

Stantec Consulting Corporation

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March 25, 2010

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8:41 am, Mar 26, 2010

Alameda County Environmental Health

Mr. Paresh Khatri Hazardous Materials Specialist Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

(To Be Sent Via Electronic Upload to Alameda County ftp)

RE: Monitoring Well Installation and 2010 Semi-Annual Groundwater Monitoring Report

Former Penske Truck Leasing Facility

725 Julie Ann Way Oakland, California

Alameda County Site ID RO0000354 Stantec PN: 185702145 200.0001

Dear Mr. Khatri:

Stantec Consulting Corporation (Stantec), on behalf of Penske Truck Leasing Company (Penske), has prepared this *Well Installation and 2010 Semi-Annual Groundwater Monitoring Report* for the Former Penske Truck Leasing Facility (site) located at 725 Julie Ann Way in Oakland, California. This report documents well destruction and installation activities conducted in accordance with Stantec's October 27, 2009, *Monitoring Well Installation Work Plan* and approved by the Alameda County Environmental Health Services (ACEHS) letter dated December 17, 2009 (Attachment 1). In addition, this report documents the procedures and results of the 2010 semi-annual monitoring and sampling event conducted in the First Quarter 2010 in accordance with the ACEHS letter dated July 28, 2009.

WELL ABANDONMENT AND INSTALLATION

Preliminary Activities

Stantec performed the following preliminary tasks:

- ☐ Site Health and Safety Plan (HASP): Stantec updated the site-specific HASP prior to conducting field activities. The HASP was reviewed by all field personnel and contractors before beginning field activities.
- □ Permitting: Stantec obtained an Alameda County Public Works Agency Water Resources Well Permit for the abandonment of wells MW-1 and MW-7 and installation of replacement wells MW-1R and MW-7R. A copy of the permit is included as Attachment 2.
- ☐ Underground Utility Location and Clearance: Prior to field activities, Stantec marked the proposed monitoring well locations in accordance with Underground Service Alert (USA)

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guidelines and notified USA of the work. Stantec contracted with a Cruz Brothers Locators, a private utility locator to confirm the locations of underground utilities in the work area.

Abandonment of Monitoring Wells MW-1 and MW-7

On January 11, 2010, monitoring wells MW-1 and MW-7 were abandoned by pressure grouting. The well casing was filled with neat cement grout and approximately 15 pounds per square inch (psi) of pressure was applied to the wellhead to force the grout through the well screen and into the surrounding sand pack. The flush-mounted well boxes were removed, and the locations were finished with concrete to match existing grade. Approximately 15 gallons of water was displaced by the grout during abandonment procedures and collected in a 55-gallon steel drum.

The completed California Department of Water Resources (DWR) forms for the abandonment of wells MW-1 and MW-7 are included in Attachment 3.

Installation and Sampling of Monitoring Wells MW-1R and MW-7R

On January 11 and 12, 2010, wells MW-1R and MW-7R were installed directly adjacent to former wells MW-1 and MW-7. Each borehole was advanced to 5 feet below ground surface (ft-bgs) using hand tools to confirm the absence of shallow subsurface utilities. Prior to well installation, soil borings were advanced to approximately 20 ft-bgs using a direct-push drilling system to log the subsurface lithology. Encountered soils were logged by a Stantec geologist in accordance with the Unified Soil Classification System (USCS), and lithologic classifications and field observations were recorded on soil boring logs (included as Attachment 4). Soils were periodically screened for volatile organic vapors using a photoionization detector (PID), and measurements were recorded on the soil boring logs. Volatile vapor concentrations ranged from 5 parts per million (ppm) to 67 ppm in the MW-1R borehole, and from 12 ppm to 89 ppm in the MW-7R borehole.

Based on field evidence of chemical impact, one soil sample at approximately 5 ft-bgs was collected from each borehole and submitted for chemical analysis. Each borehole was advanced to approximately 20.5 ft-bgs, the tool string was removed, and a temporary well casing was installed in the borehole. Groundwater levels in the boreholes were allowed to equilibrate overnight to provide for an accurate measurement of the static groundwater elevation. The static depth-to-groundwater was measured at 4.5 ft-bgs in the boring for MW-1R and at 5 ft-bgs in the boring for MW-7R. These measurements were used to determine the screened interval of the permanent well casing.

Once the static depth-to-groundwater was measured, the temporary well casing was removed and the borehole was then over-drilled using 8-inch-diameter hollow-stem auger. The wells were constructed of 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) casing with a 0.020-inch slotted screen interval from 3.5 ft-bgs to 20 ft-bgs. This construction, approximately 1.5 feet of unsaturated screen above the static groundwater level, allows for seasonal fluctuations in the groundwater elevation. The wellheads were finished with flush-mounted, traffic-rated vault boxes.

The DWR forms for the installation of wells MW-1R and MW-7R are included in Attachment 3.

Monitoring Well Development and Initial Sampling

MW-1R and MW-7R were developed by Stantec on January 19, 2010. Development consisted of alternately surging and bailing the well in an effort to stabilize the sand pack, remove fines from the sand pack and well casing, and establish hydraulic connectivity between the water-bearing formation and the

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well. Approximately ten casing volumes were removed from each well during development. Well development field data sheets are included as Attachment 5.

The newly-installed monitoring wells were sampled immediately after development, but the samples were lost by the analytical laboratory. The wells were re-sampled during the semi-annual groundwater monitoring event.

SEMI-ANNUAL GROUNDWATER MONITORING AND SAMPLING PROCEDURES

On February 8, 2010, wells MW-1R and MW-7R and five additional wells MW-2, MW-4, MW-8, OW-1, and OW-2 were sampled by Blaine Tech Services, Inc. (Blaine Tech). Prior to sampling, wells were purged of approximately three well casing volumes using a diaphragm pump fitted with new, disposable tubing for each well. During purging, the evacuated water was periodically measured for pH, electrical conductivity, and temperature, and visually inspected for color, presence of free product, and turbidity. Downhole dissolved oxygen (DO) measurements were obtained before and after purging each well. Measured parameters and purge volumes for each well were recorded in field data sheets and are included in Attachment 5.

Upon removal of the appropriate purge volume and stabilization of the measured field parameters. samples were collected from each well using a new, disposable bailer. Samples were collected into laboratory-supplied containers and stored cold during delivery to a state-certified analytical laboratory.

ANALYTICAL PROGRAM

Soil and groundwater samples were analyzed for the following constituents:

	Total petroleum hydrocarbons as diesel (TPHd) by U.S. Environmental Protection Agency (US EPA) Method 8015M with silica gel treatment;
	TPH as gasoline (TPHg) by US EPA Method 8015M (soil) and US EPA Method 8260B (groundwater); and,
	Benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by US EPA Method 8260B.
und	lwater samples were additionally analyzed for:

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☐ Ethylene dichloride (EDC) and ethylene dibromide (EDB) by US EPA Method 8260B.

WASTE MANAGEMENT AND DISPOSAL

Soil cuttings and purge/rinsate water generated during soil boring activities and groundwater sampling activities were stored in California DOT-approved 55-gallon steel drums and left onsite pending characterization and disposal.

WELL SURVEY

On February 19, 2010, new monitoring wells MW-1R and MW-7R were surveyed for elevation and location by a licensed professional land surveyor. The coordinates were uploaded to the state GeoTracker™ database.

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QUARTERLY GROUNDWATER MONITORING

On February 8, 2010, a total of ten wells (replacement well MW-1R, MW-2, MW-3, MW-4, MW-5, MW-6, replacement well MW-7R, MW-8, OW-1, and OW-2) were gauged by Blaine Tech as part of the quarterly monitoring program using an electronic oil/water interface meter graduated to 0.01 foot. An oil/water interface meter was used to determine the presence of free-phase product. No free-phase fuel product was measured in any of the wells. Depth-to-groundwater measurements and surveyed wellhead top-of-casing elevations were used to calculate groundwater surface elevations. Well gauging data is included in Attachment 5.

RESULTS

Lithologic and Hydrogeologic Observations

Soils encountered during installation of wells MW-1R and MW-7R are primarily highly to moderately plastic clays, grading to clayey sand at approximately 16 ft-bgs, and to silty sand at approximately 17 ft-bgs. Both boreholes encountered gravelly sand between the ground surface and 2 to 7 ft-bgs. Saturated soils indicative of first-encountered groundwater were encountered in silty sand at approximately 17 ft-bgs in each borehole. After allowing the boreholes to remain open overnight, the depth-to-static groundwater was measured at approximately 5 ft-bgs.

Soil Sample Analytical Results

Chemical data from soil samples collected at 5 ft-bgs from borings MW-1R and MW-7R are presented in Table 1. TPHg was detected at 29 milligrams per kilogram (mg/kg) at boring MW-7R and was not detected above laboratory reporting limits in the sample from MW-1R. TPHd was detected at 31 mg/kg and 730 mg/kg in samples from MW-1R and MW-7R, respectively. BTEX and MTBE were not detected above laboratory reporting limits.

Groundwater Monitoring Results

Groundwater elevation data from the February 8, 2010, monitoring event are presented in Table 2 and a potentiometric surface map is illustrated in Figure 3. Depth-to-groundwater measurements ranged from 4.13 to 5.31 feet below the top of casing, corresponding to a range of groundwater elevations of 0.22 to 0.98 relative to the local City of Oakland datum. Groundwater flows toward the southwest, with a slight variance in the area of the underground storage tank (UST) excavations.

During development of well MW-1R in January 2010, a fuel product sheen was observed on the groundwater. No sheen or measurable fuel product was observed during the February 8, 2010, monitoring event.

Groundwater Sample Analytical Results

Field parameter data of pH and DO are presented in Table 3 and groundwater sample analytical results are presented in Table 4. Constituents detected in groundwater are illustrated in Figure 4. The following summarizes groundwater chemical results:

TPHd was reported in all seven groundwater samples at concentrations ranging from 360
micrograms per liter (µg/L; well MW-8) to 12,000 µg/L (well MW-4). TPHd reported in wells OW-7
and OW-2 have increased from the last sampling event in April 2009. The TPHd concentration
reported in replacement well MW-1R is consistent with historical data from MW-1. The TPHd
concentration reported in replacement well MW-7R is lower than historical data from well MW-7.

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☐ TPHg was reported in four of seven groundwater samples at concentrations ranging from 52 µg/L (well MW-7R) to 120 µg/L (wells MW-1R and MW-4). Reported concentrations of TPHg are generally consistent with historical data. The reported concentration in well OW-2 represents a slight decrease compared to historical data, and this event represents the first time TPHg has not been detected above the reporting limit in OW-1. ☐ Benzene was reported only in the sample from well MW-7R, at a concentration of 0.63 μg/L. ☐ MTBE was reported in five of the seven groundwater samples at concentrations ranging from 1.6 µg/L (well MW-4) to 5.1 µg/L (well OW-1). Toluene, ethylbenzene, EDC, and EDB were not detected at or above laboratory reporting limits in any of the seven groundwater samples analyzed. □ DO values ranged from 1.07 mg/L to 2.91 mg/L indicating a reducing environment. CONCENTRATION TRENDS The following is a summary of concentration trends for each of the chemical constituents. **TPHd** – A plot depicting TPHd concentrations over time is included as Figure 5. ☐ TPHd concentrations in wells MW-8, MW-2, OW-1, and OW-2 have increased since the previous sampling event. ☐ TPHd concentrations reported at replacement wells MW-1R and MW-7R are lower than those reported at previous wells MW-1 and MW-7, although the concentration in well MW-1R is consistent with historical data. ☐ As illustrated on Figure 5, concentrations of TPHd in wells MW-1, MW-2, MW-4, MW-7, and MW-8 have decreased from historical high concentrations observed before Fenton's treatment in October 2000, while concentrations have increased in wells OW-1 and OW-2. **TPHg** – A plot depicting TPHg concentrations over time is included as Figure 6. All detectable TPHg concentrations decreased since than the previous sampling event. April 2009 was the first time TPHg has not been detected above the reporting limit in OW-1. ☐ As illustrated on Figure 6, concentrations of TPHg in all wells have decreased from historical high concentrations observed prior to October 2000. BTEX – A plot depicting benzene concentrations over time is included as Figure 7. Benzene concentrations continue to decline in site wells, most notably in well MW-1. Well MW-7R was the only well with a detection, but the concentration is less than 1 μ g/L. ☐ Toluene, ethyl benzene, and xylenes have not been detected since 2001.

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MTBE – A plot depicting MTBE	concentrations over time is included	as Figure 8.
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- MTBE concentrations in site wells are typically low, with values in the 5-10 μg/L range in most wells. The current data set is consistent with historical site data.
- □ Well OW-2 has historically reported the highest concentrations of MTBE dating to December 1999. Since this time, MTBE concentrations have declined from a historical high concentration of 17 μg/L to 4.9 μg/L.

EDC/EDB

☐ Lead scavengers EDC and EDB have not been detected in groundwater since first analyzed in April 2009.

DISCUSSION AND CONCLUSIONS

Wells MW-1R and MW-7R are appropriately screened to observe free product on the groundwater table based on measured static groundwater and the well screen interval. The chemical data reported for MW-1R is similar to historical MW-1 data, while initial groundwater chemical data from MW-7R is lower than historical MW-7 data. This relationship will be evaluated during future monitoring. A preliminary assessment of wells that are appropriately screened (MW-1R andMW-7R) versus the old wells that had submerged screens (MW-1 and MW-7) indicates that the concentrations are the same or lower than previously observed.

Grab groundwater samples collected from SB-2 and SB-5 in April 2009 reported high concentrations of fuel hydrocarbons, likely indicative of free-phase product present either on the groundwater or within vadose-zone soils and introduced to groundwater by the direct-push sampling method. TPH concentrations reported in wells MW-1R and MW-7R are significantly lower than those reported in the April 2009 grab samples. Well samples are generally considered superior to grab samples due to better conductivity between the formation and the well casing, the ability to screen across the entire water-bearing zone and less disruption of the groundwater zone during sampling creating a more representative sample of groundwater moving through the formation. Therefore, Stantec considers samples from wells MW-1R and MW-7R to be representative of actual groundwater conditions. This hypothesis will be confirmed during future groundwater monitoring events.

RECOMMENDATIONS

In correspondence dated December 17, 2009, the ACEHS requested the submittal of a FS/CAP following installation of wells MW-1R and MW-7R. Based on the absence of free-phase product in MW-1R, we recommend three additional sampling events to evaluate conditions in the new wells prior to preparing a FS/CAP.

In accordance with Stantec's October 27, 2009, *Monitoring Well Installation Work Plan*, Stantec will continue to monitor wells MW-1R and MW-7R for free-phase fuel product on a quarterly basis for remainder of the year along with wells MW-2, MW-4, MW-4, MW-5, MW-6, MW-8, OW-1, and OW-2. In addition, the second semi-annual sampling event will be conducted during the third quarter 2010.

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If you have any questions regarding this document or the findings herein presented, please contact the undersigned at (925) 299-9300.

Sincerely,

STANTEC CONSULTING CORPORATION

Eva Hey

Senior Geologist

Eval

Angus E. McGrath, Ph.D. Principal Geochemist

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Neil Doran, P.G., #8503

Senior Geologist

List of Attachments:

Table 1 - Soil Sample Analytical Results

Table 2 - Groundwater Elevation Data

Table 3 - Field Parameter Data

Table 4 – Groundwater Analytical Results

Figure 1 - Site Location Map

Figure 2 – Site Plan

Figure 3 – Potentiometric Surface Map

Figure 4 – Constituents in Groundwater

Figure 5 – TPHd versus Time

Figure 6 - TPHg versus Time

Figure 7 – Benzene versus Time

Figure 8 - MTBE versus Time

Attachment 1 – ACEHS December 17, 2009 Letter

Attachment 2 - Alameda County Public Works Agency - Water Resources Well Permit

Attachment 3 – DWR Reports

Attachment 4 – Soil Boring Logs

Attachment 5 - Field Data Sheets

Attachment 6 - Laboratory Analytical Report

TABLES

Monitoring Well Installation and 2010 Semi-Annual Groundwater

Monitoring Report
Former Penske Truck Leasing Facility
725 Julie Ann Way
Oakland, California
PN: 185702145.200.0004
March 25, 2010

			Method (mg/		Method 8260Β* (μg/kg)					
Sample ID	Depth (feet bgs)	Date	TPH-g	TPH-d	Benzene	Ethyl benzene	Toluene	Xylenes	MTBE	
MW-1R	5	1/11/2010	ND<0.96	31 ^Y	ND<4.9	ND<4.9	ND<4.9	ND<4.9	ND<4.9	
MW-7R	5	1/11/2010	29 ^Y	730	ND<49	ND<49	ND<49	ND<49	ND<49	

Notes:

Y - Sample exhibits chromatographic pattern which does not resemble standard

MTBE - methyl tertiary butyl ether

mg/kg - milligrams per kilogram

μg/kg - Micrograms per kilogram

Bold values indicate values that exceed the method reporting limit.

< - indicates sample detected at concentration less than the reporting limit indicated

^{* -} TPH-d analyzed by 8015B with silica gel cleanup

^{**} Ethylene dichloride reported as 1,2-Dichloroethane

		Elevation	Depth to Water	Groundwater Elevation
No.	Date	(Feet) ^(a,b)	(Feet)	(Feet)
MW-1	02/20/97	5.43	5.41	0.02
	05/28/97		5.98	-0.55
	09/19/97		6.45	-1.02
	11/17/97		6.14	-0.71
	02/27/98		4.83	0.60
	05/27/98		6.42	-0.99
	10/01/98		6.49	-1.06
	12/22/98		6.35	-0.92
	12/28/99		7.34	-1.91
	03/14/00		4.95	0.48
	06/28/00		5.54	-0.11
	09/14/00		6.41	-0.98
	12/11/00		6.08	-0.65
	03/14/01		6.11	-0.68
	06/13/01		5.68	-0.25
	08/29/01		6.13	-0.70
	12/12/01		5.31	0.12
	04/11/02		5.21	0.22
	12/05/02		5.85	-0.42
	04/22/09		5.03	0.40
		ndoned on January 11 20		MW-1R on January 12, 2010.
MW-1R	02/08/10	4.73	4.41	0.32
MW-2	02/00/10	6.20	6.26	-0.06
IVIVV-Z	05/28/97	0.20	6.65	-0.06
	09/19/97			
			6.90	-0.70
	11/17/97		6.75	-0.55
	02/27/98		5.31	0.89
	05/27/98		5.87	0.33
	10/01/98		6.95	-0.75
	12/22/98		6.70	-0.50
	12/28/99		7.08	-0.88
	03/15/00		5.45	0.75
	06/28/00		6.37	-0.17
	09/14/00		6.86	-0.66
	12/11/00		7.33	-1.13
	03/14/01		5.75	0.45
	06/13/01		6.33	-0.13
	08/29/01		6.71	-0.51
	12/12/01		5.92	0.28
	04/11/02		5.88	0.32
	12/05/02		6.56	-0.36
	12/05/02		6.56	-0.36
	04/22/09		5.52	0.68
	02/08/10		5.28	0.92
MW-3	02/20/97	6.10	6.36	-0.26
-	05/28/97		6.62	-0.52
	09/19/97		6.83	-0.73
	11/17/97		6.77	-0.67
	02/27/98		5.38	0.72
	05/27/98		6.05	0.05
	10/01/98		6.95	-0.85
	12/22/98		6.73	-0.63
	12/28/99		7.22	-1.12
	03/14/00		NM	NM
	06/28/00		6.37	-0.27
	09/14/00		7.06	-0.96
	12/11/00		6.68	-0.58
	03/14/01		5.85	0.25
	06/13/01		6.34	-0.24
	08/29/01		6.70	-0.24
	12/12/01 04/11/02		5.95 5.86	0.15 0.24
	12/05/02			
			6.55 6.55	-0.45
	12/05/02		6.55	-0.45
			N I N A	N I N A
	04/22/09 02/08/10		NM 5.31	NM 0.79

Well		Elevation	Depth to Water	Groundwater Elevation
No.	Date	(Feet) ^(a,b)	(Feet)	(Feet)
MW-4	02/20/97	5.18	5.29	-0.11
	05/28/97	• • • • • • • • • • • • • • • • • • • •	5.66	-0.48
	09/19/97		6.00	-0.82
	11/17/97		6.06	-0.88
	02/27/98		4.66	0.52
	05/27/98		5.98	-0.80
	10/01/98		5.23	-0.05
	12/22/98		6.57	-1.39
	12/28/99		6.54	-1.36
	03/14/00		4.86	0.32 -0.37
	06/28/00 09/14/00		5.55 6.05	-0.87
	12/11/00		5.93	-0.75
	03/14/01		5.04	0.14
	06/13/01		5.25	-0.07
	08/29/01		5.89	-0.71
	12/12/01		5.14	0.04
	04/11/02		4.96	0.22
	12/05/02		5.68	-0.50
	04/22/09		4.67	0.51
	02/08/10		4.71	0.47
MW-5	02/20/97	4.71	4.68	0.03
	05/28/97		5.21	-0.50
	09/19/97		5.43	-0.72
	11/17/97		5.28	-0.57
	02/27/98 05/27/98		4.10 5.40	0.61 -0.69
	10/01/98		5.40	-0.69
	12/22/98		5.40	-0.69
	12/28/99		5.73	-1.02
	03/14/00		NM	NM
	06/28/00		5.11	-0.40
	09/14/00		NM	NM
	12/11/00		5.48	-0.77
	03/14/01		4.57	0.14
	06/13/01		5.05	-0.34
	08/29/01		5.34	-0.63
	12/12/01		4.79	-0.08
	04/11/02 12/05/02		4.66 5.32	0.05 -0.61
	04/22/09		NM	-0.61 NM
	02/08/10		4.13	0.58
MW-6	02/20/97	5.37	5.38	-0.01
•	05/28/97	0.0.	5.93	-0.56
	09/19/97		6.15	-0.78
	11/17/97		6.06	-0.69
	02/27/98		4.74	0.63
	05/27/98		5.40	-0.03
	10/01/98		6.37	-1.00
	12/22/98		6.06	-0.69
	12/28/99		6.40	-1.03 NIM
	03/14/00 06/28/00		NM 6.71	NM -1.34
	06/28/00		6.71	-0.80
	12/11/00		NM	-0.60 NM
	03/14/01		5.11	0.26
	06/13/01		6.65	-1.28
	08/29/01		6.00	-0.63
	12/12/01		5.33	0.04
	04/11/02		5.15	0.22
	12/05/02		5.90	-0.53
	04/22/09		NM	NM
	02/08/10		4.56	0.81

		Elevation	Depth to Water	Groundwater Elevation
Well No.	Date	(Feet) ^(a,b)	(Feet)	(Feet)
MW-7	02/20/97	4.84	5.70	-0.86
10100-7	05/28/97	7.07	5.46	-0.62
	09/19/97		5.91	-1.07
	11/17/97		5.59	-0.75
	02/27/98		4.68	0.16
	05/27/98		5.17	-0.33
	10/01/98		5.80	-0.96
	12/22/98		5.78	-0.94
	12/28/99		7.72	-2.34
	03/14/00		4.50	0.34
-	06/28/00		5.51	-0.67
	09/14/00		5.93	-1.09
	12/11/00		5.72	-0.88
-	03/14/01		4.58	0.26
	06/13/01		5.18	-0.34
	08/29/01		5.53	-0.69
	12/12/01		4.73	0.11
	04/11/02		4.68	0.16
	12/05/02		5.25	-0.41
	04/22/09		4.58	0.26
		ndoned on January 11, 20		MW-7R on January 12, 2010.
MW-7R	02/08/10	4.50	4.28	0.22
MW-8	02/20/97	5.08	5.10	-0.02
10100-0	05/28/97	3.06	5.68	-0.60
	09/19/97		5.95	-0.87
	11/17/97		5.91	-0.83
	02/27/98		4.50	0.58
	05/27/98		6.10	-1.02
	10/01/98		6.13	-1.05
	12/22/98		6.10	-1.02
	12/28/99		6.30	-0.86
	03/14/00		5.01	0.07
	06/28/00		5.47	-0.39
	09/14/00		5.99	-0.91
	12/11/00		5.84	-0.76
	03/14/01		4.90	0.18
i	06/13/01		5.40	-0.32
	08/29/01		5.80	-0.72
	12/12/01		5.05	0.03
	04/11/02		4.95	0.13
	12/05/02		5.42	-0.34
	04/22/09		4.94	0.14
	02/08/10		4.31	0.77
OW-1	12/28/99	5.09	5.77	-0.68
~ ,	03/15/00	2.00	4.47	0.62
	06/29/00		4.95	0.14
	08/29/01		5.01	0.08
	09/14/00		5.31	-0.22
	12/11/00		5.17	-0.08
	03/14/01		4.54	0.55
	06/13/01		4.75	0.34
⊢	12/12/01		4.80	0.29
			4.52	0.57
-	04/11/02			
-	04/11/02 12/05/02			
 	04/11/02 12/05/02 04/22/09		5.13 4.19	-0.04 0.90

Well No.	Date	Elevation (Feet) ^(a,b)	Depth to Water (Feet)	Groundwater Elevation (Feet)		
OW-2	12/28/99	5.39	6.08	-0.69		
	03/15/00		4.76	0.63		
	06/29/00		5.15	0.24		
	09/14/00		5.60	-0.21		
	12/11/00		5.45	-0.06		
	03/14/01 06/13/01		4.77	0.62		
			5.01	0.38		
	08/29/01		5.31	0.08		
	12/12/01		5.10	0.29		
	04/11/02		4.83	0.56		
	12/05/02		5.42	-0.03		
	04/22/09		1	\neg	4.52	0.87
	02/08/10		4.41	0.98		

Notes:

- (a) All well elevations resurveyed to site benchmark on February 10, 1993.
- (b) Wells MW-1R and MW-7R resurveyed on February 19, 2010

NM - Not Measured

TABLE 3 FIELD PARAMETER DATA FORMER PENSKE TRUCK LEASING FACILITY 725 Julie Ann Way, Oakland, California

Well		рН	D.O.	ORP
No.	Date	ρπ (units)	(mg/L)	(millivolts)
MW-1	12/28/99	7.92	0.87	-211
IVIVV-I	03/14/00	7.29	1.12	-23
	06/28/00	8.26	0.55	-248
	09/14/00	6.92	0.36	-316
	12/11/00	7.05	1.34	-55
	03/14/01	7.07	1.24	-66
	06/13/01	7.05	1.20	-109
	08/29/01	7.78	NM	-63
	12/12/01	6.93	1.28	-4
	04/12/02	6.72	0.37	-56
	12/05/02	7.01	NM	-79
	04/22/09	6.94	0.08	-57/102
			indoned on January 11, 2010	Ö
		and replaced with v	vell MW-1R on January 12, 2	2010.
MW-1R	02/08/10	7.27	1.07	NM
MW-2	12/28/99	7.94	0.96	-38
	03/15/00	7.28	1.43	-255
	06/28/00	7.52	0.89	-221
	09/14/00	7.44	0.61	-310
	12/11/00	7.28	1.96	24
	03/14/01	7.34	1.46	11
	06/13/01	7.07	0.95	-12
	08/29/01	7.24	NM	70
	12/12/01	7.13	0.88	13
	04/11/02	7.25	0.66	126
	12/05/02	7.01	0.14	-32
	04/22/09	6.91	0.17	143/-12
	02/08/10	6.91	3.56	NM
MW-3	12/28/99	NM	NM	NM
	03/14/00	NM	NM	NM
	06/28/00	NM	NM	NM
	09/14/00	NM	NM	NM
	12/11/00	NM	NM	NM
	03/14/01	NM	NM	NM
	06/13/01	NM	NM	NM
	08/29/01	NM	NM	NM
	12/13/01	NM	NM	NM
	04/11/02	NM	NM	NM
	12/05/02	NM	NM NM	NM
	04/22/09	NM	NM NM	NM
N 4) 4 / 4	02/08/10	NM	NM	NM
MW-4	12/28/99	7.38	0.80	-201
	03/14/00	6.97	2.11	35
	06/28/00	6.87	3.57	-34
	09/14/00	7.23	1.06	16
	12/11/00	6.99	2.27	74
	03/14/01	6.81	1.28	-91 20
	06/13/01	6.97	0.97	-30 104
	08/29/01	7.45	NM 0.24	104
	12/13/01	6.88	0.34	199
	04/12/02	6.77	0.95	12
	12/05/02	6.81	0.56	-13
	04/22/09	6.71	0.16 2.38	-67/-68 NM
	02/08/10	6.92	2.38	INIVI

TABLE 3 FIELD PARAMETER DATA FORMER PENSKE TRUCK LEASING FACILITY 725 Julie Ann Way, Oakland, California

Well		мU	D.O.	ORP
No.	Date	pH (units)	(mg/L)	(millivolts)
MW-5	12/28/99	7.55	1.14	-118
10100-5	03/14/00	NM	NM	NM
	06/28/00	7.57	1.79	-103
	09/14/00	NM	NM	NM
	12/11/00	7.28	4.14	-11
	03/14/01	NM	NM	NM
	06/13/01	7.04	3.61	-44
	08/29/01	NM	NM	NM
	12/13/01	7.05	3.26	52
	04/11/02	7.04	2.28	-524
	12/05/02	NM	NM	NM
	04/22/09	NM	NM	NM
MW-6	12/28/99	NM	NM	NM
	03/14/00	NM	NM	NM
	06/28/00	NM	NM	NM
	09/14/00	NM	NM	NM
	12/11/00	NM	NM	NM
	03/14/01	NM	NM	NM
	06/13/01	NM	NM	NM
	08/29/01	NM	NM	NM
	12/13/01	NM	NM	NM
	04/11/02	NM	NM	NM
	12/05/02	NM	NM	NM
	04/22/09	NM	NM	NM
	02/08/10	NM	NM	NM
MW-7	12/28/99	7.94	1.30	-58
	03/14/00	7.23	1.05	-260
	06/28/00	7.18	5.76	-164
	09/14/00	7.06	0.65	-306
	12/12/00	7.02	1.25	-70
	03/14/01	7.10	0.94	-6
	06/13/01	7.03	1.77	-94
	08/29/01	7.34	NM	58
	12/12/01	7.09	0.98	47
	04/12/02	6.60	0.71	0
	12/05/02	6.96	0.14	10
	04/22/09	7.09	0.17	-37/-98
			indoned on January 11, 2010 vell MW-7R on January 12, 2	
MW-7R	02/08/10			
		7.43	2.32	NM 126
MW-8	12/28/99	7.79	0.42	-136 27
	03/14/00	7.05	1.53	-27 77
	06/28/00 09/14/00	8.86	1.87	-77 -166
		7.32	1.07	-166 -61
	12/12/00 03/14/01	7.05 7.21	1.16 2.55	-61 16
	06/13/01	7.10	2.55	-21
	08/29/01	7.10	NM	9
	12/13/01	7.15	1.55	12
	04/12/02	6.58	1.83	-10
	12/05/02	6.91	0.07	-88
	04/22/09	7.13	2.72	98/30
	02/08/10	7.13	3.58	96/30 NM
	02/00/10	1.03	5.50	IVIVI

TABLE 3 FIELD PARAMETER DATA FORMER PENSKE TRUCK LEASING FACILITY 725 Julie Ann Way, Oakland, California

Well		На	D.O.	ORP
No.	Date	(units)	(mg/L)	(millivolts)
OW-1	12/28/99	7.67	0.99	-89
	03/15/00	7.31	1.16	-55
	06/29/00	6.34	3.29	-48
	09/14/00	7.02	0.98	-115
	12/12/00	6.94	1.98	-5
	03/14/01	7.04	2.89	-5
	06/13/01	6.76	1.11	-58
	08/29/01	7.04	NM	-39
	12/12/01	6.83	1.17	-46
	04/11/02	7.19	0.75	-31
	12/05/02	6.88	0.03	-79
	04/22/09	6.80	0.29	-77/-88
	02/08/10	6.98	2.91	NM
OW-2	12/28/99	7.69	1.79	-58
	03/15/00	7.25	0.99	-35
	06/29/00	6.44	2.39	-66
	09/14/00	7.21	1.33	-89
	12/12/00	6.90	1.44	-76
	03/14/01	7.16	2.68	-54
	06/13/01	6.97	1.15	-92
	08/29/01	7.16	NM	-93
	12/12/01	6.81	1.36	-61
	04/11/02	7.08	0.89	-44
	12/05/02	6.85	0.01	-95
	04/22/09	6.89	0.35	-103/-90
	02/08/10	7.10	2.12	NM

Notes:

D.O. - Dissolved Oxygen mg/L - milligrams per liter

ORP - Oxidation Reduction Potential

NM - Not Measured

Well		TPHd	TPHg	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Ethyllene Dichlroride	Ethylene Dibromide
No.	Date	11110	9	Bonzono	Totaono	(μ/L)	жуюнос		Dioini orido	Dibronniao
MW-1	02/20/97	200,000	2,900	260	61	42	96	NS	NA	NA
	05/28/97	28,000	2,100	230	42	55	110	NS	NA	NA
	09/19/97	2,700,000	110,000	230	140	250	700	ND	NA	NA
	11/17/97	950,000	40,000	240	190 ^(c)	270 ^(c)	880 ^(c)	ND ^(c)	NA	NA
	02/27/98	1,200,000	380,000	50	50	200	800	ND	NA	NA
	05/27/98	280,000	13,000	110	13	66	390	ND	NA NA	NA NA
	10/01/98	63,000	1,300	43	1.2 ND ^(e)	15 23 ^(e)	84 130 ^(e)	ND	NA NA	NA NA
	12/22/98 12/28/99	79,000 43,000	2,000 1,700	32 49	1.3	11	24	ND ND	NA NA	NA NA
	03/14/00	4,300	540	59	1.3	12	23	NA NA	NA NA	NA NA
	06/28/00	290,000	1,300	26	ND	ND	23	ND	NA NA	NA NA
	09/14/00	770,000	1,100	34	ND	3.9	17	ND	NA	NA
	12/11/00	28,000	2,000	10	ND	ND	9.3	ND	NA	NA
	03/14/01	8,400	350	12	ND	ND	ND	ND	NA	NA
	06/13/01	13,000	340	6.4	ND	ND	1.6	ND	NA	NA
	08/29/01	26,000	140	0.5	ND	ND	ND	ND	NA	NA
	12/12/01	5,600	160	0.65	ND	ND	ND	ND	NA	NA
	04/12/02	23,000	260	3.4	ND	ND	ND	NA	NA	NA
	12/05/02	17,000	340	2.2	ND	ND	ND	6.0	NA	NA
	04/22/09	3,200	240	<0.50	<0.50	<0.50 <0.50	<1.0	2.6	<0.50 <0.50	<0.50
	DUP	12,000	310 M-1 abando	<0.50	<0.50	nd replaced v	<1.0	2.8		<0.50
MW-1R	02/08/10	5,600	120 ^(k)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
	02/08/10	5,800	120 ^(k)	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dup		1,000 ^(h)								
MW-2	02/20/97	3,700 ^(b,h)	ND	ND	ND	ND	ND	NS	NA NA	NA
	05/28/97 09/19/97	4100	ND ND	ND ND	ND ND	ND ND	ND ND	NS ND	NA NA	NA NA
	11/17/97	1300	ND	ND	ND ND	ND ND	ND ND	ND	NA NA	NA NA
	02/27/98	340	ND	ND	0.9	ND	ND	ND	NA NA	NA NA
	05/27/98	1300	ND	ND	ND	ND	ND	ND	NA NA	NA NA
	10/01/98	3,500 ⁽ⁱ⁾	3,200	ND	ND	ND	ND	ND	NA	NA
	12/22/98	1,200 ^(j,k)	67 ^(d)	ND	ND	ND	ND	ND	NA	NA
	12/28/99	750	ND	ND	ND	ND	ND	ND	NA	NA
	03/15/00	92	ND	ND	ND	ND	ND	ND	NA	NA
	06/28/00	ND	ND	ND	ND	ND	ND	ND	NA	NA
	09/14/00	120	ND	ND	ND	ND	ND	ND	NA	NA
	12/11/00	ND	ND	ND	ND	ND	ND	ND	NA	NA
	03/14/01	75 ND	ND	ND	ND	ND	ND	ND	NA NA	NA NA
	06/13/01 08/29/01	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	NA NA	NA NA
	12/12/01	150*	ND	ND	ND ND	ND ND	ND ND	ND ND	NA NA	NA NA
	04/12/02	ND	ND	ND	ND	ND	ND	NA NA	NA NA	NA NA
	12/05/02	57*	ND	ND	ND	ND	ND	ND	NA NA	NA NA
	04/22/09	140	<50	<0.50	<0.50	< 0.50	<1.0	<0.50	<0.50	<0.50
	02/08/10	870 ^(k)	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50
MW-3	02/20/97	140 ^(h)	ND	ND	ND	ND	ND	NS	NA	NA
	05/28/97	240 ^(b,h)	ND	ND	ND	ND	ND	NS	NA	NA
	09/19/97	ND	ND	0.7	ND	ND	ND	ND	NA	NA
	11/17/97	ND	ND	ND	ND	ND	ND	ND	NA	NA
	02/27/98	ND	ND	ND	ND	ND	ND	ND	NA	NA
	05/27/98	ND	ND	ND	ND	ND	ND	ND	NA	NA
	10/01/98	56 ^(l)	ND	ND	ND	ND	ND	ND	NA	NA
	12/22/98	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	12/28/99 03/14/00	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NA NA	NA NA
	03/14/00	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NA NA	NA NA
	09/14/00	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	12/11/00	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	03/14/01	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	06/13/01	NS	NS	NS	NS	NS	NS	NS	NA	NA
	08/29/01	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/13/01	NS	NS	NS	NS	NS	NS	NS	NA	NA
	04/11/02	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/05/02	NS	NS	NS	NS	NS	NS	NS	NA	NA

						Ethyl			Ethyllene	Ethylene
Well		TPHd	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	Dichlroride	Dibromide
MW-4	02/20/97	470,000	64,000	ND	ND	ND	ND	NS	NA	NA
	05/28/97	1,000,000	11,000	ND	ND	ND	ND	NS	NA	NA
	09/19/97	2,600,000	37,000	260	ND	ND	ND	ND	NA	NA
	11/17/97	57,000	4,400	25	ND ^(c)	ND ^(c)	ND ^(c)	ND ^(c)	NA	NA
	02/27/98	9,300	580	2.7	0.8	0.8	3	ND	NA	NA
	05/27/98	11,000	3,900	1.4	0.6	ND	ND	ND	NA	NA
	10/01/98	670,000	2,400	5.7	ND	ND	4.6	ND	NA	NA
	12/22/98	3,700	200	ND ^(p)	NA	NA				
	12/28/99	5,800	1,000	ND	ND	ND	ND	ND	NA	NA
	03/14/00	4,800	350	ND ND	ND ND	ND ND	ND ND	NA ND	NA NA	NA NA
	06/28/00 09/14/00	8,400 19.000	120 130	ND ND	ND ND	ND ND	ND ND	ND ND	NA NA	NA NA
	12/11/00	730	120	ND	ND	ND	ND	ND	NA NA	NA NA
	03/14/01	580	50	ND	ND	ND ND	ND	ND	NA NA	NA NA
	06/13/01	260	54	ND	ND	ND	ND ND	ND	NA NA	NA NA
	08/29/01	30,000	940	ND	ND	ND	ND	ND	NA	NA
	12/13/01	260	50	ND	ND	ND	ND	ND	NA	NA
	04/12/02	230	50	ND	ND	ND	ND	NA	NA	NA
	12/05/02	1,500	50	ND	ND	ND	ND	ND	NA	NA
	04/22/09	13,000	480	<0.50	< 0.50	< 0.50	< 0.50	3.0	<0.50	<0.50
	02/08/10	12,000	120 ^(k)	< 0.50	< 0.50	<0.50	< 0.50	1.6	<0.50	<0.50
MW-5	02/20/97	1,100 ^(h)	ND	ND	ND	ND	ND	NS	NA	NA
	05/28/97	560 ^(b,q)	60 ^(m)	ND	ND	ND	ND	NS	NA	NA
	09/19/97	1,000	70	ND	ND	ND	ND	ND	NA	NA
	11/17/97	1,100	70	0.6	0.7	0.5	ND	5	NA	NA
	02/27/98	ND	ND	ND	ND	ND	ND	5	NA	NA
	05/27/98	770	ND	ND	ND	ND	ND	ND	NA	NA
	10/01/98	630	ND	ND	ND	ND	ND	ND	NA	NA
	12/22/98	890 ^(r)	ND	ND	ND	ND	ND	ND	NA	NA
	12/28/99	440	ND	ND	ND	ND	ND	ND	NA	NA
	03/15/00	NS	NS	NS	NS	NS	NS	NS	NA	NA
	06/28/00	110*	ND	ND	ND	ND	ND	ND	NA	NA
	09/14/00	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/11/00	130	ND	ND	ND	ND	ND	ND	NA	NA
	03/14/01	NS	NS	NS	NS	NS	NS	NS	NA	NA
	06/13/01	120	ND	ND	ND	ND	ND	ND	NA	NA NA
	08/29/01 12/13/01	NS 530*	NS ND	NS ND	NS ND	NS ND	NS ND	NS ND	NA NA	NA NA
	04/11/02	230*	ND	ND ND	ND	ND	ND ND	NA NA	NA NA	NA NA
	12/05/02	NS NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
MW-6	02/20/97	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
10100	05/28/97	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	09/19/97	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	11/17/97	NS	NS	NS	NS	NS	NS	NS	NA	NA
	02/27/98	NS	NS	NS	NS	NS	NS	NS	NA	NA
	05/27/98	NS	NS	NS	NS	NS	NS	NS	NA	NA
	10/01/98	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/22/98	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/28/99	NS	NS	NS	NS	NS	NS	NS	NA	NA
	03/15/00	NS	NS	NS	NS	NS	NS	NS	NA	NA
	06/28/00	NS	NS	NS	NS	NS	NS	NS	NA	NA
	09/14/00	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	12/11/00	NS	NS	NS	NS	NS	NS	NS	NA NA	NA NA
	03/14/01	NS NC	NS	NS NS	NS NC	NS NS	NS NS	NS NC	NA NA	NA NA
	06/13/01	NS NS	NS	NS NS	NS NS	NS NS	NS NS	NS NS	NA NA	NA NA
	08/29/01 12/13/01	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NA NA	NA NA
	04/11/02	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NS NS	NA NA	NA NA
	12/05/02	NS	NS	NS NS	NS NS	NS NS	NS NS	NS	NA NA	NA NA
	12,00,02	.,0	. 10	. 10			. 10	.10	1471	14/1

						Ethyl			Ethyllene	Ethylene
Well		TPHd	TPHg	Benzene	Toluene	Benzene	Xylenes	MTBE	Dichlroride	Dibromide
MW-7	02/20/97	1,500,000	15,000	81	51	ND	ND	NS	NA	NA
	05/28/97	440,000	390,000	ND	ND	ND	ND	NS	NA	NA
	09/19/97	910,000	3,600	110	64	37	ND (a)	ND (a)	NA	NA
	11/17/97	18,000,000	15,000	110	41 ^(c)	12 ^(c)	110 ^(c)	ND ^(c)	NA	NA
	02/27/98	290,000	45,000	80	60	ND	ND	ND	NA	NA
	05/27/98	1,600	140	2.3	0.9	0.9	3	ND	NA	NA
	10/01/98	89,000	710	39	2.4	11	31	ND	NA	NA
	12/22/98	240,000	3,900	51	ND	ND	ND	ND	NA	NA
	12/28/99	300,000	2,300	51	5.3	13	27	ND	NA	NA
	03/14/00	640,000	620	31	5.3	9.9	31	NA	NA NA	NA
	06/28/00 09/14/00	2,900,000 15,000,000	3,200# 1,900	15 11	ND ND	3.2 10	30 39	ND ND	NA NA	NA NA
	12/12/00	340,000	4,500	5	ND ND	ND	17	ND ND	NA NA	NA NA
	03/14/01	170,000	8,000	5	ND	ND ND	ND	ND ND	NA NA	NA NA
	06/13/01	19,000	100	0.99	ND ND	ND ND	ND ND	6.2	NA NA	NA NA
	08/29/01	27,000	120	3.9	ND	ND	ND ND	5	NA NA	NA NA
	12/12/01	6,900	610	0.5	ND	ND	ND	ND	NA NA	NA NA
	04/12/02	2,600	110	0.5	ND	ND	ND	NA	NA NA	NA NA
	12/05/02	9,100	290	0.5	ND	ND	ND	5.7	NA NA	NA NA
	04/22/09	1,900	56	<0.50	<0.50	<0.50	<1.0	3.4	<0.50	<0.50
	0 1/22/00					and replaced v				10.00
MW-7R	02/08/10	560	52 ^(k)	0.63	<0.50	<0.50	<0.50	2.4	<0.50	< 0.50
MW-8	02/20/97	2,500	340 ^(a)	2.1	53	7.1	94	NS	NA	NA
	05/28/97	200 ^(b,s)	480 ^(a)	2.5	12	ND	76	NS	NA	NA
	09/19/97	7,000	1,000	0.8	5	0.5	130	ND	NA	NA
	11/17/97	520	250	1.4	2.1	0.7	3	ND	NA	NA
	02/27/98	150	ND	ND	ND	ND	ND	ND	NA	NA
	05/27/98	70	ND	ND	ND	ND	ND	ND	NA	NA
	10/01/98	440 ^(t)	ND	ND	ND	ND	ND	ND	NA	NA
	12/22/98	NS	NS	NS	NS	NS	NS	NS	NA	NA
	12/28/99	130	ND	ND	ND	ND	ND	ND	NA	NA
	03/14/00	170	ND	ND	ND	ND	ND	NA	NA	NA
	06/28/00	300*	ND	ND	ND	ND	ND	ND	NA	NA
	09/14/00	310	ND	ND	ND	ND	ND	ND	NA	NA
	12/11/00	15,000	ND	ND	ND	ND	ND	ND	NA	NA
	03/14/01	130	ND	ND	ND	ND	ND	ND	NA	NA
	06/13/01	100	ND	ND	ND	ND	ND	ND	NA	NA
	08/29/01	160*	ND	ND	ND	ND	ND	ND	NA	NA
	12/13/01	97*	ND	ND	ND	ND	ND	ND	NA	NA
	04/12/02	ND	ND	ND	ND	ND	ND	NA	NA	NA
	12/05/02	97	ND .FO	ND -0.50	ND -0.50	ND -0.50	ND -1.0	ND 2.0	NA 10.50	NA -0.50
	04/22/09	<50 360 ^(k)	<50	<0.50	<0.50	<0.50	<1.0	2.9	<0.50	<0.50
0)4/4	02/08/10		<50	<0.50	<0.50	<0.50	<0.50	1.7	<0.50	<0.50
OW-1	12/28/99	7,700	3,400	11	ND	ND	2.6	ND	NA NA	NA NA
	03/15/00 06/29/00	5,300	700	1.7	ND	ND	ND 2.2	ND 6.6	NA NA	NA NA
	06/29/00	1,300* 5,800	140# 180	4 ND	ND ND	ND ND	2.2 ND	6.6 ND	NA NA	NA NA
	12/12/00	230	110	3.4	ND ND	ND ND	ND ND	ND ND	NA NA	NA NA
	03/14/01	2,200	110	4	ND ND	ND ND	0.5	ND ND	NA NA	NA NA
	06/13/01	1,500	120	2.5	ND	ND	ND	ND	NA NA	NA NA
	08/29/01	1,200*	130#	ND	ND	ND	ND ND	ND	NA NA	NA NA
	12/12/01	3,100*	76#	ND	ND	ND	ND	ND	NA NA	NA NA
	04/11/02	3,600*	300#	ND	ND	ND	ND	NA	NA NA	NA NA
	12/05/02	490#	78#	ND	ND	ND	ND	ND	NA NA	NA NA
	04/22/09	1,600	130	<0.50	<0.50	<0.50	<1.0	8.9	<0.50	<0.50
	02/08/10	11,000	<50	<0.50	<0.50	<0.50	<0.50	5.1	<0.50	<0.50

Well		TPHd	TPHg	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	Ethyllene Dichlroride	Ethylene Dibromide
OW-2	12/28/99	3,300	770	36	ND	ND	1.7	16	NA	NA
	03/15/00	1,100	350	24	ND	ND	ND	9.3	NA	NA
	06/29/00	850	160	7.4	ND	ND	ND	13	NA	NA
	09/14/00	6,300	590	26	0.79	ND	1.7	17	NA	NA
	12/12/00	320	210	6.6	ND	ND	ND	7.4	NA	NA
	03/14/01	960	320	5.6	ND	ND	ND	ND	NA	NA
	06/13/01	900	250	2.9	ND	ND	ND	10	NA	NA
	08/29/01	1,400	270	5.3	ND	ND	ND	ND	NA	NA
	12/12/01	4,100	280	14	ND	ND	ND	11	NA	NA
	04/11/02	4,100	820	6.4	ND	ND	ND	NA	NA	NA
	12/05/02	500	230	0.5	ND	ND	ND	5.6	NA	NA
	04/22/09	2,100	210	< 0.50	< 0.50	< 0.50	<1.0	6.8	< 0.50	< 0.50
	02/08/10	10,000	140 ^(k)	<0.50	<0.50	<0.50	< 0.50	4.9	<0.50	<0.50
TB	02/08/10	NA	<50	< 0.50	<0.50	< 0.50	< 0.50	< 0.50	<0.50	< 0.50
EB	02/08/10	<50	<50	< 0.50	<0.50	< 0.50	< 0.50	<0.50	< 0.50	< 0.50

Notes:

mg/L - micrograms per liter NS - Well not sampled

TPHd - Total Petroleum Hydrocarbons as diesel ND - Not detected at or above the laboratory detection limit

TPHg - Total Petroleum Hydrocarbons as gasoli NA - Not analyzed MTBE - Methyl tert butyl ether EB -equipment blank

(a) - Laboratory reports that chromatogram indicates gasoline and unidentified hydrocarbons >C8.

(b) - Laboratory reports that the laboratory control sample failed for this batch, as well as when it was initially analyzed on 6/3/97. All results should be considered as estimated values. No additional sample was available for re-extraction.

(c) - Laboratory reports reporting limits for diesel and gas/BTEX elevated due to high levels of target compound. Samples run at dilution.

(d) - Laboratory reports the peak pattern present in this sample represents an unknown mixture atypical of gasoline in the range of n-C09 to greater than n-C12. Quantitation is based on a gasoline reference in the range of n-C07 to n-C12 only.

(e) - Laboratory reports reporting limit(s) raised due to high level of analyte present in sample.

(f) - Laboratory reports the hydrocarbon pattern present in this sample represents an unknown mixture in the range of n-C09 to n-C36. Quantitation is based on a diesel reference between n-C10 and n-C24 only.

(g) - Laboratory reports that chromatogram indicates diesel and unidentified hydrocarbons > C20.

(h) - Analyzed by USEPA Method 8015, modified.

(i) - Analyzed by USEPA Method 8020.

(j) - Diesel range concentration reported. A nonstandard diesel pattern was observed in the chromatogram.

* - Hydrocarbon reported does not match the diesel standard.

- Hydrocarbon reported (in the gasoline range) does not match lab standard.

(k) - Sample exhibits chromatographic pattern that does not resemble standard.

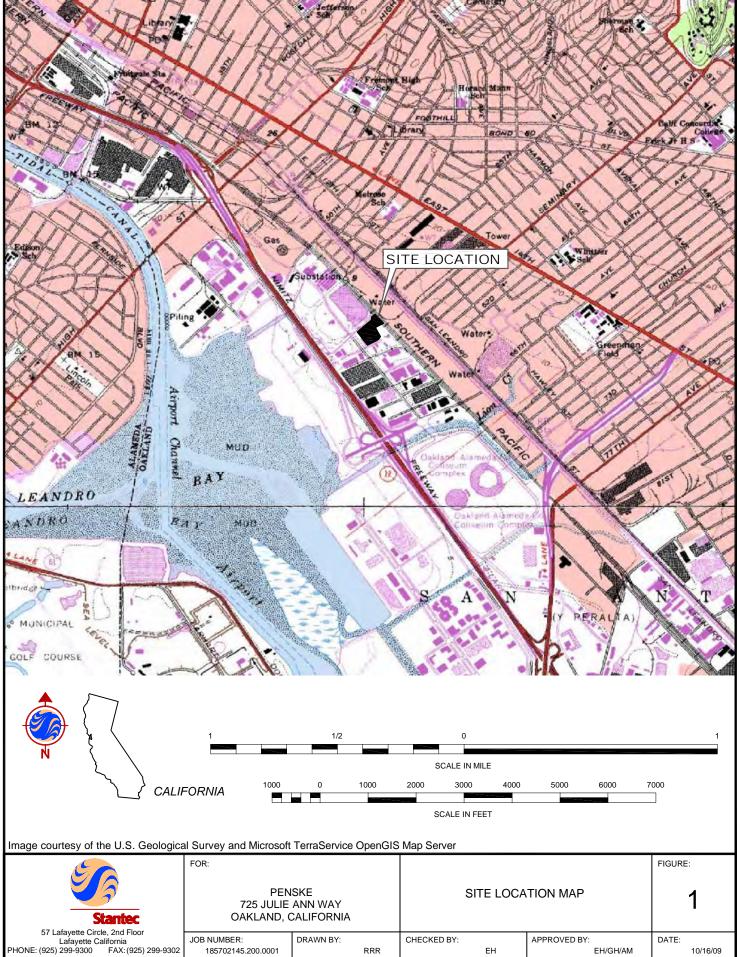
Ethylene dichloride reported as 1,2-Dichloroethane

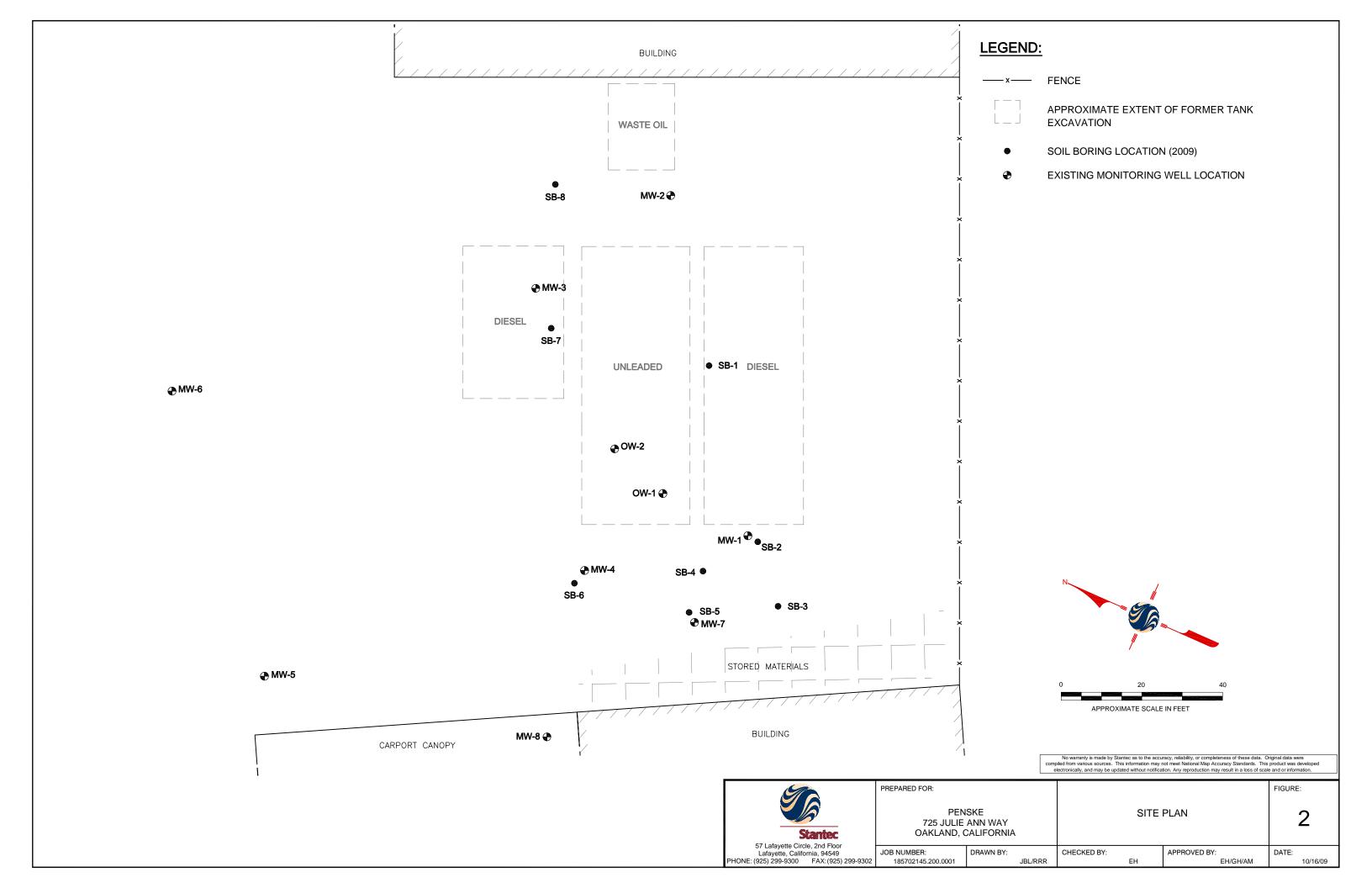
Ethylene dibromide reported as 1,2-Dibromoethane

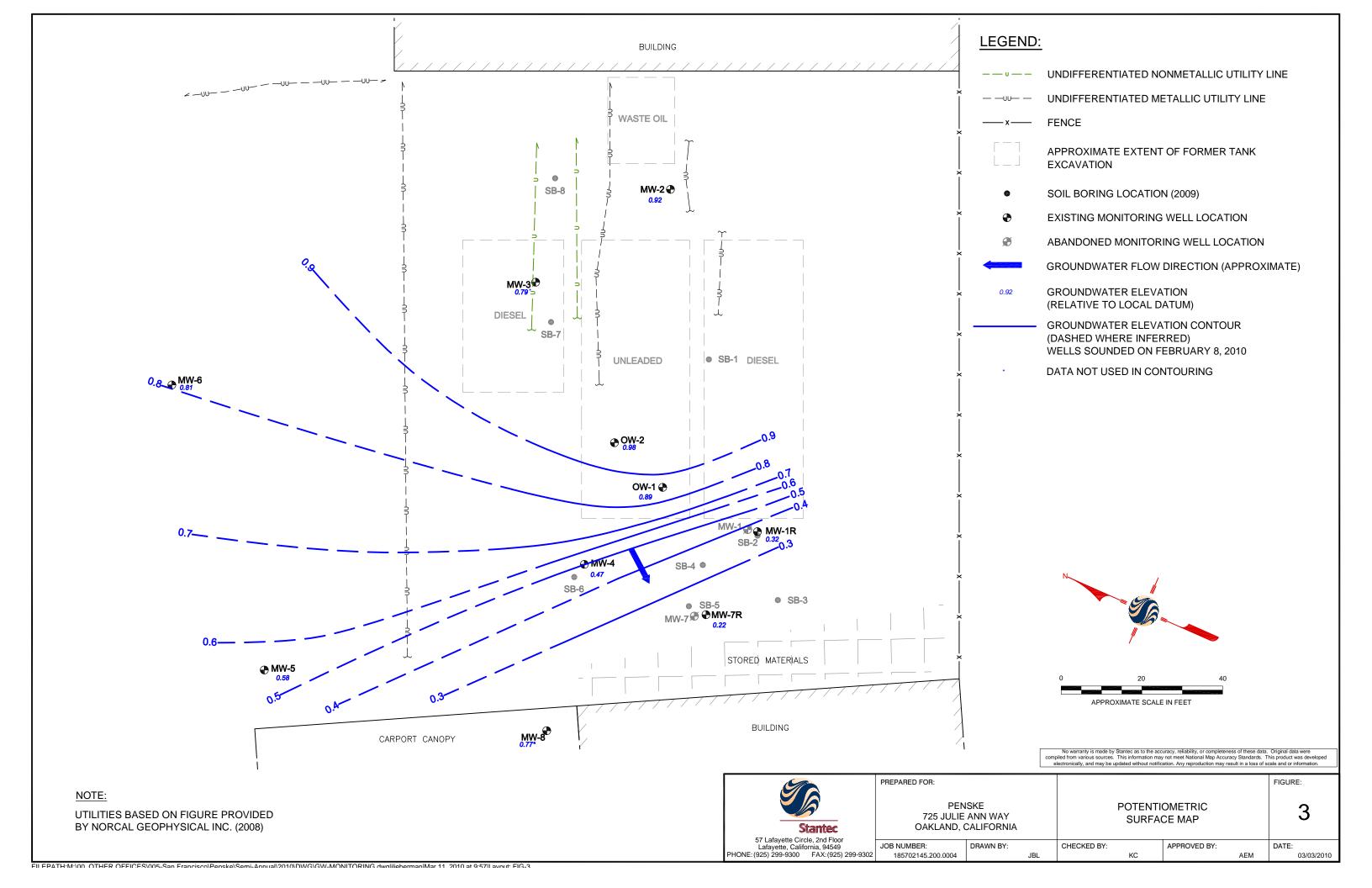
FIGURES

Monitoring Well Installation and 2010 Semi-Annual Groundwater

Monitoring Report
Former Penske Truck Leasing Facility
725 Julie Ann Way
Oakland, California
PN: 185702145.200.0004
March 25, 2010







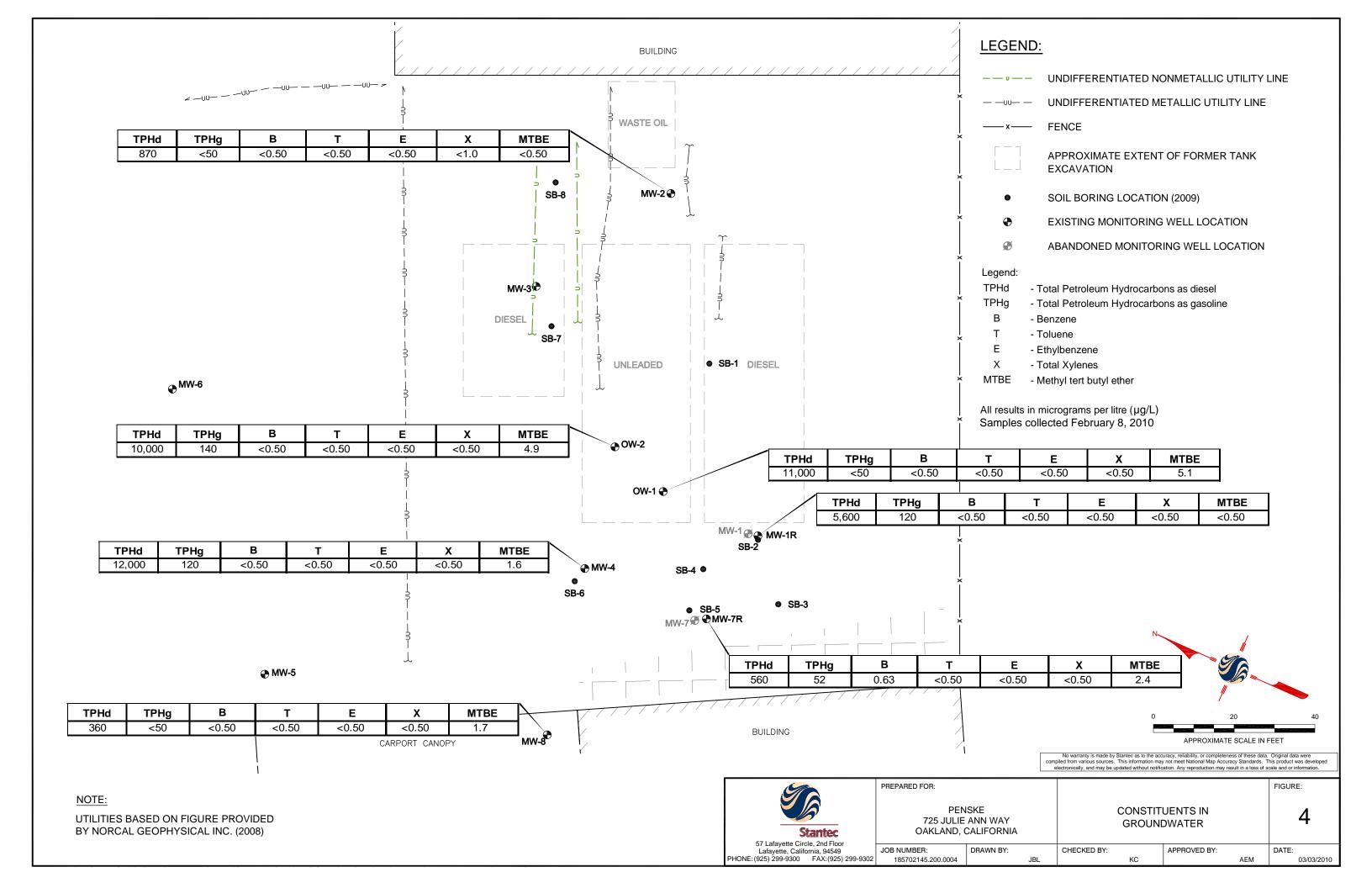


FIGURE 5
TPHd versus Time
725 Julie Ann Way, Oakland, CA

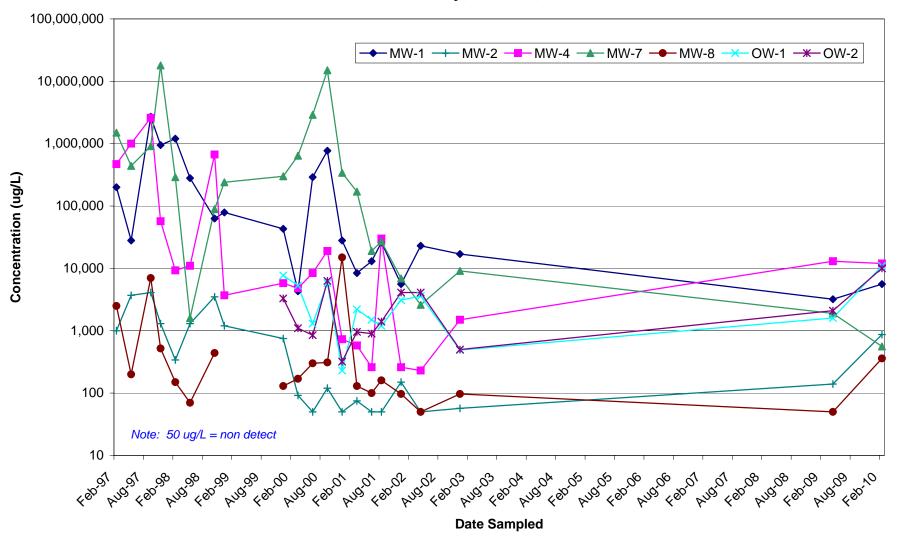


FIGURE 6
TPHg versus Time
725 Julie Ann Way, Oakland, CA

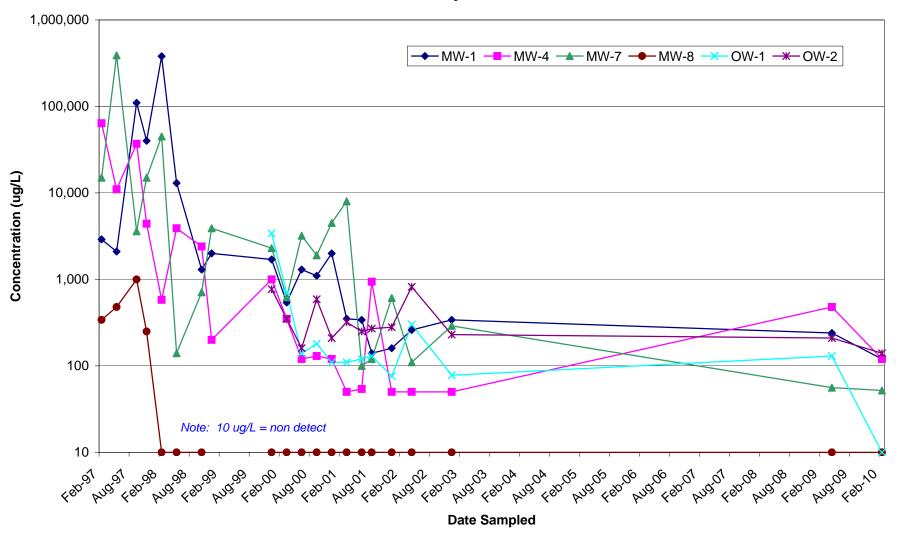


FIGURE 7
Benzene versus Time
725 Julie Ann Way, Oakland, CA

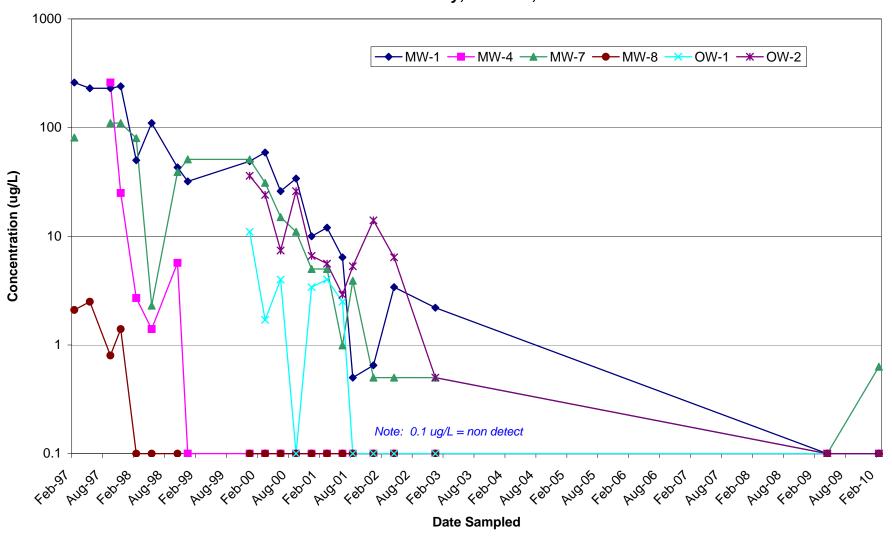
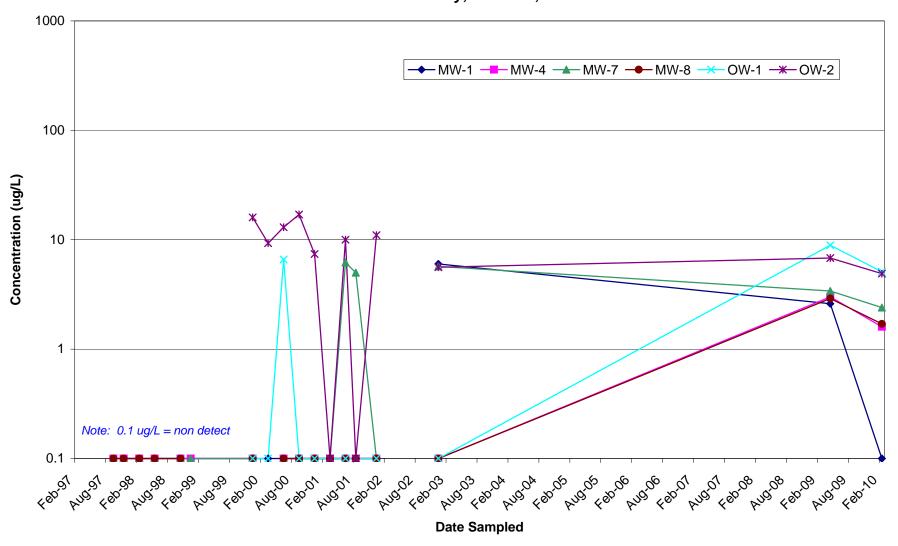


FIGURE 8
MTBE versus Time
725 Julie Ann Way, Oakland, CA



ATTACHMENTS

March 25, 2010

Monitoring Well Installation and 2010 Semi-Annual Groundwater

Monitoring Report

Former Penske Truck Leasing Facility
725 Julie Ann Way
Oakland, California
PN: 185702145.200.0004

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) 337-9335

December 17, 2009

Andrew Cullen (Sent via E-mail to: andrew.cullen@penske.com)
Penske Truck Leasing Company
Route 10 Green Hills Road
P.O. Box 7635
Reading, PA 19603-7635

Subject: Fuel Leak Case No. RO0000354 and GeoTracker Global ID T0600101062, Hertz

Penske, 725 Julie Ann Way, Oakland, CA 94621

Dear Mr. Cullen:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted documents entitled, "Soil and Groundwater Investigation and Groundwater Monitoring Report," dated September 1, 2009 and the "Monitoring Well Installation Work Plan," dated October 27, 2009, which were both prepared by Stantec Consulting Corporation for the subject site. The report summarizes the subsurface investigation conducted to assess the effectiveness of the Fenton's reagent injection remedial action as well as evaluate the existing groundwater monitoring well construction to ensure that that groundwater samples collected from the wells are representative of actual contaminant concentrations.

Stantec concluded that although successful, the Fenton's reagent was "likely limited by the predominance of fine-grained soils beneath the Site," and recommended replacing monitoring wells MW-1 and MW-7 due to their inability to monitor free product.

ACEH does not agree that the Fenton's reagent was as successful as Stantec stated since elevated concentrations of TPH-g, TPH-d, benzene, and naphthalene are present in soil and groundwater samples collected from several borings installed down-gradient of the USTs at the site. However, ACEH does generally concur with the proposed decommissioning and reinstalling of monitoring wells MW-1 and MW-7 and that the proposed scope of work may be implemented provided that the modifications requested in the technical comments below are addressed and incorporated during the field implementation. 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.

TECHNICAL COMMENTS

1. Monitoring Well Construction – In the work plan, Stantec proposes that "[f]ollowing advancement of the borehole at least 10 feet into first-encountered groundwater, the tool string will be removed and static groundwater will be allowed to equilibrate in the borehole for approximately one hour. This will allow for an accurate determination of the static depth-to-groundwater prior to installing the well casing, in order to confirm that the well screen intercepts the groundwater surface." In the above-mentioned report, Stantec states that static

Mr. Cullen RO0000354 December 17, 2009, Page 2

depth to groundwater in borings installed at the site is approximately 9 to 10.5 feet bgs. However, static depths to groundwater in site groundwater monitoring wells are shallower at approximately 5 feet bgs. According to the several boring logs included in the above-mentioned report, soils were logged as "wet" at approximately 5 feet bgs (SB-1, SB-3, SB-4, SB-6, and SB-7), but static groundwater was reported deeper at approximately 9 to 10.5 feet bgs. Perhaps the borings were not left open long enough for groundwater to equilibrate since it appears that the borings were grouted the day they were installed. In fine-grained soils, it is not uncommon to leave the borings open overnight for groundwater to stabilize. Therefore, please allow sufficient time for groundwater to stabilize prior to installing the monitoring wells. Should groundwater elevation for the newly installed wells rise above the screened interval, re-installation of monitoring points may be required.

2. Feasibility Study/Corrective Action Plan – As mentioned above, elevated concentrations of petroleum hydrocarbons still remain in soil and groundwater. Confirmation soil sample analytical results detected TPH-g, TPH-d, benzene, and naphthalene at elevated concentrations of 320 mg/kg, 12,000 mg/kg, 4.8 mg/kg, and 0.610 mg/kg, respectively. Confirmation "grab" groundwater samples detected TPH-g, TPH-d, benzene, and naphthalene at elevated concentrations of 300,000 µg/L, 4,000,000 µg/L, 12,000 µg/L, and 950 µg/L, respectively. Analytical results appear to indicate that the site poses a potential risk to human health and the environment. To that end, once monitoring wells MW-1 and MW-7 are decommissioned and re-installed, a Feasibility Study/Corrective Action Plan (FS/CAP) prepared in accordance with Title 23, California Code of Regulations, Section 2725 appears appropriate. The FS/CAP must include a concise background of soil and groundwater investigations performed in connection with this case and an assessment of the residual impacts of the chemicals of concern (COCs) for the site and the surrounding area where the unauthorized release has migrated or may migrate. The FS/CAP should also include, but not limited to, a detailed description of site lithology, including soil permeability, and most importantly, contamination cleanup levels and cleanup goals, in accordance with the San Francisco Regional Water Quality Control Board (SFRWQCB) Basin Plan for all COCs and for the appropriate groundwater designation. Please note that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. Please specify appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727 in the FS/CAP.

At least three viable alternatives for remedying or mitigating the actual or potential adverse effects of the unauthorized release(s) besides the "no action" and "monitored natural attenuation" remedial alternatives must be evaluated in the FS/CAP. Each alternative shall be evaluated not only for cost-effectiveness but also its timeframe to reach cleanup levels and cleanup goals, and ultimately the Responsible Party must propose the most cost-effective corrective action.

NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork.

TECHNICAL REPORT REQUEST

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- March 17, 2010 Soil and Water Investigation Report
- **Due within 30 Days of Sampling** Semi-annual Monitoring Report (1st Quarter 2010)
- April 16, 2010 Feasibility Study/Corrective Action Plan
- **Due within 30 Days of Sampling** Quarterly Monitoring Report (3rd Quarter 2010)
- **Due within 30 Days of Sampling** Quarterly Monitoring Report (4th Quarter 2010)

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/electronic_submittal/report_rgmts.shtml.

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.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

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) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Sincerely,

Paresh C. Khatri Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Eva Hey, Stantec Consulting Corporation, 57 Lafayette Circle, 2nd Floor, Lafayette, CA 94549 (Sent via E-mail to: <u>Eva.Hey@stantec.com</u>)

Angus E. McGrath, Stantec Consulting Corporation, 57 Lafayette Circle, 2nd Floor, Lafayette, CA 94549 (Sent via E-mail to: <u>Angus.McGrath@stantec.com</u>)

Neil Doran, Stantec Consulting Corporation, 57 Lafayette Circle, 2nd Floor, Lafayette, CA 94549 (Sent via E-mail to: Neil.Doran@stantec.com)

Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 (Sent via E-mail to: <u>Igriffin@oaklandnet.com</u>)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)

Paresh Khatri, ACEH (Sent via E-mail to: paresh.khatri@acgov.org)

GeoTracker

File

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

Oı

- 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.

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

REMOVED

PROJECT: Penske LOCATION: 725 Julie Ann Way, Oakland CA

PROJECT NUMBER: 185702145

STARTED 1/11/10 COMPLETED: 1/12/10 INSTALLATION: STARTED 1/11/10 COMPLETED: 1/12/10

DRILLING COMPANY: Gregg Drilling

DRILLING EQUIPMENT: (LAR) Limited Access Rig

DRILLING METHOD: Auger

DRILLING:

SAMPLING EQUIPMENT: Macrocore

WELL / PROBEHOLE / BOREHOLE NO:

MW-1R PAGE 1 OF 1

NORTHING (ft): LATITUDE:

GROUND ELEV (ft): INITIAL DTW (ft): 17 1/11/10

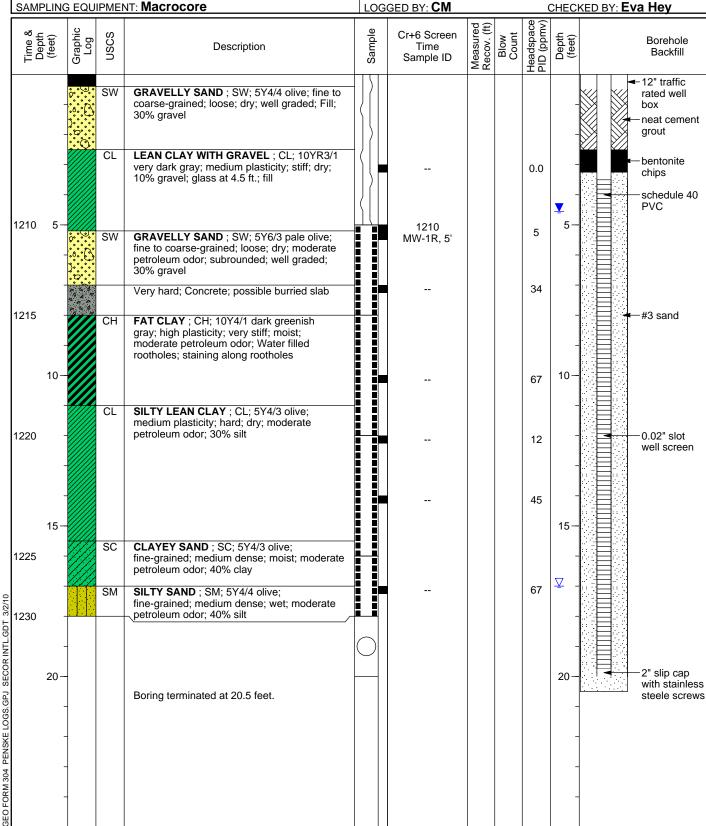
STATIC DTW (ft): 4.55 1/12/10 WELL CASING DIAMETER (in): ---

LOGGED BY: CM

EASTING (ft): LONGITUDE: TOC ELEV (ft):

BOREHOLE DEPTH (ft): 20.5 WELL DEPTH (ft): 20.0

BOREHOLE DIAMETER (in): 8



PROJECT: Penske LOCATION: 725 Julie Ann Way, Oakland CA

PROJECT NUMBER: 185702145

STARTED 1/11/10 DRILLING:

COMPLETED: 1/12/10 INSTALLATION: STARTED 1/11/10 COMPLETED: 1/12/10

DRILLING COMPANY: Gregg Drilling

DRILLING EQUIPMENT: (LAR) Limited Access Rig

DRILLING METHOD: Auger

WELL / PROBEHOLE / BOREHOLE NO:

MW-7R PAGE 1 OF 1

NORTHING (ft): LATITUDE:

GROUND ELEV (ft):

INITIAL DTW (ft): 17 1/11/10 STATIC DTW (ft): 5.1 1/12/10

WELL CASING DIAMETER (in): ---

EASTING (ft): LONGITUDE: TOC ELEV (ft):

BOREHOLE DEPTH (ft): 20.5 WELL DEPTH (ft): 20.0

BOREHOLE DIAMETER (in): 8

SAMPLING EQUIPMENT: Macrocore LOGGED BY: CM CHECKED BY: Eva Hey Headspace PID (ppmv) Measured Recov. (ft) Sample Time & Depth (feet) Graphic Log uscs Cr+6 Screen Blow Count Depth (feet) Borehole Description Time Backfill Sample ID 12" traffic GRAVELLY SAND; SW; 5Y4/4 olive; fine to rated well coarse-grained; loose; dry; well graded; Fill; hox 30% gravel neat cement grout ОН FAT CLAY; OH; N2.5/0 black; high bentonite plasticity; stiff; dry; slight petroleum odor; 12 chips organic rich clay schedule 40 Brick PVC 1110 <u>___</u>5 5-1110 74 MW-7R, 5' 85 Same as above; moist; strong petroleum 1115 #3 sand 81 FAT CLAY; CH; 10Y4/1 dark greenish CH gray; high plasticity; very stiff; moist; strong 74 petroleum odor 10 49 SILTY LEAN CLAY; CL; 10Y4/1 dark greenish gray; medium plasticity; hard; dry; moderate petroleum odor; 10% sand; 20% 0.02" slot 1120 27 well screen 89 15 15 0 1125 CLAYEY SAND ; SC; 10YR5/6 yellowish brown; fine-grained; dense; moist; 40% clay ∇ 1 0 SILTY SAND WITH GRAVEL; SM; SM GEO FORM 304 PENSKE LOGS.GPJ SECOR INTL.GDT 3/2/10 10YR4/6 dark yellowish brown; fine to medium-grained; dense; wet; subangular; 10% gravel; 30% silt 0 2" slip cap 20 20 with stainless Boring terminated at 20.5 feet. steele screws

Stantec WATER SAMPLE FIELD DATA SHEET PROJECT #: 185702545 PURGED BY: C. Melancon WELL I.D.: MU/-/R CLIENT NAME: Peuske SAMPLED BY: C. Melancon SAMPLE I.D.: Julie Ann Way, Oaklang LOCATION: 725 OA SAMPLES: DATE PURGED START (2400hr) 1747 END (2400hr) / 3 -5 5 DATE SAMPLED SAMPLE TIME (2400hr) SAMPLE TYPE: Groundwater Surface Water Treatment Effluent Other CASING DIAMETER: Casing Volume: (gallons per foot) (0.17)(0.38) (0.67)(1.02)(1.50)19.8 (fixel) DEPTH TO BOTTOM (feet) = CASING VOLUME (gal) = 2.62DEPTH TO WATER (feet) = CALCULATED PURGE (gal) = 26/6 15.39 WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) = 77,00 FIELD MEASUREMENTS DATE TIME VOLUME TEMP. CONDUCTIVITY pН COLOR TURBIDITY (2400hr) (gal) (degrees) (units) (umhos/cm) (visual) (NTU) 1240 3,620 7.72 812 1300 730 8 8 810 SAMPLE INFORMATION SAMPLE DEPTH TO WATER: SAMPLE TURBIDITY: 80% RECHARGE: YES ANALYSES: ODOR: WO SAMPLE VESSEL / PRESERVATIVE: PURGING EQUIPMENT SAMPLING EQUIPMENT Bladder Pump Bailer (Disposable) Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Centrifugal Pump PVC or Bailer disposable) Submersible Pump Bailer (Stainless Steel) Submersible Pump Bailer (Stainless Steel) Peristalic Pump Dedicated Peristalic Pump Dedicated Other: Other: Pump Depth: WELL INTEGRITY: on Water; Suiged & beiled first 15 gal. Post Purge D.O. = Post Purge ORP = Post Purge Fe(II) = SIGNATURE: Page

Stantec WATER SAMPLE FIELD DATA SHEET PURGED BY: C. Melancon WELLID: MU-7K CLIENT NAME: Peuske SAMPLED BY: C. Melancon SAMPLE I.D.: QA SAMPLES: DATE PURGED START (2400hr) // 40 END (2400hr) /230 SAMPLE TIME (2400hr) DATE SAMPLED SAMPLE TYPE: Groundwater Surface Water Treatment Effluent Other CASING DIAMETER: Casing Volume: (gallons per foot) (0.17) (0.38)(0.67)(1.02)(1.50)(2.60)DEPTH TO BOTTOM (feet) = $\frac{19.2 (r_4 r_1)/(8.5 (r_1 r_4))}{19.5 (r_4 r_4)}$ CASING VOLUME (gal) = $\frac{2}{5}$ DEPTH TO WATER (feet) = CALCULATED PURGE (gal) = 25.26 WATER COLUMN HEIGHT (feet) = ACTUAL PURGE (gal) = 76.00FIELD MEASUREMENTS DATE TIME VOLUME TEMP. CONDUCTIVITY pН COLOR TURBIDITY (2400hr) (degrees E) (gal) (umhos/cm) (units) (visual) (NTU) LIEBIN SAMPLE INFORMATION SAMPLE DEPTH TO WATER: SAMPLE TURBIDITY: 80% RECHARGE: YES___ NO ANALYSES: SAMPLE VESSEL / PRESERVATIVE: PURGING EQUIPMENT SAMPLING EQUIPMENT Bladder Pump Bailer (Disposable) Bladder Pump Bailer (Teflon) Centrifugal Pump Bailer (PVC) Bailer PVC or Centrifugal Pump disposable) Submersible Pump Bailer (Stainless Steel) Baller (Stainless Steel) Submersible Pump Peristalic Pump Dedicated Peristalic Pump Dedicated Other: Other: Pump Depth: WELL INTEGRITY: LOCK#: hailed First 13 gal. REMARKS: Socae Post Purge D.O. = Post Purge ORP = Post Purge Fe(II) = SIGNATURE: Page

TABLE 1 Depth to Groundwater Level Measurement

Former Penske Facility, 725 Julie Ann Way, Oakland, CA

185702145.200.0002

DATE 2810

Well	Time	Depth to Water (ft)	Comment (Product Thickness)
MW-1a	6850	4.41	tible to many and to
MW-2	0845	5.28	
MW-3	0843	5.31	A ANDRONE .
MW-4	6 35	4.71	
MW-5	0831	4.13	
MW-6	08.28	4.56	
MW-7a	0637	4.28	
MW-8	T833	481	
OW-1	0821	4.20	A STATE OF THE STA
OW-2	0841	4.41	

WELLHEAD INSPECTION CHECKLIST

Page _____of _____

	Date 2/8/10	2	Client	Stonte	<u>.</u>				
Well ID Well Inspected No Corrective Action Required Cap From Wellbox Cleaned Wellbox Replaced Required (explain below) MW-1a	Site Address	725 Jul	ic Ann	Way C	Dekland				
Well ID No Greetive Action Required Note Securetky Note Sec						hnician	P.M.		
Mw-12 Nw-73 Nw-4 Nw-5 Nw-6 Nw-6 Nw-70 Nw-8 Ow-1 Ow-2 NOTES:	Well ID	No Corrective	From	Components		Removed From		Taken (explain	Inspected (explain
Mw-7a Mw-8 Ow-1 Ow-2 NOTES:		X				None and		35,007	25.0.7
MW-S MW-S MW-S MW-S MW-S MW-S MW-S MW-S MW-B Cl2 belts wissing CW-1 CW-2 X NOTES:			Not se	curable	ē.				
MW-5 MW-6 MW-7a MW-8 OW-1 OW-2 NOTES:	Mw-3		No 501	ks					
MW-6 MW-79 MW-8 OW-1 OW-2 NOTES:	MW-4 🥞		1	!	5-~				
Mw-7a X 2/2 tales striped OW-1 (1/2 balls mas) - NOTES:			la boli	<u>s</u>					
Mw-7a X 2/2 tales striped OW-1 (1/2 balls mas) - NOTES:			2/2 1	oolly mis	2. War	- 20			
Ow.2 × NOTES:		X			\sim				
Ow.2 × NOTES:	Mu-B		2/2 10	Ls Stri	Fed .				
Ow.2 × NOTES:	0W-1		1/2 6	ills was	3				
NOTES:	Ow-2	·×							
NOTES:	117								
NOTES:									
NOTES:									
NOTES:									
NOTES:									
			<u></u>						, X., ‡.
	NOTES:								

			····						- 24
								· · · · · · · · · · · · · · · · · · ·	

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAM	ME Stantect	725 Juli	e Ann Way	PROJECT NUM	MBER 100208-	Rul	
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
Ultrameter	017813	2/8/1800	pH 7910,0, 4x	ond 39.00	igs	55,9	13P
Hach ZIOCP turbidmeter	09080 C037049	48/10 815	55 NTU 515 NTU	ST NTU \$10 NTU	yes		BP
			-	<i>v</i> * .			
					,		
	<u> </u>						

WELL MONITORING DATA SHEET

Project #: 1	00208	J.W.S.		Client:	STAUT	ee			
Sampler:	RUBE	> .		Date:	2/8/11)			
Well I.D.:	llw-la			Well D	iameter:	:(2) 3	4 6	8	
Total Well I): 19.5	59	Depth t	o Water	r (DTW): 4,	41		2.18
Depth to Fro	ee Product	:				ree Product (
Referenced	to:	PVC	Grade	D.O. M	leter (if	req'd):	YSI) насн	
DTW with 8	80% Rech	arge [(H	eight of Water	Column	x 0.20)) + DTW]:	7.4	4	
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme	nt Extrac Other	Waterra Peristaltic tion Pump		Sampling Metl	nod: her:	Bailer Disposable Bailer Extraction Port Dedicated Tubing	
		<u></u>	75		Well Diamete 1"	0.04 4	Vell Diamete	er Multiplier 0.65	
2.5 (Cl Case Volume	Gals.) X Speci	S fied Volum	$\frac{1}{\text{ces}} = \frac{75}{\text{Calculated Vo}}$	_Gals.	2" 3"		other	1.47 radius ² * 0.163	
	77								
Time	Temp	pΗ	Cond. (mS or μS)	l .	oidity (Us)	Gals. Remov	ed	Observations	
1127	15.0	7.34	29177	7/0	૭૭	2.5			
1131	15.2	7.23	2450	フル	ر	5.0			
1136	15.3	727	2491	710)	7.5			
								The state of the s	
					,				
Did well de	water?	Yes (No)	Gallons	s actuall	y evacuated:	7.5	-,	
Sampling D	ate: 28	10	Sampling Time	e: 1140)	Depth to W	ater: <	5.21	
Sample I.D.	: Mus-10	λ		Labora	tory:	Kiff CalSci	ence	Other C4T	_
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygena	ites (5)	Other: Sec	T We	,	
EB I.D. (if a	applicable)):	@ Time	Duplica	ate I.D.	(if applicable	e): Du	P-1 @ 1150	
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygena		Other:			
D.O. (if req	'd): (Pi	re-purge;	1.07	mg/L	P	ost-purge:	(D.Z9	^{mg} /L
O.R.P. (if re	eq'd): Pi	re-purge:		mV	P	ost-purge:			mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

Equipment Blank @ 11:30

W LLL MONITORING DATA SHELL

Project #: [UO 208 -	Rily		Client: STANTEC						
Sampler: 🖟				Date: 2	1811	<i>∂</i>				
Well I.D.:	Uw-2			Well Dian			6 8			
Total Well	Depth (TD)): 2a	23	Depth to	Water	r (DTW):5:28				
Depth to Fr	ee Product	t:				ree Product (fee				
Referenced	to:	PVG	Grade	D.O. Met	er (if	req'd): (YSI) HACH			
DTW with 8	80% Rech	arge [(H	leight of Water	Column x	0.20)) + DTW]:).ö7			
	Bailer Disposable B Positive Air I Dectric Subm	Displaceme nersible	nt Extrac Other		II Diameter	0.04 4"	Extraction Port Dedicated Tubing Diameter Multiplier 0.65			
15°50 (C		ك Ified Volum	$\frac{1}{1000} = \frac{46.5}{\text{Calculated Vo}}$	~	2" 3"	0.16 6" 0.37 Other	1.47 radius ² * 0.163			
Time	Temp (°F or C)) pH	Cond. (mS or μS)	Turbidi (NTUs	-	Gals. Removed	Observations			
0926	17.4	6.65	4096	37	- E	15.5	cloudy			
0929	18.8	6.81	4519	105		31.0	/			
0932	18,9	6.91	4616	50	,	46.5				
Did well dev	water?	Yes (Ñò	Gallons a	ctuall	y evacuated:	465			
Sampling D	ate: 2 8 1	0	Sampling Time	a: 0940		Depth to Water				
Sample I.D.	: Mw-2	·		Laborator	y:	Kiff CalScience	Other CLT			
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenates	s (5)	Other: Sos (De			
EB I.D. (if a	ıpplicable)	:	@ Time	Duplicate	I.D. ((if applicable):				
Analyzed fo	r: TPḤ-G	BTEX	MTBE TPH-D	Oxygenates		Other:				
D.O. (if req'	d): (Pr	e-purge	3,56	mg/ _L	Po	ost-purge:	2.82 mg/L			
O.R.P. (if re	:q'd): Pr	e-purge:		mV	Po	ost-purge:	mV			

WELL MONITORING DATA SHELF

Project #:	100509	3-Rour		Client	JUANT:	とこ		•
Sampler:	50 MS	_			2/8/10			
Well I.D.:	MW-4			T	 Diameter	·	(4)	6 8
Total Well	Depth (TE)): <i>2</i> 9,0	N	Depth	to Water	r (DTW):	4.7	
Depth to Fr						ree Produc		
Referenced		PVC	Grade		Meter (if		1 (10)	YSI HACH
DTW with	80% Rech	arge [(F	leight of Water					9.57
Purge Method:	Bailer Disposable B Positive Air I Dectric Subr	Bailer Displaceme		Waterra Peristaltic ction Pump	:	Sampling M	ethod: Other:	Bailer Disposable Bailer Extraction Port Dedicated Tubing
15,8 ((,	5 ified Volum	$\frac{1}{1} = \frac{47.4}{\text{Calculated Vo}}$	_ Gals. olume	2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47
Time	Temp (°F or °C)	pН	Cond. (mS of μ S)	1	bidity TUs)	Gals. Remo	oved	Observations
1110	16.8	7.18	9550	1	26	15.8		
443(80)	* Well	leinete	wed e -	20 90	11mc	31.68	2	
14789		-			·	47.46	s)	
1157	16.2	6.97	11 102	2.	<i>50</i>			Well deliver text 2 36 qullons
1215	17.6	6.92	15 150	S	79	48.0		- U qanor j
Did well de	water? (Yes (No	Gallon	s actuall	y evacuate	d:	48.0
Sampling D	ate: 2 8	10	Sampling Time	e: 127	Ü	Depth to V		_
Sample I.D.	: Mis-1	-1		Labora	tory;	Kiff CalSo	cience	Other Ct
Analyzed fo	or: TPH-G	BTEX	МТВЕ ТРН-D	Oxygen	ates (5)	Other: S	CE _	Coc
EB I.D. (if a	applicable)):	@ Time	Duplic	ate I.D. (if applicat		
Analyzed fo	or: TPH-G	BTEX	МТВЕ ТРН-D	Oxygen		Other:	<u> </u>	
D.O. (if req'	d): Pr	e-purge:	2.38	^{mg} /∟	Po	ost-purge:		0.41 mg/L
O.R.P. (if re	eq'd): Pr	e-purge:		mV	Po	ost-purge:		nıV

WELL MONITORING DATA SHEET

Project #:	20208	-eny		Client:	STAR	rec	1	·	
Sampler:	RM/BP	-		1	2/8/10				
Well I.D.:	Nw-Ta			Well D	Diameter	(2) 3	4	6 8	
Total Well	Depth (TD	1): 19.6	11	Depth	to Wate	r (DTW):	4.7	7A	15.13
Depth to Fr	ee Product					ree Produ			
Referenced	to:	(PVC)) Grade	D.O. M	leter (if	req'd):	(YSI HACH	
DTW with	80% Rech	arge [(H	leight of Water	Colum	n x 0.20)) + DTW	j: 7	. <u>S</u> o	
Purge Method:	Bailer Disposable B Positive Air I Electric Subn	Displaceme	nt Extrac Other	Waterra Peristaltic tion Pump		Sampling Sampling	Other:	Bailer Disposable Baile Extraction Port Dedicated Tubing	:
2-5 (0 1 Case Volume	Gals.) XSpeci	3 fied Volum	$= \frac{7.5}{\text{Calculated Vo}}$	_ Gals.	1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47 radius ² * 0.163	
Time	Temp) _{pH}	Cond. (mS or (1S))		oidity ΓUs)	Gals. Rer	noved	Observations	
1129	16.1	7.46	4927	7	19	2.9	5		
11 33	16.6	7.38		>10	00	5.0			
1137	17.1	7.43	4490	> 100	00		<		
	·			***					
Did well de	water?	Yes (No)	Gallon	s actuall	y evacuat	 :ed:	7.5	
Sampling D	ate: 2/8	/10	Sampling Time	e: 114	15	Depth to	Water	r: 4.54	
Sample I.D.	: MW - 7	f a		Labora	tory:	Kiff Cal	Science		
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygena	ates (5)	Other:) Se	Coc ·	
EB I.D. (if a	pplicable)		@ Time	Duplica	ate I.D.	(if applica			
Analyzed fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygena		Other:	<u> </u>		
D.O. (if req	d): (Pr	e-purge	2.52	$^{mg}\!/_{\mathrm{L}}$	P	ost-purge:		0.31	mg/L
O.R.P. (if re	q'd): Pr	e-purge:		mV	P	ost-purge:			mV

W LLL MONITORING DATA SHELL

Project #:	100508	-RMI		Client	STAN	STEC			
Sampler:	RM/38			1	2/8/17				
Well I.D.:	MW-8			Well I	Diameter	: 2 3	<u>4</u>)	6 8	
Total Well	Depth (TI)): 26.	12	Depth	to Wate	r (DTW):	3,5	————— ろ	22.54
Depth to Fr						ree Produ			
Referenced	to:	PVG	Grade		Aeter (if			YSI HACH	
DTW with	80% Rech	arge [(H	leight of Water	Colum	n x 0.20) + DTW]: {	3.09	
Purge Method:	Bailer Disposable B Positive Air l Alectric Subn	ailer Displaceme		Waterra Peristaltic		Sampling	Method: Other:	Extraction Port Dedicated Tubing	
14,7 (Case Volume	Gals.) X Speci	3 fied Volun	= <u>UU.</u> [res Calculated Vo	_Gals. lume	1" 2" 3"	er <u>Multiplier</u> 0.04 0.16 0.37	Well I 4" 6" Other	Diameter Multiplier 0.65 1.47 radius ^{2 *} 0.163	
Time	Temp) _{pH}	Cond. (mS or (18)		bidity TUs)	Gals. Rei	noved	Observations	
0950	17.2	7.18	6951		114	14.7	2		
0953	17.6	7.09	7140	7	18	29.	4		
0956	17.8	7.09	7447	10	78	44.			
									
Did well de	water?	Yes (No `	Gallon	s actuall	l y evacuat	ed:	44.1	
Sampling D	ate: 2/8		Sampling Time			Depth to		0	
Sample I.D.	: MW-	· - B		Labora			Science	· · · · · · · · · · · · · · · · · · ·	
Analyzed fo	r: TPH-G	ВТЕХ	МТВЕ ТРН-D	Oxygen	ates (5)	Other: S	 30	Coc	
EB I.D. (if a	pplicable)	•	@ Time	Duplic		(if applica	• • • • • • • • • • • • • • • • • • • •		
Analyzęd fo	r: TPH-G	BTEX	MTBE TPH-D	Oxygena	` '	Other:			
D.O. (if req'	d): (r	e-purge:	3.58	$^{ m mg}/_{ m L}$	∠Ṕ	ost-purge:		08	ng/L.
O.R.P. (if re	q'd): Pr	e-purge:		mV	P	ost-purge:			1V

W ...LL MONITORING DATA SHELL

Project #: 1	<u>00208</u>	- Punj		Client	STANT	rec	· ·	~d	
Sampler: (2M/87			Date:	2/8/10)			
Well I.D.: (ر ا-نمار				Diameter		4	6 8	
Total Well 1	Depth (TD)): 14,1	5	Depth	to Water	r (DTW):	4.21)	1.95
Depth to Fro	ee Product			Thickr	ness of F	ree Produ	ıct (feet) <u>:</u>	
Referenced	to:	(PVC)	Grade	D.O. N	Aeter (if	req'd):	()	(SI) HACH	
DTW with 8	80% Rech	arge [(H	eight of Water	Colum	n x 0.20)) + DTW]: (2.19	
Purge Method:	Bailer Disposable B Positive Air I Rectric Subn	Displaceme		Waterra Peristaltic tion Pump	:	Sampling Rampling		Bailer Disposable Bailer Extraction Port Dedicated Tubing	- -
Ce. S (C		3 ified Volum	es Calculated Vo		1" 2" 3"	0.04 0.16 0.37	4" 6" Other	0.65 1.47 radius ² * 0.16.3	
Time	Temp) pH	Cond. (mS or µS)	l	bidity TUs)	Gals. Re	moved	Observations	
1014	16.5	7.09	3338	6	6	6.	5		
1015	16.7	7.00	3240	1	24	13	,0		
1017	16.6	6.98	3196	1	0	13	5		
							•		
Did well de	water?	Yes (Ng)	Gallor	s actuall	ly evacua	ted:	19.5	1
Sampling D	ate: 2/8	i	Sampling Time			Depth to			
Sample I.D.	: 0W-1			Labor	atory:	Kiff Ca	ılScience	Other C+T	
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxyger	nates (5)	Other: 5) se C	٠ <u>٠</u>	
EB I.D. (if	applicable):	@ Time	Duplio	ate I.D.	(if applic	able):		
Analyzed for	or: TPH-G	BTEX	MTBE TPH-D	Oxyger	nates (5)	Other:			
D.O. (if req	'd): P	re-purge:	291	^{mg} / ₁	F	ost-purge:		0.64 ^{mg} /	1.
O.R.P. (if re	eq'd): P	re-purge:		mV	F	ost-purge:		m√	/

W_LL MONITORING DATA SHELL

Project #:	100208-	- Rong		Client: S	STANT	EC			
Sampler:	RMBP			Date: 2					
Well I.D.:	DW-2_			Well Di	ameter:	: 2 3 (4)	6 8		
Total Well	Depth (TD): 13°	N	Depth to) Water	:(DTW): 414	ľ		
Depth to Fr	ee Product					ree Product (fee			
Referenced	to:	(PVC)	Grade	D.O. Meter (if req'd): YSI HACH					
DTW with 8	80% Recha	arge [(H	eight of Water	Column	x 0.20)) + DTW]: (*)	o.31		
Purge Method:	Bailer Disposable B Positive Air I Bectric Subn	Displaceme		Waterra Peristaltic tion Pump	√ell Diamete	Sampling Method: Other:	Bailer Risposable Bailer Extraction Port Dedicated Tubing		
Co. 2 (Control 1 Case Volume		S fied Volum	$= \frac{160}{\text{Calculated Vo}}$	_ Gals.	1" 2" 3"	0.04 4" 0.16 6" 0.37 Other	0.65 1.47 radius ² * 0.163		
Time	Temp (°F or 🔾	pН	Cond. (mS or (uS) ₃)	Turbi (NT	-	Gals. Removed	Observations		
1042	16.5	7.43	3207	4	32	6.2			
10 43	16.7	718	3/70	9	3	12.4			
10 45	16.6	7.10	30 98	3	6	18.6			
					-				
Did well de	water?	Yes (No.)	Gallons	actuall	y evacuated:	18.6		
Sampling D	ate: 2/8	110	Sampling Time	e: 105	>	Depth to Water			
Sample I.D.	: 0W-	2		Laborat	ory:	Kiff CalScience	^		
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other: Set C	be,		
EB I.D. (if a	applicable)	1:	@ Time	Duplica	te I.D.	(if applicable):			
Analyzed fo	or: TPH-G	BTEX	MTBE TPH-D	Oxygenat	tes (5)	Other:			
D.O. (if req	'd):	re-purge:	2.12	mg/L	P	ost-purge:	0,4Z mg/1.		
O.R.P. (if re	eq'd): Pi	re-purge:		mV	P	ost-purge:	mV		

Client:	Starte					
Site Address:	725 1	culve Ann W	wy			
STATIUS OF	DRUM(S)	UPON A	RRIVAL			

STATUS OF DRUM(S) UPON	ARRIVAL			
Date	4/22/05	21810		
Number of drum(s) empty:	3			
Number of drum(s) 1/4 full:				
Number of drum(s) 1/2 full:				
Number of drum(s) 3/4 full:				
Number of drum(s) full:	1 (Sort)	19		
Total drum(s) on site:	4	19		
Are the drum(s) properly labeled?	Y			
Drum ID & Contents:	Durge 420	Piver Mig		
If any drum(s) are partially or totally filled, what is the first use date:				

⁻ If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

⁻All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON	DEPARTU	JRE .		
Date	4/22/05	2/8/10		
Number of drums empty:				
Number of drum(s) 1/4 full:				
Number of drum(s) 1/2 full:				
Number of drum(s) 3/4 full:				
Number of drum(s) full:	450m	22		
Total drum(s) on site:	6	23		
Are the drum(s) properly labeled?	γ	Y		
Drum ID & Contents:	gras und	Purgar Mass		

LOCATION OF DRUM(S)

Describe location of drum(s):

FINAL STATUS				
Number of new drum(s) left on site this event	2	4		
Date of inspection:	4/2010	2810		
Drum(s) labelled properly:	Y	Y		
Logged by BTS Field Tech:	Sh.	211		
Office reviewed by:	11/	"a/		

⁻If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 218203 ANALYTICAL REPORT

Stantec Project : STANDARD

57 Lafayette Circle Location: 725 Julie Ann Way Oakland CA

Level : II Lafayette, CA 94549-4321

Sample ID	<u>Lab ID</u>
MW-1A	218203-001
MW-2	218203-002
MW-4	218203-003
MW-7A	218203-004
MW-8	218203-005
OW-1	218203-006
OW-2	218203-007
TB	218203-008
DUP-1	218203-009
EB	218203-010

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: MRJLD

Project Manager

Date: <u>02/18/2010</u>



CASE NARRATIVE

Laboratory number: 218203 Client: Stantec

Location: 725 Julie Ann Way Oakland CA

Request Date: 02/08/10 Samples Received: 02/08/10

This data package contains sample and QC results for ten water samples, requested for the above referenced project on 02/08/10. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

High RPD was observed for a number of analytes in the BS/BSD for batch 160076; these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

		,		4600 D	SOURCE AVENUE	ſ								7	C&T Berkeley	7182	OJ DHS#
BLAI TECH SER			N JOSE,	CALIFOI FA	OGERS AVEN RMIA 95112-11 X (408) 573-77 È (408) 573-05	05 ^L 71			DUCI	ANAL	YSIS T	ODE	IEGI	LAB ALL ANALYSES MUST LIMITS SET BY CALIFO EPA LIA	MEET SPECIFI DRNIA DHS ANI	CATIONS AND	DETECTION
CHAIN OF CUS	TODY	BTS#	loosi	38-en		_ ر		(8260B)						OTHER			
CLIENT	Stante					CONTAINERS					()			SPECIAL INSTRUCTION	ONS		
SITE	725 Ju	lie Ann V	Vay			ONT/		MTE)B)	B)	(300.0)			Invoice and Report	t to: Stantec		
	Oaklar	nd CA				AL C		/ X3	(8260B)	3260	ate (Attn: Eva Hey	(925) 299-93	00 Ext. 237	
			T	1	NEW PROPERTY.			BTE	EDC (ne (8	Sulf			eva.hey@stantec.co	m		
			MATRIX	d CO	NTAINERS	COMPOSITE		/ D -	_	Napthalene (8260B)	Nitrate / Sulfate	0		Nitrate = 48 hr. HC	OLD TIME		
SAMPLE I.D.	DATE	TIME	S= SOIL W=H ₂ 0	TOTAL) = 0		TPH-G / BTEX / MTBE	EDB	Napi	Nitr	五五		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-15	2/8/10	1140	W	5	MIX			×	×			×					
- MW-2		0940		5	1			×	X			Χ.				ļ	
Mw-4		1220		5				×	×			X					
Mw-7a		1145		5				X	X			X					
Mw-8		<u>1000</u>		5				×	×			X				<u> </u>	
<u> OW-1</u>		1025		5				/	X		<u></u>	2					
0W-2		1050		5				*	У			X					
TB		<u>0900</u>		2				X				X					
Dup-1		1150		4				¥	X			×					
<u> </u>	Ÿ	1130	V	4	\ \			X	F			X					
SAMPLING COMPLETED	DATE	TIME 0 1270	SAMPL PERFO	.ING [*] PRMED B	Y PMC	(ark	4							RESULTS NEEDED NO LATER THAN	Standard T	4 <i>T</i>	
RELEASED BY	Il su	<u>1</u>	<u> </u>		0.11	DAT 219	<u> </u>)	TIME	125		RECI	MEDBY	1		DATE 2/8/10	
RELEASED	7	'				DAT	E		TIME			RECI	EIVED BY			DATE	TIME
RELEASED BY						DAT	E		TIME			REC	EIVED BY			DATE	TIME
SHIPPED VIA						DAT	E SEN	ΙΤ	TIME	SEN	Γ	coo	LER#				

intact on ice cold Ac

COOLER RECEIPT CHECKLIST

Login # 218201 Client STANTE	Date Receiv	ved 2/8/ro Project 725 Jul	Number of coole	rs/_
Date Opened 2/8/10 Date Logged in/	D By (print) M⋅√11 By (print)	LEN MENE(sign)	met	lie
1. Did cooler come wi Shipping info_	th a shipping slip (airbi	ill, etc)	YES	· 60°
How many	s present? YES Name s intact upon arrival? s dry and intact when refilled out properly (in fiable from custody page in cooler: (if other, de	eceived?nk, signed, etc)? pers? (If so fill out to	Date YES	NO NO
Cloth materia 7. Temperature docum		☐ Styrofoam	-	
Type of ice use	ed: Wet 🔲 Blu	e/Gel None	Temp(°C) Z	<u>.</u>
	ceived on ice & cold w			
☐ Samples rec	eived on ice directly fr	om the field. Cooling	g process had begu	n
8. Were Method 5035	sampling containers portions were they transferr	resent?		YES 10
•	unbroken/unopened?		···	YES) NO
	appropriate containers			YES NO
	present, in good condit			YES NO
	els agree with custody pount of sample sent for			YES NO
	propriately preserved?	-	(F)	NO N/A
	absent in VOA samp		YES	NO N/A
	acted concerning this s			YES NO
If YES, Who w	as called?	Ву	Date:	·
	pech for T			
sample # 1 of 7	ys vode w	BUBBLE		

SOP Volume:

Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc



Total Extractable Hydrocarbons 725 Julie Ann Way Oakland CA EPA 3520C Lab #: 218203 Location: Client: Prep: Stantec Project#: STANDARD Analysis: EPA 8015B 02/08/10 Matrix: Water Sampled: 02/08/10 Units: ug/L Received: Diln Fac: 1.000 02/10/10 Prepared: Batch#: 159953 02/11/10 Analyzed:

Field ID: MW-1A Lab ID: 218203-001

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 5,600
 50

Surrogate %REC Limits
o-Terphenyl 90 39-150

Field ID: MW-2 Lab ID: 218203-002

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 870 Y
 50

Surrogate %REC Limits
o-Terphenyl 91 39-150

Field ID: MW-4 Lab ID: 218203-003

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 12,000
 50

Surrogate %REC Limits
o-Terphenyl 110 39-150

Field ID: MW-7A Lab ID: 218203-004

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 560
 50

Surrogate %REC Limits
o-Terphenyl 95 39-150

Field ID: MW-8 Lab ID: 218203-005

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 360 Y
 50

Surrogate %REC Limits
0-Terphenyl 94 39-150

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 2

3.0



Total Extractable Hydrocarbons 725 Julie Ann Way Oakland CA 218203 Lab #: Location: Client: EPA 3520C Stantec Prep: Project#: STANDARD Analysis: EPA 8015B 02/08/10 Sampled: Matrix: Water Units: ug/L Received: 02/08/10 1.000 Diln Fac: Prepared: 02/10/10 Batch#: 159953 02/11/10 Analyzed:

Field ID: OW-1 Lab ID: 218203-006

Type: SAMPLE

Analyte Result Diesel C10-C24 11,000 50

%REC Limits Surrogate 39-150 o-Terphenyl 100

Field ID: OW-2Lab ID: 218203-007

SAMPLE Type:

Analyte Result 10,000 Diesel C10-C24 50

Surrogate Limits o-Terphenyl 95 39-150

DUP-1 Lab ID: 218203-009 Field ID:

Type: SAMPLE

Analyte Result RL Diesel C10-C24 5,800

%REC Limits Surrogate o-Terphenyl 39-150

Field ID: EΒ Lab ID: 218203-010

SAMPLE Type:

Analyte Result Diesel C10-C24 ND 50

Surrogate %REC Limits 94 o-Terphenyl 39-150

Lab ID: Type: BLANK QC532285

Analyte Result RL Diesel C10-C24 ND

Surrogate %REC Limits o-Terphenyl 39-150 104

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 2

6 of 40

3.0



Batch QC Report

Total Extractable Hydrocarbons							
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA				
Client:	Stantec	Prep:	EPA 3520C				
Project#:	STANDARD	Analysis:	EPA 8015B				
Type:	LCS	Diln Fac:	1.000				
Lab ID:	QC532286	Batch#:	159953				
Matrix:	Water	Prepared:	02/10/10				
Units:	ug/L	Analyzed:	02/11/10				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,058	82	34-144

Surrogate	%REC	Limits
o-Terphenyl	97	39-150

Page 1 of 1 4.0



Batch QC Report

Total Extractable Hydrocarbons							
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA				
Client:	Stantec	Prep:	EPA 3520C				
Project#:	STANDARD	Analysis:	EPA 8015B				
Field ID:	ZZZZZZZZZ	Batch#:	159953				
MSS Lab ID:	218234-001	Sampled:	02/09/10				
Matrix:	Water	Received:	02/09/10				
Units:	ug/L	Prepared:	02/10/10				
Diln Fac:	1.000	Analyzed:	02/11/10				

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC532287

Analyte	MSS Result	Spiked	Result	%REC Limits
Diesel C10-C24	21.48	2,500	2,169	86 21-160

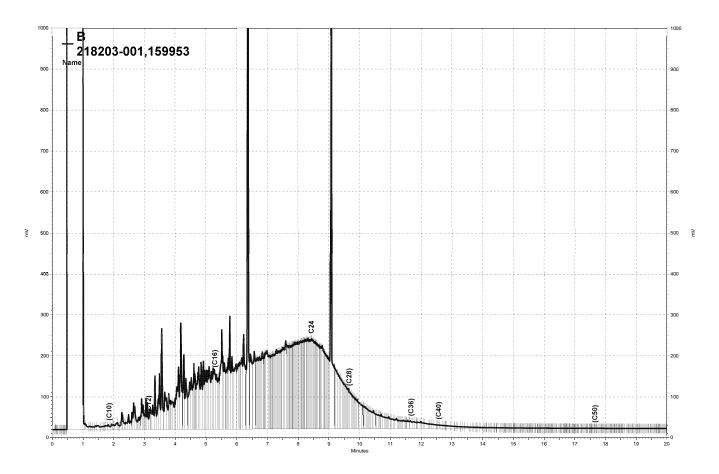
Surrogate %REC I	Limits
	39-150

Type: MSD Cleanup Method: EPA 3630C

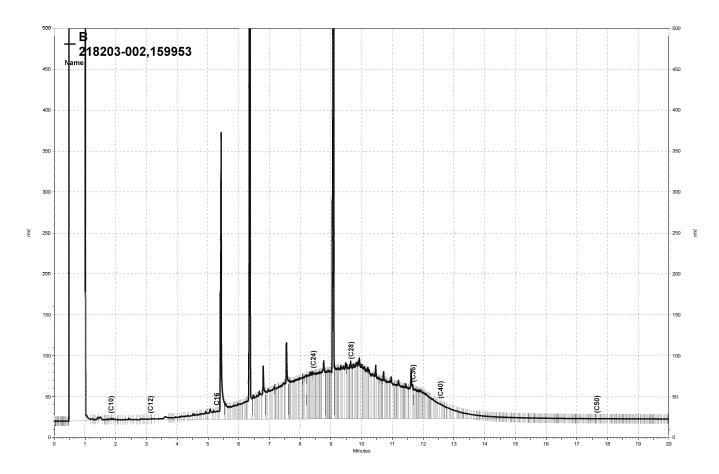
Lab ID: QC532288

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,142	85	21-160	1	58

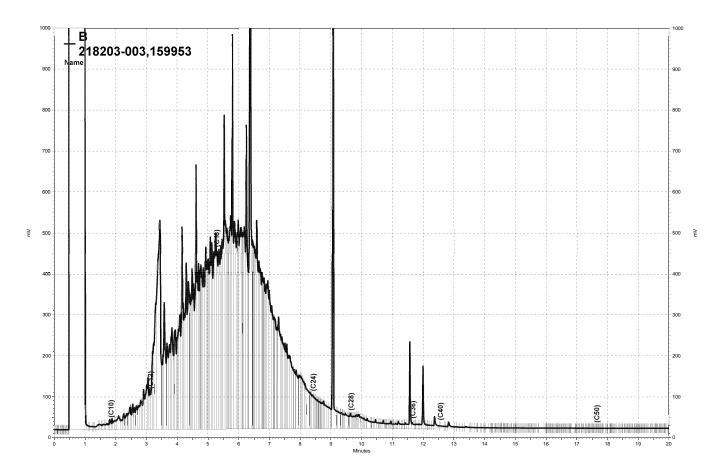
Surrogate	%REC	Limits
o-Terphenyl	101	39-150



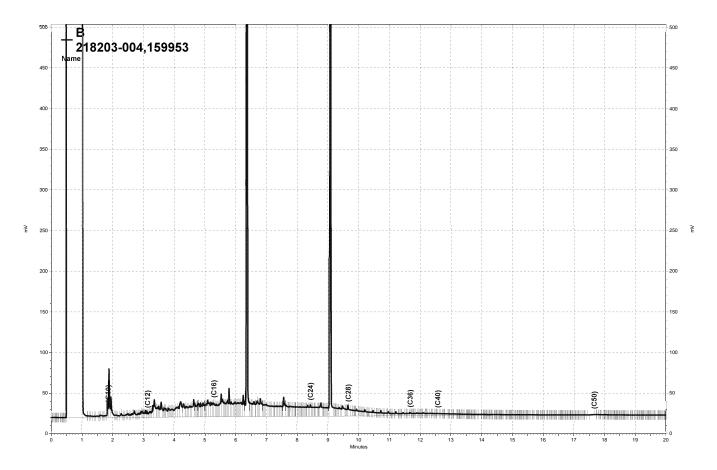
\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b012, B



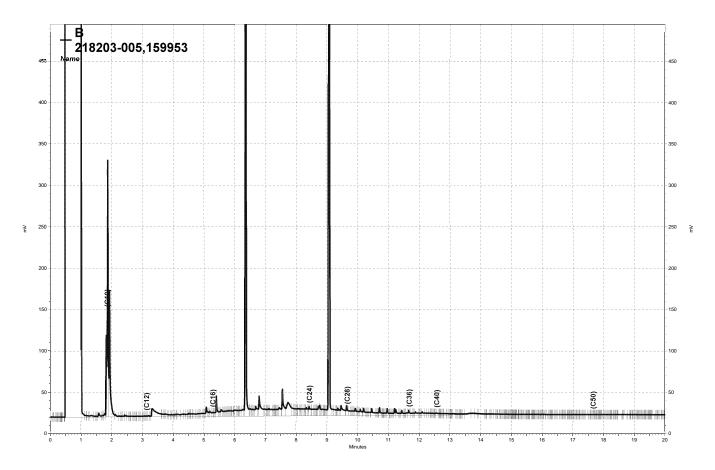
\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b011, B



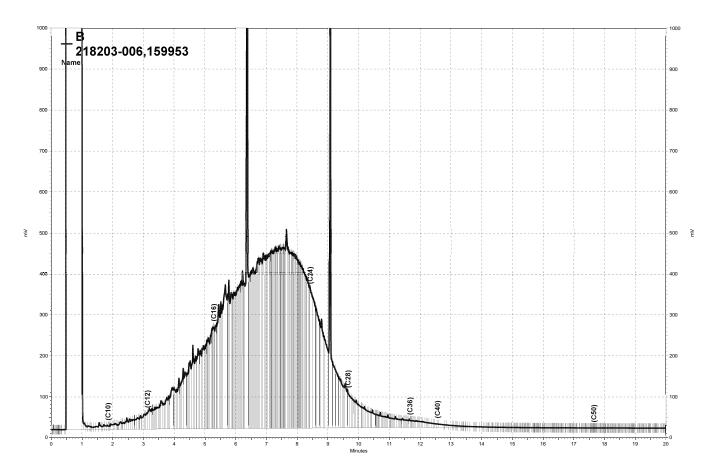
\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b017, B



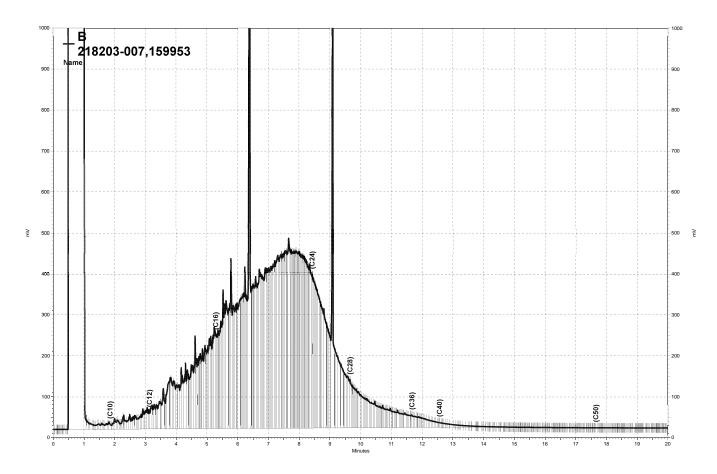
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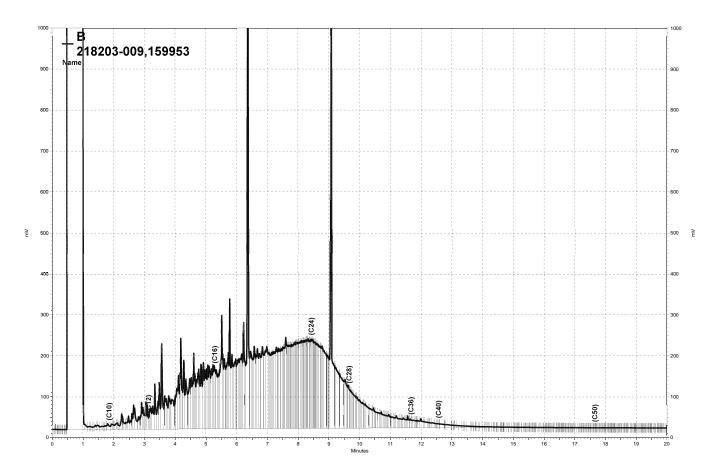
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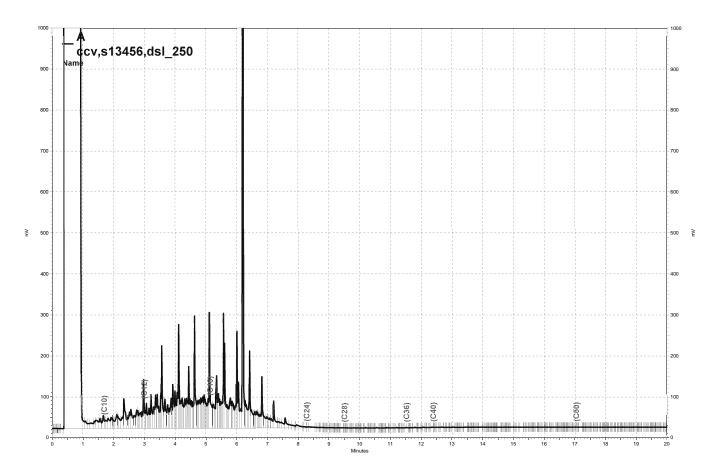
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\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b014, B



\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b015, B



\Lims\gdrive\ezchrom\Projects\GC17A\Data\042a005, A



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-1A	Batch#:	160123
Lab ID:	218203-001	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	120 Y	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	90	80-127

Page 1 of 1

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	160076
Lab ID:	218203-002	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000	_	

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	92	81-124
1,2-Dichloroethane-d4	97	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	92	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	160123
Lab ID:	218203-003	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	120 Y	50	
MTBE	1.6	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	100	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	93	80-127

Page 1 of 1

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-7A	Batch#:	160123
Lab ID:	218203-004	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000	-	

Analyte	Result	RL	
Gasoline C7-C12	52 Y	50	
MTBE	2.4	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	0.63	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	81-124	
1,2-Dichloroethane-d4	100	73-140	
Toluene-d8	96	88-113	
Bromofluorobenzene	94	80-127	

Page 1 of 1

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-8	Batch#:	160123
Lab ID:	218203-005	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	1.7	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	100	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	92	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1

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		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	OW-1	Batch#:	160123
Lab ID:	218203-006	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	5.1	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	93	81-124	
1,2-Dichloroethane-d4	99	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	92	80-127	

ND= Not Detected RL= Reporting Limit Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	OW-2	Batch#:	160123
Lab ID:	218203-007	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	140 Y	50	
MTBE	4.9	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	81-124	
1,2-Dichloroethane-d4	99	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	93	80-127	

Page 1 of 1

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	TB	Batch#:	160076
Lab ID:	218203-008	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	99	73-140	
Toluene-d8	95	88-113	
Bromofluorobenzene	94	80-127	

ND= Not Detected RL= Reporting Limit Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	DUP-1	Batch#:	160123
Lab ID:	218203-009	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	110 Y	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	95	80-127

Page 1 of 1

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	EB	Batch#:	160076
Lab ID:	218203-010	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	91	80-127

ND= Not Detected RL= Reporting Limit

Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC532760	Batch#:	160076
Matrix:	Water	Analyzed:	02/16/10
Units:	ug/L		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	93	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160076
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Type: BS Lab ID: QC532761

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.44	86	61-123
1,2-Dichloroethane	25.00	24.23	97	66-141
Benzene	25.00	23.20	93	81-122
Toluene	25.00	24.01	96	82-122
1,2-Dibromoethane	25.00	26.86	107	81-122
Ethylbenzene	25.00	24.83	99	86-125
m,p-Xylenes	50.00	49.73	99	83-127
o-Xylene	25.00	24.97	100	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	96	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	91	80-127

Type: BSD Lab ID: QC532762

Analyte	Spiked	Result	%REC	Limits RPD	Lim
MTBE	25.00	18.72	75	61-123 14	* 11
1,2-Dichloroethane	25.00	23.23	93	66-141 4	12
Benzene	25.00	22.22	89	81-122 4	12
Toluene	25.00	22.68	91	82-122 6	12
1,2-Dibromoethane	25.00	26.01	104	81-122 3	11
Ethylbenzene	25.00	23.74	95	86-125 4	12
m,p-Xylenes	50.00	48.34	97	83-127 3	13
o-Xylene	25.00	23.98	96	81-122 4	12

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	95	73-140	
Toluene-d8	98	88-113	
Bromofluorobenzene	91	80-127	

^{*=} Value outside of QC limits; see narrative

Page 1 of 1 18.1

RPD= Relative Percent Difference



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160076
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Type: BS Lab ID: QC532763

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,008	101	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	90	80-127

Type: BSD Lab ID: QC532764

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	953.9	95	74-124	5	13

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	92	80-127



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC532968	Batch#:	160123
Matrix:	Water	Analyzed:	02/17/10
Units:	ug/L		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	98	88-113
Bromofluorobenzene	93	80-127

ND= Not Detected RL= Reporting Limit

Page 1 of 1



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC532969	Batch#:	160123
Matrix:	Water	Analyzed:	02/17/10
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.61	86	61-123
1,2-Dichloroethane	25.00	25.23	101	66-141
Benzene	25.00	24.53	98	81-122
Toluene	25.00	25.22	101	82-122
1,2-Dibromoethane	25.00	27.55	110	81-122
Ethylbenzene	25.00	26.28	105	86-125
m,p-Xylenes	50.00	52.80	106	83-127
o-Xylene	25.00	26.36	105	81-122

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	97	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	93	80-127	

Page 1 of 1 21.1



Gasoline by GC/MS								
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA					
Client:	Stantec	Prep:	EPA 5030B					
Project#:	STANDARD	Analysis:	EPA 8260B					
Matrix:	Water	Batch#:	160123					
Units:	ug/L	Analyzed:	02/17/10					
Diln Fac:	1.000							

Type: BS Lab ID: QC532970

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	999.9	100	74-124

Surrogate	%REC	Limits
Dibromofluoromethane 9	96	81-124
1,2-Dichloroethane-d4 1	L00	73-140
Toluene-d8 9	97	88-113
Bromofluorobenzene 9	93	80-127

Type: BSD Lab ID: QC532971

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	969.2	97	74-124	3	13

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	97	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	91	80-127



		Gasoline by GC/MS	
Lab #: Client:	218203 Stantec	Location: Prep:	725 Julie Ann Way Oakland CA EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID: MSS Lab ID: Matrix: Units: Diln Fac:	ZZZZZZZZZ 218274-001 Water ug/L 1.000	Batch#: Sampled: Received: Analyzed:	160123 02/11/10 02/11/10 02/18/10

Type: MS Lab ID: QC532995

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1000	25.00	19.72	79	59-128
1,2-Dichloroethane	<0.1000	25.00	25.34	101	64-149
Benzene	<0.1000	25.00	24.76	99	75-130
Toluene	<0.1000	25.00	25.34	101	79-129
1,2-Dibromoethane	<0.1000	25.00	26.72	107	80-127
Ethylbenzene	<0.1022	25.00	25.71	103	81-130
m,p-Xylenes	<0.1357	50.00	50.72	101	77-133
o-Xylene	<0.1322	25.00	25.41	102	82-123

Surrogate	%REC	Limits	
Dibromofluoromethane	93	81-124	
1,2-Dichloroethane-d4	96	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	94	80-127	

Type: MSD Lab ID: QC532996

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	18.73	75	59-128	5	12
1,2-Dichloroethane	25.00	23.68	95	64-149	7	13
Benzene	25.00	23.17	93	75-130	7	11
Toluene	25.00	23.17	93	79-129	9	12
1,2-Dibromoethane	25.00	25.14	101	80-127	6	11
Ethylbenzene	25.00	23.94	96	81-130	7	12
m,p-Xylenes	50.00	47.04	94	77-133	8	12
o-Xylene	25.00	23.71	95	82-123	7	11

Surrogate	%REC	Limits
Dibromofluoromethane 94	4	81-124
1,2-Dichloroethane-d4 97	7	73-140
Toluene-d8 97	7	88-113
Bromofluorobenzene 92	2	80-127

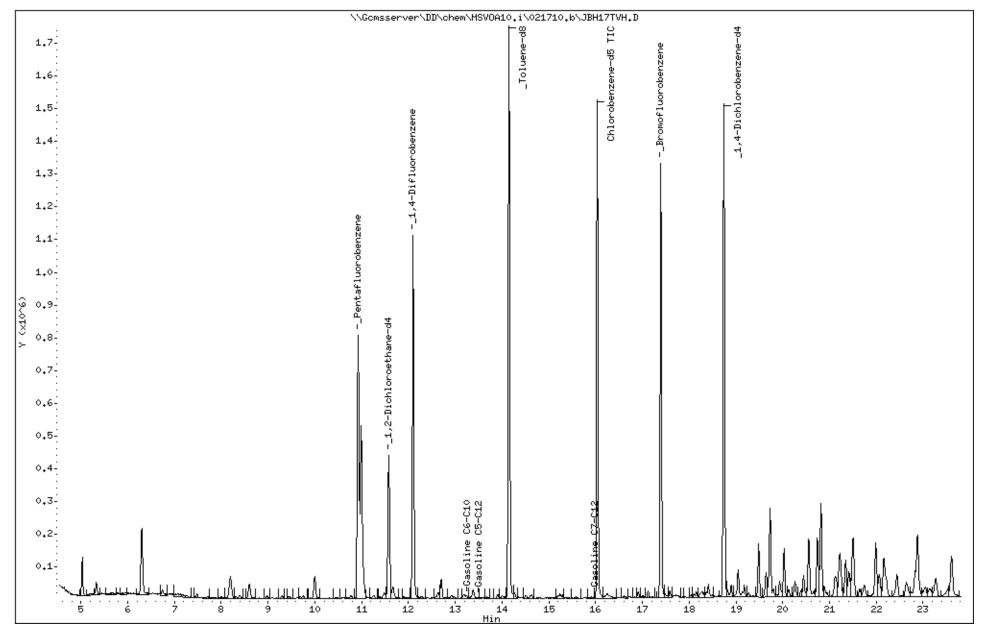
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Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2,00



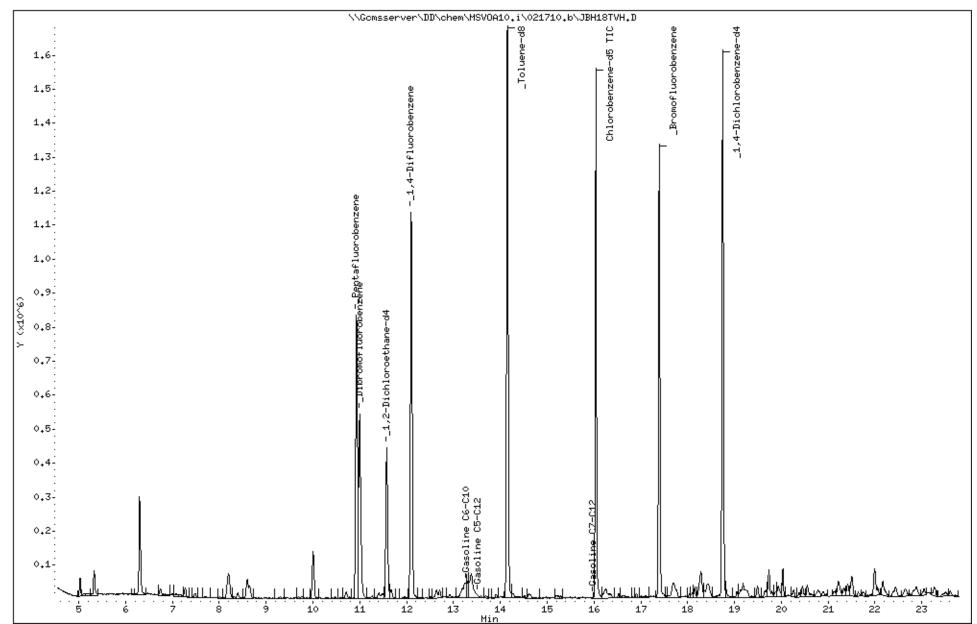
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Date : 17-FEB-2010 22:33 Client ID: DYNA P&T Sample Info: S,218203-003

Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2.00



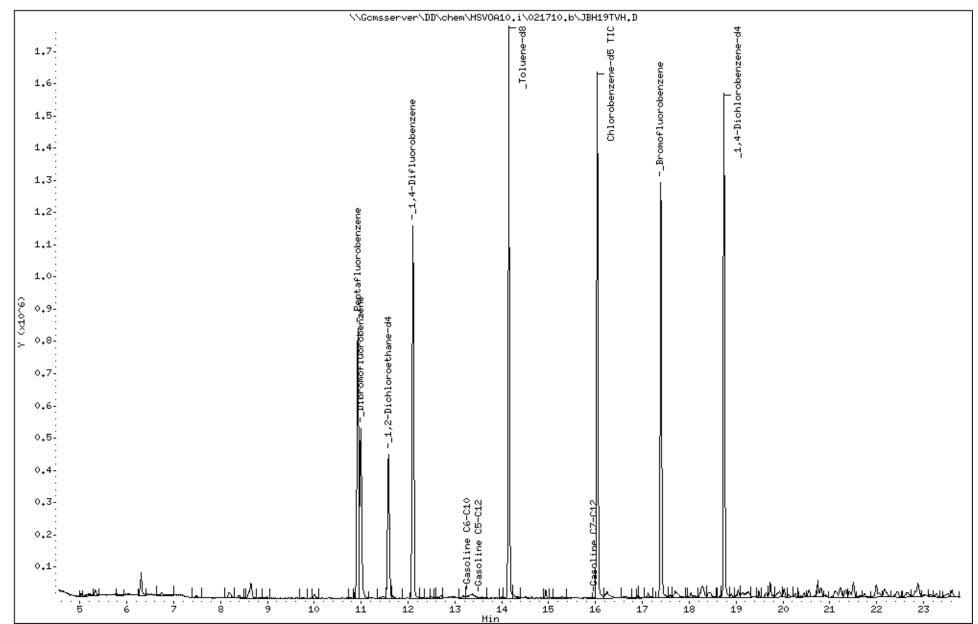
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Date : 17-FEB-2010 23:08 Client ID: DYNA P&T Sample Info: S,218203-004

Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2.00



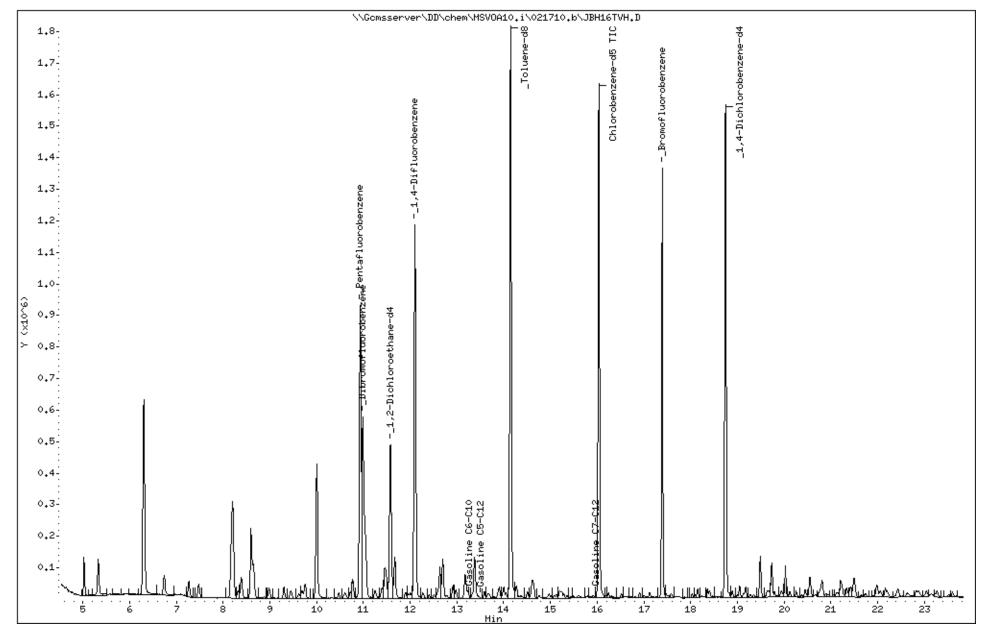
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Date : 17-FEB-2010 21:24 Client ID: DYNA P&T Sample Info: S,218203-007

Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2.00



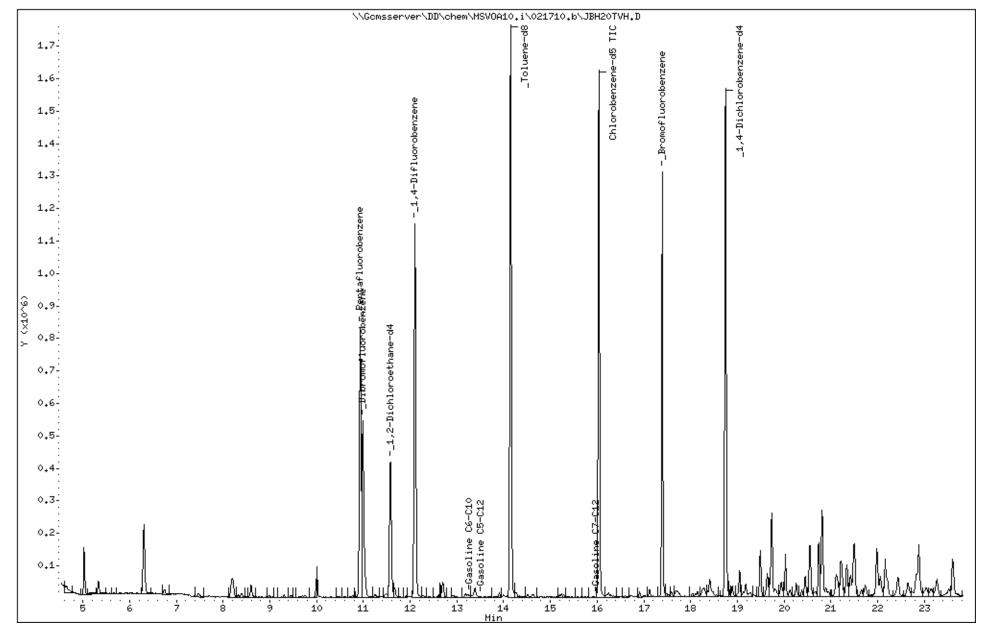
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Date : 17-FEB-2010 23:43 Client ID: DYNA P&T Sample Info: S,218203-009

Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2,00



Data File: \\Gcmsserver\DD\chem\MSVOA10.i\021610.b\\JBG06TVH.D

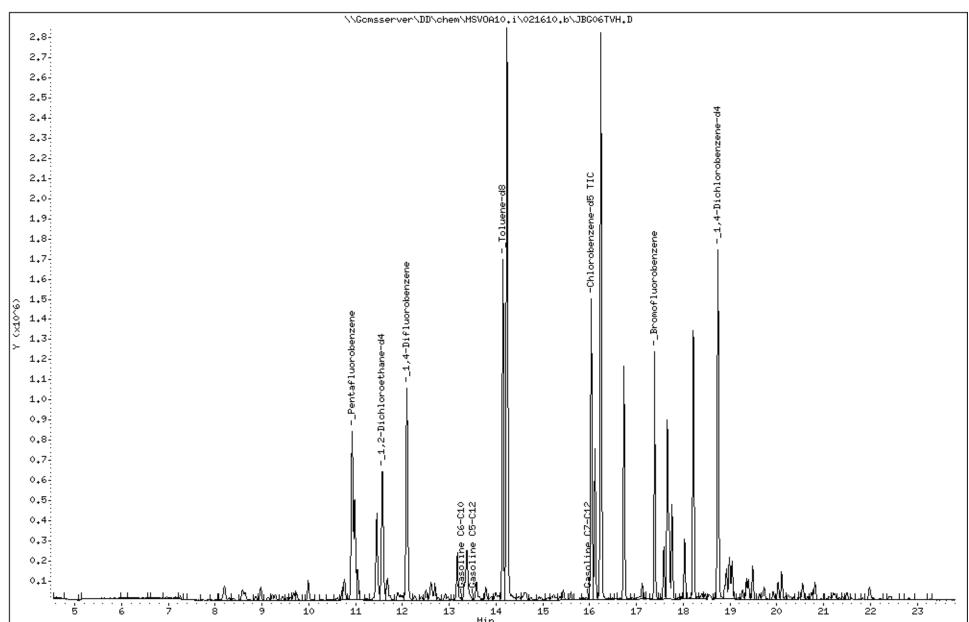
Date : 16-FEB-2010 16:58 Client ID: DYNA P&T

Sample Info: CCV/BS,QC532763,160076

Operator: VOA

Instrument: MSVOA10.i

Column phase: Column diameter: 2.00





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 217718 ANALYTICAL REPORT

Stantec 57 Lafayette Circle Lafayette, CA 94549-4321 Project : 185702145 Location : Penske

Level : II

 Sample ID
 Lab ID

 MW-1R
 217718-001

 MW-7R
 217718-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Deine 7. Tetrett

Project Manager

Date: <u>01/20/2010</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 217718
Client: Stantec
Project: 185702145
Location: Penske
Request Date: 01/13/10
Samples Received: 01/13/10

This data package contains sample and QC results for two soil samples, requested for the above referenced project on 01/13/10. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

High surrogate recovery was observed for bromofluorobenzene (FID) in MW-7R (lab # 217718-002); the corresponding trifluorotoluene (FID) surrogate recovery was within limits. No other analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

MW-7R (lab # 217718-002) was diluted due to high hydrocarbons. No other analytical problems were encountered.

21718



CHAIN OF CUSTODY RECORD

Stantec Lafayette Office
57 Lafayette Circle, 2nd Floor
Lafayette, CA 94549
TEL:/925.200 9200 FAV(925)200 920

Stantec Company Contact(s) for Invoice:	Stantec Project #	DATE: 1-/2-/0
Project Manager: Eva Hey		PAGE:

Lafayette, CA 94549 TEL:(925) 299-9300 FAX:(925)299-9302	email: ¿	va , l	16 V	· @ .	5+ a	4 4 6	2,0	- 0 ~	7	18	570	92/	45	PAGE			/ OF /
Project Name: Pensite Address: 725 Julie Ann Oukland CA Turn-around Time (Business Days):	way					Sampler Sampler	r(s) Printed	d Name: s //	e/a	90	04	Laborato Lab Use	ory: ハイノ Only:	7 4	74		okins I
10 DAYS 5 DAYS 72 HR 48 HR		4 HR[]	<24 H	-IR □								REQUE	STED	ANALYS	SIS		-
☐ OTHER								3									
Special Instructions or Notes: Te	mperature	Upon Recei	pt (C):			Hy 8015M	EX+ MTBE 260B	14 8015 M									
LABUSE Field Sample Identification	DATE	IPLING TIME	MAT- RIX	No. of Cont.	Pre- serve	16	18	53									Laboratory Notes
MW-IR	1-11-10	12/0	ک	1		X	X	X									
MW-78	1-11-10	1110	5	1		X	X	X									
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Relinquished by (Signature) Relinquished by (Signature)	Date: H2-10	Time: 1430		ed by: (Si	$\Delta . \Delta \lambda$	تست	فر				<u> </u>	1	1-12	0.10	Time:	30	
Relinquished by: (Signature)	Date:	Time:		ed by: (Si ed by: (Si											Time:		
				J. (O	g.14(410)							1		1	Time:	1	

COOLER RECEIPT CHECKLIST



Login # 717718 Date Received 1-13-10 Number of coolers)	
Client STANTEC Project PENSICE	
Date Opened 1-13-10 By (print) State Logged in By (print) (sign) (sign)	
1. Did cooler come with a shipping slip (airbill, etc) YES NO Shipping info	<u> </u>
2A. Were custody seals present? TYES (circle) on cooler on samples How many Name Date	<u>~</u>
2B. Were custody seals intact upon arrival? 3. Were custody papers dry and intact when received? 4. Were custody papers filled out properly (ink, signed, etc)? 5. Is the project identifiable from custody papers? (If so fill out top of form) NO 6. Indicate the packing in cooler: (if other, describe)	N/A
☐ Bubble Wrap ☐ Foam blocks ☐ Bags ☐ None ☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels 7. Temperature documentation:	
Type of ice used: Wet Blue/Gel None Temp(°C)	
Samples Received on ice & cold without a temperature blank	-
☐ Samples received on ice directly from the field. Cooling process had begun	
8. Were Method 5035 sampling containers present? YES	0
If YES, what time were they transferred to freezer? 9. Did all bottles arrive unbroken/unopened? YES N	IO OI
	IO
10 D d	10 10
13. Was sufficient amount of sample sent for tests requested?	10 10
14. Are the samples appropriately preserved? YES NO N	
15. Are bubbles > 6mm absent in VOA samples?YES NON	
16. Was the client contacted concerning this sample delivery? YES No If YES, Who was called? By Date:	
Date:	
COMMENTS	
	

SOP Volume:

Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3 Effective: 23 July 2008



Total Volatile Hydrocarbons Lab #: 217718 Location: Penske Client: EPA 5030B Stantec Prep: Project#: 185702145 EPA 8015B Analysis: Matrix: Batch#: 159177 Soil Units: mg/Kg Sampled: 01/11/10 Basis: as received Received: 01/13/10 Diln Fac: 1.000 Analyzed: 01/15/10

Field ID: MW-1R Lab ID: 217718-001

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	ND	0.96	

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	108	38-168	
Bromofluorobenzene (FID)	121	27-175	

Field ID: MW-7R Lab ID: 217718-002

Type: SAMPLE

Analyte	Result	RL	
Gasoline C7-C12	29 Y	1.1	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	53	38-168
Bromofluorobenzene (FID)	236 *	27-175

Type: BLANK Lab ID: QC529208

Analyte	Result	RL	
Gasoline C7-C12	ND	1.0	

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	38-168
Bromofluorobenzene (FID)	96	27-175

ND= Not Detected

RL= Reporting Limit

Page 1 of 1

^{*=} Value outside of QC limits; see narrative

Y= Sample exhibits chromatographic pattern which does not resemble standard



	Tota	l Volatile Hydrocarbo	ons	
Lab #:	217718	Location:	Penske	
Client:	Stantec	Prep:	EPA 5030B	
Project#:	185702145	Analysis:	EPA 8015B	
Type:	LCS	Diln Fac:	1.000	
Lab ID:	QC529209	Batch#:	159177	
Matrix:	Soil	Analyzed:	01/15/10	
Units:	mg/Kg			

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	9.166	92	74-123

Surrogate	%REC	Limits
Trifluorotoluene (FID)	142	38-168
Bromofluorobenzene (FID)	123	27-175

Page 1 of 1 4.0



	To	tal Volatile Hydrocarbon	s
Lab #:	217718	Location:	Penske
Client:	Stantec	Prep:	EPA 5030B
Project#:	185702145	Analysis:	EPA 8015B
Field ID:	MW-1R	Diln Fac:	1.000
MSS Lab ID:	217718-001	Batch#:	159177
Matrix:	Soil	Sampled:	01/11/10
Units:	mg/Kg	Received:	01/13/10
Basis:	as received	Analyzed:	01/15/10

Type: MS Lab ID: QC529210

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.05361	9.615	8.368	86	14-138

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	136	38-168	
Bromofluorobenzene (FID)	128	27-175	

Type: MSD Lab ID: QC529211

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	10.53	9.365	88	14-138	2	52

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\015.seq

Sample Name: 217718-002,159177,tvh

Data File: \\Lims\gdrive\ezchrom\Projects\GC04\Data\015_013

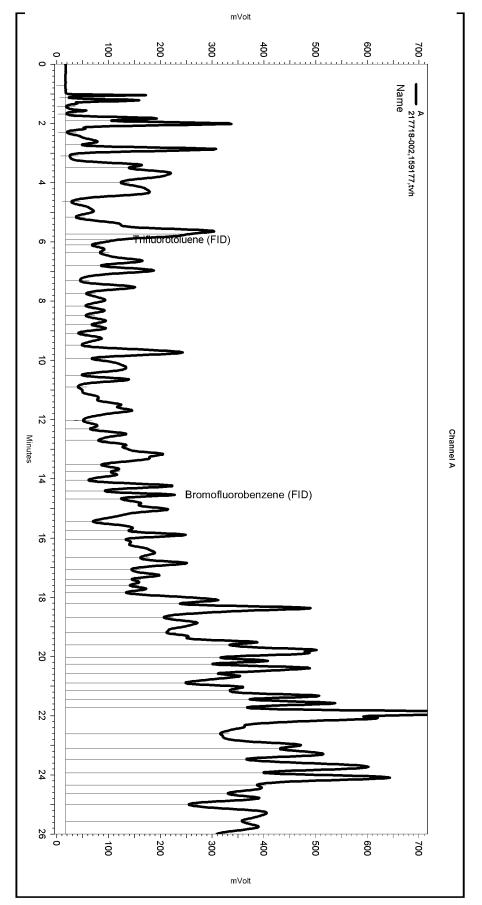
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Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe004.met

Software Version 3.1.7

Run Date: 1/15/2010 8:25:03 PM Analysis Date: 1/18/2010 8:36:22 AM Sample Amount: 0.94 Multiplier: 0.94

Vial & pH or Core ID: a



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No items selected for this section				
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Integration Events				
Start Enabled Event Type	,		/linutes)	Value
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Manual Integration Fixes				
Data File: \\Lims\gdrive\ezchrom\\			\Data\01	5_013
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Yes Lowest Point Horizontal B Yes Split Peak Yes Solit Peak		0	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC04\Sequence\015.seq

Sample Name: ccv,tvh,s13766,5/5000

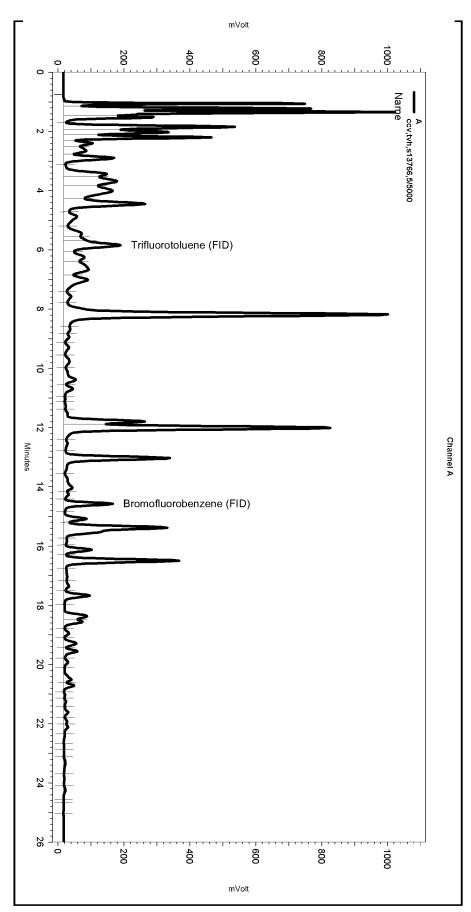
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Instrument: GC04 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)

Method Name: \\Lims\gdrive\ezchrom\Projects\GC04\Method\tvhbtxe004.met

Software Version 3.1.7

Run Date: 1/15/2010 11:50:02 AM Analysis Date: 1/15/2010 12:52:34 PM Sample Amount: 1 Multiplier: 1 Vial & pH or Core ID: {Data Description}



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Integrat	ion Events					
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Yes Yes	Width Threshold		0	0	0.2 50	
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Enable	ed Event Type	-			/linutes) Value
	Split Peak		5.703		0	



Total Extractable Hydrocarbons Lab #: 217718 Penske Location: Client: SHAKER TABLE Stantec Prep: EPA 8015B Project#: 185702145 Analysis: Matrix: Soil Sampled: 01/11/10 Received: Units: mg/Kg 01/13/10 Basis: as received Prepared: 01/18/10 Batch#: 159221

 Field ID:
 MW-1R
 Diln Fac:
 1.000

 Type:
 SAMPLE
 Analyzed:
 01/18/10

 Lab ID:
 217718-001
 Cleanup Method:
 EPA 3630C

 Analyte
 Result
 RL

 Diesel C10-C24
 31 Y
 1.0

Surrogate	%REC	Limits	
o-Terphenyl	98	16-164	

 Field ID:
 MW-7R
 Diln Fac:
 5.000

 Type:
 SAMPLE
 Analyzed:
 01/19/10

 Lab ID:
 217718-002
 Cleanup Method:
 EPA 3630C

 Analyte
 Result
 RL

 Diesel C10-C24
 730
 5.0

Surrogate	%REC	Limits
o-Terphenyl	97	16-164

Type: BLANK Analyzed: 01/18/10 Lab ID: QC529367 Cleanup Method: EPA 3630C

Diln Fac: 1.000

AnalyteResultRLDiesel C10-C24ND1.0

Surrogate	%REC	Limits	
o-Terphenvl	94	16-164	

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

-

Page 1 of 1 12.1



Total Extractable Hydrocarbons							
Lab #:	217718	Location:	Penske				
Client:	Stantec	Prep:	SHAKER TABLE				
Project#:	185702145	Analysis:	EPA 8015B				
Type:	LCS	Diln Fac:	1.000				
Lab ID:	QC529368	Batch#:	159221				
Matrix:	Soil	Prepared:	01/18/10				
Units:	mg/Kg	Analyzed:	01/18/10				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.91	43.31	87	36-151

Surrogate	%REC	Limits
o-Terphenyl	95	16-164

Page 1 of 1



Total Extractable Hydrocarbons						
Lab #:	217718	Location:	Penske			
Client:	Stantec	Prep:	SHAKER TABLE			
Project#:	185702145	Analysis:	EPA 8015B			
Field ID:	MW-1R	Batch#:	159221			
MSS Lab ID:	217718-001	Sampled:	01/11/10			
Matrix:	Soil	Received:	01/13/10			
Units:	mg/Kg	Prepared:	01/18/10			
Basis:	as received	Analyzed:	01/18/10			
Diln Fac:	1.000					

Type: Cleanup Method: EPA 3630C MS

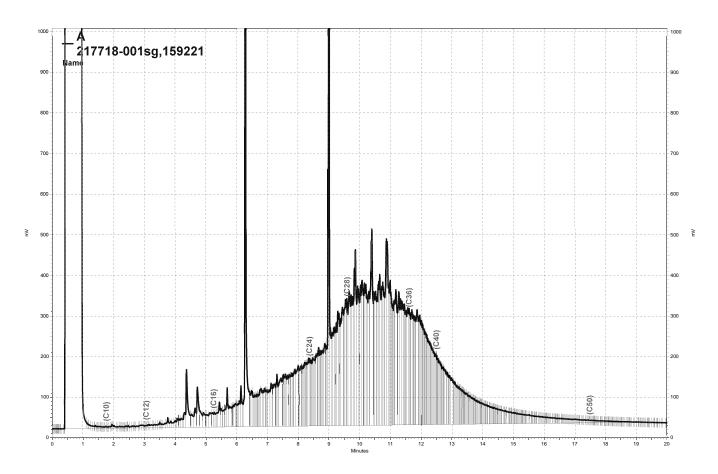
Lab ID: QC529369

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	30.84	49.57	78.69	97	3-174

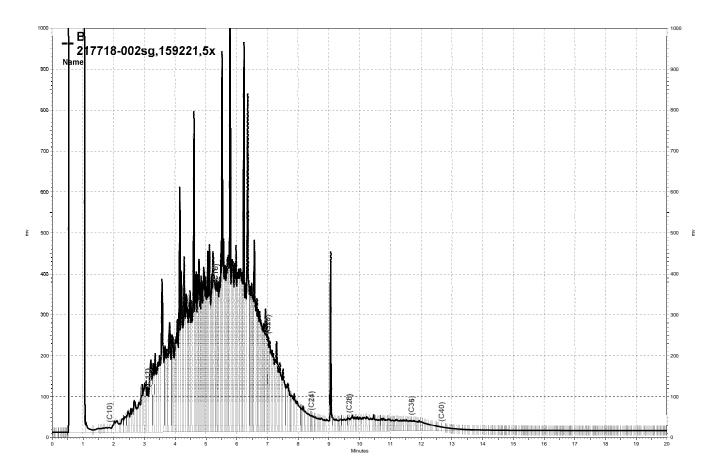
Surrogate	%REC	Limits	
o-Terphenyl	92	16-164	

Type: MSD Lab ID: QC529370 Cleanup Method: EPA 3630C

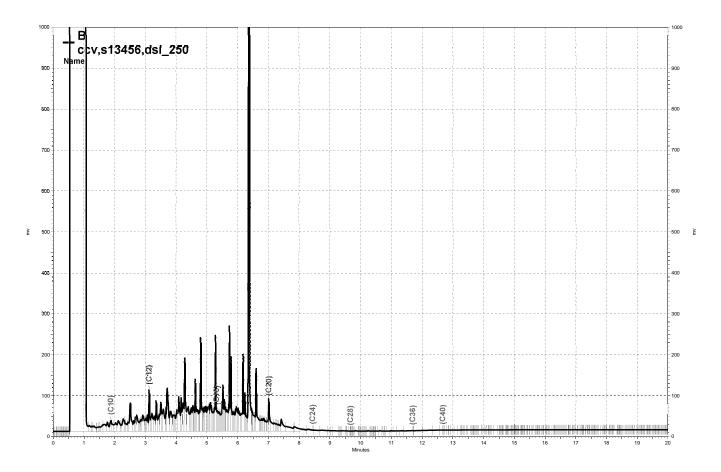
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	49.74	73.94	87	3-174	6	54



\Lims\gdrive\ezchrom\Projects\GC17A\Data\18a016, A



\Lims\gdrive\ezchrom\Projects\GC15B\Data\019b007, B



\Lims\gdrive\ezchrom\Projects\GC15B\Data\018b005, B



Purgeable Aromatics by GC/MS					
Lab #:	217718	Location:	Penske		
Client:	Stantec	Prep:	EPA 5030B		
Project#:	185702145	Analysis:	EPA 8260B		
Field ID:	MW-1R	Diln Fac:	0.9823		
Lab ID:	217718-001	Batch#:	159203		
Matrix:	Soil	Sampled:	01/11/10		
Units:	ug/Kg	Received:	01/13/10		
Basis:	as received	Analyzed:	01/18/10		

Analyte	Result	RL	
MTBE	ND	4.9	
Benzene	ND	4.9	
Toluene	ND	4.9	
Ethylbenzene	ND	4.9	
m,p-Xylenes o-Xylene	ND	4.9	
o-Xylene	ND	4.9	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	126	54-153
Toluene-d8	101	83-118
Bromofluorobenzene	103	61-146

1 of 1 7.0



Purgeable Aromatics by GC/MS					
Lab #:	217718	Location:	Penske		
Client:	Stantec	Prep:	EPA 5030B		
Project#:	185702145	Analysis:	EPA 8260B		
Field ID:	MW-7R	Diln Fac:	9.804		
Lab ID:	217718-002	Batch#:	159203		
Matrix:	Soil	Sampled:	01/11/10		
Units:	ug/Kg	Received:	01/13/10		
Basis:	as received	Analyzed:	01/18/10		

Analyte	Result	RL	
MTBE	ND	49	
Benzene	ND	49	
Toluene	ND	49	
Ethylbenzene	ND	49	
m,p-Xylenes o-Xylene	ND	49	
o-Xylene	ND	49	

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	103	54-153	
Toluene-d8	101	83-118	
Bromofluorobenzene	129	61-146	

1 of 1



		Purgeable Aromatics by GC	/MS	
Lab #:	217718	Location:	Penske	
Client:	Stantec	Prep:	EPA 5030B	
Project#:	185702145	Analysis:	EPA 8260B	
Type:	BLANK	Diln Fac:	1.000	
Lab ID:	QC529312	Batch#:	159203	
Matrix:	Soil	Analyzed:	01/18/10	
Units:	ug/Kg			

Analyte	Result	RL	
MTBE	ND	5.0	
Benzene	ND	5.0	
Toluene	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes o-Xylene	ND	5.0	
o-Xylene	ND	5.0	

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	123	54-153
Toluene-d8	101	83-118
Bromofluorobenzene	102	61-146

ND= Not Detected RL= Reporting Limit Page 1 of 1



Purgeable Aromatics by GC/MS						
Lab #:	217718	Location:	Penske			
Client:	Stantec	Prep:	EPA 5030B			
Project#:	185702145	Analysis:	EPA 8260B			
Type:	LCS	Diln Fac:	1.000			
Lab ID:	QC529313	Batch#:	159203			
Matrix:	Soil	Analyzed:	01/18/10			
Units:	ug/Kg					

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	25.04	100	47-136
Benzene	25.00	25.29	101	73-134
Toluene	25.00	24.15	97	72-134
Ethylbenzene	25.00	26.24	105	74-134
m,p-Xylenes	50.00	51.00	102	74-133
o-Xylene	25.00	24.83	99	73-127

Surrogate	%REC	Limits	
1,2-Dichloroethane-d4	127	54-153	
Toluene-d8	101	83-118	
Bromofluorobenzene	100	61-146	

Page 1 of 1



Purgeable Aromatics by GC/MS							
Lab #:	217718	Location:	Penske				
Client:	Stantec	Prep:	EPA 5030B				
Project#:	185702145	Analysis:	EPA 8260B				
Field ID:	MW-1R	Batch#:	159203				
MSS Lab ID:	217718-001	Sampled:	01/11/10				
Matrix:	Soil	Received:	01/13/10				
Units:	ug/Kg	Analyzed:	01/18/10				
Basis:	as received						

Type: MS Diln Fac: 0.9843

Lab ID: QC529362

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.9823	49.21	41.67	85	38-136
Benzene	<0.9823	49.21	46.64	95	53-139
Toluene	<0.9823	49.21	45.80	93	49-139
Ethylbenzene	<0.9823	49.21	46.23	94	38-145
m,p-Xylenes	<0.9823	98.43	92.45	94	38-145
o-Xylene	<0.9823	49.21	45.73	93	38-141

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	54-153
Toluene-d8	99	83-118
Bromofluorobenzene	96	61-146

Type: MSD Diln Fac: 0.9921

Lab ID: QC529363

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	49.60	42.14	85	38-136	0	36
Benzene	49.60	46.01	93	53-139	2	35
Toluene	49.60	44.48	90	49-139	4	33
Ethylbenzene	49.60	44.28	89	38-145	5	36
m,p-Xylenes	99.21	88.34	89	38-145	5	37
o-Xylene	49.60	43.72	88	38-141	5	36

	Surrogate	%REC	Limits	
I	1,2-Dichloroethane-d4	97	54-153	
	Toluene-d8	99	83-118	
	Bromofluorobenzene	94	61-146	



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 218203 ANALYTICAL REPORT

Stantec Project : STANDARD

57 Lafayette Circle Location: 725 Julie Ann Way Oakland CA

Lafayette, CA 94549-4321 Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-1A	218203-001
MW-2	218203-002
MW-4	218203-003
MW-7A	218203-004
MW-8	218203-005
OW-1	218203-006
OW-2	218203-007
TB	218203-008
DUP-1	218203-009
EB	218203-010

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: MRJLD

Project Manager

Date: <u>02/18/2010</u>

NELAP # 01107CA



CASE NARRATIVE

Laboratory number: 218203 Client: Stantec

Location: 725 Julie Ann Way Oakland CA

Request Date: 02/08/10 Samples Received: 02/08/10

This data package contains sample and QC results for ten water samples, requested for the above referenced project on 02/08/10. The samples were received cold and intact.

TPH-Extractables by GC (EPA 8015B):

No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):

High RPD was observed for a number of analytes in the BS/BSD for batch 160076; these analytes were not detected at or above the RL in the associated samples. No other analytical problems were encountered.

		,		4600 D	SOURCE AVENUE	ſ								7	C&T Berkeley	7182	OJ DHS#
BLAI TECH SER			N JOSE,	CALIFOI FA	OGERS AVEN RMIA 95112-11 X (408) 573-77 È (408) 573-05	05 ^L 71			DUCI	ANAL	YSIS T	ODE	IEGI	LAB ALL ANALYSES MUST LIMITS SET BY CALIFO EPA LIA	MEET SPECIFI DRNIA DHS ANI	CATIONS AND	DETECTION
CHAIN OF CUS	TODY	BTS#	loosi	38-en		_ ر		(8260B)						OTHER			
CLIENT	Stante					CONTAINERS					()			SPECIAL INSTRUCTION	ONS		
SITE	725 Ju	lie Ann V	Vay			ONT/		MTE)B)	B)	(300.0)			Invoice and Report	t to: Stantec		
	Oaklar	nd CA				AL C		/ X3	(8260B)	3260	ate (Attn: Eva Hey	(925) 299-93	00 Ext. 237	
			T	1 00	NEW PROPERTY.			BTE	EDC (ne (8	Sulf			eva.hey@stantec.co	m		
			MATRIX	d CO	NTAINERS	COMPOSITE		/ D -	_	Napthalene (8260B)	Nitrate / Sulfate	0		Nitrate = 48 hr. HC	OLD TIME		
SAMPLE I.D.	DATE	TIME	S= SOIL W=H ₂ 0	TOTAL) = 0		TPH-G / BTEX / MTBE	EDB	Napi	Nitr	五五		ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-15	2/8/10	1140	W	5	MIX			×	×			×					
- MW-2		0940		5				×	X			Χ.				ļ	
Mw-4		1220		5				×	×			X					
Mw-7a		1145		5				X	X			X					
Mw-8		<u>1000</u>		5				×	×			X				<u> </u>	
<u> OW-1</u>		1025		5				/	X		<u></u>	2					
0W-2		1050		5				*	У			X					
TB		<u>0900</u>		2				X				X					
Dup-1		1150		4				¥	X			×					
<u> </u>	Ÿ	1130	V	4	\ \			X	F			X					
SAMPLING COMPLETED	DATE	TIME 0 1270	SAMPL PERFO	.ING [*] PRMED B	Y PMC	(ark	4							RESULTS NEEDED NO LATER THAN	Standard T	4 <i>T</i>	
RELEASED BY	Il su	<u>1</u>	1		0.11	DAT 219	<u> </u>)	TIME	125		RECI	MEDBY	1		DATE 2/8/10	
RELEASED	7	'				DAT	E		TIME			RECI	EIVED BY			DATE	TIME
RELEASED BY						DAT	E		TIME			REC	EIVED BY			DATE	TIME
SHIPPED VIA						DAT	E SEN	ΙΤ	TIME	SEN	Γ	coo	LER#				

intact on ice cold Ac

COOLER RECEIPT CHECKLIST

Login # 218201 Client STANTE	Date Receiv	ved 2/8/ro Project 725 Jul	Number of coole	rs/_
Date Opened 2/8/10 Date Logged in/	D By (print) M⋅√11 By (print)	LEN MENE(sign)	met	lie
1. Did cooler come wi Shipping info_	th a shipping slip (airbi	ill, etc)	YES	6
How many	s present? YES Name s intact upon arrival? s dry and intact when refilled out properly (in fiable from custody page in cooler: (if other, de	eceived?nk, signed, etc)? pers? (If so fill out to	Date YES	NO NO
Cloth materia 7. Temperature docum		☐ Styrofoam	-	
Type of ice use	ed: Wet 🔲 Blu	e/Gel None	Temp(°C) Z	<u>.</u>
	ceived on ice & cold w			
☐ Samples rec	eived on ice directly fr	om the field. Cooling	g process had begu	n
8. Were Method 5035	sampling containers portions were they transferr	resent?		YES 10
•	unbroken/unopened?		···	YES) NO
	appropriate containers			YES NO
	present, in good condit			YES NO
	els agree with custody pount of sample sent for			YES NO
	propriately preserved?	-	(F)	NO N/A
	absent in VOA samp		YES	NO N/A
	acted concerning this s			YES NO
If YES, Who w	as called?	Ву	Date:	·
	pech for T			
sample # 1 of 7	ys vode w	BUBBLE		

SOP Volume:

Client Services

Section:

1.1.2

Page:

1 of 1

Rev. 6 Number 1 of 3

Effective: 23 July 2008 Z:\qc\forms\checklists\Cooler Receipt Checklist_rv6.doc



Total Extractable Hydrocarbons 725 Julie Ann Way Oakland CA EPA 3520C Lab #: 218203 Location: Client: Prep: Stantec Project#: STANDARD Analysis: EPA 8015B 02/08/10 Matrix: Water Sampled: 02/08/10 Units: ug/L Received: Diln Fac: 1.000 02/10/10 Prepared: Batch#: 159953 02/11/10 Analyzed:

Field ID: MW-1A Lab ID: 218203-001

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 5,600
 50

Surrogate %REC Limits
o-Terphenyl 90 39-150

Field ID: MW-2 Lab ID: 218203-002

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 870 Y
 50

Surrogate %REC Limits
o-Terphenyl 91 39-150

Field ID: MW-4 Lab ID: 218203-003

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 12,000
 50

Surrogate %REC Limits
o-Terphenyl 110 39-150

Field ID: MW-7A Lab ID: 218203-004

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 560
 50

Surrogate %REC Limits
o-Terphenyl 95 39-150

Field ID: MW-8 Lab ID: 218203-005

Type: SAMPLE

 Analyte
 Result
 RL

 Diesel C10-C24
 360 Y
 50

Surrogate %REC Limits
0-Terphenyl 94 39-150

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



Total Extractable Hydrocarbons 725 Julie Ann Way Oakland CA 218203 Lab #: Location: Client: EPA 3520C Stantec Prep: Project#: STANDARD Analysis: EPA 8015B 02/08/10 Sampled: Matrix: Water Units: ug/L Received: 02/08/10 1.000 Diln Fac: Prepared: 02/10/10 Batch#: 159953 02/11/10 Analyzed:

Field ID: OW-1 Lab ID: 218203-006

Type: SAMPLE

Analyte Result Diesel C10-C24 11,000 50

%REC Limits Surrogate 39-150 o-Terphenyl 100

Field ID: OW-2Lab ID: 218203-007

SAMPLE Type:

Analyte Result 10,000 Diesel C10-C24 50

Surrogate Limits o-Terphenyl 95 39-150

DUP-1 Lab ID: 218203-009 Field ID:

Type: SAMPLE

Analyte Result RL Diesel C10-C24 5,800

%REC Limits Surrogate o-Terphenyl 39-150

Field ID: EΒ Lab ID: 218203-010

SAMPLE Type:

Analyte Result Diesel C10-C24 ND 50

Surrogate %REC Limits 94 o-Terphenyl 39-150

Lab ID: Type: BLANK QC532285

Analyte Result RL Diesel C10-C24 ND

Surrogate %REC Limits o-Terphenyl 39-150 104

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 2

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Total Extractable Hydrocarbons							
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA				
Client:	Stantec	Prep:	EPA 3520C				
Project#:	STANDARD	Analysis:	EPA 8015B				
Type:	LCS	Diln Fac:	1.000				
Lab ID:	QC532286	Batch#:	159953				
Matrix:	Water	Prepared:	02/10/10				
Units:	ug/L	Analyzed:	02/11/10				

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,058	82	34-144

Surrogate	%REC	Limits
o-Terphenyl	97	39-150

Page 1 of 1 4.0



Total Extractable Hydrocarbons								
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA					
Client:	Stantec	Prep:	EPA 3520C					
Project#:	STANDARD	Analysis:	EPA 8015B					
Field ID:	ZZZZZZZZZ	Batch#:	159953					
MSS Lab ID:	218234-001	Sampled:	02/09/10					
Matrix:	Water	Received:	02/09/10					
Units:	ug/L	Prepared:	02/10/10					
Diln Fac:	1.000	Analyzed:	02/11/10					

Type: MS Cleanup Method: EPA 3630C

Lab ID: QC532287

Analyte	MSS Result	Spiked	Result	%REC Limits
Diesel C10-C24	21.48	2,500	2,169	86 21-160

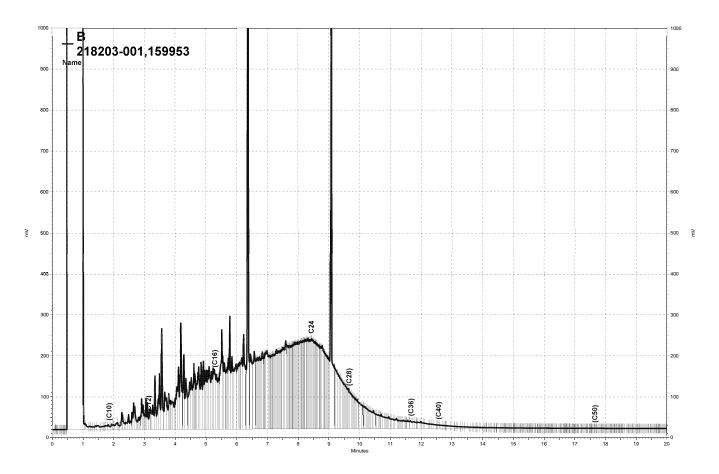
Surrogate %REC I	Limits
	39-150

Type: MSD Cleanup Method: EPA 3630C

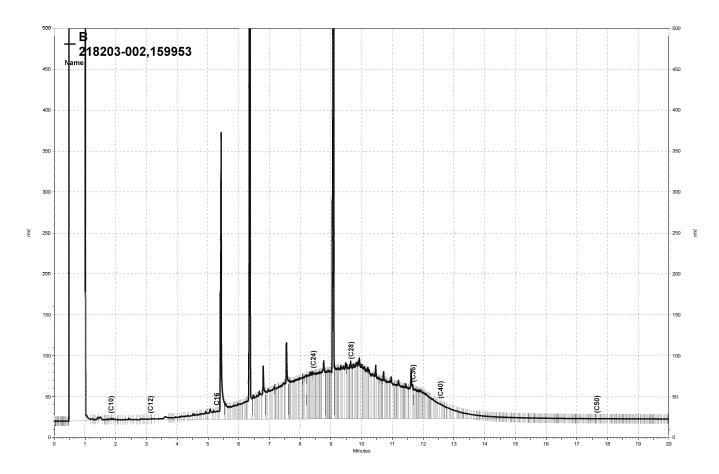
Lab ID: QC532288

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,142	85	21-160	1	58

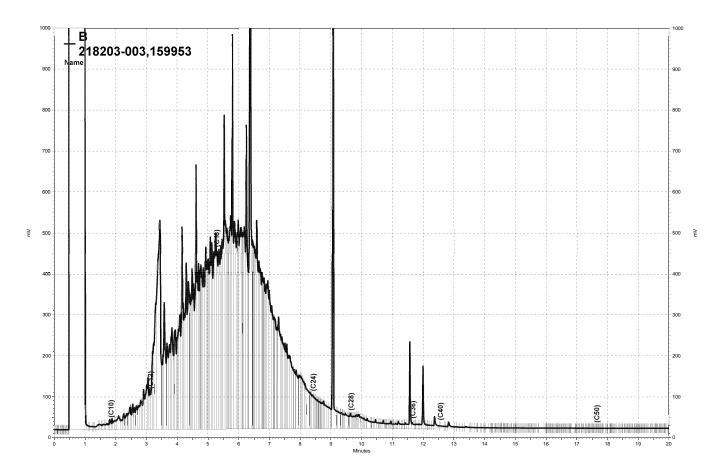
Surrogate	%REC	Limits
o-Terphenyl	101	39-150



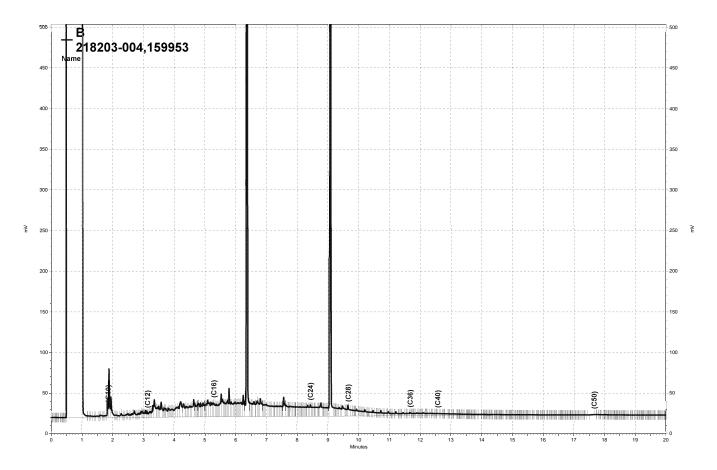
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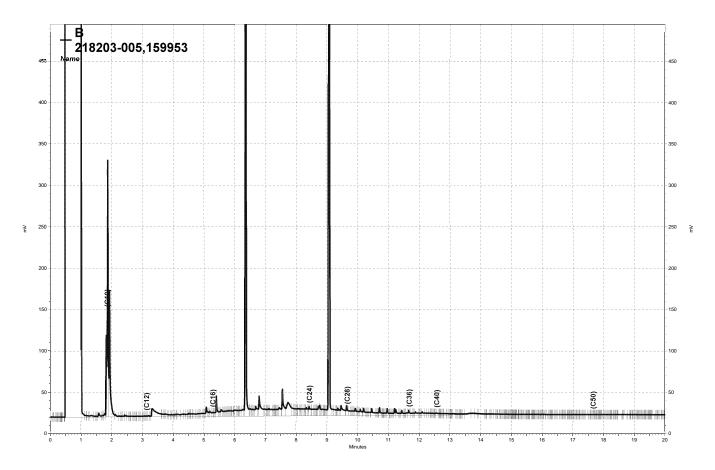
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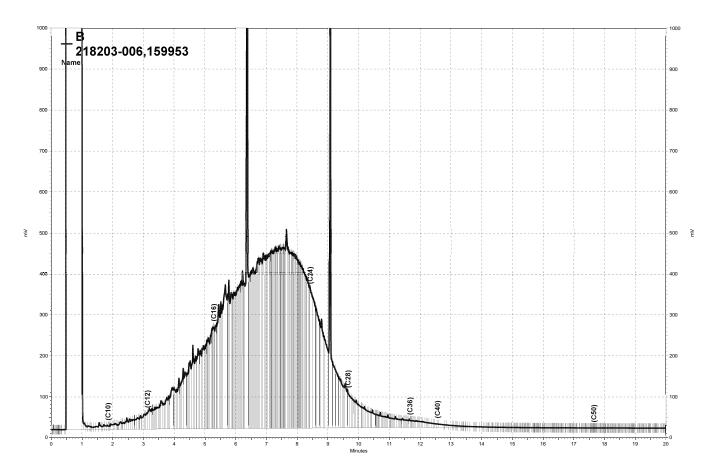
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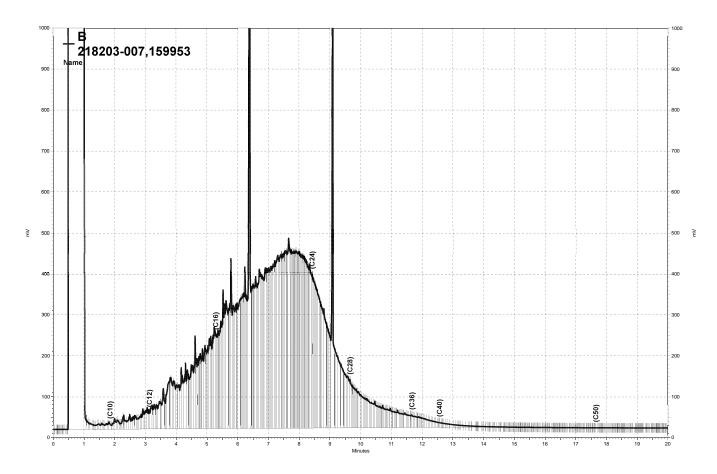
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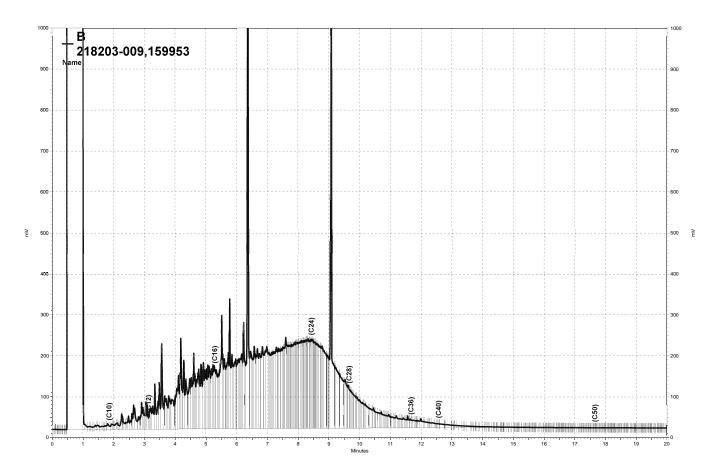
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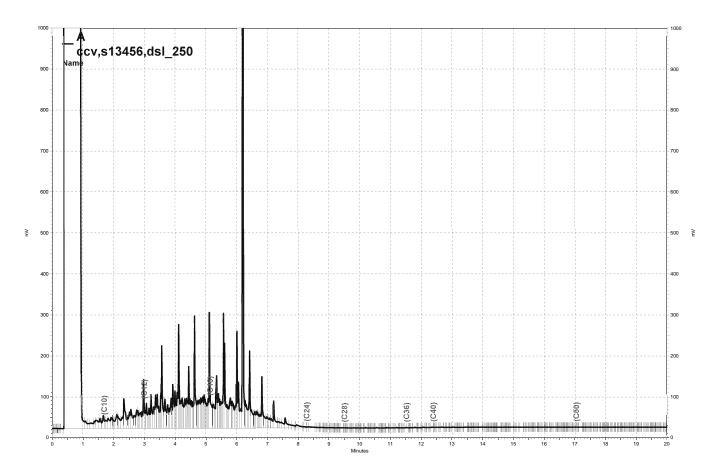
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\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b014, B



\Lims\gdrive\ezchrom\Projects\GC14B\Data\042b015, B



\Lims\gdrive\ezchrom\Projects\GC17A\Data\042a005, A



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-1A	Batch#:	160123
Lab ID:	218203-001	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	120 Y	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	81-124	
1,2-Dichloroethane-d4	99	73-140	
Toluene-d8	96	88-113	
Bromofluorobenzene	90	80-127	

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	160076
Lab ID:	218203-002	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000	_	

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	92	81-124
1,2-Dichloroethane-d4	97	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	92	80-127



Gasoline by GC/MS				
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA	
Client:	Stantec	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Field ID:	MW-4	Batch#:	160123	
Lab ID:	218203-003	Sampled:	02/08/10	
Matrix:	Water	Received:	02/08/10	
Units:	ug/L	Analyzed:	02/17/10	
Diln Fac:	1.000			

Analyte	Result	RL	
Gasoline C7-C12	120 Y	50	
MTBE	1.6	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	100	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	93	80-127

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Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-7A	Batch#:	160123
Lab ID:	218203-004	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000	_	

Analyte	Result	RL	
Gasoline C7-C12	52 Y	50	
MTBE	2.4	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	0.63	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	81-124	
1,2-Dichloroethane-d4	100	73-140	
Toluene-d8	96	88-113	
Bromofluorobenzene	94	80-127	

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Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW-8	Batch#:	160123
Lab ID:	218203-005	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	1.7	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	100	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	92	80-127

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		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	OW-1	Batch#:	160123
Lab ID:	218203-006	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	5.1	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	93	81-124	
1,2-Dichloroethane-d4	99	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	92	80-127	



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	OW-2	Batch#:	160123
Lab ID:	218203-007	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	140 Y	50	
MTBE	4.9	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	93	80-127

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Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	ТВ	Batch#:	160076
Lab ID:	218203-008	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	94	80-127



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	DUP-1	Batch#:	160123
Lab ID:	218203-009	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	110 Y	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	95	80-127

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Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	EB	Batch#:	160076
Lab ID:	218203-010	Sampled:	02/08/10
Matrix:	Water	Received:	02/08/10
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	91	80-127



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC532760	Batch#:	160076
Matrix:	Water	Analyzed:	02/16/10
Units:	ug/L		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	93	80-127

ND= Not Detected RL= Reporting Limit Page 1 of 1



Gasoline by GC/MS							
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA				
Client:	Stantec	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8260B				
Matrix:	Water	Batch#:	160076				
Units:	ug/L	Analyzed:	02/16/10				
Diln Fac:	1.000						

Type: BS Lab ID: QC532761

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.44	86	61-123
1,2-Dichloroethane	25.00	24.23	97	66-141
Benzene	25.00	23.20	93	81-122
Toluene	25.00	24.01	96	82-122
1,2-Dibromoethane	25.00	26.86	107	81-122
Ethylbenzene	25.00	24.83	99	86-125
m,p-Xylenes	50.00	49.73	99	83-127
o-Xylene	25.00	24.97	100	81-122

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	96	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	91	80-127

Type: BSD Lab ID: QC532762

Analyte	Spiked	Result	%REC	Limits RPD	Lim
MTBE	25.00	18.72	75	61-123 14 *	11
1,2-Dichloroethane	25.00	23.23	93	66-141 4	12
Benzene	25.00	22.22	89	81-122 4	12
Toluene	25.00	22.68	91	82-122 6	12
1,2-Dibromoethane	25.00	26.01	104	81-122 3	11
Ethylbenzene	25.00	23.74	95	86-125 4	12
m,p-Xylenes	50.00	48.34	97	83-127 3	13
o-Xylene	25.00	23.98	96	81-122 4	12

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	95	73-140	
Toluene-d8	98	88-113	
Bromofluorobenzene	91	80-127	

^{*=} Value outside of QC limits; see narrative

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RPD= Relative Percent Difference



		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160076
Units:	ug/L	Analyzed:	02/16/10
Diln Fac:	1.000		

Type: BS Lab ID: QC532763

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,008	101	74-124

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	96	88-113
Bromofluorobenzene	90	80-127

Type: BSD Lab ID: QC532764

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	953.9	95	74-124	5	13

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	98	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	92	80-127



Gasoline by GC/MS							
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA				
Client:	Stantec	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8260B				
Type:	BLANK	Diln Fac:	1.000				
Lab ID:	QC532968	Batch#:	160123				
Matrix:	Water	Analyzed:	02/17/10				
Units:	ug/L						

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	93	81-124
1,2-Dichloroethane-d4	99	73-140
Toluene-d8	98	88-113
Bromofluorobenzene	93	80-127

ND= Not Detected RL= Reporting Limit

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		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC532969	Batch#:	160123
Matrix:	Water	Analyzed:	02/17/10
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	21.61	86	61-123
1,2-Dichloroethane	25.00	25.23	101	66-141
Benzene	25.00	24.53	98	81-122
Toluene	25.00	25.22	101	82-122
1,2-Dibromoethane	25.00	27.55	110	81-122
Ethylbenzene	25.00	26.28	105	86-125
m,p-Xylenes	50.00	52.80	106	83-127
o-Xylene	25.00	26.36	105	81-122

Surrogate	%REC	Limits	
Dibromofluoromethane	94	81-124	
1,2-Dichloroethane-d4	97	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	93	80-127	

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		Gasoline by GC/MS	
Lab #:	218203	Location:	725 Julie Ann Way Oakland CA
Client:	Stantec	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	160123
Units:	ug/L	Analyzed:	02/17/10
Diln Fac:	1.000		

Type: BS Lab ID: QC532970

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	999.9	100	74-124

Surrogate	%REC	Limits
Dibromofluoromethane 9	96	81-124
1,2-Dichloroethane-d4 1	L00	73-140
Toluene-d8 9	97	88-113
Bromofluorobenzene 9	93	80-127

Type: BSD Lab ID: QC532971

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	1,000	969.2	97	74-124	3	13

Surrogate	%REC	Limits
Dibromofluoromethane	95	81-124
1,2-Dichloroethane-d4	97	73-140
Toluene-d8	95	88-113
Bromofluorobenzene	91	80-127



		Gasoline by GC/MS	
Lab #: Client:	218203 Stantec	Location: Prep:	725 Julie Ann Way Oakland CA EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID: MSS Lab ID: Matrix: Units: Diln Fac:	ZZZZZZZZZ 218274-001 Water ug/L 1.000	Batch#: Sampled: Received: Analyzed:	160123 02/11/10 02/11/10 02/18/10

Type: MS Lab ID: QC532995

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1000	25.00	19.72	79	59-128
1,2-Dichloroethane	<0.1000	25.00	25.34	101	64-149
Benzene	<0.1000	25.00	24.76	99	75-130
Toluene	<0.1000	25.00	25.34	101	79-129
1,2-Dibromoethane	<0.1000	25.00	26.72	107	80-127
Ethylbenzene	<0.1022	25.00	25.71	103	81-130
m,p-Xylenes	<0.1357	50.00	50.72	101	77-133
o-Xylene	<0.1322	25.00	25.41	102	82-123

Surrogate	%REC	Limits	
Dibromofluoromethane	93	81-124	
1,2-Dichloroethane-d4	96	73-140	
Toluene-d8	97	88-113	
Bromofluorobenzene	94	80-127	

Type: MSD Lab ID: QC532996

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	18.73	75	59-128	5	12
1,2-Dichloroethane	25.00	23.68	95	64-149	7	13
Benzene	25.00	23.17	93	75-130	7	11
Toluene	25.00	23.17	93	79-129	9	12
1,2-Dibromoethane	25.00	25.14	101	80-127	6	11
Ethylbenzene	25.00	23.94	96	81-130	7	12
m,p-Xylenes	50.00	47.04	94	77-133	8	12
o-Xylene	25.00	23.71	95	82-123	7	11

Surrogate	%REC	Limits
Dibromofluoromethane	94	81-124
1,2-Dichloroethane-d4	97	73-140
Toluene-d8	97	88-113
Bromofluorobenzene	92	80-127

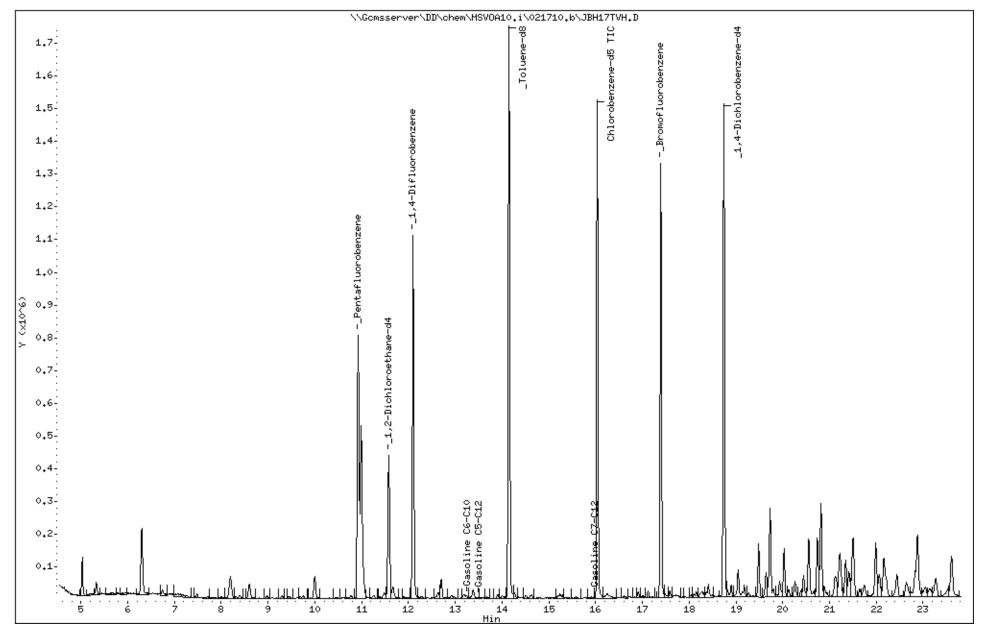
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Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2,00



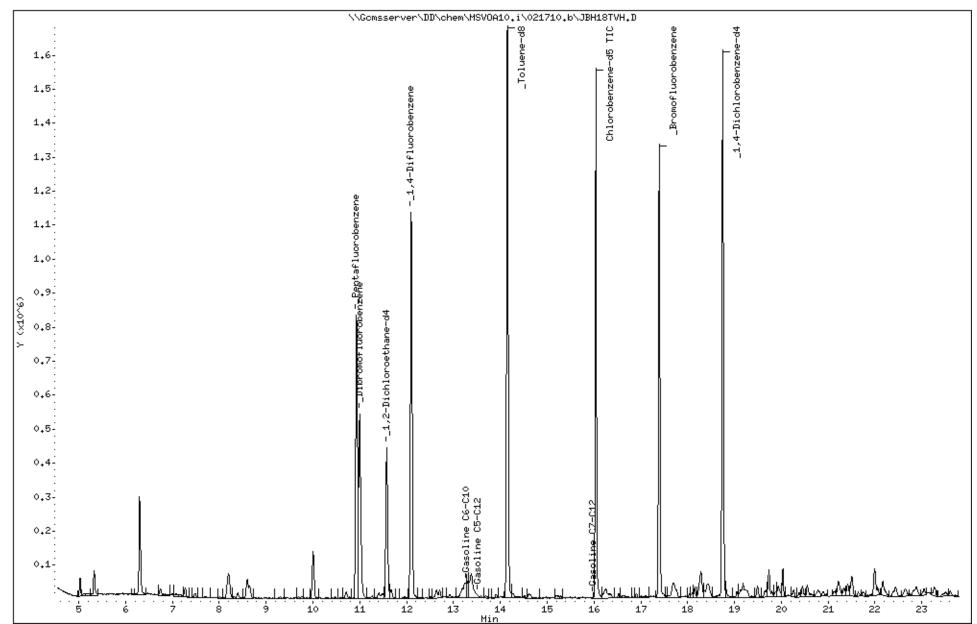
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Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2.00



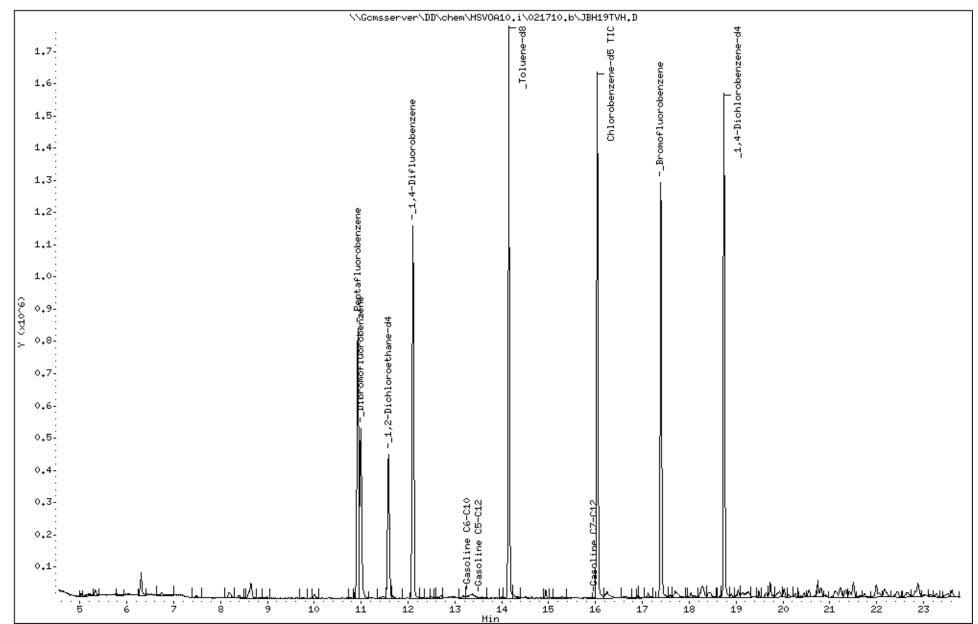
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Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2.00



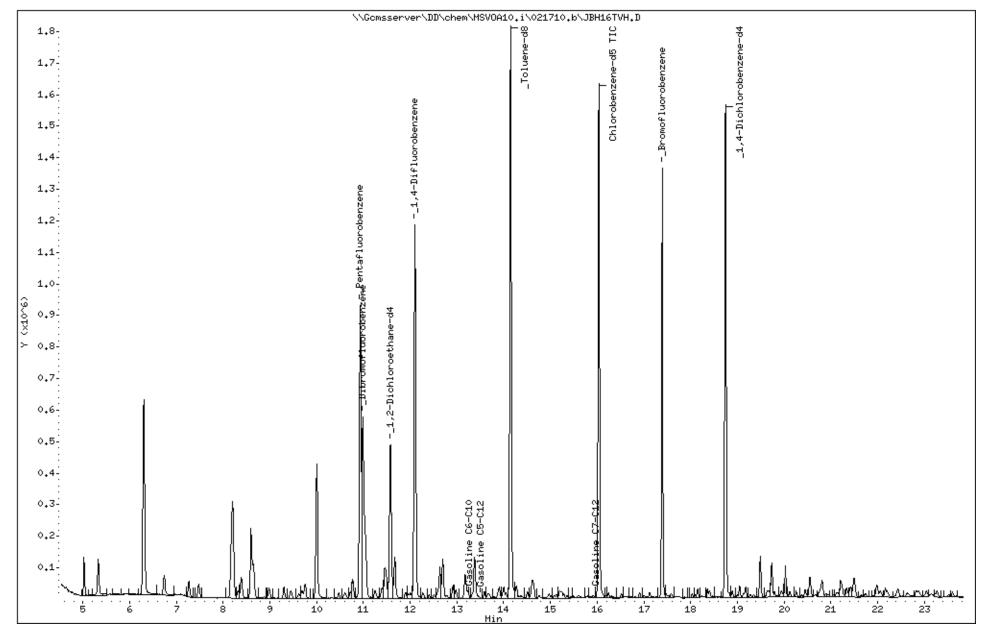
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Instrument: MSVOA10.i

Operator: VOA

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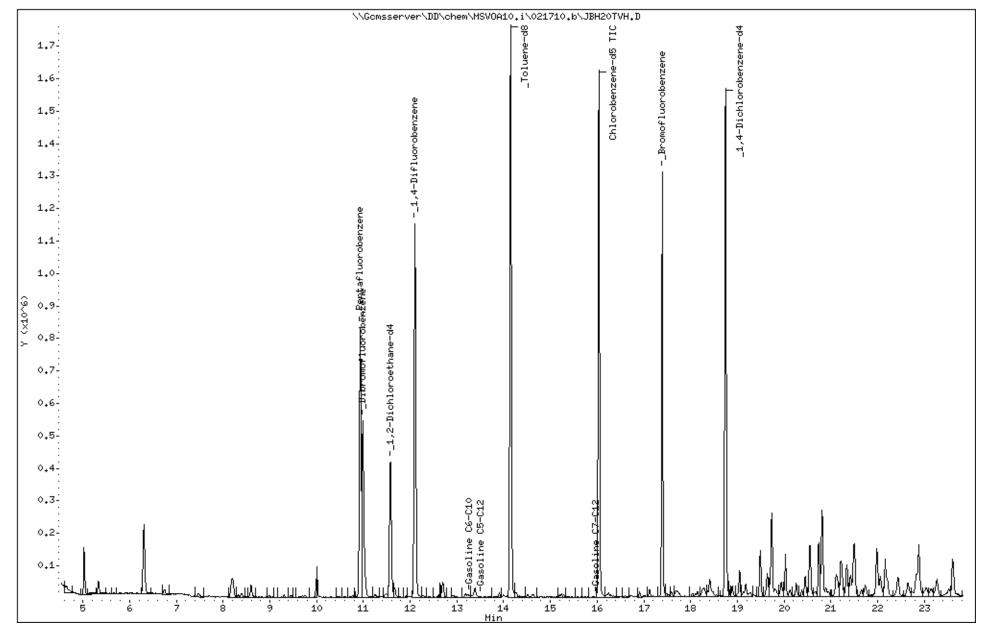
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Instrument: MSVOA10.i

Operator: VOA

Column phase: Column diameter: 2,00



Data File: \\Gcmsserver\DD\chem\MSVOA10.i\021610.b\\JBG06TVH.D

Date : 16-FEB-2010 16:58 Client ID: DYNA P&T

Sample Info: CCV/BS,QC532763,160076

Operator: VOA

Instrument: MSVOA10.i

Column phase: Column diameter: 2.00

