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**3RD QUARTER 2009  
FINAL GROUNDWATER MONITORING REPORT  
FORMER HOLLAND OIL PROPERTY  
16301 EAST 14TH STREET  
SAN LEANDRO, CALIFORNIA**

**PREPARED FOR:**

Mr. Lawrence Lepore  
Hayward Area Recreation Department  
1099 E Street  
Hayward, California 94541

**PREPARED BY:**

Ninyo & Moore  
Geotechnical and Environmental Sciences Consultants  
1956 Webster Street, Suite 400  
Oakland, California 94612

January 6, 2010  
Project No. 401314005

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1099 E Street  
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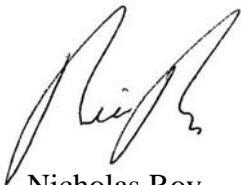
Subject: 3rd Quarter 2009 Final Groundwater Monitoring Report  
Former Holland Oil Property  
16301 East 14th Street, San Leandro, California

Dear Mr. Lepore:

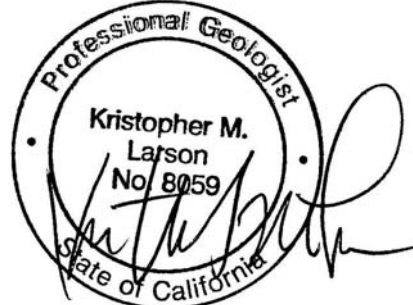
Please find enclosed the *3rd Quarter 2009 Final Groundwater Monitoring Report* for the former Holland Oil property located at 16301 East 14th Street in San Leandro, California. This report documents the recent groundwater monitoring activities, the groundwater analytical results, and our conclusions.

Thank you very much for the opportunity to assist with this important project.

Sincerely,  
**NINYO & MOORE**



Nicholas Roy  
Senior Staff Environmental Scientist



Kristopher M. Larson, P.G.  
Senior Environmental Geologist

NSR/KML/dhi

Distribution: (1) Addressee  
(1) Mr. Jerry Wickham, P.G.,  
Hazardous Materials Specialist, Alameda County Environmental Health,  
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Appendix B – Laboratory Analytical Report

## **1. INTRODUCTION**

On behalf of Hayward Area Recreation Department (HARD), Ninyo & Moore has prepared this 3rd Quarter 2009 and Final Groundwater Monitoring Report for the former Holland Oil property located at 16301 East 14th Street in unincorporated Alameda County near San Leandro, California (the site). Groundwater monitoring activities were conducted for the purpose of completing the evaluative hydrologic cycle and at the request of the Alameda County Environmental Health Services (ACEH) in a letter dated September 16, 2008. Per recommendations in the Corrective Action Plan (CAP) dated May 25, 2009 (Amicus, 2009), ACEH approved this as the final groundwater monitoring event for the existing wells on site.

An excavation of the contaminant source material was conducted approximately 3 weeks prior to this groundwater sampling event. During the excavation activities there were three monitoring wells destroyed.

### **1.1. Background**

The site was utilized as a bulk fuel storage and distribution facility from the 1960s to the mid 1980s. Eight underground storage tanks (USTs) were located on site; three contained gasoline, two contained diesel, two contained kerosene, and one contained Stoddard solvent. The USTs were removed in 1998 and the excavated overburden soil was placed back in the UST excavation. Additionally, two former structures, a warehouse located in the southwestern section and a small garage located in the central section of the site, were reportedly used for vehicle maintenance.

A series of environmental evaluations of site soil and groundwater has been conducted on site since 1990. This testing evaluated the presence of a broad array of potential use-related chemicals; the results of testing revealed elevated concentrations of specific constituents of concern (COCs) at several locations on the site. Gasoline, diesel, and kerosene-range petroleum hydrocarbons were detected, primarily in areas where the former USTs were located (Figure 2).

## **2. SITE SETTING**

### **2.1. Geographic Setting**

The site is a pentagon-shaped property located in San Leandro, California; bordered to the south by a baseball field; to the west by Edendale Middle School; and to the northeast by East 14<sup>th</sup> Street. Commercial properties border the site to the northwest and southeast on East 14<sup>th</sup> Street.

### **2.2. Environmental Setting**

The site is relatively flat, with a gradual downward slope toward the west. The Hayward area is situated on a broad, alluvial plain that slopes gently west from the Hayward hills to the San Francisco Bay. The alluvial plain is comprised of alluvial sediments derived from erosion of the hills to the east. The site region is located at the eastern margin of the alluvial plain and is underlain by fine-grained alluvial and tidal-bay sediments. The surface layer of fill observed throughout the site is underlain by soft bay mud of geologically recent age.

## **3. MONITORING WELL GROUNDWATER SAMPLING**

Ninyo & Moore conducted the quarterly groundwater sampling event on September 23 and 24, 2009.

### **3.1. Sampling Methodology**

Static groundwater elevations in all available site monitoring wells were measured relative to top of casing (TOC). The depth to static groundwater from TOC in each well was measured with a decontaminated water level meter to an accuracy of 0.01 feet. Using the surveyed TOC elevations of wells MW-1, MW-3, MW-4, MW-5, MW-7, and MW-9 through MW-12, the elevation of static groundwater relative to mean sea level (MSL) was calculated for each well. Groundwater elevation data is presented on Table 1.

Prior to sample collection, a minimum of three casing volumes of groundwater were purged from each well using a new disposable bailer and a peristaltic pump with new tubing.

Groundwater parameters (pH, temperature, and electrical conductivity) and physical characteristics were recorded during purging. Groundwater samples were collected from monitoring wells MW-1, MW-3, MW-4, MW-5, MW-7, and MW-9 through MW-12. Subsequent to purging, groundwater samples were collected from each well using a peristaltic pump with new tubing. Samples scheduled for analysis of volatile organic compounds (VOCs) and total petroleum hydrocarbons as gasoline (TPH-g) were collected first. While collecting samples for VOCs and TPH-g analysis, the pump was run at low speed to minimize disturbance of groundwater. The groundwater samples were collected in the appropriate sample containers, labeled and placed into a cooler containing ice under chain of custody for transport to the analytical laboratory. Copies of the groundwater sampling field data sheets are presented in Appendix A.

### **3.2. Analytical Laboratories and Methods**

Groundwater samples were submitted to Curtis and Tompkins Analytical Laboratories, of Berkeley, California, for analysis of total petroleum hydrocarbons as diesel (TPH-d) using EPA Method 8015B, for TPH-g using EPA Method 8015B, and for VOCs by EPA Method 8260B. A copy of the laboratory analytical report including chain of custody documentation is presented in Appendix B.

### **3.3. Disposal of Investigation Derived Waste**

Decontamination water and purged groundwater was contained in one 55-gallon drum and is currently awaiting proper disposal by Filter Recycling of Colton, California. The disposal manifest will be supplied upon request.

### **3.4. GeoTracker**

Electronic deliverable data associated with this report will be uploaded to the State GeoTracker database. The uploaded documents will include a copy of this report, electronic copies of the associated laboratory analytical reports and depth-to-groundwater measurements.

## 4. FINDINGS

### 4.1. Groundwater Flow Direction and Gradient

Groundwater elevations ranged from 28.90 feet above MSL at well MW-9 located in the eastern section of the site to 27.50 feet above MSL in well MW-5, located near the western boundary of the site. Shallow groundwater beneath the site appeared to flow toward the northwest with a gradient of approximately 0.004 feet per foot (Figure 2). This result is generally consistent with the natural topography and anticipated regional groundwater flow toward San Francisco Bay to the west.

### 4.2. Groundwater Analytical Results

Nine monitoring well groundwater samples (MW-1, MW-3, MW-4, MW-5, MW-7, and MW-9 through MW-12) were collected and analyzed during this monitoring event. The monitoring well groundwater sample analytical results are presented in Table 1.

Concentrations of TPH-d in groundwater were not detected (ND) in wells MW-9 and MW-10. Detected concentrations of TPH-d in groundwater ranged from 50 µg/L in well MW-3 to 3,800 µg/l in well MW-4. A TPH-d isoconcentration map is presented on Figure 3.

TPH-g concentrations were ND in wells MW-3, MW-7, MW-9, MW-10 and MW-11. Detected concentrations of TPH-g ranged from 94 µg/L in well MW-12 to 910 µg/L in well MW-1. A TPH-g isoconcentration map is presented on Figure 4.

## 5. CONCLUSIONS

Based on the results of the recent and previous site assessments, Ninyo & Moore presents the following conclusions:

- Groundwater samples have been collected on a quarterly basis over the course of the most recent complete hydrologic cycle;
- During this quarterly ground water monitoring event, shallow groundwater elevations ranged from 27.50 feet MSL to 28.90 feet MSL. Groundwater appears to be flowing towards the north west with a gradient of 0.004 feet per foot; and,

- Groundwater underlying the site has been impacted by TPH-d and TPH-g hydrocarbons, and a minor spike of TPH-d compounds was observed during this sampling event. However, because source removal activities have been conducted at the site, the removal of the most highly contaminated soil from the site will facilitate the continued natural attenuation of the impacted groundwater, and restrict the off site migration of heavier petroleum compounds.





**Ninyo & Moore**

Project # 401314005







**TABLE 1. MONITORING WELL GROUNDWATER ANALYTICAL DATA - TPH & VOCs - Former Holland Oil Facility, 16301 East 14th Street, San Leandro, California**

Well ID (toc elev)	Sample Date	Depth to Groundwater (ft btoc)	Groundwater Elevation (ft msl)	TPH-d	Kerosene	TPH-g	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	1,4-Dichloro- benzene	Chloro- benzene	Isopropyl- benzene	n-Butyl- benzene	n-Propyl- benzene	sec-Butyl- benzene	tert-Butyl- benzene	Other VOCs
				Analytical Results (µg/L)															
MW-8 36.81	7/9/2007	8.16	28.65	790	500	2,100	110	6.8	76	215	ND<0.5	ND<0.5	3.8	12	7.2	30	2.5	0.59	1,2,4-Trimethylbenzene (82); 1,3,5-Trimethylbenzen (30); 4-Isopropyltoluene (3.5)
	10/14/2008	8.69	28.12	500	--	390	50	1.4	10	23.2	ND<0.5	ND<1.0	2.6	3.3	ND<1.0	8.6	ND<1.0	ND<1.0	Naphthalene (4.9)
	1/23/2009	8.16	28.65	500	--	1,200	180	3.7	40	67.4	ND<0.5	ND<1.0	1.7	4.7	ND<1.0	8.9	ND<1.0	ND<1.0	1,2,4-Trimethylbenzene (30); 1,3,5-Trimethylbenzen (6.6); Naphthalene (20); Vinyl acetate (30)
	4/2/2009	7.43	29.38	ND<50	--	2,800	140	3.5	60	200	ND<0.5	ND<1.0	ND<1.0	4.4	ND<1.0	10	ND<1.0	ND<1.0	1,2,4-Trimethylbenzene (40); 1,3,5-Trimethylbenzen (10); Naphthalene (20);
	9/23/2009	WELL DESTROYED																	
MW-9 37.22	10/14/2008	8.11	29.11	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	7.69	29.53	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	6.75	30.47	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.32	28.90	ND<50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
MW-10 36.79	10/14/2008	8.77	28.02	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	8.25	28.54	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	7.25	29.54	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.82	27.97	ND<50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
MW-11 36.2	10/14/2008	8.35	27.85	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	Acetone (10); Carbon disulfide (2.4)
	1/23/2009	7.76	28.44	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	6.93	29.27	ND<50	--	ND<50	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.38	27.82	420	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	0.8	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND
MW-12 36.06	10/14/2008	8.51	27.55	ND<50	--	110	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	1/23/2009	7.83	28.23	300	--	100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<0.5	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	4/2/2009	7.27	28.79	ND<50	--	60	ND<1.0	ND<1.0	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND
	9/23/2009	8.54	27.52	850	--	94	ND<0.5	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND

**Notes and Abbreviations:**

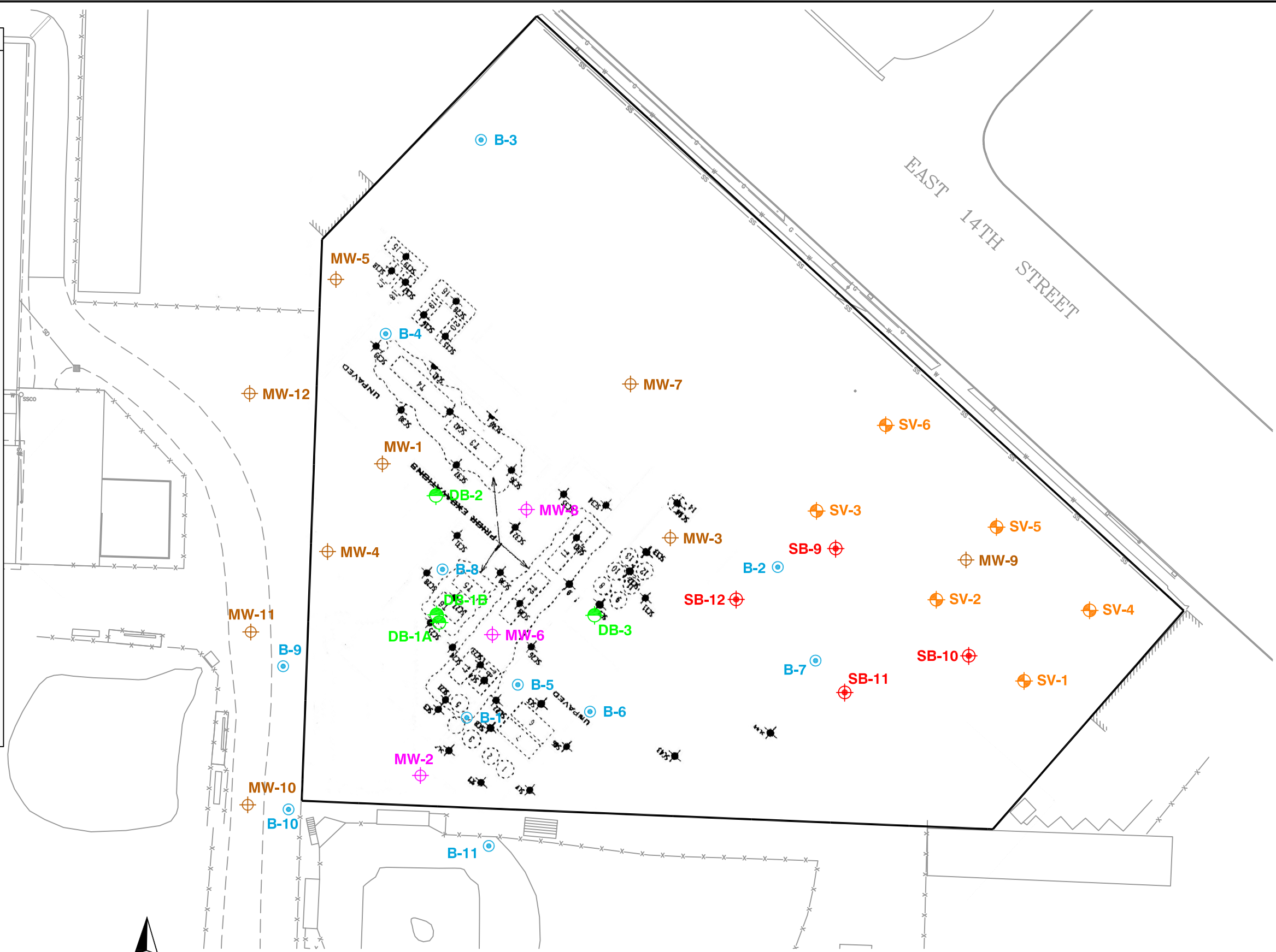
VOCs = volatile organic compounds analyzed by EPA Method 8260B  
 toc elev = top of casing elevation in feet above mean sea level  
 ft btoc= feet below top of casing  
 ft msl = feet above mean sea level  
 TPH-d = total petroleum hydrocarbons as diesel analyzed by EPA Method 8015B  
 Kerosene analyzed by EPA Method 8015B  
 TPH-g = total petroleum hydrocarbons as gasoline analyzed by EPA Method 8015B  
 BTEX = benzene, toluene, ethylbenzene, xylenes analyzed by EPA Method 8260B  
 MTBE = methyl tert butyl ether analyzed by EPA Method 8260B  
 µg/L = micrograms per liter  
 -- = not analyzed, not available, not applicable  
 ND< X = not detected, below laboratory reporting limit of X

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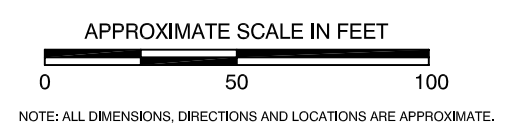
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
-  **MW-8** APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION

- FORMER APT CONTENTS**
- 1- waste oil/kerosene
  - 2- waste oil/kerosene
  - 3- waste oil/kerosene
  - 4- waste oil/kerosene
  - 5- waste oil/kerosene
  - 6- waste oil/kerosene
  - 7- waste oil/kerosene
  - 8- virgin motor oil/automatic trans. fluid/pale stock
  - 9- virgin motor oil/automatic trans. fluid/pale stock
  - 10- virgin motor oil/automatic trans. fluid/pale stock
  - 11- virgin motor oil/automatic trans. fluid/pale stock
  - 12- virgin motor oil/automatic trans. fluid/pale stock
  - 13- virgin motor oil/automatic trans. fluid/pale stock
  - 14- virgin motor oil/automatic trans. fluid/pale stock
  - 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
  - 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
  - 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
  - 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
  - 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
  - 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

- FORMER UST CONTENTS**
- T1- gasoline
  - T2- gasoline
  - T3- gasoline
  - T4- stoddard solvent
  - T5- kerosene
  - T6- kerosene
  - T7- diesel
  - T8- diesel











REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.



<b>Ninyo &amp; Moore</b>		<b>SITE PLAN</b>	FIGURE <b>1</b>

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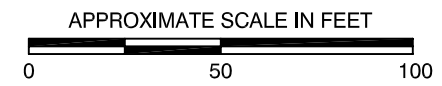
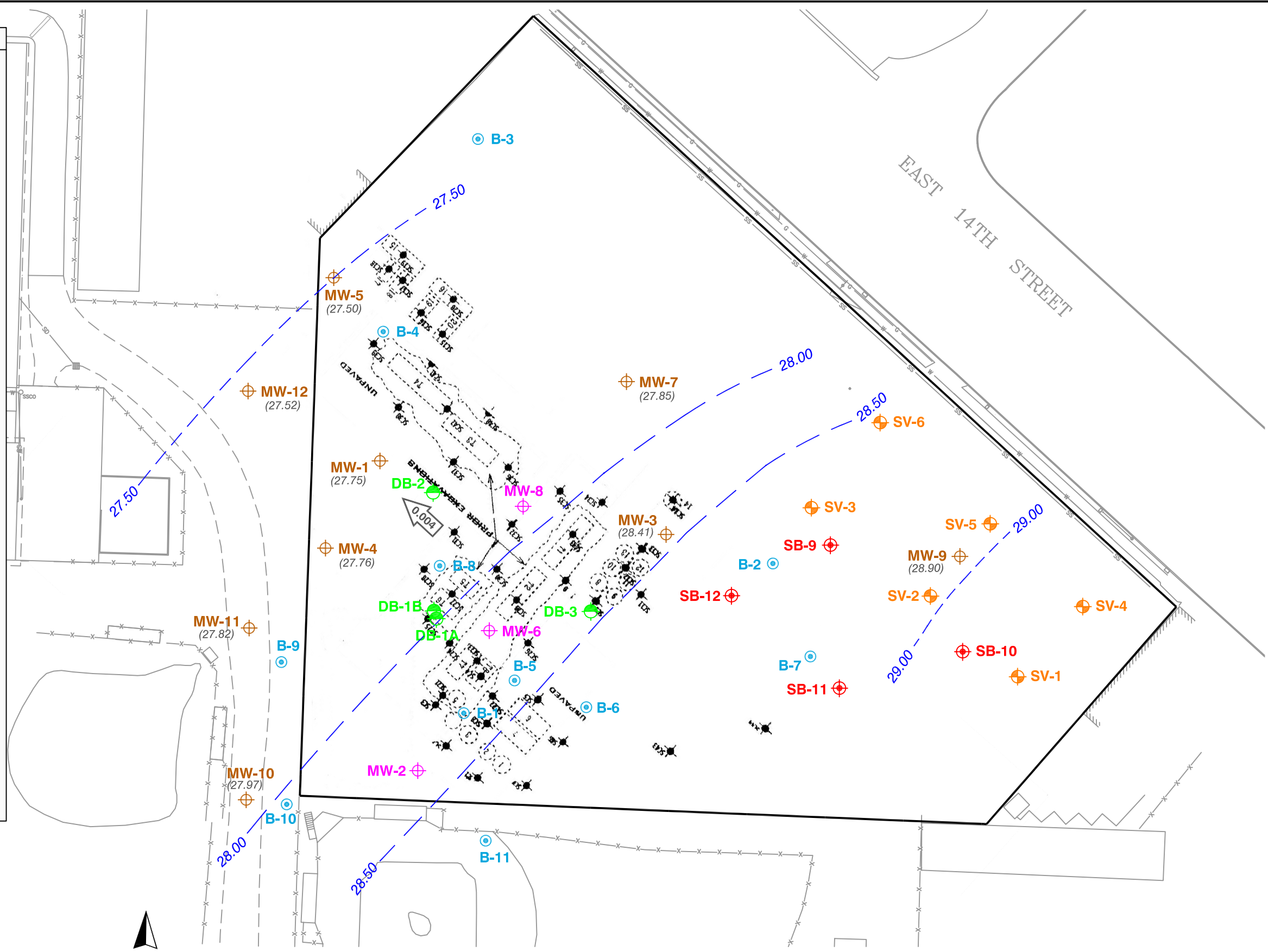
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL  
(28.79) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
-  **29.00** --- GROUNDWATER EQUIPOTENTIAL LINE ELEVATION IN FEET ABOVE MEAN SEA LEVEL
-  **0.004** → GROUNDWATER FLOW DIRECTION AND GRADIENT (FEET PER FOOT)
-  **MW-8** APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION

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- 12- virgin motor oil/automatic trans. fluid/pale stock
- 13- virgin motor oil/automatic trans. fluid/pale stock
- 14- virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
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- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

**FORMER UST CONTENTS**

- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel










NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

<b>Ninyo &amp; Moore</b>		<b>SHALLOW GROUNDWATER ELEVATION CONTOUR MAP - SEPTEMBER 23-24, 2009</b>		FIGURE <b>2</b>
		FORMER HOLLAND OIL FACILITY 16301 EAST 14th STREET SAN LEANDRO, CALIFORNIA		
PROJECT NO.	DATE			
401314005	1/10			



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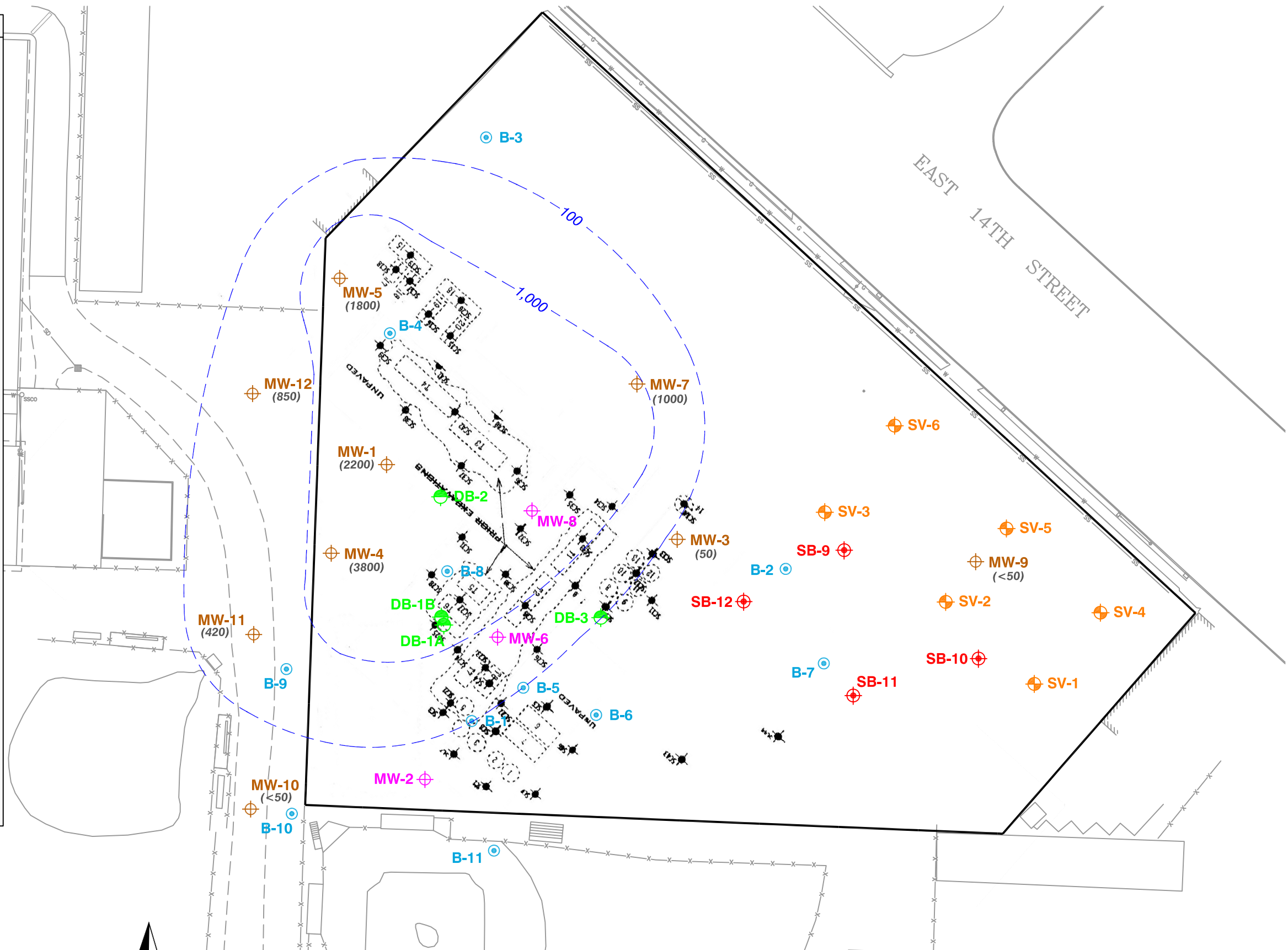
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL
- TPHd (500)** TOTAL PETROLEUM HYDROCARBON AS DIESEL TPHd CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
- <50** TPHd CONCENTRATION NOT DETECTED ABOVE LABORATORY REPORTING LIMIT
-  **1,000** SHALLOW GROUNDWATER TPHd ISOCONCENTRATION CONTOUR IN µg/L
-  **MW-8** APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION

**FORMER ART CONTENTS**

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- 13- virgin motor oil/automatic trans. fluid/pale stock
- 14- virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

**FORMER UST CONTENTS**

- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel









REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

**Ninyo & Moore**

PROJECT NO. 401314005		DATE 1/10		<b>DISSOLVED - PHASE TPHd ISOCONCENTRATION MAP</b>	FIGURE <b>3</b>

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

**LEGEND**

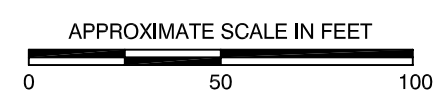
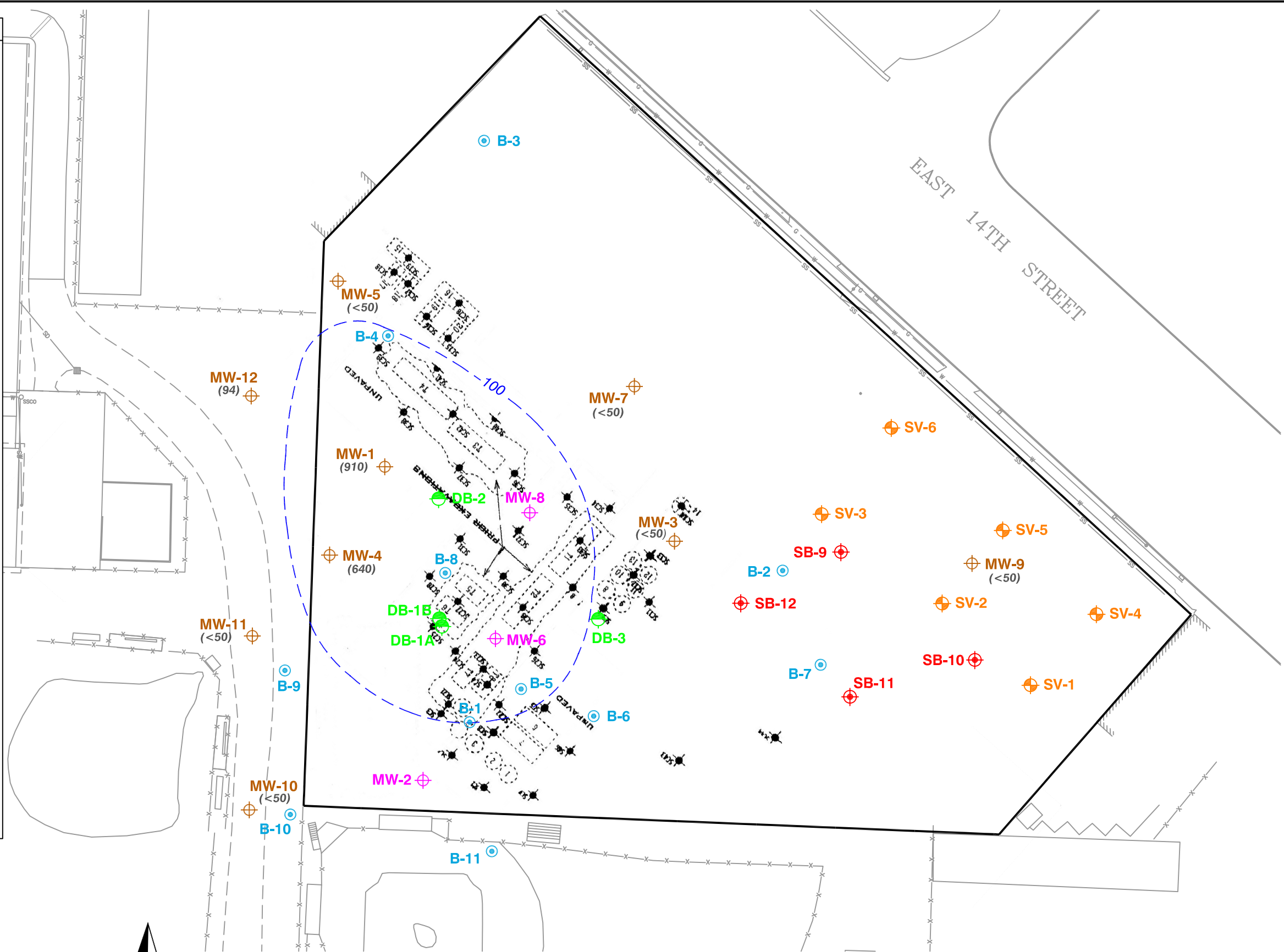
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL
- TPHg** TOTAL PETROLEUM HYDROCARBON AS GASOLINE
- (2,800)** TPHg CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
- <50** TPHg CONCENTRATION NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
- 100--** SHALLOW GROUNDWATER TPHg ISOCONCENTRATION CONTOUR IN µg/L
-  **MW-8** APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION

**FORMER ABT CONTENTS**

- 1- waste oil/kerosene
- 2- waste oil/kerosene
- 3- waste oil/kerosene
- 4- waste oil/kerosene
- 5- waste oil/kerosene
- 6- waste oil/kerosene
- 7- waste oil/kerosene
- 8- virgin motor oil/automatic trans. fluid/pale stock
- 9- virgin motor oil/automatic trans. fluid/pale stock
- 10- virgin motor oil/automatic trans. fluid/pale stock
- 11- virgin motor oil/automatic trans. fluid/pale stock
- 12- virgin motor oil/automatic trans. fluid/pale stock
- 13- virgin motor oil/automatic trans. fluid/pale stock
- 14- virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

**FORMER UST CONTENTS**

- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel









NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

<b>Ninyo &amp; Moore</b>		<b>DISSOLVED - PHASE TPHg ISOCONCENTRATION MAP</b>	FIGURE <b>4</b>



**LEGEND**

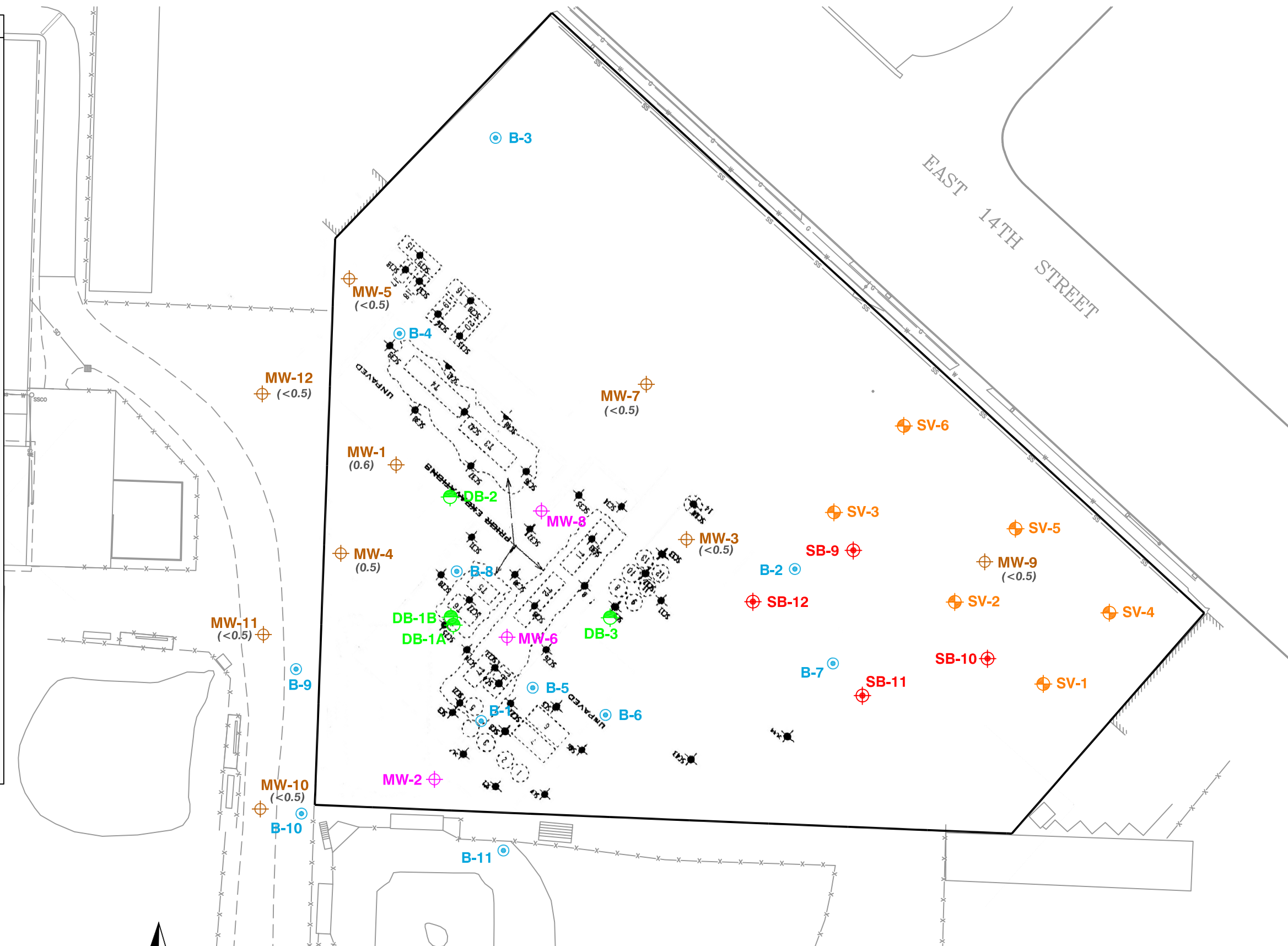
-  **MW-12** APPROXIMATE LOCATION OF EXISTING GROUNDWATER MONITORING WELL
- (<0.5)** BENZENE CONCENTRATION IN GROUNDWATER IN MICROGRAMS PER LITER (µg/L)
-  **B-3** APPROXIMATE LOCATION OF EXPLORATORY BORING ADVANCED IN JULY 2007
-  **SB-12** APPROXIMATE LOCATION OF BORING ADVANCED IN OCTOBER, 2008
-  **DB-3** APPROXIMATE LOCATION OF DEEP BORING ADVANCED IN OCTOBER, 2008
-  **SV-1** APPROXIMATE LOCATION OF SOIL VAPOR SAMPLE BORING ADVANCED IN OCTOBER, 2008
- T1** APPROXIMATE LOCATION OF FORMER USTs
- SC-1** APPROXIMATE LOCATION OF SOIL CONFIRMATION SAMPLE
- <1.0** BENZENE CONCENTRATION NOT DETECTED ABOVE LABORATORY REPORTING LIMITS
-  **MW-8** APPROXIMATE LOCATION OF MONITORING WELL DESTROYED DURING SEPTEMBER 2009 EXCAVATION

**FORMER ABT CONTENTS**

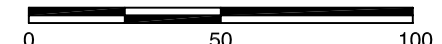
- 1- waste oil/kerosene
- 2- waste oil/kerosene
- 3- waste oil/kerosene
- 4- waste oil/kerosene
- 5- waste oil/kerosene
- 6- waste oil/kerosene
- 7- waste oil/kerosene
- 8- virgin motor oil/automatic trans. fluid/pale stock
- 9- virgin motor oil/automatic trans. fluid/pale stock
- 10- virgin motor oil/automatic trans. fluid/pale stock
- 11- virgin motor oil/automatic trans. fluid/pale stock
- 12- virgin motor oil/automatic trans. fluid/pale stock
- 13- virgin motor oil/automatic trans. fluid/pale stock
- 14- virgin motor oil/automatic trans. fluid/pale stock
- 15- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 16- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 17- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 18- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 19- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene
- 20- waste oil/kerosene/virgin motor oil/automatic trans. fluid/gasoline/diesel/kerosene

**FORMER UST CONTENTS**

- T1- gasoline
- T2- gasoline
- T3- gasoline
- T4- stoddard solvent
- T5- kerosene
- T6- kerosene
- T7- diesel
- T8- diesel



APPROXIMATE SCALE IN FEET



NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: VIRGIL CHAVEZ LAND SURVEYING 2008, ENVIRONMENTAL BIO-SYSTEM, INC 2003.

<b>Ninyo &amp; Moore</b>		<b>DISSOLVED - PHASE BENZENE ISOCONCENTRATION MAP</b>	FORMER HOLLAND OIL FACILITY 16301 EAST 14TH STREET SAN LEANDRO, CALIFORNIA	FIGURE
				<b>5</b>
PROJECT NO.	DATE			
401314005	1/10			

**APPENDIX A**  
**FIELD DATA SHEETS**











Project Name: Holland Oil  
 Site: 16301 E 14th St Date: 9/28/2009 Sampler: DBB  
 Project No.: 60131405 Weather: overcast / cool  
 Monitoring Well ID: MW-7 Vapor Monitoring Results (ppmv): NA

Casing Diameter:  2"  4"  6"  Other  
 Casing Material:  SCH 40-PVC  Other: S. Steel  
 Total Depth (ft-TOC): 14.75 Floating Immiscible Layer Observed?: No  
 Depth to Water (ft-TOC): 8.97 Floating Immiscible Layer Thickness (feet): NA  
 Water Column Height (feet): 5.83 x  $\frac{2" = 0.16}{4" = 0.65}$  gal/ft = 0.933 x 3 = 2.8 Min. Purge Volume (gallons)

Water Level Measurement Equip.: Solinst Water Level Indicator Cleaned: yes  
 Purging Method/Equipment: Peristaltic Pump and Dedicated Tubing Cleaned: yes  
 Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned  
 Temp./pH Meter: Ultrameter Oakleaf Calibration (date/time):  
 Conductivity Meter: Ultrameter Oakleaf Calibration (date/time): factory calibrated 9/24/09

Comments: \_\_\_\_\_

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0	<u>6.99</u>	<u>25.9</u>

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
<u>0721</u>	<u>0.5</u>		<u>20.4</u>	<u>6.43</u>	<u>197.7</u>	<u>light gray &amp; slightly cloudy, no sheen, no od</u>
<u>0725</u>	<u>1</u>		<u>20.5</u>	<u>6.21</u>	<u>198.1</u>	<u>clear, no odor, no sheen</u>
<u>0728</u>	<u>1.5</u>		<u>20.6</u>	<u>6.08</u>	<u>199.2</u>	" " "
<u>0730</u>	<u>2</u>		<u>20.6</u>	<u>6.05</u>	<u>199.2</u>	" " "
<u>0733</u>	<u>2.8</u>		<u>20.6</u>	<u>6.05</u>	<u>199.2</u>	" " "

Total Volume Purged (gallon): 2.8 Time Finished Purging: 0733

Sampling Method/Equipment: Disposable Peristaltic Pump and Dediscated Tubing  
 Bailer Rope-New or Cleaned?: \_\_\_\_\_  
 Sample Time: 0740  
 Sample ID: MW-7  
 Replicate ID (if appl.): None  
 Laboratory: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.



Project Name: Holland Oil

Site: 16301 E 14th St  
 Project No.: 40134005  
 Monitoring Well ID: MW-10

Date: 9/23/2009 Sampler: DBB  
 Weather: Overcast/Cool  
 Vapor Monitoring Results (ppmv): NA

Casing Diameter:  2"  4"  6"  Other  
 Casing Material:  SCH 40-PVC  Other: S. Steel  
 Total Depth (ft-TOC): 14.964  
 Floating Immiscible Layer Observed?: No  
 Depth to Water (ft-TOC): 8.82  
 Floating Immiscible Layer Thickness (feet): NA  
 Water Column Height (feet): 6.14 x 2" = 0.16 gal/ft = 0.98 x 3 = 3.0 Min. Purge Volume (gallons)  
 4" = 0.65  
 6" = 1.47

Water Level Measurement Equip.: Solinst Water Level Indicator Cleaned: yes  
 Purging Method/Equipment: Peristaltic Pump and Dedicated Tubing Cleaned: yes  
 Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned  
 Temp./pH Meter: Ultrameter Dalton Calibration (date/time):  
 Conductivity Meter: Ultrameter Dalton Calibration (date/time): Factory calibrated 7/24/09 0710  
 Comments: \_\_\_\_\_

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0	<u>6.99</u>	<u>25.9</u>

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
<u>1424</u>	<u>0.5</u>		<u>19.6</u>	<u>6.48</u>	<u>198.8</u>	<u>clear, no odor, no sheen</u>
<u>1427</u>	<u>1</u>		<u>19.6</u>	<u>6.41</u>	<u>198.6</u>	<u>" "</u>
<u>1431</u>	<u>1.5</u>		<u>19.6</u>	<u>6.35</u>	<u>198.4</u>	<u>" "</u>
<u>1434</u>	<u>2</u>		<u>19.8</u>	<u>6.21</u>	<u>199.0</u>	<u>" "</u>
<u>1438</u>	<u>2.5</u>		<u>19.8</u>	<u>6.19</u>	<u>199.0</u>	<u>" "</u>
<u>1441</u>	<u>3</u>		<u>19.8</u>	<u>6.19</u>	<u>198.9</u>	<u>" "</u>

Total Volume Purged (gallon): 3.0

Time Finished Purging: 1442

Sampling Method/Equipment: Disposable Peristaltic Pump and Dedicated Tubing

Bailer Rope-New or Cleaned?: NA  
 Sample Time: 1445  
 Sample ID: MW-10  
 Replicate ID (if appl.): None

Laboratory: \_\_\_\_\_

Comments: \_\_\_\_\_

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.

Project Name: Holland Oil

Site: 16301 E 14th St  
 Project No.: 401316005  
 Monitoring Well ID: MW-11

Date: 9/23/2009 Sampler: DBB  
 Weather: overcast/cool  
 Vapor Monitoring Results (ppmv): NA

Casing Diameter:  2"  4"  6"  Other  
 Casing Material:  SCH 40-PVC  Other: S. Steel  
 Total Depth (ft-TOC): 14.57  
 Floating Immiscible Layer Observed?: No  
 Depth to Water (ft-TOC): 8.38  
 Floating Immiscible Layer Thickness (feet): NA  
 Water Column Height (feet): 6.19 x  $\frac{2"=0.18}{4"=0.65}$  gal/ft = 0.99 x 3 = 3.0 Min. Purge Volume (gallons)  
 6"=1.47

Water Level Measurement Equip.: Solinst Water Level Indicator Cleaned: yes  
 Purging Method/Equipment: Peristaltic Pump and Dedicated Tubing Cleaned: yes  
 Pump Lines/Bailer Ropes-New or Cleaned?: New/Cleaned  
 Temp./pH Meter: Ultrameter Oxyton  
 Conductivity Meter: Ultrameter Oxyton  
 Calibration (date/time): Factory calibrated 9/24/09, 0710

Comments: \_\_\_\_\_

pH STND.	FIELD pH	FIELD TEMP. (°F)
4.0		
7.0	<u>6.99</u>	<u>25.9</u>

TIME	Purge Vol.(Gal)	Totalizer Reading (Gal)	TEMP. (°F)	pH	COND. (µS/cm)	COMMENTS (color, turbidity, odor, sheen, etc.):
1130	0.5		19.9	6.64	197.5	light brown, slightly cloudy, no odor, no sheen
1133	1		20.0	6.54	197.0	clear, no odor, no sheen
1137	1.5		20.0	6.48	197.0	" " "
1140	2		20.0	6.38	196.9	" " "
1142	2.5		19.9	6.32	197.4	" " "
1145	3.0		19.9	6.23	197.2	" " "

Total Volume Purged (gallon): 3.1 Time Finished Purging: 1145

Sampling Method/Equipment: Disposable Peristaltic Pump and Dedicated Tubing  
 Bailer Rope-New or Cleaned?: NA  
 Sample Time: 1150  
 Sample ID: MW-11  
 Replicate ID (if appl.): None  
 Laboratory: \_\_\_\_\_  
 Comments: \_\_\_\_\_

PARAMETER	USEPA METHOD	CONTAINERS/VOLUME/TYPE (Voa/Glass/Plastic)	PRES.





**APPENDIX B**  
**ANALYTICAL LABORATORY REPORT**





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







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

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

**Laboratory Job Number 215181  
ANALYTICAL REPORT**

Ninyo & Moore  
1956 Webster St.  
Oakland, CA 94612

Project : 401314005  
Location : Holland Park  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-1	215181-001
MW-3	215181-002
MW-4	215181-003
MW-5	215181-004
MW-9	215181-005

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

Signature:   
Project Manager

Date: 10/06/2009

NELAP # 01107CA

### CASE NARRATIVE

Laboratory number: 215181  
Client: Ninyo & Moore  
Project: 401314005  
Location: Holland Park  
Request Date: 09/23/09  
Samples Received: 09/23/09

This data package contains sample and QC results for five water samples, requested for the above referenced project on 09/23/09. The samples were received cold and intact.

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

High surrogate recovery was observed for bromofluorobenzene (FID) in MW-1 (lab # 215181-001); the corresponding trifluorotoluene (FID) surrogate recovery was within limits. No other analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

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

No analytical problems were encountered.



COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 215181 Date Received 9/23/09 Number of coolers 1
Client NINYO & MOORE Project HALO / CAP

Date Opened 9/23/09 By (print) M. Villanueva (sign) [Signature]
Date Logged in 9-23-09 By (print) J. Gray (sign) [Signature]

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? ... YES (circle) on cooler on samples YES NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)
Bubble Wrap Foam blocks Bags None
Cloth material Cardboard Styrofoam Paper towels

7. Temperature documentation:
Type of ice used: Wet Blue/Gel None Temp(C)

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS

[Blank lines for comments]







## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC514890	Batch#:	155605
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,180	109	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	64-147
Bromofluorobenzene (FID)	109	71-138

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	155605
MSS Lab ID:	215219-002	Sampled:	09/25/09
Matrix:	Water	Received:	09/25/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514891

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	7.988	2,000	2,151	107	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	64-147
Bromofluorobenzene (FID)	118	71-138

Type: MSD Lab ID: QC514892

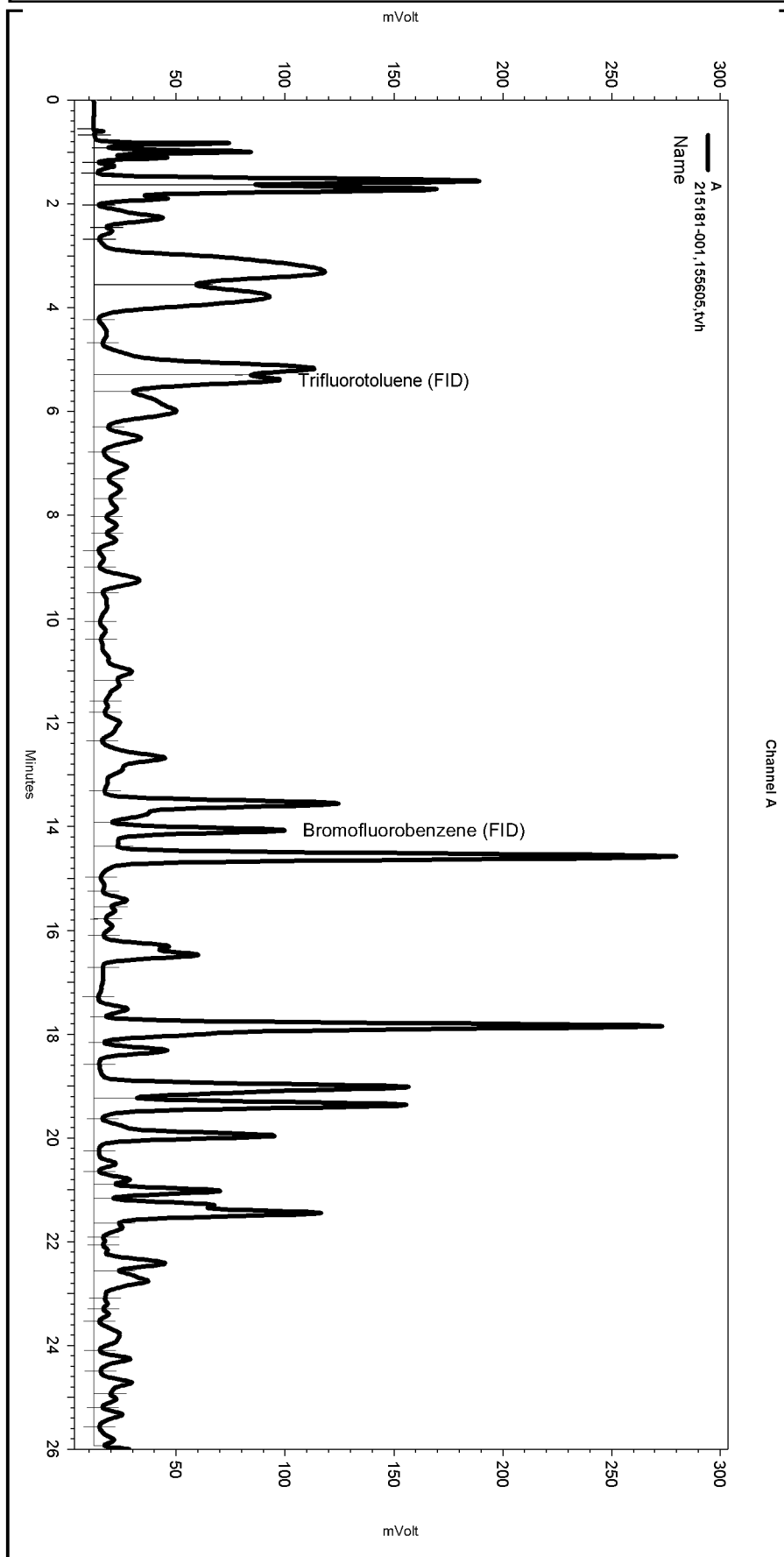
Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,157	107	66-110	0	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	138	64-147
Bromofluorobenzene (FID)	117	71-138

RPD= Relative Percent Difference

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\275.seq  
 Sample Name: 215181-001,155605,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_012  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTX271.met

Software Version 3.1.7  
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 Analysis Date: 10/3/2009 11:37:20 AM  
 Sample Amount: 5 Multiplier: 5  
 Vial & pH or Core ID: a1.0  
 hs<1



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Integration Events

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Yes	Threshold	0	0	50

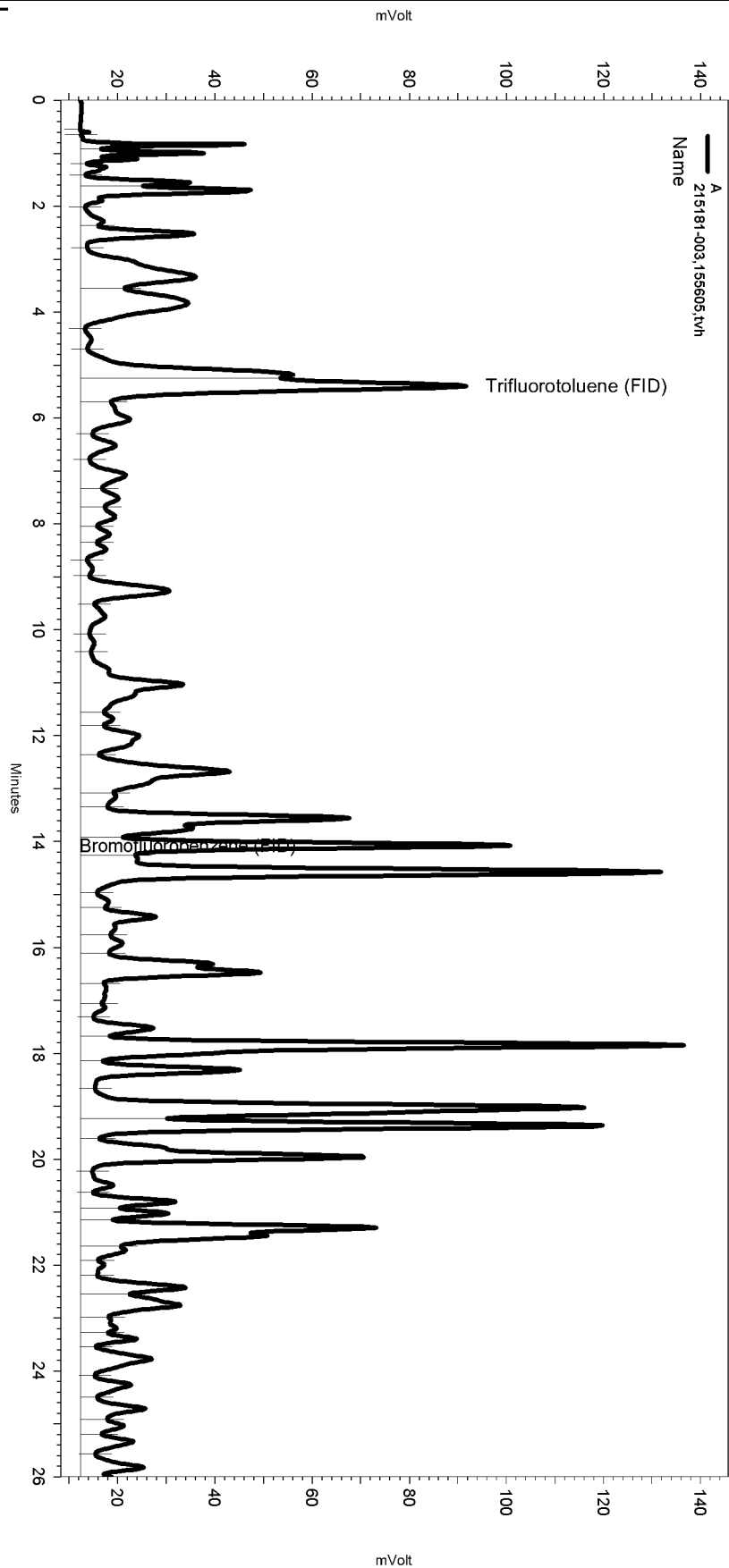
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_012

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseline	0	26.017	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\275.seq  
 Sample Name: 215181-003,155605,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_014  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTX271.met

Software Version 3.1.7  
 Run Date: 10/2/2009 8:45:32 PM  
 Analysis Date: 10/3/2009 11:38:33 AM  
 Sample Amount: 5 Multiplier: 5  
 Vial & pH or Core ID: a1.0



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Integration Events

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Yes	Threshold	0	0	50

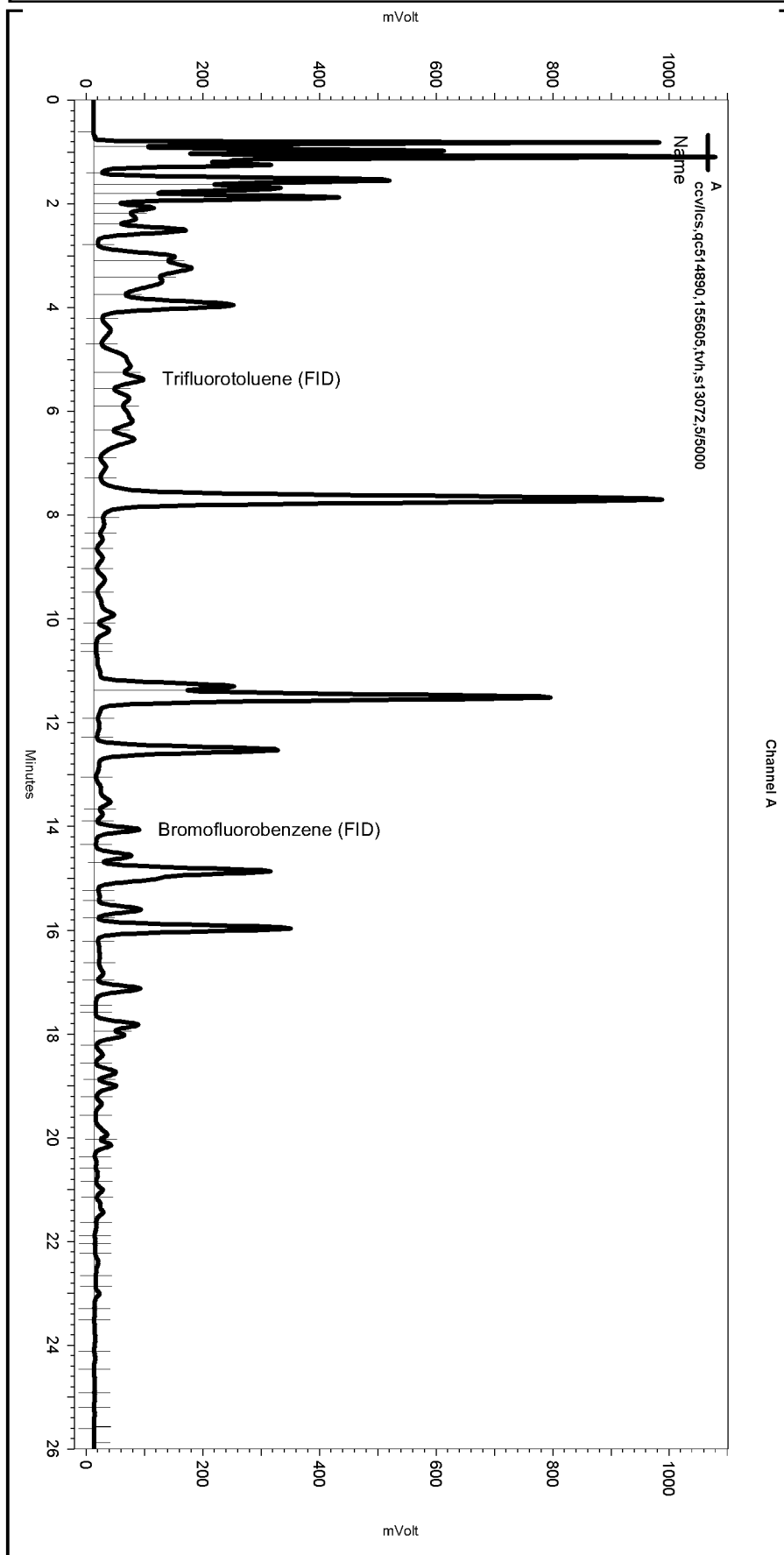
Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_014

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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Yes	Split Peak	5.252	0	0

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 Sample Name: ccv\lcs,qc514890,155605,tvh,s13072,5/5000  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_006  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lms2k3\tvh1)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe271.met

Software Version 3.1.7  
 Run Date: 10/2/2009 1:55:35 PM  
 Analysis Date: 10/3/2009 11:33:22 AM  
 Sample Amount: 5 Multiplier: 5  
 Vial & pH or Core ID: {Data Description}



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No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_006

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				

Total Extractable Hydrocarbons			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	401314005	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	09/23/09
Units:	ug/L	Received:	09/23/09
Diln Fac:	1.000	Prepared:	09/30/09
Batch#:	155504		

Field ID: MW-1                      Lab ID: 215181-001  
 Type: SAMPLE                      Analyzed: 10/01/09

Analyte	Result	RL
Diesel C10-C24	2,200	50

Surrogate	%REC	Limits
o-Terphenyl	96	60-130

Field ID: MW-3                      Lab ID: 215181-002  
 Type: SAMPLE                      Analyzed: 10/01/09

Analyte	Result	RL
Diesel C10-C24	50	50

Surrogate	%REC	Limits
o-Terphenyl	97	60-130

Field ID: MW-4                      Lab ID: 215181-003  
 Type: SAMPLE                      Analyzed: 10/01/09

Analyte	Result	RL
Diesel C10-C24	3,800	50

Surrogate	%REC	Limits
o-Terphenyl	92	60-130

ND= Not Detected  
 RL= Reporting Limit





## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	401314005	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155504
Units:	ug/L	Prepared:	09/30/09
Diln Fac:	1.000	Analyzed:	10/01/09

Type: BS Lab ID: QC514459

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,204	88	53-122

Surrogate	%REC	Limits
o-Terphenyl	89	60-130

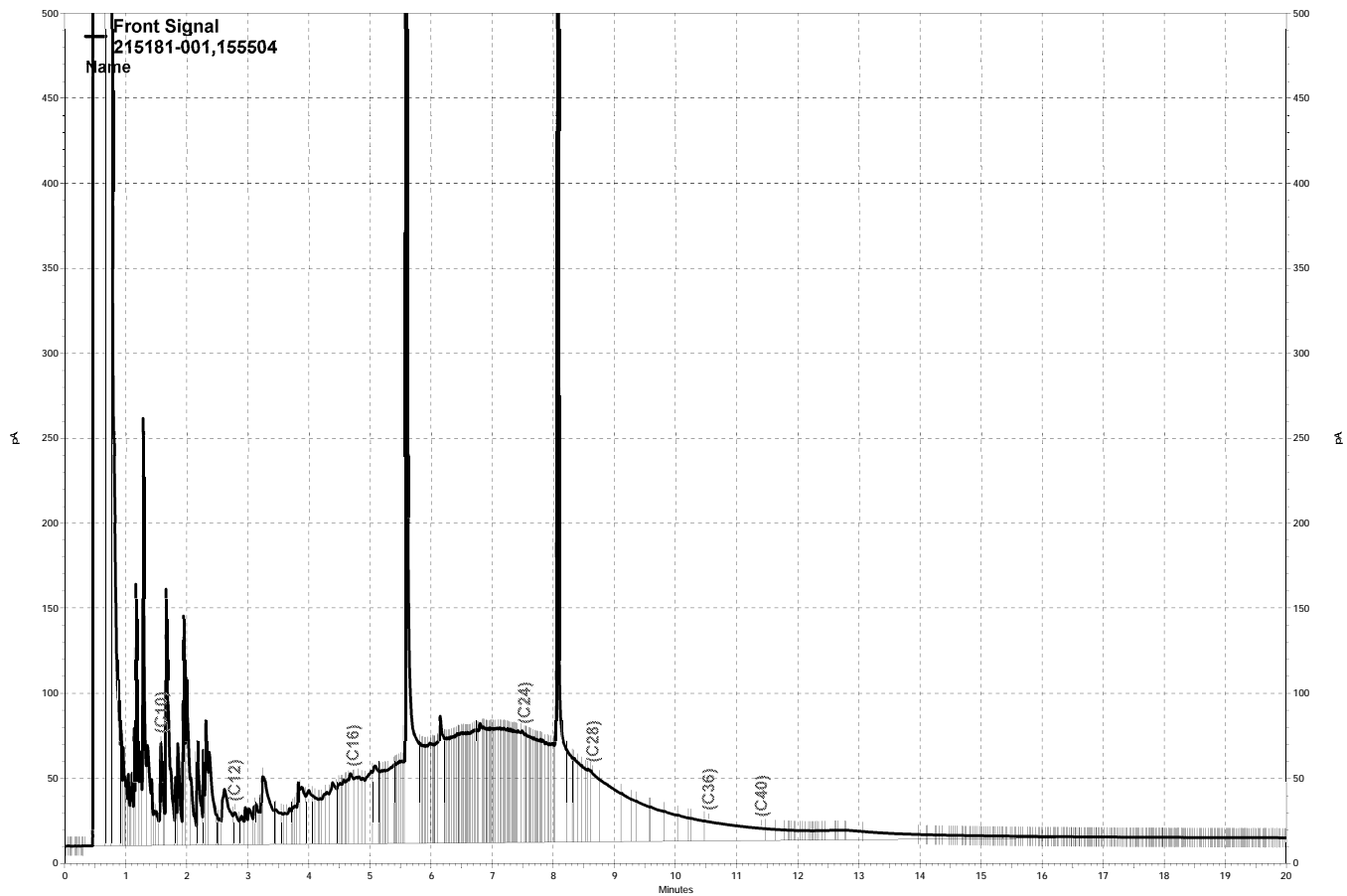
Type: BSD Lab ID: QC514460

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,223	89	53-122	1	36

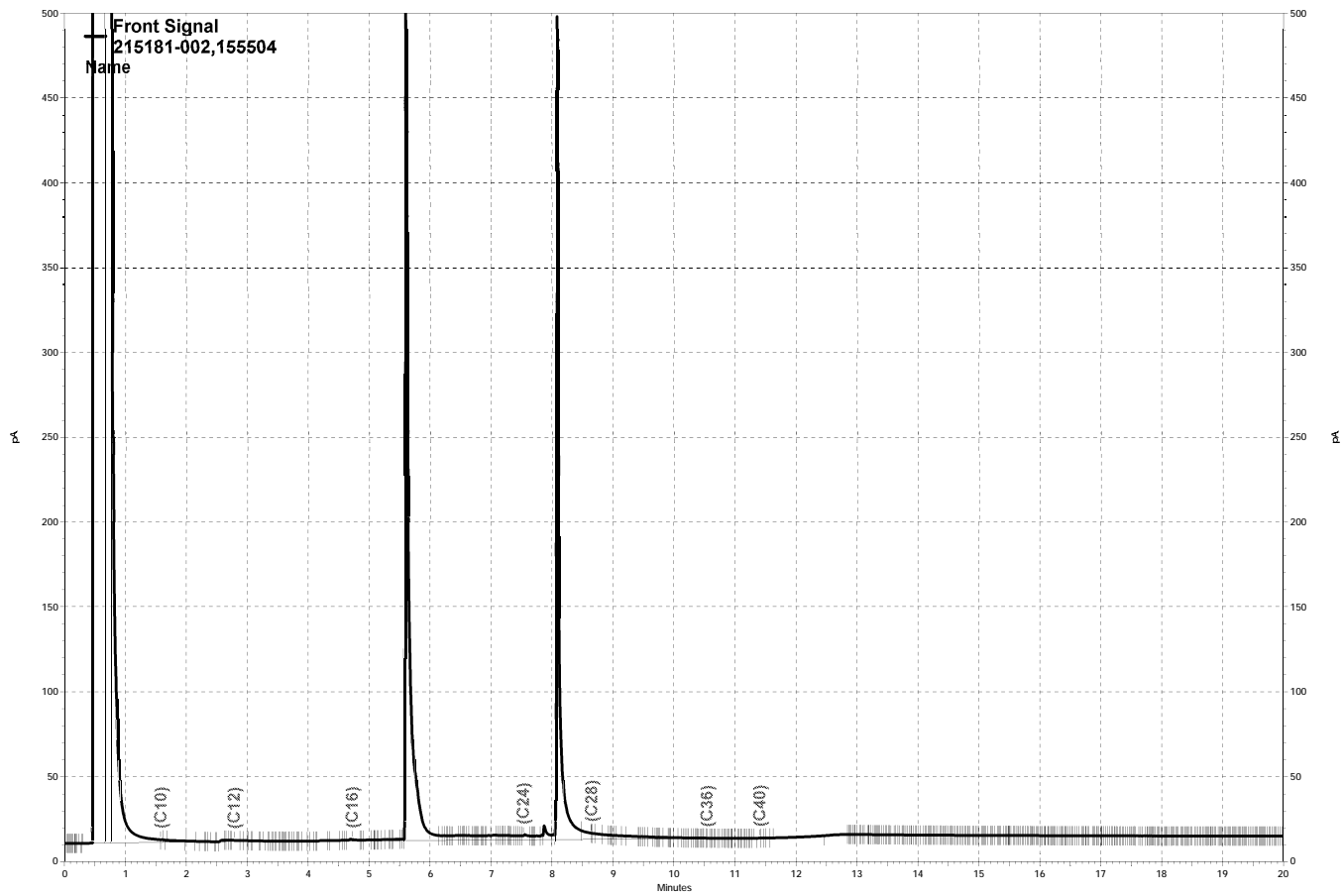
  

Surrogate	%REC	Limits
o-Terphenyl	88	60-130

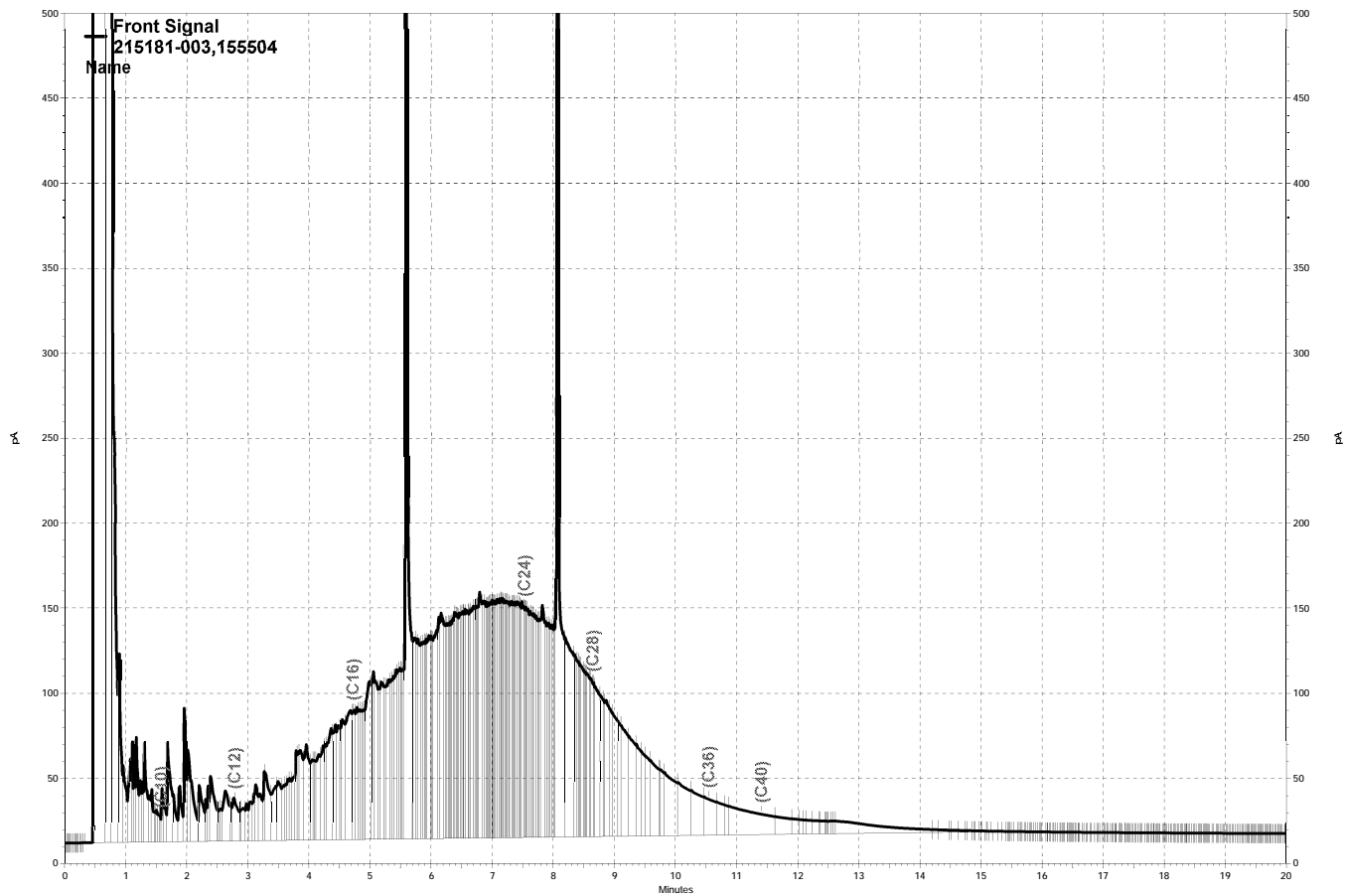
RPD= Relative Percent Difference



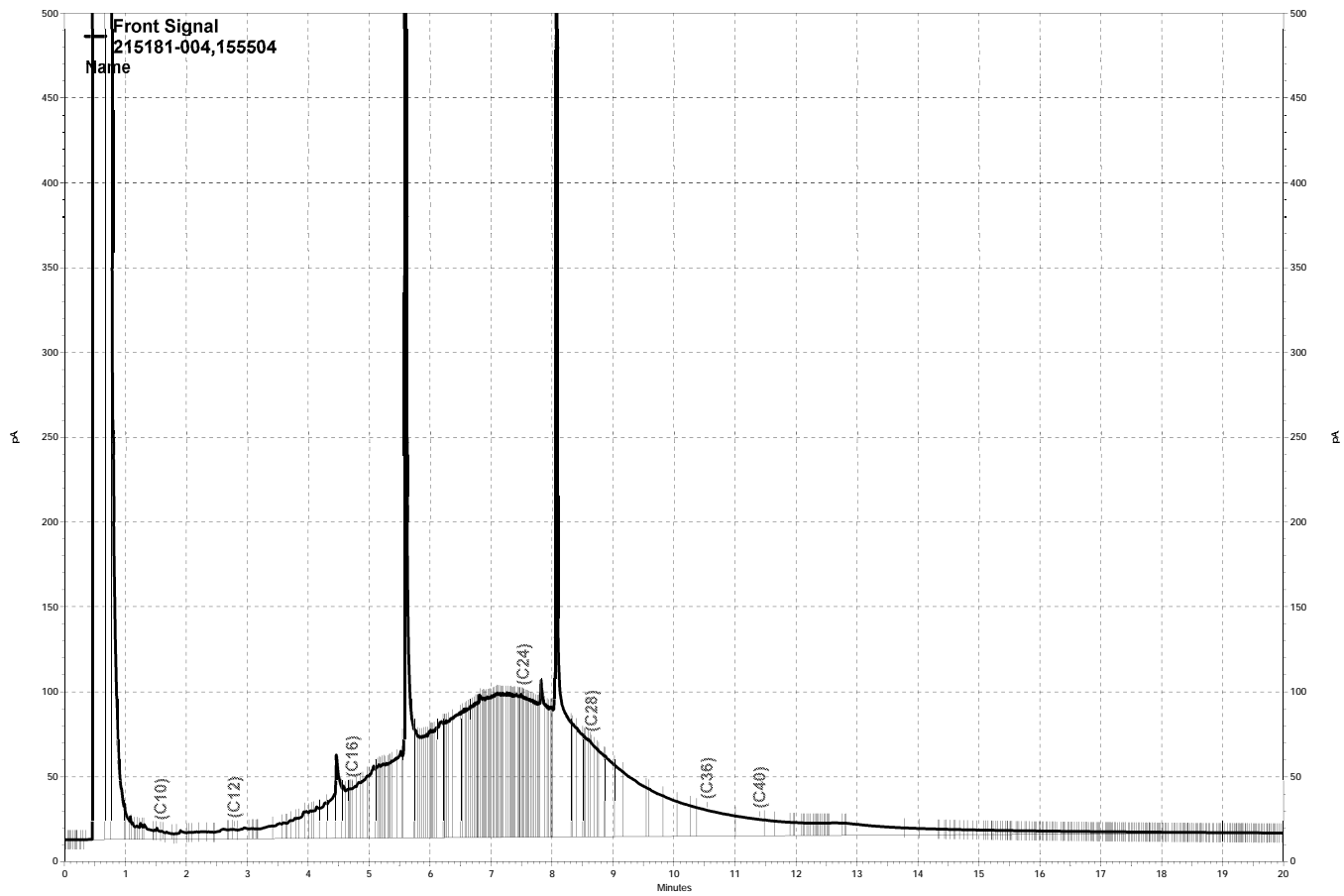
— G:\ezchrom\Projects\GC27\Data\274a014.dat, Front Signal



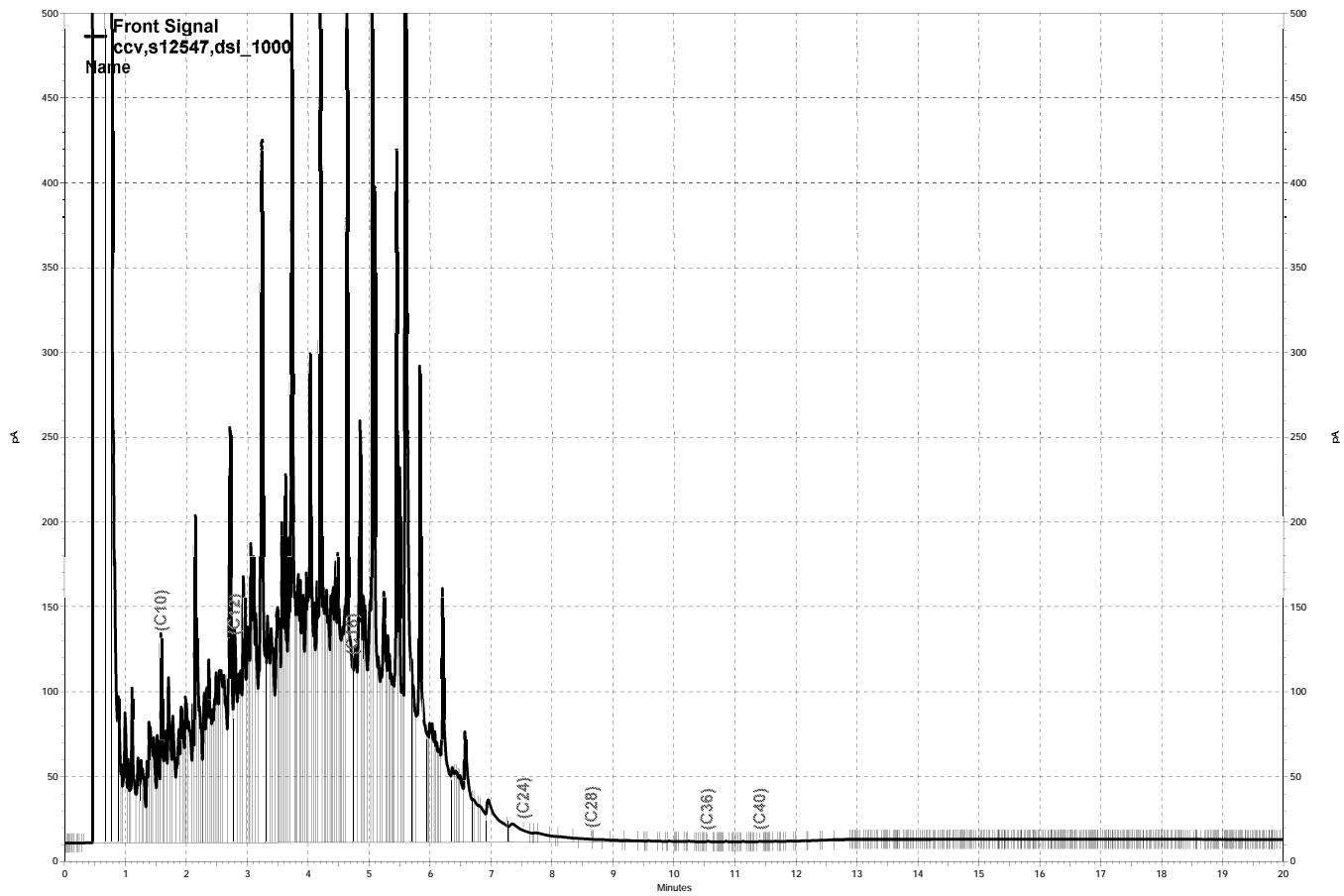
— G:\ezchrom\Projects\GC27\Data\274a015.dat, Front Signal



— G:\ezchrom\Projects\GC27\Data\274a021.dat, Front Signal



— G:\ezchrom\Projects\GC27\Data\274a022.dat, Front Signal



— G:\ezchrom\Projects\GC27\Data\274a005.dat, Front Signal

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	155625
Lab ID:	215181-001	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/03/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	0.8	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.6	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	155625
Lab ID:	215181-001	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/03/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	0.9	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	1.0	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	35	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	78	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	1.4	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	14	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	23	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	109	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	106	80-123

ND= Not Detected  
 RL= Reporting Limit



### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	155580
Lab ID:	215181-002	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	155580
Lab ID:	215181-002	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	103	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	155625
Lab ID:	215181-003	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	0.9	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.5	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	155625
Lab ID:	215181-003	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	3.0	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	16	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	33	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	1.1	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	11	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	0.8	0.5
n-Butylbenzene	11	0.5
1,2-Dichlorobenzene	0.7	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	103	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	155580
Lab ID:	215181-004	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	19	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	155580
Lab ID:	215181-004	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	104	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	103	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-9	Batch#:	155580
Lab ID:	215181-005	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-9	Batch#:	155580
Lab ID:	215181-005	Sampled:	09/23/09
Matrix:	Water	Received:	09/23/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	104	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-123

ND= Not Detected  
 RL= Reporting Limit



## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC514784	Batch#:	155580
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	25.00	24.88	100	75-131
Benzene	25.00	26.08	104	80-120
Trichloroethene	25.00	26.18	105	80-121
Toluene	25.00	25.95	104	80-120
Chlorobenzene	25.00	27.01	108	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	103	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	100	80-123

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC514785	Batch#:	155580
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC514785	Batch#:	155580
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	104	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-123

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

Purgeable Organics by GC/MS			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	155580
MSS Lab ID:	215341-015	Sampled:	09/30/09
Matrix:	Water	Received:	09/30/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514838

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.1040	25.00	25.74	103	80-131
Benzene	0.2020	25.00	26.20	104	80-122
Trichloroethene	<0.1466	25.00	26.57	106	77-129
Toluene	<0.1000	25.00	25.94	104	80-122
Chlorobenzene	<0.1291	25.00	26.70	107	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	106	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-123

Type: MSD Lab ID: QC514839

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	25.00	24.66	99	80-131	4	20
Benzene	25.00	25.24	100	80-122	4	20
Trichloroethene	25.00	25.24	101	77-129	5	20
Toluene	25.00	25.05	100	80-122	3	20
Chlorobenzene	25.00	25.84	103	80-120	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	106	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-123

RPD= Relative Percent Difference

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC514979	Batch#:	155625
Matrix:	Water	Analyzed:	10/03/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	215181	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC514979	Batch#:	155625
Matrix:	Water	Analyzed:	10/03/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	104	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit







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







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

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

**Laboratory Job Number 215202  
ANALYTICAL REPORT**

Ninyo & Moore  
1956 Webster St.  
Oakland, CA 94612

Project : 401314005  
Location : Holland Park  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-7	215202-001
MW-10	215202-002
MW-11	215202-003
MW-12	215202-004

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

Signature:   
Project Manager

Date: 10/06/2009

NELAP # 01107CA

**CASE NARRATIVE**

Laboratory number: 215202  
Client: Ninyo & Moore  
Project: 401314005  
Location: Holland Park  
Request Date: 09/24/09  
Samples Received: 09/24/09

This data package contains sample and QC results for four water samples, requested for the above referenced project on 09/24/09. The samples were received cold and intact.

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

No analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

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

No analytical problems were encountered.



COOLER RECEIPT CHECKLIST



Curtis & Tompkins, Ltd.

Login # 215202 Date Received 9/24/09 Number of coolers 1
Client NINYO & MOORE Project HOLLAND

Date Opened 9/24/09 By (print) M. Villanueva (sign) [Signature]
Date Logged in 7-28-09 By (print) J. Goyette (sign) [Signature]

1. Did cooler come with a shipping slip (airbill, etc) YES NO
Shipping info

2A. Were custody seals present? ... YES (circle) on cooler on samples NO
How many Name Date

2B. Were custody seals intact upon arrival? YES NO N/A

3. Were custody papers dry and intact when received? YES NO

4. Were custody papers filled out properly (ink, signed, etc)? YES NO

5. Is the project identifiable from custody papers? (If so fill out top of form) YES NO

6. Indicate the packing in cooler: (if other, describe)
Bubble Wrap Foam blocks Bags None
Cloth material Cardboard Styrofoam Paper towels

7. Temperature documentation:
Type of ice used: Wet Blue/Gel None Temp(C)

Samples Received on ice & cold without a temperature blank

Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES NO
If YES, what time were they transferred to freezer?

9. Did all bottles arrive unbroken/unopened? YES NO

10. Are samples in the appropriate containers for indicated tests? YES NO

11. Are sample labels present, in good condition and complete? YES NO

12. Do the sample labels agree with custody papers? YES NO

13. Was sufficient amount of sample sent for tests requested? YES NO

14. Are the samples appropriately preserved? YES NO N/A

15. Are bubbles > 6mm absent in VOA samples? YES NO N/A

16. Was the client contacted concerning this sample delivery? YES NO
If YES, Who was called? By Date:

COMMENTS





## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC514890	Batch#:	155605
Matrix:	Water	Analyzed:	10/02/09
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,180	109	77-118

Surrogate	%REC	Limits
Trifluorotoluene (FID)	130	64-147
Bromofluorobenzene (FID)	109	71-138

## Batch QC Report

Total Volatile Hydrocarbons			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	155605
MSS Lab ID:	215219-002	Sampled:	09/25/09
Matrix:	Water	Received:	09/25/09
Units:	ug/L	Analyzed:	10/02/09
Diln Fac:	1.000		

Type: MS Lab ID: QC514891

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	7.988	2,000	2,151	107	66-110

Surrogate	%REC	Limits
Trifluorotoluene (FID)	133	64-147
Bromofluorobenzene (FID)	118	71-138

Type: MSD Lab ID: QC514892

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,157	107	66-110	0	11

Surrogate	%REC	Limits
Trifluorotoluene (FID)	138	64-147
Bromofluorobenzene (FID)	117	71-138

RPD= Relative Percent Difference



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\275.seq  
 Sample Name: 215202-004,155605,tvh  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_023  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lims2k3\tvh1)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\TVHBTXE271.met

Software Version 3.1.7  
 Run Date: 10/3/2009 2:23:57 AM  
 Analysis Date: 10/3/2009 11:43:46 AM  
 Sample Amount: 5 Multiplier: 5  
 Vial & pH or Core ID: a1.0

---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

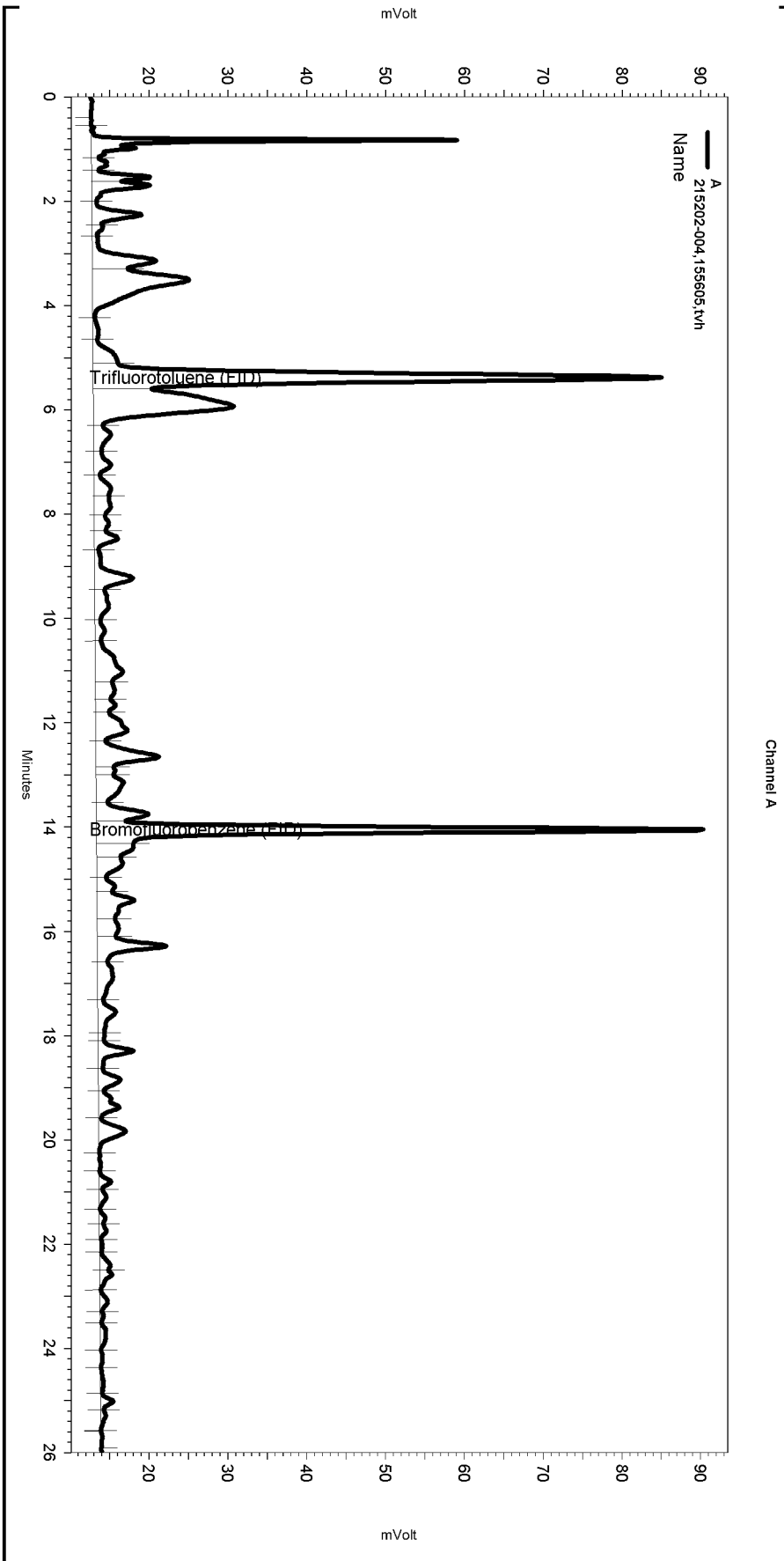
Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

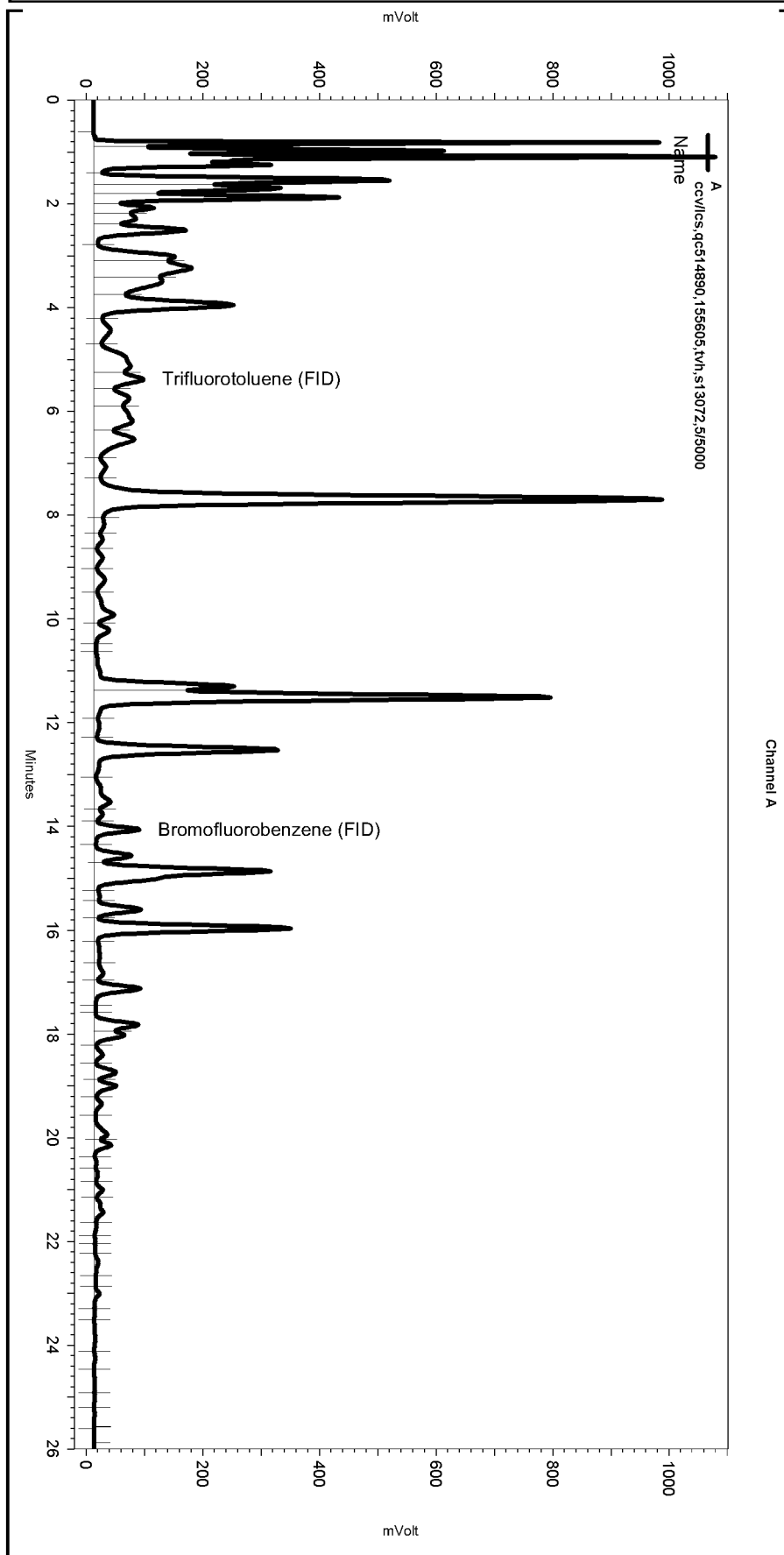
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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.112	0	0
Yes	Split Peak	14.317	0	0



Sequence File: \\Lims\gdrive\ezchrom\Projects\GC19\Sequence\275.seq  
 Sample Name: ccv\lcs,qc514890,155605,tvh,s13072,5/5000  
 Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_006  
 Instrument: GC19 (Offline) Vial: N/A Operator: Tvh 1. Analyst (lms2k3\tvh1)  
 Method Name: \\Lims\gdrive\ezchrom\Projects\GC19\Method\tvhbtxe271.met

Software Version 3.1.7  
 Run Date: 10/2/2009 1:55:35 PM  
 Analysis Date: 10/3/2009 11:33:22 AM  
 Sample Amount: 5 Multiplier: 5  
 Vial & pH or Core ID: {Data Description}



---< General Method Parameters >---

No items selected for this section

---< A >---

No items selected for this section

Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File: \\Lims\gdrive\ezchrom\Projects\GC19\Data\275\_006

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
None				



## Batch QC Report

Total Extractable Hydrocarbons			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 3520C
Project#:	401314005	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	155504
Units:	ug/L	Prepared:	09/30/09
Diln Fac:	1.000	Analyzed:	10/01/09

Type: BS Lab ID: QC514459

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,204	88	53-122

Surrogate	%REC	Limits
o-Terphenyl	89	60-130

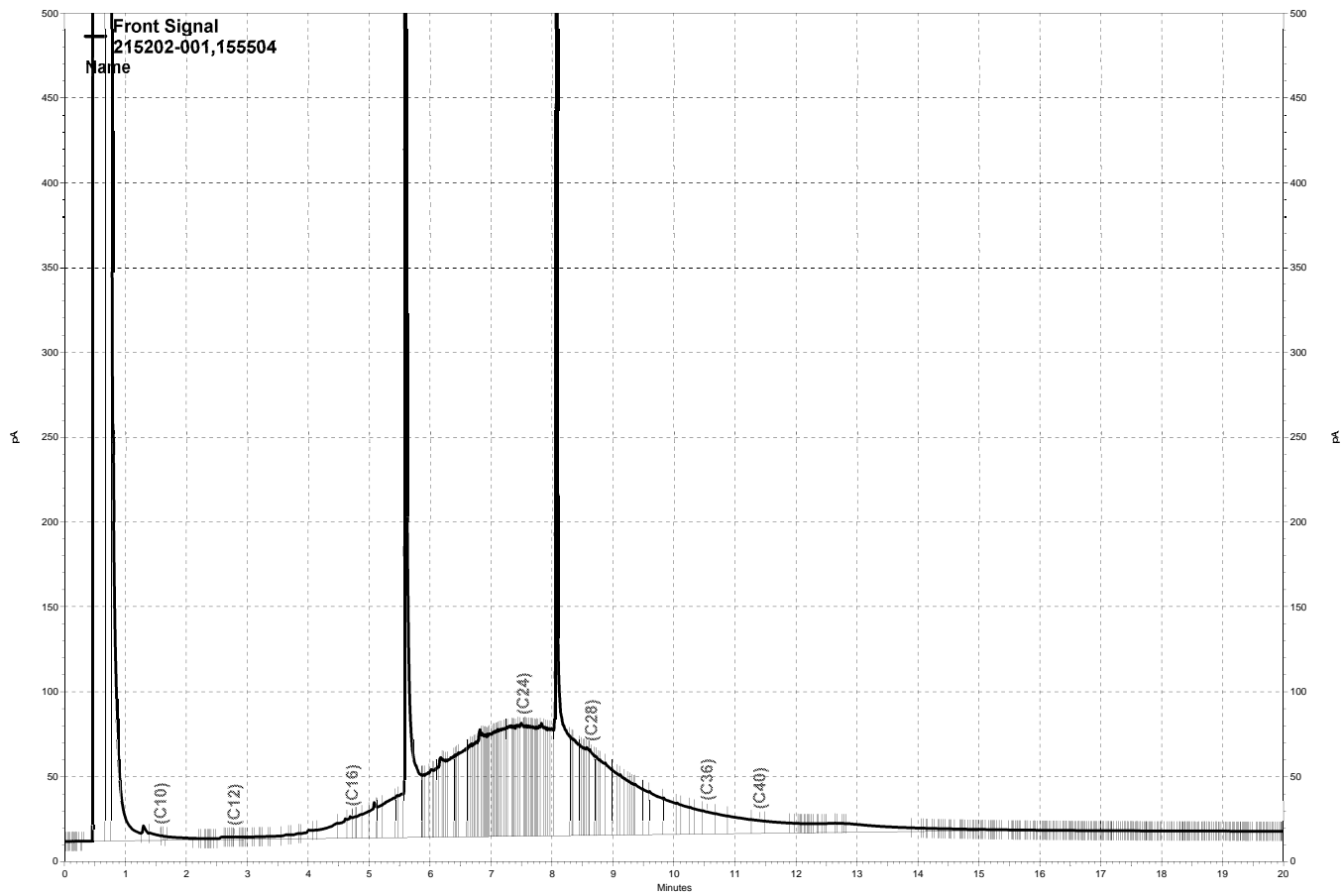
Type: BSD Lab ID: QC514460

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,223	89	53-122	1	36

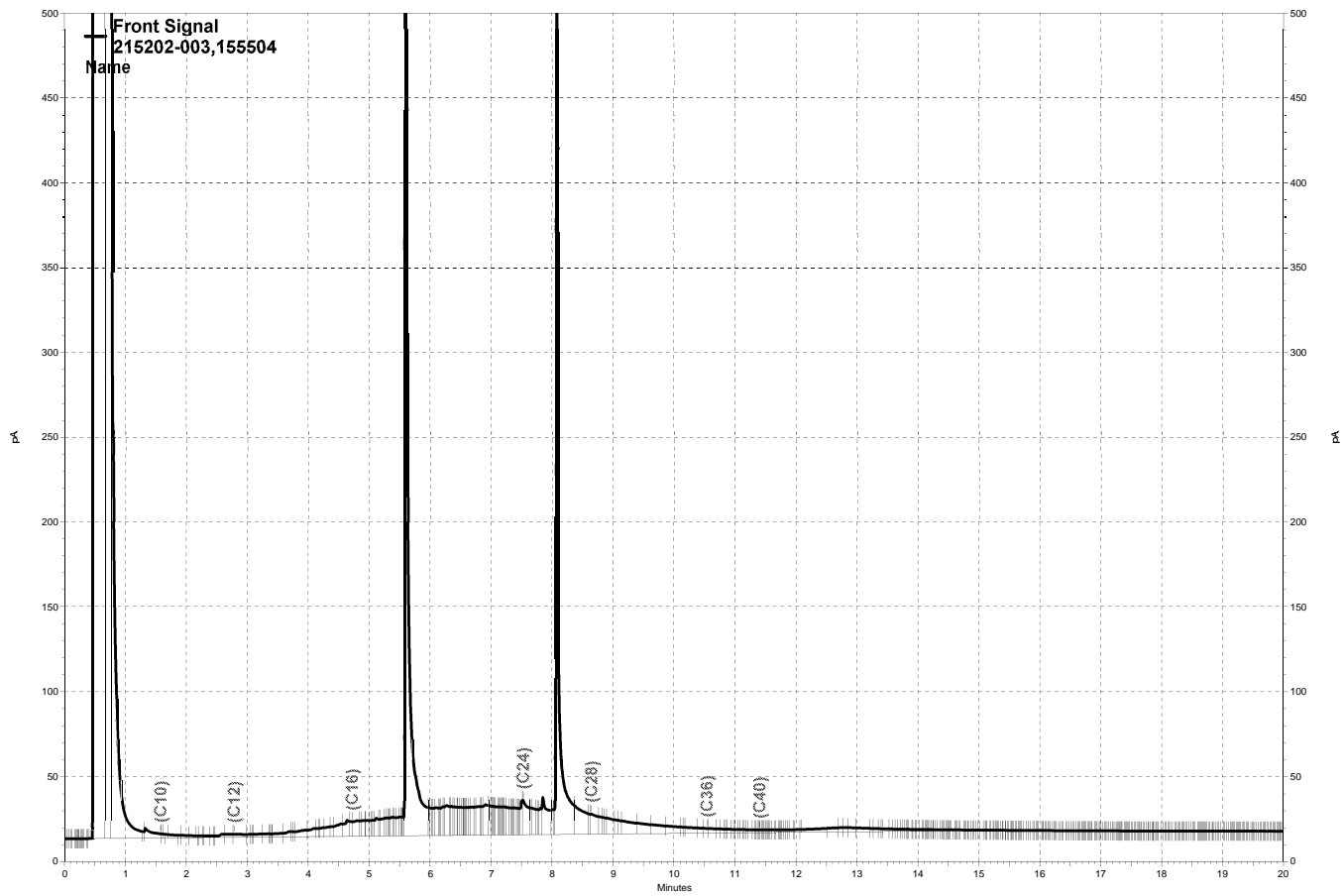
  

Surrogate	%REC	Limits
o-Terphenyl	88	60-130

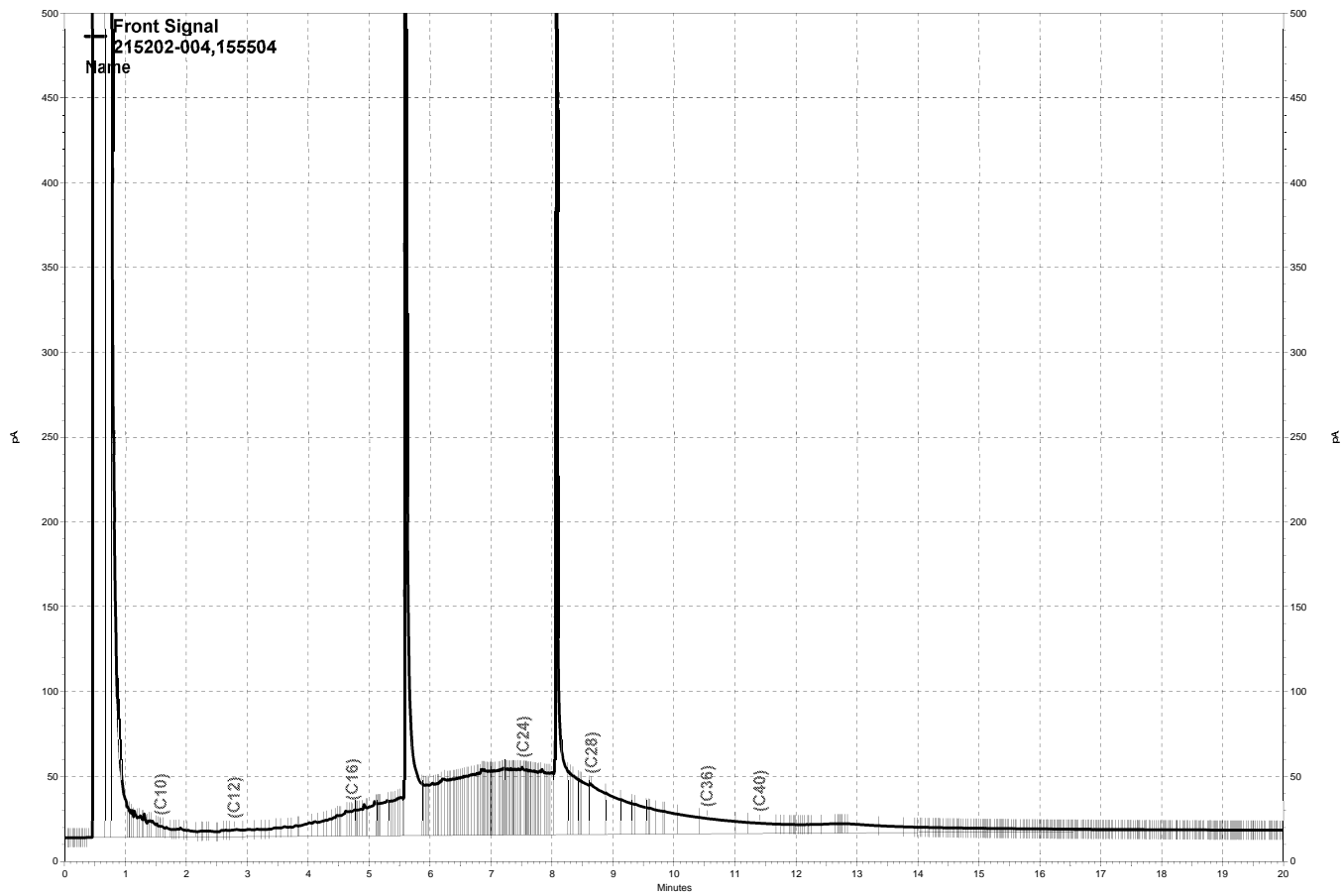
RPD= Relative Percent Difference



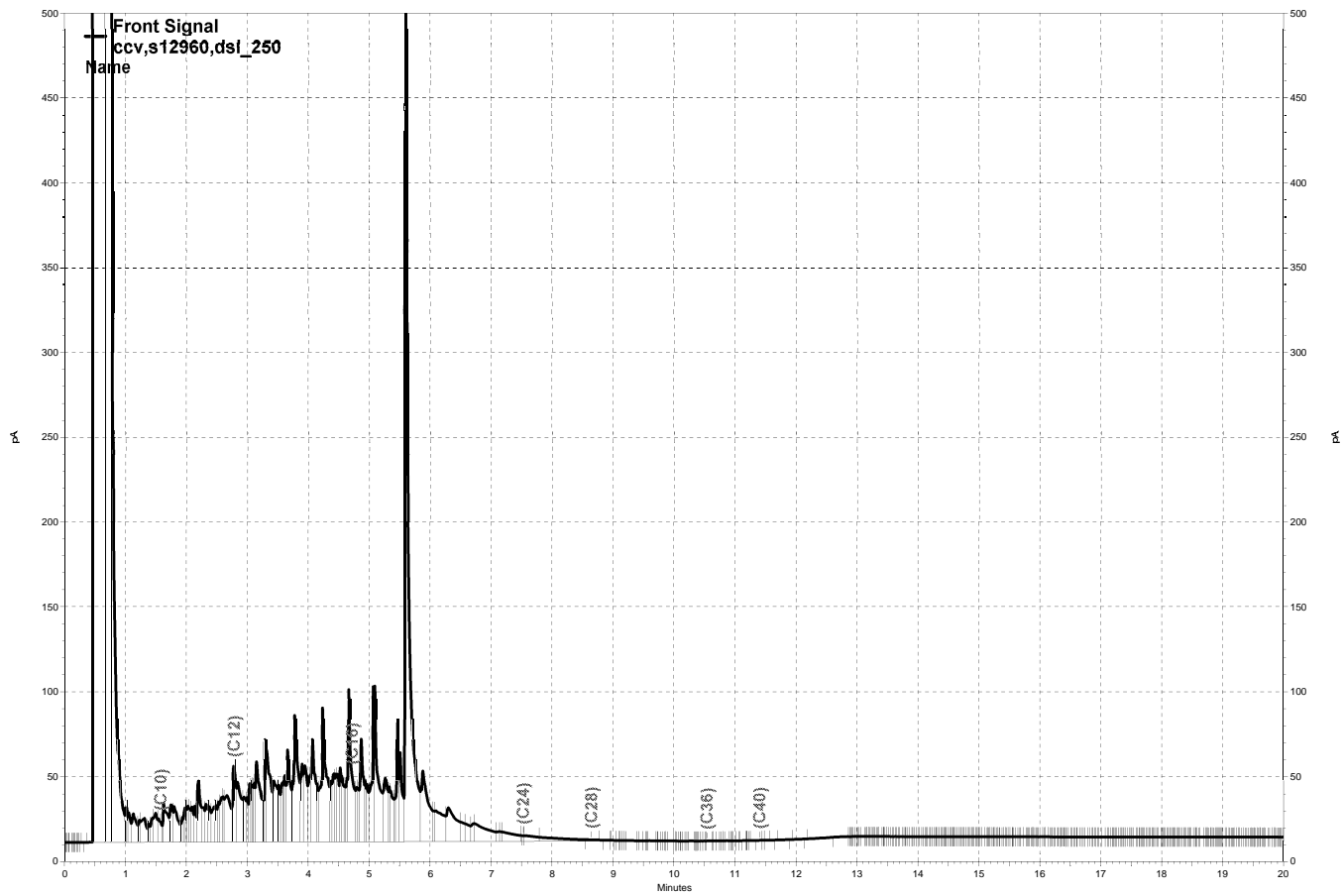
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— G:\ezchrom\Projects\GC27\Data\274a026.dat, Front Signal



— G:\ezchrom\Projects\GC27\Data\274a027.dat, Front Signal



— G:\ezchrom\Projects\GC27\Data\274a016.dat, Front Signal



**Purgeable Organics by GC/MS**

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-7	Batch#:	155634
Lab ID:	215202-001	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-7	Batch#:	155634
Lab ID:	215202-001	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	111	75-137
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-10	Batch#:	155634
Lab ID:	215202-002	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-10	Batch#:	155634
Lab ID:	215202-002	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	111	75-137
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-11	Batch#:	155634
Lab ID:	215202-003	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-11	Batch#:	155634
Lab ID:	215202-003	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	0.8	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	112	75-137
Toluene-d8	100	80-120
Bromofluorobenzene	101	80-123

ND= Not Detected  
 RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-12	Batch#:	155634
Lab ID:	215202-004	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

### Purgeable Organics by GC/MS

Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Field ID:	MW-12	Batch#:	155634
Lab ID:	215202-004	Sampled:	09/24/09
Matrix:	Water	Received:	09/24/09
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-120
1,2-Dichloroethane-d4	107	75-137
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-123

ND= Not Detected  
 RL= Reporting Limit



## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC515017	Batch#:	155634
Matrix:	Water	Analyzed:	10/04/09
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	0.5
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	2.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	10
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	0.5
Chloroform	ND	0.5
Bromochloromethane	ND	0.5
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	0.5
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	0.5
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	0.5
Tetrachloroethene	ND	0.5

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**

<b>Purgeable Organics by GC/MS</b>			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC515017	Batch#:	155634
Matrix:	Water	Analyzed:	10/04/09
Units:	ug/L		

<b>Analyte</b>	<b>Result</b>	<b>RL</b>
Dibromochloromethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	1.0
Isopropylbenzene	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	0.5
Propylbenzene	ND	0.5
Bromobenzene	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5
2-Chlorotoluene	ND	0.5
4-Chlorotoluene	ND	0.5
tert-Butylbenzene	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5
sec-Butylbenzene	ND	0.5
para-Isopropyl Toluene	ND	0.5
1,3-Dichlorobenzene	ND	0.5
1,4-Dichlorobenzene	ND	0.5
n-Butylbenzene	ND	0.5
1,2-Dichlorobenzene	ND	0.5
1,2-Dibromo-3-Chloropropane	ND	2.0
1,2,4-Trichlorobenzene	ND	0.5
Hexachlorobutadiene	ND	2.0
Naphthalene	ND	2.0
1,2,3-Trichlorobenzene	ND	0.5

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	107	75-137
Toluene-d8	100	80-120
Bromofluorobenzene	102	80-123

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

Purgeable Organics by GC/MS			
Lab #:	215202	Location:	Holland Park
Client:	Ninyo & Moore	Prep:	EPA 5030B
Project#:	401314005	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	155634
Units:	ug/L	Analyzed:	10/04/09
Diln Fac:	1.000		

Type: BS Lab ID: QC515018

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	20.00	21.59	108	75-131
Benzene	20.00	21.37	107	80-120
Trichloroethene	20.00	20.98	105	80-121
Toluene	20.00	20.71	104	80-120
Chlorobenzene	20.00	21.05	105	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-120
1,2-Dichloroethane-d4	105	75-137
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-123

Type: BSD Lab ID: QC515019

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	20.00	21.79	109	75-131	1	20
Benzene	20.00	20.81	104	80-120	3	20
Trichloroethene	20.00	20.46	102	80-121	3	20
Toluene	20.00	20.15	101	80-120	3	20
Chlorobenzene	20.00	20.72	104	80-120	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	106	75-137
Toluene-d8	102	80-120
Bromofluorobenzene	100	80-123

RPD= Relative Percent Difference