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Alameda County  
Environmental Health

February 5, 2008

Mr. Steve Shinners  
Senior Manager - Safety, Health & Environmental Services  
YRC North American Transportation, Inc.  
10990 Roe Avenue  
Overland Park, Kansas 66211

Subject: Site Investigation  
Roadway Express, Inc.  
1708 Wood Street  
Oakland, California  
Burns & McDonnell Project No. 47561

Dear Mr. Shinners:

In response to your request on behalf of YRC Worldwide Enterprise Services, Inc. (YRCW), Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) has prepared this Site Investigation report detailing potential soil and groundwater impacts present at the Roadway Express, Inc. truck terminal, located at 1708 Wood Street, Oakland, California (Site). Figure 1 shows the location of the Site.

The multi-phased Site investigation included soil and groundwater sampling, groundwater well re-development and surveying of the Site's existing groundwater monitoring well network, and subsurface utility identification. Soil and groundwater samples were collected for analysis of: total petroleum hydrocarbons (TPH) as diesel (d), gasoline (g), total oil & grease (o&g), and motor oil (mo); volatile organic compounds (VOCs); semi-volatile compounds (SVOCs); and CAM 17 metals.

## **1.0 Site Description and Location**

The Site is currently operating as a trucking facility, which includes a terminal, loading dock, warehouse, business office, and the perimeter is used for trailer storage (Figure 2). The Site is secured with a full perimeter fence and staffed by professional security guards.

The Site is situated between Wood Street to the west, 18th Street to the north, 17th Street to the south and Campbell Street to the east. Across 18th street is a community park and surrounding businesses are industrial complexes.

## 2.0 Regional and Site Geology

The Site is located approximately 1 mile east of the central-east portion of the San Francisco Bay, at an elevation of approximately 10 feet above mean sea level (MSL). The Site is near the current eastern extent of the San Francisco Bay, and in the recent geologic past, was part of the San Francisco Bay. The near-surface geology has largely been controlled by the changing morphology of the San Francisco Bay over geologic time. The closest surface-water bodies to the Site are the Oakland Outer Harbor, located approximately 1 mile west of the Site, and the Oakland Inner Harbor, located approximately 1.75 miles south of the Site.

The Site's lithology is characterized by: dark gray, very soft, moist clay to a depth of approximately 15 feet below ground surface (bgs); overlying approximately 10 feet of brown, soft, wet, silty sandy clay that extends from approximately 15 to 25 feet bgs; approximately 4 feet of brown, wet, silty clayey sand that extends from approximately 25 to 29 feet bgs; and a gray, very soft, wet clay of unknown thickness.

## 3.0 Site History and Underground Storage Tank Overview

According to previous consultants that have worked at the site (*Marshall Miller & Associates 2006* and *R.S Eagan & Co. 1987*) between the years 1987 to 1996, three underground storage tanks (USTs) were properly removed and two USTs were abandoned in-place. In March 1987, two USTs (one 10,000 gallon gasoline tank and one 2,000 gallon motor oil tank) were removed from the central-eastern area of the Site, along 18th Street (Figure 2). During this work, two other USTs were identified at the northwest corner of the property (one 2,000 gallon waste oil tank and one 10,000 gallon tank of unknown contents). The two USTs were abandoned-in-place (filled with sand slurry and grout) by R.S. Eagan & Co. At that time, R.S. Eagan & Co. installed two monitoring wells, MW-1 and MW-2, within the footprint of the central-eastern excavation.

In April 1996, the remaining 10,000 gallon diesel UST and all associated piping was removed from the central-eastern area of the Site, along 18th Street. During this tank removal, monitoring well MW-1, located within the excavation footprint, was removed.

In September 2000, One Environment installed three monitoring wells (MW-3, MW-4, and MW-5) around the location of the removed USTs in the central-eastern area of the Site. Well construction details are summarized in Table 1.

In March 2007, Burns & McDonnell was retained by YRWC to locate and sample the Site's monitoring wells. Monitoring wells MW-3, MW-4, and MW-5 were located and sampled.

## 4.0 Investigation Activities

The scope of work for this Site investigation was initially presented to YRCW by Shaw Environmental and subsequently agreed upon by Burns & McDonnell and YRCW. The scope of work detailed by this report is as follows:

- Six direct push borings around the three removed USTs, collecting soil and groundwater samples for analysis;
- Three direct push borings around the two abandoned-in-place USTs, collecting soil and groundwater samples for analysis;
- Re-develop and sample the Site's existing groundwater monitoring well network;
- Survey the Site's monitoring well network in order to: locate monitoring well MW-2; provide Geotracker compatible survey data; and prepare a potentiometric surface map showing groundwater flow direction and gradient.

#### **4.1 Permitting and Utility Clearance**

Burns & McDonnell obtained the appropriate boring permits from the Alameda County Public Works Agency (ACPWA) prior to conducting field activities. The approved permit is presented in Appendix A. Prior to drilling, the proposed boring locations were marked in the field and checked for the presence of any piping, utilities, and or other subsurface obstructions by Underground Service Alert North. Additionally, Burns & McDonnell retained a private utility locator, Precision Locating, to check for subsurface utilities or obstructions.

While checking for utilities, a subsurface anomaly was found in the area of the abandoned-in-place USTs. The anomaly was located at a depth of approximately 3 feet bgs by ground penetrating radar. The anomaly showed a northwest to southeast alignment and was approximately 8 feet x 12 feet in size. Based on the size, orientation, and shape of the subsurface readings, it is likely that this is the location of one of the abandoned-in-place USTs. Boring locations in this area were relocated to surround the anomaly.

##### **4.1.1 Direct Push Borings**

On December 10, 2007, nine borings were advanced to a maximum depth of 15 feet bgs. Six of the borings (BM-1 through BM-6) were in the central-eastern area of the Site, where the former fuel and waste oil USTs had been removed. Three borings (BM-7, BM-8, and BM-9) were advanced in the area near the corner of 18th Street and Wood Street, where the USTs that were abandoned-in-place are estimated to be located. The locations of the direct-push borings are illustrated on Figure 3 and Figure 4.

##### **4.1.2 Direct Push Soil Sampling and Analysis**

Borings were advanced using a Geoprobe® 6600 rig. Continuous soil cores were collected using a disposable acetate sleeve placed inside the direct-push soil sampler. Once the soil core was removed, Burns & McDonnell personnel split open the acetate sleeve and the soil was visually inspected for lithologic description, staining, and wetness. Lithologic descriptions were defined, following the Unified Soil Classification System (USCS) and were recorded on field boring logs. Direct push boring logs are presented in Appendix B.

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The following table summarizes soil samples collected and laboratory analysis preformed during this investigation, as defined in the previously agreed to scope of work.

Boring ID	Depth of Sample (feet bgs)	Analysis Performed (Analytical Method)
BM-1	8	SVOCs (EPA 8270C), CAM 17 Metals (EPA 6010B)
BM-2	5 & 13	TPHd, TPHg, TPHmo (EPA 8015M)
BM-7	6	TPHd, TPHg, TPHmo (EPA 8015M) VOCs (EPA 8260B), SVOCs (EPA 8270C), CAM17 Metals (EPA 6010B)
BM-8	7	TPHd, TPHg, TPHmo (EPA 8015M) VOCs (EPA 8260B), SVOCs (EPA 8270C), CAM17 Metals (EPA 6010B)
BM-9	5	TPHd, TPHg, TPHmo (EPA 8015M) VOCs (EPA 8260B), SVOCs (EPA 8270C), CAM17 Metals (EPA 6010B)

#### 4.1.3 Direct Push Groundwater Sampling and Analysis

Following soil sampling activities, a temporary, slotted PVC casing was placed in each borehole and groundwater was allowed to enter and equilibrate. A check-valve was attached to 3/8-inch disposable polyethylene tubing and lowered into the temporary casing.

Attempts were made to collect a sufficient sample of groundwater from each of the boring locations, however, there was very little groundwater in borings BM-3, BM-5, and BM-6, and the tubing frequently became clogged with sediment. Due to the limited groundwater recharge from these borings, it was not possible to collect enough groundwater for analysis of TPHd, TPHo&g, and TPHmo.

The following table summarizes grab groundwater samples collected and analysis preformed during this investigation as defined in the previously agreed to scope of work.

Boring ID	Analysis Performed (Analytical Method)
BM-1	SVOCs (EPA 8270C), CAM 17 Metals (EPA 6010B)
BM-2	TPHd, TPHg, TPHo&g, TPHmo (EPA 8015M)
BM-3	TPHg (EPA 8015M)
BM-4	TPHd, TPHg, TPHo&g, TPHmo (EPA 8015M)
BM-5	TPHg (EPA 8015M)
BM-6	TPHg (EPA 8015M)
BM-7	TPHd, TPHg, TPHo&g (EPA 8015M), VOCs (EPA 8260B), SVOCs (EPA 8270C), CAM17 Metals
BM-8	TPHd, TPHg, TPHo&g (EPA 8015M), VOCs (EPA 8260B), SVOCs (EPA 8270C),

	CAM17 Metals
BM-9	TPHd, TPHg, TPHo&g (EPA 8015M), VOCs (EPA 8260B), SVOCs (EPA 8270C), CAM17 Metals

All soil and groundwater samples were submitted to, and analyzed by, Entech Analytical Labs, Inc., located in Santa Clara, California, a California-state certified laboratory. All samples were transferred under Chain-of-Custody procedures and documentation. Chain-of-Custody documentation and certified analytical reports are provided in Appendix C. Due to the nature of EPA Method 8015B(M), requested analysis of TPHo&g from submitted soil samples BM-2-5, BM-2-13, BM-7-6, BM-8-7, and BM-9-5, was not quantified and replaced with TPHmo.

#### **4.1 Well Redevelopment**

On December 11, 2007, monitoring wells MW-2 through MW-5 were redeveloped by Resonant Sonic, Inc. Monitoring wells were redeveloped using standard surge and bail techniques. Monitoring well redevelopment involved the removal of water from the well until it was relatively free of sediment, approximately ten saturated well volumes, and groundwater parameters (temperature, pH, and electrical conductivity) had stabilized. The development water was temporarily stored on-Site, in labeled 55-gallon drums, pending future off-Site disposal/recycling at an appropriate facility. Well development forms are presented in Appendix D.

##### **4.2.1 Well Sampling**

On December 17, 2007, groundwater samples were collected from the Site's existing groundwater monitoring wells: MW-2 through MW-5 (Figures 4, 5, and 6). Prior to collecting groundwater samples, depth-to-water (DTW) was measured from the top of casing (TOC) at each well using a clean, battery-operated, oil/water interface probe. Well gauging and groundwater elevations, along with well construction details, are summarized in Table 1. The DTW for each well was recorded on the Groundwater Sampling Forms. The interface probe was cleaned between each well with an Alconox water solution and rinsed with deionized water. Groundwater sampling forms are presented in Appendix E.

Monitoring wells were purged using low-flow methodology. Clean disposable tubing was lowered to the middle of the well's screened interval, and a peristaltic pump was used to extract groundwater from the well, at a rate of approximately 250 milliliters per minute (ml/min).

Groundwater parameters (temperature, pH, specific conductance, ORP, and DO) were measured and recorded on Groundwater Sampling Forms (Appendix E). Water clarity was visually qualified and recorded. After field parameters stabilized to within +/- 10% over at least three consecutive readings while at a stabilized water elevation, groundwater samples were collected in laboratory supplied sampling bottles.

Groundwater samples were uniquely labeled with the well identification, date, time of collection, type of preservative, and analyses to be performed. Once collected, each groundwater sample

was immediately placed into an insulated, ice-filled cooler. Samples were transferred under Chain-of-Custody protocol to Entech Laboratories Inc.

#### **4.2.2 Well Survey**

Burns & McDonnell retained Luk and Associates, a California Licensed Surveyor, to survey monitoring wells MW-2 through MW-5, relative to MSL. The survey is in compliance with the California Geotracker Database requirements. The certified survey report is presented in Appendix F.

#### **4.2.3 Groundwater Flow Direction and Gradient**

On December 17, 2007, static groundwater was observed in the Site's wells, at depths ranging from 3.66 feet to 4.40 feet below TOC, with corresponding groundwater elevations ranging from 5.71 feet to 5.86 feet MSL. Due to the depth and screened interval of MW-2, the depth to water (1.56 ft below TOC) and corresponding groundwater elevation (8.33 feet MSL) were not used in the groundwater contouring. Burns & McDonnell used gauging and well casing elevation data to calculate groundwater elevation. In the area of the removed USTs, groundwater flow direction was to the west north-west with a gradient of approximately 0.002 feet per foot (ft/ft). Groundwater elevations are summarized in Table 1 and presented on Figure 6.

### **5.0 Summary of Laboratory Analysis**

#### **5.1 Soil Samples**

Soil samples were collected from the boring in the area of the removed USTs (BM-2, Figure 4), with TPHd detected in BM-2 (5 feet bgs) at a concentration of 8.8 milligrams per kilogram (mg/Kg). Total petroleum hydrocarbons in soil are summarized in Table 2.

Soil samples were collected from the borings in the area of the abandoned USTs (BM-7, BM-8, and BM-9, Figure 3) with TPHmo detected in borings BM-7 (at 6 feet bgs), BM-8 (at 7 feet bgs), and BM-9 (at 5 feet bgs) at concentrations of 86 mg/Kg, 1,700 mg/Kg, and 83 mg/Kg, respectively.

VOCs and SVOCs were not detected at or above the detection limit in soil samples collected from borings BM-1, BM-7, and BM-9. However acetone was detected at a concentration of 110 µg/Kg in sample BM-8 (7 feet bgs).

Various Cam17 Metals were detected in soil samples from borings BM-1, BM-7, BM-8, and BM-9. Table 3 summarizes CAM17 Metals in soil and groundwater.

#### **5.2 Groundwater Samples**

Groundwater samples were collected from the borings in the area where the USTs were removed (BM-2 through BM-6, and MW-2 through MW-5), with TPHd detected in boring BM-2 and monitoring well MW-2 at concentrations of 28,000 µg/L and 140 µg/L, respectively. TPHg was detected in boring BM-2 at a concentration of 260 µg/L. TPHo&g was not detected in the samples collected from borings BM-2 and BM-4, and monitoring wells MW-2 through MW-5.

TPHmo was detected in BM-2 and BM-4 at concentrations of 1,500 µg/L and 9,900 µg/L, respectively. Table 4 summarizes historical grab groundwater results. Table 5 summarizes results from the Site's groundwater monitoring wells.

In the area of the abandoned-in-place USTs (BM-7, BM-8, and BM-9), TPHd was detected in borings BM-7, BM-8, and BM-9 at concentrations of 120 µg/L, 61,000 µg/L, and 1,200 µg/L, respectively. TPHg was detected in borings BM-8 and BM-9 at concentrations of 54,000 µg/L and 180 µg/L, respectively. TPHo&g was detected in boring BM-8 at a concentration of 430 mg/L. Methyl-t-butyl Ether (MTBE) was detected in BM-7, at a concentration of 2.3 µg/L.

It was noted that there was a fuel odor in the groundwater samples taken from BM-8 and BM-9, and a hydrocarbon sheen was seen on the water sample submitted from BM-8.

The only VOCs and SVOCs detected in the groundwater samples were bis(2-Ethylhexyl)phthalate and Methyl-t-butyl Ether (MTBE). Bis(2-Ethylhexyl)phthalate was detected in BM-1 at a concentration of 16 µg/L. MTBE was detected in BM-7 at a concentration of 2.3 µg/L. No Benzene, Toluene, Ethylbenzene, or Xylene (BTEX) compounds were detected in any of the groundwater samples.

Various Cam17 Metals were detected in grab groundwater samples from borings BM-1, BM-7, BM-8, and BM-9. Table 3 summarizes CAM17 Metals in soil and groundwater.

Groundwater samples from the monitoring wells only showed petroleum impacts in well MW-2, which is screened in a probable perched water zone, screened down to 9 feet bgs. The remainder of the monitoring wells, MW-3, MW-4, and MW-5, did not contain any detectable petroleum hydrocarbon constituents.

Copies of the certified analytical reports and Chain-of-Custody documentation are included as Appendix C.

## 6.0 Summary and Recommendations

### 6.1 Central-Eastern Portion of the Site

In the central-eastern portion of the Site where the USTs were removed, impacts were seen in the shallow groundwater samples. The highest impacts in this area were seen in grab groundwater samples from boring BM-2. This boring was located below the former fueling island and was advanced through the gravel fill placed in the excavation after the tank was removed. Moving down gradient, approximately 25 feet horizontally, concentrations of TPHd fall to 140 µg/L in MW-2 (Figures 5 and 6).

The groundwater monitoring wells screened between 10 and 30 feet bgs (MW-3, MW-4, and MW-5) have not shown any petroleum hydrocarbon constituents in the March or December 2007 sampling events. Monitoring well MW-2 which is screened between 0.5 and 9.2 feet bgs, is the only monitoring well at the site that has recently shown any petroleum hydrocarbon constituents.

## **6.2 Northwest Corner of the Site**

In the northwest corner of the Site, in the area where the two USTs were abandoned in place, petroleum hydrocarbon constituents were seen in soil and grab groundwater samples from all three borings. BTEX was not detected in any of the groundwater samples and the only detected VOC was limited to MTBE, which was detected in BM-7.

## **6.3 Recommendations**

A workplan will be prepared and submitted that will describe additional Site assessment activities to further define the vertical and horizontal extent of petroleum hydrocarbon constituents at the Site.

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If you have any questions regarding this project please feel free to contact the undersigned at (650) 871-2926.

Sincerely,



Patrick Bratton  
Geologist



Gary P. Messerotes, P.G.  
Senior Geologist



Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Figure 3 – Groundwater Concentrations – Abandoned USTs Area
- Figure 4 – Former USTs Area
- Figure 5 – Groundwater Concentrations – Former USTs Area
- Figure 6 – Groundwater Elevations – Former USTs Area

- Table 1: Well Construction Details and Groundwater Elevations
- Table 2: Summary of Total Petroleum Hydrocarbons in Soil
- Table 3: Summary of CAM17 Metals in Soil and Groundwater
- Table 4: Historical Grab Groundwater Summary
- Table 5: Historical Monitoring Well Summary

- Appendix A – Boring Permit
- Appendix B – Boring Logs
- Appendix C – Laboratory Analytical Reports
- Appendix D – Well Development Forms
- Appendix E – Field Sampling Forms
- Appendix F – Monitoring Well Survey Report

## **TABLES**

**TABLE 1**  
**Well Construction Details and Groundwater Elevation**  
**USF Roadway Express Facility**  
**1708 Wood Street**  
**Oakland, California**

Well ID	Date Measured	Casing Diameter	Casing Elevation	Total Depth	Screened Interval	Depth to Water	Groundwater Elevation
		(Inches)	Feet (1)	Feet (2)	Feet (2)	Feet (3)	Feet (1)
MW-2	17-Dec-07	4	9.89	9.2	0.5-9.2	1.56	8.33
MW-3	17-Dec-07	2	10.11	29.4	10-30	4.40	5.71
MW-4	17-Dec-07	2	9.52	29.5	10-30	3.66	5.86
MW-5	17-Dec-07	2	9.97	29.2	10-30	4.11	5.86

1 - Elevation in feet above mean sea level

2 - Depth in feet below ground surface

3 - Depth in feet below measuring point (top of casing)

Screened intervals based on boring logs located in the

*Additional Groundwater Investigation Report by One Environment, 2001*

Casing Elevation Resurveyed on December 20, 2007

**TABLE 2**  
**Summary of Total Petroleum Hydrocarbons in Soil**  
**USF Roadway Express Facility**  
**1708 Wood Street**  
**Oakland, California**

Sample ID	Date Sampled	Depth	TPH-Gasoline	TPH-Diesel	TPH-Motor Oil
Units		(Feet bgs)	mg/Kg	mg/Kg	mg/Kg
B-1	24-Jul-97	4	<1	<1	---
B-3	24-Jul-97	6	<1	240	---
B-4	24-Jul-97	7	<1	<1	---
B-5	24-Jul-97	3.5	<1	5.4	---
B-6	24-Jul-97	5	<1	<1	---
B-7	24-Jul-97	3	<1	<1	---
B-8	24-Jul-97	2	<1	<1	---
MW-3	6-Sep-00	5	ND	ND	---
MW-3	6-Sep-00	10	ND	ND	---
MW-4	6-Sep-00	5	ND	ND	---
MW-4	6-Sep-00	10	ND	ND	---
MW-5	6-Sep-00	5	ND	ND	---
MW-5	6-Sep-00	10	ND	ND	---
BM-2	10-Dec-07	5	<0.50	8.8*	86
BM-2	10-Dec-07	13	<0.50	<5.0	---
BM-7	10-Dec-07	6	<0.50	<5.0	86
BM-8	10-Dec-07	7	<0.50	<120	1,700
BM-9	10-Dec-07	5	<0.50	<5.0	83

**Notes:**

ND = Sample not detected above detection limit; unable to find detection limit in prior sampling reports

< ## = Sample not detected above detection limit of ##

--- = Not sampled/analyzed for this constituent

Boring Locations are indicated on Figures 3 and 4

\* = Atypical pattern

**Table 3**  
**Summary of CAM17 Metals in Soil and Groundwater**  
**USF Roadway Express Facility**  
**1708 Wood Street**  
**Oakland, California**

Soil					Grab Groundwater				
Boring ID	BM-1	BM-7	BM-8	BM-9	Boring ID	BM-1	BM-7	BM-8	BM-9
Sample Depth (feet bgs)	8	6	7	5					
Metal	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Metal	mg/L	mg/L	mg/L	mg/L
Antimony	<1.0	<1.0	<1.0	<1.0	Antimony	0.063	<0.010	<0.010	0.011
Arsenic	5.1	3.2	5.4	2.8	Arsenic	0.43	0.031	0.011	0.072
Barium	21	34	54	94	Barium	5.6	0.27	0.094	2.4
Beryllium	<1.0	<1.0	<1.0	<1.0	Beryllium	<0.0050	<0.0050	<0.0050	<0.0050
Cadmium	1.4	<1.0	<1.0	<1.0	Cadmium	0.016	<0.0020	<0.0020	0.0070
Chromium	44	50	42	31	Chromium	5.5	0.27	0.11	0.61
Cobalt	14	8.0	5.3	7.7	Cobalt	0.61	0.042	0.015	0.17
Copper	19	23	36	28	Copper	2.9	0.11	0.045	0.64
Lead	6.0	9.6	49	22	Lead	9.2	0.083	0.030	0.86
Molybdenum	<1.0	1.4	<1.0	<1.0	Molybdenum	<0.0050	0.0050	<0.0050	0.022
Mercury	<0.050	<0.050	0.25	<0.050	Mercury	<0.0002	<0.0002	<0.0002	<0.0002
Nickel	65	37	26	25	Nickel	3.5	0.22	0.075	0.50
Selenium	<2.0	<2.0	<2.0	<2.0	Selenium	<0.020	<0.020	<0.020	<0.020
Silver	<1.0	<1.0	<1.0	<1.0	Silver	<0.0050	<0.0050	<0.0050	<0.0050
Thallium	<2.0	<2.0	<2.0	<2.0	Thallium	<0.020	<0.020	<0.020	<0.020
Vanadium	36	41	35	33	Vanadium	4.0	0.23	0.090	0.58
Zinc	51	61	100	70	Zinc	7.2	0.26	0.087	1.5

All samples collected on December 10, 2007

Sample Depth in Feet below ground surface

< ## = Sample not detected above detection limit of ##

**TABLE 4**  
**Historical Grab Groundwater Summary**  
**Total Petroleum Hydrocarbons and Total Oil & Grease in Groundwater**  
**USF Roadway Express Facility**  
**1708 Wood Street**  
**Oakland, California**

Sample Number	Date Sampled	TPH-Diesel	TPH-Gasoline	MTBE	Total Oil & Grease	TPH-Motor Oil
Analytical Reporting Units		µg/L	µg/L	µg/L	mg/L	µg/L
B-1	24-Jul-97	<50	<50	---	<0.5	---
B-3	24-Jul-97	500	<50	---	0.54	---
B-4	24-Jul-97	560	<50	---	<0.5	---
B-5	24-Jul-97	<50	<50	---	<0.5	---
B-6	24-Jul-97	2,000	<50	---	0.69	---
B-7	24-Jul-97	120,000	840	---	8.8	---
B-8	24-Jul-97	2,000	<50	---	0.61	---
BM-2	10-Dec-07	28,000	260*	---	<5.0	1,500
BM-3	10-Dec-07	---	<50	---	---	---
BM-4	10-Dec-07	<620	<50	---	<5.0	9,900
BM-5	10-Dec-07	---	<50	---	---	---
BM-6	10-Dec-07	---	<50	---	---	---
BM-7	10-Dec-07	120*	<50	---	<5.0	---
BM-8	10-Dec-07	61,000	54,000*	---	430	---
BM-9	10-Dec-07	1,200*	180*	---	<5.0	---

**Notes:**

ND = Sample not detected above detection limit; unable to find detection limit in prior sampling reports

< ## = Sample not detected above detection limit of ##

--- = Not sampled/analyzed for this constituent due to limited recovery of groundwater

NS = Not sampled for constituent

\* = Atypical pattern

**TABLE 5**  
**Historical Monitoring Well Groundwater Summary**  
**Total Petroleum Hydrocarbons and Total Oil & Grease in Groundwater**  
**USF Roadway Express Facility**  
**1708 Wood Street**  
**Oakland, California**

Sample Number	Date Sampled	TPH-Diesel	TPH-Gasoline	MTBE	Total Oil & Grease
Analytical Reporting Units		µg/L	µg/L	µg/L	mg/L
MW-1	24-Jul-97	1,200	<50	---	1.4
MW-2	24-Jul-97	940	<50	---	6.2
	17-Dec-07	140	NS	---	<5.0
MW-3	6-Sep-00	65.9	ND	---	ND
	22-Mar-07	<50	<50	<0.5	<4.75
	17-Dec-07	<50	NS	---	<5.0
MW-4	6-Sep-00	65.7	ND	---	ND
	22-Mar-07	<50	<50	<0.5	<4.75
	17-Dec-07	<50	NS	---	<5.0
MW-5	6-Sep-00	78.7	ND	---	ND
	22-Mar-07	500 HY	<50	<0.5	<4.85
	17-Dec-07	<50	NS	---	<5.0

**Notes:**

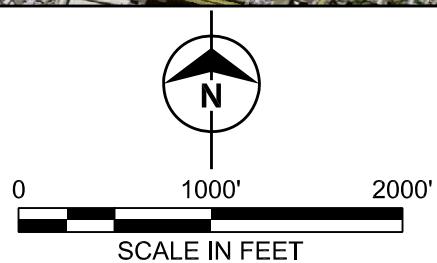
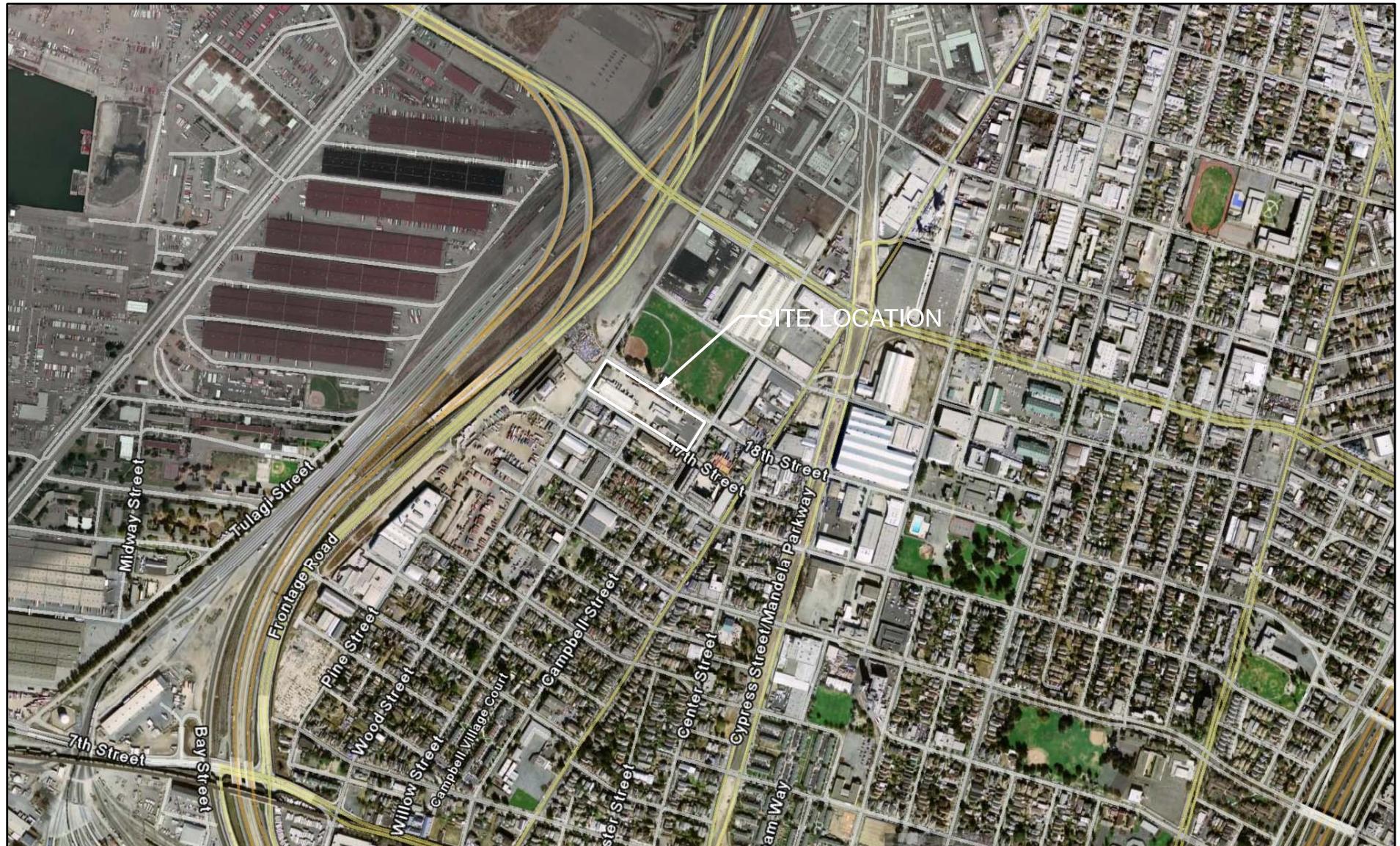
ND = Sample not detected above detection limit; unable to find detection limit in prior sampling reports

< ## = Sample not detected above detection limit of ##

--- = Not sampled/analyzed for this constituent due to limited recovery of groundwater

NS = Not sampled for constituent

## **FIGURES**



**Burns &  
McDonnell**  
SINCE 1898

Figure 1

SITE LOCATION MAP  
ROADWAY EXPRESS  
1708 WOOD STREET  
OAKLAND, CA

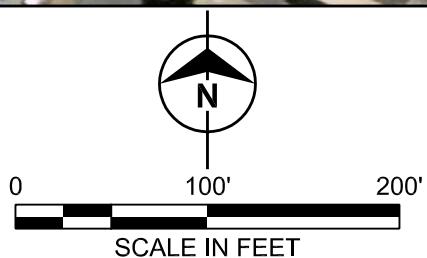
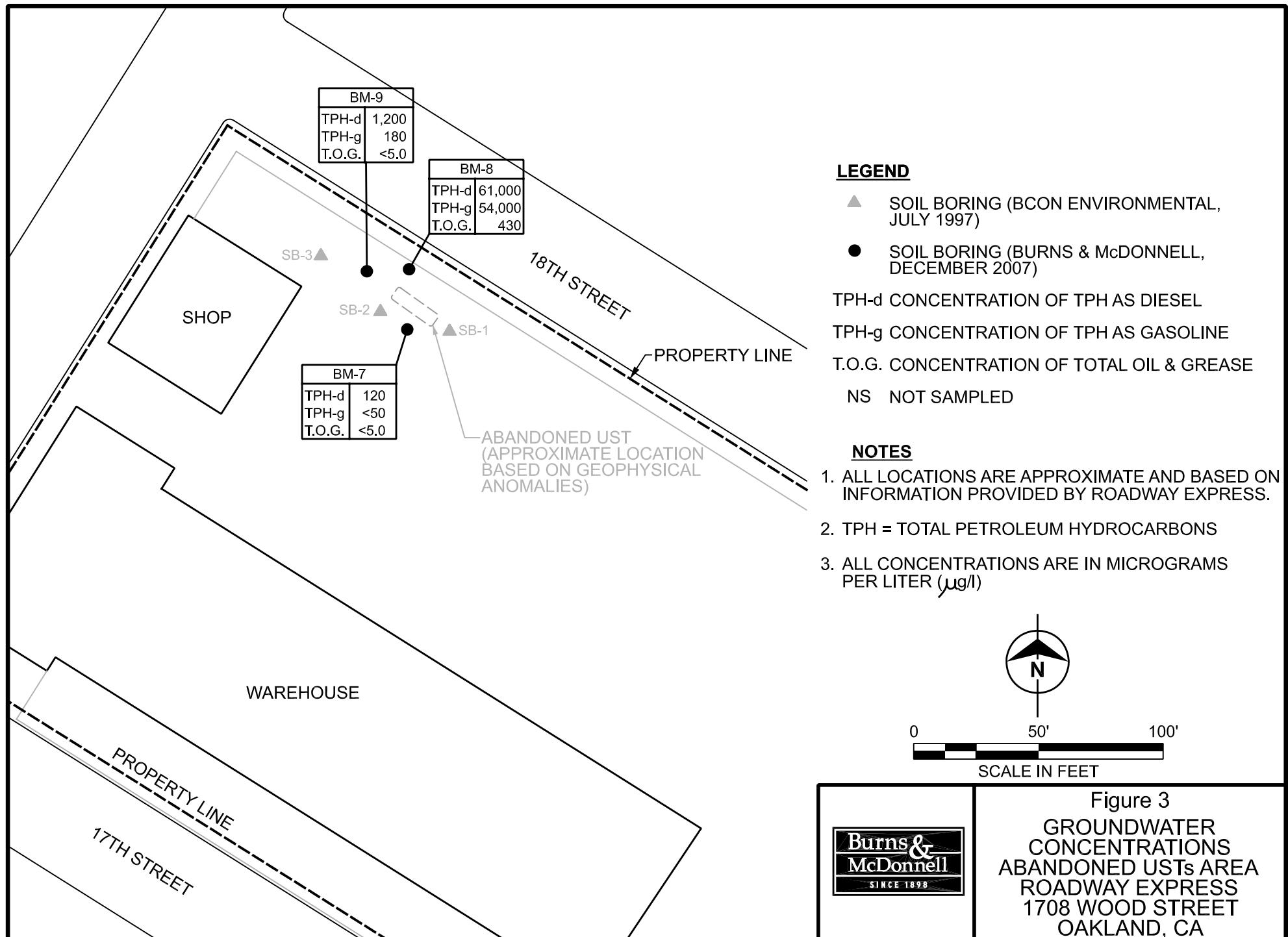
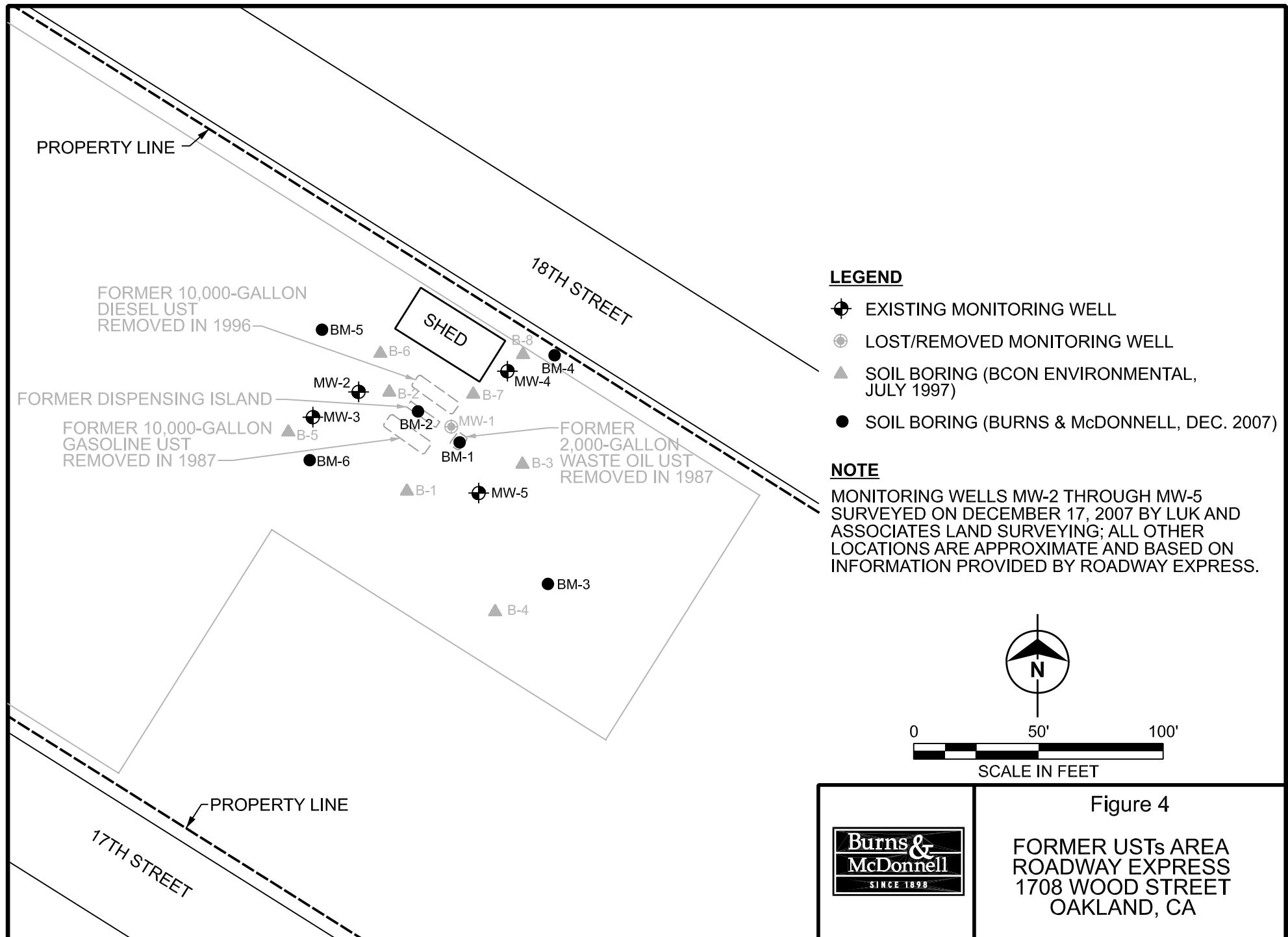
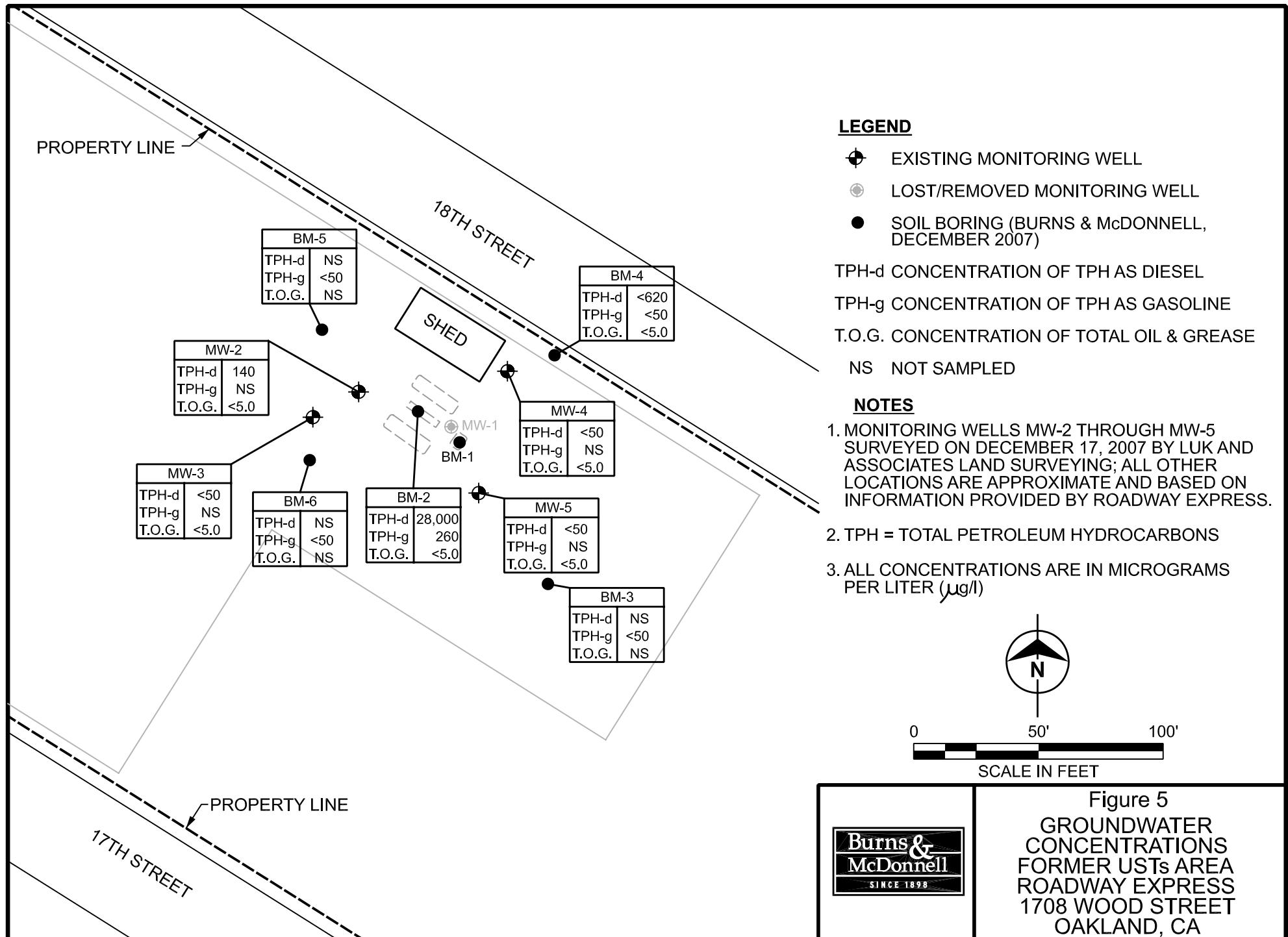
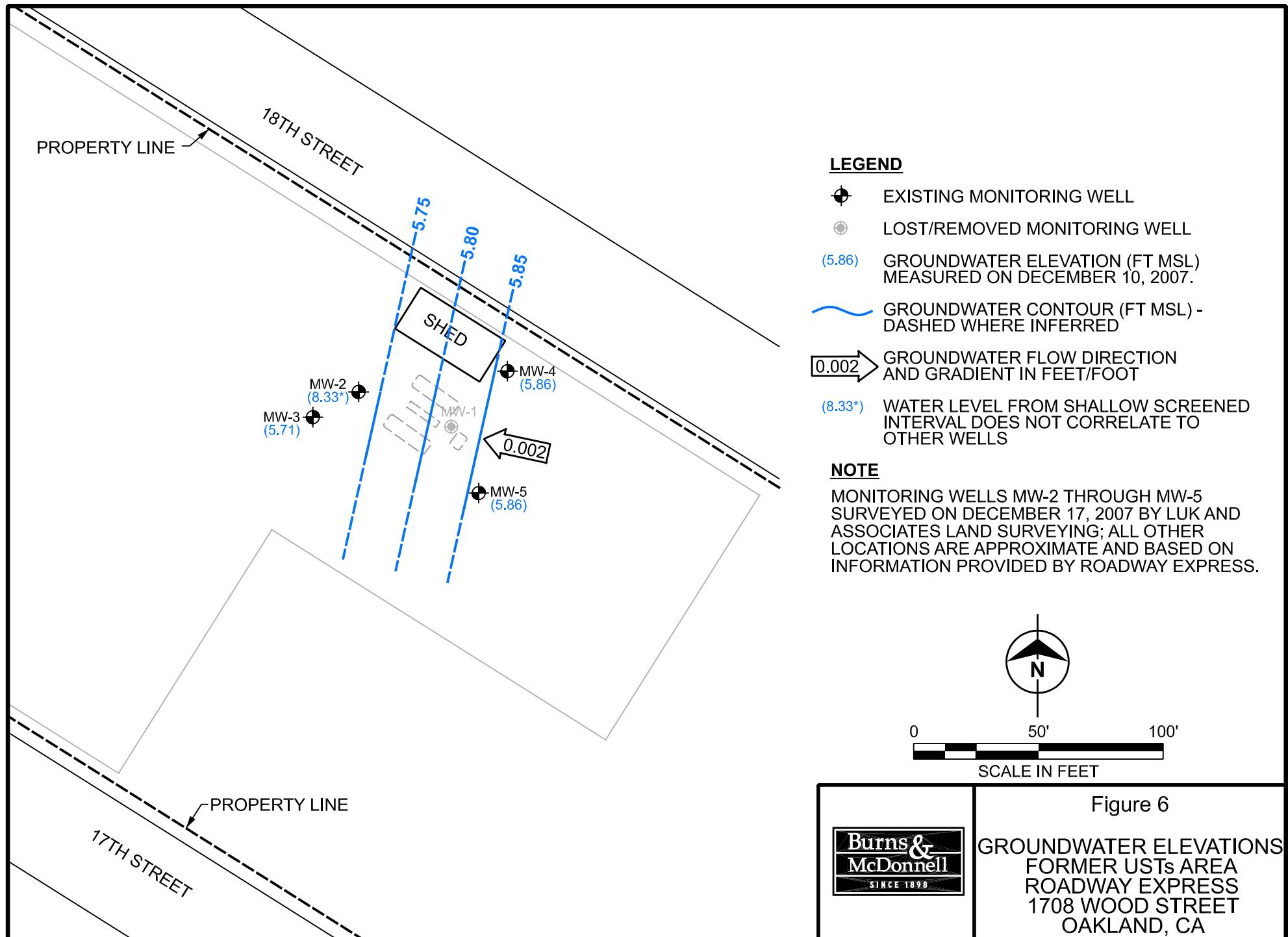


Figure 2  
SITE MAP  
ROADWAY EXPRESS  
1708 WOOD STREET  
OAKLAND, CA









**APPENDIX A**

**BORING PERMIT**

# Alameda County Public Works Agency - Water Resources Well Permit



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

Application Approved on: 11/28/2007 By jamesy

Permit Numbers: W2007-1183  
Permits Valid from 12/04/2007 to 12/31/2007

Application Id: 1196279306851  
Site Location: 1708 Wood St, Oakland  
(Roadway Express)  
Project Start Date: 12/03/2007  
Extension Start Date: 12/04/2007  
Extension Count: 1

City of Project Site:Oakland  
Completion Date:12/04/2007  
Extension End Date: 12/31/2007  
Extended By: vickyh1

Applicant: Burns & McDonnell - Patrick Bratton  
393 E Grand Ave #J, South San Francisco, CA 94080  
Property Owner: YRCW Enterprises Svc c/o Steve Shinners  
10990 Roe Ave., Overland Park, KS 66211  
Client: \*\* same as Property Owner \*\*

Phone: 650-871-2926  
Phone: 913-234-8940

Receipt Number: WR2007-0520	Total Due:	\$200.00
Payer Name : Burns & McDonnell	Total Amount Paid:	\$200.00
	Paid By: CHECK	PAID IN FULL

## Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 6 Boreholes

Driller: Vironex - Lic #: 702927 - Method: other

Work Total: \$200.00

## Specifications

Permit Number	Issued Dt	Expire Dt	#	Hole Diam	Max Depth
W2007-1183	11/28/2007	03/02/2008	6	3.00 in.	20.00 ft

## Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.
2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.
3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.
4. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

## **Alameda County Public Works Agency - Water Resources Well Permit**

5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  6. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
  7. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  8. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.
-

**APPENDIX B**  
**BORING LOGS**

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-1	
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1		
								Total Footage 15	
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation	
Geoprobe		3"					8		
Drilling Company: Vironex				Driller(s): Bryan and Ed					
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe					
Date: 12/10/07				Logged by: G. Collins					
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)	Well Diagram
								Sample	
		CONCRETE							
	SM	SILTY SAND - dark grayish brown, gravel							
	CL	SILTY CLAY - dark grayish brown, pebbly gravel							
5	CL	CLAY - medium stiff, moderately plastic							
	CL	SANDY CLAY - some silt							
	CL	SANDY CLAY - gray, soft, wet							
10									
15		END OF BORING							

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone BH=Bore Hole S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-2		
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1			
						Total Footage 15				
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation		
Geoprobe		3"					12			
Drilling Company: Vironex				Driller(s): Bryan and Ed						
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe						
Date: 12/10/07				Logged by: G. Collins						
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)		Well Diagram
								Sample	BZ/BH/S	
		CONCRETE								
SM		SILTY SAND - Dark grayish, brown								
SM		SILTY SAND WITH GRAVEL- abundant subrounded to subangular gravel								
5										
10										
15										
<p>The diagram shows a borehole profile from 0 to 15 feet. At 0-5 feet, the soil is described as CONCRETE. From 5-10 feet, it's SILTY SAND WITH GRAVEL. From 10-15 feet, it's SANDY CLAY. A hatched area between 10-15 feet is labeled BM-2-13.5. A solid black area between 10-15 feet is labeled BM-2-6. The bottom of the borehole at 15 feet is labeled END OF BORING. A vertical line at the left edge is labeled BORING/WELL YF FREMONT.GPJ BURNS&amp;MC.GDT 1/25/08.</p>										
BZ=Breathing Zone   BH=Bore Hole   S=Sample										

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-3		
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1			
						Total Footage 15				
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation		
Geoprobe		3"					4			
Drilling Company: Vironex				Driller(s): Bryan and Ed						
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe						
Date: 12/10/07				Logged by: G. Collins						
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	Sample	PID (ppm)	Well Diagram
									BZ/BH/S	
		CONCRETE								
SM	SILTY SAND - Dark grayish brown									
SM	SILTY SAND WITH GRAVEL- angular gravel up to 1-inch in diameter									
CH	CLAY - moderately plastic, odor, organics, some silt									
5	NO RECOVERY									
10										
15	END OF BORING									

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone BH=Bore Hole S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-4		
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1			
						Total Footage 15				
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation		
Geoprobe		3"					3			
Drilling Company: Vironex				Driller(s): Bryan and Ed						
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe						
Date: 12/10/07				Logged by: G. Collins						
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	Sample	PID (ppm)	Well Diagram
									BZ/BH/S	
		CONCRETE								
SM		SILTY SAND - dark grayish brown, subrounded to subangular pebbly gravel								
CL		SANDY CLAY - dark gray, soft, wet, some pebbly gravel								▽
CL		CLAY - dark gray, moderately plastic, moist								
5										
CH		CLAY - dark gray, moderately plastic-moist, organics								
10		NO RECOVERY								
15		END OF BORING								

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone   BH=Bore Hole   S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-5		
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1			
						Total Footage 15				
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation		
Geoprobe		3"					4			
Drilling Company: Vironex				Driller(s): Bryan and Ed						
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe						
Date: 12/10/07				Logged by: G. Collins						
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	Sample	PID (ppm)	Well Diagram
									BZ/BH/S	
		CONCRETE								
	SM	SILTY SAND - brown to grayish brown, fine to medium grained sand, pebbly gravel, oxidation staining								
	SM	SILTY SAND - some angular gravel up to 1/2 inch in diameter, wet								▽
5	CL	CLAY - dark grayish brown, soft, non plastic, moist				80%	0900			
10						90%	0905			
12	CH	CLAY - dark grayish brown, soft, non plastic, organics, moist								
15	CL	CLAY - some fine grained sand								
15		END OF BORING				90%	0907			

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone   BH=Bore Hole   S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-6					
		Ground Elevation	Location Central-eastern portion of the Site				Page 1 of 1						
Air Monitoring Equipment						Total Footage 15							
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation					
Geoprobe		3"					6.2						
Drilling Company: Vironex					Driller(s): Bryan and Ed								
Drilling Rig: Geoprobe 6600					Type of Sampler:	Geoprobe							
Date: 12/10/07					Logged by:	G. Collins							
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)	Well Diagram				
								Sample		BZ/BH/S			
		CONCRETE											
	CL	SANDY CLAY - dark grayish brown, nonplastic, very stiff, some silt											
	CL	SANDY CLAY - dark grayish brown, nonplastic, soft, some silt, moist											
5	CL	SANDY CLAY - dark grayish brown, nonplastic, soft, some silt, wet											
	CH	SANDY CLAY - dark grayish brown, nonplastic, soft, some silt, organics, wet											
10		NO RECOVERY											
15		END OF BORING											

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-7	
		Ground Elevation	Location North West corner of Site				Page 1 of 1		
								Total Footage 15	
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation	
Geoprobe		3"					5.5		
Drilling Company: Vironex				Driller(s): Bryan and Ed					
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe					
Date: 12/10/07				Logged by: G. Collins					
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)	Well Diagram
								Sample	
		CONCRETE							
5	SM	SILTY SAND - dark grayish brown, subangular to subrounded pebbly gravel, moist							
5	SM	SILTY SAND - dark grayish brown, subangular to subrounded pebbly gravel, wet							
10	CL	CLAY - gray, soft, moderately plastic, some silt and sand, wet, hydrocarbon odor							
15		END OF BORING							

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone BH=Bore Hole S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-8		
		Ground Elevation	Location North West corner of Site				Page 1 of 1			
						Total Footage 15				
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation		
Geoprobe		3"					7.4			
Drilling Company: Vironex				Driller(s): Bryan and Ed						
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe						
Date: 12/10/07				Logged by: G. Collins						
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)		Well Diagram
								Sample	BZ/BH/S	
		CONCRETE								
5	SM	SILTY SAND - dark grayish brown, fine sand; trace subangular gravel, moist								
SM		SILTY SAND - dark grayish brown, fine sand; trace subangular gravel, wet, hydrocarbon odor								
CL		CLAY - soft, moderately plastic, wet, hydrocarbon odor								
10										
15		END OF BORING								

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone BH=Bore Hole S=Sample

# Boring/Well Construction Log

<b>Burns &amp; McDonnell</b> Air Monitoring Equipment		Project Name YRCW (USF Reddaway) Oakland		Project Number 47561				Boring/Well Number BM-9	
		Ground Elevation	Location North West corner of Site				Page 1 of 1		
						Total Footage 15			
Drilling Method		Borehole Size	Casing Type/Diam.		Screen Type/Slot		Depth to Water	Top of Casing Elevation	
Geoprobe		3"					5.4		
Drilling Company: Vironex				Driller(s): Bryan and Ed					
Drilling Rig: Geoprobe 6600				Type of Sampler: Geoprobe					
Date: 12/10/07				Logged by: G. Collins					
Depth (feet) BGL	USCS	Lithologic Description	Class	Blow Count	Recov.	Run/ Time	Sample Desig.	PID (ppm)	Well Diagram
								Sample	
		CONCRETE							
5	SM	SILTY SAND - brown, fine to medium grained sand, moist							
5	SM	SILTY SAND - dark grayish brown, loose, wet							
10	SP	SAND - grayish black, fine to medium grained, loose, wet							
10		NO RECOVERY							
15		END OF BORING							

BORING/WELL YF FREMONT.GPJ BURNS&MC.GDT 1/25/08

BZ=Breathing Zone   BH=Bore Hole   S=Sample

**APPENDIX C**  
**LABORATORY ANALYTICAL REPORTS**

# **Entech Analytical Labs, Inc.**

**3334 Victor Court , Santa Clara, CA 95054**

**Phone: (408) 588-0200**

**Fax: (408) 588-0201**

**Patrick Bratton  
Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080**

**Lab Certificate Number: 58598  
Issued: 12/14/2007**

**Project Number: 47561  
Project Name: YRCW-Oakland**

## **Certificate of Analysis - Final Report**

On December 11, 2007, samples were received under chain of custody for analysis.  
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Liquid	n-Hexane extractable material (HEM): EPA 1664 VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater SVOCs: EPA 3535A / EPA 3510C / EPA 8270C Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater TPH-Purgeable - GC : EPA 5030B / EPA 8015B TPH-Extractable: EPA 3510C / EPA 8015B(M)
Solid	VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B SVOCs: EPA 3545A / EPA 8270C Mercury: EPA 7471B Metals by ICP: EPA 3050B / EPA 6010B TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B TPH-Extractable: EPA 3545A / EPA 8015B(M)

Case Narrative: On sample 58598-014, only the floating product was analyzed for EPA 8270C.

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).  
Subcontracted work is the responsibility of the subcontract laboratory, this includes turn-around-time and data quality.  
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



**C. L. Thom  
Laboratory Director**

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-001      Sample ID: BM-2-5

Matrix: Solid      Sample Date: 12/10/2007 10:08 AM

### TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND			1.0	0.50	mg/Kg	N/A	N/A	12/12/2007
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JAbidog
4-Bromofluorobenzene	105			65 - 135					Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	8.8			1.0	5.0	mg/Kg	12/11/2007	SDA071211	12/12/2007
Atypical pattern (C12-C22). In addition, the sample contains 86 mg/Kg Motor Oil.									
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JHsiang
n-Hexacosane	92.2			50 - 150					Reviewed by: mtran

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-002    Sample ID: BM-2-13    Matrix: Solid    Sample Date: 12/10/2007 10:00 AM

### TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	0.50	mg/Kg	N/A	N/A	12/12/2007	SGC071212
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JAbidog	
4-Bromofluorobenzene	106		65	- 135				Reviewed by: MaiChiTu	

### TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	5.0	mg/Kg	12/11/2007	SDA071211	12/12/2007	SDA071211
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JHsiang	
n-Hexacosane	83.3		50	- 150				Reviewed by: mtran	

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-003    Sample ID: BM-1-8    Matrix: Solid    Sample Date: 12/10/2007 10:36 AM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chlorophenol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitrophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitrophenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Aniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Azobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzoic Acid	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

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# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-003    Sample ID: BM-1-8    Matrix: Solid    Sample Date: 12/10/2007 10:36 AM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Carbazole	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Chrysene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzofuran	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dimethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diphenylamine	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluorene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachloroethane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Isophorone	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Naphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Nitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pentachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenanthrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyrene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyridine	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Lyu
2,4,6-Tribromophenol	62.4	30	-	100	Reviewed by: mtran
2-Fluorobiphenyl	44.2	20	-	106	
2-Fluorophenol	37.8	20	-	100	
Nitrobenzene-d5	37.1	20	-	100	
Phenol-d6	47.1	20	-	100	
p-Terphenyl-d14	79.0	55	-	130	

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-003    Sample ID: BM-1-8    Matrix: Solid    Sample Date: 12/10/2007 10:36 AM

### Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.050	mg/Kg	12/12/2007	SHG071212	12/12/2007	SHG071212

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Arsenic	5.1		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Barium	21		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Beryllium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cadmium	1.4		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Chromium	44		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cobalt	14		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Copper	19		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Lead	6.0		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Molybdenum	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Nickel	65		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Selenium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Silver	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Thallium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Vanadium	36		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Zinc	51		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211

Analyzed by: CTran

Reviewed by: HDINH

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-004      Sample ID: BM-1

Matrix: Liquid      Sample Date: 12/10/2007 11:35 AM

### SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dichlorobenzene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dinitrobenzene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dichlorobenzene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dinitrobenzene	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dichlorobenzene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dinitrobenzene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1-Methylnaphthalene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,4,6-Tetrachlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,5,6-Tetrachlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,5-Trichlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,6-Trichlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dichlorophenol	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dimethylphenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrophenol	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrotoluene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,6-Dinitrotoluene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chloronaphthalene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylnaphthalene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylphenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitroaniline	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitrophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3&4-Methylphenol	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3,3'-Dichlorobenzidine	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3-Nitroaniline	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4,6-Dinitro-2-methylphenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Bromophenyl Phenyl Ether	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloro-3-methylphenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloroaniline	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chlorophenyl-phenylether	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitroaniline	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitrophenol	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthylene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Aniline	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Anthracene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Azobenzene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)anthracene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)pyrene	ND		1.5	46	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(b)fluoranthene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(g,h,i)perylene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(k)fluoranthene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzoic Acid	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzyl Alcohol	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

12/14/2007 4:21:02 PM - eling

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-004      Sample ID: BM-1

Matrix: Liquid      Sample Date: 12/10/2007 11:35 AM

### SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis-(2-Chloroethyl)ether	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Chloroisopropyl)ether	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)adipate	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)phthalate	16		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Butylbenzylphthalate	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Carbazole	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Chrysene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-butylphthalate	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-octylphthalate	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzo(a,h)anthracene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzofuran	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diethylphthalate	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dimethylphthalate	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diphenylamine	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluoranthene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluorene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobenzene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobutadiene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorocyclopentadiene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachloroethane	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Indeno(1,2,3-cd)pyrene	ND		1.5	23	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Isophorone	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
N-Nitroso-di-n-propylamine	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Naphthalene	ND		1.5	38	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Nitrobenzene	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pentachlorophenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenanthrone	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenol	ND		1.5	15	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pyrene	ND		1.5	31	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

The reporting limits were raised due to insufficient sample volume (high level of sediment).

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Lyu	Reviewed by: mtran
2,4,6-Tribromophenol	73.3	25	-	115		
2-Fluorobiphenyl	81.4	25	-	106		
2-Fluorophenol	82.2	10	-	100		
Nitrobenzene-d5	89.7	25	-	100		
Phenol-d6	76.6	7	-	100		
p-Terphenyl-d14	76.9	35	-	130		

### Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.0002	mg/L	12/13/2007	WHG071213	12/13/2007	WHG071213

Analyzed by: RWipfler

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-004      Sample ID: BM-1

Matrix: Liquid      Sample Date: 12/10/2007 11:35 AM

### Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	<b>0.063</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Arsenic	<b>0.43</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Barium	<b>5.6</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Beryllium	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cadmium	<b>0.016</b>		1.0	0.0020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Chromium	<b>5.5</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cobalt	<b>0.61</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Copper	<b>2.9</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Lead	<b>9.2</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Molybdenum	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Nickel	<b>3.5</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Selenium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Silver	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Thallium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Vanadium	<b>4.0</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Zinc	<b>7.2</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212

Analyzed by: CTran

Reviewed by: HDINH

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So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-005      Sample ID: BM-2

Matrix: Liquid      Sample Date: 12/10/2007 11:30 AM

### n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/12/2007	WOGHEM071211

Analyzed by: MFelix

Reviewed by: rlazaro

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	260		4.0	200	µg/L	N/A	N/A	12/12/2007	WGC071211

Atypical pattern.

### Surrogate      Surrogate Recovery      Control Limits (%)

4-Bromofluorobenzene      141 \*\*\*      65 - 135

\*\*\* Surrogate % recovery was outside QC limits due to matrix interference.

Analyzed by: JAbidog

Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	28000		53	2700	µg/L	12/13/2007	WDA071213	12/13/2007	WDA071213

In addition, the sample contains 15000 µg/L Motor Oil (C26-C40).

### Surrogate      Surrogate Recovery      Control Limits (%)

n-Hexacosane      58.5      50 - 150

Analyzed by: JHsiang

Reviewed by: mtran

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-006      Sample ID: BM-5

Matrix: Liquid      Sample Date: 12/10/2007 2:45 PM

TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND			1.0	50	µg/L	N/A	N/A	12/12/2007
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by:	JAbidog
4-Bromofluorobenzene	106			65 - 135				Reviewed by:	MaiChiTu

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-007      Sample ID: BM-4

Matrix: Liquid      Sample Date: 12/10/2007 12:05 PM

### n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/12/2007	WOGHEM071211

Analyzed by: MFelix

Reviewed by: rlazaro

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/12/2007	WGC071211

Surrogate      Surrogate Recovery      Control Limits (%)      Analyzed by: JAbidog

4-Bromofluorobenzene      108      65 - 135      Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		12	620	µg/L	12/13/2007	WDA071213	12/13/2007	WDA071213

In addition, the sample contains 9900 µg/L Motor Oil (C26-C40).

Surrogate      Surrogate Recovery      Control Limits (%)      Analyzed by: JHsiang

n-Hexacosane      58.2      50 - 150      Reviewed by: mtran

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-008      Sample ID: BM-3

Matrix: Liquid      Sample Date: 12/10/2007 2:05 PM

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/12/2007	WGC071211
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JAbidog	

4-Bromofluorobenzene

106

65 - 135

Reviewed by: MaiChiTu

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393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-009    Sample ID: BM-7-6    Matrix: Solid    Sample Date: 12/10/2007 2:30 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-009    Sample ID: BM-7-6    Matrix: Solid    Sample Date: 12/10/2007 2:30 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
cis-1,3-Dichloropropene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Cyclohexanone	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dibromochloromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dibromomethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dichlorodifluoromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Diisopropyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Ethyl Benzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Freon 113	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Hexachlorobutadiene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Iodomethane	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Isopropanol	ND	1.0	100	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Isopropylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Methyl-t-butyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Methylene Chloride	ND	1.0	50	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
n-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
n-Propylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Naphthalene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
p-Isopropyltoluene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Pentachloroethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
sec-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Styrene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Amyl Methyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butanol (TBA)	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butyl Ethyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Tetrachloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Tetrahydrofuran	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Toluene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,2-Dichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,3-Dichloropropene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,4-Dichloro-2-butene	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Trichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Trichlorofluoromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Vinyl Acetate	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Vinyl Chloride	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Xylenes, Total	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96.5	60 - 130
Dibromofluoromethane	113	60 - 130
Toluene-d8	100	60 - 130

Analyzed by: EricKum

Reviewed by: MaiChiTu

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3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007

Sample Collected by: Client

Lab #: 58598-009    Sample ID: BM-7-6    Matrix: Solid    Sample Date: 12/10/2007 2:30 PM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chlorophenol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitrophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitrophenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Aniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Azobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzoic Acid	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-009    Sample ID: BM-7-6    Matrix: Solid    Sample Date: 12/10/2007 2:30 PM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Carbazole	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Chrysene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzofuran	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dimethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diphenylamine	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluorene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachloroethane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Isophorone	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Naphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Nitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pentachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenanthrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyrene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyridine	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Lyu
2,4,6-Tribromophenol	58.8	30	-	100	Reviewed by: mtran
2-Fluorobiphenyl	41.0	20	-	106	
2-Fluorophenol	32.7	20	-	100	
Nitrobenzene-d5	34.7	20	-	100	
Phenol-d6	34.8	20	-	100	
p-Terphenyl-d14	82.2	55	-	130	

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-009      Sample ID: BM-7-6

Matrix: Solid      Sample Date: 12/10/2007 2:30 PM

### Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.050	mg/Kg	12/12/2007	SHG071212	12/12/2007	SHG071212

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Arsenic	3.2		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Barium	34		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Beryllium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cadmium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Chromium	50		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cobalt	8.0		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Copper	23		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Lead	9.6		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Molybdenum	1.4		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Nickel	37		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Selenium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Silver	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Thallium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Vanadium	41		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Zinc	61		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211

Analyzed by: CTran

Reviewed by: HDINH

### TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	0.50	mg/Kg	N/A	N/A	12/12/2007	SGC071212
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JAbidog

4-Bromofluorobenzene 105 65 - 135      Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	5.0	mg/Kg	12/11/2007	SDA071211	12/12/2007	SDA071211
In addition, the sample contains 86 mg/Kg Motor Oil.									
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JHsiang

n-Hexacosane 94.6 50 - 150      Reviewed by: mtran

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-010    Sample ID: BM-8-7    Matrix: Solid    Sample Date: 12/10/2007 2:15 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetone	110		1.0	100	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

12/14/2007 4:21:03 PM - eling

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-010    Sample ID: BM-8-7    Matrix: Solid    Sample Date: 12/10/2007 2:15 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
cis-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Cyclohexanone	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Dibromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Dibromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Dichlorodifluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Diisopropyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Ethyl Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Freon 113	ND		1.0	10	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Hexachlorobutadiene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Iodomethane	ND		1.0	10	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Isopropanol	ND		1.0	100	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Isopropylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Methyl-t-butyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Methylene Chloride	ND		1.0	50	µg/Kg	N/A	N/A	12/12/2007	SM3071212
n-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
n-Propylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Naphthalene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
p-Isopropyltoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Pentachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
sec-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Styrene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
tert-Butanol (TBA)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
tert-Butylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Tetrachloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Tetrahydrofuran	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Toluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
trans-1,2-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
trans-1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
trans-1,4-Dichloro-2-butene	ND		1.0	10	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Trichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Trichlorofluoromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Vinyl Acetate	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Vinyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Xylenes, Total	ND		1.0	10	µg/Kg	N/A	N/A	12/12/2007	SM3071212

Surrogate	Surrogate Recovery	Control Limits (%)	Analyzed by: EricKum
4-Bromofluorobenzene	99.2	60 - 130	Reviewed by: MaiChiTu
Dibromofluoromethane	119	60 - 130	
Toluene-d8	98.5	60 - 130	

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Qual = Data Qualifier

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Project Name: YRCW-Oakland

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Lab #: 58598-010    Sample ID: BM-8-7    Matrix: Solid    Sample Date: 12/10/2007 2:15 PM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chlorophenol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitrophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitrophenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Aniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Azobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzoic Acid	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

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### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Carbazole	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Chrysene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzofuran	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dimethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diphenylamine	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluorene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachloroethane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Isophorone	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Naphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Nitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pentachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenanthrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyrene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyridine	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Surrogate	Surrogate Recovery	Control Limits (%)	Analyzed by: Lyu
2,4,6-Tribromophenol	62.7	30 - 100	Reviewed by: mtran
2-Fluorobiphenyl	50.5	20 - 106	
2-Fluorophenol	45.7	20 - 100	
Nitrobenzene-d5	32.6	20 - 100	
Phenol-d6	46.2	20 - 100	
p-Terphenyl-d14	68.9	55 - 130	

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Lab #: 58598-010    Sample ID: BM-8-7

Matrix: Solid    Sample Date: 12/10/2007 2:15 PM

### Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	0.25		1.0	0.050	mg/Kg	12/12/2007	SHG071212	12/12/2007	SHG071212

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Arsenic	5.4		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Barium	54		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Beryllium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cadmium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Chromium	42		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cobalt	5.3		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Copper	36		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Lead	49		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Molybdenum	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Nickel	26		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Selenium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Silver	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Thallium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Vanadium	35		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Zinc	100		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211

Analyzed by: CTran

Reviewed by: HDINH

### TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	0.50	mg/Kg	N/A	N/A	12/12/2007	SGC071212
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JAbidog

4-Bromofluorobenzene 117      65 - 135      Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		25	120	mg/Kg	12/11/2007	SDA071211	12/13/2007	SDA071211
In addition, the sample contains 1700 mg/Kg Motor Oil.									
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JHsiang

n-Hexacosane 93.8      50 - 150      Reviewed by: mtran

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Samples Received: 12/11/2007

Sample Collected by: Client

Lab #: 58598-011    Sample ID: BM-9-5    Matrix: Solid    Sample Date: 12/10/2007 1:55 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,1-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2,2-Tetrachloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1,2-Trichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloroethene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,1-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,3-Trichloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dibromoethane (EDB)	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,3-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dichlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
1,4-Dioxane	ND		1.0	200	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2,2-Dichloropropene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Butanone (MEK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chloroethyl-vinyl Ether	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
2-Hexanone	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Chlorotoluene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
4-Methyl-2-Pentanone(MIBK)	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetone	ND		1.0	100	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acetonitrile	ND		1.0	40	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrolein	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Acrylonitrile	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Benzyl Chloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromochloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromodichloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromoform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Bromomethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Disulfide	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Carbon Tetrachloride	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chlorobenzene	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloroform	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212
Chloromethane	ND		1.0	5.0	µg/Kg	N/A	N/A	12/12/2007	SM3071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-011    Sample ID: BM-9-5    Matrix: Solid    Sample Date: 12/10/2007 1:55 PM

### VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
cis-1,2-Dichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
cis-1,3-Dichloropropene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Cyclohexanone	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dibromochloromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dibromomethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Dichlorodifluoromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Diisopropyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Ethyl Benzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Freon 113	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Hexachlorobutadiene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Iodomethane	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Isopropanol	ND	1.0	100	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Isopropylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Methyl-t-butyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Methylene Chloride	ND	1.0	50	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
n-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
n-Propylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Naphthalene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
p-Isopropyltoluene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Pentachloroethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
sec-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Styrene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Amyl Methyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butanol (TBA)	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butyl Ethyl Ether	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
tert-Butylbenzene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Tetrachloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Tetrahydrofuran	ND	1.0	40	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Toluene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,2-Dichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,3-Dichloropropene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
trans-1,4-Dichloro-2-butene	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Trichloroethene	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Trichlorofluoromethane	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Vinyl Acetate	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Vinyl Chloride	ND	1.0	5.0	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212
Xylenes, Total	ND	1.0	10	µg/Kg	N/A	N/A	N/A	12/12/2007	SM3071212

### Surrogate      Surrogate Recovery      Control Limits (%)

4-Bromofluorobenzene	104	60   -   130
Dibromofluoromethane	108	60   -   130
Toluene-d8	98.2	60   -   130

Analyzed by: EricKum

Reviewed by: MaiChiTu

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3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-011    Sample ID: BM-9-5    Matrix: Solid    Sample Date: 12/10/2007 1:55 PM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,2-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,3-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dichlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1,4-Dinitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,4,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,3,5,6-Tetrachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,5-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4,6-Trichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dichlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dimethylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrophenol	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,4-Dinitrotoluene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2,6-Dinitrotoluene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chloronaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Chlorophenol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylnaphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
2-Nitrophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3&4-Methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3,3'-Dichlorobenzidine	ND		1.0	2.5	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
3-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4,6-Dinitro-2-methylphenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Bromophenyl Phenyl Ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloro-3-methylphenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chloroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Chlorophenyl-phenylether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitroaniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
4-Nitrophenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Acenaphthylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Aniline	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Azobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(a)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(b)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(g,h,i)perylene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzo(k)fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzoic Acid	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Benzyl Alcohol	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

12/14/2007 4:21:04 PM - eling

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-011    Sample ID: BM-9-5    Matrix: Solid    Sample Date: 12/10/2007 1:55 PM

### SVOCs: EPA 3545A / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis-(2-Chloroethyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Chloroisopropyl)ether	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)adipate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
bis(2-Ethylhexyl)phthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Butylbenzylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Carbazole	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Chrysene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-butylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Di-n-octylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzo(a,h)anthracene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dibenzofuran	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Dimethylphthalate	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Diphenylamine	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluoranthene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Fluorene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorobutadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachlorocyclopentadiene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Hexachloroethane	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Indeno(1,2,3-cd)pyrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Isophorone	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitroso-di-n-propylamine	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
N-Nitrosodimethylamine	ND		1.0	5.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Naphthalene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Nitrobenzene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
1-Methyl-2-pyrrolidinone (NMP)	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pentachlorophenol	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenanthrene	ND		1.0	0.50	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Phenol	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyrene	ND		1.0	1.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211
Pyridine	ND		1.0	2.0	mg/Kg	12/11/2007	SVS071211	12/12/2007	SVS071211

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Lyu
2,4,6-Tribromophenol	56.8	30	-	100	Reviewed by: mtran
2-Fluorobiphenyl	46.4	20	-	106	
2-Fluorophenol	40.0	20	-	100	
Nitrobenzene-d5	43.3	20	-	100	
Phenol-d6	42.5	20	-	100	
p-Terphenyl-d14	104	55	-	130	

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Burns & McDonnell Engineering  
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So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-011      Sample ID: BM-9-5

Matrix: Solid      Sample Date: 12/10/2007 1:55 PM

### Mercury: EPA 7471B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.050	mg/Kg	12/12/2007	SHG071212	12/12/2007	SHG071212

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3050B / EPA 6010B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Arsenic	2.8		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Barium	94		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Beryllium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cadmium	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Chromium	31		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Cobalt	7.7		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Copper	28		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Lead	22		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Molybdenum	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Nickel	25		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Selenium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Silver	ND		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Thallium	ND		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Vanadium	33		1.0	1.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211
Zinc	70		1.0	2.0	mg/Kg	12/11/2007	SM071211	12/11/2007	SM071211

Analyzed by: CTran

Reviewed by: HDINH

### TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	0.50	mg/Kg	N/A	N/A	12/12/2007	SGC071212
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JAbidog

4-Bromofluorobenzene 113      65 - 135      Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3545A / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	5.0	mg/Kg	12/11/2007	SDA071211	12/12/2007	SDA071211
In addition, the sample contains 83 mg/Kg Motor Oil.									
Surrogate	Surrogate Recovery			Control Limits (%)					Analyzed by: JHsiang

n-Hexacosane 78.3      50 - 150      Reviewed by: mtran

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-012      Sample ID: BM-6

Matrix: Liquid      Sample Date: 12/10/2007 3:35 PM

TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/12/2007	WGC071211
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JAbidog	

4-Bromofluorobenzene

104

65 - 135

Reviewed by: MaiChiTu

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-013    Sample ID: BM-7

Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/12/2007	WOGHEM071211

Analyzed by: MFelix

Reviewed by: rlazaro

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-013    Sample ID: BM-7    Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Methyl-t-butyl Ether	2.3		1.0	1.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

12/14/2007 4:21:04 PM - eling

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393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-013    Sample ID: BM-7

Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	109	60 - 130
Dibromofluoromethane	106	60 - 130
Toluene-d8	97.2	60 - 130

Analyzed by: Bela

Reviewed by: MaiChiTu

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## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-013    Sample ID: BM-7

Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

### SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dichlorobenzene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dinitrobenzene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dichlorobenzene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dinitrobenzene	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dichlorobenzene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dinitrobenzene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1-Methylnaphthalene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,4,6-Tetrachlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,5,6-Tetrachlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,5-Trichlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,6-Trichlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dichlorophenol	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dimethylphenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrophenol	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrotoluene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,6-Dinitrotoluene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chloronaphthalene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylnaphthalene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylphenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitroaniline	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitrophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3&4-Methylphenol	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3,3'-Dichlorobenzidine	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3-Nitroaniline	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4,6-Dinitro-2-methylphenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Bromophenyl Phenyl Ether	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloro-3-methylphenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloroaniline	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chlorophenyl-phenylether	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitroaniline	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitrophenol	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthylene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Aniline	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Anthracene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Azobenzene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)anthracene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)pyrene	ND		1.1	33	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(b)fluoranthene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(g,h,i)perylene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(k)fluoranthene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzoic Acid	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzyl Alcohol	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-013    Sample ID: BM-7

Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

### SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
bis-(2-Chloroethoxy)methane	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis-(2-Chloroethyl)ether	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Chloroisopropyl)ether	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)adipate	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)phthalate	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Butylbenzylphthalate	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Carbazole	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Chrysene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-butylphthalate	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-octylphthalate	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzo(a,h)anthracene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzofuran	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diethylphthalate	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dimethylphthalate	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diphenylamine	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluoranthene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluorene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobenzene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobutadiene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorocyclopentadiene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachloroethane	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Indeno(1,2,3-cd)pyrene	ND		1.1	17	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Isophorone	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
N-Nitroso-di-n-propylamine	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Naphthalene	ND		1.1	28	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Nitrobenzene	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pentachlorophenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenanthrone	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenol	ND		1.1	11	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pyrene	ND		1.1	22	µg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

The reporting limits were raised due to insufficient sample volume (high level of sediment).

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Lyu	Reviewed by: mtran
2,4,6-Tribromophenol	89.5	25	-	115		
2-Fluorobiphenyl	83.3	25	-	106		
2-Fluorophenol	38.7	10	-	100		
Nitrobenzene-d5	74.3	25	-	100		
Phenol-d6	26.2	7	-	100		
p-Terphenyl-d14	98.2	35	-	130		

### Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.0002	mg/L	12/13/2007	WHG071213	12/13/2007	WHG071213
Analyzed by: RWipfler									
Reviewed by: HDINH									

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

12/14/2007 4:21:04 PM - eling

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-013    Sample ID: BM-7

Matrix: Liquid    Sample Date: 12/10/2007 4:15 PM

### Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Arsenic	<b>0.031</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Barium	<b>0.27</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Beryllium	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cadmium	ND		1.0	0.0020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Chromium	<b>0.27</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cobalt	<b>0.042</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Copper	<b>0.11</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Lead	<b>0.083</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Molybdenum	<b>0.0050</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Nickel	<b>0.22</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Selenium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Silver	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Thallium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Vanadium	<b>0.23</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Zinc	<b>0.26</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212

Analyzed by: CTran

Reviewed by: HDINH

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	ND		1.0	50	µg/L	N/A	N/A	12/12/2007	WGC071211
Surrogate	Surrogate Recovery		Control Limits (%)					Analyzed by: JAbidog	

4-Bromofluorobenzene 104 65 - 135      Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	<b>120</b>		0.98	49	µg/L	12/13/2007	WDA071213	12/13/2007	WDA071213
Atypical pattern (C12-C26).									

Surrogate      Surrogate Recovery      Control Limits (%)      Analyzed by: JHsiang  
n-Hexacosane      66.6      50 - 150      Reviewed by: mtran

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-014      Sample ID: BM-8

Matrix: Liquid      Sample Date: 12/10/2007 3:50 PM

n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	430		1.0	5.0	mg/L	N/A	N/A	12/12/2007	WOGHEM071211

Analyzed by: MFelix

Reviewed by: rlazaro

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## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-014    Sample ID: BM-8    Matrix: Liquid    Sample Date: 12/10/2007 3:50 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1,1-Trichloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1,2,2-Tetrachloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1,2-Trichloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloropropene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichlorobenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichloropropane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trichlorobenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trimethylbenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromo-3-Chloropropane	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromoethane (EDB)	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2-Dichlorobenzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloropropene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,3,5-Trimethylbenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,3-Dichlorobenzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,3-Dichloropropene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
1,4-Dichlorobenzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
2,2-Dichloropropene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
2-Chlorotoluene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
4-Chlorotoluene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Benzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Bromobenzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Bromochloromethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Bromodichloromethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Bromoform	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Bromomethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Carbon Tetrachloride	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Chlorobenzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Chloroethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Chloroform	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Chloromethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
cis-1,2-Dichloroethene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Dibromochloromethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Dibromomethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Dichlorodifluoromethane	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Ethyl Benzene	ND	10	5.0	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Hexachlorobutadiene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Isopropylbenzene	ND	10	10	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Methyl-t-butyl Ether	ND	10	10	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
Methylene Chloride	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
n-Butylbenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212
n-Propylbenzene	ND	10	50	µg/L	N/A	N/A	N/A	12/12/2007	WM7071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-014    Sample ID: BM-8    Matrix: Liquid    Sample Date: 12/10/2007 3:50 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		10	50	µg/L	N/A	N/A	12/12/2007	WM7071212
p-Isopropyltoluene	ND		10	50	µg/L	N/A	N/A	12/12/2007	WM7071212
sec-Butylbenzene	ND		10	50	µg/L	N/A	N/A	12/12/2007	WM7071212
Styrene	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
tert-Butylbenzene	ND		10	50	µg/L	N/A	N/A	12/12/2007	WM7071212
Tetrachloroethene	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Toluene	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
trans-1,2-Dichloroethene	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichloroethene	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichlorofluoromethane	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Vinyl Chloride	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Xylenes, Total	ND		10	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212

The reporting limits were raised due to high concentration of heavy hydrocarbons.

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: Bela				
4-Bromofluorobenzene	115	60 - 130			Reviewed by: MaiChiTu				
Dibromofluoromethane	105	60 - 130							
Toluene-d8	96.7	60 - 130							

### Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.0002	mg/L	12/13/2007	WHG071213	12/13/2007	WHG071213

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	ND		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Arsenic	<b>0.011</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Barium	<b>0.094</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Beryllium	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cadmium	ND		1.0	0.0020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Chromium	<b>0.11</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cobalt	<b>0.015</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Copper	<b>0.045</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Lead	<b>0.030</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Molybdenum	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Nickel	<b>0.075</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Selenium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Silver	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Thallium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Vanadium	<b>0.090</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Zinc	<b>0.087</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212

Analyzed by: CTran

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

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## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-014    Sample ID: BM-8

Matrix: Liquid    Sample Date: 12/10/2007 3:50 PM

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	54000		200	10000	µg/L	N/A	N/A	12/12/2007	WGC071211

Atypical pattern.

### Surrogate              Surrogate Recovery              Control Limits (%)

4-Bromofluorobenzene      236 \*\*\*      65 - 135

\*\*\* Surrogate % recovery was outside QC limits due to matrix interference.

Analyzed by: JAbidog

Reviewed by: MaiChiTu

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	61000		96	4800	µg/L	12/13/2007	WDA071213	12/13/2007	WDA071213

### Surrogate              Surrogate Recovery              Control Limits (%)

n-Hexacosane      84.7      50 - 150

Analyzed by: JHsiang

Reviewed by: mtran

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## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-014A Sample ID: BM-8 Floating Product

Matrix: Liquid Sample Date: 12/10/2007 3:50 PM

58598-014A - The letter following the laboratory number indicates an additional aliquot of the sample or a second analytical run where both runs are being reported.

### SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,2,4-Trichlorobenzene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dichlorobenzene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,2-Dinitrobenzene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dichlorobenzene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,3-Dinitrobenzene	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dichlorobenzene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1,4-Dinitrobenzene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
1-Methylnaphthalene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,4,6-Tetrachlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,3,5,6-Tetrachlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,5-Trichlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4,6-Trichlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dichlorophenol	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dimethylphenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrophenol	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,4-Dinitrotoluene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2,6-Dinitrotoluene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chloronaphthalene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Chlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylnaphthalene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Methylphenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitroaniline	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
2-Nitrophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3&4-Methylphenol	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3,3'-Dichlorobenzidine	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
3-Nitroaniline	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4,6-Dinitro-2-methylphenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Bromophenyl Phenyl Ether	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloro-3-methylphenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chloroaniline	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Chlorophenyl-phenylether	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitroaniline	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
4-Nitrophenol	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Acenaphthylene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Aniline	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Anthracene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Azobenzene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)anthracene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(a)pyrene	ND		1.0	3000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(b)fluoranthene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(g,h,i)perylene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzo(k)fluoranthene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Benzoic Acid	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

12/14/2007 4:21:05 PM - eling

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-014A Sample ID: BM-8 Floating Product

Matrix: Liquid Sample Date: 12/10/2007 3:50 PM

58598-014A - The letter following the laboratory number indicates an additional aliquot of the sample or a second analytical run where both runs are being reported.

SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzyl Alcohol	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis-(2-Chloroethoxy)methane	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis-(2-Chloroethyl)ether	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Chloroisopropyl)ether	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)adipate	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
bis(2-Ethylhexyl)phthalate	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Butylbenzylphthalate	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Carbazole	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Chrysene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-butylphthalate	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Di-n-octylphthalate	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzo(a,h)anthracene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dibenzofuran	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diethylphthalate	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Dimethylphthalate	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Diphenylamine	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluoranthene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Fluorene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobenzene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorobutadiene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachlorocyclopentadiene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Hexachloroethane	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Indeno(1,2,3-cd)pyrene	ND		1.0	1500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Isophorone	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
N-Nitroso-di-n-propylamine	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Naphthalene	ND		1.0	2500	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Nitrobenzene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pentachlorophenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenanthrene	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Phenol	ND		1.0	1000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212
Pyrene	ND		1.0	2000	mg/L	12/12/2007	SVW071212	12/12/2007	SVW071212

See Case Narrative on the cover of this report.

Surrogate	Surrogate Recovery	Control Limits (%)			Analyzed by: LYU
2,4,6-Tribromophenol	57.0	25	-	115	Reviewed by: mtran
2-Fluorobiphenyl	86.2	25	-	106	
2-Fluorophenol	52.7	10	-	100	
Nitrobenzene-d5	77.0	25	-	100	
Phenol-d6	47.8	7	-	100	
p-Terphenyl-d14	107	35	-	130	

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab # : 58598-015      Sample ID: BM-9

Matrix: Liquid      Sample Date: 12/10/2007 4:30 PM

n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/12/2007	WOGHEM071211

Analyzed by: MFelix

Reviewed by: rlazaro

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## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-015    Sample ID: BM-9    Matrix: Liquid    Sample Date: 12/10/2007 4:30 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

12/14/2007 4:21:05 PM - eling

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-015    Sample ID: BM-9    Matrix: Liquid    Sample Date: 12/10/2007 4:30 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/12/2007	WM7071212
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/12/2007	WM7071212

### Surrogate      Surrogate Recovery      Control Limits (%)

4-Bromofluorobenzene	109	60	-	130	Analyzed by: Bela
Dibromofluoromethane	104	60	-	130	Reviewed by: MaiChiTu
Toluene-d8	98.4	60	-	130	

### Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Mercury	ND		1.0	0.0002	mg/L	12/13/2007	WHG071213	12/13/2007	WHG071213

Analyzed by: RWipfler

Reviewed by: HDINH

### Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Antimony	<b>0.011</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Arsenic	<b>0.072</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Barium	<b>2.4</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Beryllium	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cadmium	<b>0.0070</b>		1.0	0.0020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Chromium	<b>0.61</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Cobalt	<b>0.17</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Copper	<b>0.64</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Lead	<b>0.86</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Molybdenum	<b>0.022</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Nickel	<b>0.50</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Selenium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Silver	ND		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Thallium	ND		1.0	0.020	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Vanadium	<b>0.58</b>		1.0	0.0050	mg/L	12/12/2007	WM071212	12/13/2007	WM071212
Zinc	<b>1.5</b>		1.0	0.010	mg/L	12/12/2007	WM071212	12/13/2007	WM071212

Analyzed by: CTran

Reviewed by: HDINH

Detection Limit = Detection Limit for Reporting.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

ND = Not Detected at or above the Detection Limit.

Qual = Data Qualifier

12/14/2007 4:21:05 PM - eling

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/11/2007  
Sample Collected by: Client

Lab #: 58598-015    Sample ID: BM-9

Matrix: Liquid    Sample Date: 12/10/2007 4:30 PM

### TPH-Purgeable - GC : EPA 5030B / EPA 8015B

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	180		1.0	50	µg/L	N/A	N/A	12/12/2007	WGC071211

Atypical pattern.

Surrogate              Surrogate Recovery              Control Limits (%)

4-Bromofluorobenzene      383 \*\*\*      65 - 135

Analyzed by: JAbidog

Reviewed by: MaiChiTu

\*\*\* Surrogate % recovery was outside QC limits due to matrix interference.

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	1200		1.1	55	µg/L	12/13/2007	WDA071213	12/13/2007	WDA071213

Not a typical pattern (C9-C40).

Surrogate              Surrogate Recovery              Control Limits (%)

n-Hexacosane      77.8      50 - 150

Analyzed by: JHsiang

Reviewed by: mtran

# Entech Analytical Labs, Inc.

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Method Blank - Solid - TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

QC Batch ID: SGC071212

Validated by: MaiChiTu - 12/13/07

QC Batch Analysis Date: 12/12/2007

Parameter	Result		DF	PQLR	Units
TPH as Gasoline	ND		1	0.50	mg/Kg
Surrogate for Blank	% Recovery	Control Limits			
4-Bromofluorobenzene	106	65 - 135			

LCS / LCSD - Solid - TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

QC Batch ID: SGC071212

Reviewed by: MaiChiTu - 12/13/07

QC Batch ID Analysis Date: 12/12/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<0.50	2.5	2.41	mg/Kg	96.4	65 - 135
Surrogate	% Recovery	Control Limits				
4-Bromofluorobenzene	125.0	65 - 135				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<0.50	2.5	2.53	mg/Kg	101	4.9	30.0	65 - 135
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	126.0	65 - 135						

MS / MSD - Solid - TPH-Purgeable - GC: EPA 5030B (or 5035A for Encore Samples only) / EPA 8015B

QC Batch ID: SGC071212

Reviewed by: MaiChiTu - 12/13/07

QC Batch ID Analysis Date: 12/12/2007

MS Sample Spiked: 58598-002

Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	Recovery Limits	
TPH as Gasoline	ND	2.5	4.56	mg/Kg	12/12/2007	182	65 - 135 ***
***%RPD for MS/MSD were outside the QC limits. The batch was accepted by the LCS/LCSD recoveries.							
Surrogate	% Recovery	Control Limits					
4-Bromofluorobenzene	127.0	65 - 135					

MSD Sample Spiked: 58598-002

Parameter	Sample Result	Spike Amount	Spike Result	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	ND	2.5	2.52	mg/Kg	12/12/2007	101	58	30.0 65 - 135 ***
***%RPD for MS/MSD were outside the QC limits. The batch was accepted by the LCS/LCSD recoveries.								
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	119.0	65 - 135						

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - TPH-Purgeable - GC : EPA 5030B / EPA 8015B

QC Batch ID: WGC071211

Validated by: MaiChiTu - 12/12/07

QC Batch Analysis Date: 12/11/2007

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L
Surrogate for Blank	% Recovery	Control Limits		
4-Bromofluorobenzene	106	65 - 135		

LCS / LCSD - Liquid - TPH-Purgeable - GC : EPA 5030B / EPA 8015B

QC Batch ID: WGC071211

Reviewed by: MaiChiTu - 12/12/07

QC Batch ID Analysis Date: 12/11/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<50	120	122	µg/L	97.6	65 - 135
Surrogate	% Recovery	Control Limits				
4-Bromofluorobenzene	128.0	65 - 135				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<50	120	117	µg/L	93.6	4.2	25.0	65 - 135
Surrogate	% Recovery	Control Limits						
4-Bromofluorobenzene	129.0	65 - 135						

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3071212

Validated by: MaiChiTu - 12/12/07

QC Batch Analysis Date: 12/12/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,1-Trichloroethane	ND	1	5.0	µg/Kg
1,1,2,2-Tetrachloroethane	ND	1	5.0	µg/Kg
1,1,2-Trichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethane	ND	1	5.0	µg/Kg
1,1-Dichloroethene	ND	1	5.0	µg/Kg
1,1-Dichloropropene	ND	1	5.0	µg/Kg
1,2,3-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,3-Trichloropropane	ND	1	5.0	µg/Kg
1,2,4-Trichlorobenzene	ND	1	5.0	µg/Kg
1,2,4-Trimethylbenzene	ND	1	5.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/Kg
1,2-Dibromoethane (EDB)	ND	1	5.0	µg/Kg
1,2-Dichlorobenzene	ND	1	5.0	µg/Kg
1,2-Dichloroethane	ND	1	5.0	µg/Kg
1,2-Dichloropropane	ND	1	5.0	µg/Kg
1,3,5-Trimethylbenzene	ND	1	5.0	µg/Kg
1,3-Dichlorobenzene	ND	1	5.0	µg/Kg
1,3-Dichloropropane	ND	1	5.0	µg/Kg
1,4-Dichlorobenzene	ND	1	5.0	µg/Kg
1,4-Dioxane	ND	1	200	µg/Kg
2,2-Dichloropropane	ND	1	5.0	µg/Kg
2-Butanone (MEK)	ND	1	40	µg/Kg
2-Chloroethyl-vinyl Ether	ND	1	5.0	µg/Kg
2-Chlorotoluene	ND	1	5.0	µg/Kg
2-Hexanone	ND	1	40	µg/Kg
4-Chlorotoluene	ND	1	5.0	µg/Kg
4-Methyl-2-Pentanone(MIBK)	ND	1	40	µg/Kg
Acetone	ND	1	100	µg/Kg
Acetonitrile	ND	1	40	µg/Kg
Acrolein	ND	1	5.0	µg/Kg
Acrylonitrile	ND	1	5.0	µg/Kg
Benzene	ND	1	5.0	µg/Kg
Benzyl Chloride	ND	1	5.0	µg/Kg
Bromobenzene	ND	1	5.0	µg/Kg
Bromochloromethane	ND	1	5.0	µg/Kg
Bromodichloromethane	ND	1	5.0	µg/Kg
Bromoform	ND	1	5.0	µg/Kg
Bromomethane	ND	1	5.0	µg/Kg
Carbon Disulfide	ND	1	5.0	µg/Kg
Carbon Tetrachloride	ND	1	5.0	µg/Kg
Chlorobenzene	ND	1	5.0	µg/Kg
Chloroethane	ND	1	5.0	µg/Kg
Chloroform	ND	1	5.0	µg/Kg
Chloromethane	ND	1	5.0	µg/Kg
cis-1,2-Dichloroethene	ND	1	5.0	µg/Kg
cis-1,3-Dichloropropene	ND	1	5.0	µg/Kg
Cyclohexanone	ND	1	40	µg/Kg
Dibromochloromethane	ND	1	5.0	µg/Kg
Dibromomethane	ND	1	5.0	µg/Kg
Dichlorodifluoromethane	ND	1	5.0	µg/Kg

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Method Blank - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3071212

Validated by: MaiChiTu - 12/12/07

QC Batch Analysis Date: 12/12/2007

Parameter	Result	DF	PQLR	Units
Diisopropyl Ether	ND	1	5.0	µg/Kg
Ethyl Benzene	ND	1	5.0	µg/Kg
Freon 113	ND	1	10	µg/Kg
Hexachlorobutadiene	ND	1	5.0	µg/Kg
Iodomethane	ND	1	10	µg/Kg
Isopropanol	ND	1	100	µg/Kg
Isopropylbenzene	ND	1	5.0	µg/Kg
Methylene Chloride	ND	1	50	µg/Kg
Methyl-t-butyl Ether	ND	1	5.0	µg/Kg
Naphthalene	ND	1	5.0	µg/Kg
n-Butylbenzene	ND	1	5.0	µg/Kg
n-Propylbenzene	ND	1	5.0	µg/Kg
Pentachloroethane	ND	1	5.0	µg/Kg
p-Isopropyltoluene	ND	1	5.0	µg/Kg
sec-Butylbenzene	ND	1	5.0	µg/Kg
Styrene	ND	1	5.0	µg/Kg
tert-Amyl Methyl Ether	ND	1	5.0	µg/Kg
tert-Butanol (TBA)	ND	1	40	µg/Kg
tert-Butyl Ethyl Ether	ND	1	5.0	µg/Kg
tert-Butylbenzene	ND	1	5.0	µg/Kg
Tetrachloroethene	ND	1	5.0	µg/Kg
Tetrahydrofuran	ND	1	40	µg/Kg
Toluene	ND	1	5.0	µg/Kg
trans-1,2-Dichloroethene	ND	1	5.0	µg/Kg
trans-1,3-Dichloropropene	ND	1	5.0	µg/Kg
trans-1,4-Dichloro-2-butene	ND	1	10	µg/Kg
Trichloroethene	ND	1	5.0	µg/Kg
Trichlorofluoromethane	ND	1	5.0	µg/Kg
Vinyl Acetate	ND	1	5.0	µg/Kg
Vinyl Chloride	ND	1	5.0	µg/Kg
Xlenes, Total	ND	1	10	µg/Kg

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	101	60 - 130
Dibromofluoromethane	112	60 - 130
Toluene-d8	101	60 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Solid - VOCs: EPA 5030B (or 5035A for Encore Samples only)/EPA 8260B

QC Batch ID: SM3071212

Reviewed by: MaiChiTu - 12/12/07

QC Batch ID Analysis Date: 12/12/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene		<5.0	40	37.4	µg/Kg	93.5	65 - 135
Benzene		<5.0	40	35.1	µg/Kg	87.8	65 - 135
Chlorobenzene		<5.0	40	39.4	µg/Kg	98.5	65 - 135
Methyl-t-butyl Ether		<5.0	40	38.9	µg/Kg	97.2	65 - 135
Toluene		<5.0	40	34.9	µg/Kg	87.2	65 - 135
Trichloroethene		<5.0	40	33.5	µg/Kg	83.8	65 - 135
Surrogate		% Recovery		Control Limits			
4-Bromofluorobenzene		<b>103.0</b>		60 - 130			
Dibromofluoromethane		<b>116.0</b>		60 - 130			
Toluene-d8		<b>97.6</b>		60 - 130			

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene		<5.0	40	41.9	µg/Kg	105	11	30.0	65 - 135
Benzene		<5.0	40	37.1	µg/Kg	92.8	5.5	30.0	65 - 135
Chlorobenzene		<5.0	40	40.5	µg/Kg	101	2.8	30.0	65 - 135
Methyl-t-butyl Ether		<5.0	40	37.0	µg/Kg	92.5	5.0	30.0	65 - 135
Toluene		<5.0	40	36.5	µg/Kg	91.2	4.5	30.0	65 - 135
Trichloroethene		<5.0	40	35.2	µg/Kg	88.0	4.9	30.0	65 - 135
Surrogate		% Recovery		Control Limits					
4-Bromofluorobenzene		<b>103.0</b>		60 - 130					
Dibromofluoromethane		<b>114.0</b>		60 - 130					
Toluene-d8		<b>96.8</b>		60 - 130					

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS071211

Validated by: mtran - 12/14/07

QC/Prep Date: 12/11/2007

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dichlorobenzene	ND	1	0.50	mg/Kg
1,2-Dinitrobenzene	ND	1	0.50	mg/Kg
1,3-Dichlorobenzene	ND	1	0.50	mg/Kg
1,3-Dinitrobenzene	ND	1	0.50	mg/Kg
1,4-Dichlorobenzene	ND	1	0.50	mg/Kg
1,4-Dinitrobenzene	ND	1	0.50	mg/Kg
1-Methyl-2-pyrrolidinone (NMP)	ND	1	0.50	mg/Kg
1-Methylnaphthalene	ND	1	0.50	mg/Kg
2,3,4,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,3,5,6-Tetrachlorophenol	ND	1	0.50	mg/Kg
2,4,5-Trichlorophenol	ND	1	0.50	mg/Kg
2,4,6-Trichlorophenol	ND	1	0.50	mg/Kg
2,4-Dichlorophenol	ND	1	0.50	mg/Kg
2,4-Dimethylphenol	ND	1	0.50	mg/Kg
2,4-Dinitrophenol	ND	1	2.5	mg/Kg
2,4-Dinitrotoluene	ND	1	0.50	mg/Kg
2,6-Dinitrotoluene	ND	1	1.0	mg/Kg
2-Chloronaphthalene	ND	1	0.50	mg/Kg
2-Chlorophenol	ND	1	1.0	mg/Kg
2-Methylnaphthalene	ND	1	0.50	mg/Kg
2-Methylphenol	ND	1	0.50	mg/Kg
2-Nitroaniline	ND	1	0.50	mg/Kg
2-Nitrophenol	ND	1	0.50	mg/Kg
3&4-Methylphenol	ND	1	0.50	mg/Kg
3,3'-Dichlorobenzidine	ND	1	2.5	mg/Kg
3-Nitroaniline	ND	1	0.50	mg/Kg
4,6-Dinitro-2-methylphenol	ND	1	2.0	mg/Kg
4-Bromophenyl Phenyl Ether	ND	1	0.50	mg/Kg
4-Chloro-3-methylphenol	ND	1	0.50	mg/Kg
4-Chloroaniline	ND	1	0.50	mg/Kg
4-Chlorophenyl-phenylether	ND	1	0.50	mg/Kg
4-Nitroaniline	ND	1	0.50	mg/Kg
4-Nitrophenol	ND	1	2.0	mg/Kg
Acenaphthene	ND	1	1.0	mg/Kg
Acenaphthylene	ND	1	0.50	mg/Kg
Aniline	ND	1	0.50	mg/Kg
Anthracene	ND	1	0.50	mg/Kg
Azobenzene	ND	1	0.50	mg/Kg
Benzo(a)anthracene	ND	1	0.50	mg/Kg
Benzo(a)pyrene	ND	1	0.50	mg/Kg
Benzo(b)fluoranthene	ND	1	0.50	mg/Kg
Benzo(g,h,i)perylene	ND	1	0.50	mg/Kg
Benzo(k)fluoranthene	ND	1	0.50	mg/Kg
Benzoic Acid	ND	1	1.0	mg/Kg
Benzyl Alcohol	ND	1	1.0	mg/Kg
bis-(2-Chloroethoxy)methane	ND	1	0.50	mg/Kg
bis-(2-Chloroethyl)ether	ND	1	0.50	mg/Kg
bis(2-Chloroisopropyl)ether	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)adipate	ND	1	0.50	mg/Kg
bis(2-Ethylhexyl)phthalate	ND	1	0.50	mg/Kg

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Method Blank - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS071211

Validated by: mtran - 12/14/07

QC/Prep Date: 12/11/2007

Parameter	Result	DF	PQLR	Units
Butylbenzylphthalate	ND	1	0.50	mg/Kg
Carbazole	ND	1	0.50	mg/Kg
Chrysene	ND	1	0.50	mg/Kg
Dibenzo(a,h)anthracene	ND	1	0.50	mg/Kg
Dibenzofuran	ND	1	0.50	mg/Kg
Diethylphthalate	ND	1	0.50	mg/Kg
Dimethylphthalate	ND	1	0.50	mg/Kg
Di-n-butylphthalate	ND	1	0.50	mg/Kg
Di-n-octylphthalate	ND	1	0.50	mg/Kg
Diphenylamine	ND	1	0.50	mg/Kg
Fluoranthene	ND	1	0.50	mg/Kg
Fluorene	ND	1	0.50	mg/Kg
Hexachlorobenzene	ND	1	0.50	mg/Kg
Hexachlorobutadiene	ND	1	0.50	mg/Kg
Hexachlorocyclopentadiene	ND	1	0.50	mg/Kg
Hexachloroethane	ND	1	0.50	mg/Kg
Indeno(1,2,3-cd)pyrene	ND	1	0.50	mg/Kg
Isophorone	ND	1	0.50	mg/Kg
Naphthalene	ND	1	0.50	mg/Kg
Nitrobenzene	ND	1	0.50	mg/Kg
N-Nitrosodimethylamine	ND	1	5.0	mg/Kg
N-Nitroso-di-n-propylamine	ND	1	1.0	mg/Kg
Pentachlorophenol	ND	1	0.50	mg/Kg
Phenanthrene	ND	1	0.50	mg/Kg
Phenol	ND	1	2.0	mg/Kg
Pyrene	ND	1	1.0	mg/Kg
Pyridine	ND	1	2.0	mg/Kg

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	<b>52.2</b>	30 - 100
2-Fluorobiphenyl	<b>51.3</b>	20 - 106
2-Fluorophenol	<b>45.3</b>	20 - 100
Nitrobenzene-d5	<b>50.1</b>	20 - 100
Phenol-d6	<b>48.9</b>	20 - 100
p-Terphenyl-d14	<b>92.2</b>	55 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC Batch ID: SVS071211

Reviewed by: mtran - 12/14/07

QC/Prep Date: 12/11/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.2	0.500	mg/Kg	40.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.2	0.560	mg/Kg	44.8	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.2	0.710	mg/Kg	56.8	8.0 - 86.0
2-Chlorophenol	<1.0	1.9	0.930	mg/Kg	49.5	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.9	0.860	mg/Kg	45.7	7.0 - 94.0
4-Nitrophenol	<2.0	1.9	1.05	mg/Kg	55.9	9.0 - 80.0
Acenaphthene	<1.0	1.2	0.730	mg/Kg	58.4	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.2	0.590	mg/Kg	47.2	4.0 - 107
Pentachlorophenol	<0.50	1.9	1.35	mg/Kg	71.8	13 - 122
Phenol	<2.0	1.9	0.820	mg/Kg	43.6	15 - 87.0
Pyrene	<1.0	1.2	1.07	mg/Kg	85.6	38 - 122

## Surrogate

### % Recovery      Control Limits

2,4,6-Tribromophenol	<b>60.6</b>	30 - 100
2-Fluorobiphenyl	<b>54.2</b>	20 - 106
2-Fluorophenol	<b>47.2</b>	20 - 100
Nitrobenzene-d5	<b>53.1</b>	20 - 100
Phenol-d6	<b>47.9</b>	20 - 100
p-Terphenyl-d14	<b>89.2</b>	55 - 130

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	<0.50	1.2	0.520	mg/Kg	41.6	3.9	44.0	11 - 92.0
1,4-Dichlorobenzene	<0.50	1.2	0.530	mg/Kg	42.4	5.5	30.0	11 - 87.0
2,4-Dinitrotoluene	<0.50	1.2	0.700	mg/Kg	56.0	1.4	38.0	8.0 - 86.0
2-Chlorophenol	<1.0	1.9	0.830	mg/Kg	44.1	11	31.0	13 - 97.0
4-Chloro-3-methylphenol	<0.50	1.9	0.860	mg/Kg	45.7	0.0	38.0	7.0 - 94.0
4-Nitrophenol	<2.0	1.9	1.01	mg/Kg	53.7	3.9	56.0	9.0 - 80.0
Acenaphthene	<1.0	1.2	0.680	mg/Kg	54.4	7.1	31.0	18 - 93.0
N-Nitroso-di-n-propylamine	<1.0	1.2	0.580	mg/Kg	46.4	1.7	43.0	4.0 - 107
Pentachlorophenol	<0.50	1.9	1.30	mg/Kg	69.1	3.8	39.0	13 - 122
Phenol	<2.0	1.9	0.730	mg/Kg	38.8	12	38.0	15 - 87.0
Pyrene	<1.0	1.2	1.14	mg/Kg	91.2	6.3	32.0	38 - 122

## Surrogate

### % Recovery      Control Limits

2,4,6-Tribromophenol	<b>65.1</b>	30 - 100
2-Fluorobiphenyl	<b>51.8</b>	20 - 106
2-Fluorophenol	<b>44.9</b>	20 - 100
Nitrobenzene-d5	<b>51.9</b>	20 - 100
Phenol-d6	<b>41.9</b>	20 - 100
p-Terphenyl-d14	<b>104.0</b>	55 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

MS / MSD - Solid - SVOCs: EPA 3545A / EPA 8270C

QC/Prep Batch ID: SVS071211

Reviewed by: mtran - 12/14/07

QC/Prep Date: 12/11/2007

## MS      Sample Spiked: 58598-011

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene	ND	1.2	0.660	mg/Kg	12/12/2007	52.8	16 - 120
1,4-Dichlorobenzene	ND	1.2	0.570	mg/Kg	12/12/2007	45.6	20 - 120
2,4-Dinitrotoluene	ND	1.2	0.560	mg/Kg	12/12/2007	44.8	24 - 140
2-Chlorophenol	ND	1.9	0.960	mg/Kg	12/12/2007	51.1	23 - 134
4-Chloro-3-methylphenol	ND	1.9	0.820	mg/Kg	12/12/2007	43.6	22 - 140
4-Nitrophenol	ND	1.9	0.750	mg/Kg	12/12/2007	39.9	5.0 - 130
Acenaphthene	ND	1.2	0.650	mg/Kg	12/12/2007	52.0	20 - 140
N-Nitroso-di-n-propylamine	ND	1.2	0.550	mg/Kg	12/12/2007	44.0	10 - 130
Pentachlorophenol	ND	1.9	0.820	mg/Kg	12/12/2007	43.6	15 - 140
Phenol	ND	1.9	0.840	mg/Kg	12/12/2007	44.7	5.0 - 110
Pyrene	ND	1.2	1.03	mg/Kg	12/12/2007	82.4	35 - 140
<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>					
2,4,6-Tribromophenol	<b>51.1</b>	30 - 100					
2-Fluorobiphenyl	<b>51.3</b>	20 - 106					
2-Fluorophenol	<b>53.1</b>	20 - 100					
Nitrobenzene-d5	<b>57.3</b>	20 - 100					
Phenol-d6	<b>54.0</b>	20 - 100					
p-Terphenyl-d14	<b>104.0</b>	55 - 130					

## MSD      Sample Spiked: 58598-011

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene	ND	1.2	0.470	mg/Kg	12/12/2007	37.6	34	44.0	16 - 120
1,4-Dichlorobenzene	ND	1.2	0.460	mg/Kg	12/12/2007	36.8	21	30.0	20 - 120
2,4-Dinitrotoluene	ND	1.2	0.510	mg/Kg	12/12/2007	40.8	9.3	38.0	24 - 140
2-Chlorophenol	ND	1.9	0.780	mg/Kg	12/12/2007	41.5	21	31.0	23 - 134
4-Chloro-3-methylphenol	ND	1.9	0.740	mg/Kg	12/12/2007	39.4	10	38.0	22 - 140
4-Nitrophenol	ND	1.9	0.800	mg/Kg	12/12/2007	42.6	6.5	56.0	5.0 - 130
Acenaphthene	ND	1.2	0.570	mg/Kg	12/12/2007	45.6	13	31.0	20 - 140
N-Nitroso-di-n-propylamine	ND	1.2	0.510	mg/Kg	12/12/2007	40.8	7.5	43.0	10 - 130
Pentachlorophenol	ND	1.9	1.10	mg/Kg	12/12/2007	58.5	29	39.0	15 - 140
Phenol	ND	1.9	0.680	mg/Kg	12/12/2007	36.2	21	38.0	5.0 - 110
Pyrene	ND	1.2	1.23	mg/Kg	12/12/2007	98.4	18	32.0	35 - 140
<b>Surrogate</b>	<b>% Recovery</b>	<b>Control Limits</b>							
2,4,6-Tribromophenol	<b>55.9</b>	30 - 100							
2-Fluorobiphenyl	<b>43.8</b>	20 - 106							
2-Fluorophenol	<b>41.2</b>	20 - 100							
Nitrobenzene-d5	<b>48.0</b>	20 - 100							
Phenol-d6	<b>39.9</b>	20 - 100							
p-Terphenyl-d14	<b>102.0</b>	55 - 130							

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Method Blank - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC/Prep Batch ID: SVW071212

Validated by: mtran - 12/14/07

QC/Prep Date: 12/12/2007

Parameter	Result	DF	PQLR	Units
1,2,4-Trichlorobenzene	ND	1	25	µg/L
1,2-Dichlorobenzene	ND	1	10	µg/L
1,2-Dinitrobenzene	ND	1	10	µg/L
1,3-Dichlorobenzene	ND	1	25	µg/L
1,3-Dinitrobenzene	ND	1	15	µg/L
1,4-Dichlorobenzene	ND	1	2500	mg/L
1,4-Dinitrobenzene	ND	1	1000	mg/L
1-Methylnaphthalene	ND	1	25	µg/L
2,3,4,6-Tetrachlorophenol	ND	1	10	µg/L
2,3,5,6-Tetrachlorophenol	ND	1	1000	mg/L
2,4,5-Trichlorophenol	ND	1	10	µg/L
2,4,6-Trichlorophenol	ND	1	1000	mg/L
2,4-Dichlorophenol	ND	1	2500	mg/L
2,4-Dimethylphenol	ND	1	10	µg/L
2,4-Dinitrophenol	ND	1	20	µg/L
2,4-Dinitrotoluene	ND	1	10	µg/L
2,6-Dinitrotoluene	ND	1	1000	mg/L
2-Chloronaphthalene	ND	1	10	µg/L
2-Chlorophenol	ND	1	10	µg/L
2-Methylnaphthalene	ND	1	25	µg/L
2-Methylphenol	ND	1	10	µg/L
2-Nitroaniline	ND	1	1500	mg/L
2-Nitrophenol	ND	1	1000	mg/L
3&4-Methylphenol	ND	1	15	µg/L
3,3'-Dichlorobenzidine	ND	1	15	µg/L
3-Nitroaniline	ND	1	10	µg/L
4,6-Dinitro-2-methylphenol	ND	1	1000	mg/L
4-Bromophenyl Phenyl Ether	ND	1	20	µg/L
4-Chloro-3-methylphenol	ND	1	10	µg/L
4-Chloroaniline	ND	1	20	µg/L
4-Chlorophenyl-phenylether	ND	1	10	µg/L
4-Nitroaniline	ND	1	20	µg/L
4-Nitrophenol	ND	1	15	µg/L
Acenaphthene	ND	1	10	µg/L
Acenaphthylene	ND	1	10	µg/L
Aniline	ND	1	20	µg/L
Anthracene	ND	1	10	µg/L
Azobenzene	ND	1	10	µg/L
Benzo(a)anthracene	ND	1	2000	mg/L
Benzo(a)pyrene	ND	1	30	µg/L
Benzo(b)fluoranthene	ND	1	10	µg/L
Benzo(g,h,i)perylene	ND	1	10	µg/L
Benzo(k)fluoranthene	ND	1	10	µg/L
Benzoic Acid	ND	1	1500	mg/L
Benzyl Alcohol	ND	1	20	µg/L
bis-(2-Chloroethoxy)methane	ND	1	25	µg/L
bis-(2-Chloroethyl)ether	ND	1	10	µg/L
bis(2-Chloroisopropyl)ether	ND	1	1000	mg/L
bis(2-Ethylhexyl)adipate	ND	1	1000	mg/L
bis(2-Ethylhexyl)phthalate	ND	1	10	µg/L
Butylbenzylphthalate	ND	1	25	µg/L

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC/Prep Batch ID: SVW071212

Validated by: mtran - 12/14/07

QC/Prep Date: 12/12/2007

Parameter	Result	DF	PQLR	Units
Carbazole	ND	1	10	µg/L
Chrysene	ND	1	2000	mg/L
Dibenzo(a,h)anthracene	ND	1	1000	mg/L
Dibenzofuran	ND	1	15	µg/L
Diethylphthalate	ND	1	10	µg/L
Dimethylphthalate	ND	1	10	µg/L
Di-n-butylphthalate	ND	1	25	µg/L
Di-n-octylphthalate	ND	1	10	µg/L
Diphenylamine	ND	1	1000	mg/L
Fluoranthene	ND	1	20	µg/L
Fluorene	ND	1	10	µg/L
Hexachlorobenzene	ND	1	20	µg/L
Hexachlorobutadiene	ND	1	20	µg/L
Hexachlorocyclopentadiene	ND	1	25	µg/L
Hexachloroethane	ND	1	10	µg/L
Indeno(1,2,3-cd)pyrene	ND	1	15	µg/L
Isophorone	ND	1	10	µg/L
Naphthalene	ND	1	25	µg/L
Nitrobenzene	ND	1	1000	mg/L
N-Nitroso-di-n-propylamine	ND	1	10	µg/L
Pentachlorophenol	ND	1	10	µg/L
Phenanthrene	ND	1	10	µg/L
Phenol	ND	1	1000	mg/L
Pyrene	ND	1	2000	mg/L

Surrogate for Blank	% Recovery	Control Limits
2,4,6-Tribromophenol	32.5	25 - 115
2-Fluorobiphenyl	39.8	25 - 106
2-Fluorophenol	42.2	10 - 100
Nitrobenzene-d5	47.5	25 - 100
Phenol-d6	39.2	7 - 100
p-Terphenyl-d14	55.9	35 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Liquid - SVOCs: EPA 3535A / EPA 3510C / EPA 8270C

QC Batch ID: SVW071212

Reviewed by: mtran - 12/14/07

QC/Prep Date: 12/12/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,2,4-Trichlorobenzene		<25	50	18.9	µg/L	37.8	15 - 130
1,4-Dichlorobenzene		<25	50	19.9	µg/L	39.8	24 - 130
2,4-Dinitrotoluene		<10	50	23.0	µg/L	46.0	26 - 130
2-Chlorophenol		<10	75	30.0	µg/L	40.0	23 - 130
4-Chloro-3-methylphenol		<10	75	29.8	µg/L	39.7	17 - 130
4-Nitrophenol		<15	75	38.6	µg/L	51.5	13 - 130
Acenaphthene		<10	50	19.5	µg/L	39.0	25 - 130
N-Nitroso-di-n-propylamine		<10	50	21.1	µg/L	42.2	16 - 130
Pentachlorophenol		<10	75	35.5	µg/L	47.3	24 - 130
Phenol		<10	75	25.0	µg/L	33.3	5.0 - 130
Pyrene		<20	50	32.5	µg/L	65.0	35 - 130
Surrogate	% Recovery	Control Limits					
2,4,6-Tribromophenol	31.6	25	-	115			
2-Fluorobiphenyl	39.7	25	-	106			
2-Fluorophenol	39.2	10	-	100			
Nitrobenzene-d5	48.7	25	-	100			
Phenol-d6	38.4	7	-	100			
p-Terphenyl-d14	53.0	35	-	130			

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,2,4-Trichlorobenzene		<25	50	15.3	ug/L	30.6	21	29.0	15 - 130
1,4-Dichlorobenzene		<25	50	17.7	µg/L	35.4	12	38.0	24 - 130
2,4-Dinitrotoluene		<10	50	21.8	µg/L	43.6	5.4	37.0	26 - 130
2-Chlorophenol		<10	75	29.4	µg/L	39.2	2.0	35.0	23 - 130
4-Chloro-3-methylphenol		<10	75	24.3	µg/L	32.4	20	36.0	17 - 130
4-Nitrophenol		<15	75	38.8	µg/L	51.7	0.52	34.0	13 - 130
Acenaphthene		<10	50	16.5	µg/L	33.0	17	32.0	25 - 130
N-Nitroso-di-n-propylamine		<10	50	19.3	µg/L	38.6	8.9	38.0	16 - 130
Pentachlorophenol		<10	75	34.9	µg/L	46.5	1.7	36.0	24 - 130
Phenol		<10	75	25.7	µg/L	34.3	2.8	47.0	5.0 - 130
Pyrene		<20	50	31.7	µg/L	63.4	2.5	29.0	35 - 130
Surrogate	% Recovery	Control Limits							
2,4,6-Tribromophenol	29.2	25	-	115					
2-Fluorobiphenyl	32.1	25	-	106					
2-Fluorophenol	35.2	10	-	100					
Nitrobenzene-d5	40.0	25	-	100					
Phenol-d6	34.4	7	-	100					
p-Terphenyl-d14	50.7	35	-	130					

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM7071212

Validated by: MaiChiTu - 12/13/07

QC Batch Analysis Date: 12/12/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,1-Trichloroethane	ND	1	0.50	µg/L
1,1,2,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,2-Trichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethene	ND	1	0.50	µg/L
1,1-Dichloropropene	ND	1	0.50	µg/L
1,2,3-Trichlorobenzene	ND	1	5.0	µg/L
1,2,3-Trichloropropane	ND	1	0.50	µg/L
1,2,4-Trichlorobenzene	ND	1	5.0	µg/L
1,2,4-Trimethylbenzene	ND	1	5.0	µg/L
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/L
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichlorobenzene	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
1,2-Dichloropropane	ND	1	0.50	µg/L
1,3,5-Trimethylbenzene	ND	1	5.0	µg/L
1,3-Dichlorobenzene	ND	1	0.50	µg/L
1,3-Dichloropropane	ND	1	0.50	µg/L
1,4-Dichlorobenzene	ND	1	0.50	µg/L
2,2-Dichloropropane	ND	1	0.50	µg/L
2-Chlorotoluene	ND	1	5.0	µg/L
4-Chlorotoluene	ND	1	5.0	µg/L
Benzene	ND	1	0.50	µg/L
Bromobenzene	ND	1	0.50	µg/L
Bromochloromethane	ND	1	0.50	µg/L
Bromodichloromethane	ND	1	0.50	µg/L
Bromoform	ND	1	0.50	µg/L
Bromomethane	ND	1	0.50	µg/L
Carbon Tetrachloride	ND	1	0.50	µg/L
Chlorobenzene	ND	1	0.50	µg/L
Chloroethane	ND	1	0.50	µg/L
Chloroform	ND	1	0.50	µg/L
Chloromethane	ND	1	0.50	µg/L
cis-1,2-Dichloroethene	ND	1	0.50	µg/L
Dibromochloromethane	ND	1	0.50	µg/L
Dibromomethane	ND	1	0.50	µg/L
Dichlorodifluoromethane	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Hexachlorobutadiene	ND	1	5.0	µg/L
Isopropylbenzene	ND	1	1.0	µg/L
Methylene Chloride	ND	1	5.0	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
Naphthalene	ND	1	5.0	µg/L
n-Butylbenzene	ND	1	5.0	µg/L
n-Propylbenzene	ND	1	5.0	µg/L
p-Isopropyltoluene	ND	1	5.0	µg/L
sec-Butylbenzene	ND	1	5.0	µg/L
Styrene	ND	1	0.50	µg/L
tert-Butylbenzene	ND	1	5.0	µg/L

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201**

**Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater**

**QC Batch ID: WM7071212**

Validated by: MaiChiTu - 12/13/07

**QC Batch Analysis Date: 12/12/2007**

<b>Parameter</b>	<b>Result</b>	<b>DF</b>	<b>PQLR</b>	<b>Units</b>
Tetrachloroethene	ND	1	0.50	µg/L
Toluene	ND	1	0.50	µg/L
trans-1,2-Dichloroethene	ND	1	0.50	µg/L
Trichloroethene	ND	1	0.50	µg/L
Trichlorofluoromethane	ND	1	0.50	µg/L
Vinyl Chloride	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L
<b>Surrogate for Blank</b>	<b>% Recovery</b>	<b>Control Limits</b>		
4-Bromofluorobenzene	<b>108</b>	60	-	130
Dibromofluoromethane	<b>107</b>	60	-	130
Toluene-d8	<b>98.5</b>	60	-	130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM7071212

Reviewed by: MaiChiTu - 12/13/07

QC Batch ID Analysis Date: 12/12/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene		<0.50	20	20.1	µg/L	101	70 - 130
Benzene		<0.50	20	18.1	µg/L	90.4	70 - 130
Chlorobenzene		<0.50	20	16.3	µg/L	81.5	70 - 130
Methyl-t-butyl Ether		<1.0	20	20.8	µg/L	104	70 - 130
Toluene		<0.50	20	16.9	µg/L	84.6	70 - 130
Trichloroethene		<0.50	20	17.1	µg/L	85.5	70 - 130

## Surrogate

	% Recovery	Control Limits
4-Bromofluorobenzene	111.0	60 - 130
Dibromofluoromethane	111.0	60 - 130
Toluene-d8	99.9	60 - 130

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene		<0.50	20	21.6	µg/L	108	7.1	25.0	70 - 130
Benzene		<0.50	20	19.8	µg/L	98.8	8.8	25.0	70 - 130
Chlorobenzene		<0.50	20	17.7	µg/L	88.4	8.1	25.0	70 - 130
Methyl-t-butyl Ether		<1.0	20	22.1	µg/L	110	6.1	25.0	70 - 130
Toluene		<0.50	20	18.3	µg/L	91.6	8.0	25.0	70 - 130
Trichloroethene		<0.50	20	19.0	µg/L	94.8	10	25.0	70 - 130

## Surrogate

	% Recovery	Control Limits
4-Bromofluorobenzene	106.0	60 - 130
Dibromofluoromethane	108.0	60 - 130
Toluene-d8	96.8	60 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Solid - TPH-Extractable: EPA 3545A / EPA 8015B(M)

QC/Prep Batch ID: SDA071211

Validated by: mtran - 12/12/07

QC/Prep Date: 12/11/2007

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	5.0	mg/Kg
Surrogate for Blank	% Recovery	Control Limits		
n-Hexacosane	87.0	50 - 150		

LCS / LCSD - Solid - TPH-Extractable: EPA 3545A / EPA 8015B(M)

QC Batch ID: SDA071211

Reviewed by: mtran - 12/12/07

QC/Prep Date: 12/11/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<5.0	100	78.5	mg/Kg	78.5	45 - 140
TPH as Motor Oil	<20	100	71.4	mg/Kg	71.4	45 - 140
Surrogate	% Recovery	Control Limits				
n-Hexacosane	75.5	50 - 150				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<5.0	100	76.2	mg/Kg	76.2	2.9	30.0	45 - 140
TPH as Motor Oil	<20	100	71.5	mg/Kg	71.5	0.15	30.0	45 - 140
Surrogate	% Recovery	Control Limits						
n-Hexacosane	74.8	50 - 150						

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B(M)

QC/Prep Batch ID: WDA071213

Validated by: mtran - 12/14/07

QC/Prep Date: 12/13/2007

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L
Surrogate for Blank	% Recovery	Control Limits		
n-Hexacosane	84.5	50 - 150		

LCS / LCSD - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B(M)

QC Batch ID: WDA071213

Reviewed by: mtran - 12/14/07

QC/Prep Date: 12/13/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	735	µg/L	73.5	45 - 140
TPH as Motor Oil	<200	1000	719	µg/L	71.9	45 - 140
Surrogate	% Recovery	Control Limits				
n-Hexacosane	82.0	50 - 150				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	751	µg/L	75.1	2.2	25.0	45 - 140
TPH as Motor Oil	<200	1000	733	µg/L	73.3	1.9	25.0	45 - 140
Surrogate	% Recovery	Control Limits						
n-Hexacosane	83.9	50 - 150						

# Entech Analytical Labs, Inc.

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3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200 Fax: (408) 588-0201

LCS / LCSD - Solid - Mercury: EPA 7471B

QC Batch ID: SHG071212

Reviewed by: HDINH - 12/12/07

QC/Prep Date: 12/12/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Mercury	<0.050	0.20	0.193	mg/Kg	96.6	75 - 125

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	<0.050	0.20	0.190	mg/Kg	94.8	1.8	30.0	75 - 125

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Solid - Metals by ICP: EPA 3050B / EPA 6010B

QC Batch ID: SM071211

Reviewed by: HDINH - 12/12/07

QC/Prep Date: 12/11/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Antimony		<1.0	50	46.2	mg/Kg	92.5	70 - 130
Arsenic		<1.0	50	46.6	mg/Kg	93.1	70 - 130
Barium		<1.0	50	50.6	mg/Kg	101	70 - 130
Beryllium		<1.0	50	47.1	mg/Kg	94.3	70 - 130
Cadmium		<1.0	50	47.9	mg/Kg	95.8	70 - 130
Chromium		<1.0	50	50.2	mg/Kg	100	70 - 130
Cobalt		<1.0	50	49.8	mg/Kg	99.6	70 - 130
Copper		<1.0	50	49.9	mg/Kg	99.8	70 - 130
Lead		<1.0	50	49.3	mg/Kg	98.6	70 - 130
Molybdenum		<1.0	50	49.8	mg/Kg	99.7	70 - 130
Nickel		<1.0	50	49.8	mg/Kg	99.6	70 - 130
Selenium		<2.0	50	43.6	mg/Kg	87.3	70 - 130
Silver		<1.0	50	48.6	mg/Kg	97.2	70 - 130
Thallium		<2.0	50	46.1	mg/Kg	92.2	70 - 130
Vanadium		<1.0	50	50.4	mg/Kg	101	70 - 130
Zinc		<2.0	50	47.8	mg/Kg	95.5	70 - 130

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony		<1.0	50	46.7	mg/Kg	93.3	0.91	30.0	70 - 130
Arsenic		<1.0	50	46.5	mg/Kg	93.0	0.13	30.0	70 - 130
Barium		<1.0	50	49.8	mg/Kg	99.6	1.5	30.0	70 - 130
Beryllium		<1.0	50	47.9	mg/Kg	95.8	1.7	30.0	70 - 130
Cadmium		<1.0	50	47.1	mg/Kg	94.3	1.6	30.0	70 - 130
Chromium		<1.0	50	49.5	mg/Kg	99.1	1.4	30.0	70 - 130
Cobalt		<1.0	50	49.1	mg/Kg	98.3	1.3	30.0	70 - 130
Copper		<1.0	50	49.2	mg/Kg	98.4	1.5	30.0	70 - 130
Lead		<1.0	50	49.6	mg/Kg	99.1	0.51	30.0	70 - 130
Molybdenum		<1.0	50	49.8	mg/Kg	99.5	0.15	30.0	70 - 130
Nickel		<1.0	50	49.2	mg/Kg	98.4	1.3	30.0	70 - 130
Selenium		<2.0	50	43.3	mg/Kg	86.6	0.79	30.0	70 - 130
Silver		<1.0	50	47.6	mg/Kg	95.3	2.0	30.0	70 - 130
Thallium		<2.0	50	47.3	mg/Kg	94.5	2.5	30.0	70 - 130
Vanadium		<1.0	50	49.6	mg/Kg	99.1	1.7	30.0	70 - 130
Zinc		<2.0	50	47.1	mg/Kg	94.1	1.5	30.0	70 - 130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

MS / MSD - Solid - Metals by ICP: EPA 3050B / EPA 6010B

QC/Prep Batch ID: SM071211

Reviewed by: HDINH - 12/12/07

QC/Prep Date: 12/11/2007

## MS      Sample Spiked: 58598-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits	
Antimony	ND	50	11.9	mg/Kg	12/11/2007	23.9	70 - 130	***
Arsenic	5.07	50	47.6	mg/Kg	12/11/2007	85.1	70 - 130	
Barium	21.1	50	70.0	mg/Kg	12/11/2007	97.7	70 - 130	
Beryllium	ND	50	42.9	mg/Kg	12/11/2007	85.7	70 - 130	
Cadmium	1.39	50	44.3	mg/Kg	12/11/2007	85.8	70 - 130	
Chromium	44.4	50	89.2	mg/Kg	12/11/2007	89.7	70 - 130	
Cobalt	14.2	50	58.8	mg/Kg	12/11/2007	89.3	70 - 130	
Copper	19.0	50	67.4	mg/Kg	12/11/2007	96.8	70 - 130	
Lead	6.02	50	48.5	mg/Kg	12/11/2007	84.9	70 - 130	
Molybdenum	ND	50	41.3	mg/Kg	12/11/2007	82.6	70 - 130	
Nickel	64.9	50	110	mg/Kg	12/11/2007	91.2	70 - 130	
Selenium	ND	50	37.6	mg/Kg	12/11/2007	75.2	70 - 130	
Silver	ND	50	43.9	mg/Kg	12/11/2007	87.8	70 - 130	
Thallium	ND	50	37.2	mg/Kg	12/11/2007	74.4	70 - 130	
Vanadium	35.8	50	82.1	mg/Kg	12/11/2007	92.5	70 - 130	
Zinc	50.7	50	103	mg/Kg	12/11/2007	105	70 - 130	

## MSD      Sample Spiked: 58598-003

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits	
Antimony	ND	50	12.0	mg/Kg	12/11/2007	23.9	0.31	30.0	70 - 130	***
Arsenic	5.07	50	47.8	mg/Kg	12/11/2007	85.4	0.36	30.0	70 - 130	
Barium	21.1	50	69.7	mg/Kg	12/11/2007	97.3	0.33	30.0	70 - 130	
Beryllium	ND	50	44.0	mg/Kg	12/11/2007	88.0	2.6	30.0	70 - 130	
Cadmium	1.39	50	45.4	mg/Kg	12/11/2007	88.1	2.5	30.0	70 - 130	
Chromium	44.4	50	91.4	mg/Kg	12/11/2007	94.0	2.4	30.0	70 - 130	
Cobalt	14.2	50	58.4	mg/Kg	12/11/2007	88.5	0.63	30.0	70 - 130	
Copper	19.0	50	69.5	mg/Kg	12/11/2007	101	3.0	30.0	70 - 130	
Lead	6.02	50	49.3	mg/Kg	12/11/2007	86.6	1.7	30.0	70 - 130	
Molybdenum	ND	50	41.9	mg/Kg	12/11/2007	83.7	1.4	30.0	70 - 130	
Nickel	64.9	50	110	mg/Kg	12/11/2007	90.9	0.15	30.0	70 - 130	
Selenium	ND	50	38.1	mg/Kg	12/11/2007	76.2	1.3	30.0	70 - 130	
Silver	ND	50	44.9	mg/Kg	12/11/2007	89.9	2.4	30.0	70 - 130	
Thallium	ND	50	38.1	mg/Kg	12/11/2007	76.2	2.4	30.0	70 - 130	
Vanadium	35.8	50	83.9	mg/Kg	12/11/2007	96.2	2.2	30.0	70 - 130	
Zinc	50.7	50	98.7	mg/Kg	12/11/2007	96.0	4.5	30.0	70 - 130	

\*\*\*All MS/MSD recoveries that do not fall within the control limits are out due to the nature of the sample matrix. The batch was accepted by the LCS/LCSD recoveries.

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200    Fax: (408) 588-0201**

**LCS / LCSD - Liquid - Mercury: EPA 7470A for Water and Groundwater / EPA 245.1 for Wastewater**

**QC Batch ID: WHG071213**

Reviewed by: rlazaro - 12/13/07

**QC/Prep Date: 12/13/2007**

**LCS**

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Mercury	<0.0002	0.0020	0.00173	mg/L	86.6	85 - 115

**LCSD**

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Mercury	<0.0002	0.0020	0.00210	mg/L	105	19	25.0	85 - 115

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Liquid - Metals by ICP: EPA 3010A / EPA 6010B for Groundwater and Water - EPA 200.7  
for Wastewater

QC Batch ID: WM071212

Reviewed by: HDINH - 12/12/07

QC/Prep Date: 12/12/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Antimony		<0.010	0.50	0.505	mg/L	101	85 - 115
Arsenic		<0.010	0.50	0.478	mg/L	95.6	85 - 115
Barium		<0.0050	0.50	0.518	mg/L	104	85 - 115
Beryllium		<0.0050	0.50	0.480	mg/L	95.9	85 - 115
Cadmium		<0.0020	0.50	0.493	mg/L	98.7	85 - 115
Chromium		<0.0050	0.50	0.516	mg/L	103	85 - 115
Cobalt		<0.0050	0.50	0.510	mg/L	102	85 - 115
Copper		<0.0050	0.50	0.509	mg/L	102	85 - 115
Lead		<0.0050	0.50	0.500	mg/L	100	85 - 115
Molybdenum		<0.0050	0.50	0.504	mg/L	101	85 - 115
Nickel		<0.0050	0.50	0.516	mg/L	103	85 - 115
Selenium		<0.020	0.50	0.457	mg/L	91.4	85 - 115
Silver		<0.0050	0.50	0.499	mg/L	99.8	85 - 115
Thallium		<0.020	0.50	0.470	mg/L	94.0	85 - 115
Vanadium		<0.0050	0.50	0.513	mg/L	103	85 - 115
Zinc		<0.010	0.50	0.495	mg/L	99.1	85 - 115

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Antimony		<0.010	0.50	0.513	mg/L	103	1.6	25.0	85 - 115
Arsenic		<0.010	0.50	0.484	mg/L	96.8	1.2	25.0	85 - 115
Barium		<0.0050	0.50	0.520	mg/L	104	0.48	25.0	85 - 115
Beryllium		<0.0050	0.50	0.486	mg/L	97.2	1.3	25.0	85 - 115
Cadmium		<0.0020	0.50	0.491	mg/L	98.2	0.43	25.0	85 - 115
Chromium		<0.0050	0.50	0.515	mg/L	103	0.31	25.0	85 - 115
Cobalt		<0.0050	0.50	0.509	mg/L	102	0.20	25.0	85 - 115
Copper		<0.0050	0.50	0.507	mg/L	101	0.37	25.0	85 - 115
Lead		<0.0050	0.50	0.512	mg/L	102	2.3	25.0	85 - 115
Molybdenum		<0.0050	0.50	0.513	mg/L	103	1.8	25.0	85 - 115
Nickel		<0.0050	0.50	0.512	mg/L	102	0.84	25.0	85 - 115
Selenium		<0.020	0.50	0.458	mg/L	91.6	0.26	25.0	85 - 115
Silver		<0.0050	0.50	0.499	mg/L	99.8	0.020	25.0	85 - 115
Thallium		<0.020	0.50	0.480	mg/L	96.0	2.1	25.0	85 - 115
Vanadium		<0.0050	0.50	0.512	mg/L	102	0.059	25.0	85 - 115
Zinc		<0.010	0.50	0.492	mg/L	98.3	0.79	25.0	85 - 115

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201**

**LCS / LCSD - Liquid - n-Hexane extractable material (HEM): EPA 1664**

**QC Batch ID: WOGHEM071211**

Reviewed by: rlazaro - 12/13/07

**QC Batch ID Analysis Date: 12/12/2007**

**LCS**

<b>Parameter</b>	<b>Method Blank</b>	<b>Spike Amt</b>	<b>SpikeResult</b>	<b>Units</b>	<b>% Recovery</b>	<b>Recovery Limits</b>
Oil and Grease (HEM)	<5.0	20	17.1	mg/L	85.5	78 - 114

**LCSD**

<b>Parameter</b>	<b>Method Blank</b>	<b>Spike Amt</b>	<b>SpikeResult</b>	<b>Units</b>	<b>% Recovery</b>	<b>RPD</b>	<b>RPD Limits</b>	<b>Recovery Limits</b>
Oil and Grease (HEM)	<5.0	20	16.9	mg/L	84.5	1.2	18.0	78 - 114

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201**

**MS / MSD - Liquid - n-Hexane extractable material (HEM): EPA 1664**

**QC Batch ID: WOGHEM071211**

Reviewed by: rlazaro - 12/13/07

**QC Batch ID Analysis Date: 12/12/2007**

**MS      Sample Spiked: 58598-005**

Parameter	Sample Result	Spike Amount	Spike Result	Analysis Units	Date	% Recovery	Recovery Limits
Oil and Grease (HEM)	ND	20	3.50	mg/L	12/12/2007	17.5	78 - 114 ***

\*\*\*All MS/MSD recoveries do not fall within the control limits are out due to the nature of the sample matrix. The batch was accepted by the LCS/LCSD recoveries.



## Request for Chemical Analysis and Chain of Custody Record

# 3 DAYS

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Phone: (650) 871-2926 Fax: (650) 871-2653  
Attention: Patrick Bratton

Laboratory: Extract  
Address:  
City/State/Zip:  
Telephone:

Project Number: 47SG1

Client Name: YRCW - OAKLAND

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected			Number of Containers	Matrix	Remarks		
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time	Liquid	Solid	Gas			
	BM-2-5'			2007	3	6	12-10	1008	X			1	* X X X	3 Day TA 001
	BM-2-13'			2007	13	15		1000	X			1	X X X	002
	BM-1-8'				7	8		1030	X			1		003
	BM-1							1235	X			3		004
	BM-2							1130	X			7	X X X	005
	BM-5							1445	X			2	X	006
	BM-4							1205	X			4	X X X	007
	BM-3							1405	X			1	X	008
	BM-7-6'				6	6.5		1430	X			1	X X X X X X	009
	BM-8-7'				7	7.5		1415	X			1	X X X X X X	010
	BM-9-5'				5	5.5		1355	X			1	X X X X X X	011
	BM-6							1535	X			2	X	012
	BM-7							1615	X			8	X X X X X X X	013
	BM-8	*						1550	X			9	X X X X X X X X	Sheen on Sample 014
	BM-9	*						1630	X			8	X X X X X X X X	015

Sampler (signature):

Sampler (signature):

Relinquished By (signature):

Date/Time

12/11/07  
0830

Received By (signature):

D

0825

Relinquished By (signature):

Date/Time

12/11/07  
1014

Received By (signature):

J. Madore

Date/Time

12/11/07  
1013

Ice Present in Container:

Yes No 

Temperature Upon Receipt:

Laboratory Comments:

\* Floating product analyzed for 8270  
12/11/07 9:11

# **Entech Analytical Labs, Inc.**

**3334 Victor Court , Santa Clara, CA 95054**

**Phone: (408) 588-0200**

**Fax: (408) 588-0201**

**Patrick Bratton  
Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080**

**Lab Certificate Number: 58754  
Issued: 12/21/2007**

**Project Number: 47561  
Project Name: YRCW-Oakland**

## **Certificate of Analysis - Final Report**

On December 18, 2007, samples were received under chain of custody for analysis.  
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

<u>Matrix</u>	<u>Test / Comments</u>
Liquid	n-Hexane extractable material (HEM): EPA 1664 VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater TPH-Extractable: EPA 3510C / EPA 8015B(M)

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).  
Subcontracted work is the responsibility of the subcontract laboratory, this includes turn-around-time and data quality.  
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,



C. L. Thom  
Laboratory Director

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-001      Sample ID: MW-2

Matrix: Liquid      Sample Date: 12/17/2007 2:30 PM

n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/20/2007	WOGHEM071219

Analyzed by: Mfelix

Reviewed by: rlazaro

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-001    Sample ID: MW-2    Matrix: Liquid    Sample Date: 12/17/2007 2:30 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-001    Sample ID: MW-2

Matrix: Liquid    Sample Date: 12/17/2007 2:30 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220

### Surrogate

### Surrogate Recovery

### Control Limits (%)

Analyzed by: TAF

4-Bromofluorobenzene

89.6

60 - 130

Reviewed by: xbian

Dibromofluoromethane

86.9

60 - 130

Toluene-d8

91.7

60 - 130

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	140		1.0	50	µg/L	12/20/2007	WDA071220	12/20/2007	WDA071220

Atypical pattern (C10-C36).

### Surrogate

### Surrogate Recovery

### Control Limits (%)

Analyzed by: JHsiang

n-Hexacosane

93.3

50 - 150

Reviewed by: mtran

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Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-002      Sample ID: MW-3

Matrix: Liquid      Sample Date: 12/17/2007 3:10 PM

n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/20/2007	WOGHEM071219

Analyzed by: Mfelix

Reviewed by: rlazaro

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-002    Sample ID: MW-3    Matrix: Liquid    Sample Date: 12/17/2007 3:10 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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3334 Victor Court , Santa Clara, CA 95054

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Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-002    Sample ID: MW-3    Matrix: Liquid    Sample Date: 12/17/2007 3:10 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220

### Surrogate

### Surrogate Recovery

### Control Limits (%)

Analyzed by: TAF

4-Bromofluorobenzene

89.8

60 - 130

Reviewed by: xbian

Dibromofluoromethane

87.6

60 - 130

Toluene-d8

91.4

60 - 130

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/20/2007	WDA071220	12/20/2007	WDA071220

### Surrogate

### Surrogate Recovery

### Control Limits (%)

Analyzed by: JHsiang

n-Hexacosane

98.3

50 - 150

Reviewed by: mtran

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-003      Sample ID: MW-4

Matrix: Liquid      Sample Date: 12/17/2007 4:10 PM

### n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/20/2007	WOGHEM071219

Analyzed by: Mfelix

Reviewed by: rlazaro

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3334 Victor Court , Santa Clara, CA 95054

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-003    Sample ID: MW-4    Matrix: Liquid    Sample Date: 12/17/2007 4:10 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-003    Sample ID: MW-4    Matrix: Liquid    Sample Date: 12/17/2007 4:10 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220

### Surrogate Recovery

### Control Limits (%)

Analyzed by: TAF

4-Bromofluorobenzene

Surrogate Recovery

Control Limits (%)

Reviewed by: xbian

Dibromofluoromethane

Surrogate Recovery

Control Limits (%)

Toluene-d8

Surrogate Recovery

Control Limits (%)

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/20/2007	WDA071220	12/20/2007	WDA071220
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JHsiang	

n-Hexacosane

Surrogate Recovery

Control Limits (%)

Reviewed by: mtran

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3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-004      Sample ID: MW-5

Matrix: Liquid      Sample Date: 12/17/2007 4:45 PM

### n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/20/2007	WOGHEM071219

Analyzed by: Mfelix

Reviewed by: rlazaro

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-004    Sample ID: MW-5    Matrix: Liquid    Sample Date: 12/17/2007 4:45 PM

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

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# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-004    Sample ID: MW-5    Matrix: Liquid    Sample Date: 12/17/2007 4:45 PM

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220

### Surrogate Recovery

### Control Limits (%)

Analyzed by: TAF

4-Bromofluorobenzene

92.6      60 - 130

Reviewed by: xbian

Dibromofluoromethane

94.0      60 - 130

Toluene-d8

94.3      60 - 130

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/20/2007	WDA071220	12/20/2007	WDA071220

### Surrogate Recovery

### Control Limits (%)

Analyzed by: JHsiang

n-Hexacosane

98.1      50 - 150

Reviewed by: mtran

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-005      Sample ID: DUP-1

Matrix: Liquid      Sample Date: 12/17/2007

### n-Hexane extractable material (HEM): EPA 1664

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Oil and Grease (HEM)	ND		1.0	5.0	mg/L	N/A	N/A	12/20/2007	WOGHEM071219

Analyzed by: Mfelix

Reviewed by: rlazaro

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

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Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab #: 58754-005    Sample ID: DUP-1

Matrix: Liquid    Sample Date: 12/17/2007

VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater									
Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
1,1,1,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,1-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2,2-Tetrachloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1,2-Trichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,1-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,3-Trichloropropane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trichlorobenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2,4-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromo-3-Chloropropane	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dibromoethane (EDB)	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3,5-Trimethylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,3-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
1,4-Dichlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2,2-Dichloropropene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
2-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
4-Chlorotoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromodichloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromoform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Bromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Carbon Tetrachloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chlorobenzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloroform	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Chloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
cis-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromochloromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dibromomethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Dichlorodifluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Hexachlorobutadiene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Isopropylbenzene	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methyl-t-butyl Ether	ND		1.0	1.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Methylene Chloride	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
n-Propylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220

Detection Limit = Detection Limit for Reporting.

ND = Not Detected at or above the Detection Limit.

D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.

Qual = Data Qualifier

12/21/2007 3:56:49 PM - eling

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Attn: Patrick Bratton

Project Number: 47561  
Project Name: YRCW-Oakland

## Certificate of Analysis - Data Report

Samples Received: 12/18/2007  
Sample Collected by: Client

Lab # : 58754-005    Sample ID: DUP-1

Matrix: Liquid    Sample Date: 12/17/2007

### VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Naphthalene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
p-Isopropyltoluene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
sec-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Styrene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
tert-Butylbenzene	ND		1.0	5.0	µg/L	N/A	N/A	12/20/2007	WM2071220
Tetrachloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
trans-1,2-Dichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichloroethene	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Trichlorofluoromethane	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Vinyl Chloride	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	12/20/2007	WM2071220

### Surrogate Recovery

### Control Limits (%)

Analyzed by: TAF

4-Bromofluorobenzene

Surrogate Recovery

Control Limits (%)

Reviewed by: xbian

Dibromofluoromethane

Surrogate Recovery

Control Limits (%)

Toluene-d8

Surrogate Recovery

Control Limits (%)

### TPH-Extractable: EPA 3510C / EPA 8015B(M)

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	12/20/2007	WDA071220	12/20/2007	WDA071220
Surrogate	Surrogate Recovery			Control Limits (%)				Analyzed by: JHsiang	

n-Hexacosane

Surrogate Recovery

Control Limits (%)

Reviewed by: mtran

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054

Phone: (408) 588-0200

Fax: (408) 588-0201

Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM2071220

Validated by: xbian - 12/21/07

QC Batch Analysis Date: 12/20/2007

Parameter	Result	DF	PQLR	Units
1,1,1,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,1-Trichloroethane	ND	1	0.50	µg/L
1,1,2,2-Tetrachloroethane	ND	1	0.50	µg/L
1,1,2-Trichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethane	ND	1	0.50	µg/L
1,1-Dichloroethene	ND	1	0.50	µg/L
1,1-Dichloropropene	ND	1	0.50	µg/L
1,2,3-Trichlorobenzene	ND	1	5.0	µg/L
1,2,3-Trichloropropane	ND	1	0.50	µg/L
1,2,4-Trichlorobenzene	ND	1	5.0	µg/L
1,2,4-Trimethylbenzene	ND	1	5.0	µg/L
1,2-Dibromo-3-Chloropropane	ND	1	5.0	µg/L
1,2-Dibromoethane (EDB)	ND	1	0.50	µg/L
1,2-Dichlorobenzene	ND	1	0.50	µg/L
1,2-Dichloroethane	ND	1	0.50	µg/L
1,2-Dichloropropane	ND	1	0.50	µg/L
1,3,5-Trimethylbenzene	ND	1	5.0	µg/L
1,3-Dichlorobenzene	ND	1	0.50	µg/L
1,3-Dichloropropane	ND	1	0.50	µg/L
1,4-Dichlorobenzene	ND	1	0.50	µg/L
2,2-Dichloropropane	ND	1	0.50	µg/L
2-Chlorotoluene	ND	1	5.0	µg/L
4-Chlorotoluene	ND	1	5.0	µg/L
Benzene	ND	1	0.50	µg/L
Bromobenzene	ND	1	0.50	µg/L
Bromochloromethane	ND	1	0.50	µg/L
Bromodichloromethane	ND	1	0.50	µg/L
Bromoform	ND	1	0.50	µg/L
Bromomethane	ND	1	0.50	µg/L
Carbon Tetrachloride	ND	1	0.50	µg/L
Chlorobenzene	ND	1	0.50	µg/L
Chloroethane	ND	1	0.50	µg/L
Chloroform	ND	1	0.50	µg/L
Chloromethane	ND	1	0.50	µg/L
cis-1,2-Dichloroethene	ND	1	0.50	µg/L
Dibromochloromethane	ND	1	0.50	µg/L
Dibromomethane	ND	1	0.50	µg/L
Dichlorodifluoromethane	ND	1	0.50	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Hexachlorobutadiene	ND	1	5.0	µg/L
Isopropylbenzene	ND	1	1.0	µg/L
Methylene Chloride	ND	1	5.0	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
Naphthalene	ND	1	5.0	µg/L
n-Butylbenzene	ND	1	5.0	µg/L
n-Propylbenzene	ND	1	5.0	µg/L
p-Isopropyltoluene	ND	1	5.0	µg/L
sec-Butylbenzene	ND	1	5.0	µg/L
Styrene	ND	1	0.50	µg/L
tert-Butylbenzene	ND	1	5.0	µg/L

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201**

**Method Blank - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater**

**QC Batch ID: WM2071220**

Validated by: xbian - 12/21/07

**QC Batch Analysis Date: 12/20/2007**

<b>Parameter</b>	<b>Result</b>	<b>DF</b>	<b>PQLR</b>	<b>Units</b>
Tetrachloroethene	ND	1	0.50	µg/L
Toluene	ND	1	0.50	µg/L
trans-1,2-Dichloroethene	ND	1	0.50	µg/L
Trichloroethene	ND	1	0.50	µg/L
Trichlorofluoromethane	ND	1	0.50	µg/L
Vinyl Chloride	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L
<b>Surrogate for Blank</b>	<b>% Recovery</b>	<b>Control Limits</b>		
4-Bromofluorobenzene	<b>87.7</b>	60	-	130
Dibromofluoromethane	<b>83.5</b>	60	-	130
Toluene-d8	<b>90.5</b>	60	-	130

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

LCS / LCSD - Liquid - VOCs: EPA 5030B / EPA 8260B for Groundwater and Water - EPA 624 for Wastewater

QC Batch ID: WM2071220

Reviewed by: xbian - 12/21/07

QC Batch ID Analysis Date: 12/20/2007

## LCS

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene		<0.50	20	19.6	µg/L	98.0	70 - 130
Benzene		<0.50	20	21.2	µg/L	106	70 - 130
Chlorobenzene		<0.50	20	23.4	µg/L	117	70 - 130
Methyl-t-butyl Ether		<1.0	20	23.1	µg/L	116	70 - 130
Toluene		<0.50	20	20.6	µg/L	103	70 - 130
Trichloroethene		<0.50	20	21.9	µg/L	110	70 - 130
Surrogate	% Recovery	Control Limits					
4-Bromofluorobenzene	94.3	60	-	130			
Dibromofluoromethane	88.7	60	-	130			
Toluene-d8	92.3	60	-	130			

## LCSD

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene		<0.50	20	17.2	µg/L	86.0	13	25.0	70 - 130
Benzene		<0.50	20	19.0	µg/L	95.0	11	25.0	70 - 130
Chlorobenzene		<0.50	20	21.5	µg/L	108	8.5	25.0	70 - 130
Methyl-t-butyl Ether		<1.0	20	18.6	µg/L	93.0	22	25.0	70 - 130
Toluene		<0.50	20	18.8	µg/L	94.0	9.1	25.0	70 - 130
Trichloroethene		<0.50	20	19.6	µg/L	98.0	11	25.0	70 - 130
Surrogate	% Recovery	Control Limits							
4-Bromofluorobenzene	89.1	60	-	130					
Dibromofluoromethane	83.5	60	-	130					
Toluene-d8	90.6	60	-	130					

# Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

Method Blank - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B(M)

QC/Prep Batch ID: WDA071220

Validated by: mtran - 12/21/07

QC/Prep Date: 12/20/2007

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L
Surrogate for Blank	% Recovery	Control Limits		
n-Hexacosane	93.4	50 - 150		

LCS / LCSD - Liquid - TPH-Extractable: EPA 3510C / EPA 8015B(M)

QC Batch ID: WDA071220

Reviewed by: mtran - 12/21/07

QC/Prep Date: 12/20/2007

## LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	846	µg/L	84.6	45 - 140
TPH as Motor Oil	<200	1000	783	µg/L	78.3	45 - 140
Surrogate	% Recovery	Control Limits				
n-Hexacosane	94.3	50 - 150				

## LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	901	µg/L	90.1	6.2	25.0	45 - 140
TPH as Motor Oil	<200	1000	821	µg/L	82.1	4.8	25.0	45 - 140
Surrogate	% Recovery	Control Limits						
n-Hexacosane	98.0	50 - 150						

# **Entech Analytical Labs, Inc.**

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**3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201**

**LCS / LCSD - Liquid - n-Hexane extractable material (HEM): EPA 1664**

**QC Batch ID: WOGHEM071219**

Reviewed by: rlazaro - 12/20/07

**QC Batch ID Analysis Date: 12/20/2007**

**LCS**

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Oil and Grease (HEM)	<5.0	20	17.2	mg/L	86.0		78 - 114

**LCSD**

Parameter	Method	Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Oil and Grease (HEM)	<5.0	20	16.9	mg/L	84.5	1.8	18.0		78 - 114

# Entech Analytical Labs, Inc.

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3334 Victor Court , Santa Clara, CA 95054      Phone: (408) 588-0200      Fax: (408) 588-0201

MS / MSD - Liquid - n-Hexane extractable material (HEM): EPA 1664

QC Batch ID: WOGHEM071219

Reviewed by: rlazaro - 12/20/07

QC Batch ID Analysis Date: 12/20/2007

MS      Sample Spiked: 58754-002

Parameter	Sample Result	Spike DF	Spike Amount	Analysis Date	% Recovery	Recovery Limits	
Oil and Grease (HEM)	ND	1	20	5.10 mg/L	12/20/2007	25.5	78 - 114 ***

\*\*All MS/MSD recoveries do not fall within the control limits are out due to the nature of the sample matrix. The batch was accepted by the LCS/LCSD recoveries.



## Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering  
393 E. Grand Avenue, Suite J  
So. San Francisco, CA 94080  
Phone: (650) 871-2926 Fax: (650) 871-2653

Attention: Patrick Bratton

Project Number: 47561

Laboratory:

Entech

Address:

City/State/Zip:

Telephone:

58754

Document Control No: 121707

Lab. Reference No. or Episode No.:

Client Name: YRCW - OAKLAND

Sample Type

Matrix

Number of Containers

Analysis  
TPH &  
VOCs  
O<sub>2</sub> &  
Grease

Remarks

Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Liquid	Solid	Gas	Number of Containers	Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time					
	MW-2						12-17	1430	X	++	X X X	001	3-day TAT.
	MW-3							1510	X	++	X X X	002	
	MW-4							1610	X	++	X X X	003	
	MW-5							1645	X	++	X X X	004	
	Dup -1								X	++	X X X	005	

3 DAYS

Sampler (signature):

Sampler (signature):

Special Instructions:

Relinquished By (signature):

Date/Time

12-18-03  
0825

Received By (signature):

Date/Time

12-18-03  
0825

Ice Present in Container:

Yes

No

Temperature Upon Receipt:

Relinquished By (signature):

Date/Time

12-18-03  
1135

Received By (signature):

Date/Time

Laboratory Comments:

**APPENDIX D**  
**WELL DEVELOPMENT FORMS**



### WELL DEVELOPMENT FORM- Continuation

**Site Name:** YRE-OAK

Well ID:

Project Number: \_\_\_\_\_

Recorded By: Greg Carter

Date: 12-11-67

**Notes:**

Volume units are in gallons

Conductivity units are in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ )

$$\text{TOTAL DEPTH } 9.2 - 1.5 \times 16 \times 10 \times 0.0403 = 49.86$$

DFW = 1.5

PH keeps dropping



## WELL DEVELOPMENT FORM- Continuation

Well ID:

**Site Name:** YRE - OAK

**Project Number:** \_\_\_\_\_

*MW-3*

Recorded By: Greg Lourie

Date: 12-12-07

### **Notes:**

Volume units are in gallons

Conductivity units are in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ )

$$26.6^{-4.7} \times 2^2 \times 10 \times .0448 = 35.56$$

$\sim 36$

4.7 DW  
296 TD



**WELL DEVELOPMENT FORM- Continuation**

Well ID:

**Site Name:** YFE-OAV-001

Project Number: \_\_\_\_\_

Recorded By: Greg Clegg  
Date: 12-11-27

---

**Notes:**

Volume units are in gallons

Conductivity units are in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ )

$$295 - 3.85 \times 4 \times 16 \times .0008 = 41.65$$



## WELL DEVELOPMENT FORM- Continuation

Well ID:

**Site Name:** YRE OAK

Project Number: \_\_\_\_\_

Recorded By: Greg Cottrell  
Date: 12-11-87

Date: 12-11-19

Date: 12-11-21

**Notes:**

Volume units are in gallons

Conductivity units are in microsiemens per centimeter ( $\mu\text{S}/\text{cm}$ )

TOTAL DEPTH 29.2

DPN 4.6

$$246 + 2^2 \times 10 + 2108 = 461$$

TOTAL DEPTH F 28.6

**APPENDIX E**  
**GROUNDWATER SAMPLING FORMS**

**Yellow Freight - OAKLAND**  
**Field Data Sheet\***  
**Groundwater Monitoring**

Date: 12/17/07

Field Sampler: Patrick Bratton

\* An individual Groundwater Sampling form needs to be completed for each well monitored.

Well ID	Depth to Groundwater ft below top of casing (BTOC)			Total Depth (ft BTOC)	Casing Diameter (inches)	Notes
	Time	1st Reading	2nd Reading			
MW-2	1402	1.56	1.56	9.2	4	
MW-3	1405	4.40	4.40	29.4	2	
MW-4	1409	3.66	3.66	29.3	2	
MW-5	1412	4.11	4.11	29.2	2	



## GROUNDWATER SAMPLING FORM

Site Name: Yellow Ft. Oakland

Project Number: 47561

Recorded By: PB

Well Number: MW - 2

Well Type: Monitoring

Date: 12-17-07

Sample Time: 1430

### Purge Method

Low Flow

Pumping Method: Peristaltic Pump

Other-Type: \_\_\_\_\_

Length of Tubing Down Well: 8 ft

Average Flow Rate: 250 ml/min

Sampling Flow Rate: 200ml/min

### Purge Volume

Casing Diameter (D in inches): 4"

Total Depth of Casing (TD in feet BTOC): 9.7

Water Level Depth (WL in feet BTOC): 7.56

Total Volume Generated (gallons): 2.52

Start Time: 1415 Stop Time: 1443

### Field Parameter Measurements

Time	Volume <sup>ml</sup>	Temp	DO	pH	Redox	Conductivity	Remarks
1417	Init	16.48	10.50	6.80	-848	1972	Slightly Cloudy
1418	250	16.42	2.59	6.50	-622	1993	Slightly Cloudy
1419	500	16.47	2.26	6.46	63.6	1988	See
1420	750	16.51	2.13	6.46	-66.7	1977	See
1421	1000	16.52	1.98	6.46	-69.0	1966	See
1422	1250	16.52	1.87	6.44	-70.4	1958	See
1423	1500	16.50	1.76	6.43	-71.3	1953	See
1424	1750	16.45	1.68	6.43	-71.8	1940	See
1425	2000	16.44	1.64	6.42	-71.4	1933	See
1426	2250	16.41	1.62	6.44	-71.6	1930	

Notes:

Temperature is measured in degree Celsius

Volume units are in mL

Conductivity units are in microsiemens per centimeter (mS/cm)

Sampling Information				
Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-2	MW-2	3	HCl	VOC,
	MW-2	2	/	TPH detected
	MW-2	2	H <sub>2</sub> SO <sub>4</sub>	Oil + Grease



### GROUNDWATER SAMPLING FORM

Site Name: Yellow Ft. Oakland

Project Number: 47561

Recorded By: PB

Well Number: MW-3

Well Type: Monitoring

Date: 12-17

Sample Time: 1510

#### Purge Method

Low Flow

Pumping Method: Peristaltic Pump

Other Type: \_\_\_\_\_

#### Purge Volume

Casing Diameter (D in inches): 2"

Total Depth of Casing (TD in feet BTOC): 29.4

Water Level Depth (WL in feet BTOC): 4.40

Length of Tubing Down Well: 20'

Average Flow Rate: 250 mL/min

Sampling Flow Rate: 200 mL/min

Total Volume Generated (gallons): 2 Liters

Start Time: 1455 Stop Time: 1525

#### Field Parameter Measurements

Time	Volume	Temp	DO	pH	Redox	Conductivity	Remarks
1457	100	18.41	2.31	6.30	110	6310	Cloudy, whiteish
1458	250	18.72	1.38	6.25	113	6443	Cloudy, whiteish
1459	500	18.96	1.24	6.15	120	6570	Smo
1500	750	19.01	1.23	6.15	121	6580	Smo
1501	1000	19.06	1.18	6.13	123	6596	Smo
1501	1250	19.03	1.19	6.11	125	6592	Smo
1503	1500	19.07	1.21	6.09	128	6589	Smo
1504	1750	19.08	1.23	6.08	129	6589	Smo

Notes:

Temperature is measured in degrees Celsius

Volume units are in mL

Conductivity units are in microsiemens per centimeter (mS/cm)

#### Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-3	MW-3	3	HCl	VOCs
	MW-3	2	-	TPHd
	MW-3	2	H <sub>2</sub> SO <sub>4</sub>	Oil + Grease
	Dup-1	3/2/2	HCl / - / H <sub>2</sub> SO <sub>4</sub>	



## GROUNDWATER SAMPLING FORM

Site Name: Yellow Ft. Oakland

Project Number: 47561

Recorded By: PB

Well Number: MW-4

Well Type: Monitoring

Date: 12-17-07

Sample Time: 1610

### Purge Method

Low Flow

Pumping Method: Peristaltic Pump

Other-Type: \_\_\_\_\_

Length of Tubing Down Well: 20 ft

Average Flow Rate: 250 mL/min

Sampling Flow Rate: ~200 mL/min

### Purge Volume

Casing Diameter (D in inches): 2"

Total Depth of Casing (TD in feet BTOC): 29.5

Water Level Depth (WL in feet BTOC): 366

Total Volume Generated (gallons): 2 L

Start Time: 1550 Stop Time: 1620

### Field Parameter Measurements

Time	Volume	Temp	DO	pH	Redox	Conductivity	Remarks
1553	Init	19.67	1.17	6.65	134	4946	Cloudy, white
1554	250	19.70	1.03	6.53	135	4939	Cloudy, white
1555	500	19.71	0.99	6.47	136	4945	See
1556	750	18.89	0.85	6.44	135	4950	See
1557	1000	19.02	0.81	6.42	135	4961	See
1558	1250	19.13	0.80	6.40	135	4970	See
1559	1500	19.29	0.76	6.37	134	4979	See
1600	1750	19.36	0.74	6.36	134	4982	See
1601	2000	19.38	0.74	6.34	134	4982	See

Notes:

Temperature is measured in degrees Celsius

Volume units are in mL

Conductivity units are in microsiemens per centimeter (mS/cm)

### Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
	MW-4	3	HCl	VOCs
	MW-4	2	-	TPH &
	MW-4	2	H <sub>2</sub> SO <sub>4</sub>	O.I + Grease



## GROUNDWATER SAMPLING FORM

Site Name: Yellow Ft. Oakland

Project Number: 47561

Recorded By: PB

### Purge Method

Low Flow

Pumping Method: Peristaltic Pump

Other-Type: \_\_\_\_\_

Length of Tubing Down Well: 20'

Average Flow Rate: 250 ml/min

Sampling Flow Rate: 200 ml/min

Well Number: MW-5

Well Type: Monitoring

Date: 12-17-07 Sample Time: 1645

### Purge Volume

Casing Diameter (D in inches): 2"

Total Depth of Casing (TD in feet BTOC): 29.2

Water Level Depth (WL in feet BTOC): 4.11

Total Volume Generated (gallons): 2.5 L

Start Time: 1630 Stop Time: 1655

### Field Parameter Measurements

Time	Volume	Temp	DO	pH	Redox	Conductivity	Remarks
1630	Init	19.83	1.15	6.37	147	7580	Slightly Cloudy
1631	250	19.85	0.90	6.34	145	7595	Saa
1631	500	19.87	0.83	6.32	142	7622	Saa
1632	750	20.02	0.79	6.30	137	7709	Saa
1633	1000	20.07	0.80	6.30	136	7728	Saa
1634	1250	20.08	0.85	6.29	133	7752	Saa
1635	1500	20.07	0.87	6.29	132	7761	Saa
1636	1750	20.17	0.90	6.28	130	7771	Saa
1637	2000	20.17	0.92	6.28	129	7771	Saa

Notes:

Temperature is measured in degrees Celsius

Volume units are in mL

Conductivity units are in microsiemens per centimeter (mS/cm)

### Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
	MW-5	3	HCl	VOCs
	MW-5	2	—	TPHQ
	MW-5	2	H <sub>2</sub> SO <sub>4</sub>	Oil & Grease

**APPENDIX F**

**MONITORING WELL SURVEY REPORT**

**Luk and Associates**  
**738 Alfred Nobel Drive**  
**Hercules, CA 94547**  
**510-724-3388 Fax: 510-724-3383**

**Civil Engineering**  
**Land Planning**  
**Land Surveying**

December 20, 2007  
Job No. 27151-10

Patrick Bratton  
Burns & McDonnell Engineering Co., Inc.  
393 East Grand Avenue, Suite J  
South San Francisco, CA 94002

Subject: Monitoring Well Survey  
1708 Wood Street  
Oakland, California

Dear Patrick:

Per your request on December 17, 2007, monitoring well locations have been converted to Coordinate System NAD 83, California, Zone 3, and the elevations are based on NAVD 88. The following monitoring wells have been located per your request:

Well No.	Description	Northing	Easting	Latitude (N)	Longitude (W)	Elevation
MW2	Casing	2124215.458	6043390.167	37° 48' 54.24775"	122° 17' 39.44077"	9.892
MW2	Rim	2124215.358	6043390.145	37° 48' 54.24676"	122° 17' 39.44104"	10.25
MW3	Casing	2124205.327	6043371.707	37° 48' 54.14411"	122° 17' 39.66838"	10.112
MW3	Rim	2124205.237	6043371.794	37° 48' 54.14323"	122° 17' 39.66730"	10.406
MW4	Casing	2124223.653	6043449.865	37° 48' 54.34007"	122° 17' 38.69892"	9.521
MW4	Rim	2124223.659	6043449.83	37° 48' 54.34013"	122° 17' 38.69933"	9.819
MW5	Casing	2124174.94	6043438.409	37° 48' 53.85638"	122° 17' 38.82999"	9.968
MW5	Rim	2124174.783	6043438.318	37° 48' 53.85481"	122° 17' 38.83110"	10.325

Also, please note the followings:

1. The X, Y, and Z value is obtained by GPS (Global Positioning System) method.
2. The GPS equipment is the Trimble R8 Rover Kit O SC/SW, 450-170 MHZ.
3. The X and Y accuracy is 0.03' horizontally and is based on the exact measurement point of the top of the pipe.
4. The elevation accuracy is 0.04' vertically and is based on the exact measurement point of the top of the pipe.

Please feel free to give me a call if you have any questions.

Sincerely yours,

LUK AND ASSOCIATES  
CIVIL ENGINEERS/SURVEYORS/PLANNERS

Paul Canumay, P.L.S. 3272  
Project Surveyor

