/10 | 1115 | S | | | X | | X | X | | | ٠ | | | | X | | \$ | |
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| | 20-3 | | 1764 | | | - | $oxed{+}$ | <u> </u> | | | | | | • | | · | H | # | - | |
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| -5 | 11477-3.6 | <u> </u> | 11:25 | 3 | | - / | V | | | 7 | | | | | | | 1 | • | | |
| <u> </u> | | | | H | | | | | | | | | | _ | | | | / | $ar{\Box}$ | |
| Relinguished b | y: (Sampler's Signature) | | Date 2/49 | Time 1700 | Relinquished by: | , | Date | <u> </u> | Time | | . To t | e con | rplete | d by le | aborat | tory p | erson | nel: | | Sample Disposal |
| Received by: | | | Date | Time | Received by: | | Date | | Time | | l | | | - | Yes [| | | | | Client will pick up |
| The delivery | of samples and the signatu | ire on this | hain of cus | tody form | Relinquished by: | · . | Date | ` | Time | | 1 . | | | | intaci | | Yes | □ No | • | ☐ Return to client |
| | thorization to perform the did Conditions set forth on the | - | - | ove under | Received for Laboratory by: | 1.69 | Date // | F, | Time | k;* | Courier DUPS/Fed Ex DHand carried | | | () Lab disposel fee \$5 | | | | | | |
| Laboratory I | Votes: | | | | | | | | | | | | | | | | | | | Sample Locator No. |
| | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | i | Y | | | 7.1 | , , | 6 | 11 - 2 | · ~Z, | Т | | | | | | レーム |



Centrum Analytical Laboratories, Inc.

CERTIFIED HAZARDOUS WASTE TESTING LABORATORY . CHEMICAL AND BIOLOGICAL ANALYSES

Client:

PSI

1320 W. Winton Ave. Hayward, CA 94545

Date Sampled:

06/02/99

Date Received: Job Number:

.06/03/99 14988B

Project: Caltrans: Mattox & Foothill

CASE NARRATIVE

The following information applies to samples which were received on 06/03/99:

The samples were received at the laboratory chilled and sample containers were intact.

This report is being re-issued at the request of our client. There have been no changes in the results as previously reported. The date of re-issue is 08/17/99.

Unless otherwise noted below, the Quality Control acceptance criteria were met for all samples for every analysis requested.

Report approved by:

Robert R. Clark, Ph.D.

Laboratory Director

ELAP # 1184

DL: Detection Limit -- The lowest level at which the compound can reliably be detected under normal laboratory conditions.

ND: Not Detected -- The compound was analyzed for but was not found to be present at or above the detection limit.

NA: Not Analyzed -- Per client request, this analyte was not on the list of compounds to be analyzed for.



STLC Lead By ICP

Client: PSI

Project: Caltrans: Mattox & Foothill

Job No.: 14988B

Matrix: STLC Leachate*

Analyst: RLE

Date Sampled: 06/02/99
Date Received: 06/03/99
Date Extracted: 07/30/99
Date Analyzed: 08/02/99
Batch Number: 6010W1280

Method Number: 6010

| | Detection Limit | | Lead |
|--------------|-----------------|----|------|
| Sample ID | mg/L | Ĉ. | mg/L |
| Method Blank | 2.5 | | ND |
| Hay6-0.90 | 2.5 | | 3.0 |
| Hay5-0.30 | 2.5 | | 2.8 |
| Hay5-0.90 | 2.5 | | 2.8 |
| Hay5-1.5 | 2.5 | | ND |
| | | | |
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^{*} Sample was prepared by CAC Title 22 Method 66700 (STLC).

QC Sample Report - Metals

Matrix: Water

Batch #: 6010W1280

Batch Accuracy Results

| Sample ID: Initial Calibration | n Verification | on Standa | ırd | |
|--------------------------------|-----------------------------|--------------|-----------------------------|----------|
| | Spike Concentration mg/L | Recovery LCS | ceptance Limits Recovery | ss/Fail |
| Compound | Spik mg/l | 8 | & | <u> </u> |
| Lead | 1.0 | 98.5 | 75 - 125 |) Pass |

| Analytical Notes: | |
|-------------------|---|
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Batch Precision Results

MS/MSD Sample ID: Initial Calibration Verification Standard

| Compound | Spike Sample Recovery mg/L | Spike Duplicate Recovery mg/L | Relative Percent Difference (RPD) | Upper Control Limit RPD | Pass/Fail |
|----------|-------------------------------|----------------------------------|--------------------------------------|----------------------------|-----------|
| Lead | 0.985 | 1.034 | 5% | 20% | Pass |

| | Analytica | al Note | es: | | |
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MS: Matrix Spike Sample MSD: Matrix Spike Duplicate