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September 8, 2009

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Former Signal Oil Bulk Plant
(Chevron Facility 20-6127)
2301-2311 Blanding Avenue
Alameda, California
LOP Case RO0002466

Dear Mr. Wickham:

The purpose of this letter is to verify that as a representative for Chevron Environmental Management Company (Chevron), I reviewed, and concur with, the comments in the *Well Installation and Sub-Slab Vapor Sampling Report* for the referenced facility, prepared on behalf of Chevron by Conestoga-Rovers & Associates.

Please feel free to contact me at (714) 671-3207 if you have any questions.

Sincerely,

Mike Bauer
Project Manager

CONESTOGA-ROVERS & ASSOCIATES

10969 Trade Center Drive, Suite 107
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
www.CRAworld.com

TRANSMITTAL

DATE: 9-8-09

REFERENCE NO.: 631916

PROJECT NAME: 20-6127

TO: Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502--6577

Please find enclosed:

- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:

- ☒ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other Electronic Upload

QUANTITY	DESCRIPTION
1	Well Installation and Sub Slab Vapor Sampling Report

- ☒ As Requested
- ☐ For Your Use
- ☐ For Review and Comment
- ☐
- ☐

COMMENTS:

Copy to: Mr. Mike Bauer *(electronic)*
Ms. Julie Beck Ball
Mr. Peter Reinhold Beck
Mr. Monroe Wingate
Mr. Tom Foley

Completed by: J Tomko
[Please Print]

Signed:

Filing: **Correspondence File**

WELL INSTALLATION AND SUB-SLAB VAPOR SAMPLING REPORT

FORMER SIGNAL OIL BULK PLANT
(CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Prepared For:

Mr. Jerry Wickham
Alameda County Health Care Services Agency
Environmental Health Services

Prepared by:
Conestoga-Rovers & Associates

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SEPTEMBER 2009
REF. NO. 631916 (6)

WELL INSTALLATION AND SUB-SLAB VAPOR SAMPLING REPORT

FORMER SIGNAL OIL BULK PLANT
(CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Brian Silva

Greg Barclay, PG 6260

PROFESSIONAL GEOLOGIST
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SEPTEMBER 2009
REF. NO. 631916 (6)

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Well Installation and Sub-Slab Vapor Sampling Report* on behalf of Chevron Environmental Management Company (Chevron) for the former Signal Oil Bulk Plant (Chevron facility 20-6127) located at 2301-2311 Blanding Avenue, in Alameda, California. The work was performed in accordance with Alameda County Health Care Services Agency, Environmental Health Services (ACEH) letters dated November 10, 2008, April 2, 2009 and June 19, 2009 (Appendix A).

The purpose of the work was to further evaluate groundwater quality and sub-slab soil vapor conditions beneath the site. The work was performed in general accordance with CRA's Work Plan for *Additional Site Investigation*, dated March 11, 2009, and *Addendum to Work Plan for Additional Site Investigation*, dated May 28, 2009, including the provisions outlined in ACEH's June 19, 2009 letter in which the work plan was approved. This report includes the results of the soil and soil vapor analyses as well as a summary of the site background, previous environmental work, well and sub-slab vapor point installations, and conclusions and recommendations. Initial monitoring and sampling of the newly installed wells and ongoing monitoring and sampling of well MW-1 will be performed during the third quarter of this year and summarized in the associated third quarter 2009 groundwater monitoring report.

2.0 SITE BACKGROUND

The following sections provide a description of the site and a summary of the geologic and hydrogeologic setting at the site.

2.1 SITE DESCRIPTION

The approximately 3.5-acre site is located on the northeast side of Blanding Avenue between Oak and Park Streets in Alameda, California (Figure 1). Land use in the site vicinity is primarily commercial and industrial. The Alameda Canal and a marina are located adjacent to the north-northeast side of the site. The site is currently occupied by three large commercial buildings which are used as an office and retail center identified as Park Street Landing at 2307-2337 Blanding Avenue.

A Sanborn map dated 1897 showed the site as occupied by several residential structures and outbuildings; the southeast portion of the site was shown as occupied by a laundry facility and a blacksmith. From at least 1930 until approximately 1961, the northwestern portion of the site was occupied by a petroleum bulk plant operated by Signal Oil & Gas Company. Former bulk plant facilities consisted of one large and seven smaller gasoline aboveground storage tanks (ASTs) within concrete secondary containment, underground piping, an office building, a loading rack, and a small structure containing gasoline pumps (Figure 2). On Sanborn maps dated between 1932 and 1950, the northeast portion of the facility was shown as occupied by a structure identified as an auto garage and also used for paint storage. A rail spur was shown to service the facilities on Blanding Avenue. The central portion of the site was shown as occupied by two structures identified as wholesale tires and a can warehouse. An additional larger structure was shown in the central portion of the site that was identified as vacant on the 1948 Sanborn map and as a ladder factory on the 1950 Sanborn map. Several structures appeared present in the southeast portion of the site in the 1939 aerial photograph. However, only one or two small sheds were shown in this area on the 1948 and 1950 Sanborn maps. In the 1958 aerial photograph, the ladder factory structure no longer appeared present and the southeast portion of the site appeared vacant and used for parking. Between 1957 and 1963, the buildings at the site were reportedly removed; it is assumed that the ASTs and piping were also removed at this time. In the 1965 aerial photograph, all the bulk plant facilities appear to have been removed and the majority of the site appears occupied by a construction materials yard with several small structures. Several additional structures also appear present in the southeast portion of the site. From 1973 to 1983, the northwestern portion of the site reportedly was used as a construction yard and for boat repair activities; and the southeastern portion was

occupied by a restaurant, paved parking area, and a possible automobile sales lot. In 1987, the site was redeveloped with the current configuration.

2.2 SITE GEOLOGY AND HYDROGEOLOGY

Based on past investigation, the soils encountered beneath the site generally consist of silty sand and clayey sand from just beneath grade to approximately 5 to 9 feet below grade (fbg). Fill consisting of black sand and debris, including concrete fragments, has been reported in several borings at shallow depths. A 4- to 5-foot-thick layer of clay with some sand underlies the silty sand and clayey sand. Below the clay is silty sand and sandy silt to the maximum depth of explored of approximately 20.5 fbg. Groundwater is typically encountered in site borings at approximately 14.5 to 15 fbg within the silty sand and sandy silt and subsequently rises in the borings/wells to approximately 7 fbg to 10 fbg.

2.3 PREVIOUS ENVIRONMENTAL WORK

Previously, one groundwater monitoring well and six vapor wells had been installed at the site. Additionally, 28 soil borings have been advanced and 3 surface soil samples have been collected at the site. Quarterly monitoring and sampling of well MW-1 and surface water sampling from Alameda Canal (CS-2) initiated in 2001 is ongoing. A summary of previous environmental work performed at the site is presented in Appendix B.

3.0 WELL INSTALLATION ACTIVITIES

To further evaluate groundwater quality beneath the site, CRA oversaw the installation of four wells (MW-2 through MW-5). A fifth well originally proposed in the vicinity of boring GWS-9 was not installed due to refusal associated with buried debris. CRA made four separate attempts to advance the fifth well but buried debris and concrete were encountered at each of the locations at approximately 3 to 4 fbg. Monitoring well locations are shown on Figure 2.

3.1 SITE HEALTH AND SAFETY PLAN

CRA created a comprehensive site health and safety plan to protect site workers. The plan was reviewed and signed by all site workers and visitors and kept onsite at all times.

3.2 PERMITS AND UNDERGROUND UTILITY LOCATION

CRA conducted work under Alameda County Public Works Agency well permits W2009-0580 through W2009-0584 for wells MW-2 through MW-5. Copies of the permits are included in Appendix C.

Prior to drilling, CRA contacted Underground Service Alert to notify utility providers of the proposed work and to identify the locations of subsurface utilities. On June 10, 2009 a private utility locator, JR Associates of San Jose, California, surveyed the site to confirm that the boring locations were free of unknown underground utilities. Additionally, each boring location was cleared to approximately 8 fbg using air-knifing equipment and/or a hand auger.

3.3 WELL INSTALLATION

On June 18 through 23, 2009, CRA oversaw Gregg Drilling of Martinez, California as they drilled and installed wells MW-2 through MW-5 to total depths of 16 fbg to 20.5 fbg (Figure 2). The first 8 feet of soils at each location were air-knifed and/or hand-augered and the soil cuttings were logged. Below 8 fbg, the borings were advanced using a direct-push Rhino M5T Track combination rig and continuously logged.

A 2-inch schedule 40 polyvinyl chloride (PVC) casing with 5 feet of 0.020-inch machine-slotted screen was installed in each boring. A filter pack consisting of 2/12 sand extends from the bottom of the boring to 1 foot above the well screen interval. A 2-foot thick bentonite seal was placed above the filter pack. Neat cement was placed above the bentonite seal to the surface. Each wellhead was sealed with a locking cap and contained in a traffic-rated, water-tight well box. Boring logs and well construction details for wells MW-2 through MW-5 are included in Appendix D. Well construction details are summarized in Table 1.

3.4 WELL DEVELOPMENT AND SURVEYING

On June 30, 2009, Gettler-Ryan of Dublin, California developed wells MW-2 through MW-5. A maximum of 10 casing volumes were purged from each of the wells using a bailer and/or a stack pump. Water quality parameter readings (pH, temperature, and conductivity) were collected periodically and recorded on the field data sheets (Appendix E).

On July 30, 2009, Morrow Surveying of West Sacramento, California (a California state-licensed surveyor) surveyed wells MW-1 through MW-5. The top of casing elevation of each well was surveyed to mean sea level datum. Horizontal well coordinates were measured in compliance with AB2886 (GeoTracker), and uploaded into the GeoTracker Internet database.

3.5 SOIL SAMPLING AND LABORATORY ANALYSIS

Unsaturated soil samples which had photoionization detector (PID) readings of greater than 100 parts per million by volume, or those in which evidence of contamination was observed were retained for laboratory analysis. Soil samples for laboratory analysis were collected at depths ranging from 4 fbg (MW-3) to 15 fbg (MW-4). Soil samples collected for laboratory analysis at depths shallower than 8 fbg were collected by driving a brass tube into disturbed sediments removed from the boreholes. The soil samples collected for laboratory analysis at depths greater than 8 fbg were collected in an acetate liner using the direct-push equipment. All samples were capped using Teflon tape and plastic end caps, labeled, placed in an ice-chilled cooler, and transported under chain of custody to Lancaster Laboratories, Inc. in Lancaster, Pennsylvania for the following analyses:

- Total petroleum hydrocarbons as diesel (TPHd) with silica gel cleanup by EPA Method 8015M
- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M
- Benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260
- Methyl tertiary butyl ether (MTBE) by EPA Method 8260

3.6 SOILS ENCOUNTERED

The soils encountered beneath the site during this investigation are generally consistent with soils encountered during previous investigations at the site. Beneath the fill, an approximate 3- to 8-foot thick clay to sandy silt is encountered. Underlying the clay to sandy silt is a wet sand and silty sand encountered at depths of approximately 11.5 to 14 fbg in the borings for wells MW-2 through MW-5. After well installation, groundwater rose to depths of approximately 4 to 7 fbg. Geologic cross-sections are shown on Figures 3 and 4.

3.7 INVESTIGATION-DERIVED WASTE

Soil cuttings and decontamination/purge water were temporarily stored onsite in 55-gallon steel drums pending transport and disposal. The soil cuttings were transported to Republic Services Vasco Road Landfill in Livermore, California, for disposal and the decontamination/purge water was transported to the Chemical Waste Management Facility in Kettleman City, California, for disposal.

4.0 SUB-SLAB VAPOR POINT INSTALLATION ACTIVITIES

To further evaluate potential vapor intrusion beneath the two western buildings at the site, CRA installed five sub-slab vapor points (VP-9 through VP-13) inside 2307 Blanding Avenue and two sub-slab vapor points (VP-7 and VP-8) inside 2317 Blanding Avenue (Figure 2).

4.1 SITE HEALTH AND SAFETY PLAN

Please refer to Section 3.1.

4.2 PERMITS AND UNDERGROUND UTILITY LOCATION

CRA conducted work under Alameda County Public Works Agency well permit W2009-0579 for sub-slab vapor points VP-7 through VP-13. A copy of the permit is included in Appendix C.

Prior to drilling, CRA contacted Underground Service Alert to notify utility providers of the proposed work and to identify the locations of subsurface utilities. On July 17, 2009 a private utility locator, NorCal Geophysical (NorCal) of Cotati, California, surveyed the vapor point locations to confirm that they were free of unknown underground utilities. During utility clearing of the vapor point locations, NorCal experienced an equipment failure of their ground penetrating radar (GPR) unit. Therefore, NorCal was only able to clear three of the locations (VP-7, VP-8, and VP-11). NorCal returned to the site on July 22, 2009 and cleared the remaining vapor point locations (VP-9, VP-10, VP-12, and VP-13).

4.3 SUB-SLAB VAPOR POINT INSTALLATION

On July 17 and 22, 2009, CRA drilled and installed vapor points VP-7 through VP-13. A rotary hammer drill was used to create a 1-inch deep "outer" hole that partially penetrated the concrete slab. A small portable vacuum cleaner was used to remove cuttings from the hole. The rotary hammer drill was then used to create a smaller 5/16-inch diameter "inner" hole through the remainder of the concrete slab and into the substrate. The sub-slab vapor probes were constructed using stainless steel tubing and compression fittings to ensure that construction materials were not a potential source of volatile organic compounds (VOCs). The probes were set in the holes and completed

flush with the slab. Quick-drying "Fix-All" slurry was placed into the annular space between the probe and the edge of the "outer" hole and allowed to cure for a minimum of one week before sampling.

4.4 SUB-SLAB SAMPLING AND LABORATORY ANALYSIS

On July 30, 2009, CRA collected sub-slab vapor samples from VP-7 through VP-13 (Figure 2) using a flow meter set at 100 milliliters per minute and 1-liter Summa™ canisters connected to the sampling tubes. The Summa™ canister valves were opened using the vacuum of the canisters to draw the soil vapor through the flow controller until a negative pressure of approximately 5 inches of mercury (Hg) was observed on the vacuum gauge. Additionally, a field duplicate sample was collected from each of the buildings (2307 and 2317 Blanding Avenue). In accordance with the DTSC *Advisory-Active Soil Gas Investigations* guidance document, dated January 28, 2003, leak testing was performed during sampling using helium. Samples were transported, under chain-of-custody, to Air Toxics, LTD, a California certified laboratory in Folsom, CA for the following analyses:

- TPHg and VOCs by EPA Method TO-15
- Oxygen, carbon dioxide, methane, and helium (leak check compound) by ASTM Method D-1946

5.0 ANALYTICAL RESULTS

The following sections summarize the soil and sub-slab soil vapor results obtained during this investigation. Initial groundwater analytical results from wells MW-2 through MW-5 will be presented in the third quarter 2009 groundwater monitoring report. Laboratory analytical reports are included in Appendix F.

5.1 SOIL ANALYTICAL RESULTS

A total of nine soil samples were collected for laboratory analysis from the borings for wells MW-2 through MW-5. Analytical results for TPHd, TPHg, benzene, and MTBE are summarized below. Soil analytical data, including historical data, is also summarized in Table 2.

Total Petroleum Hydrocarbons as Diesel (TPHd)

- TPHd was not detected or was below the environmental screening level (ESL) of 180 milligrams per kilogram (mg/kg) for shallow soils (where groundwater is not a current or potential source of drinking water) in five of the nine samples collected.
- TPHd was detected above the ESL in four of the nine samples at concentrations ranging from 270 mg/kg (MW-5 at 14 fbg) to 610 mg/kg (MW-3 at 4 fbg).
- TPHd concentrations in soil generally decrease with depth across the site.

Total Petroleum Hydrocarbons as Gasoline (TPHg)

- TPHg was not detected or was below the ESL (180 mg/kg) in five of the nine soil samples.
- TPHg was detected above the ESL in four of the nine samples at concentrations raging from 520 mg/kg (MW5 at 7 fbg) to 1,100 mg/kg (MW-2 at 4.5 fbg).
- TPHg concentrations generally decrease with depth across the site.

Benzene

- Benzene was only detected above the ESL (0.27 mg/kg) in two soil samples from 4 and 6 fbg in MW-3 at concentrations of 0.64 mg/kg and 0.39 mg/kg, respectively.
- Benzene concentrations generally decrease with depth across the site.

Methyl Butyl Tertiary Ether (MTBE)

- Consistent with historical data, MTBE was not detected in any of the soil samples.

5.2 SUB-SLAB SOIL VAPOR ANALYTICAL RESULTS

Soil vapor samples were collected from each of the newly installed vapor points VP-7 through VP-13. Additionally, duplicate samples were collected from VP-8 and VP-12 for quality assurance/quality control purposes. Analytical results for TPHg, benzene, and helium (leak check compound) are summarized below. Soil vapor analytical data, including historical data, is also summarized in Table 3.

Total Petroleum Hydrocarbons as Gasoline (TPHg)

- No TPHg was detected in the vapor sample from VP-7.
- TPHg was detected at concentrations ranging from 190 micrograms per cubic meter ($\mu g/m^3$) in VP-12 to 8,600 $\mu g/m^3$ in VP-13, which are all below the shallow soil gas ESL of 29,000 $\mu g/m^3$.

Benzene

- No benzene was detected in the vapor samples from VP-7 and VP-9 through VP-13.
- Although benzene was not detected in the vapor sample from VP-8 originally, benzene was detected in the duplicate sample from VP-8 at a concentration of 7 $\mu g/m^3$, which is well below the shallow soil vapor ESL of 280 $\mu g/m^3$.

Helium

- No helium was detected in the vapor samples from VP-7 and VP-8.
- Helium was detected in vapor samples from VP-9 through VP-13 at 0.43 percent (VP-12) to 29 percent (VP-9) indicating that there were leaks of ambient air into the sampling apparatus in five of the seven vapor point locations.

In addition to the target compounds listed above, several non-target VOCs (e.g. trichloroethylene [TCE] and tetrachloroethylene [PCE]) were detected (Appendix F). However, these detections were all below ESLs and are unlikely to be attributed to historical bulk plant operations at the site.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Results of the laboratory analyses of soil samples collected during this investigation are generally consistent with past site soil analytical data. Currently known site historical information indicates that the bulk plant operations ceased in approximately 1961, almost 50 years ago. Relatively low concentrations of residual petroleum hydrocarbons (TPHd and TPHg) with trace concentrations of BTEX are consistent with an old release that is degrading over time. A general decline in hydrocarbon concentrations in soil with depth also suggests that the residual hydrocarbon mass remaining in soil is limited vertically.

Additionally, there appears to be no human health risk associated with inhalation of vapor resulting from vapor intrusion into the buildings at 2307 and 2317 Blanding Avenue. This is also consistent with an old degraded release and supported by the following results of the sub-slab vapor sampling:

- No detected soil vapor concentration in sub-slab vapor samples from VP-7 through VP-13 installed within both buildings (2307 and 2317 Blanding Avenue) are above commercial ESLs for shallow soil gas, and in fact, all were at least one order of magnitude lower than the associated ESL.
- No benzene was detected in any of the sub-slab samples (VP-9 through VP-13) collected within 2307 Blanding Avenue, and any detected concentrations (primarily TPHg) were significantly below ESLs.
- No petroleum hydrocarbon compounds were detected in the vapor samples from VP-7 or VP-8, collected within 2317 Blanding Avenue, with the exception of 490 $\mu g/m^3$ TPHg in VP-8. Hydrocarbons were reported in the duplicate vapor sample collected from VP-8, including 7 $\mu g/m^3$ benzene, but all were still significantly below ESLs.
- It should be noted that five sub-slab vapor samples (VP-9 through VP-13) collected within 2307 Blanding Avenue had detections of helium ranging from 0.43 percent to 29 percent indicating that there were leaks of ambient air into the sampling apparatus.

Although VP-12 had a very low detection of helium (0.43 percent), the results from this vapor point are considered representative of soil vapor conditions in this area. Because no benzene was detected in the soil vapor sample and TPHg was detected far below the ESL, there appears to be no risk to human health associated to vapor intrusion in this area. Additionally, sub-slab vapor sample VP-12 is the closest vapor point to vapor well VP-4, which historically had the highest reported benzene vapor concentration onsite.

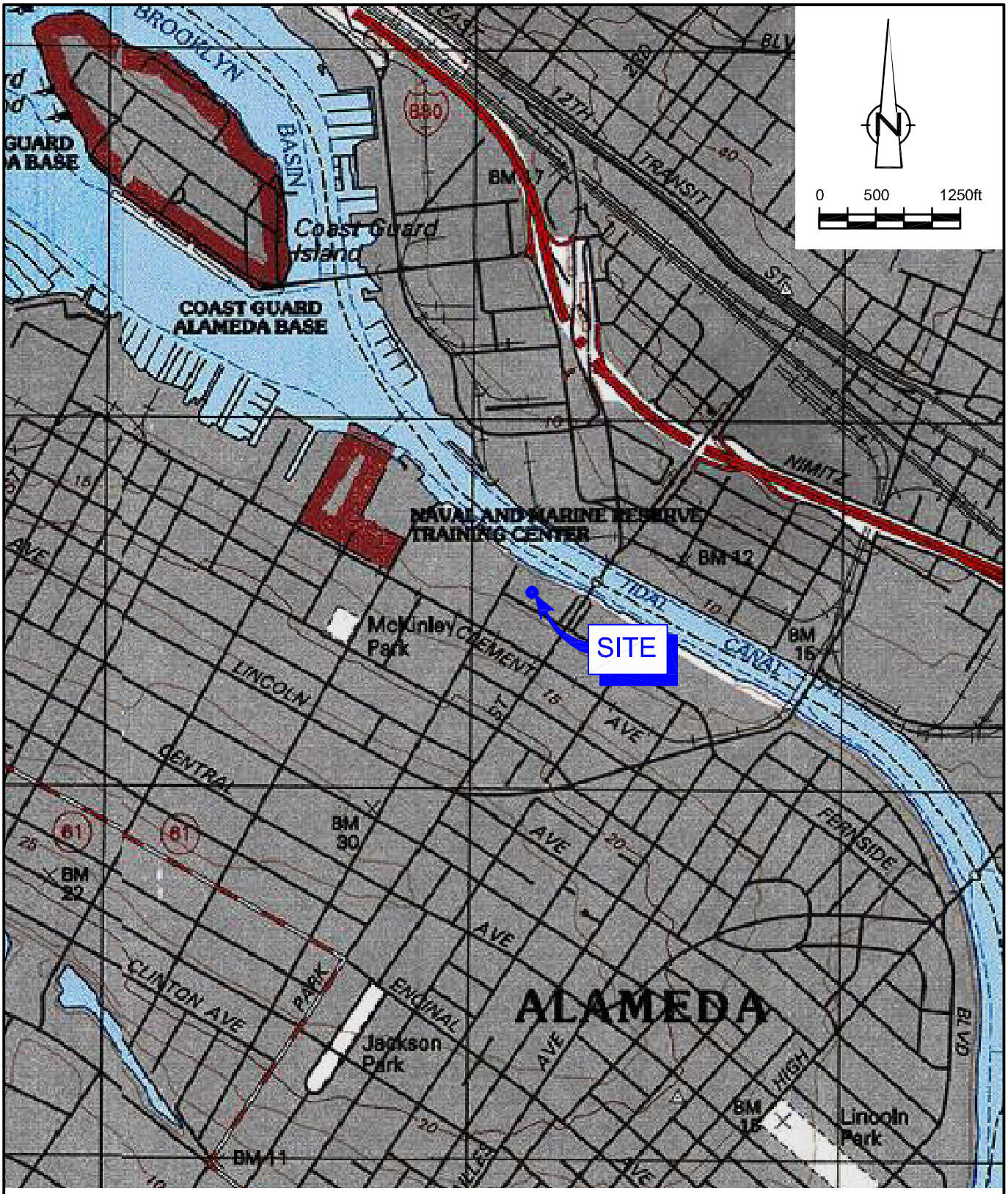
Assuming the results from VP-12 are more representative of vapor concentrations in this area, this suggests that the results from vapor well VP-4 are anomalous.

Overall, the vapor analytical results from the sub-slab vapor points (VP-7 through VP-13) are not consistent with previous August 2008 vapor results associated with vapor wells VP-1 through VP-6. The hydrocarbon vapor concentrations reported previously in vapor wells VP-1 through VP-6 are exceptionally high when compared to the recent sub-slab data and hydrocarbon concentrations reported in site soil. For this reason, we recommend that vapor wells VP-1 through VP-6 be re-sampled to confirm that the initial results are truly representative of soil vapor conditions in these areas. As eluted to above, the significant contrast between vapor concentrations reported previously in the vapor wells to those in the recently installed sub-slab vapor points is significant and should be further evaluated.

CRA also recommends that vapor points VP-9 through VP-13 be reinstalled and re-sampled since detections of helium were reported in the vapor samples from these locations. This will help further evaluate the significant variation in reported vapor concentrations at the site and confirm that there is no potential human health risk from vapor intrusion into 2307 Blanding Avenue. Since no helium was detected in the vapor samples from VP-7 and VP-8 within 2317 Blanding Avenue, re-sampling at these locations is not necessary. If the results of the re-sampling of VP-9 through VP-13 confirm the initial results, CRA will discontinue sub-slab sampling within 2307 Blanding Avenue and properly destroy the vapor points.

In relation to groundwater quality, the newly installed wells have been added to the existing monitoring and sampling schedule for the site. Initial groundwater monitoring and sampling of wells MW-2 through MW-5 and continued monitoring and sampling of well MW-1 will be conducted during the third quarter 2009. A groundwater elevation contour map and the groundwater analytical results will be included in the associated quarterly monitoring and sampling report. Once four quarters of groundwater analytical data has been collected, CRA will evaluate the need for additional assessment and/or request that the sampling frequency be reduced to semi-annual.

FIGURES

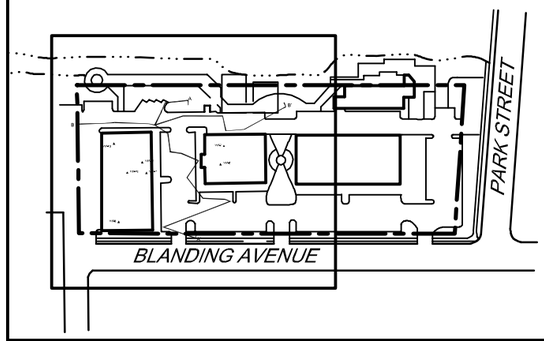


SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
FORMER SIGNAL OIL BULK PLANT (CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
Alameda, California

631916-2009(006)GN-WA004 SEP 04/2009



KEY PLAN
SCALE: 1"=250'

LEGEND

- ▲ SUB-SLAB VAPOR POINT
- ● MONITORING WELL LOCATION
- △ VAPOR WELL
- ■ SOIL BORING (CRA, AUGUST, 2008)
- ◪ SOIL BORING (GEOMATRIX, FEBRUARY 1995)
- ⊕ SOIL BORING (RRM, OCTOBER 1998)
- ◍ SHALLOW GROUNDWATER SAMPLE (GEOMATRIX, APRIL 1995)
- ⊠ CANAL GRAB SURFACE WATER SAMPLE (RRM, OCTOBER 1998)
- ⊡ GRAB SOIL SAMPLE (CAMBRIA, JANUARY 2004)
- ▭ SITE FEATURES NOTED ON SANBORN FIRE INSURANCE MAP, DATED 1932
- A — A' CROSS-SECTION LOCATION

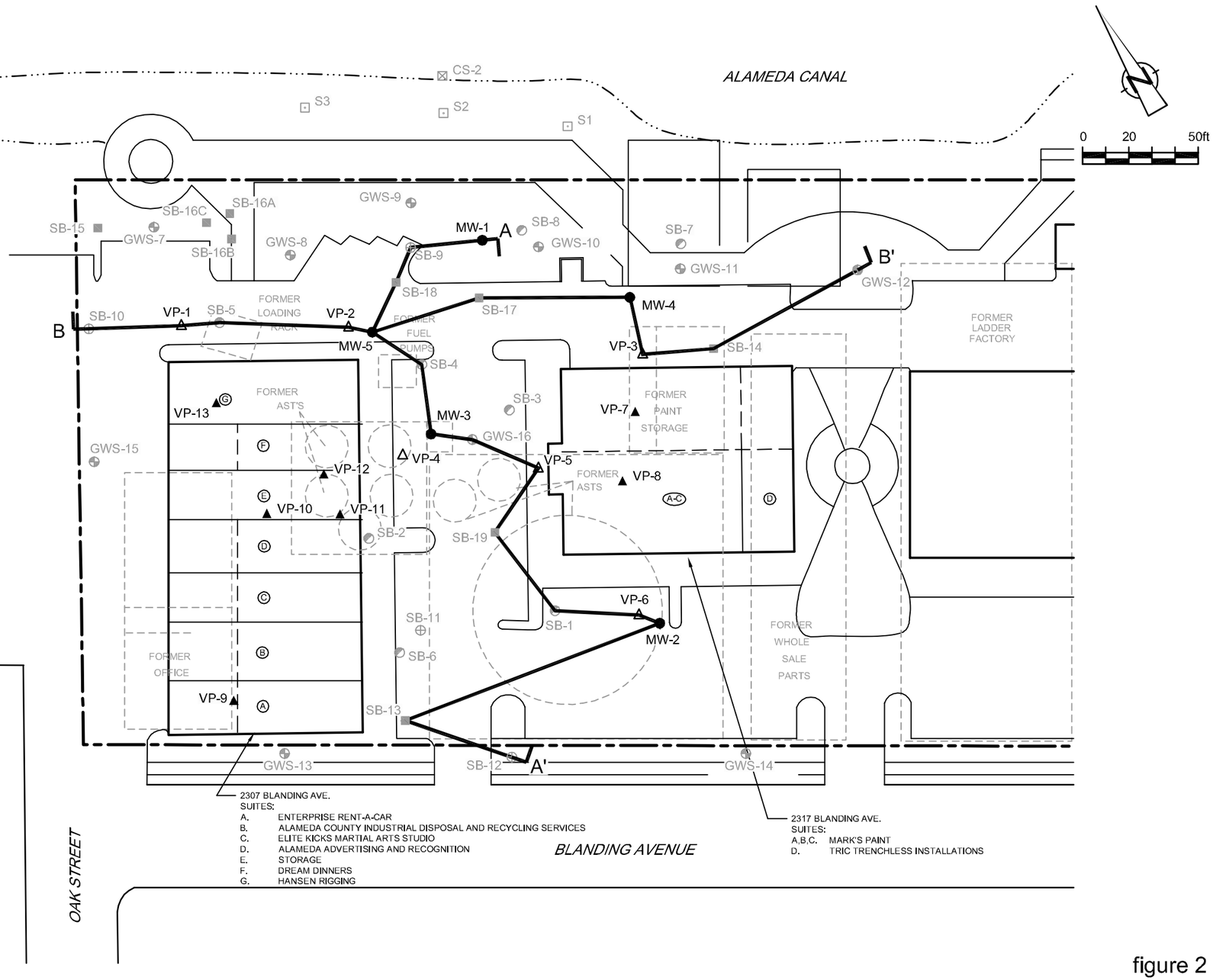
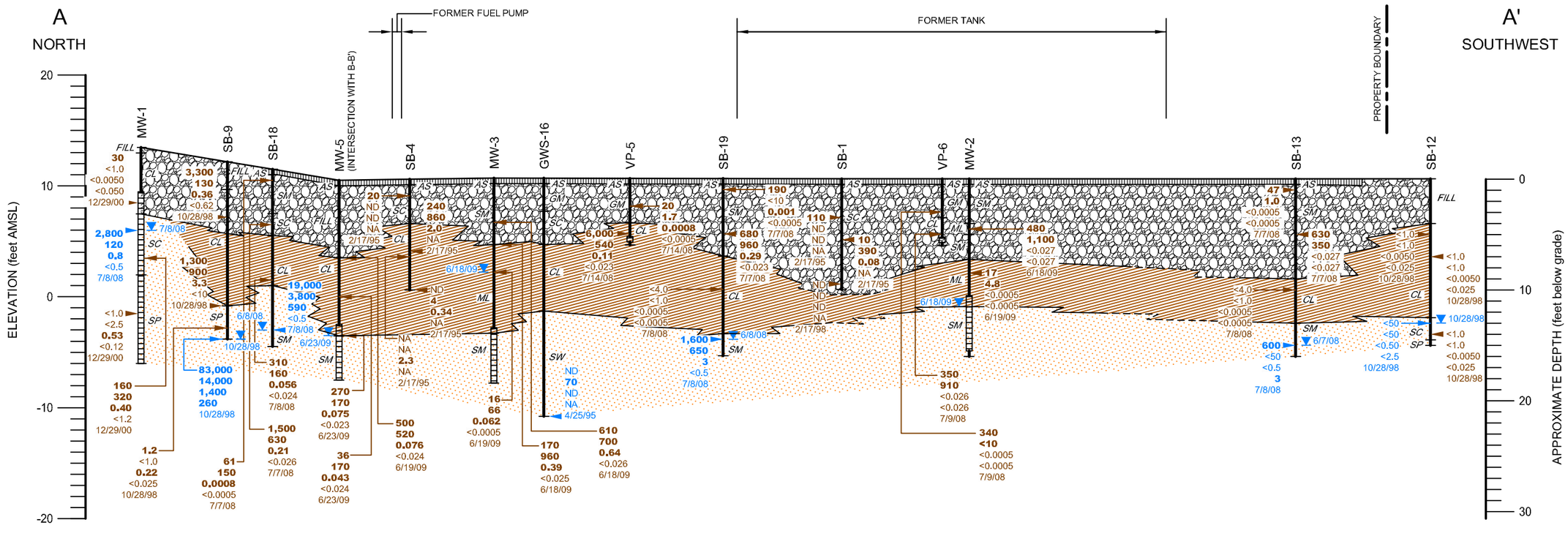


figure 2

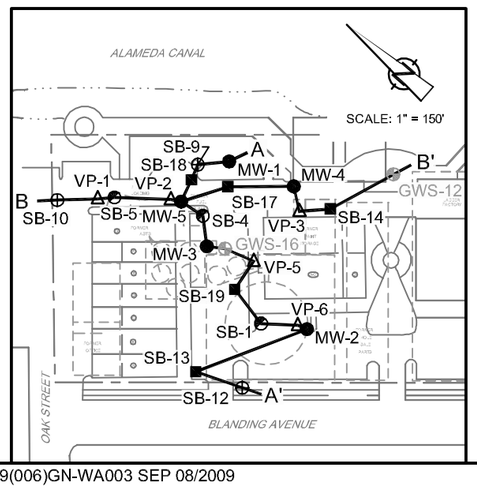
SITE PLAN
FORMER SIGNAL OIL BULK PLANT (CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
Alameda, California

NOTE:
WELL LOCATIONS ARE BASED ON MAP PROVIDED BY MORROW SURVEYING (DWG NO.0857-149 ct, DATED 7-30-09).
ALL OTHER LOCATIONS ARE APPROXIMATE.



DISTANCE (feet)

SCALE: HORZ. 1" = 40'
VERT. 1" = 10'



LEGEND

MW-2 — WELL DESIGNATION
GROUND SURFACE
OBSERVATION WELL INSTALLATION
STRATIGRAPHIC BOUNDARY
CL — TYPICAL SOIL CLASSIFICATION
SCREENED INTERVAL
BOTTOM OF BORING

TPHd
TPHg
BENZENE
MTBE
DATE
APPROXIMATE SOIL SAMPLE LOCATION
HYDROCARBON CONCENTRATIONS IN SOIL (mg/kg)

TPHd
TPHg
BENZENE
MTBE
DATE
APPROXIMATE GROUNDWATER SAMPLE LOCATION
HYDROCARBON CONCENTRATIONS IN GROUNDWATER (µg/L)

DATE
GROUNDWATER DEPTH

AS - ASPHALT

FILL

CL/ML - CLAY, SANDY CLAY, CLAYEY SILT, SANDY SILT WITH CLAY

SP/SM/SC/SW - SAND, SAND WITH CLAY, CLAYEY SAND, CLAYEY SAND WITH GRAVEL, SILTY SAND, SILTY SAND WITH CLAY AND GRAVEL

ND NOT DETECTED
NA NOT ANALYZED

figure 3

GEOLOGIC CROSS-SECTION A-A'
FORMER SIGNAL OIL BULK PLANT (CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
Alameda, California

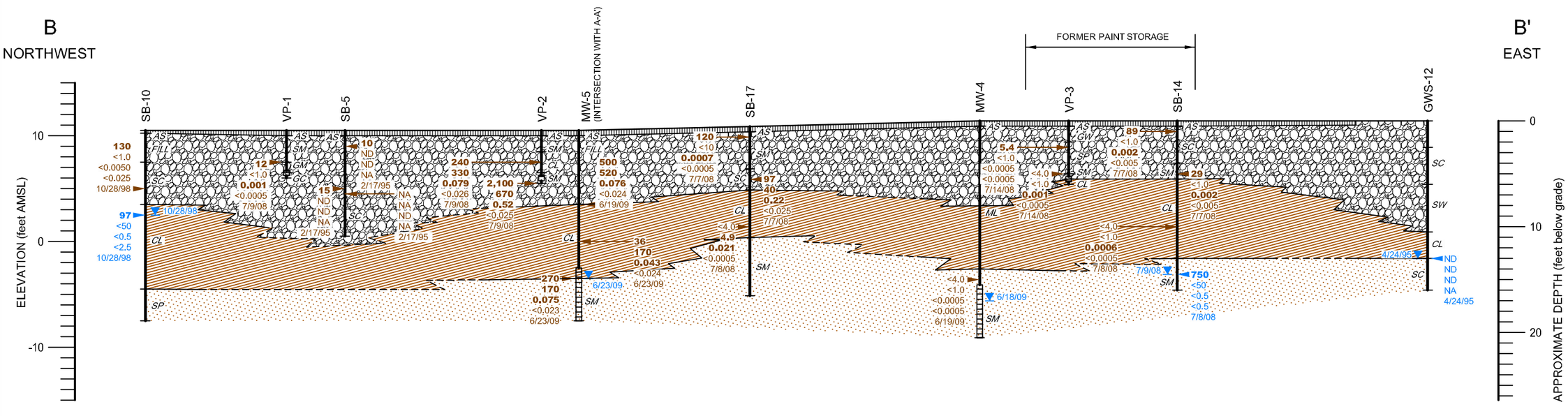
B

NORTHWEST

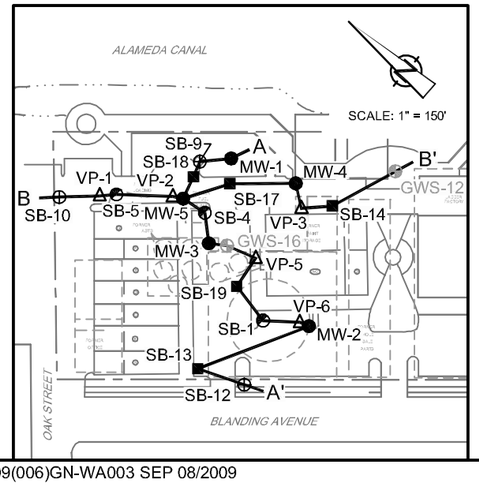
B'

EAST

FORMER PAINT STORAGE



SCALE: HORZ. 1" = 30'
VERT. 1" = 10'



LEGEND

MW-5 — WELL DESIGNATION

GROUND SURFACE

OBSERVATION WELL INSTALLATION

STRATIGRAPHIC BOUNDARY

CL — TYPICAL SOIL CLASSIFICATION

SCREENED INTERVAL

BOTTOM OF BORING

TPHd / TPHg / BENZENE / MTBE / DATE — APPROXIMATE SOIL SAMPLE LOCATION; HYDROCARBON CONCENTRATIONS IN SOIL (mg/kg)

TPHd / TPHg / BENZENE / MTBE / DATE — APPROXIMATE GROUNDWATER SAMPLE LOCATION; HYDROCARBON CONCENTRATIONS IN GROUNDWATER (µg/L)

DATE — GROUNDWATER DEPTH

AS - ASPHALT

FILL

CL/ML - CLAY, SANDY CLAY, CLAYEY SILT, SANDY SILT WITH CLAY

SP/SM/SC/SW - SAND, SAND WITH CLAY, CLAYEY SAND, CLAYEY SAND WITH GRAVEL, SILTY SAND, SILTY SAND WITH CLAY AND GRAVEL

ND NOT DETECTED

NA NOT ANALYZED

figure 4

GEOLOGIC CROSS-SECTION B-B'
FORMER SIGNAL OIL BULK PLANT (CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
Alameda, California

TABLES

TABLE 1

WELL CONSTRUCTION SPECIFICATIONS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Well ID	*Date Installed*	*TOC**	*Total Depth (fbg)*	*Casing Diameter** (inches)*	*Slot Size (inches)*	*Screen Interval (fbg)*	*Filter Pack (fbg)*	*Well Seal (fbg)*
MW-1	12/29/00	13.49	19.5	2	0.020	4-19.5	3-19.5	2-3
MW-2	06/19/09	10.63	15.5	2	0.020	10.5-15.5	9.5-16	7.5-9.5
MW-3	06/19/09	10.72	18.5	2	0.020	13.5-18.5	12.5-18.5	10.5-12.5
MW-4	06/19/09	11.40	20.5	2	0.020	15.5-20.5	14.5-20.5	12.5-14.5
MW-5	06/23/09	10.5	18	2	0.020	13-18	12-18	10-12

Abbreviations & Notes:
TOC = Top of casing elevation (feet above mean sea level)
fbg = Feet below grade
* = Vertical datum is based upon NAVD 88 from GPS observations
** = Casing material: Schedule 40 PVC

TABLE 2

SOIL ANALYTICAL RESULTS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Boring ID	*Depth (fbg)*	*Sample Date*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*m+p-Xylene*	*o-Xylene*	*Total Xylenes*	*MTBE*	*Acetone*	*Carbon Disulfide*	*2-Butanone*	*Isopropyl-benzene*	*n-Propyl-benzene*	*1,3,5 - Trimethyl-benzene*	*tert-Butyl-benzene*	*1,2,4-Trimethyl-benzene*	*sec-Butyl-benzene*	*p-Isopropyl-toluene*	*n-Butyl-benzene*	*Naphthalene*
										Concentrations reported in milligram per kilogram - mg/kg												
SB-1	3.5	2/17/1995	110	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-1	5.5	2/17/1995	10	390	0.08[1]	0.20[1]	0.58[1]	--	--	0.86[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-1	9.5	2/17/1995	ND	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-2	3.5	2/20/1995	40	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-2	7	2/20/1995	35	2,000	3.7[1]	34[1]	14[1]	--	--	46[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-3	1.5	2/17/1995	ND	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-3	7	2/17/1995	230	150	ND[1]	0.46[1]	0.58[1]	--	--	0.51[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-3	10	2/17/1995	ND	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-4	1.5	2/17/1995	20	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-4	6.5	2/17/1995	240	860	2.0[1]	0.81[1]	3.6[1]	--	--	13[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-4	7	2/17/1995	--	--	2.3[2]	8.7[2]	3.5[2]	--	--	35[2]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-4	10	2/17/1995	ND	4	0.34[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-5	1.5	2/17/1995	10	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-5	5.5	2/17/1995	15	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-5	6	2/17/1995	--	--	ND[2]	ND[2]	ND[2]	--	--	ND[2]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-6	1.5	2/17/1995	40	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-6	7	2/17/1995	170	400	ND[1]	0.12[1]	0.56[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-7	1	2/17/1995	110	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-7	4	2/17/1995	250	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-8	1	2/20/1995	75	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-8	6.5	2/20/1995	ND	ND	ND[1]	ND[1]	ND[1]	--	--	ND[1]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-8	7	2/20/1995	--	--	ND[2]	ND[2]	ND[2]	--	--	ND[2]	--	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	5	10/28/1998	3,300[3]	130	0.36[1]	<0.12[1]	<0.12[1]	--	--	0.28[1]	<0.62[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	13	10/28/1998	1,300[3]	900	3.3[1]	<1.2[1]	2.1[1]	--	--	2.0[1]	<12[4]	--	--	--	--	--	--	--	--	--	--	--	--
SB-9	15	10/28/1998	1.2[3]	<1.0	0.22[1]	<0.0050[1]	<0.0050[1]	--	--	<0.0050[1]	<0.025[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-10	5.5	10/28/1998	130[3]	<1.0	<0.0050[1]	<0.0050[1]	<0.0050[1]	--	--	<0.0050[1]	<0.025[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-11	6	10/28/1998	60[3]	140	<0.10[1]	0.12[1]	0.24[1]	--	--	0.49[1]	<0.50[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-12	5	10/28/1998	<1.0	<1.0	<0.0050[1]	<0.0050[1]	<0.0050[1]	--	--	<0.0050[1]	<0.025[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-12	7	10/28/1998	<1.0	<1.0	<0.0050[1]	<0.0050[1]	<0.0050[1]	--	--	<0.0050[1]	<0.025[1]	--	--	--	--	--	--	--	--	--	--	--	--
SB-12	14	10/28/1998	<1.0	<1.0	<0.0050[1]	<0.0050[1]	<0.0050[1]	--	--	<0.0050[1]	<0.025[1]	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	5	12/29/2000	30	<1.0	<0.0050	<0.0050	<0.0050	--	--	0.017	<0.050	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	10	12/29/2000	160	320	0.40	1.6	0.90	--	--	1.1	<1.2	--	--	--	--	--	--	--	--	--	--	--	--
MW-1	15	12/29/2000	<1.0	<2.5	0.53	0.021	0.028	--	--	0.065	<0.12	--	--	--	--	--	--	--	--	--	--	--	--
S1	0.5	1/13/2004	14	<1.0	<0.0005	<0.001	<0.001	--	--	<0.001	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
S2	0.5	1/13/2004	220	<20	<0.0005	<0.001	<0.001	--	--	<0.001	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
S3	0.5	1/13/2004	220	<10	<0.0005	<0.001	<0.001	--	--	<0.001	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
VP-1	3	7/9/2008	12	<1.0	0.001	0.003	0.002	0.004	0.002	--	<0.0005	<0.007	<0.001	<0.004	0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001

TABLE 2

SOIL ANALYTICAL RESULTS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

VP-2*	3	7/9/2008	240	330	0.079	0.080	0.080	0.18	0.066	--	<0.026	<0.36	<0.051	<0.21	0.23	0.51	0.088	0.098	0.29	0.18	<0.051	0.22	0.28
VP-2	5	7/9/2008	2,100	670	0.52	0.16	0.36	0.46	0.085	--	<0.025	0.44	<0.50	<0.20	4.6	9.9	0.065	0.84	0.11	1.8	0.051	4.4	0.48
VP-3	2.5	7/14/2008	5.4	<1.0	<0.0005	<0.0009	<0.0009	<0.0009	<0.0009	--	<0.0005	<0.007	<0.0009	<0.004	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
VP-3	5	7/14/2008	<4.0	<1.0	0.001	<0.0009	<0.0009	<0.0009	<0.0009	--	<0.0005	0.039	<0.0009	0.007	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009	<0.0009
VP-4	2.5	7/14/2008	1,700	1,300	5.0	0.54	13	8.1	0.60	--	<0.024	0.65	<0.048	<0.19	3.7	5.9	4.1	0.32	41	1.4	2.5	2.0	3.4
VP-4	5	7/14/2008	6,900	11,000	16	2.4	120	15	2.8	--	<0.093	<1.3	<0.19	<0.74	27	48	11	3.0	5.0	11	13	23	42
VP-5	2.5	7/14/2008	20	1.7	0.0008	<0.001	<0.001	<0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001	0.001	0.010
VP-5	5	7/14/2008	6,000	540	0.11	0.051	0.11	0.23	0.072	--	<0.023	<0.33	<0.047	<0.19	1.1	1.6	0.13	<0.047	0.33	0.37	0.42	0.37	0.83
VP-6	3	7/9/2008	340	<10	<0.0005	<0.001	<0.001	<0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
VP-6	5	7/9/2008	350	910	<0.026	<0.053	0.31	0.37	<0.053	--	<0.026	<0.37	<0.053	0.33	2.1	3.3	0.10	0.060	<0.053	1.1	0.26	1.7	2.9
SB-13	1	7/7/2008	47	1.0	<0.0005	<0.001	<0.001	0.002	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001
SB-13	5	7/7/2008	630	350	<0.027	<0.054	<0.054	<0.054	<0.054	--	<0.027	<0.38	<0.054	<0.22	0.12	0.14	<0.054	<0.054	<0.054	0.23	<0.054	0.12	0.16
SB-13	10	7/8/2008	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SB-14	1	7/7/2008	89	<1.0	0.002	0.004	0.002	0.005	0.003	--	<0.0005	0.018	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001
SB-14	5	7/7/2008	29	<1.0	0.002	0.003	0.002	0.003	0.002	--	<0.0005	0.026	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SB-14	10	7/8/2008	<4.0	<1.0	0.0006	0.001	<0.001	0.002	0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
SB-15	1	7/7/2008	45	<1.0	0.0007	0.001	<0.001	0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SB-15	5	7/7/2008	42	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SB-15	9.5	7/8/2008	71	1.0	0.002	0.006	0.005	0.012	0.006	--	<0.0005	<0.007	<0.001	<0.004	0.001	0.001	0.001	<0.001	0.002	<0.001	0.008	<0.001	0.001
SB-16A	1	7/7/2008	140	<10	0.004	0.012	0.008	0.024	0.013	--	<0.0005	<0.007	<0.001	<0.004	0.001	0.001	0.001	<0.001	0.003	<0.001	0.007	<0.001	<0.001
SB-16B	1	7/7/2008	83	<1.0	0.004	0.013	0.012	0.035	0.019	--	<0.0005	<0.007	<0.0009	<0.004	0.002	0.002	0.002	<0.0009	0.006	<0.0009	0.015	<0.0009	<0.0009
SB-16C	2	7/8/2008	250	<10	0.003	0.009	0.006	0.018	0.011	--	<0.0005	<0.007	<0.001	<0.004	0.001	0.001	0.002	<0.001	0.004	<0.001	0.007	<0.001	<0.001
SB-16C	3	7/8/2008	960	<40	0.005	0.008	0.006	0.018	0.011	--	<0.0005	0.063	0.002	0.012	0.001	0.002	0.003	<0.001	0.006	<0.001	0.01	<0.001	0.001
SB-17	1	7/7/2008	120	<10	0.0007	0.001	<0.001	0.002	0.001	--	<0.0005	0.015	0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
SB-17	5	7/7/2008	97	40	0.22	0.053	0.63	1.3	0.19	--	<0.025	<0.35	<0.050	<0.20	0.14	0.35	0.73	<0.050	2.7	0.063	0.18	0.13	0.96
SB-17	9.5	7/8/2008	<4.0	4.9	0.021	0.003	0.025	0.013	0.003	--	<0.0005	0.015	<0.001	<0.004	0.016	0.015	0.003	0.001	0.002	0.005	0.003	0.004	0.007
SB-18	1	7/7/2008	61	150	0.0008	0.002	0.003	0.005	0.003	--	<0.0005	<0.007	0.002	<0.004	0.003	0.003	<0.001	0.005	0.002	0.013	0.003	0.005	0.013
SB-18	5	7/7/2008	1,500	630	0.21	<0.052	0.053	0.098	<0.052	--	<0.026	<0.37	<0.052	<0.21	0.36	0.61	0.089	<0.052	0.57	0.44	0.45	0.72	4.9
SB-18	10	7/8/2008	310	160	0.056	<0.049	<0.049	<0.049	<0.049	--	<0.024	<0.34	<0.049	<0.19	0.10	0.11	<0.049	<0.049	<0.049	0.053	0.079	0.095	<0.049
SB-19	1	7/7/2008	190	<10	0.001	0.002	<0.001	0.002	0.001	--	<0.0005	<0.008	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001
SB-19	5	7/7/2008	680	960	0.29	0.92	3.9	7.6	3.3	--	<0.023	0.43	<0.047	<0.19	4.5	4.7	3.2	0.28	5.3	1.4	42	2.0	3.8
SB-19	10	7/8/2008	<4.0	<1.0	<0.0005	<0.001	<0.001	<0.001	<0.001	--	<0.0005	<0.007	<0.001	<0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
MW-2	4.5	6/18/2009	480	1,100	<0.027	<0.055	0.19	--	--	0.19	<0.027	--	--	--	--	--	--	--	--	--	--	--	--
MW-2	8.5	6/19/2009	17	4.8	<0.0005	<0.001	<0.001	--	--	<0.001	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	4	6/18/2009	610	700	0.64	0.099	6.1	--	--	0.85	<0.026	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	6	6/18/2009	170	960	0.39	0.069	2.5	--	--	0.67	<0.025	--	--	--	--	--	--	--	--	--	--	--	--
MW-3	8.5	6/19/2009	16	66	0.062	0.003	0.058	--	--	0.012	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	15	6/19/2009	<4.0	<1.0	<0.0005	<0.0009	<0.0009	--	--	<0.0009	<0.0005	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 2

SOIL ANALYTICAL RESULTS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

MW-5	7	6/19/2009	500	520	0.076	<0.049	0.061	--	--	<0.080	<0.024	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	10.5	6/23/2009	36	170	0.043	<0.048	<0.048	--	--	0.048	<0.024	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	14	6/23/2009	270	170	0.075	<0.047	<0.047	--	--	<0.047	<0.023	--	--	--	--	--	--	--	--	--	--	--	--
	ESLs		180	180	0.27	9.3	4.7	11				0.5	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2.8

Abbreviations and Notes:

fbg = Feet below grade
TPHd = Total petroleum hydrocarbons as diesel by EPA Method 8015
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015
<x = not detected at or above stated laboratory reporting limit
[1] = EPA Method 8020
[2] = EPA Method 8240
[3] = Additional analyzes were performed with silica gel cleanup
[4] = RRM reported as a false positive associated with EPA Method 8020
-- = Not Analyzed
* 1,2,3-Trichlorobenzene also detected at 0.067 mg/kg
ND = Not detected
VOCs = Volatile organic compounds by EPA method 8260B
Note: Other VOCs not included in the table were not detected in any of the samples.
ESL = Environmental screening level for shallow soil (<3m fbg) at commercial/industrial sites where groundwater is not a current or potential source of drinking water (Table B)-RWQCB May 2008
NE = Not established
Benzene, toluene, ethylbenzene, and xylenes EPA Method 8260B
MTBE = Methyl tertiary butyl ether EPA Method 8260B

TABLE 3

SOIL VAPOR ANALYTICAL RESULTS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Vapor Point ID	*Date Sampled*	*TPHd*	*TPHg*	*Benzene*	*Toluene*	*Ethyl-benzene*	*m,p-Xylene*	*Chloromethane*	*Bromomethane*	*Hexane*	*Cyclohexane*	*Heptane*	*Cumene*	*Propyl-benzene*	*1,3,5-Trimethyl-benzene*	*4-Ethyl-toluene*	*O_2 (%)*	*CO_2 (%)*	*He (%)*
		Concentrations in micrograms per cubic meter ($\mu g/m^3$); except where noted																	
VP-1	8/19/2008	**13,000**	**1,300,000**	**300**	**140**	**240**	**540**	<160	<75	**9,400**	**12,000**	**27,000**	**1,600**	**2,800**	<95	**660**	17	4.0	<0.12
VP-2	8/19/2008	**24,000**	**1,500,000**	**140**	<86	**130**	**300**	<190	<89	**5,500**	**19,000**	**12,000**	**900**	**1,700**	<110	**370**	8.9	11	<0.11
VP-3	8/19/2008	**53,000E**	**4,100,000**	<700	<830	<960	**1,200**	<1,800	<850	**38,000**	**47,000**	**77,000**	**4,000**	**5,700**	**1,200**	<1100	1.7	11	<0.11
VP-4	8/19/2008	**91,000S**	**220,000,000**	**1,100,000**	**49,000**	**570,000**	**70,000**	**3,900,000**	**70,000**	**8,400,000**	**3,600,000**	**5,100,000**	**57,000**	**84,000**	<19,000	**37,000**	0.55	16	<0.13
VP-5	8/19/2008	**110,000S**	**29,000,000**	**28,000**	<4,400	<5,000	<5,000	<9,600	<4,500	**630,000**	**430,000**	**660,000**	**7,000**	<5,700	<5,700	<5,700	2.0	15	<0.12
VP-6	8/19/2008	**96,000S**	**150,000,000**	**20,000**	<10,000	<12,000	<12,000	**1,200,000**	**25,000**	**3,300,000**	**3,200,000**	**2,800,000**	**17,000**	<14,000	<14,000	<14,000	3.9	9.8	<0.11
Dup	8/19/2008	**22,000**	**840,000**	**100**	<86	**130**	**290**	<190	<89	**4,400**	**9,800**	**12,000**	**890**	**1,700**	<110	**390**	9.2	10	<0.11
VP-7	7/24/2009	NA	<95	<3.7	<4.4	<5.0	<5.0	<9.6	<4.5	<4.1	<4.0	<4.8	<5.7	<5.7	<5.7	<5.7	19	0.6	<0.12
VP-8	7/24/2009	NA	**490**	<3.5	<4.1	<4.8	<4.8	<9.1	<4.3	<3.9	<3.8	<4.5	<5.4	<5.4	<5.4	<5.4	21	0.56	<0.11
VP-8 Dup	7/24/2009	NA	**8,200**	**7**	**48**	**24**	**100**	<9.1	<4.3	<3.9	<3.8	<4.5	<5.4	**14**	**33**	**79**	21	0.56	<0.11
VP-9	7/24/2009	NA	**8,800**	<3.8	**38**	<5.3	**19**	<9.8	<4.6	<4.2	<4.1	<4.9	<5.8	<5.8	<5.8	<5.8	15	0.14	29
VP-10	7/24/2009	NA	**2,500B**	<3.7	**7**	**52**	**130**	<9.6	<4.5	<4.1	<4.0	**12**	<5.7	**12**	**21**	**59**	17	0.48	16
VP-11	7/24/2009	NA	**450B**	<3.9	**13**	<5.2	**8**	<10	<4.7	<4.3	<4.2	<5.0	<5.9	<5.9	<5.9	<5.9	16	0.26	22
VP-12	7/24/2009	NA	**190B**	<3.6	<4.2	<4.9	<4.9	<9.2	<4.3	<3.9	<3.8	<4.6	<5.5	<5.5	<5.5	<5.5	19	0.73	0.43
VP-12 Dup	7/24/2009	NA	**1,600B**	<3.6	<4.2	<4.9	<4.9	<9.2	<4.3	<3.9	<3.8	<4.6	<5.5	<5.5	<5.5	<5.5	19	0.73	0.44
VP-13	7/24/2009	NA	**8,600B**	<3.6	**200**	<5.0	**9**	<9.4	<4.4	<4.0	<3.9	<4.7	<5.6	<5.6	<5.6	<5.6	15	0.16	26
ESLs		29,000	29,000	280	180,000	3,300	58,000*	53,000	2,900	NE	NE	NE	NE	NE	NE	NE			

TABLE 3

SOIL VAPOR ANALYTICAL RESULTS
FORMER SIGNAL OIL BULK PLANT
(FORMER CHEVRON FACILITY 20-6127)
2301-2311 BLANDING AVENUE
ALAMEDA, CALIFORNIA

Abbreviations/notes:

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3 (samples collected on 8/19/08) or TO-15 (samples collected on 7/24/09)
TPHd = Total petroleum hydrocarbons as diesel by EPA Method TO-17
VOCs = Volalitle Organic Compounds by EPA Method TO-15
O_2, CO_2, and He = Oxygen, Carbon Dioxide, and Helium by ASTM Method D-1946
< = Not detected at or above stated laboratory reporting limit
E = Laboratory data qualifier; exceeds instrument calibration range
S = Laboratory data qualifier; saturated peak, data reported as estimated
B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed
ESLs = Shallow soil gas Environmental Screening Levels associated with vapor intrusion concerns at commercial/industrial sites (Table E). SFRWQCB - May 2008
Dup = Duplicate sample
* = ESL is for total xylenes
NA = Not analyzed
NE = Not established

APPENDIX A

REGULATORY CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

631416
20-6127

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-93

November 10, 2008

Mr. Tom Bauhs
Chevron Environmental Management Company
P.O. Box 6012, K2204
San Ramon, CA 94583

Ms. Julie Beck Ball
Mr. Peter Reinhold Beck
2720 Broderick Street
San Francisco, CA 94123

Subject: SLIC Case No. RO0002466 and Geotracker Global ID T06019744728, Park Street Landing 2301-2337 Blanding Avenue, Alameda, CA 94501

Dear Mr. Bauhs and Ms. Ball:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above referenced site including the recently submitted document entitled, "*Site Investigation Report*," dated October 14, 2008 and prepared on Chevron's behalf by Conestoga-Rovers Associates. The Site Investigation Report presents the results of soil, soil vapor, and groundwater sampling conducted at the site to further evaluate the extent of petroleum hydrocarbons in shallow groundwater, evaluate whether VOCs are present in the vicinity of the former paint storage area and boat yard, evaluate the extent of elevated metals concentrations in soil, and perform soil vapor sampling to evaluate potential vapor intrusion.

Based on our review of the Site Investigation Report and the case file, additional evaluation of the site is required. Most significantly, elevated concentrations of VOCs have been detected in soil vapor samples collected adjacent to the on-site buildings. We request that you submit a Work Plan to conduct sub-slab soil vapor and/or indoor air sampling to directly and quickly evaluate potential vapor intrusion. Please submit a Work Plan that addresses the technical comments below **by December 19, 2008**.

TECHNICAL COMMENTS

1. **Soil Vapor Sampling Results.** Elevated concentrations of total petroleum hydrocarbons as gasoline (TPHg) and volatile organic compounds (VOCs) were detected in soil vapor samples collected from vapor wells installed adjacent to two of the on-site buildings. The highest concentration of benzene (1,100,000 micrograms per cubic meter [µg/m3] detected in a sample from probe SV-4) exceeds the Environmental Screening Level (ESL) for soil vapor under industrial/commercial land use by more than three orders of magnitude. Chloromethane and bromomethane were also detected in the soil vapor sample from SV-4 at concentrations that exceed the ESL for vapor intrusion by more than an order of magnitude. In addition, coarse-grained soils consisting of sands and gravels are described in shallow soil at each of the soil vapor probes. All soil vapor samples were considered to pass the leak detection test and the analytical results are assumed to be valid. Based on the highly elevated concentrations of VOCs in soil vapor, further investigation of potential vapor intrusion consisting of

sub-slab sampling and/or indoor air sampling is required. Please refer to the December 15, 2004 DTSC Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air to help plan the additional investigation. We request that you present plans for further assessment of potential vapor intrusion in the Work Plan requested below. Further assessment should include re-sampling of the existing soil vapor probes.

2. **Evaluation of Shallow Groundwater.** In correspondence dated October 17, 2007, we questioned the representativeness of the groundwater monitoring data for well MW-1 and requested additional sampling of shallow groundwater in the area of well MW-1. Two shallow groundwater samples were proposed in the area of well MW-1 (SB-17 and SB-18). TPHg, TPHd, and benzene were detected in the grab groundwater sample from boring SB-18 at concentrations of 3,800, 19,000, and 590 µg/L. The concentrations detected in the grab groundwater sample from SB-18 are significantly higher than the concentrations detected in groundwater from MW-1. This further indicates that the data collected from well MW-1 may not accurately reflect shallow groundwater quality at the site and also indicates that fuel hydrocarbons are likely discharging to the Alameda Canal. Unfortunately, a groundwater sample was not collected from boring SB-17. As shown on cross section A-A', the water level in well MW-1 is approximately 3 feet MSL. Boring SB-17, which is located approximately 30 feet from MW-1, was advanced to an elevation of 9 feet below MSL but no groundwater was reportedly encountered. In the Work Plan requested below, please present plans to accurately monitor groundwater quality at the site and discharges to the Alameda Canal.

3. **Metals in Soil and Groundwater.** Based on the sampling results for metals in soils, we concur with the conclusion that no further investigation for metals in soils is required at this time. However, the elevated concentrations of metals detected in shallow soil to date will require land use restrictions to prevent exposure under more future more conservative land use scenarios. Although metals were not detected at elevated concentrations in a groundwater sample from well MW-1, the representativeness of data from well MW-1 is questionable. Therefore, please include analyses for metals in groundwater in the plans to accurately monitor groundwater quality at the site and discharges to the Alameda Canal as requested in technical comment 2.

4. **Former Paint Storage Area.** Based on the results from soil boring SB-14, we concur that the former paint storage area does not appear to be a source of soil or groundwater contamination. No further investigation of the paint storage area is required at this time.

5. **Buried Drum Excavation.** In response to our request for further information, we received a technical report in March 2008 entitled, "*Soil Investigation and Remediation*," dated April 1995 and prepared by Geomatrix. The report describes excavation of soil containing petroleum hydrocarbons and polynuclear aromatic compounds in the area of a buried drum near the eastern corner of the site. The Geomatrix report recommended investigation of shallow groundwater to evaluate whether groundwater has been affected by chemicals associated with the underground drum. We did not find a record of groundwater sampling in this area of the site. In the Work Plan requested below, please include plans to assess whether groundwater quality has been impacted in the area of the excavated drum.

6. **Hydrogeologic Cross Section.** The hydrogeologic cross sections are useful for interpretation of site conditions. ACEH appreciates the preparation of the hydrogeologic cross sections for the Site Investigation Report.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **December 19, 2008** – Work Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Brian Carey, Conestoga-Rovers & Associates, 2000 Opportunity Drive, Suite 110 Roseville, CA 95678

Mr. James Kiernan, Conestoga-Rovers & Associates, 2000 Opportunity Drive, Suite 110 Roseville, CA 95678

Mr. Monroe Wingate, C/o Alan Wingate, 18360 Carriger Road, Sonoma, CA 95476

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**ISSUE DATE:** July 5, 2005
	REVISION DATE: December 16, 2005
	PREVIOUS REVISIONS: October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

Effective **January 31, 2006**, the Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection.** (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of Alicia Lam-Finneke.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name at acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload)

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-93

April 2, 2009

Ms. Stacie H. Frerichs
Chevron Environmental Management Company
6011 Bollinger Canyon Road
San Ramon, CA 94583

Ms. Julie Beck Ball
Mr. Peter Reinhold Beck
2720 Broderick Street
San Francisco, CA 94123

Subject: SLIC Case No. RO0002466 and Geotracker Global ID T06019744728, Park Street Landing 2301-2337 Blanding Avenue, Alameda, CA 94501

Dear Ms. Frerichs and Ms. Ball:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above referenced site including the recently submitted document entitled, "*Work Plan for Additional Site Investigation*," dated March 11, 2009 and prepared on Chevron's behalf by Conestoga-Rovers & Associates. The Work Plan proposes a scope of work that includes installation and sampling of additional monitoring wells, one boring in a former buried drum area to collect a grab groundwater sample, and sub-slab sampling within the two northwestern on-site buildings.

We have several technical comments that request modifications to the proposed scope of work. However, the proposed scope of work for well installation and groundwater sampling may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field investigation. Prior to implementing the proposed sub-slab sampling, we request that you provide proposed sub-slab sampling locations within the buildings in a Work Plan Addendum. As discussed in technical comment 5, advancing one boring in a former buried drum area to collect a grab groundwater sample is not required at this time. Submittal of a revised Work Plan is not required unless an alternate scope of work outside that described in the Work Plan and technical comments below is proposed.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below **8**.

TECHNICAL COMMENTS

1. **Sub-Slab Sampling Locations.** The proposal to conduct sub-slab soil vapor sampling in the two northwestern buildings on the site is generally acceptable. The Work Plan indicates that the locations and numbers of sub-slab sampling points will be provided to ACEH after access agreements are completed. Please provide the proposed sub-slab sampling locations in a Work Plan Addendum no later than May 29, 2009.

2. **Sub-Slab Vapor Probes.** The Work Plan indicates that sub-slab vapor probes will be installed in accordance with the procedures outlined in the U.S. Environmental Protection Agency document entitled, "*Draft Standard Operating Procedure (SOP) for Installation of Sub-Slab Vapor Probes and Sampling Using EPA Method TO-15 to Support Vapor Intrusion Investigations*." These guidelines are generally acceptable. Please assure that the gap between the probe and the concrete slab is completely sealed to prevent possible vapors intrusion through the slab into the building. The seal between the probe and slab must not have cracks or other openings that could potentially allow a preferential pathway for vapor migration through the slab. At a future date following completion of sub-slab sampling and site investigation activities, the probes are to be properly decommissioned. Any moisture or vapor barriers at the base of the slab must be repaired during probe decommissioning.

3. **Soil Sampling in Well Borings.** The proposal to collect soil samples at 5-foot intervals below 8 feet bgs is not acceptable. Soils must be logged continuously throughout the total depth of the boring in order to select the interval for well screen and filter pack placement. The soil borings are to be sampled continuously in the field for logging and screening as the boring is advanced. Field screening is to be conducted by a qualified field geologist using visual observations, odor, and measurements using a field photoionization detector (PID) fitted with an appropriate lamp and calibrated for the chemicals of concern. Soil samples are to be extracted from the continuous cores at frequent intervals and placed in sealed jars or plastic bags for measurement and recording of VOC concentrations in the headspace using the PID. Soil samples are to be collected for laboratory analysis from zones where visible staining, odor, or elevated PID readings are observed. Please present these results in the Site Investigation Report requested below.

4. **Well Installation.** The proposed locations of the five monitoring wells are acceptable. However, we request several modifications to the well installation methods in order to obtain representative water samples from a known interval and avoid possible issues associates with existing well MW-1. We request that the filter pack be no longer than 6 feet and be installed discretely within the coarse-grained layer where groundwater is expected to be first encountered. The screen and filter packs are not to extend through potential confining layers. Two of the proposed monitoring wells will be located in the area of boring SB-18. As an example, if a similar soil stratigraphy to that encountered in boring SB-18 (see attached boring log) is encountered in the well borings adjacent to boring SB-18, the filter packs for the wells should be installed within the lower Silty Sand unit between 10.5 and 16.5 feet bgs. Please also refer to the Hydrogeologic Cross Sections presented in the "*Site Investigation Report*," dated October 14, 2008 in selecting the well screen and filter pack intervals. Please present the results of the well installation and initial groundwater sampling in the Site Investigation Report requested below.

5. **Groundwater Evaluation for Buried Drum Excavation.** As an attachment to an electronic mail message from James Kiernan of Conestoga-Rovers & Associates, we received a copy of a letter from ACEH to Ms. Julie Beck and Mr. Monroe Wingate dated October 31, 2001. The October 31, 2001 letter indicates that three soil borings were advanced in the area of the former buried drums in March 2000 and states that grab groundwater samples collected from the three borings did not contain TPHg, TPHd, BTEX, or MTBE. The October 31, 2001 letter was not in our case file and we

could not locate a report in the case files with the referenced March 2000 data. The October 31, 2001 ACEH letter was located in an archive and has now been entered into the case file. We request that you submit the report that includes the March 2000 groundwater data to complete the documentation. We concur that groundwater sampling is not necessary in the area of the former buried drums provided that the data were reported accurately in the October 31, 2001 letter. Therefore, the scope of work entitled Groundwater Quality Assessment – Former Buried Drum Area is not required at this time.

6. **Metals in Groundwater.** Data collected since 2001 indicate that the extent and concentrations of metals in soil are greater than suspected in 2001. Based on evaluation of the additional data collected since 2001, the conclusion stated in the ACEH letter dated October 31, 2001 that no further action is required for metals at the site is no longer valid. We request that groundwater samples from the five proposed monitoring wells be analyzed during the initial groundwater sampling event for CAM-17 metals in addition to the proposed analytes. Please present the results in the Site Investigation Report requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **May 31, 2009** – Sub-Slab Sampling Locations
- **August 7, 2009** – Site Investigation Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in

PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Boring Log for SB-18 and Electronic mail message dated March 13, 2009

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Brian Silva, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670

Mr. James Kiernan, Conestoga-Rovers & Associates, 2000 Opportunity Drive, Suite 110 Roseville, CA 95678

Mr. Monroe Wingate, C/o Alan Wingate, 18360 Carriger Road, Sonoma, CA 95476

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Wickham, Jerry, Env. Health

From: Kiernan, James [jkiernan@craworld.com]
Sent: Friday, March 13, 2009 9:17 AM
To: Wickham, Jerry, Env. Health
Cc: monroewin@yahoo.com
Subject: 2307-2337 Blanding Ave; RO2466
Attachments: 631916 ACEH Letter 2001-10-31.pdf

Hi Jerry,

As you know, we just submitted our work plan for additional investigation at the Park Street Landing site, including groundwater sampling near the former buried drum as requested in your letter dated 11/10/08. However, attached is a copy of a letter dated 10/31/01 I just received from Monroe Wingate (property owner) after he reviewed the work plan; the letter grants no further action related to the buried drum and references groundwater sampling performed in March 2001. Were you aware of this letter? I did not see it in the ACEH online database, or the associated report, and they're obviously not in our files. Could they possibly be in your files? It appears this letter may have slipped through the cracks somewhere along the way. Mr. Wingate wasn't sure he had a copy of the report, he may have to request from Geomatrix. In any event, it appears the buried drum groundwater quality issue has already been addressed.

Interestingly, the letter also granted no further action pertaining to metals in soil, as the site was capped and a soil management plan was prepared to address any subsurface activity. However, during our recent investigation we did extensive sampling for metals. The letter also references the collection of a grab groundwater sample collected in the central portion of the site in which the dissolved metals concentrations did not exceed drinking water standards and applicable saltwater aquatic criteria. Again, although we have not seen a copy of the report, considering this data combined with the recent analysis from well MW-1, it appears the issue of metals in groundwater may also have already been adequately addressed.

Please let me know your thoughts on these matters. Thanks.

Sincerely,

James P. Kiernan, P.E.
Conestoga-Rovers & Associates (CRA)
2000 Opportunity Drive, Suite 110
Roseville, CA 95678
Direct: (916) 751-4102
Cell: (916) 919-6759
Fax: (916) 751-4199
jkiernan@craworld.com

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2000 Opportunity Dr., #110
Roseville, California 95678
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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	SB-18
JOB/SITE NAME	Former Signal Oil Bulk Plant	**DRILLING STARTED**	07-Jul-08
LOCATION	2301-2311 Blanding Avenue, Alameda, CA	**DRILLING COMPLETED**	08-Jul-08
PROJECT NUMBER	631916 (20-6127)	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Woodward Drilling Co. Inc.	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hydraulic push	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2 inches	**SCREENED INTERVAL**	NA
LOGGED BY	C. Benedict	**DEPTH TO WATER (First Encountered)**	14.5 fbg (08-Jul-08) ▽
REVIEWED BY	J. Kiernan, PE# C68498	**DEPTH TO WATER (Static)**	NA ▼
REMARKS	Hand-Augered/Airknifed to 8 fbg.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Concrete
56.3		SB-18 -1			SM		**Silty SAND :** Grey; moist; 60% sand, 20% silt, 10% clay, 10% gravel; low plasticity.	4.0	
114		SB-18 -5		5	SC		**Clayey SAND:** Black; moist; 55% sand, 20% clay, 15% silt, 10% gravel (coarse angular); low plasticity.	6.0	
		SB-18 -9.5		10	CL		**CLAY with sand:** Grey with green mottling; moist; 45% clay, 30% sand, 20% silt, 5% gravel; medium plasticity.	10.5	Portland Type I/II
				15	SM		**Silty SAND:** Greenish grey; moist 55% sand (medium to fine grained), 30% silt, 10% clay; low plasticity. Brown with grey mottling; moist 55% sand, 30% silt, 10% clay; low plasticity. Brown; wet; 75% sand, 15% silt, 10% clay; low plasticity. ▽	16.0	Bottom of Boring @ 16 fbg

WELL LOG (PID) I:\ROCKLIN.CHEVRON\631916 - 20-6127 ALAMEDA\631916-PRE SEPT 08\BORING LOGS\20-6127 BORING LOGS.GPJ DEFAULT.GDT 10/14/08

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-93

June 19, 2009

Mr. Mike Bauer
Chevron Environmental Management Company
145 S. State College Blvd.
Brea, CA 92821

Ms. Julie Beck Ball
Mr. Peter Reinhold Beck
2720 Broderick Street
San Francisco, CA 94123

Subject: SLIC Case No. RO0002466 and Geotracker Global ID T06019744728, Park Street Landing 2301-2337 Blanding Avenue, Alameda, CA 94501

Dear Mr. Bauer and Ms. Ball:

Alameda County Environmental Health (ACEH) staff has reviewed the Spills, Leaks, Investigations, and Cleanups (SLIC) case file for the above referenced site including the recently submitted document entitled, "*Addendum to Work Plan for Additional Site Assessment*," dated May 28, 2009 and prepared on Chevron's behalf by Conestoga-Rovers & Associates. The Work Plan Addendum presents subslab sampling locations as requested in our previous correspondence dated April 2, 2009.

As discussed in the technical comments below, the proposed sampling locations are not adequate to assess potential vapor intrusion for the on-site building at 2307 Blanding Avenue. Attachment 1 to this correspondence suggests alternate sub-slab locations that would be acceptable. Therefore, you may implement the proposed sub-slab sampling using the alternate locations shown on Attachment 1 or your may submit a Revised Work Plan Addendum that proposes alternate locations that address technical comment 2.

We request that you address the following technical comments, perform the proposed work, and send us the reports described below **8**.

TECHNICAL COMMENTS

1. **Sub-Slab Sampling Locations for 2317 Blanding Avenue.** The proposed sub-slab sampling locations for 2317 Blanding Avenue are acceptable and do not require revision. Please present the results in the Site Investigation Report requested below.

2. **Sub-Slab Sampling Locations for 2307 Blanding Avenue.** The purpose of the proposed sub-slab sampling is to assess potential vapor intrusion to the on-site buildings. The potential for vapor intrusion must be evaluated within the occupied spaces adjacent to the locations where elevated concentrations of volatile organic compounds have been detected in soil gas. In particular, the occupied spaces adjacent to soil vapor sampling location VP-4 must be evaluated. The proposed sub-slab sampling locations for 2307 Blanding Avenue are apparently located in storage areas that

are outside the areas of concern. The nearest proposed sub-slab sampling location is approximately 80 feet from VP-4. Given that the contamination may be within the vadose zone, the proposed locations are too far from the suspected sources and occupied spaces to evaluate potential vapor intrusion for 2307 Blanding Avenue. Attachment 1 to this correspondence suggests alternate sub-slab locations that would be acceptable. Therefore, you may implement the proposed sub-slab sampling using the alternate locations shown on Attachment 1 or your may submit a Revised Work Plan Addendum by July 2, 2009 that proposes alternate locations that address the issues discussed in this technical comment.

3. **Sub-Slab Vapor Probes.** The "*Work Plan for Additional Site Investigation*," dated March 11, 2009 and indicates that sub-slab vapor probes will be installed in accordance with the procedures outlined in the U.S. Environmental Protection Agency document entitled, "*Draft Standard Operating Procedure (SOP) for Installation of Sub-Slab Vapor Probes and Sampling Using EPA Method TO-15 to Support Vapor Intrusion Investigations*." These guidelines are generally acceptable. Please assure that the gap between the probe and the concrete slab is completely sealed to prevent possible vapors intrusion through the slab into the building. The seal between the probe and slab must not have cracks or other openings that could potentially allow a preferential pathway for vapor migration through the slab. At a future date following completion of sub-slab sampling and site investigation activities, the probes are to be properly decommissioned. Any moisture or vapor barriers at the base of the slab must be repaired during probe decommissioning.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **July 2, 2009** – Revised Sub-slab Sampling Locations (if necessary, please see technical comment 2)
- **August 7, 2009** – Site Investigation Report

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the

SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment 1: Alternate Sub-Slab Sampling Locations

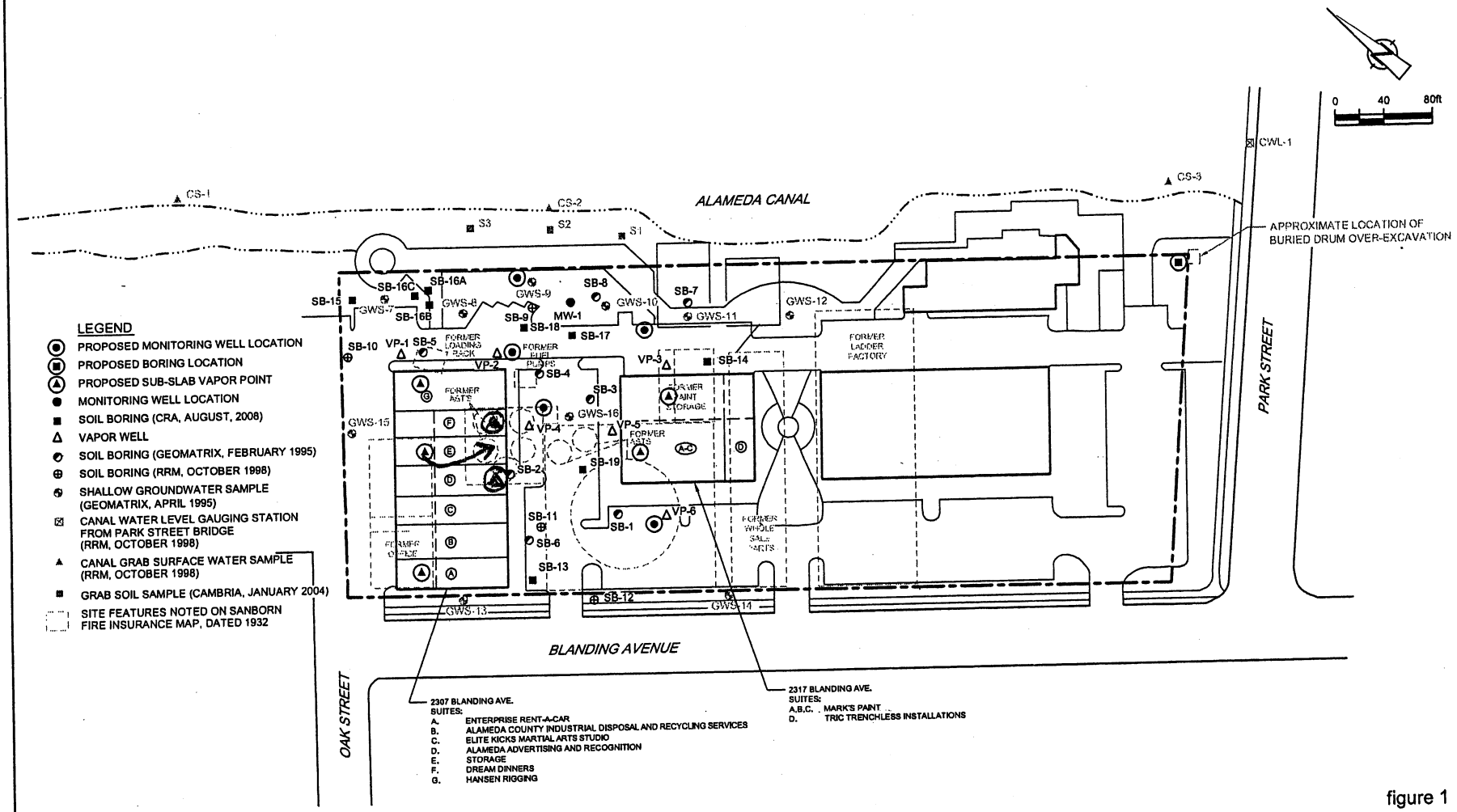
Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Mr. Brian Silva, Conestoga-Rovers & Associates, 10969 Trade Center Drive, Suite 107, Rancho Cordova, CA 95670

Mr. Monroe Wingate, C/o Alan Wingate, 18360 Carriger Road, Sonoma, CA 95476

Donna Drogos, ACEH
Jerry Wickham, ACEH
File

Attachment 1: Alternate Sub-Slab Sampling Locations



NOTE:
ALL LOCATIONS ARE APPROXIMATE.

figure 1

SITE PLAN
CHEVRON 20-6127 - FORMER SIGNAL OIL BULK PLANT
2301-2311 BLANDING AVENUE
Alameda, California

631916-2009(004)GN-WA001 MAY 27/2009

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	**ISSUE DATE:** July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	**SUBJECT:** Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as **a single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted**.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
  RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

1) Obtain User Name and Password:
   a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
      i) Send an e-mail to dehloptoxic@acgov.org
         Or
      ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
   b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.

2) Upload Files to the ftp Site
   a) Using Internet Explorer (IE4+), go to ftp://alcoftp1.acgov.org
      (i) Note: Netscape and Firefox browsers will not open the FTP site.
   b) Click on File, then on Login As.
   c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
   d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
   e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.

3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
   a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
   b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
   c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
   d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B

SUMMARY OF PREVIOUS ENVIRONMENTAL WORK

SUMMARY OF PREVIOUS ENVIRONMENTAL WORK

Former Signal Oil Bulk Plant 20-6127
2301-2311 Blanding Avenue, Alameda, California

1995 Soil and Groundwater Investigation: In February 1995, Geomatrix Consultants, Inc. (Geomatrix) advanced eight soil borings (SB-1 through SB-8) to approximately 10 feet below grade (fbg) on the western portion of the site to evaluate if previous site uses had impacted soil and groundwater quality. Groundwater was not encountered in the borings. Two to three soil samples were collected at various depths from each boring for laboratory analysis. Nineteen samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd); and benzene, toluene, ethylbenzene, and xylenes (BTEX). TPHg was detected in six of the samples at concentrations ranging from 4.0 to 2,000 milligrams per kilogram (mg/kg). TPHd was detected in the majority of the samples at concentrations ranging from 10 to 250 mg/kg. BTEX were also detected in several of the samples (benzene up to 3.7 mg/kg). The highest concentrations of petroleum hydrocarbons generally were detected in borings SB-2 and SB-4 located in the vicinity of the former ASTs and gasoline pump, respectively, between 4 and 7 fbg. One sample from each boring (depths ranging from 0.5 to 3 fbg) was also analyzed for CAM 17 metals. The detected metals concentrations generally appeared to be within the range of natural background levels with the exception of slightly elevated arsenic in a few samples. Arsenic was detected in the samples collected at 1 fbg from borings SB-3, SB-4, and SB-6 at 68 mg/kg, 46 mg/kg, and 130 mg/kg, respectively. As a result, deeper samples collected from borings SB-3 (6.5 fbg) and SB-6 (8 fbg) were also analyzed for arsenic; arsenic was not detected in the sample collected from SB-3, but was detected at 2.5 mg/kg in the sample collected from SB-6. Based on these results, the soil impacted with arsenic appeared to be of limited vertical extent. Three soil samples (SB-4-7', SB-5-6', and SB-8-7') were also analyzed for VOCs, which were not detected. Based on the soil analytical results, a shallow groundwater survey was recommended to evaluate if groundwater had been impacted by petroleum hydrocarbons.

In April 1995, Geomatrix collected grab-groundwater samples from 10 shallow borings (GWS-7 through GWS-16) drilled to depths of 15 to 21.5 fbg at the site. Borings GWS-7 through GWS-12 were located on the north-northeastern portion of the site adjacent to Alameda Canal to evaluate if impacted groundwater was flowing toward the canal; based on an assumed groundwater flow direction toward the canal. Borings GWS-13 through GWS-15 were located on the southwest and northwest property boundaries in the assumed upgradient and perimeter crossgradient directions to evaluate the quality of groundwater coming onto the site. Boring GWS-16 was located to the northeast of the former ASTs and was drilled approximately 6 feet deeper than the remaining borings to evaluate deeper groundwater quality. The groundwater samples were analyzed for TPHg, BTEX, and TPHd; the samples were filtered by the laboratory to remove turbidity and a silica-gel cleanup was performed to remove non-petroleum organic matter prior to the TPHd analysis. TPHg was detected in the grab-groundwater samples collected from borings GWS-8 through GWS-11 and GWS-16 at concentrations ranging from 70 (GWS-16) to 22,000 micrograms per liter (µg/L) (GWS-9). TPHd was detected in the samples collected from borings GWS-8 through GWS-11 at concentrations ranging from 60 (GWS-8) to

1,200 µg/L (GWS-9). Benzene was detected in the samples collected from borings GWS-8 through GWS-10 and GWS-16 at concentrations of 36 µg/L, 6,200 µg/L, and 880 µg/L, respectively. Toluene, ethylbenzene, and xylenes (up to 1,200 µg/L) were also detected in several of the samples. The maximum concentrations were detected in boring GWS-9 located in the presumed downgradient direction from the gasoline pump and loading rack. Petroleum hydrocarbons were not detected in the upgradient borings GWS-13 through GWS-15. The deeper sample (GWS-16) contained only low to trace hydrocarbon concentrations.

A black granular material was encountered in boring GWS-7 near the northern corner of the site from approximately 2.5 to 6 fbg. This material appeared similar to a small pile of black granular material observed on the northwestern property boundary that appeared to have originated from the adjacent property (a metal fabrication company). A sample of this material was collected and analyzed for TPHd, VOCs, semi-VOCs, and CAM 17 metals. An elevated concentration of copper (1,700 mg/kg) was detected in the sample. The detected concentration did not exceed the Total Threshold Limit Concentration (TTLC) of 2,500 mg/kg, which is the concentration above which a waste may be considered hazardous in California. The sample was also analyzed for soluble copper using the Waste Extraction Test (WET) method; which was detected at 0.04 milligrams per liter (mg/L). The detected soluble lead concentration did not exceed the Soluble Threshold Limit Concentration (STLC) of 25 mg/L, which is also the concentration above which a waste may be considered hazardous in California. Details of this investigation are presented in the report entitled *Soil Investigation and Shallow Groundwater Survey, Northwestern Portion of the Park Street Landing Site*, prepared by Geomatrix, dated September 1995.

1998 RBCA Tier 1 Evaluation: In July 1998, RRM, Inc. (RRM) performed a Tier 1 Risk-Based Corrective Action (RBCA) assessment to evaluate the potential health risks posed by residual petroleum hydrocarbons in soil and groundwater at the site. Based on the results, RRM recommended the collection of site-specific data to complete a Tier 2 RBCA evaluation; the identification of the beneficial uses of groundwater beneath the site; an evaluation of background water quality in Alameda Canal; and to provide evidence that biodegradation was reducing hydrocarbon concentrations. Details of this investigation were presented in the report entitled *Risk-Based Corrective Action (RBCA) Tier 1 Evaluation, Park Street Landing Site*, prepared by RRM, dated July 24, 1998.

1998 Soil and Groundwater Investigation: In October 1998, RRM performed an additional soil and groundwater investigation at the site. The purpose of the investigation was to: 1) collect site-specific data to complete a Tier 2 RBCA evaluation; 2) identify the beneficial uses of groundwater beneath the site; 3) evaluate the background water quality in Alameda Canal; and 4) evaluate whether biodegradation of petroleum hydrocarbons was occurring beneath the site. Four additional borings (SB-9 through SB-12) were advanced to depths of 15 to 18 fbg during the investigation. A total of eight soil samples were collected at various depths from the borings and analyzed for TPHg, TPHd, BTEX, and methyl tertiary butyl ether (MTBE). TPHg was detected in the soil samples collected at 5 and 13 fbg from boring SB-9 (130 and 900 mg/kg, respectively); and in the sample collected at 6 fbg from boring SB-11 (140 mg/kg). TPHd was detected in the soil samples collected at 5, 13, and 15 fbg from boring SB-9 (3,300 mg/kg,

1,300 mg/kg, and 1.2 mg/kg, respectively); in the sample collected at 5.5 fbg from boring SB-10 (130 mg/kg); and in the sample collected at 6 fbg from boring SB-11 (60 mg/kg). BTEX (up to 3.3 mg/kg) were detected in the soil samples collected from borings SB-9 and SB-11; MTBE (using EPA Method 8020) was only detected in the sample collected at 13 fbg from boring SB-9 (12 mg/kg). Following the initial TPHd analysis, two rounds of silica gel cleanup followed by TPHd analysis were performed on the soil samples from boring SB-9. The detected TPHd concentrations were reduced after each round, indicating that biodegradation was occurring, and natural organic matter was present in the subsurface.

Grab-groundwater samples were collected from each boring and analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg was only detected in the samples collected from borings SB-9 (14,000 µg/L) and SB-11 (310 µg/L). TPHd was detected in the samples collected from borings SB-9 (83,000 µg/L), SB-10 (97 µg/L), and SB-11 (270 µg/L). Benzene and MTBE (using EPA Method 8020) were only detected in the sample collected from boring SB-9 (1,400 and 260 µg/L, respectively); the sample was re-analyzed for MTBE using EPA Method 8260, and MTBE was not detected. Toluene, ethylbenzene, and xylenes (up to 630 µg/L) were detected in the samples collected from borings SB-9 and SB-11. As with the soil samples, a silica-gel cleanup reduced the detected TPHd concentrations. Based on the depth to water in the borings, and the elevation of the borings, the groundwater flow direction was calculated to be northerly. Based on natural biodegradation indicator parameters in groundwater (dissolved oxygen, oxidation-reduction potential, nitrate, and sulfate), it appeared that petroleum hydrocarbons were being degraded both aerobically and anaerobically; although it appeared that anaerobic processes dominated.

Three grab-water samples (CS-1 through CS-3) were collected from Alameda Canal and analyzed for TPHg, TPHd, BTEX, and MTBE; which were not detected. Water level measurements were collected from the Alameda Canal and the four temporary wells placed in borings SB-9 through SB-12 to evaluate potential tidal influence on groundwater beneath the site. The fluctuations in borings SB-10 through SB-12 were minimal indicating that groundwater was tidally influenced to a limited degree in these areas. A more significant fluctuation was observed in SB-9; suggesting that groundwater in this area was tidally influenced, and tidal fluctuations would tend to stabilize the petroleum hydrocarbon plume in this area. Two concrete sea walls separated shallow groundwater beneath the site from canal water; likely causing the limited tidal influence. Based on the site data, relevant beneficial uses, and associated water quality parameters, the most applicable beneficial use of groundwater beneath the site was determined to be freshwater replenishment to surface water.

A well survey was performed for a ½-mile radius around the site. Nine wells were identified within the search radius (one recovery well, one irrigation well, five extraction wells, and two industrial wells). All the wells were either located upgradient of the site or across the Alameda Canal. Based on the results of the Tier 2 RBCA evaluation, soil and groundwater petroleum hydrocarbon concentrations at the site did not exceed the site-specific target levels (SSTLs). Details of this investigation were presented in the report entitled *Soil and Groundwater Investigation Results, Former Signal Oil Marine Terminal*, prepared by RRM, dated May 7, 1999.

2000 Monitoring Well Installation: In December 2000, Gettler-Ryan Inc., under the supervision of Delta Environmental Consultants, Inc. (Delta), installed one groundwater monitoring well (MW-1) along the northeastern portion of the site adjacent to the Alameda Canal. Soil samples were collected at depths of 5, 10, and 15 fbg from the well boring and analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg was only detected in the sample collected at 10 fbg (320 mg/kg). TPHd was only detected in the samples collected at 5 and 10 fbg (30 and 160 mg/kg, respectively). Low concentrations of BTEX were detected in all the samples; MTBE was not detected in any of the samples. The initial groundwater sample collected from the well contained TPHg, TPHd, and benzene at 5,210 µg/L, 1,100 µg/L, and 868 µg/L, respectively. Details of this investigation were presented in the report entitled *Monitoring Well Installation Report*, prepared by Delta, dated April 10, 2001.

2004 Soil Investigation: In January 2004, Cambria Environmental Technology, Inc. (Cambria) collected three surface soil samples (S1, S2, and S3) from the bank above the western shore of the Alameda Canal. Sample S2 was collected directly down-slope of well MW-1 near a water seep observed on the slope above the canal. Samples S1 and S3 were collected approximately 70 feet east and 90 feet north of well MW-1, respectively, to evaluate background concentrations. The three samples were analyzed for TPHg, TPHd, BTEX, and MTBE. TPHg, BTEX, and MTBE were not detected in any of the samples. TPHd was detected in samples S1, S2, and S3 at 14 mg/kg, 220 mg/kg, and 220 mg/kg, respectively. The laboratory chromatographs indicated that the hydrocarbon pattern observed in these soil samples was not typical of diesel fuel. Therefore, it was concluded the TPHd detections may have represented either highly-degraded diesel fuel from various historical onsite and nearby operations, or residual organic material of unknown origin present in local fill material. Details of this investigation were presented in the report entitled *Soil Sampling Report*, prepared by Cambria, dated February 18, 2004.

Based on generally decreasing petroleum hydrocarbon concentrations in well MW-1 observed during quarterly monitoring, Cambria submitted a case closure request to ACEH dated January 10, 2006. In response to this request in a letter dated October 17, 2007, the ACEH requested the collection of additional data to substantiate the conclusion that petroleum hydrocarbons were not migrating and discharging into Alameda Canal. Further, ACEH requested the potential for vapor intrusion was be evaluated. CRA prepared and submitted a *Soil Boring and Vapor Point Installation Work Plan*, dated January 10, 2008. In a letter dated January 30, 2008, the ACEH approved the work plan, with several provisions.

2008 Site Investigation: In July 2008, CRA advanced six soil borings (SB-13 through SB-15 and SB-17 through SB-19) to a maximum depth of 16 fbg, and installed and sampled six permanent soil vapor wells (VP-1 through VP-6) to depths of 4.5 to 6 fbg. Soil boring SB-16 was cleared to 3 fbg but could not be completed due to refusal encountered at three locations (16A, B, and C).

Soil analytical data indicated that the majority of TPHd and TPHg concentrations in soil are generally located in the area of and downgradient of the former ASTs. The highest concentrations of hydrocarbons were detected in boring VP-4 at 5 fbg. Relatively low concentrations of TPHd and TPHg were detected in the perimeter borings. Low concentrations of petroleum-related VOCs were also detected in the majority of the soil samples. The BTEX

and VOC concentrations generally did not exceed the ESLs, with the exception of a few samples. Concentrations generally appeared to attenuate or were significantly reduced at 10 fbg. Generally, concentrations of metals were consistent with background levels and only exceeded the ESLs in a few of the samples. Metals in shallow soil across the northwest portion of the site do not appear to be a result of former bulk plant operations. The metals do not appear to have impacted groundwater as only barium was detected in well MW-1.

The highest concentrations of hydrocarbons in groundwater were generally located downgradient of the former ASTs. TPHd, TPHg, and benzene were detected in downgradient boring SB-18 at 19,000 µg/L, 3,800 µg/L, and 590 µg/L, respectively; but only at 1,600 µg/L, 650 µg/L, and 3 µg/L, respectively, in boring SB-19 adjacent to the former large AST. Only relatively low concentrations of TPHd (up to 750 µg/L) were detected in perimeter borings SB-13, SB-14, and SB-15; and as evidenced by the work performed by RRM, some or most of the detected TPHd may be due to natural organic matter. The extent of the impacted groundwater is well-defined by borings GWS-7, GWS-12 through GWS-15, SB-10 (following silica gel cleanup), and SB-12. Chlorinated solvents were not detected in any of the soil samples collected, and generally were not detected in the groundwater samples with the exception of low concentrations of TCE, cis-1,2-DCE, and vinyl chloride in the sample collected from boring SB-15 near the northeast corner of the site.

The highest hydrocarbon concentrations in soil gas were detected in vapor wells VP-4, VP-5, and VP-6 located in the area of the former ASTs. Significantly lower concentrations were detected in vapor wells VP-1 and VP-2 located downgradient of VP-4. Chlorinated solvents were not detected in the soil vapor samples. Additional details of this investigation are presented in CRA's report entitled *Site Investigation Report*, dated October 2008.

APPENDIX C

DRILLING PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 06/16/2009 By jamesy

Permit Numbers: W2009-0579 to W2009-0584
Permits Valid from 07/17/2009 to 07/20/2009

Application Id: 1244498395674
Site Location: 2301-2311 Blanding, Alameda, CA
Project Start Date: 06/18/2009
Extension Start Date: 07/17/2009
Extension Count: 2

City of Project Site: Alameda
Completion Date: 06/22/2009
Extension End Date: 07/20/2009
Extended By: vickyh1

Assigned Inspector: Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

Applicant: Conestoga-Rovers & Associates - B Silva
10969 Trade Center Dr #107, Sacramento, CA 95670
Phone: 916-889-8900

Property Owner: Julie B Hall & Peter Totsy Becky Trustees
PO Box 278, Meadow Valley, CA 95956
Phone: --

Client: ** same as Property Owner **

Total Due: $1955.00
Receipt Number: WR2009-0221 **Total Amount Paid:** $1955.00
Payer Name : Conestoga Rovers & Paid By: CHECK **PAID IN FULL**
Associates

Works Requesting Permits:

Remediation Well Construction-Vapor Remediation Well - 7 Wells
Driller: Conestoga Rovers - Lic #: 0 - Method: Hand **Work Total: $230.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0579	06/16/2009	09/16/2009	VP10	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP11	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP12	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP13	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP7	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP8	3.00 in.	0.25 in.	1.00 ft	1.00 ft
W2009-0579	06/16/2009	09/16/2009	VP9	3.00 in.	0.25 in.	1.00 ft	1.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or

waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).

7. Minimum surface seal thickness is two inches of cement grout placed by tremie

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

Well Construction-Monitoring-Monitoring - 5 Wells
Driller: Gregg Drilling - Lic #: 485165 - Method: DP **Work Total: $1725.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2009-0580	06/16/2009	09/16/2009	MW2	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0581	06/16/2009	09/16/2009	MW3	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0582	06/16/2009	09/16/2009	MW4	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0583	06/16/2009	09/16/2009	MW5	6.00 in.	2.00 in.	5.00 ft	15.00 ft
W2009-0584	06/16/2009	09/16/2009	MW6 cancelled	6.00 in.	2.00 in.	5.00 ft	15.00 ft

Specific Work Permit Conditions

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters

generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

3. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

4. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.

5. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

7. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

8. Minimum surface seal thickness is two inches of cement grout placed by tremie

9. Minimum seal (Neat Cement seal) depth for monitoring wells is 5 feet below ground surface(BGS) or the maximum depth practicable or 20 feet.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

APPENDIX D

BORING/WELL CONSTRUCTION LOGS

Boring/Well Log Legend

KEY TO SYMBOLS/ABBREVIATIONS

- First encountered groundwater
- Static groundwater
- Soils logged by hand-auger or air-knife cuttings
- Soils logged by drill cuttings or disturbed sample
- Undisturbed soil sample interval
- Soil sample retained for submittal to analytical laboratory
- No recovery within interval
- Hydropunch screen interval

PID = Photo-ionization detector or organic vapor meter reading in parts per million (ppm)

fbg = Feet below grade

Blow Counts = Number of blows required to drive a California-modified split-spoon sampler using a 140-pound hammer falling freely 30 inches, recorded per 6-inch interval of a total 18-inch sample interval

(10YR 4/4) = Soil color according to Munsell Soil Color Charts

msl = Mean sea level

Soils logged according to the USCS.

UNIFIED SOILS CLASSIFICATION SYSTEM (USCS) SUMMARY

Major Divisions			Graphic	Group Symbol	Typical Description
Coarse-Grained Soils (>50% Sands and/or Gravels)	Gravel and Gravelly Soils	Clean Gravels (≤5% fines)		GW	Well-graded gravels, gravel-sand mixtures, little or no fines
				GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (≥15% fines)		GM	Silty gravels, gravel-sand-silt mixtures
				GC	Clayey gravels, gravel-sand-clay mixtures
	Sand and Sandy Soils	Clean Sands (≤5% fines)		SW	Well-graded sands, gravelly sands, little or no fines
				SP	Poorly-graded sands, gravelly sand, little or no fines
		Sands with Fines (≥15% fines)		SM	Silty sands, sand-silt mixtures
				SC	Clayey sands, sand-clay mixtures
Fine-Grained Soils (>50% Silts and/or Clays)	Silts and Clays			ML	Inorganic silts, very fine sands, silty or clayey fine sands, clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and organic silty clays of low plasticity
	Silts and Clays			MH	Inorganic silts, micaceous or diatomaceous fine sand or silty soils
				CH	Inorganic clays of high plasticity
				OH	Organic clays of medium to high plasticity, organic silts
Highly Organic Soils				PT	Peat, humus, swamp soils with high organic contents

I:\MISC\TEMPLATES\BORING LOG LEGEND.AI

CONESTOGA-ROVERS & ASSOCIATES

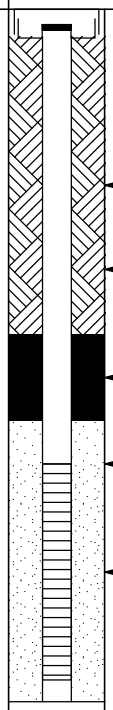
Conestoga-Rovers & Associates
2000 Opportunity Drive, Suite 110
Roseville, CA
Telephone: (916) 677-3407
Fax: (916) 677-3687

BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	MW-2
JOB/SITE NAME	Former Signal Oil Bulk Plant 20-6127	**DRILLING STARTED**	18-Jun-09
LOCATION	2301-2311 Blanding Avenue, Alameda, CA	**DRILLING COMPLETED**	19-Jun-09
PROJECT NUMBER	631916	**WELL DEVELOPMENT DATE (YIELD)**	30-Jun-09
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	10.87 ft above msl
DRILLING METHOD	Direct Push / Hollow-Stem Auger	**TOP OF CASING ELEVATION**	10.63 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	10.5 to 15.5 fbg
LOGGED BY	E. Namba	**DEPTH TO WATER (First Encountered)**	11.5 fbg (18-Jun-09)
REVIEWED BY	G. Barclay	**DEPTH TO WATER (Static)**	4.0 fbg (19-Jun-09)
REMARKS	Cleared to 8 fbg with air-knife		

PID (ppm)	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)
				Asphalt	0.5
0.0			SM	**Silty SAND with gravel:** Brown; dry	
				▼	4.0
189	MW-2- 4.5		ML	**Sandy SILT:** Grey; dry	5.0
		5	SM	**Silty SAND:** Greyish green; dry	7.0
0.0	MW-2- 7.5		ML	**Sandy SILT with clay:** Greyish green with brown; dry; moderate plasticity	
0.0	MW-2- 8.5			Grey staining observed	
		10		Less grey staining observed	
0.0				▽	11.5
0.0			SM	**Silty SAND with clay:** Grey; wet; fine grain; grey staining observed; decreasing clay content with depth	
0.0	MW-2- 13				
		15			
0.0	MW-2- 15.5				16.0

WELL DIAGRAM



WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\NALLEN\DESKTOP\631916-GINT.GPJ DEFAULT.GDT 8/26/09

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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	MW-3
JOB/SITE NAME	Former Signal Oil Bulk Plant 20-6127	**DRILLING STARTED**	18-Jun-09
LOCATION	2301-2311 Blanding Avenue, Alameda, CA	**DRILLING COMPLETED**	19-Jun-09
PROJECT NUMBER	631916	**WELL DEVELOPMENT DATE (YIELD)**	30-Jun-09
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	11.08 ft above msl
DRILLING METHOD	Direct Push / Hollow-Stem Auger	**TOP OF CASING ELEVATION**	10.72 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	13.5 to 18.5 fbg
LOGGED BY	E. Namba	**DEPTH TO WATER (First Encountered)**	8.5 fbg (18-Jun-09)
REVIEWED BY	G. Barclay	**DEPTH TO WATER (Static)**	4.8 fbg (19-Jun-09)
REMARKS	Cleared to 8 fbg with air-knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	
					SM		**Silty SAND**: Dark brown; dry		
206		MW-3- 4		5					
								6.0	Portland Type I/II
141		MW-3- 6					**Sandy SILT**: Grayish green; dry; moderate plasticity		
							Clayey SILT Moist; moderate to high plasticity		2" diam., Schedule 40 PVC
12		MW-3- 8.5					Wet at 8.5 fbg		
				10	ML				
0.0									Bentonite Seal
								14.0	Monterey Sand #2/12
				15			**Silty SAND**: Grayish green; wet		
0.0		MW-3- 15.5			SM				2"-diam., 0.020" Slotted Schedule 40 PVC
							Decreasing silt content with depth. Brown at 17 fbg		
0.0		MW-3- 18						18.5	Bottom of Boring @ 18.5 fbg

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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	MW-4
JOB/SITE NAME	Former Signal Oil Bulk Plant 20-6127	**DRILLING STARTED**	18-Jun-09
LOCATION	2301-2311 Blanding Avenue, Alameda, CA	**DRILLING COMPLETED**	19-Jun-09
PROJECT NUMBER	631916	**WELL DEVELOPMENT DATE (YIELD)**	30-Jun-09
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	11.65 ft above msl
DRILLING METHOD	Direct Push / Hollow-Stem Auger	**TOP OF CASING ELEVATION**	11.40 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	15.5 to 20.5 fbg
LOGGED BY	E. Namba	**DEPTH TO WATER (First Encountered)**	17.0 fbg (18-Jun-09)
REVIEWED BY	G. Barclay	**DEPTH TO WATER (Static)**	6.8 fbg (19-Jun-09)
REMARKS	Cleared to 8 fbg with air-knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Portland Type I/II
							Gravelly SILT: Brown; dry; low to moderate plasticity; coarse		
0.0		MW-4- 5		5	ML		**Sandy SILT:** Dark brown; damp		
0.0							**Clayey SILT with sand:** Light green to brown; moderate plasticity Slight grey staining		2" diam., Schedule 40 PVC
0.0		MW-4- 10		10			Light brown with some light green; iron oxide staining		
								14.0	Bentonite Seal
							Silty SAND: Light green to light brown; damp; fine grain		
0.0		MW-4- 15		15	SM		Wet; decreasing silt content with depth		Monterey Sand #2/12
0.0		MW-4- 19.5		20			Greyish brown		2"-diam., 0.020" Slotted Schedule 40 PVC
								20.5	Bottom of Boring @ 20.5 fbg

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2000 Opportunity Drive, Suite 110
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BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	MW-5
JOB/SITE NAME	Former Signal Oil Bulk Plant 20-6127	**DRILLING STARTED**	23-Jun-09
LOCATION	2301-2311 Blanding Avenue, Alameda, CA	**DRILLING COMPLETED**	23-Jun-09
PROJECT NUMBER	631916	**WELL DEVELOPMENT DATE (YIELD)**	30-Jun-09
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	11.01 ft above msl
DRILLING METHOD	Direct Push / Hollow-Stem Auger	**TOP OF CASING ELEVATION**	10.50 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	13 to 18 fbg
LOGGED BY	E. Namba	**DEPTH TO WATER (First Encountered)**	14.0 fbg (18-Jun-09)
REVIEWED BY	G. Barclay	**DEPTH TO WATER (Static)**	5.9 fbg (23-Jun-09)
REMARKS	Cleared to 8 fbg with air-knife		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
							Asphalt	0.5	Portland Type I/II
				5			**FILL:** Silty Gravel; coarse; dark brown; dry; bricks and debris		
404		MW-5- 7					**Sandy CLAY:** Greenish grey; dry; moderate to high plasticity; fine grain Moist	7.0	2" diam., Schedule 40 PVC
78.1 98.4		MW-5- 10.5		10	CL				Bentonite Seal
12.8		MW-5- 14		15	SM		**Silty SAND:** Greenish grey; wet	14.0	Monterey Sand #2/12
							Decreasing silt content with depth		2"-diam., 0.020" Slotted Schedule 40 PVC
3.4		MW-5- 17.5						18.0	Bottom of Boring @ 18 fbg

WELL LOG (PID) C:\DOCUMENTS AND SETTINGS\NALLEN\DESKTOP\631916-GINT.GPJ DEFAULT.GDT 8/26/09

APPENDIX E

WELL DEVELOPMENT LOGS

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: **Chevron #206127** Job Number: **386498**

Site Address: **2301-2337 Blanding Avenue** Event Date: 6-30-09 (inclusive)

City: **Alameda, CA** Sampler: JOE

Well ID **MW-2** Date Monitored: 6-30-09

Well Diameter 2 in.

Initial Total Depth (15.08) ft.

Final Total Depth 15.60 ft.

Depth to Water 3.80 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

11.28 xVF 0.17 = 1.92 x10 case volume = Estimated Purge Volume: 20 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: /

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	✓
Stack Pump	✓
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): / Weather Conditions: cloudy

Sample Time/Date: / Water Color: s. lt. gy Odor: Y / N faint

Approx. Flow Rate: / gpm. Sediment Description:

Did well de-water? / If yes, Time: Volume: gal. DTW @ Sampling: /

	Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
feel/swirl	1130	2	6.72	2516	18.7		
dewatered	1142	4	6.75	2522	18.8		
feel/swirl	1144	8	6.81	2518	18.5		
dewatered	1155	11	6.86	2497	19.0		
dewatered	1208	13	6.82	2512	18.3		
feel/swirl	1215	15	6.80	2506	18.6		
	1225	17	6.76	2487	18.1		
	1229	20	6.83	2493	18.5		
	1234	22	6.87	2486	18.4		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY

Add/Replaced Lock: ✓ Add/Replaced Plug: ✓ Add/Replaced Bolt:

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206127 Job Number: 386498
Site Address: 2301-2337 Blanding Avenue Event Date: 6-30-09 (inclusive)
City: Alameda, CA Sampler: Joe

Well ID MW-3 Date Monitored: 6-30-09
Well Diameter 2 in.
Initial Total Depth 17.25 ft.
Final Total Depth 17.88 ft.
Depth to Water 4.61 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

12.64 xVF 0.17 = 2.15 x10 case volume = Estimated Purge Volume: 22 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: _____

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer ✓
Stack Pump ✓
Suction Pump
Grundfos
Peristaltic Pump
QED Bladder Pump
Other:

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Discrete Bailer
Peristaltic Pump
QED Bladder Pump
Other:

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): _____ Weather Conditions: Cloudy
Sample Time/Date: _____ / _____ Water Color: Clear Odor: Y / (N)
Approx. Flow Rate: _____ gpm. Sediment Description: _____
Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: _____

	Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
Steel Slab	1010	2	6.95	2612	19.1		
	1030	5	6.85	2528	18.8		
	1033	7	6.92	2534	18.6		
	1035	9	6.91	2516	18.5		
Steel Slab	1045	12	6.78	2519	18.8		
	1056	16	6.82	2530	18.9		
	1059	19	6.75	2541	19.0		
Steel Slab	1108	21	6.83	2534	18.3		
	1113	24	6.89	2530	18.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY

Add/Replaced Lock: ✓ Add/Replaced Plug: ✓ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206127 Job Number: 386498
Site Address: 2301-2337 Blanding Avenue Event Date: 6-30-09 (inclusive)
City: Alameda, CA Sampler: Joe

Well ID MW-4 Date Monitored: 6-30-09
Well Diameter 2 in.
Initial Total Depth (19.83) ft.
Final Total Depth 20.20 ft.
Depth to Water 6.02 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

13.81 xVF 0.17 = 2.35 x10 case volume = Estimated Purge Volume: 24 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: /

Purge Equipment:
- Disposable Bailer: _____
- Stainless Steel Bailer: ✓
- Stack Pump: ✓
- Suction Pump: _____
- Grundfos: _____
- Peristaltic Pump: _____
- QED Bladder Pump: _____
- Other: _____

Sampling Equipment:
- Disposable Bailer: /
- Pressure Bailer: /
- Discrete Bailer: /
- Peristaltic Pump: /
- QED Bladder Pump: /
- Other: /

Time Started: _____ (2400 hrs)
Time Completed: _____ (2400 hrs)
Depth to Product: _____ ft
Depth to Water: _____ ft
Hydrocarbon Thickness: _____ ft
Visual Confirmation/Description: _____
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: _____ gal
Amt Removed from Well: _____ gal
Water Removed: _____
Product Transferred to: _____

Start Time (purge): /
Sample Time/Date: /
Approx. Flow Rate: / gpm.
Did well de-water? _____ If yes, Time: _____ Volume: _____ gal. DTW @ Sampling: /

Weather Conditions: Cloudy
Water Color: turbid Odor: Y / (N)
Sediment Description: _____

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
Steel bailer 0850	2.5	7.25	2315	19.2		
0903	5	7.32	2321	19.4		
0908	8	7.38	2346	19.1		
0911	11	7.32	2352	19.3		
Steel bailer 0925	14	7.36	2361	19.0		
0928	16	7.21	2355	18.7		
0931	19	7.23	2351	18.7		
Steel bailer 0942	22	7.28	2347	18.6		
0948	25	7.24	2353	18.9		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY

Add/Replaced Lock: ✓ Add/Replaced Plug: ✓ Add/Replaced Bolt: _____

GETTLER-RYAN INC.

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: **Chevron #206127** Job Number: **386498**

Site Address: **2301-2337 Blanding Avenue** Event Date: 6,30-09 (inclusive)

City: **Alameda, CA** Sampler: JDC

Well ID **MW-5** Date Monitored: 6-30-09

Well Diameter **2** in.

Initial Total Depth (17.50) ft.

Final Total Depth 17.90 ft.

Depth to Water 5.20 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

12.30 xVF 0.17 = 2.09 x10 case volume = Estimated Purge Volume: 21 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: /

Purge Equipment:

Disposable Bailer	
Stainless Steel Bailer	✓
Stack Pump	✓
Suction Pump	
Grundfos	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Sampling Equipment:

Disposable Bailer	
Pressure Bailer	
Discrete Bailer	
Peristaltic Pump	
QED Bladder Pump	
Other:	

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: gal
Amt Removed from Well: gal
Water Removed:
Product Transferred to:

Start Time (purge): / Weather Conditions: Foggy

Sample Time/Date: / Water Color: creamy Odor: Y / (N)

Approx. Flow Rate: / gpm. Sediment Description:

Did well de-water? / If yes, Time: Volume: gal. DTW @ Sampling: /

	Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
stainless steel bailer	0722	2	6.90	2346	18.5		
stainless steel bailer	0730	5	6.85	2353	18.6		
evaporated	0732	8	6.86	2350	18.2		
steel bailer	0748	11	6.81	2349	18.4		
	0800	14	6.84	2344	18.1		
evaporated	0804	16	6.80	2340	18.0		
evaporated	0816	19	6.84	2346	18.6		
steel bailer	0830	21	6.87	2354	18.4		
	0835	23	6.83	2350	18.7		

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY

Removed hair like roots from well during developing.

Add/Replaced Lock: ✓ Add/Replaced Plug: ✓ Add/Replaced Bolt:

APPENDIX F

LABORATORY ANALYTICAL REPORTS

Air Toxics LTD.
Laboratory Services Since 1989

8/7/2009

Mr. Brian Silva
Conestoga-Rovers Associates (CRA)
10969 Trade Center Dr
Suite 107
Rancho Cordova CA 95670

Project Name: Chevron 20-6127
Project #: 631916
Workorder #: 0907630B

Dear Mr. Brian Silva

The following report includes the data for the above referenced project for sample(s) received on 7/29/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0907630B

Work Order Summary

CLIENT:	Mr. Brian Silva Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagra Falls, NY 14304
PHONE:	916-889-8908	**P.O. #**	40-4023395
FAX:		**PROJECT #**	631916 Chevron 20-6127
DATE RECEIVED:	07/29/2009	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/07/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VP7	Modified ASTM D-1946	4.0 "Hg	15 psi
02A	VP8	Modified ASTM D-1946	2.5 "Hg	15 psi
03A	VP8-DUPLICATE	Modified ASTM D-1946	2.5 "Hg	15 psi
04A	VP9	Modified ASTM D-1946	4.5 "Hg	15 psi
05A	VP10	Modified ASTM D-1946	4.0 "Hg	15 psi
06A	VP11	Modified ASTM D-1946	5.0 "Hg	15 psi
07A	VP12	Modified ASTM D-1946	3.0 "Hg	15 psi
08A	VP12-DUPLICATE	Modified ASTM D-1946	3.0 "Hg	15 psi
09A	VP13	Modified ASTM D-1946	3.5 "Hg	15 psi
09AA	VP13 Lab Duplicate	Modified ASTM D-1946	3.5 "Hg	15 psi
10A	Lab Blank	Modified ASTM D-1946	NA	NA
10B	Lab Blank	Modified ASTM D-1946	NA	NA
11A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 08/07/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/08, Expiration date: 06/30/09
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified ASTM D-1946
Conestoga-Rovers Associates (CRA)
Workorder# 0907630B

Nine 1 Liter Summa Canister (100% Certified) samples were received on July 29, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***ASTM D-1946***	***ATL Modifications***
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

There were no analytical discrepancies.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VP7

Lab ID#: 0907630B-01A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	19
Nitrogen	0.23	80
Carbon Dioxide	0.023	0.60

Client Sample ID: VP8

Lab ID#: 0907630B-02A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	21
Nitrogen	0.22	78
Carbon Dioxide	0.022	0.56

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630B-03A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	21
Nitrogen	0.22	78
Carbon Dioxide	0.022	0.56

Client Sample ID: VP9

Lab ID#: 0907630B-04A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	15
Nitrogen	0.24	56
Carbon Dioxide	0.024	0.14
Helium	0.12	29

Client Sample ID: VP10

Lab ID#: 0907630B-05A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	17

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VP10

Lab ID#: 0907630B-05A

Nitrogen	0.23	66
Carbon Dioxide	0.023	0.48
Helium	0.12	16

Client Sample ID: VP11

Lab ID#: 0907630B-06A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	16
Nitrogen	0.24	62
Carbon Dioxide	0.024	0.26
Helium	0.12	22

Client Sample ID: VP12

Lab ID#: 0907630B-07A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	19
Nitrogen	0.22	80
Carbon Dioxide	0.022	0.73
Helium	0.11	0.43

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630B-08A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	19
Nitrogen	0.22	80
Carbon Dioxide	0.022	0.73
Helium	0.11	0.44

Client Sample ID: VP13

Lab ID#: 0907630B-09A

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VP13

Lab ID#: 0907630B-09A

Nitrogen	0.23	59
Carbon Dioxide	0.023	0.16
Helium	0.11	26

Client Sample ID: VP13 Lab Duplicate

Lab ID#: 0907630B-09AA

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15
Nitrogen	0.23	58
Carbon Dioxide	0.023	0.16
Helium	0.11	27

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP7

Lab ID#: 0907630B-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080104**	**Date of Collection:**	**7/24/09 10:39:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**8/1/09 10:16 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	19
Nitrogen	0.23	80
Carbon Dioxide	0.023	0.60
Methane	0.00023	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8

Lab ID#: 0907630B-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080112**	**Date of Collection:**	**7/24/09 12:36:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**8/1/09 01:59 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	21
Nitrogen	0.22	78
Carbon Dioxide	0.022	0.56
Methane	0.00022	Not Detected
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630B-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080106**	**Date of Collection: 7/24/09 12:36:00 PM**	
Dil. Factor:	**2.20**	**Date of Analysis: 8/1/09 11:16 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.22	21
Nitrogen	0.22	78
Carbon Dioxide	0.022	0.56
Methane	0.00022	Not Detected
Helium	0.11	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP9

Lab ID#: 0907630B-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080107**	**Date of Collection:**	**7/24/09 1:35:00 PM**
Dil. Factor:	**2.38**	**Date of Analysis:**	**8/1/09 11:46 AM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.24	15
Nitrogen	0.24	56
Carbon Dioxide	0.024	0.14
Methane	0.00024	Not Detected
Helium	0.12	29

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP10

Lab ID#: 0907630B-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080108**	**Date of Collection:**	**7/24/09 3:44:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**8/1/09 12:08 PM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.23	17
Nitrogen	0.23	66
Carbon Dioxide	0.023	0.48
Methane	0.00023	Not Detected
Helium	0.12	16

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP11

Lab ID#: 0907630B-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080109**	**Date of Collection:**	**7/24/09 3:28:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**8/1/09 12:30 PM**

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.24	16
Nitrogen	0.24	62
Carbon Dioxide	0.024	0.26
Methane	0.00024	Not Detected
Helium	0.12	22

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12

Lab ID#: 0907630B-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080110**	**Date of Collection:**	**7/24/09 3:19:00 PM**
Dil. Factor:	**2.24**	**Date of Analysis:**	**8/1/09 12:52 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.22	19
Nitrogen	0.22	80
Carbon Dioxide	0.022	0.73
Methane	0.00022	Not Detected
Helium	0.11	0.43

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630B-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080111**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/1/09 01:35 PM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.22	19
Nitrogen	0.22	80
Carbon Dioxide	0.022	0.73
Methane	0.00022	Not Detected
Helium	0.11	0.44

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP13

Lab ID#: 0907630B-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080105**	**Date of Collection:**	**7/24/09 11:13:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**8/1/09 10:45 AM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15
Nitrogen	0.23	59
Carbon Dioxide	0.023	0.16
Methane	0.00023	Not Detected
Helium	0.11	26

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP13 Lab Duplicate

Lab ID#: 0907630B-09AA

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080113**	**Date of Collection:**	**7/24/09 11:13:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**8/1/09 02:21 PM**

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.23	15
Nitrogen	0.23	58
Carbon Dioxide	0.023	0.16
Methane	0.00023	Not Detected
Helium	0.11	27

Container Type: 1 Liter Summa Canister (100% Certified)

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630B-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080103**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/1/09 09:49 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630B-10B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080102b**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/1/09 09:25 AM**	

Compound	**Rpt. Limit (%)**	**Amount (%)**
Helium	0.050	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907630B-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	**9080118**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/1/09 04:25 PM**	

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Dioxide	101
Methane	101
Helium	105

Container Type: NA - Not Applicable

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager BRIAN SILVA
Collected by: (Print and Sign) IAN HULL
Company CRA Email bsilva@craworld.com
Address 10969 TRADE CENTER DRIVE City RANCHO CORDOVA State CA Zip 95670
Phone 916-889-8908 Fax 916-889-8999

Project Info:
P.O. # 40-460233.95
Project # 631916
Project Name CHEVRON 20-6127

Turn Around Time: (specify)
☒ Normal
☐ Rush

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psig)
01A	VP7	31778	07/24/2009	1039	TO-15: FULL SCAN,	<-30	-6.5		
02A	VP8	11900		1236	TPHg	-30	-2		
03A	VP8-DUPLICATE	1371		1236	ASTM D-1946:	<-30	-2		
04A	VP9	93102		1335	CO_2, O_2, CH_4,	-29	-5		
05A	VP10	9438		1544	HELIUM	-29.5	-7		
06A	VP11	97102		1528		<-30	-6		
07A	VP12	2214		1519		<-30	-5		
08A	VP12-DUPLICATE	2184		1519		<-30	-5		
09A	VP13	36375		1413		<-30	-6		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	07/27/2009 0930	FEDEX	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		MONICA GREGSON ATL	7/29/09 930
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
- RESULTS IN PPBV AND $\mu g/m^3$
- EMAIL RESULTS TO PM AND ihull@craworld.com

Lab Use Only	Shipper Name	Air Bill #	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		MA	Good	Yes No (None)	0907630

Form 1238 rev.11

8/26/2009
Mr. Brian Silva
Conestoga-Rovers Associates (CRA)
10969 Trade Center Dr
Suite 107
Rancho Cordova CA 95670

Project Name: Chevron 20-6127
Project #: 631916
Workorder #: 0907630AR1

Dear Mr. Brian Silva

The following report includes the data for the above referenced project for sample(s) received on 7/29/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15/TICs are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0907630AR1

Work Order Summary

CLIENT:	Mr. Brian Silva Conestoga-Rovers Associates (CRA) 10969 Trade Center Dr Suite 107 Rancho Cordova, CA 95670	**BILL TO:**	Accounts Payable Conestoga-Rovers Associates (CRA) 2055 Niagara Falls Blvd. Suite Three Niagra Falls, NY 14304
PHONE:	916-889-8908	**P.O. #**	40-4023395
FAX:		**PROJECT #**	631916 Chevron 20-6127
DATE RECEIVED:	07/29/2009	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	08/26/2009		
DATE REISSUED:	08/26/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	VP7	Modified TO-15/TICs	4.0 "Hg	15 psi
02A	VP8	Modified TO-15/TICs	2.5 "Hg	15 psi
02AA	VP8 Lab Duplicate	Modified TO-15/TICs	2.5 "Hg	15 psi
03A	VP8-DUPLICATE	Modified TO-15/TICs	2.5 "Hg	15 psi
04A	VP9	Modified TO-15/TICs	4.5 "Hg	15 psi
05A	VP10	Modified TO-15/TICs	4.0 "Hg	15 psi
06A	VP11	Modified TO-15/TICs	5.0 "Hg	15 psi
07A	VP12	Modified TO-15/TICs	3.0 "Hg	15 psi
08A	VP12-DUPLICATE	Modified TO-15/TICs	3.0 "Hg	15 psi
09A	VP13	Modified TO-15/TICs	3.5 "Hg	15 psi
10A	Lab Blank	Modified TO-15/TICs	NA	NA
10B	Lab Blank	Modified TO-15/TICs	NA	NA
11A	CCV	Modified TO-15/TICs	NA	NA
11B	CCV	Modified TO-15/TICs	NA	NA
12A	LCS	Modified TO-15/TICs	NA	NA
12B	LCS	Modified TO-15/TICs	NA	NA

CERTIFIED BY: Linda D. Frumarn DATE: 08/26/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified TO-15
Conestoga-Rovers Associates (CRA)
Workorder# 0907630AR1

Nine 1 Liter Summa Canister (100% Certified) samples were received on July 29, 2009. The laboratory performed analysis via modified EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	***TO-15***	***ATL Modifications***
Daily CCV	</= 30% Difference	</= 30% Difference; Compounds exceeding this criterion and associated data are flagged and narrated.
Sample collection media	Summa canister	ATL recommends use of summa canisters to insure data defensibility, but will report results from Tedlar bags at client request
Method Detection Limit	Follow 40CFR Pt.136 App. B	The MDL met all relevant requirements in Method TO-15 (statistical MDL less than the LOQ). The concentration of the spiked replicate may have exceeded 10X the calculated MDL in some cases

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

Samples VP8 and VP8-DUPLICATE and VP12 and VP12-DUPLICATE do not meet laboratory acceptance criteria of 25% RPD for duplicate samples. According to the COC, these samples appear to be field duplicates.

THE WORK ORDER WAS RE-ISSUED ON 8/26/09 TO REPORT TPHG. WHILE THE INITIAL REPORT MET THE LABORATORY DATA QUALITY REQUIREMENTS FOR THE ORIGINALLY REQUESTED COMPOUNDS, TPHG WAS NOT EVALUATED FOR QUALITY COMPLIANCE AT THE TIME OF SAMPLE ANALYSIS. AS A RESULT, THE RE-ISSUED REPORT CONTAINS QUALIFIED DATA FOR TPHG. THE SPECIFIC ANALYTICAL DISCREPANCIES ARE LISTED BELOW:

A CCV FOR TPHG WAS NOT PERFORMED FOR THE SAMPLES ANALYZED ON 8/8/09. IN ADDITION, TPHG WAS DETECTED IN THE LABORATORY BLANK ANALYZED ON 8/8/09 AT LESS THAN 5X THE REPORTING LIMIT. ASSOCIATED SAMPLES THAT CONTAINED TPHG

WERE FLAGGED AS INDICATED.

ALSO AS PART OF THIS REVISED WORKORDER THE FOLLOWING CORRECTIONS WERE MADE UPON REVIEW OF THE DATA:

THE RESULT FOR THE TIC CYCLOHEXANONE IN SAMPLE VP8 LAB DUPLICATE WAS CORRECTLY REPORTED. IT WAS INADVERTENTLY NOT INCLUDED IN THE ORIGINAL WORKORDER.

THE TIC REPORTED AS ARSENOUS ACID, TRIS(TRIMETHYLSILYL) ESTE IN SAMPLES VP7, VP8 AND VP8 LAB DUPLICATE WERE INCORRECTLY REPORTED IN THE ORIGINAL WORKORDER AND WERE REMOVED FROM THE REISSUED REPORT.

THE %AROMATIC AND %ALIPHATIC VALUES REPORTED FOR SAMPLE VP7 WERE CORRECTED.

AN INCORRECT FLAG FOR TETRACHLOROETHANE IN SAMPLE VP7 WAS REMOVED.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction no performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP7

Lab ID#: 0907630AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	1.2	1.2	7.9	7.9
Acetone	4.7	11	11	25
2-Butanone (Methyl Ethyl Ketone)	1.2	5.8	3.4	17
Tetrahydrofuran	1.2	7.7	3.4	23

Client Sample ID: VP8

Lab ID#: 0907630AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	1.1	2.2	7.5	15
Acetone	4.4	7.8	10	18
2-Butanone (Methyl Ethyl Ketone)	1.1	10	3.2	30
Tetrahydrofuran	1.1	18	3.2	52
TPH ref. to Gasoline (MW=100)	22	120	90	490

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Cyclohexanone	108-94-1	68%	150 N J

Client Sample ID: VP8 Lab Duplicate

Lab ID#: 0907630AR1-02AA

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Acetone	8.8	9.0	21	21
2-Butanone (Methyl Ethyl Ketone)	2.2	10	6.5	30
Tetrahydrofuran	2.2	18	6.5	52
TPH ref. to Gasoline (MW=100)	44	58	180	240

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Cyclohexanone	108-94-1	49%	210 N J

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630AR1-03A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.1	2.1	3.5	6.6
Toluene	1.1	13	4.1	48
Tetrachloroethene	1.1	2.1	7.5	14
Ethyl Benzene	1.1	5.6	4.8	24
m,p-Xylene	1.1	24	4.8	100
o-Xylene	1.1	15	4.8	64
1,3,5-Trimethylbenzene	1.1	6.8	5.4	33
1,2,4-Trimethylbenzene	1.1	27	5.4	130
Propylbenzene	1.1	2.8	5.4	14
Acetone	4.4	18	10	43
Carbon Disulfide	1.1	1.8	3.4	5.5
2-Butanone (Methyl Ethyl Ketone)	1.1	7.8	3.2	23
4-Ethyltoluene	1.1	16	5.4	79
TPH ref. to Gasoline (MW=100)	22	2000	90	8200

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
2-Propenal	107-02-8	7.0%	19 N J
3-Buten-2-one	78-94-4	72%	160 N J
Acetic acid ethenyl ester	108-05-4	5.0%	96 N J
Cyclobutane, 1,2-bis(methylene)-	14296-80-1	72%	24 N J
Benzene, 1-ethyl-2-methyl-	611-14-3	90%	24 N J
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	74%	51 N J
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	90%	29 N J
Benzene, 1,2,3,5-tetramethyl-	527-53-7	91%	23 N J
Benzaldehyde, 2-hydroxy-	90-02-8	90%	25 N J
m-Menth-6-ene, (R)-(+)-	13837-70-2	64%	38 N J
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	87%	26 N J
Benzene, 1,2,3,4-tetramethyl-	488-23-3	95%	37 N J
2-Butanone, 4-butoxy-3-methyl-	54340-94-2	12%	42 N J
2,3-Dihydro-1-methylindene	27133-93-3	91%	30 N J
1H-Indene, 2,3-dihydro-1-methyl-	767-58-8	60%	55 N J
Unknown	NA	NA	28 J
Naphthalene	91-20-3	94%	66 N J
1H-Indene, 2,3-dihydro-1,3-dimethyl-	4175-53-5	91%	15 N J
Naphthalene, 2-methyl-	91-57-6	91%	34 N J
Naphthalene, 1-methyl-	90-12-0	91%	18 N J

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Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP9

Lab ID#: 0907630AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	10	4.5	38
m,p-Xylene	1.2	4.4	5.2	19
o-Xylene	1.2	1.3	5.2	5.8
Acetone	4.8	16	11	39
2-Butanone (Methyl Ethyl Ketone)	1.2	1.4	3.5	4.2
Ethanol	4.8	5.8	9.0	11
TPH ref. to Gasoline (MW=100)	24	2200	97	8800

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
1-Hexanol, 2-ethyl-	104-76-7	64%	100 N J
Undecane	1120-21-4	59%	39 N J
Dodecane, 1,1-dimethoxy-	14620-52-1	16%	33 N J
Cyclohexane, 1,1'-(1,4-butanediyl)bis-	6165-44-2	35%	35 N J
Propanoic acid, 2-hydroxy-, butyl ester	138-22-7	16%	60 N J
Dodecane	112-40-3	95%	48 N J
Undecane, 3,6-dimethyl-	17301-28-9	62%	74 N J
Cyclohexane, (3,3-dimethylpentyl)-	61142-22-1	47%	30 N J
4-Undecene, 6-methyl-	0-00-0	59%	38 N J
Naphthalene, decahydro-2,3-dimethyl-	1008-80-6	76%	34 N J
Undecane, 2,7-dimethyl-	17301-24-5	64%	53 N J
2-Fluoro-5-dimethylaminopyrimidine	65644-27-1	25%	61 N J
Undecane, 4,6-dimethyl-	17312-82-2	55%	59 N J
m-Menthane, (1S,3R)-(+)-	13837-66-6	4.0%	54 N J
Naphthalene, 1,1'-ethylidenebis[decahydr	54934-70-2	53%	43 N J
Dodecane, 2,5-dimethyl-	56292-65-0	55%	52 N J
Acetaldehyde, 2-butenylhydrazone	75268-07-4	37%	41 N J
6-Undecanone	927-49-1	86%	42 N J
1,4 Benzodioxan-6-amine	22013-33-8	37%	31 N J
3-Cyclohexen-1-ol, 4-methyl-1-(1-methyle	20126-76-5	22%	29 N J

Client Sample ID: VP10

Lab ID#: 0907630AR1-05A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP10

Lab ID#: 0907630AR1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	1.9	4.4	7.1
Tetrachloroethene	1.2	17	7.9	120
Ethyl Benzene	1.2	12	5.0	52
m,p-Xylene	1.2	30	5.0	130
o-Xylene	1.2	16	5.0	71
1,3,5-Trimethylbenzene	1.2	4.2	5.7	21
1,2,4-Trimethylbenzene	1.2	9.2	5.7	45
Heptane	1.2	2.9	4.8	12
Propylbenzene	1.2	2.4	5.7	12
Acetone	4.7	11	11	27
2-Butanone (Methyl Ethyl Ketone)	1.2	1.2	3.4	3.5
4-Ethyltoluene	1.2	12	5.7	59
2,2,4-Trimethylpentane	1.2	2.4	5.4	11
TPH ref. to Gasoline (MW=100)	23	600 B	95	2500 B

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Heptane, 2-methyl-	592-27-8	64%	12 N J
Heptane, 3-methyl-	589-81-1	83%	6.1 N J
Benzonitrile, 3-hydroxy-	873-62-1	9.0%	8.8 N J
Benzene, 1-ethyl-2-methyl-	611-14-3	94%	6.8 N J
Nonane, 2,5-dimethyl-	17302-27-1	62%	6.0 N J
1-Hexanol, 2-ethyl-	104-76-7	59%	6.1 N J
Nonane, 4,5-dimethyl-	17302-23-7	59%	6.1 N J
Hexane, 1-(hexyloxy)-5-methyl-	74421-19-5	22%	9.4 N J
Pentadecane	629-62-9	86%	7.3 N J
Decane, 2,6,7-trimethyl-	62108-25-2	53%	11 N J
Dodecane, 5-methyl-	17453-93-9	64%	7.6 N J
Propane, 1,2,2-trichloro-	3175-23-3	37%	8.8 N J
Cyclopentane, (2-methylpropyl)-	3788-32-7	43%	8.9 N J
3-Furanmethanol, .alpha.-cyclohexyl-	36646-66-9	9.0%	7.5 N J
Tridecane, 1-iodo-	35599-77-0	52%	6.2 N J
Tetracontane, 3,5,24-trimethyl-	55162-61-3	27%	6.7 N J

Client Sample ID: VP11

Lab ID#: 0907630AR1-06A

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP11

Lab ID#: 0907630AR1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.2	3.5	4.6	13
m,p-Xylene	1.2	1.8	5.2	8.0
Acetone	4.8	9.9	11	23
2-Butanone (Methyl Ethyl Ketone)	1.2	1.7	3.6	5.2
TPH ref. to Gasoline (MW=100)	24	110 B	99	450 B

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Disulfide, dimethyl	624-92-0	94%	87 N J
Methyl ethyl disulphide	20333-39-5	86%	93 N J
Methyl isopropyl disulphide	40136-65-0	94%	52 N J
Disulfide, diethyl	110-81-6	91%	34 N J
Ethyl N-propyl disulphide	30453-31-7	59%	34 N J
Methyl sec-butyl disulphide	67421-87-8	96%	17 N J
Disulfide, ethyl 1-methylethyl	53966-36-2	87%	11 N J
Disulfide, ethyl 1-methylpropyl	54166-53-9	78%	11 N J

Client Sample ID: VP12

Lab ID#: 0907630AR1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.5	6.3	8.6
Trichloroethene	1.1	2.6	6.0	14
Tetrachloroethene	1.1	56	7.6	380
Acetone	4.5	5.6	11	13
Tetrahydrofuran	1.1	1.6	3.3	4.9
TPH ref. to Gasoline (MW=100)	22	47 B	92	190 B

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630AR1-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 11	1.1	1.6	6.3	9.1
Tetrachloroethene	1.1	5.7	7.6	39
Acetone	4.5	7.8	11	18

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630AR1-08A

2-Butanone (Methyl Ethyl Ketone)	1.1	1.9	3.3	5.7
Tetrahydrofuran	1.1	2.4	3.3	7.0
TPH ref. to Gasoline (MW=100)	22	390 B	92	1600 B

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Ethanol, 2-butoxy-	111-76-2	72%	220 N J
Acetamide, N,N-dimethyl-	127-19-5	9.0%	32 N J
1-Hexanol, 2-ethyl-	104-76-7	64%	6.4 N J

Client Sample ID: VP13

Lab ID#: 0907630AR1-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	1.1	53	4.3	200
m,p-Xylene	1.1	2.1	5.0	9.1
Acetone	4.6	28	11	67
2-Propanol	4.6	7.6	11	19
2-Butanone (Methyl Ethyl Ketone)	1.1	4.1	3.4	12
Ethanol	4.6	9.9	8.6	19
TPH ref. to Gasoline (MW=100)	23	2100 B	94	8600 B

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
D-Limonene	5989-27-5	89%	19 N J
1-Hexanol, 2-ethyl-	104-76-7	74%	42 N J
Undecane, 3-methyl-	1002-43-3	59%	21 N J
Octanoic acid, 3-methylbutyl ester	2035-99-6	38%	17 N J
2-Hexenoic acid, 4-methylphenyl ester	69687-91-8	9.0%	21 N J
Undecane, 5-methyl-	1632-70-8	72%	35 N J
Decane, 3,3,4-trimethyl-	49622-18-6	33%	32 N J
Cyclohexane, (1-ethylpropyl)-	26321-98-2	43%	32 N J
Hexane, 1-(hexyloxy)-5-methyl-	74421-19-5	17%	57 N J
Pentadecane	629-62-9	86%	46 N J
Dodecane, 2,7,10-trimethyl-	74645-98-0	47%	72 N J
Undecane, 2,8-dimethyl-	17301-25-6	38%	29 N J
Naphthalene, decahydro-2,6-dimethyl-	1618-22-0	80%	34 N J

Summary of Detected Compounds
MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: VP13

Lab ID#: 0907630AR1-09A

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount (ppbv)
Dodecane, 5-methyl-	17453-93-9	80%	52 N J
1H-1,2,4-Triazole, 1-ethyl-	16778-70-4	35%	61 N J
Butane, 2-iodo-2-methyl-	594-38-7	47%	59 N J
Bicyclo[4.1.0]heptane, 3-methyl-7-pentyl	41977-48-4	22%	45 N J
Dodecane, 2,5-dimethyl-	56292-65-0	46%	44 N J
1,4 Benzodioxan-6-amine	22013-33-8	43%	36 N J
Tetradecane	629-59-4	43%	22 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP7

Lab ID#: 0907630AR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080720R1**	**Date of Collection: 7/24/09 10:39:00 AM**	
Dil. Factor:	**2.33**	**Date of Analysis: 8/7/09 09:18 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	Not Detected	4.4	Not Detected
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	1.2	7.9	7.9
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	Not Detected	5.0	Not Detected
m,p-Xylene	1.2	Not Detected	5.0	Not Detected
o-Xylene	1.2	Not Detected	5.0	Not Detected
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.7	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP7

Lab ID#: 0907630AR1-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080720R1**	**Date of Collection:**	**7/24/09 10:39:00 AM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**8/7/09 09:18 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	4.8	Not Detected
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	Not Detected	5.7	Not Detected
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	11	11	25
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	5.8	3.4	17
Tetrahydrofuran	1.2	7.7	3.4	23
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.7	Not Detected
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.4	Not Detected
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	Not Detected	95	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

91.6% Aliphatic, 8.4%Aromatic

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	102	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8

Lab ID#: 0907630AR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080722R1**	**Date of Collection: 7/24/09 12:36:00 PM**	
Dil. Factor:	**2.20**	**Date of Analysis: 8/7/09 11:21 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Benzene	1.1	Not Detected	3.5	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Toluene	1.1	Not Detected	4.1	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	2.2	7.5	15
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	Not Detected	4.8	Not Detected
m,p-Xylene	1.1	Not Detected	4.8	Not Detected
o-Xylene	1.1	Not Detected	4.8	Not Detected
Styrene	1.1	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.4	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8

Lab ID#: 0907630AR1-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080722R1**	**Date of Collection:**	**7/24/09 12:36:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**8/7/09 11:21 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Propylbenzene	1.1	Not Detected	5.4	Not Detected
Chloromethane	4.4	Not Detected	9.1	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Acetone	4.4	7.8	10	18
Carbon Disulfide	1.1	Not Detected	3.4	Not Detected
2-Propanol	4.4	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	10	3.2	30
Tetrahydrofuran	1.1	18	3.2	52
1,4-Dioxane	4.4	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.4	Not Detected
Ethanol	4.4	Not Detected	8.3	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	120	90	490

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Cyclohexanone	108-94-1	68%	150 N J

94.7%Aliphatic, 5.1%Aromatic

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8 Lab Duplicate

Lab ID#: 0907630AR1-02AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080721R1**	**Date of Collection:**	**7/24/09 12:36:00 PM**
Dil. Factor:	**4.40**	**Date of Analysis:**	**8/7/09 10:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	2.2	Not Detected	11	Not Detected
Freon 114	2.2	Not Detected	15	Not Detected
Vinyl Chloride	2.2	Not Detected	5.6	Not Detected
Bromomethane	2.2	Not Detected	8.5	Not Detected
Chloroethane	2.2	Not Detected	5.8	Not Detected
Freon 11	2.2	Not Detected	12	Not Detected
1,1-Dichloroethene	2.2	Not Detected	8.7	Not Detected
Freon 113	2.2	Not Detected	17	Not Detected
Methylene Chloride	2.2	Not Detected	7.6	Not Detected
1,1-Dichloroethane	2.2	Not Detected	8.9	Not Detected
cis-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected
Chloroform	2.2	Not Detected	11	Not Detected
1,1,1-Trichloroethane	2.2	Not Detected	12	Not Detected
Carbon Tetrachloride	2.2	Not Detected	14	Not Detected
Benzene	2.2	Not Detected	7.0	Not Detected
1,2-Dichloroethane	2.2	Not Detected	8.9	Not Detected
Trichloroethene	2.2	Not Detected	12	Not Detected
1,2-Dichloropropane	2.2	Not Detected	10	Not Detected
cis-1,3-Dichloropropene	2.2	Not Detected	10	Not Detected
Toluene	2.2	Not Detected	8.3	Not Detected
trans-1,3-Dichloropropene	2.2	Not Detected	10	Not Detected
1,1,2-Trichloroethane	2.2	Not Detected	12	Not Detected
Tetrachloroethene	2.2	Not Detected	15	Not Detected
1,2-Dibromoethane (EDB)	2.2	Not Detected	17	Not Detected
Chlorobenzene	2.2	Not Detected	10	Not Detected
Ethyl Benzene	2.2	Not Detected	9.6	Not Detected
m,p-Xylene	2.2	Not Detected	9.6	Not Detected
o-Xylene	2.2	Not Detected	9.6	Not Detected
Styrene	2.2	Not Detected	9.4	Not Detected
1,1,2,2-Tetrachloroethane	2.2	Not Detected	15	Not Detected
1,3,5-Trimethylbenzene	2.2	Not Detected	11	Not Detected
1,2,4-Trimethylbenzene	2.2	Not Detected	11	Not Detected
1,3-Dichlorobenzene	2.2	Not Detected	13	Not Detected
1,4-Dichlorobenzene	2.2	Not Detected	13	Not Detected
alpha-Chlorotoluene	2.2	Not Detected	11	Not Detected
1,2-Dichlorobenzene	2.2	Not Detected	13	Not Detected
1,3-Butadiene	2.2	Not Detected	4.9	Not Detected
Hexane	2.2	Not Detected	7.8	Not Detected
Cyclohexane	2.2	Not Detected	7.6	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8 Lab Duplicate

Lab ID#: 0907630AR1-02AA

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080721R1**	**Date of Collection:**	**7/24/09 12:36:00 PM**
Dil. Factor:	**4.40**	**Date of Analysis:**	**8/7/09 10:09 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	2.2	Not Detected	9.0	Not Detected
Bromodichloromethane	2.2	Not Detected	15	Not Detected
Dibromochloromethane	2.2	Not Detected	19	Not Detected
Cumene	2.2	Not Detected	11	Not Detected
Propylbenzene	2.2	Not Detected	11	Not Detected
Chloromethane	8.8	Not Detected	18	Not Detected
1,2,4-Trichlorobenzene	8.8	Not Detected	65	Not Detected
Hexachlorobutadiene	8.8	Not Detected	94	Not Detected
Acetone	8.8	9.0	21	21
Carbon Disulfide	2.2	Not Detected	6.8	Not Detected
2-Propanol	8.8	Not Detected	22	Not Detected
trans-1,2-Dichloroethene	2.2	Not Detected	8.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.2	10	6.5	30
Tetrahydrofuran	2.2	18	6.5	52
1,4-Dioxane	8.8	Not Detected	32	Not Detected
4-Methyl-2-pentanone	2.2	Not Detected	9.0	Not Detected
2-Hexanone	8.8	Not Detected	36	Not Detected
Bromoform	2.2	Not Detected	23	Not Detected
4-Ethyltoluene	2.2	Not Detected	11	Not Detected
Ethanol	8.8	Not Detected	16	Not Detected
Methyl tert-butyl ether	2.2	Not Detected	7.9	Not Detected
2,2,4-Trimethylpentane	2.2	Not Detected	10	Not Detected
3-Chloropropene	8.8	Not Detected	28	Not Detected
TPH ref. to Gasoline (MW=100)	44	58	180	240

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Cyclohexanone	108-94-1	49%	210 N J

95.1%Aliphatic, 4.9%Aromatic

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080723**	**Date of Collection: 7/24/09 12:36:00 PM**	
Dil. Factor:	**2.20**	**Date of Analysis: 8/7/09 11:58 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.4	Not Detected
Freon 114	1.1	Not Detected	7.7	Not Detected
Vinyl Chloride	1.1	Not Detected	2.8	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	2.9	Not Detected
Freon 11	1.1	Not Detected	6.2	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.4	Not Detected
Methylene Chloride	1.1	Not Detected	3.8	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.4	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.4	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Carbon Tetrachloride	1.1	Not Detected	6.9	Not Detected
Benzene	1.1	2.1	3.5	6.6
1,2-Dichloroethane	1.1	Not Detected	4.4	Not Detected
Trichloroethene	1.1	Not Detected	5.9	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.1	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
Toluene	1.1	13	4.1	48
trans-1,3-Dichloropropene	1.1	Not Detected	5.0	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.0	Not Detected
Tetrachloroethene	1.1	2.1	7.5	14
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.4	Not Detected
Chlorobenzene	1.1	Not Detected	5.1	Not Detected
Ethyl Benzene	1.1	5.6	4.8	24
m,p-Xylene	1.1	24	4.8	100
o-Xylene	1.1	15	4.8	64
Styrene	1.1	Not Detected	4.7	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.6	Not Detected
1,3,5-Trimethylbenzene	1.1	6.8	5.4	33
1,2,4-Trimethylbenzene	1.1	27	5.4	130
1,3-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.7	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.6	Not Detected
1,3-Butadiene	1.1	Not Detected	2.4	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080723**	**Date of Collection:**	**7/24/09 12:36:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis:**	**8/7/09 11:58 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.5	Not Detected
Bromodichloromethane	1.1	Not Detected	7.4	Not Detected
Dibromochloromethane	1.1	Not Detected	9.4	Not Detected
Cumene	1.1	Not Detected	5.4	Not Detected
Propylbenzene	1.1	2.8	5.4	14
Chloromethane	4.4	Not Detected	9.1	Not Detected
1,2,4-Trichlorobenzene	4.4	Not Detected	33	Not Detected
Hexachlorobutadiene	4.4	Not Detected	47	Not Detected
Acetone	4.4	18	10	43
Carbon Disulfide	1.1	1.8	3.4	5.5
2-Propanol	4.4	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	7.8	3.2	23
Tetrahydrofuran	1.1	Not Detected	3.2	Not Detected
1,4-Dioxane	4.4	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.5	Not Detected
2-Hexanone	4.4	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	11	Not Detected
4-Ethyltoluene	1.1	16	5.4	79
Ethanol	4.4	Not Detected	8.3	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.1	Not Detected
3-Chloropropene	4.4	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	2000	90	8200

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
2-Propenal	107-02-8	7.0%	19 N J
3-Buten-2-one	78-94-4	72%	160 N J
Acetic acid ethenyl ester	108-05-4	5.0%	96 N J
Cyclobutane, 1,2-bis(methylene)-	14296-80-1	72%	24 N J
Benzene, 1-ethyl-2-methyl-	611-14-3	90%	24 N J
Benzene, 1-methyl-3-(1-methylethyl)-	535-77-3	74%	51 N J
Benzene, 1-ethyl-2,4-dimethyl-	874-41-9	90%	29 N J
Benzene, 1,2,3,5-tetramethyl-	527-53-7	91%	23 N J
Benzaldehyde, 2-hydroxy-	90-02-8	90%	25 N J
m-Menth-6-ene, (R)-(+)-	13837-70-2	64%	38 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP8-DUPLICATE

Lab ID#: 0907630AR1-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080723**	**Date of Collection: 7/24/09 12:36:00 PM**
Dil. Factor:	**2.20**	**Date of Analysis: 8/7/09 11:58 PM**

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Benzene, 1-methyl-2-(1-methylethyl)-	527-84-4	87%	26 N J
Benzene, 1,2,3,4-tetramethyl-	488-23-3	95%	37 N J
2-Butanone, 4-butoxy-3-methyl-	54340-94-2	12%	42 N J
2,3-Dihydro-1-methylindene	27133-93-3	91%	30 N J
1H-Indene, 2,3-dihydro-1-methyl-	767-58-8	60%	55 N J
Unknown	NA	NA	28 J
Naphthalene	91-20-3	94%	66 N J
1H-Indene, 2,3-dihydro-1,3-dimethyl-	4175-53-5	91%	15 N J
Naphthalene, 2-methyl-	91-57-6	91%	34 N J
Naphthalene, 1-methyl-	90-12-0	91%	18 N J

48.4% Aliphatic, 51.6% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	105	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP9

Lab ID#: 0907630AR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080724**	**Date of Collection: 7/24/09 1:35:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 8/8/09 12:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.9	Not Detected
Freon 114	1.2	Not Detected	8.3	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.6	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.7	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Freon 113	1.2	Not Detected	9.1	Not Detected
Methylene Chloride	1.2	Not Detected	4.1	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.8	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
Chloroform	1.2	Not Detected	5.8	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.5	Not Detected
Benzene	1.2	Not Detected	3.8	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.8	Not Detected
Trichloroethene	1.2	Not Detected	6.4	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.5	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
Toluene	1.2	10	4.5	38
trans-1,3-Dichloropropene	1.2	Not Detected	5.4	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.5	Not Detected
Tetrachloroethene	1.2	Not Detected	8.1	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.1	Not Detected
Chlorobenzene	1.2	Not Detected	5.5	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	4.4	5.2	19
o-Xylene	1.2	1.3	5.2	5.8
Styrene	1.2	Not Detected	5.1	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.2	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.8	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.2	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.2	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.2	Not Detected
Cyclohexane	1.2	Not Detected	4.1	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP9

Lab ID#: 0907630AR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080724**	**Date of Collection: 7/24/09 1:35:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 8/8/09 12:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	4.9	Not Detected
Bromodichloromethane	1.2	Not Detected	8.0	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Cumene	1.2	Not Detected	5.8	Not Detected
Propylbenzene	1.2	Not Detected	5.8	Not Detected
Chloromethane	4.8	Not Detected	9.8	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	35	Not Detected
Hexachlorobutadiene	4.8	Not Detected	51	Not Detected
Acetone	4.8	16	11	39
Carbon Disulfide	1.2	Not Detected	3.7	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.7	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	1.4	3.5	4.2
Tetrahydrofuran	1.2	Not Detected	3.5	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.9	Not Detected
2-Hexanone	4.8	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.8	Not Detected
Ethanol	4.8	5.8	9.0	11
Methyl tert-butyl ether	1.2	Not Detected	4.3	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
TPH ref. to Gasoline (MW=100)	24	2200	97	8800

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
1-Hexanol, 2-ethyl-	104-76-7	64%	100 N J
Undecane	1120-21-4	59%	39 N J
Dodecane, 1,1-dimethoxy-	14620-52-1	16%	33 N J
Cyclohexane, 1,1'-(1,4-butanediyl)bis-	6165-44-2	35%	35 N J
Propanoic acid, 2-hydroxy-, butyl ester	138-22-7	16%	60 N J
Dodecane	112-40-3	95%	48 N J
Undecane, 3,6-dimethyl-	17301-28-9	62%	74 N J
Cyclohexane, (3,3-dimethylpentyl)-	61142-22-1	47%	30 N J
4-Undecene, 6-methyl-	0-00-0	59%	38 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP9

Lab ID#: 0907630AR1-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080724**	**Date of Collection: 7/24/09 1:35:00 PM**	
Dil. Factor:	**2.38**	**Date of Analysis: 8/8/09 12:35 AM**	

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Naphthalene, decahydro-2,3-dimethyl-	1008-80-6	76%	34 N J
Undecane, 2,7-dimethyl-	17301-24-5	64%	53 N J
2-Fluoro-5-dimethylaminopyrimidine	65644-27-1	25%	61 N J
Undecane, 4,6-dimethyl-	17312-82-2	55%	59 N J
m-Menthane, (1S,3R)-(+)-	13837-66-6	4.0%	54 N J
Naphthalene, 1,1'-ethylidenebis[decahydr	54934-70-2	53%	43 N J
Dodecane, 2,5-dimethyl-	56292-65-0	55%	52 N J
Acetaldehyde, 2-butenylhydrazone	75268-07-4	37%	41 N J
6-Undecanone	927-49-1	86%	42 N J
1,4 Benzodioxan-6-amine	22013-33-8	37%	31 N J
3-Cyclohexen-1-ol, 4-methyl-1-(1-methyle	20126-76-5	22%	29 N J

91.8% Aliphatic, 8.2% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP10

Lab ID#: 0907630AR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080810**	**Date of Collection: 7/24/09 3:44:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 8/8/09 01:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	5.8	Not Detected
Freon 114	1.2	Not Detected	8.1	Not Detected
Vinyl Chloride	1.2	Not Detected	3.0	Not Detected
Bromomethane	1.2	Not Detected	4.5	Not Detected
Chloroethane	1.2	Not Detected	3.1	Not Detected
Freon 11	1.2	Not Detected	6.5	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Freon 113	1.2	Not Detected	8.9	Not Detected
Methylene Chloride	1.2	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.7	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
Chloroform	1.2	Not Detected	5.7	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.3	Not Detected
Benzene	1.2	Not Detected	3.7	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.7	Not Detected
Trichloroethene	1.2	Not Detected	6.3	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.4	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
Toluene	1.2	1.9	4.4	7.1
trans-1,3-Dichloropropene	1.2	Not Detected	5.3	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.4	Not Detected
Tetrachloroethene	1.2	17	7.9	120
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.0	Not Detected
Chlorobenzene	1.2	Not Detected	5.4	Not Detected
Ethyl Benzene	1.2	12	5.0	52
m,p-Xylene	1.2	30	5.0	130
o-Xylene	1.2	16	5.0	71
Styrene	1.2	Not Detected	5.0	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.0	Not Detected
1,3,5-Trimethylbenzene	1.2	4.2	5.7	21
1,2,4-Trimethylbenzene	1.2	9.2	5.7	45
1,3-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.0	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.0	Not Detected
1,3-Butadiene	1.2	Not Detected	2.6	Not Detected
Hexane	1.2	Not Detected	4.1	Not Detected
Cyclohexane	1.2	Not Detected	4.0	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP10

Lab ID#: 0907630AR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080810**	**Date of Collection: 7/24/09 3:44:00 PM**	
Dil. Factor:	**2.33**	**Date of Analysis: 8/8/09 01:26 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	2.9	4.8	12
Bromodichloromethane	1.2	Not Detected	7.8	Not Detected
Dibromochloromethane	1.2	Not Detected	9.9	Not Detected
Cumene	1.2	Not Detected	5.7	Not Detected
Propylbenzene	1.2	2.4	5.7	12
Chloromethane	4.7	Not Detected	9.6	Not Detected
1,2,4-Trichlorobenzene	4.7	Not Detected	34	Not Detected
Hexachlorobutadiene	4.7	Not Detected	50	Not Detected
Acetone	4.7	11	11	27
Carbon Disulfide	1.2	Not Detected	3.6	Not Detected
2-Propanol	4.7	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.6	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	1.2	3.4	3.5
Tetrahydrofuran	1.2	Not Detected	3.4	Not Detected
1,4-Dioxane	4.7	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	4.8	Not Detected
2-Hexanone	4.7	Not Detected	19	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	12	5.7	59
Ethanol	4.7	Not Detected	8.8	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.2	Not Detected
2,2,4-Trimethylpentane	1.2	2.4	5.4	11
3-Chloropropene	4.7	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	600 B	95	2500 B

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Heptane, 2-methyl-	592-27-8	64%	12 N J
Heptane, 3-methyl-	589-81-1	83%	6.1 N J
Benzonitrile, 3-hydroxy-	873-62-1	9.0%	8.8 N J
Benzene, 1-ethyl-2-methyl-	611-14-3	94%	6.8 N J
Nonane, 2,5-dimethyl-	17302-27-1	62%	6.0 N J
1-Hexanol, 2-ethyl-	104-76-7	59%	6.1 N J
Nonane, 4,5-dimethyl-	17302-23-7	59%	6.1 N J
Hexane, 1-(hexyloxy)-5-methyl-	74421-19-5	22%	9.4 N J
Pentadecane	629-62-9	86%	7.3 N J
Decane, 2,6,7-trimethyl-	62108-25-2	53%	11 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP10

Lab ID#: 0907630AR1-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080810**	**Date of Collection:**	**7/24/09 3:44:00 PM**
Dil. Factor:	**2.33**	**Date of Analysis:**	**8/8/09 01:26 PM**

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Dodecane, 5-methyl-	17453-93-9	64%	7.6 N J
Propane, 1,2,2-trichloro-	3175-23-3	37%	8.8 N J
Cyclopentane, (2-methylpropyl)-	3788-32-7	43%	8.9 N J
3-Furanmethanol, .alpha.-cyclohexyl-	36646-66-9	9.0%	7.5 N J
Tridecane, 1-iodo-	35599-77-0	52%	6.2 N J
Tetracontane, 3,5,24-trimethyl-	55162-61-3	27%	6.7 N J

59.6% Aliphatic, 40.4% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	100	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP11

Lab ID#: 0907630AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080806R1**	**Date of Collection: 7/24/09 3:28:00 PM**	
Dil. Factor:	**2.42**	**Date of Analysis: 8/8/09 10:44 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.2	Not Detected	6.0	Not Detected
Freon 114	1.2	Not Detected	8.4	Not Detected
Vinyl Chloride	1.2	Not Detected	3.1	Not Detected
Bromomethane	1.2	Not Detected	4.7	Not Detected
Chloroethane	1.2	Not Detected	3.2	Not Detected
Freon 11	1.2	Not Detected	6.8	Not Detected
1,1-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Freon 113	1.2	Not Detected	9.3	Not Detected
Methylene Chloride	1.2	Not Detected	4.2	Not Detected
1,1-Dichloroethane	1.2	Not Detected	4.9	Not Detected
cis-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
Chloroform	1.2	Not Detected	5.9	Not Detected
1,1,1-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Carbon Tetrachloride	1.2	Not Detected	7.6	Not Detected
Benzene	1.2	Not Detected	3.9	Not Detected
1,2-Dichloroethane	1.2	Not Detected	4.9	Not Detected
Trichloroethene	1.2	Not Detected	6.5	Not Detected
1,2-Dichloropropane	1.2	Not Detected	5.6	Not Detected
cis-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
Toluene	1.2	3.5	4.6	13
trans-1,3-Dichloropropene	1.2	Not Detected	5.5	Not Detected
1,1,2-Trichloroethane	1.2	Not Detected	6.6	Not Detected
Tetrachloroethene	1.2	Not Detected	8.2	Not Detected
1,2-Dibromoethane (EDB)	1.2	Not Detected	9.3	Not Detected
Chlorobenzene	1.2	Not Detected	5.6	Not Detected
Ethyl Benzene	1.2	Not Detected	5.2	Not Detected
m,p-Xylene	1.2	1.8	5.2	8.0
o-Xylene	1.2	Not Detected	5.2	Not Detected
Styrene	1.2	Not Detected	5.2	Not Detected
1,1,2,2-Tetrachloroethane	1.2	Not Detected	8.3	Not Detected
1,3,5-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,2,4-Trimethylbenzene	1.2	Not Detected	5.9	Not Detected
1,3-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,4-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
alpha-Chlorotoluene	1.2	Not Detected	6.3	Not Detected
1,2-Dichlorobenzene	1.2	Not Detected	7.3	Not Detected
1,3-Butadiene	1.2	Not Detected	2.7	Not Detected
Hexane	1.2	Not Detected	4.3	Not Detected
Cyclohexane	1.2	Not Detected	4.2	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP11

Lab ID#: 0907630AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080806R1**	**Date of Collection:**	**7/24/09 3:28:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis:**	**8/8/09 10:44 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.2	Not Detected	5.0	Not Detected
Bromodichloromethane	1.2	Not Detected	8.1	Not Detected
Dibromochloromethane	1.2	Not Detected	10	Not Detected
Cumene	1.2	Not Detected	5.9	Not Detected
Propylbenzene	1.2	Not Detected	5.9	Not Detected
Chloromethane	4.8	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	4.8	Not Detected	36	Not Detected
Hexachlorobutadiene	4.8	Not Detected	52	Not Detected
Acetone	4.8	9.9	11	23
Carbon Disulfide	1.2	Not Detected	3.8	Not Detected
2-Propanol	4.8	Not Detected	12	Not Detected
trans-1,2-Dichloroethene	1.2	Not Detected	4.8	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.2	1.7	3.6	5.2
Tetrahydrofuran	1.2	Not Detected	3.6	Not Detected
1,4-Dioxane	4.8	Not Detected	17	Not Detected
4-Methyl-2-pentanone	1.2	Not Detected	5.0	Not Detected
2-Hexanone	4.8	Not Detected	20	Not Detected
Bromoform	1.2	Not Detected	12	Not Detected
4-Ethyltoluene	1.2	Not Detected	5.9	Not Detected
Ethanol	4.8	Not Detected	9.1	Not Detected
Methyl tert-butyl ether	1.2	Not Detected	4.4	Not Detected
2,2,4-Trimethylpentane	1.2	Not Detected	5.6	Not Detected
3-Chloropropene	4.8	Not Detected	15	Not Detected
TPH ref. to Gasoline (MW=100)	24	110 B	99	450 B

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Disulfide, dimethyl	624-92-0	94%	87 N J
Methyl ethyl disulphide	20333-39-5	86%	93 N J
Methyl isopropyl disulphide	40136-65-0	94%	52 N J
Disulfide, diethyl	110-81-6	91%	34 N J
Ethyl N-propyl disulphide	30453-31-7	59%	34 N J
Methyl sec-butyl disulphide	67421-87-8	96%	17 N J
Disulfide, ethyl 1-methylethyl	53966-36-2	87%	11 N J
Disulfide, ethyl 1-methylpropyl	54166-53-9	78%	11 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP11

Lab ID#: 0907630AR1-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080806R1**	**Date of Collection: 7/24/09 3:28:00 PM**
Dil. Factor:	**2.42**	**Date of Analysis: 8/8/09 10:44 AM**

84.9%Aliphatic, 15.1%Aromatic

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	103	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12

Lab ID#: 0907630AR1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080807**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/8/09 11:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	1.5	6.3	8.6
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.6	Not Detected
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	2.6	6.0	14
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	56	7.6	380
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12

Lab ID#: 0907630AR1-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080807**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/8/09 11:35 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.6	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
Cumene	1.1	Not Detected	5.5	Not Detected
Propylbenzene	1.1	Not Detected	5.5	Not Detected
Chloromethane	4.5	Not Detected	9.2	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Acetone	4.5	5.6	11	13
Carbon Disulfide	1.1	Not Detected	3.5	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	Not Detected	3.3	Not Detected
Tetrahydrofuran	1.1	1.6	3.3	4.9
1,4-Dioxane	4.5	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
Ethanol	4.5	Not Detected	8.4	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	47 B	92	190 B

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

94.5% Aliphatic, 5.5% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630AR1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080808**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/8/09 12:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.5	Not Detected
Freon 114	1.1	Not Detected	7.8	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.3	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	1.6	6.3	9.1
1,1-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Freon 113	1.1	Not Detected	8.6	Not Detected
Methylene Chloride	1.1	Not Detected	3.9	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.5	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
Chloroform	1.1	Not Detected	5.5	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.0	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.5	Not Detected
Trichloroethene	1.1	Not Detected	6.0	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.2	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
Toluene	1.1	Not Detected	4.2	Not Detected
trans-1,3-Dichloropropene	1.1	Not Detected	5.1	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.1	Not Detected
Tetrachloroethene	1.1	5.7	7.6	39
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.6	Not Detected
Chlorobenzene	1.1	Not Detected	5.2	Not Detected
Ethyl Benzene	1.1	Not Detected	4.9	Not Detected
m,p-Xylene	1.1	Not Detected	4.9	Not Detected
o-Xylene	1.1	Not Detected	4.9	Not Detected
Styrene	1.1	Not Detected	4.8	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.7	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.5	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.8	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.7	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Hexane	1.1	Not Detected	3.9	Not Detected
Cyclohexane	1.1	Not Detected	3.8	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630AR1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080808**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/8/09 12:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.6	Not Detected
Bromodichloromethane	1.1	Not Detected	7.5	Not Detected
Dibromochloromethane	1.1	Not Detected	9.5	Not Detected
Cumene	1.1	Not Detected	5.5	Not Detected
Propylbenzene	1.1	Not Detected	5.5	Not Detected
Chloromethane	4.5	Not Detected	9.2	Not Detected
1,2,4-Trichlorobenzene	4.5	Not Detected	33	Not Detected
Hexachlorobutadiene	4.5	Not Detected	48	Not Detected
Acetone	4.5	7.8	11	18
Carbon Disulfide	1.1	Not Detected	3.5	Not Detected
2-Propanol	4.5	Not Detected	11	Not Detected
trans-1,2-Dichloroethene	1.1	Not Detected	4.4	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	1.9	3.3	5.7
Tetrahydrofuran	1.1	2.4	3.3	7.0
1,4-Dioxane	4.5	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.6	Not Detected
2-Hexanone	4.5	Not Detected	18	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.5	Not Detected
Ethanol	4.5	Not Detected	8.4	Not Detected
Methyl tert-butyl ether	1.1	Not Detected	4.0	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.2	Not Detected
3-Chloropropene	4.5	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	22	390 B	92	1600 B

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Ethanol, 2-butoxy-	111-76-2	72%	220 N J
Acetamide, N,N-dimethyl-	127-19-5	9.0%	32 N J
1-Hexanol, 2-ethyl-	104-76-7	64%	6.4 N J

99.6% Aliphatic, 0.4% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP12-DUPLICATE

Lab ID#: 0907630AR1-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080808**	**Date of Collection: 7/24/09 3:19:00 PM**	
Dil. Factor:	**2.24**	**Date of Analysis: 8/8/09 12:13 PM**	

Surrogates	%Recovery	Method Limits
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP13

Lab ID#: 0907630AR1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080809**	**Date of Collection: 7/24/09 11:13:00 AM**	
Dil. Factor:	**2.29**	**Date of Analysis: 8/8/09 12:50 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	1.1	Not Detected	5.7	Not Detected
Freon 114	1.1	Not Detected	8.0	Not Detected
Vinyl Chloride	1.1	Not Detected	2.9	Not Detected
Bromomethane	1.1	Not Detected	4.4	Not Detected
Chloroethane	1.1	Not Detected	3.0	Not Detected
Freon 11	1.1	Not Detected	6.4	Not Detected
1,1-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Freon 113	1.1	Not Detected	8.8	Not Detected
Methylene Chloride	1.1	Not Detected	4.0	Not Detected
1,1-Dichloroethane	1.1	Not Detected	4.6	Not Detected
cis-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
Chloroform	1.1	Not Detected	5.6	Not Detected
1,1,1-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Carbon Tetrachloride	1.1	Not Detected	7.2	Not Detected
Benzene	1.1	Not Detected	3.6	Not Detected
1,2-Dichloroethane	1.1	Not Detected	4.6	Not Detected
Trichloroethene	1.1	Not Detected	6.2	Not Detected
1,2-Dichloropropane	1.1	Not Detected	5.3	Not Detected
cis-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
Toluene	1.1	53	4.3	200
trans-1,3-Dichloropropene	1.1	Not Detected	5.2	Not Detected
1,1,2-Trichloroethane	1.1	Not Detected	6.2	Not Detected
Tetrachloroethene	1.1	Not Detected	7.8	Not Detected
1,2-Dibromoethane (EDB)	1.1	Not Detected	8.8	Not Detected
Chlorobenzene	1.1	Not Detected	5.3	Not Detected
Ethyl Benzene	1.1	Not Detected	5.0	Not Detected
m,p-Xylene	1.1	2.1	5.0	9.1
o-Xylene	1.1	Not Detected	5.0	Not Detected
Styrene	1.1	Not Detected	4.9	Not Detected
1,1,2,2-Tetrachloroethane	1.1	Not Detected	7.9	Not Detected
1,3,5-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,2,4-Trimethylbenzene	1.1	Not Detected	5.6	Not Detected
1,3-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,4-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
alpha-Chlorotoluene	1.1	Not Detected	5.9	Not Detected
1,2-Dichlorobenzene	1.1	Not Detected	6.9	Not Detected
1,3-Butadiene	1.1	Not Detected	2.5	Not Detected
Hexane	1.1	Not Detected	4.0	Not Detected
Cyclohexane	1.1	Not Detected	3.9	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP13

Lab ID#: 0907630AR1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080809**	**Date of Collection:**	**7/24/09 11:13:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**8/8/09 12:50 PM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	1.1	Not Detected	4.7	Not Detected
Bromodichloromethane	1.1	Not Detected	7.7	Not Detected
Dibromochloromethane	1.1	Not Detected	9.8	Not Detected
Cumene	1.1	Not Detected	5.6	Not Detected
Propylbenzene	1.1	Not Detected	5.6	Not Detected
Chloromethane	4.6	Not Detected	9.4	Not Detected
1,2,4-Trichlorobenzene	4.6	Not Detected	34	Not Detected
Hexachlorobutadiene	4.6	Not Detected	49	Not Detected
Acetone	4.6	28	11	67
Carbon Disulfide	1.1	Not Detected	3.6	Not Detected
2-Propanol	4.6	7.6	11	19
trans-1,2-Dichloroethene	1.1	Not Detected	4.5	Not Detected
2-Butanone (Methyl Ethyl Ketone)	1.1	4.1	3.4	12
Tetrahydrofuran	1.1	Not Detected	3.4	Not Detected
1,4-Dioxane	4.6	Not Detected	16	Not Detected
4-Methyl-2-pentanone	1.1	Not Detected	4.7	Not Detected
2-Hexanone	4.6	Not Detected	19	Not Detected
Bromoform	1.1	Not Detected	12	Not Detected
4-Ethyltoluene	1.1	Not Detected	5.6	Not Detected
Ethanol	4.6	9.9	8.6	19
Methyl tert-butyl ether	1.1	Not Detected	4.1	Not Detected
2,2,4-Trimethylpentane	1.1	Not Detected	5.3	Not Detected
3-Chloropropene	4.6	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	23	2100 B	94	8600 B

B = Compound present in laboratory blank greater than reporting limit, background subtraction not performed.

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
D-Limonene	5989-27-5	89%	19 N J
1-Hexanol, 2-ethyl-	104-76-7	74%	42 N J
Undecane, 3-methyl-	1002-43-3	59%	21 N J
Octanoic acid, 3-methylbutyl ester	2035-99-6	38%	17 N J
2-Hexenoic acid, 4-methylphenyl ester	69687-91-8	9.0%	21 N J
Undecane, 5-methyl-	1632-70-8	72%	35 N J
Decane, 3,3,4-trimethyl-	49622-18-6	33%	32 N J
Cyclohexane, (1-ethylpropyl)-	26321-98-2	43%	32 N J
Hexane, 1-(hexyloxy)-5-methyl-	74421-19-5	17%	57 N J

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: VP13

Lab ID#: 0907630AR1-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080809**	**Date of Collection:**	**7/24/09 11:13:00 AM**
Dil. Factor:	**2.29**	**Date of Analysis:**	**8/8/09 12:50 PM**

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
Pentadecane	629-62-9	86%	46 N J
Dodecane, 2,7,10-trimethyl-	74645-98-0	47%	72 N J
Undecane, 2,8-dimethyl-	17301-25-6	38%	29 N J
Naphthalene, decahydro-2,6-dimethyl-	1618-22-0	80%	34 N J
Dodecane, 5-methyl-	17453-93-9	80%	52 N J
1H-1,2,4-Triazole, 1-ethyl-	16778-70-4	35%	61 N J
Butane, 2-iodo-2-methyl-	594-38-7	47%	59 N J
Bicyclo[4.1.0]heptane, 3-methyl-7-pentyl	41977-48-4	22%	45 N J
Dodecane, 2,5-dimethyl-	56292-65-0	46%	44 N J
1,4 Benzodioxan-6-amine	22013-33-8	43%	36 N J
Tetradecane	629-59-4	43%	22 N J

91.8% Aliphatic, 8.2% Aromatic.

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	107	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630AR1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 07:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630AR1-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080705**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 07:48 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	Not Detected	41	Not Detected

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	104	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	104	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630AR1-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 09:04 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	0.50	Not Detected	1.9	Not Detected
Chloroethane	0.50	Not Detected	1.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	0.50	Not Detected	1.7	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0907630AR1-10B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080804**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 09:04 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	2.0	Not Detected	4.1	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	2.0	Not Detected	4.8	Not Detected
Carbon Disulfide	0.50	Not Detected	1.6	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	0.50	Not Detected	1.5	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
TPH ref. to Gasoline (MW=100)	10	11	41	45

TENTATIVELY IDENTIFIED COMPOUNDS

Compound	CAS Number	Match Quality	Amount ((ppbv))
None Identified			

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	106	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907630AR1-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 05:59 AM**	

Compound	%Recovery
Freon 12	118
Freon 114	115
Vinyl Chloride	106
Bromomethane	75
Chloroethane	110
Freon 11	114
1,1-Dichloroethene	105
Freon 113	107
Methylene Chloride	105
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	98
Chloroform	102
1,1,1-Trichloroethane	111
Carbon Tetrachloride	116
Benzene	102
1,2-Dichloroethane	106
Trichloroethene	104
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	107
Toluene	107
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	98
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	103
Chlorobenzene	102
Ethyl Benzene	104
m,p-Xylene	105
o-Xylene	109
Styrene	121
1,1,2,2-Tetrachloroethane	107
1,3,5-Trimethylbenzene	114
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	111
alpha-Chlorotoluene	116
1,2-Dichlorobenzene	110
1,3-Butadiene	113
Hexane	97
Cyclohexane	105

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907630AR1-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 05:59 AM**	

Compound	%Recovery
Heptane	107
Bromodichloromethane	110
Dibromochloromethane	110
Cumene	110
Propylbenzene	113
Chloromethane	106
1,2,4-Trichlorobenzene	106
Hexachlorobutadiene	114
Acetone	93
Carbon Disulfide	106
2-Propanol	98
trans-1,2-Dichloroethene	98
2-Butanone (Methyl Ethyl Ketone)	101
Tetrahydrofuran	102
1,4-Dioxane	105
4-Methyl-2-pentanone	113
2-Hexanone	102
Bromoform	126
4-Ethyltoluene	105
Ethanol	109
Methyl tert-butyl ether	117
2,2,4-Trimethylpentane	100
3-Chloropropene	100
TPH ref. to Gasoline (MW=100)	128

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907630AR1-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 07:45 AM**	

Compound	%Recovery
Freon 12	114
Freon 114	114
Vinyl Chloride	108
Bromomethane	100
Chloroethane	110
Freon 11	113
1,1-Dichloroethene	106
Freon 113	108
Methylene Chloride	105
1,1-Dichloroethane	102
cis-1,2-Dichloroethene	99
Chloroform	102
1,1,1-Trichloroethane	110
Carbon Tetrachloride	114
Benzene	101
1,2-Dichloroethane	105
Trichloroethene	103
1,2-Dichloropropane	105
cis-1,3-Dichloropropene	108
Toluene	106
trans-1,3-Dichloropropene	105
1,1,2-Trichloroethane	100
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	104
Chlorobenzene	102
Ethyl Benzene	104
m,p-Xylene	104
o-Xylene	109
Styrene	120
1,1,2,2-Tetrachloroethane	110
1,3,5-Trimethylbenzene	115
1,2,4-Trimethylbenzene	112
1,3-Dichlorobenzene	115
1,4-Dichlorobenzene	115
alpha-Chlorotoluene	124
1,2-Dichlorobenzene	114
1,3-Butadiene	114
Hexane	96
Cyclohexane	104

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: CCV

Lab ID#: 0907630AR1-11B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080802**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 07:45 AM**	

Compound	%Recovery
Heptane	104
Bromodichloromethane	110
Dibromochloromethane	110
Cumene	111
Propylbenzene	115
Chloromethane	108
1,2,4-Trichlorobenzene	108
Hexachlorobutadiene	117
Acetone	98
Carbon Disulfide	108
2-Propanol	103
trans-1,2-Dichloroethene	98
2-Butanone (Methyl Ethyl Ketone)	104
Tetrahydrofuran	103
1,4-Dioxane	108
4-Methyl-2-pentanone	114
2-Hexanone	105
Bromoform	125
4-Ethyltoluene	107
Ethanol	120
Methyl tert-butyl ether	116
2,2,4-Trimethylpentane	100
3-Chloropropene	102
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	115	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907630AR1-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 06:36 AM**	

Compound	%Recovery
Freon 12	106
Freon 114	107
Vinyl Chloride	102
Bromomethane	91
Chloroethane	110
Freon 11	110
1,1-Dichloroethene	115
Freon 113	119
Methylene Chloride	109
1,1-Dichloroethane	108
cis-1,2-Dichloroethene	103
Chloroform	107
1,1,1-Trichloroethane	112
Carbon Tetrachloride	117
Benzene	102
1,2-Dichloroethane	109
Trichloroethene	103
1,2-Dichloropropane	105
cis-1,3-Dichloropropene	106
Toluene	110
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	99
Tetrachloroethene	105
1,2-Dibromoethane (EDB)	99
Chlorobenzene	99
Ethyl Benzene	101
m,p-Xylene	101
o-Xylene	106
Styrene	116
1,1,2,2-Tetrachloroethane	103
1,3,5-Trimethylbenzene	109
1,2,4-Trimethylbenzene	104
1,3-Dichlorobenzene	107
1,4-Dichlorobenzene	105
alpha-Chlorotoluene	114
1,2-Dichlorobenzene	103
1,3-Butadiene	105
Hexane	104
Cyclohexane	106

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907630AR1-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/7/09 06:36 AM**	

Compound	%Recovery
Heptane	108
Bromodichloromethane	110
Dibromochloromethane	109
Cumene	109
Propylbenzene	112
Chloromethane	101
1,2,4-Trichlorobenzene	96
Hexachlorobutadiene	105
Acetone	98
Carbon Disulfide	104
2-Propanol	106
trans-1,2-Dichloroethene	99
2-Butanone (Methyl Ethyl Ketone)	107
Tetrahydrofuran	105
1,4-Dioxane	103
4-Methyl-2-pentanone	114
2-Hexanone	101
Bromoform	122
4-Ethyltoluene	102
Ethanol	69
Methyl tert-butyl ether	121
2,2,4-Trimethylpentane	102
3-Chloropropene	105
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	112	70-130

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907630AR1-12B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 08:24 AM**	

Compound	%Recovery
Freon 12	106
Freon 114	107
Vinyl Chloride	105
Bromomethane	104
Chloroethane	110
Freon 11	109
1,1-Dichloroethene	116
Freon 113	118
Methylene Chloride	111
1,1-Dichloroethane	105
cis-1,2-Dichloroethene	99
Chloroform	103
1,1,1-Trichloroethane	109
Carbon Tetrachloride	113
Benzene	102
1,2-Dichloroethane	108
Trichloroethene	102
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	107
Toluene	110
trans-1,3-Dichloropropene	103
1,1,2-Trichloroethane	98
Tetrachloroethene	104
1,2-Dibromoethane (EDB)	98
Chlorobenzene	100
Ethyl Benzene	101
m,p-Xylene	101
o-Xylene	107
Styrene	117
1,1,2,2-Tetrachloroethane	105
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	109
1,3-Dichlorobenzene	112
1,4-Dichlorobenzene	109
alpha-Chlorotoluene	122
1,2-Dichlorobenzene	108
1,3-Butadiene	108
Hexane	98
Cyclohexane	102

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0907630AR1-12B

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**x080803**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 8/8/09 08:24 AM**	

Compound	%Recovery
Heptane	105
Bromodichloromethane	110
Dibromochloromethane	108
Cumene	110
Propylbenzene	114
Chloromethane	102
1,2,4-Trichlorobenzene	103
Hexachlorobutadiene	110
Acetone	98
Carbon Disulfide	106
2-Propanol	106
trans-1,2-Dichloroethene	96
2-Butanone (Methyl Ethyl Ketone)	102
Tetrahydrofuran	101
1,4-Dioxane	105
4-Methyl-2-pentanone	114
2-Hexanone	102
Bromoform	122
4-Ethyltoluene	104
Ethanol	71
Methyl tert-butyl ether	119
2,2,4-Trimethylpentane	98
3-Chloropropene	105
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	102	70-130
1,2-Dichloroethane-d4	102	70-130
4-Bromofluorobenzene	113	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630-4719
(916) 985-1000 FAX (916) 985-1020

Project Manager BRIAN SILVA
Collected by: (Print and Sign) IAN HULL
Company CRA Email bsilva@craworld.com
Address 10969 TRADE CENTER DRIVE City RANCHO CORDOVA State CA Zip 95670
Phone 916-889-8908 Fax 916-889-8999

Project Info:
P.O. # 40-460233.95
Project # 631916
Project Name CHEVRON 20-6127

Turn Around Time: (specify)
☒ Normal
☐ Rush

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psig)
01A	VP7	31778	07/24/2009	1039	TO-15: FULL SCAN,	<-30	-6.5		
02A	VP8	11900		1236	TPHg	-30	-2		
03A	VP8-DUPLICATE	1371		1236	ASTM D-1946:	<-30	-2		
04A	VP9	93102		1335	CO_2, O_2, CH_4,	-29	-5		
05A	VP10	9438		1544	HELIUM	-29.5	-7		
06A	VP11	97102		1528		<-30	-6		
07A	VP12	2214		1519		<-30	-5		
08A	VP12-DUPLICATE	2184		1519		<-30	-5		
09A	VP13	36375		1413		<-30	-6		

Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
	07/27/2009 0930	FEDEX	
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time
		MONICA GREGSON ATL	7/29/09 930
Relinquished by: (signature)	Date/Time	Received by: (signature)	Date/Time

Notes:
- RESULTS IN PPBV AND $\mu g/m^3$
- EMAIL RESULTS TO PM AND ihull@craworld.com

Lab Use Only	Shipper Name	Air Bill #	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
	Fed Ex		MA	Good	Yes No (None)	0907630

Form 1238 rev.11

Lancaster Laboratories

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Analysis Report

ANALYTICAL RESULTS

Prepared for:

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

925-842-8582

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

July 07, 2009

SAMPLE GROUP

The sample group for this submittal is 1150773. Samples arrived at the laboratory on Thursday, June 25, 2009. The PO# for this group is 0015039883 and the release number is BAUER.

Client Description	Lancaster Labs Number
MW-2-S-8.5-090619 Grab Soil	5708567
MW-3-S-8.5-090619 Grab Soil	5708568
MW-4-S-15-090619 Grab Soil	5708569
MW-5-S-7-090619 Grab Soil	5708570
MW-2-S-4.5-090618 Grab Soil	5708571
MW-3-S-4-090618 Grab Soil	5708572
MW-3-S-6-090618 Grab Soil	5708573
MW-5-S-10.5-090623 Grab Soil	5708574
MW-5-S-14-090623 Grab Soil	5708575

METHODOLOGY

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron	Attn: CRA EDD
ELECTRONIC COPY TO	CRA	Attn: Brian Silva
ELECTRONIC	Chevron	Attn: Almarose Romualdo

Lancaster Laboratories

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Analysis Report

COPY TO

Questions? Contact your Client Services Representative
Angela M Miller at (717) 656-2300

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708567

Group No. 1150773
CA

MW-2-S-8.5-090619 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-2

Collected: 06/19/2009 08:25 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW2-8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	N.D.	0.0005	0.005	1.06
07360	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.06
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.06
07360	Toluene	108-88-3	N.D.	0.001	0.005	1.06
07360	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.06
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	4.8	1.0	1.0	25
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	17	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	A091821AA	07/02/2009 06:23	Kathrine K Muramatsu	1.06
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:38	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 16:39	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:39	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34B	06/26/2009 19:46	Marie D John	25
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 16:38	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	07/01/2009 09:34	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708568

Group No. 1150773
CA

MW-3-S-8.5-090619 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-3

Collected: 06/19/2009 10:10 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW3-8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.062	0.0005	0.005	1.05
07360	Ethylbenzene	100-41-4	0.058	0.001	0.005	1.05
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.05
07360	Toluene	108-88-3	0.003	0.001	0.005	1.05
07360	Xylene (Total)	1330-20-7	0.012	0.001	0.005	1.05
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	66	8.0	8.0	200
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	16	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	A091821AA	07/02/2009 09:24	Kathrine K Muramatsu	1.05
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:43	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 16:43	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:44	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34C	06/29/2009 12:31	Marie D John	200
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 16:42	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	07/01/2009 09:13	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708569

Group No. 1150773
CA

MW-4-S-15-090619 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-4

Collected: 06/19/2009 11:56 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW415

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	N.D.	0.0005	0.005	0.95
07360	Ethylbenzene	100-41-4	N.D.	0.0009	0.005	0.95
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.95
07360	Toluene	108-88-3	N.D.	0.0009	0.005	0.95
07360	Xylene (Total)	1330-20-7	N.D.	0.0009	0.005	0.95
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	N.D.	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	A091821AA	07/02/2009 02:57	Kathrine K Muramatsu	0.95
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:47	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 16:49	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:48	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34B	06/26/2009 20:23	Marie D John	25
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 16:48	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	06/26/2009 23:48	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Lancaster Laboratories Sample No. SW 5708570

Group No. 1150773
CA

MW-5-S-7-090619 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-5

Collected: 06/19/2009 12:13 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW5-7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.076	0.024	0.24	48.83
07360	Ethylbenzene	100-41-4	0.061	0.049	0.24	48.83
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	0.24	48.83
07360	Toluene	108-88-3	N.D.	0.049	0.24	48.83
07360	Xylene (Total)	1330-20-7	0.080	0.049	0.24	48.83
	The GC/MS volatile analysis was performed according to the high level soil method due to the level of non-target compounds. Therefore, the reporting limits were raised.					
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	520	40	40	1000
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	500	4.0	12	1
	The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.					

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091822AA	07/02/2009 06:26	Lauren C Marzario	48.83
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:51	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 16:53	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:52	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34C	06/29/2009 13:07	Marie D John	1000
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 16:52	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	06/27/2009 00:10	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

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Analysis Report

Lancaster Laboratories Sample No. SW 5708571

Group No. 1150773
CA

MW-2-S-4.5-090618 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-2

Collected: 06/18/2009 08:30 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW2-4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	N.D.	0.027	0.27	54.59
07360	Ethylbenzene	100-41-4	0.19	0.055	0.27	54.59
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.027	0.27	54.59
07360	Toluene	108-88-3	N.D.	0.055	0.27	54.59
07360	Xylene (Total)	1330-20-7	0.19	0.055	0.27	54.59
	The GC/MS volatile analysis was performed according to the high level soil method due to the level of non-target compounds. Therefore, the reporting limits were raised.					
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	1,100	80	80	2000
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	480	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091822AA	07/02/2009 04:55	Lauren C Marzario	54.59
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:56	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 16:57	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 16:59	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34B	06/26/2009 22:48	Marie D John	2000
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 16:57	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	06/27/2009 00:51	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708572

Group No. 1150773
CA

MW-3-S-4-090618 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-3

Collected: 06/18/2009 10:20 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW3-4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.64	0.026	0.26	52.85
07360	Ethylbenzene	100-41-4	6.1	0.053	0.26	52.85
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.026	0.26	52.85
07360	Toluene	108-88-3	0.099	0.053	0.26	52.85
07360	Xylene (Total)	1330-20-7	0.85	0.053	0.26	52.85
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	700	80	80	2000
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	610	40	120	10

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091822AA	07/02/2009 05:18	Lauren C Marzario	52.85
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:24	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 18:24	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:25	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34B	06/26/2009 23:24	Marie D John	2000
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 18:23	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	06/30/2009 01:19	Diane V Do	10
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708573

Group No. 1150773
CA

MW-3-S-6-090618 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-3

Collected: 06/18/2009 10:40 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW3-6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.39	0.025	0.25	49.02
07360	Ethylbenzene	100-41-4	2.5	0.049	0.25	49.02
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.025	0.25	49.02
07360	Toluene	108-88-3	0.069	0.049	0.25	49.02
07360	Xylene (Total)	1330-20-7	0.67	0.049	0.25	49.02
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	960	200	200	5000
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	170	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091822AA	07/02/2009 06:03	Lauren C Marzario	49.02
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:27	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 18:28	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:29	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34B	06/26/2009 23:59	Marie D John	5000
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 18:28	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091760019A	06/27/2009 00:30	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091760019A	06/25/2009 23:10	Patricia L Foreman	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708574

Group No. 1150773
CA

MW-5-S-10.5-090623 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-5

Collected: 06/23/2009 07:50 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW510

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.043	0.024	0.24	48.26
07360	Ethylbenzene	100-41-4	N.D.	0.048	0.24	48.26
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.024	0.24	48.26
07360	Toluene	108-88-3	N.D.	0.048	0.24	48.26
07360	Xylene (Total)	1330-20-7	0.048	0.048	0.24	48.26
	The GC/MS volatile analysis was performed according to the high level soil method due to the level of non-target compounds. Therefore, the reporting limits were raised.					
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	170	20	20	500
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	36	4.0	12	1

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091871AA	07/06/2009 15:44	Angela D Sneeringer	48.26
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:42	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 18:40	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:31	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34C	06/29/2009 13:43	Marie D John	500
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 18:39	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091800008A	06/30/2009 16:16	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091800008A	06/29/2009 18:10	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Lancaster Laboratories Sample No. SW 5708575 **Group No. 1150773**
CA

MW-5-S-14-090623 Grab Soil
Facility# 206127 CRAW
2301-2311 Blanding-Alameda T06019744728 MW-5

Collected: 06/23/2009 08:05 by EN

Account Number: 10880

Submitted: 06/25/2009 09:00
Reported: 07/07/2009 at 18:28
Discard: 08/07/2009

ChevronTexaco
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

MW514

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
SW-846 8260B	**GC/MS Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
07360	Benzene	71-43-2	0.075	0.023	0.23	46.9
07360	Ethylbenzene	100-41-4	N.D.	0.047	0.23	46.9
07360	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.023	0.23	46.9
07360	Toluene	108-88-3	N.D.	0.047	0.23	46.9
07360	Xylene (Total)	1330-20-7	N.D.	0.047	0.23	46.9
	The GC/MS volatile analysis was performed according to the high level soil method due to the level of non-target compounds. Therefore, the reporting limits were raised.					
SW-846 8015B modified	**GC Volatiles**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	170	10	10	250
SW-846 8015B	**GC Extractable TPH w/Si Gel**		**mg/kg**	**mg/kg**	**mg/kg**	
02222	TPH-DRO soil C10-C28 w/Si Gel	n.a.	270	40	120	10

General Sample Comments

State of California Lab Certification No. 2116

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
07360	BTEX+MTBE by 8260B	SW-846 8260B	1	R091871AA	07/06/2009 16:07	Angela D Sneeringer	46.9
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:49	Eric L Vera	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	200917618500	06/25/2009 18:50	Eric L Vera	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	200917618500	06/25/2009 18:55	Eric L Vera	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	09171A34C	06/29/2009 14:20	Marie D John	250
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200917618500	06/25/2009 18:54	Eric L Vera	n.a.
02222	TPH-DRO soil C10-C28 w/Si Gel	SW-846 8015B	1	091800008A	06/30/2009 17:19	Diane V Do	10
07004	Extraction - DRO (Soils)	SW-846 3550B	1	091800008A	06/29/2009 18:10	Sally L Appleyard	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1150773
Reported: 07/07/09 at 06:28 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: A091821AA	Sample number(s): 5708567-5708569								
Benzene	N.D.	0.0005	0.005	mg/kg	108	110	83-116	2	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	106	108	79-110	2	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005	mg/kg	101	102	79-114	1	30
Toluene	N.D.	0.001	0.005	mg/kg	106	108	81-112	2	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	103	104	78-108	1	30
Batch number: R091822AA	Sample number(s): 5708570-5708573								
Benzene	N.D.	0.025	0.25	mg/kg	98	98	83-116	0	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	92	91	79-110	1	30
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25	mg/kg	110	112	79-114	1	30
Toluene	N.D.	0.050	0.25	mg/kg	95	93	81-112	2	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	93	91	78-108	2	30
Batch number: R091871AA	Sample number(s): 5708574-5708575								
Benzene	N.D.	0.025	0.25	mg/kg	94	96	83-116	2	30
Ethylbenzene	N.D.	0.050	0.25	mg/kg	89	91	79-110	3	30
Methyl Tertiary Butyl Ether	N.D.	0.025	0.25	mg/kg	106	109	79-114	2	30
Toluene	N.D.	0.050	0.25	mg/kg	91	94	81-112	3	30
Xylene (Total)	N.D.	0.050	0.25	mg/kg	88	91	78-108	4	30
Batch number: 09171A34B	Sample number(s): 5708567,5708569,5708571-5708573								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	100	92	67-119	8	30
Batch number: 09171A34C	Sample number(s): 5708568,5708570,5708574-5708575								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	100	92	67-119	8	30
Batch number: 091760019A	Sample number(s): 5708567-5708573								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	101		76-117		
Batch number: 091800008A	Sample number(s): 5708574-5708575								
TPH-DRO soil C10-C28 w/Si Gel	N.D.	4.0	12	mg/kg	89		76-117		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: A091821AA	Sample number(s): 5708567-5708569 UNSPK: 5708569								
Benzene	117		55-143						
Ethylbenzene	111		44-141						

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1150773
Reported: 07/07/09 at 06:28 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Methyl Tertiary Butyl Ether	90		55-129						
Toluene	112		50-146						
Xylene (Total)	108		44-136						
Batch number: 091760019A	Sample number(s): 5708567-5708573 UNSPK: 5708571 BKG: 5708571								
TPH-DRO soil C10-C28 w/Si Gel	20*		30-159			480	300	47*	20
Batch number: 091800008A	Sample number(s): 5708574-5708575 UNSPK: 5708574 BKG: 5708574								
TPH-DRO soil C10-C28 w/Si Gel	159		30-159			36	N.D.	200* (1)	20

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX+MTBE by 8260B
Batch number: A091821AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5708567	80	86	90	82
5708568	81	84	96	94
5708569	84	88	85	74
Blank	84	89	84	76
LCS	83	90	89	85
LCSD	82	89	89	84
MS	82	87	87	83
Limits:	71-114	70-109	70-123	70-111

Analysis Name: BTEX+MTBE by 8260B
Batch number: R091822AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5708570	78	82	85	91
5708571	72	77	87	84
5708572	82	85	95	106
5708573	76	81	100	85
Blank	89	95	85	82
LCS	100	100	98	93
LCSD	102	105	98	93
Limits:	71-114	70-109	70-123	70-111

Analysis Name: BTEX+MTBE by 8260B
Batch number: R091871AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5708574	81	85	89	88
5708575	79	85	85	84
Blank	89	95	89	86

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1150773
Reported: 07/07/09 at 06:28 PM

Surrogate Quality Control

LCS	94	97	93	89
LCSD	93	94	92	88
Limits:	71-114	70-109	70-123	70-111

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 09171A34B

	Trifluorotoluene-F
5708567	72
5708569	71
5708571	3*
5708572	3*
5708573	1*
Blank	82
LCS	88
LCSD	82
Limits:	61-122

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 09171A34C

	Trifluorotoluene-F
5708568	11*
5708570	5*
5708574	6*
5708575	12*
Blank	82
LCS	88
LCSD	82
Limits:	61-122

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 091760019A

	Orthoterphenyl
5708567	93
5708568	89
5708569	98
5708570	134*
5708571	124
5708572	118
5708573	105
Blank	101
DUP	117
LCS	118
MS	130*
Limits:	59-129

Analysis Name: TPH-DRO soil C10-C28 w/Si Gel
Batch number: 091800008A

	Orthoterphenyl
5708574	95
5708575	120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: ChevronTexaco Group Number: 1150773
Reported: 07/07/09 at 06:28 PM

Surrogate Quality Control

Blank	95
DUP	85
LCS	106
MS	114
Limits:	59-129

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

062409-14 p.1of2

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 5708567-75 SCR#:

Group# 1150773

Facility #: Chevron 206127 (LAB)
Site Address: 2301-2311 Blanding Ave, Alameda
Chevron PM: Mike Bauer Lead Consultant: CRA
Consultant/Office: CRA Rancho Cordova
Consultant Prj. Mgr.: Brian Silva
Consultant Phone #: 916-889-8908 Fax #: 916-889-8999
Sampler: GN/MW
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup ☐	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐	Hold				
MW-2-8.5,	S		8.5	09 06 19	825		X		1	X	X	X								
MW-2-13,	S		13	09 06 19	0858				1	X	X	X				X				
MW-2-15.5,	S		15.5	09 06 19	921				1	X	X	X				X				
MW-3-8.5,	S		8.5	09 06 19	1010				1	X	X	X								
MW-3-15.5,	S		15.5	09 06 19	1030				1	X	X	X				X				
MW-3-18,	S		18	09 06 19	1047				1	X	X	X				X				
MW-4-10,	S		10	09 06 19	1147				1	X	X	X				X				
MW-4-15,	S		15	09 06 19	1156				1	X	X	X								
MW-5-7,	S		7	09 06 19	1213				1	X	X	X								
MW-4-19.5,	S		19.5	09 06 19	1230		X		1	X	X	X				X				

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
Please email results to
Bsilva@craworld.com
aromualdo@craworld.com
Hold
MW-2-13
MW-2-15
MW-3-15.5
MW-3-18
MW-4-10
MW-4-19.5

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	6/24/09	1520	Received by:	24JUN09	1526
Relinquished by: 24JUN09		1636	Received by: FED EX		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	6/25/09	0900
Temperature Upon Receipt 1.2-2.4 C°			Custody Seals Intact? Yes No		

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

062409-14 P.20F2 Acct. #: 10880 — For Lancaster Laboratories use only — Sample #: 5708567-75 SCR#: Group# 1150773

Facility #: Chevron 20-6127 (LAB)
Site Address: 2301-2311 Blanding Avenue, Alameda
Chevron PM: Mike Bauer Lead Consultant: CRA
Consultant/Office: CRA Emeryville Rancho Cordova
Consultant Prj. Mgr.: Brian Silva
Consultant Phone #: 916-889-8908 Fax #: 916-889-8999
Sampler: EN
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☐ 8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421	Hold
MW-2-4.5	S		4.5	09 06 18	0830		X		1	X	X	X					
~~MW-2-7.5~~	S		~~7.5~~	~~09 06 18~~	~~905~~				1								X
MW-3-4	S		4	09 06 18	1020				1								
MW-3-6	S		6	09 06 18	1040				1								
MW-4-5	S		5	09 06 18	1400		X		1	X	X	X					X
MW-2-7.5	S		7.5	09 06 18	905		X		1	X	X	X					X

Preservative Codes: H = HCl, T = Thiosulfate, N = HNO_3, B = NaOH, S = H_2SO_4, O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks
Please email results to
BSilva@Craworld.com
&
Avomualdo@Craworld.com
Please hold MW-2-7.5, MW-4-5

Turnaround Time Requested (TAT) (please circle)
STD. TAT (circled) | 72 hour | 48 hour
24 hour | 4 day | 5 day

Data Package Options (please circle if required)
QC Summary | Type I – Full
Type VI (Raw Data) | ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time	Received by:	Date	Time
Relinquished by: Cria Clark	6/24/09	1520	A. Salazar 24JUN09		1520
Relinquished by: A. Salazar 24JUN09		1636	FED EX		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	Date 6/25/09	Time 0900
Temperature Upon Receipt 1°-2° C°			Custody Seals Intact? Yes No		

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

06240-15

For Lancaster Laboratories use only
Acct. #: 10880 Sample #: 5708567-75 SCR#:

Group# 1150773

Facility #: Chevron 20-6127
Site Address: 2309 - 2311 Blanding Ave.
Chevron PM: Mike Bauer Lead Consultant: CRA
Consultant/Office: CRA Rancho Cordova
Consultant Prj. Mgr.: Brian Silva
Consultant Phone #: 916-889-8908 Fax #: 916-889-8999
Sampler: GN
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☒ Silica Gel Cleanup	8260 full scan	Oxygenates	Lead 7420 ☐ 7421 ☐	Hold
MW-5-10.5	S		10.5	09 06 23	0750		X		1	X	X	X				
MW-5-14	S		14	09 06 23	805		X		1	X	X	X				
MW-5-17.5	S		17.5	09 06 23	830		X		1	X	X	X				X

Comments / Remarks
Please email results to
BSilva@craworld.com
&
aromualdez@craworld.com
Please hold
MW-5-17.5

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ CoeIt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	6/24/09	1520	Received by: A. Sakayan 24JUN09		1526
Relinquished by: A. Sakayan 24JUN09		1636	Received by: FEDEX		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS ~~FedEx~~ Other			Received by:	6/25/09	0900
Temperature Upon Receipt 1.2-4 C°			Custody Seals Intact? Yes No		

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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