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Alameda County  
Environmental Health

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Cameron Park, California 95682  
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July 27, 2007  
Project No. 2007-0057-01

Mr. Barney Chan  
Alameda County Health Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, 2<sup>nd</sup> Floor  
Alameda, California 94502  
(via GeoTracker)

Re: Quarterly Groundwater Monitoring Report, Second Quarter 2007, for former USA Service Station No. 57, located at 10700 MacArthur Boulevard, Oakland, CA (LOP No. RO0000232)

Dear Mr. Chan:

Stratus Environmental, Inc. (Stratus), on behalf of Moller Investment Group, Inc. (MIGI), is submitting the attached report, which presents the results of second quarter 2007 quarterly monitoring and sampling program, and an update on remediation efforts at the former USA Service Station No. 57, located at 10700 MacArthur Boulevard, Oakland, California (Figure 1). This report has been prepared in compliance with Alameda County Department of Environmental Health (ACDEH) requirements for underground storage tank (UST) investigations.

If you have any questions regarding this report, please contact Scott Bittinger at (530) 676-2062.

Sincerely,

*STRATUS ENVIRONMENTAL, INC.*

Kiran Nagaraju  
Staff Engineer

Scott G. Bittinger, P.G.  
Project Manager



Attachment: Quarterly Groundwater Monitoring Report, Second Quarter 2007

cc: Mr. Charles Miller, Moller Investment Group, Inc.  
Mr. John Jay, Jay-Phares Corporation  
Mr. Peter McIntyre, AEI Consultants

Date July 27, 2007

## FORMER USA GASOLINE QUARTERLY GROUNDWATER MONITORING REPORT

Facility No:	<u>57</u>	Address:	<u>10700 MacArthur Blvd., Oakland, California</u>
MIGI Project Supervisor:	<u>Charles Miller</u>		
Consulting Co./Contact Person:	<u>Stratus Environmental, Inc./ Scott Bittinger, P.G.</u>		
Consultant Project No:	<u>2007-0057-01</u>		
Primary Agency/Regulatory ID No:	<u>Barney Chan, Alameda County Department of Environmental Health / RO0000232</u>		

### WORK PERFORMED THIS QUARTER (Second 2007):

1. Stratus measured groundwater elevations and collected groundwater samples from wells S-1, S-2, MW-3, MW-4, MW-6 through MW-8, and EX-1 through EX-4 on April 9, 2007. Due to onsite construction activities, well MW-5 was covered by soil and hence this well could not be monitored or sampled on April 9, 2007. Stratus returned to the site on April 23, 2007 to relocate, monitor and sample MW-5.
2. Stratus conducted eight site visits to collect field and laboratory parameters to evaluate and optimize the performance of the oxygen injection (iSOC™) system.
3. Stratus compiled and evaluated groundwater monitoring data.
4. Stratus prepared and submitted a *Work Plan for Dual Phase Extraction and Air Sparge Hydrocarbon Mass Removal Event* to the Alameda County Health Care Services Agency (ACHCSA) on June 13, 2007.

### WORK PROPOSED FOR NEXT QUARTER (Third 2007):

1. The next sampling event is tentatively scheduled for July 2007. Groundwater samples will be collected for laboratory analysis from wells S-1, S-2, MW-3 through MW-8, and EX-1 through EX-4.
2. Groundwater samples will be analyzed for gasoline range organics (GRO) using U.S. Environmental Protection Agency Method (EPA) Method SW8015B/DHS Luft Manual, and for benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), ethyl tertiary butyl ether (ETBE), di-isopropyl ether (DIPE), tertiary amyl methyl ether (TAME), 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB) using EPA Method SW8260B.
3. Stratus prepared and submitted a *Self-Monitoring Report for January 2007 to June 2007* to the East Bay Municipal District documenting the volume of treated groundwater that was discharged to the sanitary sewer during the first half of 2007 on July 16, 2007.
4. Upon approval of the *Work Plan for Dual Phase Extraction and Air Sparge Hydrocarbon Mass Removal Event* by the ACHCSA, Stratus will oversee installation of air sparge wells at the site. Once these wells are installed, the mass removal event will be scheduled.
5. Per a conversation with ACHCSA, Stratus will destroy obstructed well MW-6. The well destruction will be completed during the same drilling event as the air sparge well installation.

Current Phase of Project:	Monitoring / Interim Remediation
Frequency of Groundwater Sampling:	All Wells = Quarterly
Frequency of Groundwater Monitoring:	Quarterly
Groundwater Sampling Date:	April 9, 2007 (Well MW-5 sampled on April 23, 2007)
Is Free Product (FP) Present on Site:	No
FP Recovered This Quarter:	NA
Cumulative FP Recovered to Date:	NA
Approximate Depth to Groundwater:	4.88 to 18.29 feet below top of well casing
Groundwater Flow Direction:	Southeast and southwest
Groundwater Gradient:	0.027 to 0.042 ft/ft

## INTERIM REMEDIATION SYSTEM OPERATION AND PERFORMANCE

Equipment Inventory:	Oxygen Injection System (iSOC™-Manufactured by inVentures Technologies, Inc.)
System Status:	Operational
Reporting Period:	March 29 through June 29, 2007
Historical Highest GRO Concentration:	160,000 µg/L (S-2, 1998)
Historical Highest Benzene Concentration:	13,000 µg/L (EX-2, 2005)
Historical Highest MTBE Concentration:	820 µg/L (MW-3, 1995)
Highest GRO Concentration this Period:	4,600 µg/L (EX-4)
Highest Benzene Concentration this Period:	730 µg/L (EX-4)
Highest MTBE Concentration this Period:	600 µg/L (MW-3)

## DISCUSSION:

At the time of the second quarter 2007 monitoring event, groundwater elevations had increased between 0.30 and 1.53 feet in wells MW-4, MW-6, MW-8, and EX-1 through EX-4, and decreased between 0.08 and 0.29 feet in wells S-1, S-2, MW-3, and MW-7 since the previous monitoring event (January 8, 2007). The groundwater elevation at MW-3 during second quarter 2007 appears to have increased by approximately 9.44 feet since the previous quarterly monitoring event (January 2007). Since the groundwater elevation fluctuations in the other monitoring wells were in the range of 0.08 to 1.53 feet, data from well MW-3 appears to be anomalous. Depth-to-water measurements were converted to feet above mean sea level (MSL) and used to construct a groundwater elevation contour map (Figure 2). The groundwater elevations measured in wells MW-3 and EX-1 through EX-4 were not used in contour construction. The groundwater flow directions were generally to the southeast and southwest at average gradients ranging from approximately 0.027 to 0.042 ft/ft. South-southeast, south, and radial groundwater flow patterns have been observed during previous monitoring events.

GRO, benzene, and MTBE were reported in wells S-2, MW-3, EX-2, and EX-4. GRO and benzene were reported in wells EX-1 and EX-3, GRO and MTBE were reported in well S-1, and MTBE was reported in well MW-7. The maximum concentrations of GRO (4,600 µg/L) and benzene (730 µg/L) were reported in well EX-4, and the maximum concentration of MTBE (600 µg/L) was reported in well MW-3. TBA was reported in wells S-2 (32 µg/L) and MW-3 (510 µg/L). 1,2-DCA was reported in wells S-2 (1.3 µg/L) and MW-3 (67 µg/L). No concentrations of DIPE, ETBE, TAME, EDB, methanol, or ethanol were reported in any of the wells. These results are generally consistent with historical analytical data. Analytical results of

GRO, benzene, and MTBE for groundwater samples collected on April 9, 2007, are presented in Figure 3.

## REMEDIATION SYSTEM STATUS

### System Description

The iSOC™ oxygen injection system is a bioremediation technology that produces high levels of dissolved oxygen for in-situ biodegradation of petroleum hydrocarbon constituents. The iSOC™ system consists of individual injection units (1.62 inches in diameter and approximately 15 inches in length) made of stainless steel, and an industrial grade oxygen cylinder. The individual injections units contain a micro-flow controller that regulates the flow based on the static head and pressure setting at the oxygen cylinder. The injection units also contain micro-porous hollow fibers, which provide a significant mass transfer area and create an ultra saturation zone when oxygen gas pressure is maintained lower than the static groundwater pressure. Each individual injection unit is placed in a monitoring well and connected to a 250 cubic centimeter (cc) oxygen cylinder using a single run ¼-inch diameter tubing.

### Operational History and Monitoring Plan

From startup on January 11, 2006 through December 18, 2006, the individual injection units were placed in wells S-1, S-2, and MW-3. During that period, wells EX-1 through EX-3 were used as observation wells to monitor the performance of the remediation system. In December 2006, the iSOC™ units were moved from wells S-1 and MW-3 to wells EX-1 and EX-2. Since that time, oxygen injection at wells S-2, EX-1, and EX-2 has continued and wells S-1, MW-3, and EX-3 have been used as observation wells. Monitoring wells MW-7 and MW-8 are used as background wells to monitor natural changes in groundwater geochemistry. The following field and laboratory parameters are monitored periodically to evaluate and optimize the performance of the oxygen injection system.

Field Parameters: Depth to water, pH, dissolved oxygen (DO), oxidation/reduction potential (ORP), specific conductivity, and temperature.

Laboratory Parameters: GRO, BTEX, BOD, total and ferrous iron, heterotrophic plate counts, total organic carbon, total dissolved solids, nitrates, nitrites, ammonia, sulfates, sulfides, total phosphorus and orthophosphate.

Since system start-up, field parameters are collected on a bi-monthly basis, and samples for laboratory analyses are collected on a quarterly basis. A summary of sampling frequencies, field and laboratory parameters, and the potential significance of both are presented as Table 3.

### Results

A summary of current and historical field data and laboratory results are presented in Tables 4 and 5, respectively. Graphs illustrating DO levels over time from December 2006 to present in injection wells (S-2, EX-1, and EX-2) and in observation and background wells (S-1, MW-3, MW-7, and MW-8) are presented as Figures 4 and 5, respectively. Graphs illustrating DO levels over time from January to December 2006 in historic injection wells (S-1, S-2, and MW-3) and in observation and background wells (EX-1, EX-2, MW-7, and MW-8) are presented in Appendix E.

During the second quarter 2007, average DO levels in injection wells S-2, EX-1, and EX-2 were 15.08 mg/L, 9.09 mg/L, and 6.07 mg/L, respectively. The average DO levels in the observation wells (S-1, MW-3, and EX-3) and the background monitoring wells (MW-7 and MW-8) were in the ranges of 1.07 mg/L to 4.63 mg/L, and 2.82 mg/L to 8.06 mg/L, respectively (Figure 5). Based on the bio-parameter data available, the heterotrophic plate counts reported for current injection wells (EX-1 and EX-2) generally appear to be greater than the plate counts reported for background monitoring wells (MW-7 and MW-8). However, a consistent pattern or correlation of heterotrophic plate counts either with the variation in DO

levels or the petroleum hydrocarbon concentrations could not be identified in the data available to date.

Graphs illustrating concentrations of GRO, benzene, MTBE, and depth to water variations with time at wells S-1, S-2, MW-3, EX-1, and EX-2 are presented in Figures 6 through 10. The dissolved petroleum hydrocarbon concentrations generally appear to be influenced by the groundwater elevation fluctuations. A consistent declining trend in petroleum hydrocarbon concentrations has not been observed in the monitoring wells since the start-up of the oxygen injection system.

**ATTACHMENTS:**

- Table 1 Groundwater Elevation and Analytical Summary
- Table 2 Groundwater Analytical Results for Oxygenates and Additional Compounds
- Table 3 Monitoring Plan Summary
- Table 4 Physical Parameter Summary
- Table 5 Analytical Parameter Summary
- Figure 1 Site Location Map
- Figure 2 Groundwater Elevation Contour Map (Second Quarter 2007)
- Figure 3 Groundwater Analytical Summary (Second Quarter 2007)
- Figure 4 DO Variation with Time at Injection Wells
- Figure 5 DO Variation with Time at Observation and Background Wells
- Figure 6 GRO, Benzene, MTBE, and Depth to Water Variation with Time at S-1
- Figure 7 GRO, Benzene, MTBE, and Depth to Water Variation with Time at S-2
- Figure 8 GRO, Benzene, MTBE, and Depth to Water Variation with Time at MW-3
- Figure 9 GRO, Benzene, MTBE, and Depth to Water Variation with Time at EX-1
- Figure 10 GRO, Benzene, MTBE, and Depth to Water Variation with Time at EX-2
- Appendix A Field Data Sheets
- Appendix B Sampling and Analysis Procedures
- Appendix C Certified Analytical Reports and Chain-of-Custody Documentation
- Appendix D GeoTracker Electronic Submittal Information
- Appendix E Historical DO Variation with Time at Injection Wells, and at Observation and Background Wells

**TABLE 1****GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	GRO[5] ( $\mu\text{g/L}$ )	TPHD ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )
S-1	02/12/87						630	4.4	3.5	37	NA
	03/03/95	13.10	74.74	61.64	910	5,900	260	7.6	16	14	NA
	07/24/95	12.35		62.39	NA	NA	NA	NA	NA	NA	NA
	11/22/95	19.30	78.68	59.38	460	6,100	13	0.69	0.99	1.1	460*
	12/06/95	19.59		59.09	NA	NA	NA	NA	NA	NA	NA
	01/04/96	19.52		59.16	NA	NA	NA	NA	NA	NA	NA
	01/31/97	15.07		63.61	1,100	200	11	6	3	6	200*
	10/10/97	18.90		59.78	530	2,000	<0.5	2.1	<0.5	<2	230*
	01/20/98	16.79		61.89	1,800	200	<0.5	<0.5	1.5	10	87*
	04/28/98	8.37		70.31	130	7,300	1.9	3.2	<0.5	<0.5	310*
	07/31/98	11.61		67.07	310	2,000	0.54	4.6	3.8	0.82	280*
	06/10/99	14.35		64.33	660	150	0.99	<0.5	<0.5	2.4	80*[1]
	10/18/00	17.56		61.12	<50	330	<0.5	0.93	<0.5	<0.5	44
	03/12/02	16.29		62.39	500	<50	2.8	4.8	0.79	4.4	63
	11/19/02	19.53		59.15	190	NA	<0.50	<0.50	<0.50	<0.50	190
	01/09/03	18.14		60.54	510	NA	1.1	<0.50	0.52	<0.50	11
	04/14/03	18.04		60.64	300	NA	<1.0[2]	<1.0[2]	<1.0[2]	<1.0[2]	27
	07/21/03	20.31		58.37	300	NA	<0.50	<0.50	<0.50	<0.50	11
	10/09/03	19.46		59.22	390	NA	<0.50	<0.50	<0.50	<0.50	8.8
	01/15/04	18.21	79.66	61.45	200	NA	<0.50	<0.50	<0.50	<0.50	6.0
	04/08/04	19.29		60.37	140	NA	<0.50	<0.50	<0.50	<0.50	12
	08/10/04	18.86		60.80	110	NA	4.6	<0.50	<0.50	0.51	73
	11/11/04	19.81		59.85	160	NA	<0.50	<0.50	<0.50	<0.50	150
	01/19/05	18.12		61.54	440	NA	<0.50	<0.50	1.4	<0.50	140
	04/14/05	13.94		65.72	320	NA	<0.50	<0.50	<0.50	<0.50	120
	07/19/05	14.11		65.55	240	NA	6.1	<0.50	0.60	<0.50	60
	10/24/05	16.53		63.13	320	NA	5.0	<0.50	1.1	<0.50	37
	02/02/06	15.27		64.39	<50	NA	<0.50	<0.50	<0.50	<0.50	45
	04/27/06	9.59		70.07	<50	NA	<0.50	<0.50	<0.50	<0.50	7.7
	07/12/06	11.00		68.66	<50	NA	<0.50	<0.50	<0.50	<0.50	12
	10/17/06	14.54		65.12	<50	NA	<0.50	<0.50	<0.50	<0.50	1.6
	01/08/07	15.87		63.79	260	NA	4.6	<0.50	<0.50	<0.50	15
	04/09/07	16.06		63.60	300	NA	<0.50	<0.50	<0.50	<0.50	22
	04/23/07	16.31		63.35	NA	NA	NA	NA	NA	NA	NA

**TABLE 1****GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater				Total		
				GRO[5] (µg/L)	TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
S-2	02/12/87		Sheen			3,400	3,800	1,300	11,000	NA
	03/03/95	15.39	76.86	61.47	24,000	6,000	1,900	440	600	2,500
	07/24/95	14.47		62.39	NA	NA	NA	NA	NA	NA
Sheen	11/22/95	21.52	80.93	59.41	NA	NA	NA	NA	NA	NA
	12/06/95	21.78		59.15	NA	NA	NA	NA	NA	NA
	01/04/96	21.75		59.18	NA	NA	NA	NA	NA	NA
	01/31/97	17.25		63.68	NA	NA	NA	NA	NA	NA
Sheen	10/10/97	21.21		59.72	13,000	<50	260	38	190	280
Sheen	01/20/98	19.07		61.86	1,900	2,300	4.6	6.3	<0.5	4.6
	04/28/98	10.47		70.46	22,000	<100	980	160	320	680
	07/31/98	13.71		67.22	160,000	<50	950	290	550	1,700
	11/02/98	17.31		63.62	14,000	<500	170	70	170	230
	06/10/99	16.48		64.45	17,000	<50	650	230	<25	750
	10/18/00	19.70		61.23	4,400	<50	2	64	5.1	12
	03/12/02	18.56		62.37	5,100	660	62	44	52	78
	11/19/02	21.70		59.23	26,000	NA	1,400	180	520	340
	01/09/03	20.37		60.56	16,000	NA	120	32	76	214
	04/14/03	19.93		61.00	16,000	NA	160	76	210	290
	07/21/03	22.00		58.93	9,700	NA	270	90	200	277
	10/09/03	21.58		59.35	10,000	NA	39	9.2	52	26.5
	01/15/04	20.44	81.90	61.46	6,300	NA	21	<2.0 [3]	20	3.1
	04/08/04	17.15		64.75	13,000	NA	160	76	170	231
	08/10/04	20.98		60.92	10,000	NA	76	13	<5.0[3]	500
	11/11/04	21.95		59.95	20,000	NA	530	240	370	1,730
	01/19/05	20.33		61.57	17,000	NA	590	150	250	990
	04/14/05	16.17		65.73	20,000	NA	830	230	570	1,980
	07/19/05	16.25		65.65	970	NA	48	13	16	57
	10/24/05	18.07		63.83	1,200	NA	100	13	52	41
	02/02/06	17.26		64.64	2,000	NA	17	12	26	108
	04/27/06	11.55		70.35	130	NA	5.1	1.1	2.8	8.8
	07/12/06	12.98		68.92	140	NA	<0.50	<0.50	<0.50	0.77
	10/17/06	16.59		65.31	130	NA	0.98	<0.50	1.1	2.20
	01/08/07	18.21		63.69	69	NA	<0.50	<0.50	<0.50	0.77
	04/09/07	18.29		63.61	360	NA	1.4	1.5	2.2	9.8

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Well Number	Date Collected	Depth to Water			Groundwater Elevation			Total			
		feet	ft msl	ft msl	GRO[5] (µg/L)	TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-3	03/03/95	13.99	76.30	62.31	2,500	1,600	540	92	36	200	NA
	07/24/95	13.33		62.97	NA	NA	NA	NA	NA	NA	NA
	11/22/95	20.94	80.32	59.38	14,000	5,400	5,700	230	430	650	820*
	12/06/95	17.48		62.84	NA	NA	NA	NA	NA	NA	NA
	01/04/96	20.01		60.31	NA	NA	NA	NA	NA	NA	NA
	01/31/97	16.63		63.69	1,100	<50	130	8	5	5	NA
	10/10/97	20.62		59.70	3,400	1,100	830	4	100	<10	160*
	01/20/98	15.40		64.92	3,900	550	7.9	4.1	<0.5	3.7	<5.0*
	04/28/98	10.51		69.81	800	1,000	82	5.2	5.7	5.4	240*
	07/31/98	13.46		66.86	2,200	610	510	7.6	16	5.27	310*
	11/02/98	17.11		63.21	4,900	1,600	220	16	13	13.7	180*
	06/10/99	15.24		65.08	1,000	120	<0.5	<0.5	<0.5	1.1	120*[1]
	10/18/00	15.41		64.91	<50	<50	<0.5	<0.5	<0.5	<0.5	12
	04/08/04	13.70		66.62	<50	NA	<0.50	<0.50	<0.50	<0.50	19
	08/10/04	16.96		63.36	580	NA	19	<1.0[3]	<1.0[3]	3.3	300
	11/11/04	17.40		62.92	3,000	NA	810	<5.0[3]	43	<5.0[3]	690
	01/19/05	13.28		67.04	92	NA	18	<0.50	0.77	<0.50	17
	04/14/05	8.73		71.59	<50	NA	0.52	<0.50	<0.50	<0.50	11
	07/19/05	11.94		68.38	390	NA	82	2.3	1.8	9.2	200
	10/24/05	14.70	77.27	62.57	2,100	NA	460	6.9	7.7	11.9	300
	02/02/06	16.48		60.79	530	NA	11	<0.50	1.2	1.1	560
	04/27/06	7.85		69.42	<300[3]	NA	<1.5[3]	<1.5[3]	<1.5[3]	<1.5[3]	180
	07/12/06	10.08		67.19	250	NA	5.5	<1.0[3]	<1.0[3]	<1.0[3]	190
	10/17/06	12.80		64.47	93	NA	8.8	<0.50	<0.50	<0.50	100
	01/08/07	21.68		55.59	200	NA	14	<0.50	0.89	0.95	85
	04/09/07	12.24		65.03	1,400	NA	380	6.6	22	12.5	600
	04/23/07	12.53		64.74	NA	NA	NA	NA	NA	NA	NA

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)		Well Elevation (ft msl)	Groundwater						Total Xylenes (µg/L)	MTBE (µg/L)
		Elevation (ft msl)	GRO[5] (µg/L)		TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)				
MW-4	11/22/95	14.99	76.42	61.43	<50	200	<0.5	1.5	<0.5	1.7	6.4*	
	12/06/95	11.21		65.21	NA	NA	NA	NA	NA	NA	NA	
	01/04/96	14.62		61.80	NA	NA	NA	NA	NA	NA	NA	
	01/31/97	8.18		68.24	<50	<50	<0.5	2	<0.5	2	11*	
	10/10/97	14.14		62.28	<50	<50	<0.5	<0.5	<0.5	<2	<5.0*	
	01/20/98	7.05		69.37	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	
	04/28/98	5.88		70.54	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	
	07/31/98	8.40		68.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*	
	11/02/98	16.08		60.34	NA	NA	NA	NA	NA	NA	NA	
	06/10/99	14.81		61.61	NA	NA	NA	NA	NA	NA	NA	
	10/18/00	12.71		63.71	<50	<50	<0.5	0.59	0.82	0.53	<5.0*	
	03/12/02	8.92		67.50	<50	<50	<0.5	0.61	0.72	2.5	1.8	
	11/19/02	13.24		-13.24	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/09/03	11.00		-11.00	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	04/14/03	11.03		-11.03	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	07/21/03	13.10		-13.10	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	10/09/03	13.33		-13.33	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/15/04	12.14		-12.14	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	04/08/04	10.76		65.66	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	08/10/04	12.62		63.80	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	11/11/04	11.93		64.49	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	01/19/05	10.34		66.08	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	04/14/05	5.66	[4]	NM	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	07/19/05	7.55	[4]	NM	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	10/24/05	10.12	76.26	66.14	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	02/02/06	6.99		69.27	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	04/27/06	NM		NM	Well Not Monitored or Sampled - Covered							
	07/12/06	6.05		70.21	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	10/17/06	NM		NM	Well Not Monitored or Sampled - Covered							
	01/08/07	8.82		67.44	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	
	04/09/07	8.52		67.74	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50	

TABLE 1

## GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Groundwater			Total						
		Depth to Water (feet)	Well Elevation (ft msl)	GRO[S] (µg/L)	TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	
MW-5	11/22/95	19.56	80.52	60.96	<50	280	<0.5	1.8	<0.5	3	2.2*
	12/06/95	15.84		64.68	NA	NA	NA	NA	NA	NA	NA
	01/04/96	19.36		61.16	NA	NA	NA	NA	NA	NA	NA
	01/31/97	13.31		67.21	80	<50	<0.5	0.6	<0.5	2	6*
	10/10/97	17.80		62.72	<50	<50	<0.5	<0.5	<0.5	<2	<5*
	01/20/98	12.58		67.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	04/28/98	9.45		71.07	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	07/31/98	7.38		73.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	11/02/98	15.98		64.54	<50	<500	<0.5	<0.5	<0.5	<0.5	<5.0*
	06/10/99	14.60		65.92	NA	NA	NA	NA	NA	NA	NA
	10/18/00	17.77		62.75	<50	<50	<0.5	0.75	<0.5	0.79	28
	03/12/02	15.72		64.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	11/19/02	NM		NM							
	01/09/03	NM		NM							
	04/14/03	NM		NM							
	07/21/03	NM		NM							
	10/09/03	NM		NM							
	01/15/04	NM		NM							
	04/08/04	16.80		63.72	<100	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	08/10/04	18.58		61.94	89	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	11/11/04	NM		NM							
	01/19/05	NM		NM							
	04/14/05	10.57	[4]	NM	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/19/05	11.77	[4]	NM	<100[2]	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/24/05	14.29	80.78	66.49	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	02/02/06	NM		NM							
	04/27/06	7.42		73.36	<100[2]	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/12/06	NM		NM							
	10/17/06	NM		NM							
	01/08/07	NM		NM							
	04/09/07	NM		NM							
	04/23/07	11.90		68.88	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

TABLE 1

## GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	GRO[5] ( $\mu\text{g/L}$ )	TPHD ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )
MW-6	11/22/95	21.73	81.64	59.91	<50	140	<0.5	1.2	<0.5	1.5	5.3*
	12/06/95	18.03		63.61	NA	NA	NA	NA	NA	NA	NA
	01/04/96	21.67		59.97	NA	NA	NA	NA	NA	NA	NA
	01/31/97	16.01		65.63	70	<50	<0.5	2	<0.5	<1	5*
	10/10/97	20.55		61.09	80	<50	<0.5	<0.5	<0.5	<2	<5*
	01/20/98	15.74		65.90	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	04/28/98	10.78		70.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	07/31/98	13.97		67.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	11/02/98	17.97		63.67	NA	NA	NA	NA	NA	NA	NA
	06/10/99	16.92		64.72	NA	NA	NA	NA	NA	NA	NA
	10/18/00	NM		NM					Unable to Locate		
	03/12/02	NM		NM					Unable to Locate		
	11/19/02	NM		NM					Unable to Locate		
	01/09/03	NM		NM					Unable to Locate		
	04/14/03	NM		NM					Unable to Locate		
	07/21/03	NM		NM					Unable to Locate		
	10/19/03	NM		NM					Unable to Locate		
	01/15/04	NM		NM					Unable to Locate		
	04/08/04	NM		NM					Well Obstructed - Not Sampled		
	08/10/04	NM		NM					Well Obstructed - Not Sampled		
	11/11/04	NM		NM					Well Obstructed - Not Sampled		
	01/19/05	NM		NM					Well Obstructed - Not Sampled		
	04/14/05	15.78		65.86	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/19/05	NM		NM					Well Obstructed - Not Sampled		
	10/24/05	NM	82.32	NM					Well Obstructed - Not Sampled		
	02/02/06	15.93		66.39	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/27/06	11.00		71.32	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/12/06	12.75		69.57	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/17/06	15.95		66.37	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/08/07	17.40		64.92			Likely obstructed at 18 ft bgs; contained insufficient water for sampling				
	04/09/07	16.20		66.12	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

**TABLE 1****GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater Elevation (ft msl)	GRO[5] ( $\mu\text{g/L}$ )	TPHD ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )
MW-7	11/22/95	19.38	78.86	59.48	<50	180	<0.5	0.57	<0.5	0.62	0.73*
	12/06/95	19.72		59.14	NA	NA	NA	NA	NA	NA	NA
	01/04/96	19.76		59.10	NA	NA	NA	NA	NA	NA	NA
	01/31/97	15.25		63.61	70	<50	0.7	1	<0.5	<1	8*
	10/10/97	19.03		59.83	<50	<50	<0.5	<0.5	<0.5	<2	15*
	01/20/98	17.11		61.75	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	04/28/98	8.22		70.64	<50	<50	<0.5	<0.5	<0.5	<0.5	9.3*
	07/31/98	11.53		67.33	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	11/02/98	15.15		63.71	NA	NA	NA	NA	NA	NA	NA
	06/10/99	14.23		64.63	NA	NA	NA	NA	NA	NA	NA
	10/18/00	17.59		61.27	NA	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	03/12/02	16.54		62.32	<50	<50	<0.5	<0.5	<0.5	<0.5	2.9
	11/19/02	19.59		-19.59	<50	NA	<0.50	<0.50	<0.50	<0.50	3.8
	01/09/03	18.38		-18.38	<50	NA	<0.50	<0.50	<0.50	<0.50	2.7
	04/14/03	18.17		-18.17	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/21/03	20.29		-20.29	<50	NA	<0.50	<0.50	<0.50	<0.50	1.8
	10/09/03	19.48		-19.48	<50	NA	<0.50	<0.50	<0.50	<0.50	2.9
	01/15/04	18.45	79.81	61.36	<50	NA	<0.50	<0.50	<0.50	<0.50	2.6
	04/08/04	17.28		62.53	<50	NA	<0.50	<0.50	<0.50	<0.50	0.81
	08/10/04	18.85		60.96	<50	NA	<0.50	<0.50	<0.50	<0.50	2.1
	11/11/04	19.85		59.96	<50	NA	<0.50	<0.50	<0.50	<0.50	1.0
	01/19/05	19.59		60.22	<50	NA	<0.50	<0.50	<0.50	<0.50	1.5
	04/14/05	14.17		65.64	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/19/05	14.16		65.65	<50	NA	<0.50	<0.50	<0.50	<0.50	1.9
	10/24/05	16.65		63.16	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	02/02/06	15.39		64.42	<50	NA	<0.50	<0.50	<0.50	<0.50	1.3
	04/27/06	8.51		71.30	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/12/06	9.94		69.87	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/17/06	13.46		66.35	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/08/07	15.03		64.78	<50	NA	<0.50	<0.50	<0.50	<0.50	0.99
	04/09/07	15.27		64.54	<50	NA	<0.50	<0.50	<0.50	<0.50	0.54

**TABLE 1****GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater						Total Xylenes (µg/L)	MTBE (µg/L)
				GRO[S] (µg/L)	TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)			
MW-8	11/22/95	33.33	79.55	46.22	<50	360	<0.5	1.3	<0.5	2.1	2.1*
	12/06/95	17.57		61.98	NA	NA	NA	NA	NA	NA	NA
	01/04/96	20.08		59.47	NA	NA	NA	NA	NA	NA	NA
	01/31/97	18.72		60.83	80	<50	0.6	1	<0.5	1	8*
	10/10/97	20.26		59.29	50	<50	<0.5	<0.5	<0.5	<2	<5*
	01/20/98	15.91		63.64	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	04/28/98	10.39		69.16	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	07/31/98	12.93		66.62	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0*
	11/02/98	16.90		62.65	<50	<500	<0.5	<0.5	<0.5	<0.5	<5.0*
	06/10/99	14.98		64.57	NA	NA	NA	NA	NA	NA	NA
	10/18/00	16.27		63.28	<50	<50	<0.5	<0.5	1.1	6.3	8.6*
	03/12/02	14.56		64.99	<50	<50	<0.5	0.63	0.55	1.7	0.94
	11/19/02	21.14		-21.14	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/09/03	17.90		-17.90	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/14/03	17.84		-17.84	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/21/03	19.79	80.50	-19.79	<100[2]	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/09/03	21.02		-21.02	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/15/04	18.10		62.40	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/08/04	17.51		62.99	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	08/10/04	20.76		59.74	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	11/11/04	21.38		59.12	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/19/05	17.20		63.30	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/14/05	12.68		67.82	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/19/05	15.78		64.72	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/24/05	18.68		61.82	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	02/02/06	14.57		65.93	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/27/06	10.48		70.02	<100[2]	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	07/12/06	13.08		67.42	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	10/17/06	15.96		64.54	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	01/08/07	16.70		63.80	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50
	04/09/07	16.25		64.25	<50	NA	<0.50	<0.50	<0.50	<0.50	<0.50

**TABLE 1****GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**

Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water (feet)	Well Elevation (ft msl)	Groundwater					Total		
				GRO[5] (µg/L)	TPHD (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	
EX-1	10/24/05	14.37	77.72	63.35	5,000	NA	140	8.4	20	195	360
	02/02/06	1.68		76.04	3,000	NA	3.6	<0.50	14	55.5	0.63
	04/27/06	1.76		75.96	130	NA	0.98	<0.50	<0.50	2.42	<0.50
	07/12/06	6.88		70.84	2,600	NA	760	15	34	104	200
	10/17/06	9.79		67.93	3,300	NA	810	<5.0[3]	32	68	170
	01/08/07	5.47		72.25	910	NA	9.1	<0.50	2.7	5.9	1.6
	04/09/07	4.88		72.84	140	NA	1.3	<0.50	1.2	0.93	<0.50
EX-2	10/24/05	16.00	76.96	60.96	42,000	NA	13,000	1,300	1,300	2,580	410
	02/02/06	8.18		68.78	28,000	NA	9,000	1,300	1,100	3,340	200
	04/27/06	5.22		71.74	24,000	NA	4,000	1,800	650	3,900	86
	07/12/06	7.32		69.64	22,000	NA	6,000	1,300	810	3,280	190
	10/17/06	9.22		67.74	31,000	NA	10,000	1,800	1,200	3,400	230
	01/08/07	10.35		66.61	14,000	NA	4,100	440	440	1,140	90
	04/09/07	9.67		67.29	620	NA	160	17	24	58	6.0
EX-3	10/24/05	14.85	78.87	63.02	20,000	NA	220	21	660	3,110	<10[3]
	02/02/06	NM		NM			Well Not Monitored or Sampled - Under Soil Pile				
	04/27/06	NM		NM			Well Not Monitored or Sampled - Covered				
	07/12/06	9.01		68.86	5,700	NA	79	19	120	657	<2.5[3]
	10/17/06	NM		NM			Well Not Monitored or Sampled - Covered				
	01/08/07	12.31		66.56	970	NA	8.3	0.81	19	19.8	<0.50
	04/09/07	10.78		68.09	700	NA	8.9	<0.50	11	6.5	<0.50
EX-4	10/24/05	14.93	77.96	63.03	1,900	NA	390	69	8.8	90	11
	02/02/06	NM		NM			Well Not Monitored or Sampled - Under Soil Pile				
	04/27/06	NM		NM			Well Not Monitored or Sampled - Covered				
	07/12/06	7.37		70.59	6,400	NA	1,400	400	120	1,220	35
	10/17/06	NM		NM			Well Not Monitored or Sampled - Covered				
	01/08/07	12.92		65.04	3,500	NA	840	51	22	162	25
	04/09/07	12.43		65.53	4,600	NA	730	78	83	410	6.5

**TABLE 1**  
**GROUNDWATER ELEVATION AND ANALYTICAL SUMMARY**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	Depth to Water		Well Elevation (ft msl)	Groundwater Elevation (ft msl)		GRO[5] ( $\mu\text{g/L}$ )	TPHD ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Xylenes ( $\mu\text{g/L}$ )	Total MTBE ( $\mu\text{g/L}$ )
		feet	ft msl		(ft msl)	( $\mu\text{g/L}$ )							
<b>Note:</b>													
* = MTBE analyzed using EPA Method 8020/8021B													msl = Mean sea level
MTBE = Methyl tert-butyl ether													$\mu\text{g/L}$ = micrograms per liter
TPHD = Total petroleum hydrocarbons as diesel													
GRO = Gasoline Range Organics C4-C13													NA = Not analyzed
GRO analyzed using EPA Method 8015B and the remaining analytes using EPA Method 8260B													NM = Not measured
[1] Laboratory indicates the chromatogram does not match the diesel hydrocarbon range pattern.													
[2] Reporting limits were increased due to sample foaming.													
[3] Reporting limits were increased due to high concentrations of target analytes.													
[4] Casing elevation invalid - well casing modified (cut) on April 12, 2005.													
[5] Reported as total petroleum hydrocarbons as gasoline (TPHG C3-C14+) prior to second quarter 2006.													
Monitoring wells surveyed by Morrow Surveying on February 10, 2004, and again on November 29, 2005.													
Data prior to November 19, 2002 provided by GHH Engineering.													

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
S-1	11/19/02	190	<10	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	11	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	27	<20[2]	<2.0[2]	<2.0[2]	<2.0[2]	NA	NA	NA	NA
	07/21/03	11	<10[2]	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	8.8	6.4	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	6.0	10	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	12	8.5	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	73	28	<1.0	<1.0	<1.0	16	<2.0	<5,000	<5,000
	11/11/04	150	14	<1.0	<1.0	<1.0	7.3	<2.0	<5,000	<5,000
	01/19/05	140	14	<1.0	<1.0	<1.0	3.8	<2.0	<5,000	<5,000
	04/14/05	120	10	<1.0	<1.0	<1.0	1.4	<2.0	<5,000	<5,000
	07/19/05	60	11	<1.0	<1.0	<1.0	9.6	<2.0	<5,000	<5,000
	10/24/05	37	<10	<1.0	<1.0	<1.0	2.2	<2.0	<5,000	<5,000
	02/02/06	45	<10	<1.0	<1.0	<1.0	1.2	<2.0	<5,000	<5,000
	04/27/06	7.7	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/12/06	12	<10	<1.0	<1.0	<1.0	7.9	<2.0	<5,000	<5,000
	10/17/06	1.6	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/08/07	15	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/09/07	22	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
S-2	11/19/02	750	<200[1]	<20[1]	<20[1]	<20[1]	NA	NA	NA	NA
	01/09/03	270	<100[1]	<10[1]	<10[1]	<10[1]	NA	NA	NA	NA
	04/14/03	400	95	<5.0[1]	<5.0[1]	<5.0[1]	NA	NA	NA	NA
	07/21/03	410	110	<5.0[1]	<5.0[1]	<5.0[1]	NA	NA	NA	NA
	10/09/03	180	57	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	NA	NA
	01/15/04	130	48	<4.0[1]	<4.0[1]	<4.0[1]	<4.0[1]	<16[1]	NA	NA
	04/08/04	430	130	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	<5,000	<5,000
	08/10/04	92	<100[1]	<10[1]	<10[1]	<10[1]	74	<40[1]	<5,000	<5,000
	11/11/04	420	<200[1]	<20[1]	<20[1]	<20[1]	<20[1]	<80[1]	<5,000	<5,000
	01/19/05	580	200	<5.0[1]	<5.0[1]	<5.0[1]	8.2	<20[1]	<5,000	<5,000
	04/14/05	510	150	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000
	07/19/05	72	37	<1.0	<1.0	<1.0	38	<2.0	<5,000	<5,000
	10/24/05	69	33	<1.0	<1.0	<1.0	35	<4.0[1]	<5,000	<5,000
	02/02/06	340	150	<1.0	<1.0	<1.0	3.2	<4.0[1]	<5,000	<5,000
	04/27/06	81	<10	<1.0	<1.0	<1.0	1.3	<2.0	<5,000	<5,000
	07/12/06	180	42	<1.0	<1.0	<1.0	5.8	<2.0	<5,000	<5,000
	10/17/06	160	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/08/07	64	<10	<1.0	<1.0	<1.0	2.6	<2.0	<5,000	<5,000
	04/09/07	270	32	<1.0	<1.0	<1.0	1.3	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-3	04/08/04	19	7.6	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	300	2,000	2.2	<2.0[1]	<2.0[1]	270	<8.0[1]	<5,000	<5,000
	11/11/04	690	1,400	<10[1]	<10[1]	<10[1]	140	<40[1]	<5,000	<5,000
	01/19/05	17	19	<1.0	<1.0	<1.0	1.4	<2.0	<5,000	<5,000
	04/14/05	11	25	<1.0	<1.0	<1.0	6.2	<2.0	<5,000	<5,000
	07/19/05	200	1,000	<2.0[1]	<2.0[1]	<2.0[1]	240	<8.0[1]	<5,000	<5,000
	10/24/05	300	750	<5.0[1]	<5.0[1]	<5.0[1]	210	<20[1]	<5,000	<5,000
	02/02/06	560	1,300	2.7	<1.0	<1.0	98	<4.0[1]	<5,000	<5,000
	04/27/06	180	330	<3.0[1]	<3.0[1]	<3.0[1]	220	<12[1]	<5,000	<5,000
	07/12/06	190	24	<2.0[1]	<2.0[1]	<2.0[1]	210	<8.0[1]	<5,000	<5,000
	10/17/06	100	50	<1.0	<1.0	<1.0	21	<2.0	<5,000	<5,000
	01/08/07	85	30	<1.0	<1.0	<1.0	22	<2.0	<5,000	<5,000
	04/09/07	600	510	<5.0[1]	<5.0[1]	<5.0[1]	67	<20[1]	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-4	11/19/02	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	<0.50	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	<0.50	7.8	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	02/02/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/27/06					Well Not Monitored or Sampled - Covered				
	07/12/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/17/06					Well Not Monitored or Sampled - Covered				
	01/08/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/09/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-5	11/19/02					Well Damaged				
	01/09/03					Well Damaged				
	04/14/03					Well Damaged				
	07/21/03					Well Damaged				
	10/09/03					Well Damaged				
	01/15/04					Well Damaged				
	04/08/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000
	08/10/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04					Well Damaged				
	01/19/05					Well Damaged				
	04/14/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	02/02/06					Well Not Monitored or Sampled - Under Soil Pile				
	04/27/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000
	07/12/06					Well Not Monitored or Sampled - Covered				
	10/17/06					Well Not Monitored or Sampled - Covered				
	01/08/07					Well Not Monitored or Sampled - Covered				
	04/09/07					Well Not Monitored or Sampled - Covered				
	04/23/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-6	11/19/02					Unable to Locate				
	01/09/03					Unable to Locate				
	04/14/03					Unable to Locate				
	07/21/03					Unable to Locate				
	10/19/03					Unable to Locate				
	01/15/04					Unable to Locate				
	04/08/04					Well Obstructed - Not Sampled				
	08/10/04					Well Obstructed - Not Sampled				
	11/11/04					Well Obstructed - Not Sampled				
	01/19/05					Well Obstructed - Not Sampled				
	04/14/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05					Well Obstructed - Not Sampled				
	10/24/05					Well Obstructed - Not Sampled				
	02/02/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/27/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/12/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/17/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/08/07				Likely obstructed at 18 ft bgs; contained insufficient water for sampling					
	04/09/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-7	11/19/02	3.8	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	2.7	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	1.8	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	2.9	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	2.6	7.9	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	0.81	9.0	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	2.1	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	1.0	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	1.5	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	1.9	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	02/02/06	1.3	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/27/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/12/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/17/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/08/07	0.99	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/09/07	0.54	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
MW-8	11/19/02	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	01/09/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	04/14/03	<0.50	<5.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/21/03	<0.50	<10[2]	<1.0	<1.0	<1.0	NA	NA	NA	NA
	10/09/03	<0.50	<5.0	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	01/15/04	<0.50	9.9	<1.0	<1.0	<1.0	<1.0	<2.0	NA	NA
	04/08/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	08/10/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	11/11/04	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/19/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/14/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/19/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/24/05	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	02/02/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/27/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<4.0[2]	<5,000	<5,000
	07/12/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	10/17/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	01/08/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/09/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)	Methanol (µg/L)	Ethanol (µg/L)
EX-1	10/24/05	360	120	<1.0	<1.0	<1.0	<1.0	<4.0[1]	<5,000	<5,000
	02/02/06	0.63	<10	<1.0	<1.0	<1.0	<1.0	<4.0[1]	<5,000	<5,000
	04/27/06	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	07/12/06	200	110	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000
	10/17/06	170	<100[1]	<10[1]	<10[1]	<10[1]	30	<40[1]	<5,000	<5,000
	01/08/07	1.6	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
	04/09/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000
EX-2	10/24/05	410	<2,000[1]	<200[1]	<200[1]	<200[1]	<200[1]	<800[1]	<5,000	<5,000
	02/02/06	200	<1,000[1]	<100[1]	<100[1]	<100[1]	<100[1]	<400[1]	<5,000	<5,000
	04/27/06	86	<500[1]	<50[1]	<50[1]	<50[1]	<50[1]	<200[1]	<5,000	<5,000
	07/12/06	190	<500[1]	<50[1]	<50[1]	<50[1]	<50[1]	<200[1]	<5,000	<5,000
	10/17/06	230	<1,000[1]	<100[1]	<100[1]	<100[1]	400	<400[1]	<5,000	<5,000
	01/08/07	90	<400[1]	<40[1]	<40[1]	<40[1]	<40[1]	<160[1]	<5,000	<5,000
	04/09/07	6.0	<20[1]	<2.0[1]	<2.0[1]	<2.0[1]	<2.0[1]	<8.0[1]	<5,000	<5,000
EX-3	10/24/05	<10[1]	<200[1]	<20[1]	<20[1]	<20[1]	<20[1]	<80[1]	<5,000	<5,000
	02/02/06							Well Not Monitored or Sampled - Under Soil Pile		
	04/27/06							Well Not Monitored or Sampled - Covered		
	07/12/06	<2.5[1]	<50[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	<5,000	<5,000	
	10/17/06							Well Not Monitored or Sampled - Covered		
	01/08/07	<0.50	12	<1.0	<1.0	<1.0	1.1	<2.0	<5,000	<5,000
	04/09/07	<0.50	<10	<1.0	<1.0	<1.0	<1.0	<2.0	<5,000	<5,000

**TABLE 2**  
**GROUNDWATER ANALYTICAL RESULTS**  
**FOR OXYGENATES AND ADDITIONAL COMPOUNDS**  
Former USA Service Station No. 57  
10700 MacArthur Blvd., Oakland, California

Well Number	Date Collected	MTBE ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )	Methanol ( $\mu\text{g/L}$ )	Ethanol ( $\mu\text{g/L}$ )
EX-4	10/24/05	11	51	<5.0[1]	<5.0[1]	<5.0[1]	<5.0[1]	<20[1]	<5,000	<5,000
	02/02/06				Well Not Monitored or Sampled - Under Soil Pile					
	04/27/06				Well Not Monitored or Sampled - Covered					
	07/12/06	35	<200[1]	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000
	10/17/06				Well Not Monitored or Sampled - Covered					
	01/08/07	25	<100[1]	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000
	04/09/07	6.5	<100[1]	<10[1]	<10[1]	<10[1]	<10[1]	<40[1]	<5,000	<5,000

Note:  
Oxygenates analyzed using EPA Method 8260B  
 $\mu\text{g/L}$  = micrograms per liter  
NA = Not analyzed

[1] Reporting limits were increased due to high concentrations of target analytes  
[2] Reporting limits were increased due to sample foaming

MTBE = Methyl tertiary butyl ether  
TBA = Tertiary butyl alcohol  
DIPE = Di-isopropyl ether  
ETBE = Ethyl tertiary butyl ether  
TAME = Tertiary amyl methyl ether  
1,2-DCA = 1,2-Dichloroethane  
EDB = 1,2-Dibromoethane

**Table 3**  
**Former USA Service Station No. 57**  
**10700 MacArthur Boulevard**  
**Oakland, California**  
**Monitoring Plan Summary**

Parameter	Sampling Frequency	Parameter Significance	Sampling Locations
<u>Field Parameters</u>			
pH	Monthly	Optimum pH range for microbial activity is 6. 5 to 7.5.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Dissolved Oxygen (DO)	Monthly	Oxygen serves as electron acceptor during biodegradation and the microbial activity is directly related to the availability of electron acceptors.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
<u>Laboratory Parameters</u>			
Heterotrophic plate counts	Quarterly	Typical bacterial counts for groundwater range from $10^3$ to $10^8$ counts per liter and in counts below $10^3$ for contaminated groundwater.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Biochemical Oxygen Demand (BOD)	Quarterly	BOD determines the amount of oxygen required due to biochemical oxidation of organic matter. Increase in BOD is an indication of high oxygen demand (lack of oxygen). A decrease in BOD, accompanied by an increase in DO levels, can be a good indicator of microbial activity in the subsurface.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Total Iron & Ferrous iron	Quarterly	Oxygen, a by-product of ozone degradation can react with dissolved iron in groundwater to form ferric oxide, a soluble precipitate.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Petroleum Hydrocarbons & Oxygenates	Quarterly	Chemicals of concern. Baseline and operational concentration levels will be compared in evaluating performance of oxygen injection system.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Total Organic Carbon (TOC)	Quarterly	TOC is a measure of total concentration of organic carbon that may be available for biodegradation. Carbon from the petroleum hydrocarbons is the primary energy source for microbes.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Bioparameters (Nitrates, sulfates, & phosphates)	Quarterly	Nitrates, sulfates and phosphates are nutrients required for microbial growth and reproduction.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells
Total dissolved solids (TDS)	Quarterly	TDS is a measure of dissolved inorganic constituents and small amounts of organic matter. Precipitation of inorganic constituents in groundwater due to oxygen injection can result in scaling.	S-1, MW-3, EX-3, MW-7 MW-8, and all injection wells

**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
S-1	07/19/05	Injection well	14.11	0.44	6.89	NM	681
	10/24/05	Injection well	16.53	0.95	7.05	NM	503
	01/11/06	Injection well	16.32	NM	NM	NM	NM
	01/20/06	Injection well	15.85	61.1	7.04	155	919
	02/02/06	Injection well	15.27	3.02	7.06	151	1,069
	02/15/06	Injection well	14.47	26.5	7.08	87	887
	03/03/06	Injection well	14.20	18	6.69	96	1,004
	03/24/06	Injection well	13.10	8.8[1]	7.50	322	924
	04/17/06	Injection well	10.40	18.2	7.10	533	916
	04/27/06	Injection well	9.59	15.15	7.27	NM	822
	05/04/06	Injection well	9.55	10.8	7.50	230	808
	05/16/06	Injection well	9.63	15.1	7.60	133	950
	06/09/06	Injection well	9.86	34.5	8.09	315	1,100
	06/30/06	Injection well	10.61	20.8	7.91	183	1,070
	07/10/06	Injection well	10.82	29.6	8.03	173	949
	07/12/06	Injection well	11.00	NM	7.48	NM	799
	08/03/06	Injection well	11.95	18.3	8.60	144	857
	08/25/06	Injection well	12.73	55	7.79	143	766
	09/13/06	Injection well	13.44	OR	7.11	NM	NM
	09/27/06	Injection well	14.03	OR	7.73	184	683
	10/12/06	Injection well	14.43	OR	7.22	239	1,198
	10/17/06	Injection well	14.54	11[2]	7.28	NM	1,241
	11/03/06	Injection well	15.19	14.71[2]	6.43	113	1,225
	11/20/06	Injection well	15.49	6.5	8.60	381	706
[5]	12/18/06	21 feet (to EX-1)	15.89	15.12[2]	6.66	148	1,132
	01/08/07	21 feet (to EX-1)	15.87	1.8	7.39	119	1,156
	01/16/07	21 feet (to EX-1)	15.87	1.8	7.30	119	1,156
	03/14/07	21 feet (to EX-1)	14.68	2.0	7.23	74	985
	03/29/07	21 feet (to EX-1)	15.89	3.1	7.20	80	971
	04/09/07	21 feet (to EX-1)	16.06	1.57	7.72	0	1,076
	04/16/07	21 feet (to EX-1)	16.15	2.5	7.30	147	992
	04/23/07	21 feet (to EX-1)	16.31	6.9	7.30	121	968
	04/26/07	21 feet (to EX-1)	16.24	2.7	7.20	102	953
	05/02/07	21 feet (to EX-1)	16.34	0.26	7.02	139	1,020
	05/21/07	21 feet (to EX-1)	16.78	0.36	7.06	40	923
	06/09/07	21 feet (to EX-1)	16.96	0.35	7.11	24	1,002

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemen
S-2 (injection well)	07/19/05	Injection well	16.25	0.74	7.24	NM	669
	10/24/05	Injection well	18.07	NM	6.88	NM	490
	01/11/06	Injection well	18.52	NM	NM	NM	NM
	01/20/06	Injection well	18.05	30.1	6.55	166	917
	02/02/06	Injection well	17.26	16.66	6.97	120	2.97
	02/15/06	Injection well	16.61	32.6	7.45	93	850
	03/03/06	Injection well	16.30	23.0	6.79	120	875
	03/24/06	Injection well	14.68	2.8[1]	7.75	283	1,050
	04/17/06	Injection well	12.38	19.0	7.11	521	790
	04/27/06	Injection well	11.55	4.17	7.17	NM	794
	05/04/06	Injection well	11.04	11.2	7.65	192	901
	05/16/06	Injection well	11.47	14.4	7.61	119	933
	06/09/06	Injection well	11.76	33.6	8.10	379	757
	06/30/06	Injection well	12.53	18.5	8.17	168	760
	07/10/06	Injection well	12.77	32.6	8.34	158	727
	07/12/06	Injection well	12.98	NM	7.57	NM	648
	08/03/06	Injection well	13.90	10.3	8.70	126	814
	08/25/06	Injection well	14.73	47.8	7.73	149	679
	09/13/06	Injection well	15.45	OR	6.87	NM	NM
	09/27/06	Injection well	16.03	OR	7.20	193	549
	10/12/06	Injection well	16.45	OR	6.67	241	1,176
	10/17/06	Injection well	16.59	2.71[2]	7.10	NM	1,154
	11/03/06	Injection well	17.21	OR	6.55	120	1,221
	11/20/06	Injection well	17.55	7.1	8.46	428	682
	12/18/06	Injection well	17.97	10.01[2]	6.43	149	1,111
	01/08/07	Injection well	18.21	2.19	7.47	142	1,095
	01/16/07	Injection well	18.21	2.1	7.40	142	1,095
	03/14/07	Injection well	17.95	23.68	7.60	225	976
	03/29/07	Injection well	18.15	25.47	7.70	212	558
	04/09/07	Injection well	18.29	OR	7.73	173	1,079
	04/16/07	Injection well	18.34	14.18	7.50	220	962
	04/26/07	Injection well	18.41	15.98	7.50	240	956
	05/02/07	Injection well	18.50	OR	7.29	283	1,009
	05/21/07	Injection well	18.97	OR	7.23	155	901
	06/09/07	Injection well	19.10	OR	7.23	160	957

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
MW-3	07/19/05	Injection well	11.94	0.53	7.20	NM	784
	10/24/05	Injection well	14.70	1.33	6.66	NM	561
	01/11/06	Injection well	12.57	NM	NM	NM	NM
	01/20/06	Injection well	12.37	30.5	6.14	179	1,855
	02/02/06	Injection well	16.48	11.34	6.91	125	1,898
	02/15/06	Injection well	10.79	34.6	6.67	96	1,760
	03/03/06	Injection well	11.55	31.0	6.47	147	1,712
	03/24/06	Injection well	10.73	9.8[1]	7.20	314	1,540
	04/17/06	Injection well	7.91	17.5	6.83	567	1,442
	04/27/06	Injection well	7.85	19.35	7.10	NM	1,230
	05/04/06	Injection well	8.85	10.2	7.15	259	1,357
	05/16/06	Injection well	9.45	15.6	7.28	147	1,611
	06/09/06	Injection well	9.09	25.1	6.91	325	1,329
	06/30/06	Injection well	9.92	18.8	7.53	152	1,596
	07/10/06	Injection well	9.88	29.5	7.79	155	NM
	07/12/06	Injection well	10.08	NM	7.28	NM	880
	08/03/06	Injection well	11.66	16.1	8.50	159	1,104
	08/25/06	Injection well	11.53	33	7.22	143	941
[3]	09/13/06	Injection well	11.46	OR	4.04	NM	NM
	09/27/06	Injection well	12.47	OR	7.75	181	3,421
	10/12/06	Injection well	12.10	OR	7.19	242	3,457
	10/17/06	Injection well	12.80	0.0	7.34	NM	3.23
	11/03/06	Injection well	NM	NM	NM	NM	NM
[5]	11/20/06	Injection well	13.72	4.4	8.28	380	851
	12/18/06	15 feet (to EX-2)	13.47	OR	6.79	84	2,122
	01/08/07	15 feet (to EX-2)	21.68	10.04	7.19	247	262
	01/16/07	15 feet (to EX-2)	21.68	10.04	7.10	247	262
	03/14/07	15 feet (to EX-2)	10.97	4.6	8.00	133	521
	03/29/07	15 feet (to EX-2)	11.85	4.7	7.90	120	612
	04/09/07	15 feet (to EX-2)	12.24	0.19	7.80	118	993
	04/16/07	15 feet (to EX-2)	12.38	3.3	7.20	203	2.55
	04/23/07	15 feet (to EX-2)	12.53	9.9	7.50	161	683
	04/26/07	15 feet (to EX-2)	12.39	5.5	7.60	216	730
	05/02/07	15 feet (to EX-2)	12.35	4.42	7.68	217	1,011
	05/21/07	15 feet (to EX-2)	12.82	5.19	8.01	110	714
	06/09/07	15 feet (to EX-2)	13.37	3.92	7.36	209	1,104

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
MW-7	07/19/05	70 feet (to S-1)	14.16	NM	7.46	NM	651
	10/24/05	70 feet (to S-1)	16.65	NM	7.41	NM	493
	01/11/06	70 feet (to S-1)	17.05	NM	NM	NM	NM
	01/20/06	70 feet (to S-1)	16.20	2.0	6.49	105	841
	02/02/06	70 feet (to S-1)	15.39	2.04	7.30	38	763
	02/15/06	70 feet (to S-1)	13.74	2.9	6.91	8	828
	03/03/06	70 feet (to S-1)	13.26	8.2	7.19	97	853
	03/24/06	70 feet (to S-1)	11.99	2.6[1]	8.20	202	844
	04/17/06	70 feet (to S-1)	9.40	7.2	7.68	429	876
	04/27/06	70 feet (to S-1)	8.51	2.01	8.02	NM	878
	05/04/06	70 feet (to S-1)	8.37	5.4	8.29	88	855
	05/16/06	70 feet (to S-1)	8.43	9.8	7.51	72	856
	06/09/06	70 feet (to S-1)	8.74	4.6	7.68	376	777
	06/30/06	70 feet (to S-1)	9.50	4.6	8.26	162	787
	07/10/06	70 feet (to S-1)	9.77	4.7	8.56	135	796
	07/12/06	70 feet (to S-1)	9.94	1.82	7.92	12	759
	08/03/06	70 feet (to S-1)	10.83	3.5	8.70	34	760
	08/25/06	70 feet (to S-1)	11.71	6.6	7.50	130	728
	09/13/06	70 feet (to S-1)	12.44	4.34	6.90	NM	NM
	09/27/06	70 feet (to S-1)	13.01	3.95	7.79	137	1,261
	10/12/06	70 feet (to S-1)	13.46	2.96	7.01	244	1,194
	10/17/06	70 feet (to S-1)	13.46	1.69[2]	7.33	NM	1,179
	11/03/06	70 feet (to S-1)	14.21	5.11[2]	6.86	210	1,185
	11/20/06	70 feet (to S-1)	14.54	6.7	9.10	170	740
	12/18/06	80 feet (to EX-1)	14.95	2.94[2]	6.93	142	656
	01/08/07	80 feet (to EX-1)	15.03	1.88	7.73	144	770
	01/16/07	80 feet (to EX-1)	15.03	1.8	7.70	144	770
	03/14/07	80 feet (to EX-1)	14.99	2.9	7.63	193	1,021
	03/29/07	80 feet (to EX-1)	15.13	6.4	7.80	149	935
	04/09/07	80 feet (to EX-1)	15.27	0.47	8.27	200	765
	04/16/07	80 feet (to EX-1)	15.32	2.7	7.60	174	981
	04/26/07	80 feet (to EX-1)	15.40	5.3	7.60	214	911
	05/02/07	80 feet (to EX-1)	15.49	0.97	7.49	303	978
	05/21/07	80 feet (to EX-1)	15.81	2.84	7.67	202	780
	06/09/07	80 feet (to EX-1)	16.00	4.65	7.56	210	757

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
MW-8	07/19/05	47 feet (to MW-3)	15.78	7.55	7.14	NM	798
	10/24/05	47 feet (to MW-3)	18.68	5.35	6.88	NM	480
	01/11/06	47 feet (to MW-3)	15.49	NM	NM	NM	NM
	01/20/06	47 feet (to MW-3)	15.36	8.20	5.97	124	541
	02/02/06	47 feet (to MW-3)	14.57	8.7	6.83	105	6.34
	02/15/06	47 feet (to MW-3)	13.82	6.6	6.28	10	459
	03/03/06	47 feet (to MW-3)	14.38	8.2	6.35	116	1,953
	03/24/06	47 feet (to MW-3)	12.83	2.7[1]	7.30	256	1,695
	04/17/06	47 feet (to MW-3)	10.72	8.1	6.66	510	1,464
	04/27/06	47 feet (to MW-3)	10.48	6.61	7.01	NM	1,400
	05/04/06	47 feet (to MW-3)	11.04	6.1	7.65	156	1,507
	05/16/06	47 feet (to MW-3)	11.86	8.3	6.97	101	1,733
	06/09/06	47 feet (to MW-3)	12.32	6.6	7.09	406	1,336
	06/30/06	47 feet (to MW-3)	12.79	7.7	7.15	156	1,729
	07/10/06	47 feet (to MW-3)	13.00	7.2	7.37	163	1,435
	07/12/06	47 feet (to MW-3)	13.08	0.63	6.94	69	1,018
	08/03/06	47 feet (to MW-3)	14.10	4.5	8.50	121	1,065
	08/25/06	47 feet (to MW-3)	14.55	7.4	6.82	172	815
	09/13/06	47 feet (to MW-3)	15.02	6.22	6.42	NM	NM
	09/27/06	47 feet (to MW-3)	15.51	6.28	6.58	122	3,999
	10/12/06	47 feet (to MW-3)	15.85	5.67	6.39	77	3,999
	10/17/06	47 feet (to MW-3)	15.96	6.13[2]	6.97	NM	6.70
	11/03/06	47 feet (to MW-3)	NM	NM	NM	NM	NM
	11/20/06	47 feet (to MW-3)	16.87	3.8	7.67	394	890
	12/18/06	63 feet (to EX-2)	NM	NM	NM	NM	NM
	01/08/07	63 feet (to EX-2)	16.70	1.91	7.08	NM	752
	01/16/07	63 feet (to EX-2)	16.70	1.90	7.00	NM	752
	03/14/07	63 feet (to EX-2)	15.02	5.70	7.00	206	729
	03/29/07	63 feet (to EX-2)	15.97	7.30	7.00	185	706
	04/09/07	63 feet (to EX-2)	16.25	NM	7.74	218	1,495
	04/16/07	63 feet (to EX-2)	16.62	6.30	7.00	212	6.66
	04/26/07	63 feet (to EX-2)	16.57	5.70	7.10	242	667
	05/02/07	63 feet (to EX-2)	16.40	6.15	6.95	195	7.01
	05/21/07	63 feet (to EX-2)	16.85	5.49	6.91	174	5.19
	06/09/07	63 feet (to EX-2)	17.41	5.28	6.88	222	5.56

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
EX-1	10/24/05	20 feet (to S-1)	14.37	1.15	6.56	NM	585
	01/11/06	20 feet (to S-1)	3.11	NM	NM	NM	NM
	01/20/06	20 feet (to S-1)	2.13	2.50	6.79	116	631
	02/02/06	20 feet (to S-1)	1.68	5.84	7.65	128	463
	02/15/06	20 feet (to S-1)	2.27	2.00	7.10	4	646
	03/03/06	20 feet (to S-1)	NM	NM	NM	NM	NM
	03/24/06	20 feet (to S-1)	NM	NM	NM	NM	NM
	04/17/06	20 feet (to S-1)	1.15	7.1	7.40	542	542
	04/27/06	20 feet (to S-1)	1.76	2.4	7.39	NM	609
	05/04/06	20 feet (to S-1)	NM	NM	NM	NM	NM
	05/16/06	20 feet (to S-1)	NM	NM	NM	NM	NM
	06/09/06	20 feet (to S-1)	6.77	2.2	7.62	326	807
	06/30/06	20 feet (to S-1)	6.64	5.2	7.95	183	817
	07/10/06	20 feet (to S-1)	6.71	2.5	8.02	163	767
	07/12/06	20 feet (to S-1)	6.88	0.80	7.48	-10	944
	08/03/06	20 feet (to S-1)	NM	NM	NM	NM	NM
	08/25/06	20 feet (to S-1)	9.14	5.4	7.34	121	690
	09/13/06	20 feet (to S-1)	8.82	3.09	7.01	NM	NM
	09/27/06	20 feet (to S-1)	9.25	3.73	7.23	205	1,104
	10/12/06	20 feet (to S-1)	9.67	2.84	6.93	238	1,145
	10/17/06	20 feet (to S-1)	9.79	1.97[2]	6.90	NM	1,624
	11/03/06	20 feet (to S-1)	10.91	2.19[2]	6.50	170	1,198
	11/20/06	20 feet (to S-1)	10.58	4.4	8.61	398	654
	12/18/06	Injection well	5.63	2.74[2]	6.81	149	741
	01/08/07	Injection well	5.47	3.1	7.56	191	708
	01/16/07	Injection well	5.47	3.1	7.50	191	708
	03/14/07	Injection well	3.07	14.84	7.60	231	692
	03/29/07	Injection well	4.47	11.89	7.69	216	700
	04/09/07	Injection well	4.88	6.81	7.87	167	812
	04/16/07	Injection well	4.37	14.17	7.70	202	703
	04/26/07	Injection well	4.59	15.63	7.80	239	674
	05/02/07	Injection well	5.34	OR	7.73	309	734
	05/21/07	Injection well	5.74	6.49	7.38	208	673
	06/09/07	Injection well	6.18	2.33	7.42	72	714

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
EX-2	10/24/05	15 feet (to MW-3)	16.00	2.83	6.85	NM	588
	01/11/06	15 feet (to MW-3)	10.22	NM	NM	NM	NM
	01/20/06	15 feet (to MW-3)	8.98	2.90	5.93	157	1,570
	02/02/06	15 feet (to MW-3)	8.18	15.60	6.87	138	18.99
	02/15/06	15 feet (to MW-3)	7.74	2.20	6.49	58	1,472
	03/03/06	15 feet (to MW-3)	NM	NM	NM	NM	NM
	03/24/06	15 feet (to MW-3)	NM	NM	NM	NM	NM
	04/17/06	15 feet (to MW-3)	5.74	5.6	6.86	555	1,223
	04/27/06	15 feet (to MW-3)	5.22	2.48	7.17	NM	1,184
	05/04/06	15 feet (to MW-3)	NM	NM	NM	NM	NM
	05/16/06	15 feet (to MW-3)	NM	NM	NM	NM	NM
	06/09/06	15 feet (to MW-3)	8.00	4.6	7.51	374	1,190
	06/30/06	15 feet (to MW-3)	7.37	2.0	7.52	9	1,286
	07/10/06	15 feet (to MW-3)	7.16	1.8	7.69	44	1,210
	07/12/06	15 feet (to MW-3)	7.32	1.0	7.43	-4	1,169
	08/03/06	15 feet (to MW-3)	NM	NM	NM	NM	NM
	08/25/06	15 feet (to MW-3)	8.69	1.4	7.08	127	937
	09/13/06	15 feet (to MW-3)	8.51	1.25	6.58	NM	NM
	09/27/06	15 feet (to MW-3)	8.96	1.41	6.78	11	2,114
	10/12/06	15 feet (to MW-3)	9.10	0.63	6.64	38	2,062
	10/17/06	15 feet (to MW-3)	9.22	1.97[2]	6.97	NM	1,896
	11/03/06	15 feet (to MW-3)	9.78	0.72[2]	6.45	84	1,903
	11/20/06	15 feet (to MW-3)	9.87	3.6	8.10	388	887
	12/18/06	Injection well	9.70	1.28[2]	6.60	93	1,875
	01/08/07	Injection well	10.35	4.83	7.26	70	1,717
	01/16/07	Injection well	10.35	4.8	7.20	70	1,717
	03/14/07	Injection well	8.83	8.8	7.50	143	1,229
	03/29/07	Injection well	9.41	7.5	7.50	103	1,322
	04/09/07	Injection well	9.67	8.03	7.78	173	1,365
	04/16/07	Injection well	9.96	1.6	7.40	143	1,397
	04/26/07	Injection well	10.02	12.7	7.50	142	1,278
	05/02/07	Injection well	10.09	9.32	7.34	312	1,348
	05/21/07	Injection well	10.40	4.06	7.22	207	1,238
	06/09/07	Injection well	10.73	3.93	7.21	171	1,346

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**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
EX-3	10/24/05	45 feet (to S-2)	14.93	NM	7.06	NM	676
	01/11/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	01/20/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	02/02/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	02/15/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	03/03/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	03/24/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	04/17/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	04/27/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	05/04/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	05/16/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	06/09/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	06/30/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	07/10/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	07/12/06	45 feet (to S-2)	9.01	0.5	7.40	0	894
	08/03/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	08/25/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	09/13/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	09/27/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	10/12/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	10/17/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	11/03/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	11/20/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	12/18/06	45 feet (to S-2)	NM	NM	NM	NM	NM
	01/08/07	45 feet (to S-2)	12.31	2.42	7.15	-40	1,234
	01/16/07	45 feet (to S-2)	12.31	2.4	7.10	-40	1,234
	03/14/07	45 feet (to S-2)	NM	NM	NM	NM	NM
	03/29/07	45 feet (to S-2)	NM	NM	NM	NM	NM
	04/09/07	45 feet (to S-2)	10.78	0.53	7.90	93	813
	04/16/07	45 feet (to S-2)	6.00	1.9	7.40	176	525
	04/26/07	45 feet (to S-2)	9.65	2.3	7.40	165	723
	05/02/07	45 feet (to S-2)	10.20	0.83	7.21	-3	1,012
	05/21/07	45 feet (to S-2)	11.00	0.42	7.11	13	987
	06/09/07	45 feet (to S-2)	11.40	0.46	7.13	-13	1,190

STRATUS

**TABLE 4**  
**Physical Parameter Summary**

Former USA Service Station No. 57  
 10700 McArthur Boulevard Oakland, California

Well Number	Date	Distance to nearest injection well	Depth to water feet bgs	DO mg/L	pH	ORP mV	Specific Conductivity millisiemens
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**NOTES:**

pH, specific conductivity, ORP and DO were measured on site using field instruments

NM = Not Measured

OR = Over the range of the field instrument

[1] DO instrument appears to have malfunctioned

[2] DO was originally measured in % and then converted to mg/L [DO in mg/L = 0.10\* DO in %]

[3] Not measured since well was hidden under dirt pile

[4] Not measured due to well blocked off by spools

[5] Removed iSOC unit from well

*STRATUS*

TABLE 5

## Analytical Parameter Summary

Former USA Service Station No. 57  
10700 McArthur Boulevard, Oakland, California

Well Number	Date	Distance to nearest injection well	BOD <sup>1</sup> µg/L	Heterotrophic plate count <sup>2</sup> CFU/ml	TOC <sup>3</sup>	Ferrous iron <sup>4</sup> µg/L	Total iron <sup>4</sup> µg/L	Nitrite as NO <sub>2</sub> <sup>5</sup> µg/L	Nitrate as NO <sub>3</sub> <sup>5</sup> µg/L	Ammonia Nitrogen <sup>6</sup> µg/L	Sulfate as SO <sub>4</sub> <sup>5</sup> µg/L	Sulfide <sup>7</sup> µg/L	Total Orthophosphates <sup>8</sup> µg/L	TDS <sup>9</sup> µg/L	Total Phosphorus <sup>8</sup> µg/L
S-1	01/11/06	Injection well	<3,000	3,000	7,800	<50	690	<250	<250	<100	32,000	<100	190	NA	120
	04/23/07	21	<3,000	110[3]	6,700	<50	5,400	<250	<250	<100	44,000	<100	<100	650,000	<100
S-2	01/11/06	Injection well	19,000	18,000	6,600	<50	<300	<250	<250	<100	2,500	<100	120	NA	<100
MW-3	01/11/06	Injection well	<3,000	23,000	3,400	<50	420	<250	<250	<100	15,000	<100	130	NA	120
	04/23/07	15	<3,000	27,000[3]	11,000	<50	1,000	<250	<250	<100	20,000	<100	100	1,700,000	<100
MW-7	01/11/06	70	<3,000	19,000	3,900	<50	<300	<250	600	<100	21,000	<100	180	NA	180
	04/27/06	70	<3,000	24	2,300	<50	<300	<250	2,400	<100	50,000	<100	210	660,000	150
	07/12/06	70	<3,000	33	2,500	<50	<300	<250	2,600	<100	56,000	<100	130	670,000	<100
	10/17/06	70	<3,000	8	3,400	<50	1,300	<250	2,200	<100	55,000	<100	<100	650,000	<100
	01/08/07	80	<3,000	100	2,400	<50	1,000	<250	2,400	<100	59,000	<100	110	630,000	120
	04/09/07	80	<3,000	64	2,000	<50	430	<250	2,400	<100	53,000	<100	120	630,000	380
MW-8	01/11/06	47	<3,000	380	1,500	<50	1,500	<250	4,100	<100	62,000	<100	190	NA	170
	04/27/06	47	<3,000	660	1,000	<50	3,200	<250	4,200	<100	66,000	120	230	5,900,000	140
	07/12/06	47	<3,000	S[1]	2,100	<50	5,300	<250	4,800	<100	79,000	<100	180	2,400,000	170
	10/17/06	47	<3,000	3,500	1,900	<50	3,600	<250	4,500	<100	79,000	<100	<100	5,400,000	130
	01/08/07	63	<3,000	600	2,200	<50	7,300	8,500	4,300	<100	84,000	<100	230	5,600,000	160
	04/09/07	63	<3,000	590	1,800	<50	4,000	<250	2,500	<100	83,000	<100	120	5,700,000	120
EX-1	01/11/06	20	<3,000	4,500	9,500	<50	540	<250	1,400	<100	69,000	<100	220	NA	200
	04/27/06	20	<3,000	9,800	6,800	<50	6,000	<250	260	<100	69,000	<100	160	400,000	290
	07/12/06	20	25,000	19,000	26,000	230	7,400	<250	<250	1,200	8,600	<100	300	1,100,000	220
	10/17/06	20	32,000	11,000	30,000	60	53,000	<250	<250	1,800	4,700	<100	<100	1,000,000	330
	01/08/07	Injection well	4,100	11,000[2]	6,300	<50	5,500	<250	850	<100	60,000	<100	170	390,000	120
	04/09/07	Injection well	<3,000	780	6,400	<50	930	<250	1,400	<100	87,000	<100	120	480,000	170

**TABLE 5**  
**Analytical Parameter Summary**

Former USA Service Station No. 57  
10700 McArthur Boulevard, Oakland, California

Well Number	Date	Distance to nearest injection well	BOD <sup>1</sup> µg/L	Heterotrophic plate count <sup>2</sup> CFU/ml	TOC <sup>3</sup> µg/L	Ferrous iron <sup>4</sup> µg/L	Total iron <sup>4</sup> µg/L	Nitrite as NO <sub>2</sub> <sup>5</sup> µg/L	Nitrate as NO <sub>3</sub> <sup>5</sup> µg/L	Ammonia Nitrogen <sup>6</sup> µg/L	Sulfate as SO <sub>4</sub> <sup>5</sup> µg/L	Sulfide <sup>7</sup> µg/L	Total Orthophosphates <sup>8</sup> µg/L	TDS <sup>9</sup> µg/L	Total Phosphorus <sup>8</sup> µg/L
EX-2	01/11/06	15	48,000	85,000	17,000	<50	1,200	<250	<250	120	21,000	<100	230	NA	140
	04/27/06	15	22,000	82,000	17,000	<50	770	<250	<250	<100	22,000	<100	140	1,200,000	240
	07/12/06	15	23,000	41,000	17,000	<50	2,000	<250	<250	<100	6,700	<100	220	1,200,000	150
	10/17/06	15	38,000	3,600	18,000	<50	37,000	<250	<250	<100	<500	<100	<100	1,200,000	<100
	01/08/07	Injection well	14,000	41,000	14,000	<50	20,000	420	<250	<100	5,000	<100	140	960,000	250
	04/09/07	Injection well	<3,000	8,200	7,000	<50	14,000	<250	<250	<100	11,000	<100	<100	790,000	180
EX-3	07/12/06	45	9,400	15,000	14,000	<50	14,000	<250	<250	<100	32,000	220	320	930,000	250
	10/17/06	45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	01/08/07	45	9,900	6,600	11,000	130	54,000	<250	<250	<100	31,000	<100	160	840,000	370
	04/09/07	45	8,400	13,000	12,000	420	3,800	<250	<250	<100	69,000	630	<100	800,000	210

NOTES:

<sup>1</sup> Biochemical oxygen demand (BOD) was analyzed using EPA Method 405.1

µg/L = micrograms per liter

<sup>2</sup> Heterotrophic plate count (HPC) was conducted using SM 9215

NA = Not analyzed

<sup>3</sup> Total organic carbon (TOC) was analyzed using EPA Method 415.1

NS = Not sampled

<sup>4</sup> Ferrous iron & Total iron was analyzed using SM3500-Fe D

<sup>5</sup> Nitrite, nitrate and sulfates were analyzed using EPA Method 300.0

<sup>6</sup> Ammonia nitrogen was analyzed using EPA Method 350.3

<sup>7</sup> Sulfide was analyzed using EPA Method 376.2

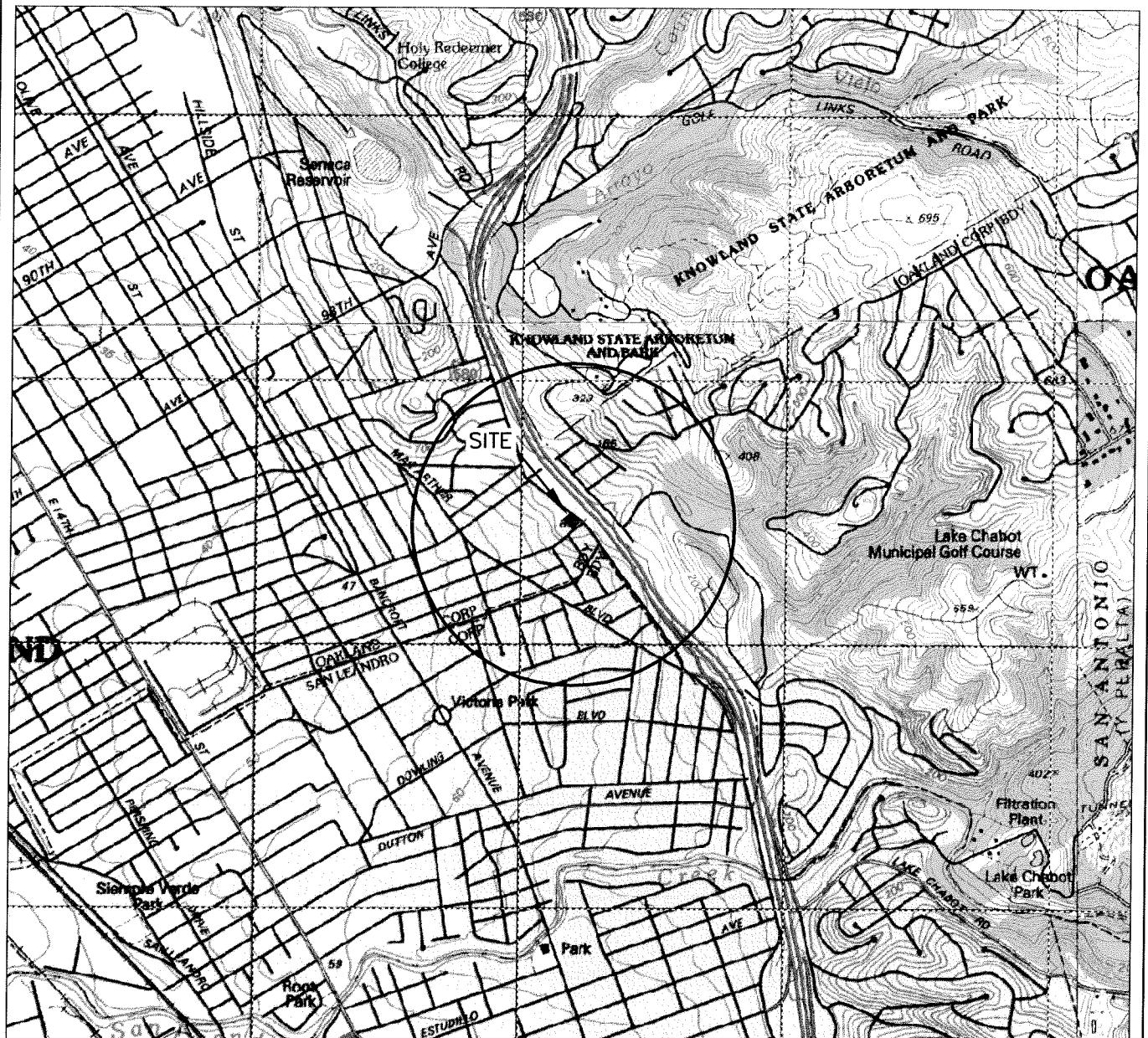
<sup>8</sup> Total orthophosphate and total phosphorus were analyzed by EPA Method 365.2

<sup>9</sup> Total dissolved solids (TDS) analyzed using EPA Method 160.1

S[1] = Spreaders frequently cover more than half the plate and interfere with obtaining a reliable plate count.

[2] = This sample was extracted/analyzed outside the EPA recommended holding time.

[3] = The sample was received outside of the EPA recommended holding time.



GENERAL NOTES:

BASE MAP FROM U.S.G.S.

OAKLAND, CA

7.5 MINUTE TOPOGRAPHIC  
PHOTOREVISED 1980

North



QUADRANGLE LOCATION

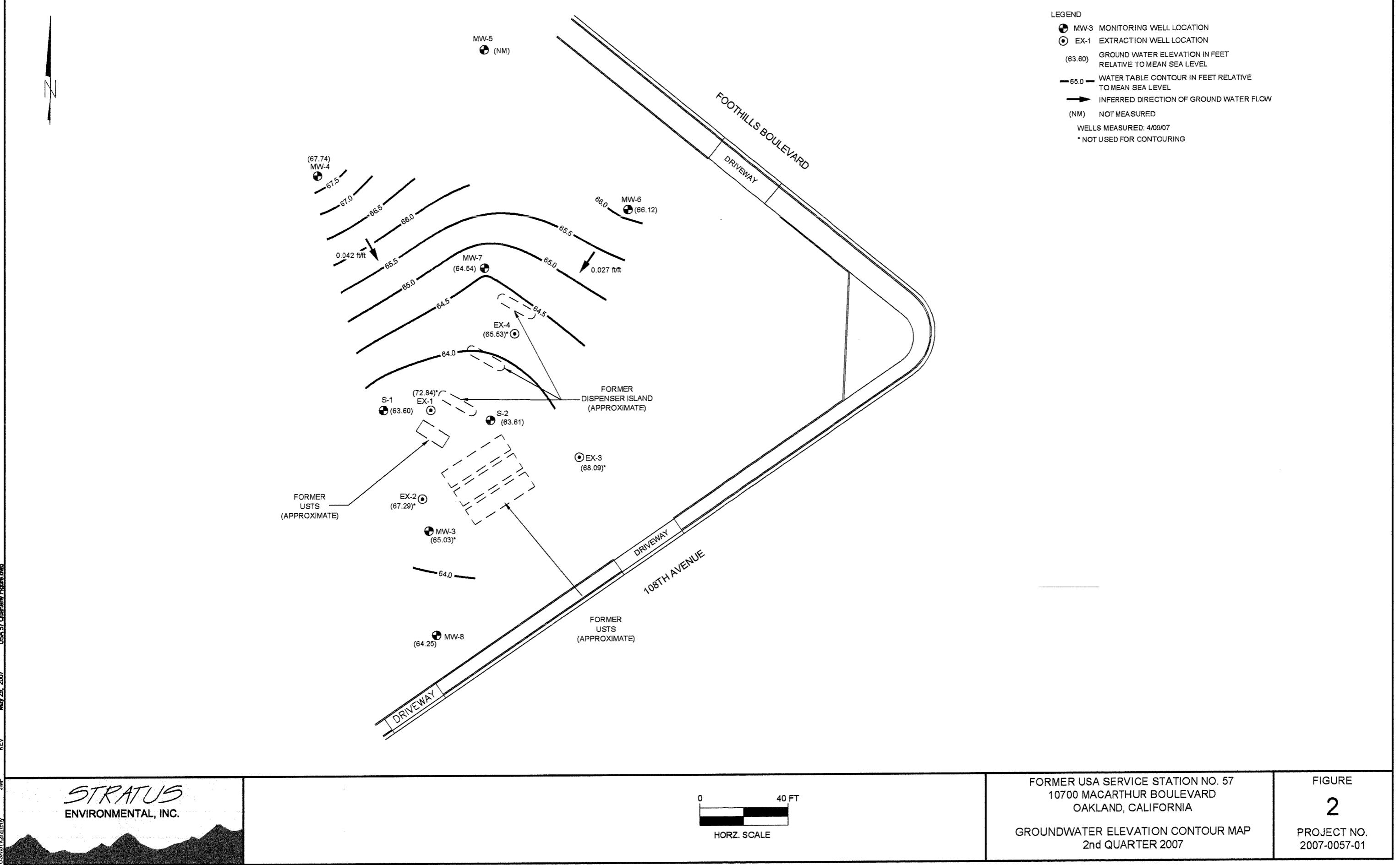
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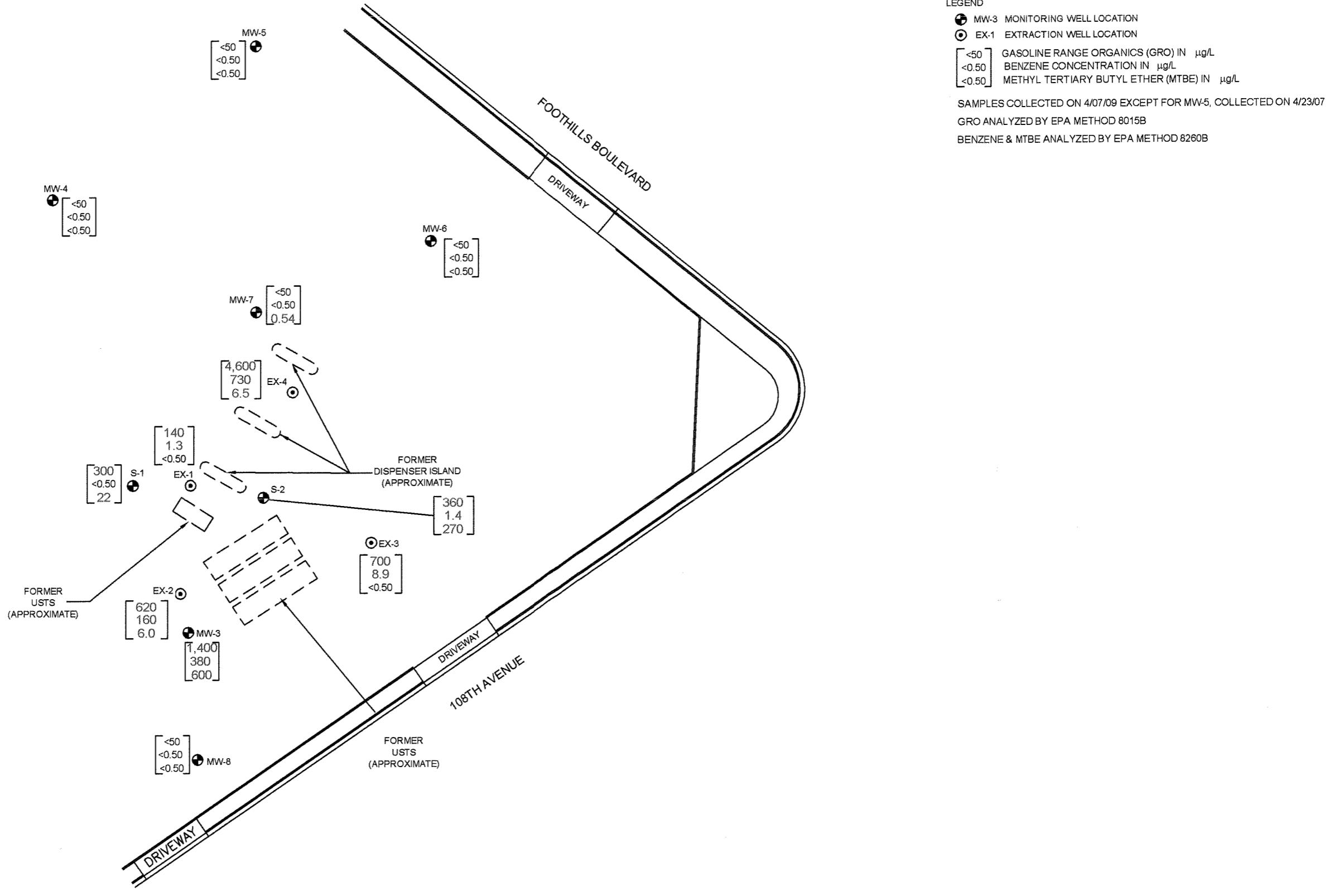
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**STRATUS**  
ENVIRONMENTAL, INC.

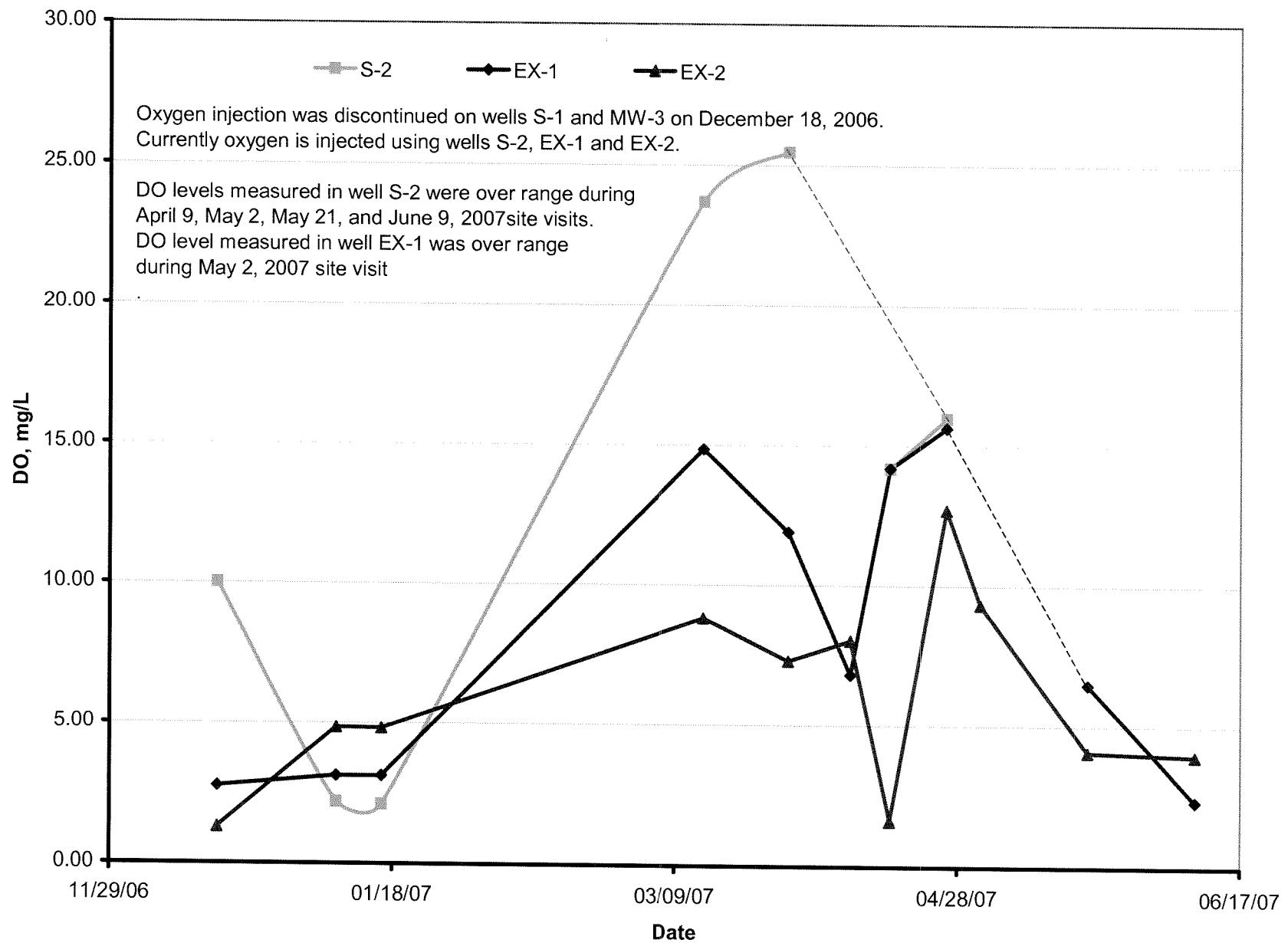
FORMER USA SERVICE STATION NO. 57  
10700 MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA  
SITE LOCATION MAP

FIGURE  
**1**  
PROJECT NO.  
2007-0057-01

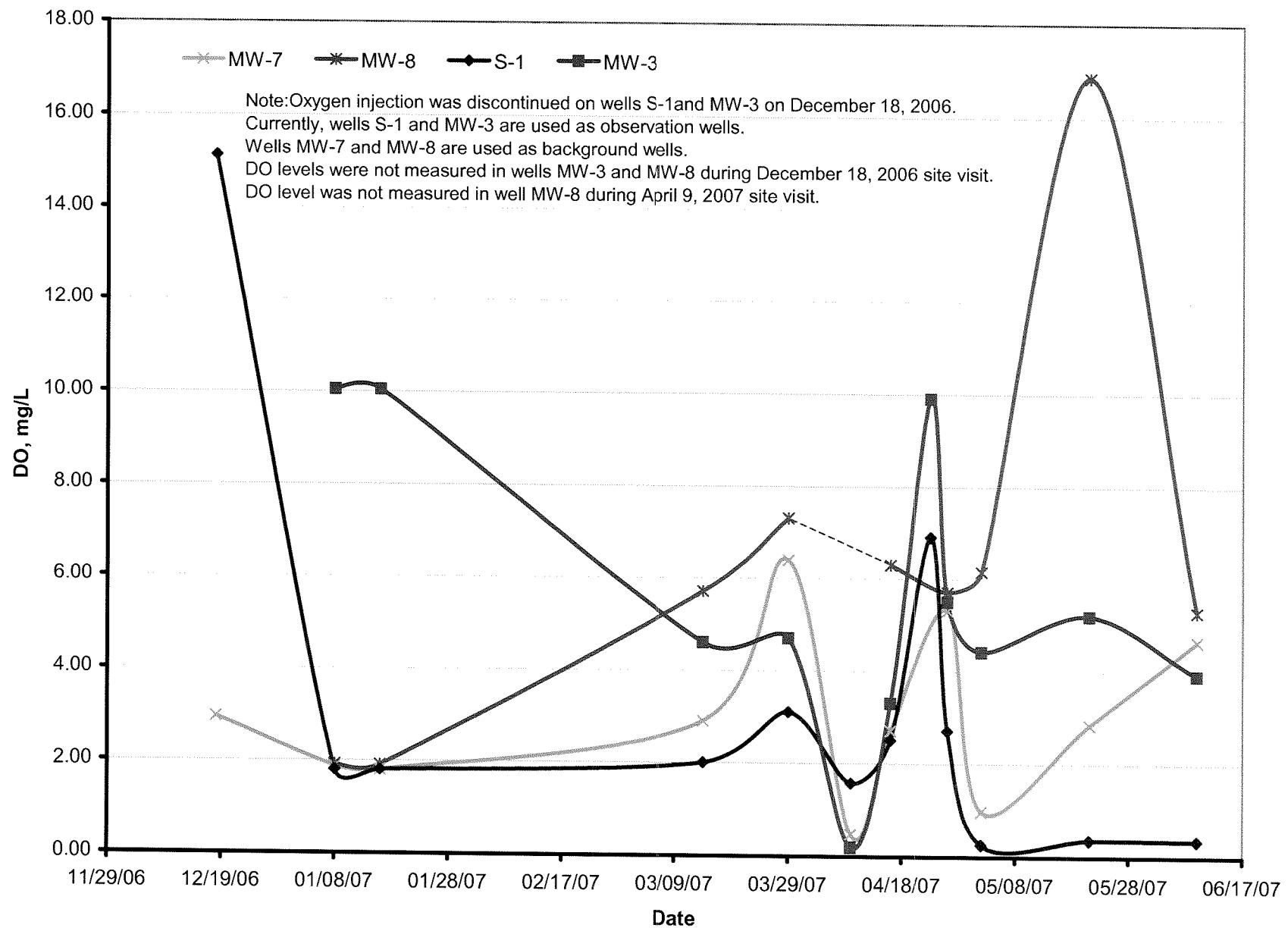




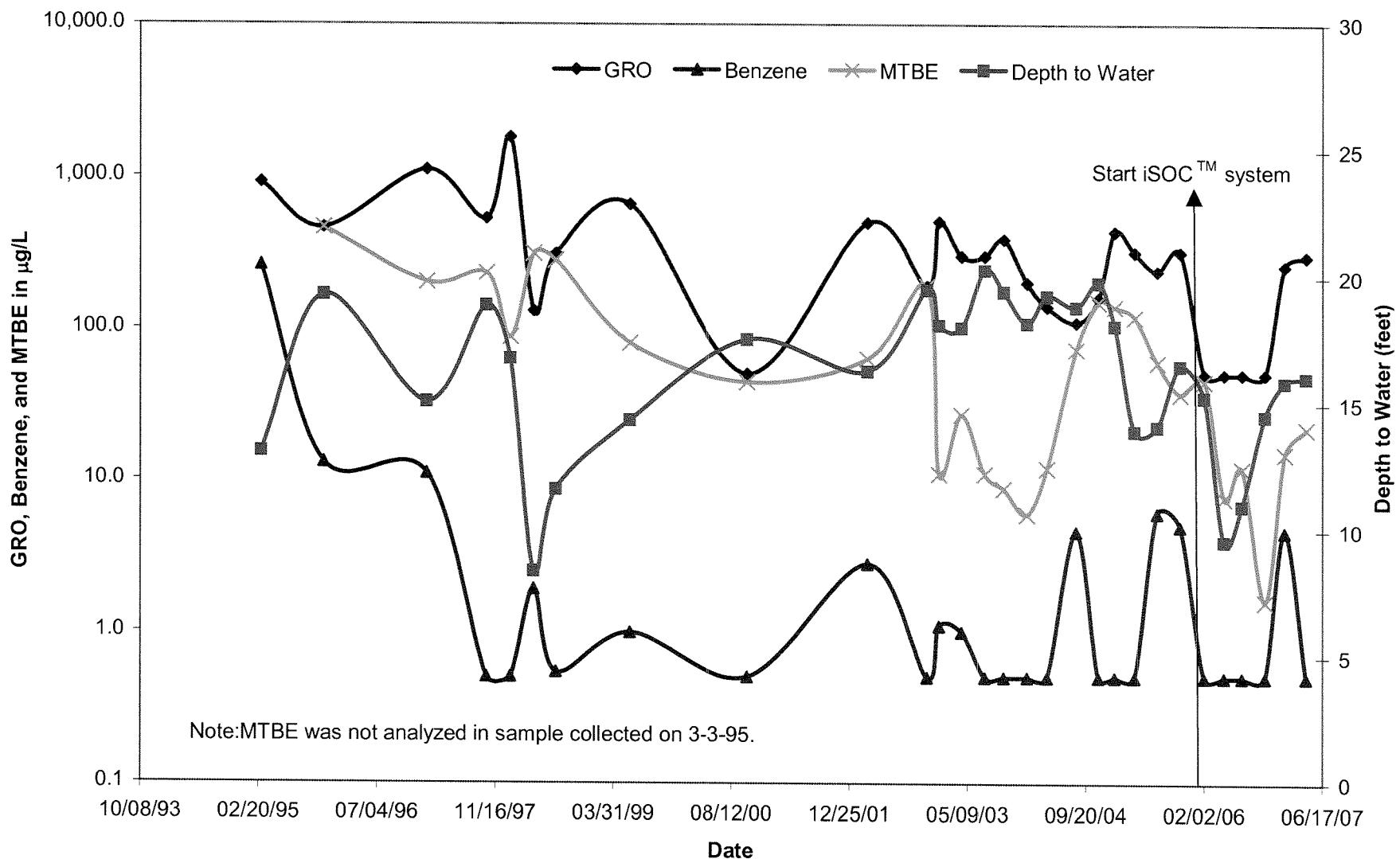
**Figure 4**  
**DO Variation with Time at Injection Wells**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



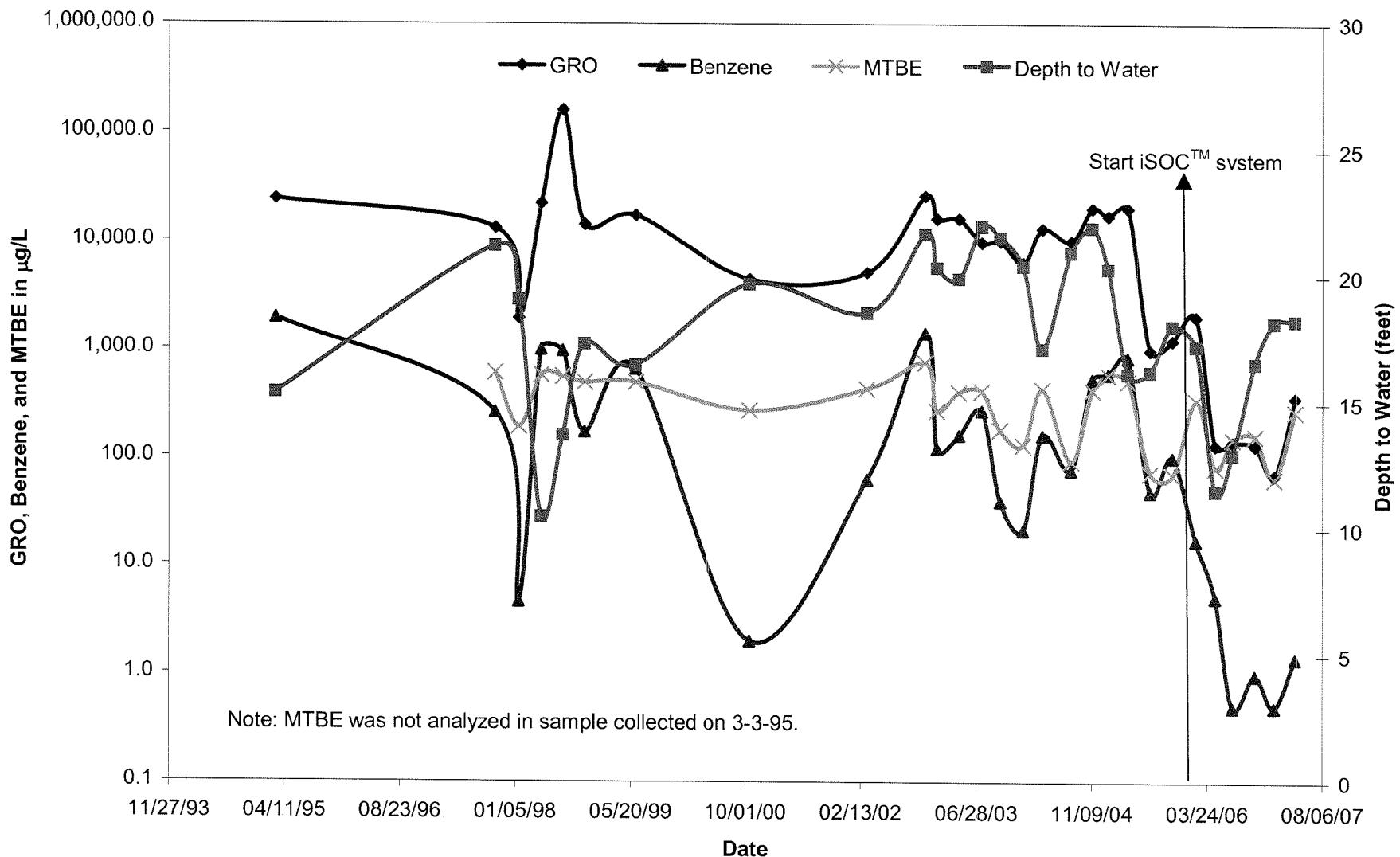
**Figure 5**  
**DO Variation with Time at Observation and Background Wells**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



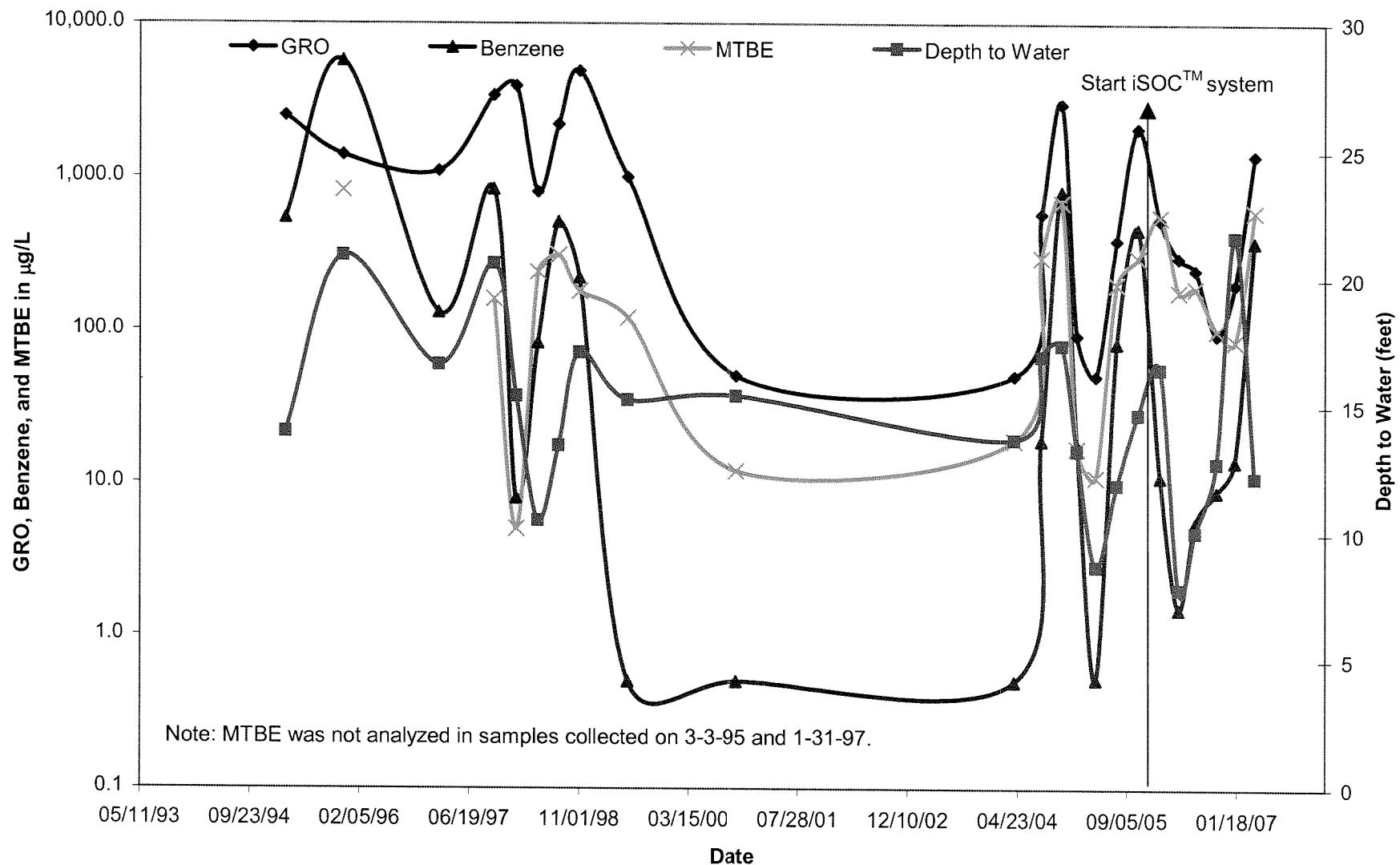
**Figure 6**  
**GRO, Benzene, MTBE, and Depth to Water Variation with Time at S-1**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



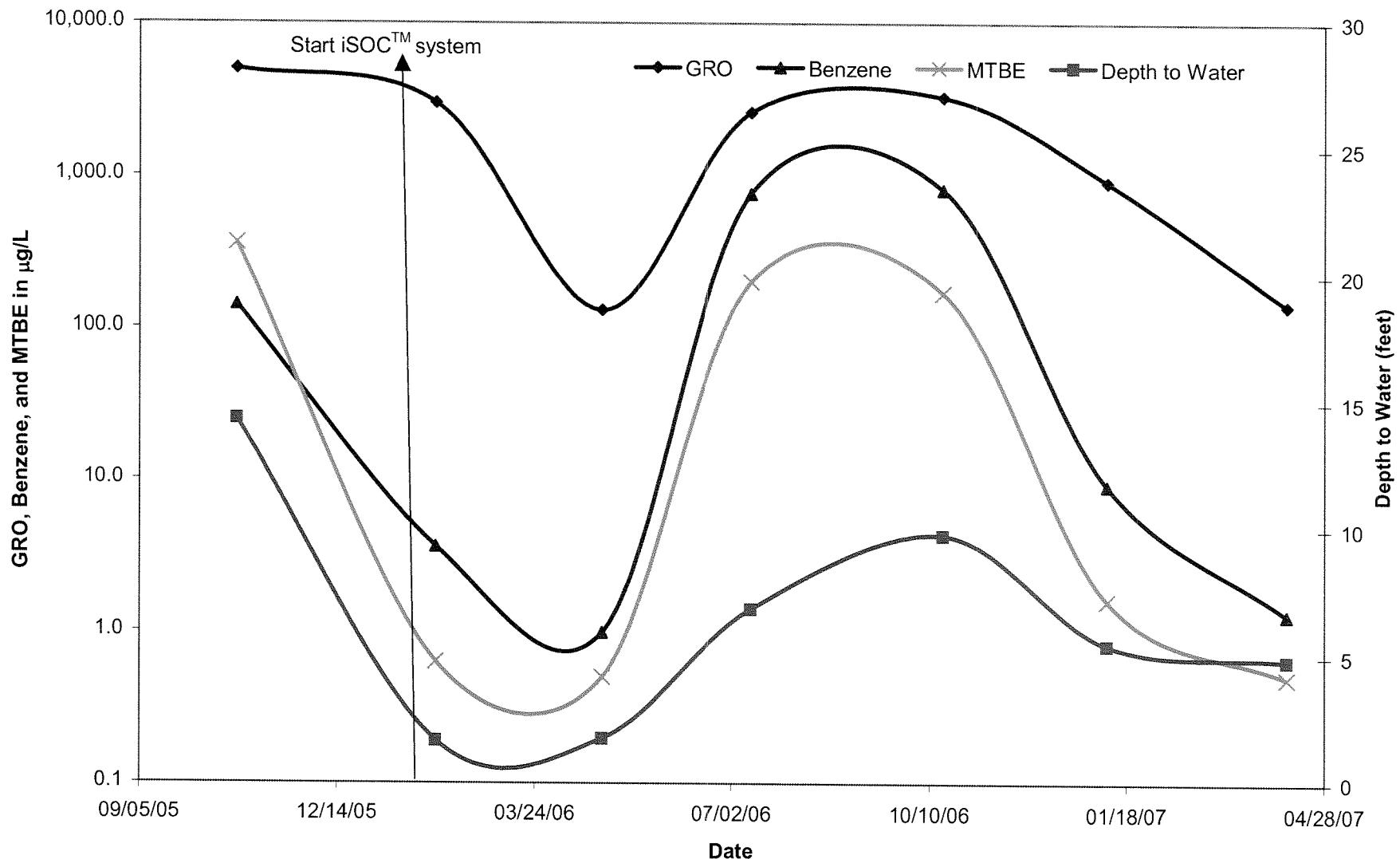
**Figure 7**  
**GRO, Benzene, MTBE, and Depth to Water Variation with Time at S-2**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



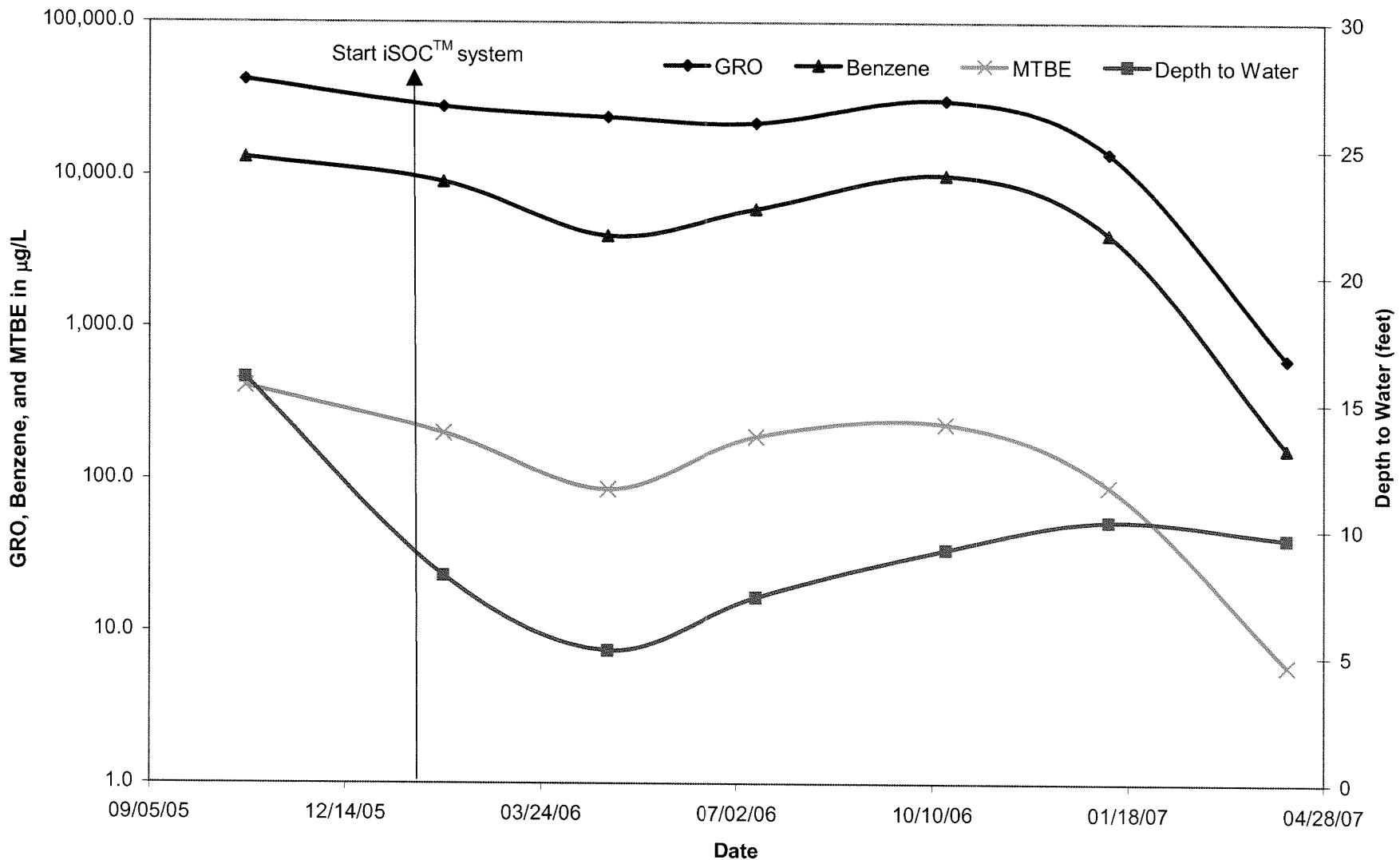
**Figure 8**  
**GRO, Benzene, MTBE, and Depth to Water Variation with Time at MW-3**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



**Figure 9**  
**GRO, Benzene, MTBE, and Depth to Water Variation with Time at EX-1**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



**Figure 10**  
**GRO, Benzene, MTBE, and Depth to Water Variation with Time at EX-2**  
Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



**APPENDIX A**

**FIELD DATA SHEETS**



**Site Contact Phone No.**

Site Address: 10200 MacArthur Blvd.  
City Oakland, CA.  
Sampled By K.Zalutka & Co., Wikinsch.

Site Number: USA 57  
Project No. 2007-0057-01  
Project PM Genni  
Date Sampled 04-09-07

**ORIGINAL**

(A) Casing water Column  
Depth wtr. Depth to Bottom

Multiplier Values  
 $2''=0.5$   $4''=2.0$   $6''=4.4$



**Site Contact Phone No.**

Site Address: 10740 Mc  
City Oakton  
Sampled By CHILL

Site Number: 05A 36  
Project No. 2000-003  
Project PM Gwin  
Date Sampled 4-23-07

(A) Casing water Column  
Depth wtr. Depth to Bottom

Multiplier Values

# STRATUS

ENVIRONMENTAL, INC.

Site Address 10700 McArthur Blvd.

City Oakland CA

Site Sampled by G.Wilking/V.Zalutka

Site Number USA 57

Project No. 2007-0057-01

Project PM Cousin'

Date Sampled 04-09-07



60

Well ID <u>MW-3</u>				
purge start time	<u>0705 No Odor ORP 118</u>			
time	Temp C	pH	cond	gallons
time	<u>18.8</u>	<u>7.80</u>	<u>993</u>	<u>0</u>
time	<u>19.5</u>	<u>7.19</u>	<u>1092</u>	<u>(30)</u>
time	<u>Dry @ 30 gal</u>			
time				
purge stop time				

Well ID <u>MW-4</u>				
purge start time	<u>0608 No Odor ORP 199</u>			
time	Temp C	pH	cond	gallons
time	<u>20.1</u>	<u>8.14</u>	<u>645</u>	<u>0</u>
time	<u>19.9</u>	<u>8.15</u>	<u>620</u>	<u>30</u>
time	<u>19.4</u>	<u>7.93</u>	<u>630</u>	<u>60</u>
time				
purge stop time	<u>0635</u>			

Well ID <u>MW-5</u>				
purge start time	<u>unable to find</u>			
time	Temp C	pH	cond	gallons
time				
time				
time				
purge stop time				

Well ID <u>MW-6</u>				
purge start time	<u>Bailey Odor</u>			
time	Temp C	pH	cond	gallons
time	<u>17.9</u>	<u>7.61</u>	<u>2.11 m</u>	<u>0</u>
time				
time				
time				
purge stop time	<u>Sample Only ORP -93</u>			

100

Well ID <u>MW-7</u>				
purge start time	<u>0847 No Odor ORP 200</u>			
time	Temp C	pH	cond	gallons
time	<u>19.1</u>	<u>8.27</u>	<u>765</u>	<u>-0</u>
time	<u>19.4</u>	<u>8.11</u>	<u>695</u>	<u>26</u>
time	<u>18.7</u>	<u>7.92</u>	<u>585</u>	<u>52</u>
time				
purge stop time	<u>0913</u>			

Well ID <u>MW-8</u>				
purge start time	<u>0801 No Odor ORP 218</u>			
time	Temp C	pH	cond	gallons
time	<u>19.0</u>	<u>7.74</u>	<u>1495</u>	<u>0</u>
time	<u>18.8</u>	<u>7.74</u>	<u>1450</u>	<u>10</u>
time	<u>18.0</u>	<u>7.60</u>	<u>1445</u>	<u>18</u>
time				
purge stop time	<u>0812</u>			

95

Note: should have  
been 42 gal, mis-  
read amount to  
purge.

Well ID <u>S-1</u>				
purge start time	<u>0654 No Odor</u>			
time	Temp C	pH	cond	gallons
time	<u>22.4</u>	<u>7.72</u>	<u>1076</u>	<u>-0</u>
time	<u>20.9</u>	<u>7.47</u>	<u>1114</u>	<u>9</u>
time	<u>Dry @ 14 gal</u>			
time	<u>20.3</u>	<u>7.23</u>	<u>1220</u>	<u>(14)</u>
purge stop time	<u>ORP 0</u>			

Well ID <u>S-2</u>				
purge start time	<u>0728 No Odor</u>			
time	Temp C	pH	cond	gallons
time	<u>24.4</u>	<u>7.73</u>	<u>1079</u>	<u>0</u>
time	<u>Dry @ 10 gal</u>			
time	<u>19.9</u>	<u>7.72</u>	<u>1110</u>	<u>(10)</u>
time				
purge stop time	<u>ORP 173</u>			

07/07/07

# STRATUS

ENVIRONMENTAL, INC.

Site Address 10700 McArthur Blvd. Site Number USA 57  
 City Oakland CA Project No. 2007-0057-01  
 Site Sampled by G.Williams/V.L.Zalutka Project PM Cowen  
 Date Sampled 04-09-07

ORIGINAL

Well ID	EX-1				Well ID	EX-2				
purge start time	0800				No Odor	0841				
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons	
time	20.6	7.87	812	0	time	20.8	7.78	1365	0	
time	19.4	7.89	871	16	time	20.2	7.80	1393	13	
time	Dry @ 18gal				time	Dry @ 23gal				
time	18.7	7.72	821	18	time	18.9	7.63	183	23	
purge stop time	ORP 167				purge stop time	ORP 173				
Well ID	EX-3				1017	Well ID	EX-4			
purge start time	0953				Odor ORP 93	purge start time	0624			
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons	
time	19.3	7.90	813	0	time	19.2	8.08	720	0	
time	Dry @ 10 gal				time	20.8	7.69	731	11	
time	19.5	7.66	810	10	time	Dry @ 11.5gal				
time					time	20.1	7.86	793	11.5	
purge stop time					purge stop time	ORP -83				
Well ID					Well ID					
purge start time					purge start time					
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons	
time					time					
time					time					
time					time					
time					time					
purge stop time					purge stop time					
Well ID					Well ID					
purge start time					purge start time					
	Temp C	pH	cond	gallons		Temp C	pH	cond	gallons	
time					time					
time					time					
time					time					
time					time					
purge stop time					purge stop time					

155

**STRATUS**  
ENVIRONMENTAL, INC.

Site Address 10700 McArthur Blvd  
City Oakland  
Site Sampled by CHILL

Site Number USA 57  
Project No. 2007-0057  
Project PM Gowri  
Date Sampled 4/23/07

**ORIGINAL**

Well ID <u>MW-3</u> <u>No date</u>					Well ID <u>3-1</u> <u>No date</u>				
purge start time					purge start time				
	<u>ORP</u>	Temp C	pH	cond		<u>ORP</u>	Temp C	pH	cond
time	<u>161</u>	<u>17.9</u>	<u>7.5</u>	<u>687</u>		<u>121</u>	<u>17.1</u>	<u>7.3</u>	<u>968</u>
time						<u>18.8</u>	<u>8.24</u>	<u>810</u>	<u>2250</u>
time									
time									
purge stop time					purge stop time				
Well ID <u>MW-3</u> <u>No date</u>					Well ID				
purge start time					purge start time				
	<u>ORP</u>	Temp C	pH	cond			Temp C	pH	cond
time	<u>105</u>	<u>17.9</u>	<u>8.23</u>	<u>530</u>					
time									
time									
time									
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
		Temp C	pH	cond			Temp C	pH	cond
time									
time									
time									
time									
purge stop time					purge stop time				
Well ID					Well ID				
purge start time					purge start time				
		Temp C	pH	cond			Temp C	pH	cond
time									
time									
time									
time									
purge stop time					purge stop time				

### **Former USA Service Station No. 57**

10700 McArthur Boulevard

Oakland, CA

## Oxygen Injection System Using iSOC

 ORIGINAL

Date: 4-16-07  
Onsite Time: 07400  
Offsite Time: 0730

Technician:  
Project Engineer:  
Weather Conditions:  
Ambient Temperature

CHILL  
Kittens  
Cleaver  
48

iSOC™ Panel

No. of iSOC Panels: Three 3-Injection Well Panels

No. of Oxygen Cylinders

On Site: \_\_\_\_\_

No. of Cylinders

Connected to Panels: \_\_\_\_\_

No. of Empty Cylinders: \_\_\_\_\_

Connected Cylinders	
O <sub>2</sub> Cylinder	Pressure
1	2300
2	1400
3	2200
4	Full
5	Full
6	8

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	EX-1, EX-2, EX-3, MW-7, & MW-8	EPA 365.2

**Former USA Service Station No. 57**  
10700 McArthur Boulevard  
Oakland, CA  
**Oxygen Injection System Using iSOC**

Date: 4-20-07  
Onsite Time: 0500  
Offsite Time: 1700

Technician:  
Project Engineer:  
Weather Conditions:  
Ambient Temperature:

 ORIGINAL

iSOC™ Panel

No. of iSOC Panels: Three 3-Injection Well Panels

No. of Oxygen Cylinders \_\_\_\_\_  
On Site: 6

No. of Cylinders 3  
Connected to Panels: \_\_\_\_\_

No. of Empty Cylinders: 2

Install New  
Tubing TO EX-2  
Rebuilt I-SOL campus  
In EX-1

Connected Cylinders	
O <sub>2</sub> Cylinder	Pressure
1	2300
2	1400
3	2200
4	FULL
5	8
6	8

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

Former USA Service Station No. 57

10700 McArthur Boulevard

Oakland, CA

## Oxygen Injection System Using iSOC

Date:

4-2607

Onsite

Offsite Time: 0:00

Onsite Time: 8/10/01

### **Technician**

## Project Engineer:

## Project Engineer: Weather Conditions

## Weather Conditions

Ambient Temperature:

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels

**No. of Oxygen Cylinders**

On Site: \_\_\_\_\_

**No. of Cylinders**

Connected to Panels:

No. of Empty Cylinders:

### **Field Measurements (Monthly) — SM G**

## Connected Cylinders

O <sub>2</sub> Cylinder	Pressure
1	2300
2	1400
3	2100
4	1600
5	82
6	82

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

**Former USA Service Station No. 57**  
10700 McArthur Boulevard  
Oakland, CA

Date: 050207  
Onsite Time: 0600  
Offsite Time: 0800

Technician: Vince Z  
Project Engineer: \_\_\_\_\_  
Weather Conditions: Rain  
Ambient Temperature: 62° F

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels

No. of Oxygen Cylinders On Site: 6

No. of Cylinders \_\_\_\_\_ 3  
Connected to Panels: \_\_\_\_\_

No. of Empty Cylinders: 2

2  **Original**

Connected Cylinders		
O <sub>2</sub> Cylinder		Pressure
3	1	2150
2	2	2200
1	3	2300
	4	Full
	5	OK
	6	OK

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

**Former USA Service Station No. 57**  
10700 McArthur Boulevard  
Oakland, CA  
**Oxygen Injection System Using iSOC**

Date: 5-21-07  
Onsite Time: 0600  
Offsite Time: 0725

Technician:  
Project Engineer:  
Weather Conditions:  
Ambient Temperature:

Vince Zalutka  
Gowen K.  
High Fog/clear  
60's

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels  
No. of Oxygen Cylinders  
On Site: 6  
No. of Cylinders  
Connected to Panels: 3  
No. of Empty Cylinders: 2

### **Field Measurements (Monthly)**

Connected Cylinders	
O <sub>2</sub> Cylinder	Pressure
1	1900
2	1350
3	2300
4	Ful./1
5	Ø
6	Ø

 ORIGINAL

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

U S A 57  
ARRIVED 8/20/68 BY AIR MAIL  
2000 N.W. 1ST PLACE, SUITE 100  
SACRAMENTO, CALIFORNIA 95814  
AIR SPURGE SYSTEM  
OAKLAND, CA

 **ORIGINAL**

Date: 06-05-07  
Onsite Time: 0530  
Offsite Time: 0730

Technician: Vince Zalut  
Weather Conditions: High Fog  
Ambient Temperature: 60's

## System Information

System Status Upon Arrival:	Operational	<input type="checkbox"/>	Non-Operational	<input checked="" type="checkbox"/>
System Status Upon Departure:	Operational	<input checked="" type="checkbox"/>	Non-Operational	<input type="checkbox"/>

Hour Meter Reading:

Air Injection Flow Upon Arrival, cfm / fpm \_\_\_\_\_ Pipe Diameter, inches \_\_\_\_\_

Air Injection Flow Upon  
Departure, cfm / fpm \_\_\_\_\_ Pipe Diameter, inches \_\_\_\_\_

## Air Injection Pressure Upon Arrival, psi

Air Injection Pressure Upon Arrival, psi \_\_\_\_\_

## E<sub>x</sub>-2

$$\frac{K_P - 400}{PSI - 57} = \frac{16000}{2400}$$

S-1

KP	500	13300
Psi	73	1950

S-2

$$\begin{array}{c|c} \text{KP} & 435 \\ \hline \text{PSI} & 68 \end{array} \quad \begin{array}{c} 9000 \\ 1300 \end{array}$$

3 hooked  
up  
1 - Full )  
inside

(2 empty  
outside)

Signature:

Vivie Zelutka

Date: 6-5-07

**Former USA Service Station No. 57**  
10700 McArthur Boulevard  
Oakland, CA

Date: 6-29-07  
Onsite Time: 0500  
Offsite Time: 0530

Technician:

## Technician

Oakland, CA

Project Enc.

## Project Engineer

## Weather Conditions

### Ambient Temperature

CHILL  
Kiran  
Chet  
wifey

**ORIGINAL**

iSOC™ Panel:

No. of iSOC Panels: Three 3-Injection Well Panels

No. of Oxygen Cylinders

On Site: \_\_\_\_\_

No. of Cylinders 3

No. of Cylinders \_\_\_\_\_  
Connected to Panels: \_\_\_\_\_

Connected to Panels.

No. of Empty Cylinders:

Connected Cylinders	
O <sub>2</sub> Cylinder	Pressure
1	2400
2	1250
3	200
4	Full
5	0
6	0

Lab Parameters	Sampling Frequency	Sample Locations	Analytical Method
Bio-chemical oxygen demand	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 405.1
Total Iron & Ferrous Iron	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM3500
Heterotrophic Plate Counts	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	SM 9215B
Total Organic Carbon	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 415.1
Total Dissolved Solids	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 160.1
Nitrates, nitrites and ammonia	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 350.3
Sulfide and Sulfates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 376.2 & EPA 300.0
Total Phosphorus & orthophosphates	Quarterly	S-1, MW-3, EX-3, MW-7, & MW-8	EPA 365.2

**APPENDIX B**

**SAMPLING AND ANALYSIS PROCEDURES**

## **SAMPLING AND ANALYSIS PROCEDURES**

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The sampling and analysis procedures as well as the quality assurance plan are contained in this appendix. The procedures and adherence to the quality assurance plan will provide for consistent and reproducible sampling methods; proper application of analytical methods; accurate and precise analytical results; and finally, these procedures will provide guidelines so that the overall objectives of the monitoring program are achieved.

### **Ground Water and Liquid-Phase Petroleum Hydrocarbon Depth Assessment**

A water/hydrocarbon interface probe is used to assess the liquid-phase petroleum hydrocarbon (LPH) thickness, if present, and a water level indicator is used to measure the ground water depth in monitoring wells that do not contain LPH. Depth to ground water or LPH is measured from a datum point at the top of each monitoring well casing. The datum point is typical a notch cut in the north side of the casing edge. If a water level indicator is used, the tip is subjectively analyzed for hydrocarbon sheen.

### **Subjective Analysis of Ground Water**

Prior to purging, a water sample is collected from the monitoring well for subjective assessment. The sample is retrieved by gently lowering a clean, disposable bailer to approximately one-half the bailer length past the air/liquid interface. The bailer is then retrieved, and the sample contained within the bailer is examined for floating LPH and the appearance of a LPH sheen.

### **Monitoring Well Purging and Sampling**

Monitoring wells are purged using a pump or bailer until pH, temperature, and conductivity of the purge water has stabilized and a minimum of three well volumes of water have been removed. If three well volumes can not be removed in one half hour's time, the well is allowed to recharge to 80% of original level. After recharging, a ground water sample is then removed from each of the wells using a disposable bailer.

A Teflon bailer, electric submersible or bladder pump will be the only equipment used for well sampling. When samples for volatile organic analysis are being collected, the pump flow will be regulated at approximately 100 milliliters per minute to minimize pump effluent turbulence and aeration. Glass bottles of at least 40-milliliters volume and fitted with Teflon-lined septa will be used in sampling for volatile organics. These bottles will be filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum will be placed over the positive meniscus to eliminate air. After the bottle is capped, it is inverted and tapped to verify that it contains no air bubbles. The sample containers for other parameters will be filled, filtered as required, and capped.

The water sample is collected, labeled, and handled according to the Quality Assurance Plan. Water generated during the monitoring event is disposed of according to regulatory accepted method pertaining to the site.

## **QUALITY ASSURANCE PLAN**

Procedures to provide data quality should be established and documented so that conditions adverse to quality, such as deficiencies, deviations, nonconformities, defective material, services, and/or equipment, can be promptly identified and corrected.

### **General Sample Collection and Handling Procedures**

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

### **Soil and Water Sample Labeling and Preservation**

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Stratus' office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain-of-custody form. Trip blanks supplied by the laboratory accompany the groundwater sample containers and groundwater samples.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon® sheeting and plastic caps. The sample is then placed in a Ziploc® type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

### **Sample Identification and Chain-of-Custody Procedures**

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. The samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and

noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis. These conditions are noted on a Laboratory Sample Receipt Checklist that becomes part of the laboratory report upon request.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book maintained by the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

### **Equipment Cleaning**

Sample bottles, caps, and septa used in sampling for volatile and semivolatile organics will be triple rinsed with high-purity deionized water. After being rinsed, sample bottles will be dried overnight at a temperature of 200°C. Sample caps and septa will be dried overnight at a temperature of 60°C. Sample bottles, caps, and septa will be protected from solvent contact between drying and actual use at the sampling site. Sampling containers will be used only once and discarded after analysis is complete.

Plastic bottles and caps used in sampling for metals will be soaked overnight in a 1-percent nitric acid solution. Next, the bottles and caps will be triple rinsed with deionized water. Finally, the bottles and caps will be air dried before being used at the site. Plastic bottles and caps will be constructed of linear polyethylene or polypropylene. Sampling containers will be used only once and discarded after analysis is complete. Glass and plastic bottles used by Stratus to collect groundwater samples are supplied by the laboratory.

Before the sampling event is started, equipment that will be placed in the well or will come in contact with groundwater will be disassembled and cleaned thoroughly with detergent water, and then steam cleaned with deionized water. Any parts that may absorb contaminants, such as plastic pump valves, etc. will be cleaned as described above or replaced.

During field sampling, equipment surfaces that are placed in the well or contact groundwater will be steam cleaned with deionized water before the next well is purged or sampled. Equipment blanks will be collected and analyzed from non-disposable sampling equipment that is used for collecting groundwater samples at the rate of one blank per twenty samples collected.

### **Internal Quality Assurance Checks**

Internal quality assurance procedures are designed to provide reliability of monitoring and measurement of data. Both field and laboratory quality assurance checks are necessary to evaluate the reliability of sampling and analysis results. Internal quality assurance procedures generally include:

- Laboratory Quality Assurance

- Documentation of instrument performance checks
- Documentation of instrument calibration
- Documentation of the traceability of instrument standards, samples, and data
- Documentation of analytical and QC methodology (QC methodology includes use of spiked samples, duplicate samples, split samples, use of reference blanks, and check standards to check method accuracy and precision)

- Field Quality Assurance

- Documentation of sample preservation and transportation
- Documentation of field instrument calibration and irregularities in performance

Internal laboratory quality assurance checks will be the responsibility of the contract laboratories. Data and reports submitted by field personnel and the contract laboratory will be reviewed and maintained in the project files.

**Types of Quality Control Checks**

Samples are analyzed using analytical methods outlined in EPA Manual SW 846 and approved by the California Regional Water Quality Control Board-Central Valley Region in the Leaking Underground Fuel Tanks (LUFT) manual and appendices. Standard contract laboratory quality control may include analysis or use of the following:

- Method blanks – reagent water used to prepare calibration standards, spike solutions, etc. is analyzed in the same manner as the sample to demonstrate that analytical interferences are under control.
- Matrix spiked samples – a known amount of spike solution containing selected constituents is added to the sample at concentrations at which the accuracy of the analytical method is to satisfactorily monitor and evaluate laboratory data quality.
- Split samples – a sample is split into two separate aliquots before analysis to assess the reproducibility of the analysis.
- Surrogate samples – samples are spiked with surrogate constituents at known concentrations to monitor both the performance of the analytical system and the effectiveness of the method in dealing with the sample matrix.
- Control charts – graphical presentation of spike or split sample results used to track the accuracy or precision of the analysis.
- Quality control check samples – when spiked sample analysis indicates atypical instrument performance, a quality check sample, which is prepared independently of the calibration standards and contains the constituents of interest, is analyzed to confirm that measurements were performed accurately.

- Calibration standards and devices – traceable standards or devices to set instrument response so that sample analysis results represent the absolute concentration of the constituent.

Field QA samples will be collected to assess sample handling procedures and conditions. Standard field quality control may include the use of the following, and will be collected and analyzed as outlined in EPA Manual SW 846.

- Field blanks – reagent water samples are prepared at the sampling location by the same procedure used to collect field groundwater samples and analyzed with the groundwater samples to assess the impact of sampling techniques on data quality. Typically, one field blank per twenty groundwater samples collected will be analyzed per sampling event.
- Field replicates – duplicate or triplicate samples are collected and analyzed to assess the reproducibility of the analytical data. One replicate groundwater sample per twenty samples collected will be analyzed per sampling event, unless otherwise specified. Triplicate samples will be collected only when specific conditions warrant and generally are sent to an alternate laboratory to confirm the accuracy of the routinely used laboratory.
- Trip blanks – reagent water samples are prepared before field work, transported and stored with the samples and analyzed to assess the impact of sample transport and storage for data quality. In the event that any analyte is detected in the field blank, a trip blank will be included in the subsequent groundwater sampling event.

Data reliability will be evaluated by the certified laboratory and reported on a cover sheet attached to the laboratory data report. Analytical data resulting from the testing of field or trip blanks will be included in the laboratory's report. Results from matrix spike, surrogate, and method blank testing will be reported, along with a statement of whether the samples were analyzed within the appropriate holding time.

Stratus will evaluate the laboratory's report on data reliability and note significant QC results that may make the data biased or unacceptable. Data viability will be performed as outlined in EPA Manual SW 846. If biased or unacceptable data is noted, corrective actions (including re-sample/re-analyze, etc.) will be evaluated on a site-specific basis.

**APPENDIX C**

**CERTIFIED ANALYTICAL REPORTS AND  
CHAIN-OF-CUSTODY DOCUMENTATION**



# Alpha Analytical, Inc.

FILE COPY

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/09/07

PR 50 2007

Job#: 2007-0057-01/ USA 57

### Iron by Spectrophotometer SM3500-Fe D

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Iron, Ferrous (+2)	ND	50 µg/L	04/09/07 04/10/07
		Iron, Total	430	300 µg/L	04/09/07 04/11/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Iron, Ferrous (+2)	ND	50 µg/L	04/09/07 04/10/07
		Iron, Total	4,006	300 µg/L	04/09/07 04/11/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Iron, Ferrous (+2)	ND	50 µg/L	04/09/07 04/10/07
		Iron, Total	930	300 µg/L	04/09/07 04/11/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Iron, Ferrous (+2)	ND	50 µg/L	04/09/07 04/10/07
		Iron, Total	14,000	300 µg/L	04/09/07 04/11/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Iron, Ferrous (+2)	420	50 µg/L	04/09/07 04/10/07
		Iron, Total	3,800	300 µg/L	04/09/07 04/11/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

*Roger Scholl*

*Randy Gardner*

*Walter Hinchman*

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

4/17/07

Report Date



# Alpha Analytical, Inc.

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(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

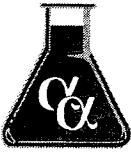
Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

GC/MSD by Direct Injection  
EPA Method SW8260B-DI

		Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-3</b>					
Lab ID :	STR07040922-01A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>MW-4</b>					
Lab ID :	STR07040922-02A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>MW-6</b>					
Lab ID :	STR07040922-03A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>MW-7</b>					
Lab ID :	STR07040922-04A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>MW-8</b>					
Lab ID :	STR07040922-05A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>S-1</b>					
Lab ID :	STR07040922-06A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>S-2</b>					
Lab ID :	STR07040922-07A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>EX-1</b>					
Lab ID :	STR07040922-08A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>EX-2</b>					
Lab ID :	STR07040922-09A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>EX-3</b>					
Lab ID :	STR07040922-10A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07
Client ID :	<b>EX-4</b>					
Lab ID :	STR07040922-11A	Methanol	ND	5,000 µg/L	04/09/07	04/10/07
		Ethanol	ND	5,000 µg/L	04/09/07	04/10/07



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---

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
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4/17/07

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Report Date



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## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Ammonia as Nitrogen EPA Method 350.3 / SM4500-NH3F

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/09/07 04/12/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/09/07 04/12/07

ND = Not Detected

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Job#: 2007-0057-01/ USA 57

### Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Sulfate (SO <sub>4</sub> )	53,000	500 µg/L	04/09/07 04/13/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Sulfate (SO <sub>4</sub> )	83,000	500 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Sulfate (SO <sub>4</sub> )	87,000	500 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Sulfate (SO <sub>4</sub> )	11,000	500 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Sulfate (SO <sub>4</sub> )	69,000	500 µg/L	04/09/07 04/13/07

Reported in micrograms per Liter, per client request.

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Job#: 2007-0057-01/ USA 57

### Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : MW-7	Nitrite (NO2) - N	ND	250 µg/L	04/09/07 09:30	04/10/07 13:40
Lab ID : STR07040922-04A	Nitrate (NO3) - N	2,400	250 µg/L	04/09/07 09:30	04/10/07 13:40
Client ID : MW-8	Nitrite (NO2) - N	ND	250 µg/L	04/09/07 08:25	04/10/07 14:35
Lab ID : STR07040922-05A	Nitrate (NO3) - N	2,500	250 µg/L	04/09/07 08:25	04/10/07 14:35
Client ID : EX-1	Nitrite (NO2) - N	ND	250 µg/L	04/09/07 09:19	04/10/07 14:54
Lab ID : STR07040922-08A	Nitrate (NO3) - N	1,400	250 µg/L	04/09/07 09:19	04/10/07 14:54
Client ID : EX-2	Nitrite (NO2) - N	ND	250 µg/L	04/09/07 08:41	04/10/07 15:12
Lab ID : STR07040922-09A	Nitrate (NO3) - N	ND	250 µg/L	04/09/07 08:41	04/10/07 15:12
Client ID : EX-3	Nitrite (NO2) - N	ND	250 µg/L	04/09/07 10:17	04/10/07 15:31
Lab ID : STR07040922-10A	Nitrate (NO3) - N	ND	250 µg/L	04/09/07 10:17	04/10/07 15:31

ND = Not Detected

Reported in micrograms per Liter, per client request.

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Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Orthophosphate in Water EPA Method 365.2 / SM4500PE

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-7				
Lab ID :	STR07040922-04A	Total Orthophosphate	120	100 µg/L	04/09/07 04/10/07
Client ID :	MW-8				
Lab ID :	STR07040922-05A	Total Orthophosphate	120	100 µg/L	04/09/07 04/10/07
Client ID :	EX-1				
Lab ID :	STR07040922-08A	Total Orthophosphate	120	100 µg/L	04/09/07 04/10/07
Client ID :	EX-2				
Lab ID :	STR07040922-09A	Total Orthophosphate	ND	100 µg/L	04/09/07 04/10/07
Client ID :	EX-3				
Lab ID :	STR07040922-10A	Total Orthophosphate	ND	100 µg/L	04/09/07 04/10/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
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4/17/07

Report Date



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Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Phosphorus EPA Method 365.2 / SM4500PE

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Phosphorus, Total (As P)	380	100 µg/L	04/09/07 04/12/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Phosphorus, Total (As P)	120	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Phosphorus, Total (As P)	170	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Phosphorus, Total (As P)	180	100 µg/L	04/09/07 04/12/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Phosphorus, Total (As P)	210	100 µg/L	04/09/07 04/12/07

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
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Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Total Dissolved Solids (TDS) EPA Method 160.1 / SM 2540 C

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Solids, Total Dissolved (TDS)	630,000	10,000 µg/L	04/09/07 04/16/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Solids, Total Dissolved (TDS)	5,700,000	25,000 µg/L	04/09/07 04/17/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Solids, Total Dissolved (TDS)	480,000	10,000 µg/L	04/09/07 04/16/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Solids, Total Dissolved (TDS)	790,000	10,000 µg/L	04/09/07 04/16/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Solids, Total Dissolved (TDS)	800,000	10,000 µg/L	04/09/07 04/16/07

Reported in micrograms per Liter, per client request.

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Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Total Organic Carbon as NonPurgeable Organic Carbon EPA Method SW9060/415.1/SM-5310C

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Total Organic Carbon	2,000	1,000 µg/L	04/09/07 04/10/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Total Organic Carbon	1,800	1,000 µg/L	04/09/07 04/10/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Total Organic Carbon	6,400	1,000 µg/L	04/09/07 04/10/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Total Organic Carbon	7,000	1,000 µg/L	04/09/07 04/10/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Total Organic Carbon	12,000	1,000 µg/L	04/09/07 04/10/07

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer

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Date Received : 04/09/07

Job#: 2007-0057-01/ USA 57

### Sulfide

EPA Method 376.2 / SM4500-S D

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-7</b>				
Lab ID :	STR07040922-04A	Sulfide	ND	100 µg/L	04/09/07 04/13/07
Client ID :	<b>MW-8</b>				
Lab ID :	STR07040922-05A	Sulfide	ND	100 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-1</b>				
Lab ID :	STR07040922-08A	Sulfide	ND	100 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-2</b>				
Lab ID :	STR07040922-09A	Sulfide	ND	100 µg/L	04/09/07 04/13/07
Client ID :	<b>EX-3</b>				
Lab ID :	STR07040922-10A	Sulfide	630	100 µg/L	04/09/07 04/13/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

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Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B

Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : <b>MW-3</b> Lab ID : STR07040922-01A	TPH-P (GRO)	1,400	500 µg/L	04/09/07	04/11/07
	Tertiary Butyl Alcohol (TBA)	510	50 µg/L	04/09/07	04/11/07
	Methyl tert-butyl ether (MTBE)	600	2.5 µg/L	04/09/07	04/11/07
	Di-isopropyl Ether (DIPE)	ND V	5.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND V	5.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	67	5.0 µg/L	04/09/07	04/11/07
	Benzene	380	2.5 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND V	5.0 µg/L	04/09/07	04/11/07
	Toluene	6.6	2.5 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND V	20 µg/L	04/09/07	04/11/07
Client ID : <b>MW-4</b> Lab ID : STR07040922-02A	Ethylbenzene	22	2.5 µg/L	04/09/07	04/11/07
	m,p-Xylene	8.1	2.5 µg/L	04/09/07	04/11/07
	o-Xylene	4.4	2.5 µg/L	04/09/07	04/11/07
	TPH-P (GRO)	ND	50 µg/L	04/09/07	04/11/07
	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	04/09/07	04/11/07
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	1.0 µg/L	04/09/07	04/11/07
	Benzene	ND	0.50 µg/L	04/09/07	04/11/07
Client ID : <b>MW-6</b> Lab ID : STR07040922-03A	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07
	Toluene	ND	0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	ND	0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
	o-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
	TPH-P (GRO)	ND	50 µg/L	04/09/07	04/11/07
	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	04/09/07	04/11/07
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07



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Client ID :	TPH-P (GRO)	ND	50 µg/L	04/09/07	04/11/07
<b>MW-7</b>	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	0.54	0.50 µg/L	04/09/07	04/11/07
STR07040922-04A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	1.0 µg/L	04/09/07	04/11/07
	Benzene	ND	0.50 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07
	Toluene	ND	0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	ND	0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
	o-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
Client ID :	TPH-P (GRO)	ND	50 µg/L	04/09/07	04/11/07
<b>MW-8</b>	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	04/09/07	04/11/07
STR07040922-05A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	1.0 µg/L	04/09/07	04/11/07
	Benzene	ND	0.50 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07
	Toluene	ND	0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	ND	0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
	o-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
Client ID :	TPH-P (GRO)	300	50 µg/L	04/09/07	04/11/07
<b>S-1</b>	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	22	0.50 µg/L	04/09/07	04/11/07
STR07040922-06A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	1.0 µg/L	04/09/07	04/11/07
	Benzene	ND	0.50 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07
	Toluene	ND	0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	ND	0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
	o-Xylene	ND	0.50 µg/L	04/09/07	04/11/07
Client ID :	TPH-P (GRO)	360	50 µg/L	04/09/07	04/11/07
<b>S-2</b>	Tertiary Butyl Alcohol (TBA)	32	10 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	270	0.50 µg/L	04/09/07	04/11/07
STR07040922-07A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	1.3	1.0 µg/L	04/09/07	04/11/07
	Benzene	1.4	0.50 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07
	Toluene	1.5	0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	2.2	0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	6.3	0.50 µg/L	04/09/07	04/11/07
	o-Xylene	3.5	0.50 µg/L	04/09/07	04/11/07



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Client ID :	TPH-P (GRO)	140	50 µg/L	04/09/07	04/11/07	
<b>EX-1</b>	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/09/07	04/11/07	
Lab ID :	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	04/09/07	04/11/07	
STR07040922-08A	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/09/07	04/11/07	
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/09/07	04/11/07	
	1,2-Dichloroethane	ND	1.0 µg/L	04/09/07	04/11/07	
	Benzene	1.3	0.50 µg/L	04/09/07	04/11/07	
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/09/07	04/11/07	
	Toluene	ND	0.50 µg/L	04/09/07	04/11/07	
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/09/07	04/11/07	
	Ethylbenzene	1.2	0.50 µg/L	04/09/07	04/11/07	
	m,p-Xylene	0.93	0.50 µg/L	04/09/07	04/11/07	
	o-Xylene	ND	0.50 µg/L	04/09/07	04/11/07	
Client ID :	TPH-P (GRO)	620	200 µg/L	04/09/07	04/11/07	
<b>EX-2</b>	Tertiary Butyl Alcohol (TBA)	ND	V	20 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	6.0		1.0 µg/L	04/09/07	04/11/07
STR07040922-09A	Di-isopropyl Ether (DIPE)	ND	V	2.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	2.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	V	2.0 µg/L	04/09/07	04/11/07
	Benzene	160		1.0 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	V	2.0 µg/L	04/09/07	04/11/07
	Toluene	17		1.0 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	V	8.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	24		1.0 µg/L	04/09/07	04/11/07
	m,p-Xylene	42		1.0 µg/L	04/09/07	04/11/07
	o-Xylene	16		1.0 µg/L	04/09/07	04/11/07
Client ID :	TPH-P (GRO)	700		50 µg/L	04/09/07	04/11/07
<b>EX-3</b>	Tertiary Butyl Alcohol (TBA)	ND		10 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	ND		0.50 µg/L	04/09/07	04/11/07
STR07040922-10A	Di-isopropyl Ether (DIPE)	ND		1.0 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND		1.0 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND		1.0 µg/L	04/09/07	04/11/07
	Benzene	8.9		0.50 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND		1.0 µg/L	04/09/07	04/11/07
	Toluene	ND		0.50 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND		2.0 µg/L	04/09/07	04/11/07
	Ethylbenzene	11		0.50 µg/L	04/09/07	04/11/07
	m,p-Xylene	3.9		0.50 µg/L	04/09/07	04/11/07
	o-Xylene	2.6		0.50 µg/L	04/09/07	04/11/07
Client ID :	TPH-P (GRO)	4,600		1,000 µg/L	04/09/07	04/11/07
<b>EX-4</b>	Tertiary Butyl Alcohol (TBA)	ND	V	100 µg/L	04/09/07	04/11/07
Lab ID :	Methyl tert-butyl ether (MTBE)	6.5		5.0 µg/L	04/09/07	04/11/07
STR07040922-11A	Di-isopropyl Ether (DIPE)	ND	V	10 µg/L	04/09/07	04/11/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	V	10 µg/L	04/09/07	04/11/07
	1,2-Dichloroethane	ND	V	10 µg/L	04/09/07	04/11/07
	Benzene	730		5.0 µg/L	04/09/07	04/11/07
	Tertiary Amyl Methyl Ether (TAME)	ND	V	10 µg/L	04/09/07	04/11/07
	Toluene	78		5.0 µg/L	04/09/07	04/11/07
	1,2-Dibromoethane (EDB)	ND	V	40 µg/L	04/09/07	04/11/07
	Ethylbenzene	83		5.0 µg/L	04/09/07	04/11/07
	m,p-Xylene	240		5.0 µg/L	04/09/07	04/11/07
	o-Xylene	170		5.0 µg/L	04/09/07	04/11/07



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Gasoline Range Organics (GRO) C4-C13

V = Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

4/17/07

Report Date



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## **VOC Sample Preservation Report**

**Work Order:** STR07040922

**Project:** 2007-0057-01/ USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07040922-01A	MW-3	Aqueous	2
07040922-02A	MW-4	Aqueous	2
07040922-03A	MW-6	Aqueous	2
07040922-04A	MW-7	Aqueous	2
07040922-05A	MW-8	Aqueous	2
07040922-06A	S-1	Aqueous	2
07040922-07A	S-2	Aqueous	2
07040922-08A	EX-1	Aqueous	2
07040922-09A	EX-2	Aqueous	2
07040922-10A	EX-3	Aqueous	2
07040922-11A	EX-4	Aqueous	2

4/17/07

**Report Date**

*Page 1 of 1*



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Date:  
17-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

File ID:	Sample ID:	Units :	Type	Test Code:	Analysis Date:						
Analyte		µg/L	MBLK	EPA Method 300.0 / 9056	04/10/2007 12:44						
		Result	PQL	Run ID: IC_2_070410A	Batch ID: 17221A	Prep Date:	04/10/2007				
Nitrite (NO2) - N		ND		250							
Nitrate (NO3) - N		ND		250							

### Laboratory Fortified Blank

File ID:	Sample ID:	Units :	Type	Test Code:	Analysis Date:						
Analyte		µg/L	LFB	EPA Method 300.0 / 9056	04/10/2007 13:03						
		Result	PQL	Run ID: IC_2_070410A	Batch ID: 17221A	Prep Date:	04/10/2007				
Nitrite (NO2) - N		458		250	500		92	90	110		
Nitrate (NO3) - N		506		250	500		101	90	110		

### Sample Matrix Spike

File ID:	Sample ID:	Units :	Type	Test Code:	Analysis Date:						
Analyte		µg/L	LFM	EPA Method 300.0 / 9056	04/10/2007 13:58						
		Result	PQL	Run ID: IC_2_070410A	Batch ID: 17221A	Prep Date:	04/10/2007				
Nitrite (NO2) - N		9470		250	10000		0	95	80	120	
Nitrate (NO3) - N		12900		250	10000		2412	105	80	120	

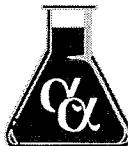
### Sample Matrix Spike Duplicate

File ID:	Sample ID:	Units :	Type	Test Code:	Analysis Date:						
Analyte		µg/L	LFMD	EPA Method 300.0 / 9056	04/10/2007 14:17						
		Result	PQL	Run ID: IC_2_070410A	Batch ID: 17221A	Prep Date:	04/10/2007				
Nitrite (NO2) - N		9310		250	10000		0	93	80	120	9468
Nitrate (NO3) - N		12900		250	10000		2412	105	80	120	12950

#### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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Date:  
17-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

		Type	MBLK	Test Code: EPA Method 300.0 / 9056					
File ID:	13			Batch ID: 17245B		Analysis Date: 04/13/2007 17:12			
Sample ID:	MB-17245	Units : µg/L		Run ID: IC_1_070413A		Prep Date: 04/13/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfate (SO4)		ND		500					

### Laboratory Fortified Blank

		Type	LFB	Test Code: EPA Method 300.0 / 9056					
File ID:	14			Batch ID: 17245B		Analysis Date: 04/13/2007 17:30			
Sample ID:	LFB-17245	Units : µg/L		Run ID: IC_1_070413A		Prep Date: 04/13/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfate (SO4)		10500		500	10000		105	90	110

### Sample Matrix Spike

		Type	LFM	Test Code: EPA Method 300.0 / 9056					
File ID:	22			Batch ID: 17245B		Analysis Date: 04/13/2007 19:58			
Sample ID:	07041354-05ALFM	Units : µg/L		Run ID: IC_1_070413A		Prep Date: 04/13/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfate (SO4)		52400		500	10000	40870	115	80	120

### Sample Matrix Spike Duplicate

		Type	LFMD	Test Code: EPA Method 300.0 / 9056					
File ID:	23			Batch ID: 17245B		Analysis Date: 04/13/2007 20:17			
Sample ID:	07041354-05ALFMD	Units : µg/L		Run ID: IC_1_070413A		Prep Date: 04/13/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfate (SO4)		52800		500	10000	40870	119	80	120
									52400 0.7(10)

### Comments:

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Date:  
13-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

File ID:	Sample ID: MBLK-W070410FER	Units : µg/L	Type MBLK	Test Code: SM3500-Fe D	Batch ID: W070410FER	Analysis Date: 04/10/2007 00:00				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Iron, Ferrous (+2)	ND	50								

### Laboratory Control Spike

File ID:	Sample ID: LCS-W070410FER	Units : µg/L	Type LCS	Test Code: SM3500-Fe D	Batch ID: W070410FER	Analysis Date: 04/10/2007 00:00				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Iron, Ferrous (+2)	1370	50	1500	91	85	115				

### Sample Matrix Spike

File ID:	Sample ID: 07040922-04AMS	Units : µg/L	Type MS	Test Code: SM3500-Fe D	Batch ID: W070410FER	Analysis Date: 04/10/2007 00:00				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Iron, Ferrous (+2)	1380	50	1500	0	92	70	130			

### Sample Matrix Spike Duplicate

File ID:	Sample ID: 07040922-04AMSD	Units : µg/L	Type MSD	Test Code: SM3500-Fe D	Batch ID: W070410FER	Analysis Date: 04/10/2007 00:00				
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Iron, Ferrous (+2)	1380	50	1500	0	92	70	130	1376	0.2(20)	

### Comments:

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Date:  
13-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

File ID:		Type	Test Code:	Analysis Date: 04/11/2007 00:00					
Sample ID:	Run ID:	Batch ID:	Prep Date:						
MBLK-W070411FET	WETLAB_070411A	W070411FET	04/11/2007						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)

Iron, Total

ND 300

### Laboratory Control Spike

File ID:		Type	Test Code:	Analysis Date: 04/11/2007 00:00					
Sample ID:	Run ID:	Batch ID:	Prep Date:						
LCS-W070411FET	WETLAB_070411A	W070411FET	04/11/2007						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)

Iron, Total

8860 300 10000 89 85 115

### Sample Matrix Spike

File ID:		Type	Test Code:	Analysis Date: 04/11/2007 00:00					
Sample ID:	Run ID:	Batch ID:	Prep Date:						
07040304-01AMS	WETLAB_070411A	W070411FET	04/11/2007						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)

Iron, Total

34500 300 10000 24370 101 70 130

### Sample Matrix Spike Duplicate

File ID:		Type	Test Code:	Analysis Date: 04/11/2007 00:00					
Sample ID:	Run ID:	Batch ID:	Prep Date:						
07040304-01AMSD	WETLAB_070411A	W070411FET	04/11/2007						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)

Iron, Total

35800 300 10000 24370 114 70 130 34450 3.8(20)

### Comments:

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Date:  
16-Apr-07

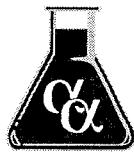
## OC Summary Report

Work Order:  
07040922

Method Blank		Type MBLK	Test Code: EPA Method SW9060/415.1/SM-5310C						
			Batch ID: TOC041007			Analysis Date: 04/10/2007 15:21			
Sample ID:	MBLK-TOC041007	Units : µg/L	Run ID: TOC_070410A			Prep Date: 04/10/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Organic Carbon		ND		1000					
Laboratory Control Spike		Type LCS	Test Code: EPA Method SW9060/415.1/SM-5310C						
			Batch ID: TOC041007			Analysis Date: 04/10/2007 14:59			
Sample ID:	LCS-TOC041007	Units : µg/L	Run ID: TOC_070410A			Prep Date: 04/10/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Organic Carbon		4660	1000	5000	93	74	126		
Sample Matrix Spike		Type MS	Test Code: EPA Method SW9060/415.1/SM-5310C						
			Batch ID: TOC041007			Analysis Date: 04/10/2007 21:03			
Sample ID:	07040641-06AMS	Units : µg/L	Run ID: TOC_070410A			Prep Date: 04/10/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Organic Carbon		5230	1000	5000	0	105	56	137	
Sample Matrix Spike Duplicate		Type MSD	Test Code: EPA Method SW9060/415.1/SM-5310C						
			Batch ID: TOC041007			Analysis Date: 04/10/2007 21:27			
Sample ID:	07040641-06AMSD	Units : µg/L	Run ID: TOC_070410A			Prep Date: 04/10/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Organic Carbon		4790	1000	5000	0	96	56	137	5231 8.8(20)

**Comments:**

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Date:  
16-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

		Type	MBLK	Test Code: EPA Method 350.3 / SM4500-NH3F							
File ID:					Batch ID: W070412AMM			Analysis Date: 04/12/2007 00:00			
Sample ID:	MBLK-W070412AMM	Units : µg/L	Result	PQL	Run ID: WETLAB_070412F	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Nitrogen, Ammonia (As N)		ND		100							

### Laboratory Control Spike

		Type	LCS	Test Code: EPA Method 350.3 / SM4500-NH3F							
File ID:					Batch ID: W070412AMM			Analysis Date: 04/12/2007 00:00			
Sample ID:	LCS-W070412AMM	Units : µg/L	Result	PQL	Run ID: WETLAB_070412F	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Nitrogen, Ammonia (As N)		4960		100	5000			99	70	130	

### Sample Matrix Spike

		Type	MS	Test Code: EPA Method 350.3 / SM4500-NH3F							
File ID:					Batch ID: W070412AMM			Analysis Date: 04/12/2007 00:00			
Sample ID:	07040922-04AMS	Units : µg/L	Result	PQL	Run ID: WETLAB_070412F	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Nitrogen, Ammonia (As N)		4960		100	5000			0	99	65	138

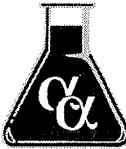
### Sample Matrix Spike Duplicate

		Type	MSD	Test Code: EPA Method 350.3 / SM4500-NH3F							
File ID:					Batch ID: W070412AMM			Analysis Date: 04/12/2007 00:00			
Sample ID:	07040922-04AMSD	Units : µg/L	Result	PQL	Run ID: WETLAB_070412F	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Nitrogen, Ammonia (As N)		4740		100	5000			0	95	65	138      4960      4.5(20)

### Comments:

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16-Apr-07

## QC Summary Report

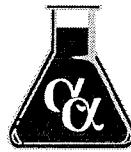
Work Order:  
07040922

Method Blank		Type	MBLK	Test Code: EPA Method 365.2 / SM4500PE						
File ID:		Batch ID: W070410OPHOS						Analysis Date: 04/10/2007 00:00		
Sample ID:	MBLK-W070410OPHOS	Units :	µg/L	Run ID: WETLAB_070410E						Prep Date:
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Total Orthophosphate		ND	100							Qual
Laboratory Control Spike		Type	LCS	Test Code: EPA Method 365.2 / SM4500PE						
File ID:		Batch ID: W070410OPHOS						Analysis Date: 04/10/2007 00:00		
Sample ID:	LCS-W070410OPHOS	Units :	µg/L	Run ID: WETLAB_070410E						Prep Date:
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Total Orthophosphate		1070	100	1000			107	80	116	Qual
Sample Matrix Spike		Type	MS	Test Code: EPA Method 365.2 / SM4500PE						
File ID:		Batch ID: W070410OPHOS						Analysis Date: 04/10/2007 00:00		
Sample ID:	07040922-04AMS	Units :	µg/L	Run ID: WETLAB_070410E						Prep Date:
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Total Orthophosphate		1120	100	1000	115	100	80	116		Qual
Sample Matrix Spike Duplicate		Type	MSD	Test Code: EPA Method 365.2 / SM4500PE						
File ID:		Batch ID: W070410OPHOS						Analysis Date: 04/10/2007 00:00		
Sample ID:	07040922-04AMSD	Units :	µg/L	Run ID: WETLAB_070410E						Prep Date:
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Total Orthophosphate		1130	100	1000	115	101	80	116	1116	0.9(20)

### Comments:

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## QC Summary Report

Work Order:  
07040922

### Method Blank

		Type	MBLK	Test Code: EPA Method 365.2 / SM4500PE						
File ID:				Batch ID: W070412TPHOS			Analysis Date: 04/12/2007 00:00			
Sample ID:	MBLK-W070412TPHOS	Units :	µg/L	Run ID: WETLAB_070412D			Prep Date: 04/12/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Phosphorus, Total (As P)		ND	100							Qual

### Laboratory Control Spike

		Type	LCS	Test Code: EPA Method 365.2 / SM4500PE						
File ID:				Batch ID: W070412TPHOS			Analysis Date: 04/12/2007 00:00			
Sample ID:	LCS-W070412TPHOS	Units :	µg/L	Run ID: WETLAB_070412D			Prep Date: 04/12/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Phosphorus, Total (As P)		1040	100	1000			104	80	118	Qual

### Sample Matrix Spike

		Type	MS	Test Code: EPA Method 365.2 / SM4500PE						
File ID:				Batch ID: W070412TPHOS			Analysis Date: 04/12/2007 00:00			
Sample ID:	07040922-04AMS	Units :	µg/L	Run ID: WETLAB_070412D			Prep Date: 04/12/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Phosphorus, Total (As P)		1310	100	1000	382	92	80	118		Qual

### Sample Matrix Spike Duplicate

		Type	MSD	Test Code: EPA Method 365.2 / SM4500PE						
File ID:				Batch ID: W070412TPHOS			Analysis Date: 04/12/2007 00:00			
Sample ID:	07040922-04AMSD	Units :	µg/L	Run ID: WETLAB_070412D			Prep Date: 04/12/2007			
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Phosphorus, Total (As P)		1150	100	1000	382	77	80	118	1305	12.6(20) M3

### Comments:

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M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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## QC Summary Report

Work Order:  
07040922

### Method Blank

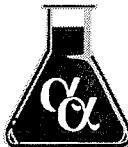
File ID:	Type	Test Code:	EPA Method 160.1 / SM 2540 C					
Sample ID:	Units :	Batch ID:	W070412TDS					
Analyte	Result	Run ID:	WETLAB_070417A					
Solids, Total Dissolved (TDS)	ND	10000						

### Laboratory Control Spike

File ID:	Type	Test Code:	EPA Method 160.1 / SM 2540 C					
Sample ID:	Units :	Batch ID:	W070412TDS					
Analyte	Result	Run ID:	WETLAB_070417A					
Solids, Total Dissolved (TDS)	198000	10000	200000	99	80	120		

### Comments:

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## QC Summary Report

Work Order:  
07040922

### Method Blank

		Type	MBLK	Test Code: EPA Method 376.2 / SM4500-S D					
		File ID:		Batch ID: W070413SULF			Analysis Date: 04/13/2007 00:00		
Sample ID:	MBLK-W070413SULF	Units : µg/L		Run ID: WETLAB_070413C			Prep Date: 04/13/2007		
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		ND	100						

### Laboratory Control Spike

		Type	LCS	Test Code: EPA Method 376.2 / SM4500-S D					
		File ID:		Batch ID: W070413SULF			Analysis Date: 04/13/2007 00:00		
Sample ID:	LCS-W070413SULF	Units : µg/L		Run ID: WETLAB_070413C			Prep Date: 04/13/2007		
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		943	100	1000		94	75	130	

### Sample Matrix Spike

		Type	MS	Test Code: EPA Method 376.2 / SM4500-S D					
		File ID:		Batch ID: W070413SULF			Analysis Date: 04/13/2007 00:00		
Sample ID:	07040922-04AMS	Units : µg/L		Run ID: WETLAB_070413C			Prep Date: 04/13/2007		
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		1060	100	1000		100	96	65	150

### Sample Matrix Spike Duplicate

		Type	MSD	Test Code: EPA Method 376.2 / SM4500-S D					
		File ID:		Batch ID: W070413SULF			Analysis Date: 04/13/2007 00:00		
Sample ID:	07040922-04AMSD	Units : µg/L		Run ID: WETLAB_070413C			Prep Date: 04/13/2007		
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		1100	100	1000		100	100	65	150
								1060	3.7(20)

### Comments:

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17-Apr-07

## QC Summary Report

Work Order:  
07040922

Method Blank		Type	MBLK	Test Code: EPA Method SW8260B-DI			
File ID: C:\HPCHEM\MS11\DATA\070410\07041003.D		Batch ID: 17218				Analysis Date: 04/10/2007 10:14	
Sample ID:	MBLK-17218	Units :	µg/L	Run ID: MSD_11_070410A			
Analyte	Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Methanol	ND		5000				
Ethanol	ND		5000				
Surr: Hexafluoro-2-propanol	509			500	102	70	130
Laboratory Control Spike		Type	LCS	Test Code: EPA Method SW8260B-DI			
File ID: C:\HPCHEM\MS11\DATA\070410\07041004.D		Batch ID: 17218				Analysis Date: 04/10/2007 10:34	
Sample ID:	LCS-17218	Units :	µg/L	Run ID: MSD_11_070410A			
Analyte	Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Methanol	223	50	250	89	61	139	
Ethanol	205	5	250	82	68	132	
Surr: Hexafluoro-2-propanol	533		500	107	70	130	
Sample Matrix Spike		Type	MS	Test Code: EPA Method SW8260B-DI			
File ID: C:\HPCHEM\MS11\DATA\070410\07041006.D		Batch ID: 17218				Analysis Date: 04/10/2007 11:14	
Sample ID:	07040906-02AMS	Units :	µg/L	Run ID: MSD_11_070410A			
Analyte	Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Methanol	233	50	250	0	93	58	142
Ethanol	220	5	250	0	88	67	133
Surr: Hexafluoro-2-propanol	508		500	102	70	130	
Sample Matrix Spike Duplicate		Type	MSD	Test Code: EPA Method SW8260B-DI			
File ID: C:\HPCHEM\MS11\DATA\070410\07041007.D		Batch ID: 17218				Analysis Date: 04/10/2007 11:34	
Sample ID:	07040906-02AMSD	Units :	µg/L	Run ID: MSD_11_070410A			
Analyte	Result	PQL		SpkVal	SpkRefVal	%REC	LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Methanol	234	50	250	0	94	58	142 233 0.6(20)
Ethanol	225	5	250	0	90	67	133 219.8 2.4(20)
Surr: Hexafluoro-2-propanol	487		500	97	70	130	

### Comments:

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Date:  
17-Apr-07

## QC Summary Report

Work Order:  
07040922

### Method Blank

		Type	MBLK	Test Code: EPA Method SW8015B						
					Batch ID: MS09W0411B			Analysis Date: 04/11/2007 10:38		
Sample ID:	Units : µg/L				Run ID: MSD_09_070411A			Prep Date: 04/11/2007		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	50								
Surr: 1,2-Dichloroethane-d4	10.3		10		103	75	128			
Surr: Toluene-d8	10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene	9.55		10		96	80	120			

### Laboratory Control Spike

		Type	LCS	Test Code: EPA Method SW8015B						
					Batch ID: MS09W0411B			Analysis Date: 04/11/2007 10:15		
Sample ID:	Units : µg/L				Run ID: MSD_09_070411A			Prep Date: 04/11/2007		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	364	50	400		91	70	130			
Surr: 1,2-Dichloroethane-d4	10.2		10		102	75	128			
Surr: Toluene-d8	10.2		10		102	80	120			
Surr: 4-Bromofluorobenzene	9.76		10		98	80	120			

### Sample Matrix Spike

		Type	MS	Test Code: EPA Method SW8015B						
					Batch ID: MS09W0411B			Analysis Date: 04/11/2007 12:11		
Sample ID:	Units : µg/L				Run ID: MSD_09_070411A			Prep Date: 04/11/2007		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2080	250	2000	0	104	60	131			
Surr: 1,2-Dichloroethane-d4	49.2		50		98	75	128			
Surr: Toluene-d8	51.8		50		104	80	120			
Surr: 4-Bromofluorobenzene	50.2		50		100	80	120			

### Sample Matrix Spike Duplicate

		Type	MSD	Test Code: EPA Method SW8015B						
					Batch ID: MS09W0411B			Analysis Date: 04/11/2007 12:35		
Sample ID:	Units : µg/L				Run ID: MSD_09_070411A			Prep Date: 04/11/2007		
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2030	250	2000	0	102	60	131	2084	2.5(20)	
Surr: 1,2-Dichloroethane-d4	50.8		50		102	75	128			
Surr: Toluene-d8	51.4		50		103	80	120			
Surr: 4-Bromofluorobenzene	49.4		50		99	80	120			

### Comments:

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## QC Summary Report

Work Order:  
07040922

### Method Blank

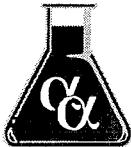
Analyte	Result	PQL	Type	MBLK	Test Code: EPA Method SW8260B		Analysis Date:	04/11/2007 10:38
			Batch ID:	MS09W0411A	Run ID:	MSD_09_070411A	Prep Date:	04/11/2007
Tertiary Butyl Alcohol (TBA)	ND	10						
Methyl tert-butyl ether (MTBE)	ND	0.5						
Di-isopropyl Ether (DIPE)	ND	1						
Ethyl Tertiary Butyl Ether (ETBE)	ND	1						
1,2-Dichloroethane	ND	1						
Benzene	ND	0.5						
Tertiary Amyl Methyl Ether (TAME)	ND	1						
Toluene	ND	0.5						
1,2-Dibromoethane (EDB)	ND	2						
Ethylbenzene	ND	0.5						
m,p-Xylene	ND	0.5						
o-Xylene	ND	0.5						
Surr: 1,2-Dichloroethane-d4	10.3		10		103	75	128	
Surr: Toluene-d8	10.1		10		101	80	120	
Surr: 4-Bromofluorobenzene	9.55		10		96	80	120	

### Laboratory Control Spike

Analyte	Result	PQL	Type	LCS	Test Code: EPA Method SW8260B		Analysis Date:	04/11/2007 09:51
			Batch ID:	MS09W0411A	Run ID:	MSD_09_070411A	Prep Date:	04/11/2007
1,1-Dichloroethene	10.1	1	10		101	80	120	
Methyl tert-butyl ether (MTBE)	10.1	0.5	10		101	70	130	
Benzene	9.62	0.5	10		96	70	130	
Trichloroethene	10.3	1	10		103	70	130	
Toluene	9.98	0.5	10		99.8	80	120	
Chlorobenzene	10.4	1	10		104	70	130	
Ethylbenzene	10.6	0.5	10		106	80	120	
m,p-Xylene	11.2	0.5	10		112	70	130	
o-Xylene	11.1	0.5	10		111	70	130	
Xylenes, Total	22.3	0.5	20		111	70	130	
Surr: 1,2-Dichloroethane-d4	9.94		10		99	75	128	
Surr: Toluene-d8	10.1		10		101	80	120	
Surr: 4-Bromofluorobenzene	9.49		10		95	80	120	

### Sample Matrix Spike

Analyte	Result	PQL	Type	MS	Test Code: EPA Method SW8260B		Analysis Date:	04/11/2007 11:25
			Batch ID:	MS09W0411A	Run ID:	MSD_09_070411A	Prep Date:	04/11/2007
1,1-Dichloroethene	47.5	2.5	50	0	95	66	132	
Methyl tert-butyl ether (MTBE)	48.4	1.3	50	0	97	62	139	
Benzene	45.6	1.3	50	0	91	70	130	
Trichloroethene	47.8	2.5	50	0	96	69	130	
Toluene	46.4	1.3	50	0	93	67	130	
Chlorobenzene	47.5	2.5	50	0	95	70	130	
Ethylbenzene	48.9	1.3	50	0	98	70	130	
m,p-Xylene	52.1	1.3	50	0	104	69	130	
o-Xylene	51.2	1.3	50	0	102	70	130	
Xylenes, Total	103	1.3	100	0	103	70	130	
Surr: 1,2-Dichloroethane-d4	48.9		50		98	75	128	
Surr: Toluene-d8	50.3		50		101	80	120	
Surr: 4-Bromofluorobenzene	48		50		96	80	120	



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
17-Apr-07

## QC Summary Report

Work Order:  
07040922

### Sample Matrix Spike Duplicate

File ID: D:\HPCHEM\MS09\DATA\070411\07041107.D

Sample ID: 07040906-01AMSD

Units : µg/L

Type MSD

Test Code: EPA Method SW8260B

Batch ID: MS09W0411A

Analysis Date: 04/11/2007 11:48

Prep Date: 04/11/2007

Analyte

Result

PQL

SpkVal

SpkRefVal

%REC

LCL(ME)

UCL(ME)

RPDRefVal

%RPD(Limit)

Qual

1,1-Dichloroethene	44.6	2.5	50	0	89	66	132	47.52	6.3(20)
Methyl tert-butyl ether (MTBE)	47.8	1.3	50	0	96	62	139	48.43	1.4(20)
Benzene	43.5	1.3	50	0	87	70	130	45.56	4.7(20)
Trichloroethene	45.7	2.5	50	0	91	69	130	47.77	4.5(20)
Toluene	45.2	1.3	50	0	90	67	130	46.42	2.8(20)
Chlorobenzene	46.8	2.5	50	0	94	70	130	47.51	1.5(20)
Ethylbenzene	47.3	1.3	50	0	95	70	130	48.9	3.4(20)
m,p-Xylene	50.4	1.3	50	0	101	69	130	52.11	3.3(20)
o-Xylene	49.9	1.3	50	0	99.8	70	130	51.24	2.6(20)
Xylenes, Total	100	1.3	100	0	100	70	130	103.4	3.0(20)
Surr: 1,2-Dichloroethane-d4	49.5		50		99	75	128		
Surr: Toluene-d8	50.5		50		101	80	120		
Surr: 4-Bromofluorobenzene	47.7		50		95	80	120		

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

April 16, 2007

**CLS Work Order #:** CQD0301  
**COC #:**

Reyna Vallejo  
Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks, NV 89431

**Project Name:** STR07040922

Enclosed are the results of analyses for samples received by the laboratory on 04/09/07 15:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

04/16/07 14:45

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07040922  
Project Number: STR07040922  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0301  
COC #:

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>STR07040922-04A (MW-7) (CQD0301-01) Water</b> Sampled: 04/09/07 09:30 Received: 04/09/07 15:00									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03012	04/10/07	04/15/07	EPA 405.1	
<b>STR07040922-05A (MW-8) (CQD0301-02) Water</b> Sampled: 04/09/07 08:25 Received: 04/09/07 15:00									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03012	04/10/07	04/15/07	EPA 405.1	
<b>STR07040922-08A (EX-1) (CQD0301-03) Water</b> Sampled: 04/09/07 09:19 Received: 04/09/07 15:00									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03012	04/10/07	04/15/07	EPA 405.1	
<b>STR07040922-09A (EX-2) (CQD0301-04) Water</b> Sampled: 04/09/07 08:41 Received: 04/09/07 15:00									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03012	04/10/07	04/15/07	EPA 405.1	
<b>STR07040922-10A (EX-3) (CQD0301-05) Water</b> Sampled: 04/09/07 10:17 Received: 04/09/07 15:00									
Biochemical Oxygen Demand	8.4	3.0	mg/L	1	CQ03012	04/10/07	04/15/07	EPA 405.1	

# CALIFORNIA LABORATORY SERVICES

04/16/07 14:45

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07040922  
Project Number: STR07040922  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0301  
COC #:

## Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
STR07040922-04A (MW-7) (CQD0301-01) Water Sampled: 04/09/07 09:30 Received: 04/09/07 15:00									
Plate Count	64	1	CFU/mL	1	CQ02991	04/09/07	04/11/07	SM 9215	
STR07040922-05A (MW-8) (CQD0301-02) Water Sampled: 04/09/07 08:25 Received: 04/09/07 15:00									
Plate Count	590	10	CFU/mL	10	CQ02991	04/09/07	04/11/07	SM 9215	
STR07040922-08A (EX-1) (CQD0301-03) Water Sampled: 04/09/07 09:19 Received: 04/09/07 15:00									
Plate Count	780	10	CFU/mL	10	CQ02991	04/09/07	04/11/07	SM 9215	
STR07040922-09A (EX-2) (CQD0301-04) Water Sampled: 04/09/07 08:41 Received: 04/09/07 15:00									
Plate Count	8200	100	CFU/mL	100	CQ02991	04/09/07	04/11/07	SM 9215	
STR07040922-10A (EX-3) (CQD0301-05) Water Sampled: 04/09/07 10:17 Received: 04/09/07 15:00									
Plate Count	13000	100	CFU/mL	100	CQ02991	04/09/07	04/11/07	SM 9215	

# CALIFORNIA LABORATORY SERVICES

04/16/07 14:45

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07040922  
Project Number: STR07040922  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0301  
COC #:

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch CQ03012 - General</b>										
<b>Blank (CQ03012-BLK1)</b> Prepared: 04/10/07 Analyzed: 04/15/07										
Biochemical Oxygen Demand	ND	3.0	mg/L							
<b>LCS (CQ03012-BS1)</b> Prepared: 04/10/07 Analyzed: 04/15/07										
Biochemical Oxygen Demand	153	3.0	mg/L	200		76.5	55-125		24	
<b>LCS Dup (CQ03012-BSD1)</b> Prepared: 04/10/07 Analyzed: 04/15/07										
Biochemical Oxygen Demand	192	3.0	mg/L	200		96.0	55-125	22.6	24	

# CALIFORNIA LABORATORY SERVICES

04/16/07 14:45

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07040922  
Project Number: STR07040922  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0301  
COC #:

## Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

# Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

## Sample Receipt Checklist

Date Report is due to Client : 4/18/2007

Date of Notice : 4/10/2007 10:22:01

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: Stratus Environmental

Project ID : 2007-0057-01/ USA 57

Project Manager: Gowri Kowtha

Client's EMail: gkowtha@stratusinc.net

Work Order Number: STR07040922

Client's Phone: (530) 676-6001

Date Received: 4/9/2007

Client's FAX: (530) 676-6005

Received by: Latricia Edrosa

### Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ? Yes  No

Custody seals intact on shipping container/cooler ? Yes  No  Not Present

Custody seals intact on sample bottles ? Yes  No  Not Present

Chain of custody signed when relinquished and received ? Yes  No

Chain of custody agrees with sample labels ? Yes  No

Sample ID noted by Client on COC ? Yes  No

Date and time of collection noted by Client on COC ? Yes  No

Samplers's name noted on COC ? Yes  No

Internal Chain of Custody (COC) requested ? Yes  No

Sub Contract Lab Used : None  See Comments

### Sample Receipt Information

Shipping container/cooler in good condition? Yes  No  Not Present

Samples in proper container/bottle? Yes  No

Sample containers intact? Yes  No

Sufficient sample volume for indicated test? Yes  No

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes  No  Cooler Temperature

4 °C

Container/Temp Blank temperature in compliance (0-6°C)? Yes  No

Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted

Sample labels checked for correct preservation? Yes  No

TOC Water - pH acceptable upon receipt (H<sub>2</sub>SO<sub>4</sub> pH<2)? Yes  No  N/A

### Analytical Requirement Information

Are non-Standard or Modified methods requested ? Yes   No

Are there client specific Project requirements ? Yes   No If YES : see the Chain of Custody (COC)

Comments : Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana.

Billing Information :

## CHAIN-OF-CUSTODY RECORD

**CAMENDE**  
Page: 1 of 2

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Gowri Kowtha  
 TEL : (530) 676-6001 x  
 FAX : (530) 676-6005  
 EMail gkowtha@stratusinc.net

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp	Samples Received	Date Printed
4 °C	09-Apr-07	13-Apr-07

Report Attention : Gowri Kowtha

CC Report :

Job : 2007-0057-01/ USA 57

PO :

Client's COC # : 17661

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests								Sample Remarks	
				ORG	SUB	TAT	PWS #	3500FE_2O_S_W	3500FE_TO_T_W	ALCOHOL_W	AMMONIA_W	ANIONS(A)_W	ANIONS(B)_W	BOD	HETEROTR_OPIC	
STR07040922-01A	MW-3	AQ	04/09/07 07:34	5	0	6				MeOH / EtOH						
STR07040922-02A	MW-4	AQ	04/09/07 06:40	5	0	6				MeOH / EtOH						
STR07040922-03A	MW-6	AQ	04/09/07 06:07	5	0	6				MeOH / EtOH						
STR07040922-04A	MW-7	AQ	04/09/07 09:30	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3, SO4	NO2, NO3, SO4	BOD	SUB	BOD and HPC subbed to CLS by Sac Office.
STR07040922-05A	MW-8	AQ	04/09/07 08:25	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3, SO4	NO2, NO3, SO4	BOD	SUB	BOD and HPC subbed to CLS by Sac Office.
STR07040922-06A	S-1	AQ	04/09/07 07:11	5	0	6				MeOH / EtOH						
STR07040922-07A	S-2	AQ	04/09/07 07:41	5	0	6				MeOH / EtOH						
STR07040922-08A	EX-1	AQ	04/09/07 09:19	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3, SO4	NO2, NO3, SO4	BOD	SUB	BOD and HPC subbed to CLS by Sac Office.
STR07040922-09A	EX-2	AQ	04/09/07 08:41	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3, SO4	NO2, NO3, SO4	BOD	SUB	BOD and HPC subbed to CLS by Sac Office.
STR07040922-10A	EX-3	AQ	04/09/07 10:17	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3, SO4	NO2, NO3, SO4	BOD	SUB	BOD and HPC subbed to CLS by Sac Office.

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana. Amended 4/13/07 @ 12:21 to add Sulfate to -04, -05, -08, -09 & -10 per email from Tammy at STR. LE

Signature

Print Name

Company

Date/Time

Logged in by:

Alpha Analytical, Inc.

4/13/07 12:21

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

## CHAIN-OF-CUSTODY RECORD

AMENDED  
CA Page: 2 of 4

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Gowri Kowtha  
 TEL : (530) 676-6001 x  
 FAX : (530) 676-6005  
 EMail gkowtha@stratusinc.net

Report Attention : Gowri Kowtha

Job : 2007-0057-01/ USA 57

CC Report :

PO :

Client's COC # : 17661

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp

Samples Received

Date Printed

4 °C

09-Apr-07

13-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests							Sample Remarks	
				ORG	SUB	TAT	PWS #	ORTHOPH OS_W	PHOSPHO RUS_W	SULFIDE	TDS	TOC_W	TPH/P_W	VOC_W	
STR07040922-01A	MW-3	AQ	04/09/07 07:34	5	0	6								GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-02A	MW-4	AQ	04/09/07 06:40	5	0	6								GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-03A	MW-6	AQ	04/09/07 06:07	5	0	6								GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-04A	MW-7	AQ	04/09/07 09:30	13	2	6		Ortho	Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	BOD and HPC subbed to CLS by Sac Office.
STR07040922-05A	MW-8	AQ	04/09/07 08:25	13	2	6		Ortho	Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	BOD and HPC subbed to CLS by Sac Office.
STR07040922-06A	S-1	AQ	04/09/07 07:11	5	0	6								GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-07A	S-2	AQ	04/09/07 07:41	5	0	6								GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-08A	EX-1	AQ	04/09/07 09:19	13	2	6		Ortho	Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	BOD and HPC subbed to CLS by Sac Office.

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana. Amended 4/13/07 @ 12:21 to add Sulfate to -04, -05, -08, -09 & -10 per email from Tammy at STR. LE

Signature

Print Name

Company

Date/Time

Logged in by:

Alpha Analytical, Inc.

4/13/07 12:21

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Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

## CHAIN-OF-CUSTODY RECORD

AMENDED  
CA

Page: 3 of 4

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

Gowri Kowtha

TEL : (530) 676-6001 x  
 FAX : (530) 676-6005  
 EMail gkowtha@stratusinc.net

Report Attention : Gowri Kowtha

CC Report :

Job : 2007-0057-01/ USA 57

PO :

Client's COC # : 17661

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp

Samples Received

Date Printed

4 °C

09-Apr-07

13-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles	Requested Tests								Sample Remarks				
				ORG	SUB	TAT	PWS #	3500FE_20_S_W	3500FE_TO_T_W	ALCOHOL_W	AMMONIA_W	ANIONS(A)_W	ANIONS(B)_W	BOD	HETEROTR_OPIC	
STR07040922-11A	EX-4	AQ	04/09/07 06:36	5	0	6				MeOH / EtOH						

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana. Amended 4/13/07 @ 12:21 to add Sulfate to -04, -05, -08, -09 & -10 per email from Tammy at STR. LE

Signature

Print Name

Company

Date/Time

Logged in by:

Alpha Analytical, Inc.

4/13/07 12:21

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
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 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

## CHAIN-OF-CUSTODY RECORD

AMENDED  
CA

Page: 4 of 4

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

<u>Gowri Kowtha</u>	
TEL : (530) 676-6001	x
FAX : (530) 676-6005	
EMail	gkowtha@stratusinc.net

Report Attention : Gowri Kowtha

CC Report :

Job : 2007-0057-01/ USA 57

PO :

Client's COC # : 17661

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp

Samples Received

Date Printed

4 °C

09-Apr-07

13-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Date	Requested Tests					Sample Remarks							
				ORG	SUB	TAT	PWS #	ORTHOPH OS_W	PHOSPHO RUS_W	SULFIDE	TDS	TOC_W	TPH/P_W	VOC_W		
STR07040922-09A	EX-2	AQ	04/09/07 08:41	13	2	6		Ortho	Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C		BOD and HPC subbed to CLS by Sac Office.
STR07040922-10A	EX-3	AQ	04/09/07 10:17	13	2	6		Ortho	Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C		BOD and HPC subbed to CLS by Sac Office.
STR07040922-11A	EX-4	AQ	04/09/07 06:36	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C		

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana. Amended 4/13/07 @ 12:21 to add Sulfate to -04, -05, -08, -09 & -10 per email from Tammy at STR. LE

Signature

Print Name

Company

Date/Time

Logged in by:

Alpha Analytical, Inc.

4/13/07 12:21

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Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

## CHAIN-OF-CUSTODY RECORD

Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

<u>Gowri Kowtha</u>	
TEL :	(530) 676-6001 x
FAX :	(530) 676-6005
EMail	gkowtha@stratusinc.net

Report Attention : Gowri Kowtha

Job : 2007-0057-01/ USA 57

CC Report :

PO :

Client's COC # : 17661

CA

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp	Samples Received	Date Printed
4 °C	09-Apr-07	10-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests							Sample Remarks		
				ORG	SUB	TAT	3500FE_2O_S_W	3500FE_TO_T_W	ALCOHOL_W	AMMONIA_W	ANIONS(A)_W	BOD	HETEROTR_OPIC			
STR07040922-01A	MW-3	AQ	04/09/07 07:34	5	0	6				MeOH / EtOH						
STR07040922-02A	MW-4	AQ	04/09/07 06:40	5	0	6				MeOH / EtOH						
STR07040922-03A	MW-6	AQ	04/09/07 06:07	5	0	6				MeOH / EtOH						
STR07040922-04A	MW-7	AQ	04/09/07 09:30	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac Office.
STR07040922-05A	MW-8	AQ	04/09/07 08:25	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac Office.
STR07040922-06A	S-1	AQ	04/09/07 07:11	5	0	6				MeOH / EtOH						
STR07040922-07A	S-2	AQ	04/09/07 07:41	5	0	6				MeOH / EtOH						
STR07040922-08A	EX-1	AQ	04/09/07 09:19	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac Office.
STR07040922-09A	EX-2	AQ	04/09/07 08:41	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac Office.
STR07040922-10A	EX-3	AQ	04/09/07 10:17	13	2	6		FE+2	FE,Total	MeOH / EtOH	NH3	NO2, NO3	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac Office.

Comments: Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana.

Logged in by:	<u>Patricia Ednasa</u>	Signature	Print Name	Company	Date/Time
				Alpha Analytical, Inc.	4/10/07 9:37

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

Page: 2 of 4

# CHAIN-OF-CUSTODY RECORD

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
3330 Cameron Park Drive  
Suite 550  
Cameron Park, CA 95682-8861

Report Attention : Gowri Kowtha

Gowri Kowtha  
TEL : (530) 676-6001 x  
FAX : (530) 676-6005  
EMail gkowtha@stratusinc.net

CC Report :

Job : 2007-0057-01/ USA 57

PO :

Client's COC # : 17661

CA

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp	Samples Received	Date Printed
4 °C	09-Apr-07	10-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests						Sample Remarks	
				ORG	SUB	TAT	PHOSPHO RUS_W	SULFIDE	TDS	TOC_W	TPH/P_W	VOC_W		
STR07040922-01A	MW-3	AQ	04/09/07 07:34	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-02A	MW-4	AQ	04/09/07 06:40	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-03A	MW-6	AQ	04/09/07 06:07	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-04A	MW-7	AQ	04/09/07 09:30	13	2	6		Total	Sulfide	X	TOC		GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-05A	MW-8	AQ	04/09/07 08:25	13	2	6		Total	Sulfide	X	TOC		GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-06A	S-1	AQ	04/09/07 07:11	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-07A	S-2	AQ	04/09/07 07:41	5	0	6							GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C
STR07040922-08A	EX-1	AQ	04/09/07 09:19	13	2	6		Total	Sulfide	X	TOC		GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana.

Logged in by:	Signature	Print Name	Company	Date/Time
<i>Patricia Edosa</i>		<i>Patricia Edosa</i>	Alpha Analytical, Inc.	4/10/07 9:37

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

Page: 3 of 4

# CHAIN-OF-CUSTODY RECORD

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
3330 Cameron Park Drive  
Suite 550  
Cameron Park, CA 95682-8861

Report Attention : Gowri Kowtha

Gowri Kowtha

TEL : (530) 676-6001 x  
FAX : (530) 676-6005  
EMail gkowtha@stratusinc.net

CA

WorkOrder : STR07040922

Report Due By : 5:00 PM On : 18-Apr-07

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler Temp	Samples Received	Date Printed
4 °C	09-Apr-07	10-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests								Sample Remarks
				ORG	SUB	TAT	3500FE_2O_S_W	3500FE_TO_T_W	ALCOHOL_W	AMMONIA_W	ANIONS(A)_W	BOD	HETEROTR_OPIC	ORTHOPH_OS_W	
STR07040922-11A	EX-4	AQ	04/09/07 06:36	5	0	6				MeOH / EtOH					

Comments:

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana.

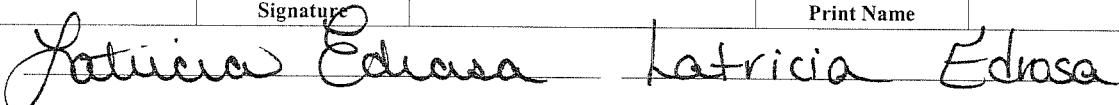
Signature

Print Name

Company

Date/Time

Logged in by:



Alpha Analytical, Inc.

4/10/07 9:37

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

Page: 4 of 4

# CHAIN-OF-CUSTODY RECORD

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Gowri Kowtha

TEL : (530) 676-6001 x

FAX : (530) 676-6005

EMail gkowtha@stratusinc.net

**Client:**

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

**Report Attention :** Gowri Kowtha

Job : 2007-0057-01/ USA 57

**CC Report :**

PO :

Client's COC # : 17661

**CA****WorkOrder : STR07040922****Report Due By : 5:00 PM On : 18-Apr-07**

EDD Required : Yes

Sampled by : Wilkins/Zalutka

Cooler TempSamples ReceivedDate Printed

4 °C

09-Apr-07

10-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

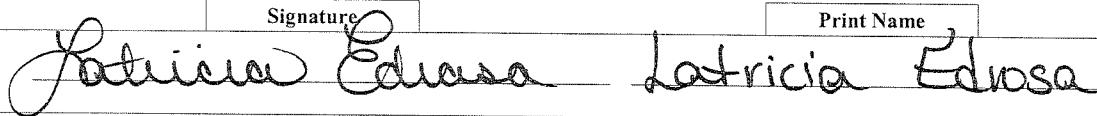
Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests							Sample Remarks
				ORG	SUB	TAT	PWS #	PHOSPHO RUS_W	SULFIDE	TDS	TOC_W	TPH/P_W	VOC_W	
STR07040922-09A	EX-2	AQ	04/09/07 08:41	13	2	6		Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	
STR07040922-10A	EX-3	AQ	04/09/07 10:17	13	2	6		Total	Sulfide	X	TOC	GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	
STR07040922-11A	EX-4	AQ	04/09/07 06:36	5	0	6						GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	

**Comments:**

Security seals intact. Frozen ice. Chain prelogged 4/9/07 in order for Sac Office to sub BOD and HPC to CLS for samples -04,-05,-08,-09,-10; rest of sample received 4/10/07. Send copy of receipt checklist with final report. TOC pH=2. : Received Sulfide bottles for -04, -05, -08, -09 & -10 even though not listed on COC. Logged in for these analysis per Edana.

**Signature****Print Name****Company****Date/Time**

Logged in by:



Alpha Analytical, Inc.

4/10/07 9:37

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

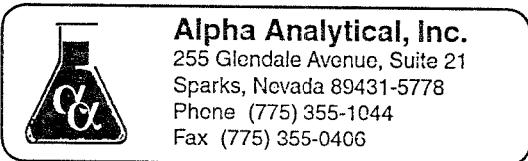
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.

Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

## Billing Information:

Name Stratus Environmental  
 Address 3330 Cameron Park dr  
 City, State, Zip Cameron Park CA 95682  
 Phone Number 530-676-6001 Fax       



Samples Collected From Which State?

AZ        CA X NV        WA       ID        OR        OTHER       

17641

Page # 1 of 21

Analyses Required									
Required QC Level?									
EDD / EDF? YES <u>X</u> NO <u>      </u>									
Global ID # <u>T0600101808</u>									
Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by <u>Wilkins/Lia Bryla</u>	Report Attention <u>GOURI</u>	Sample Description	TAT	Field Filtered	Total and type of containers ** See below	TPH/G BTEX 50xy's 1,2-DCA EDB Methanol Ethanol
0734	07/09	AQ	STR07040922-01	MW-3	Std	5 HCL VOA	X X X X X X X X		Additional Analyses
0640				MW-4					For wells MW-7
0607				MW-5					MW-8, Ext, Ex-2
0930				MW-6					Ex-3
0825				MW-7					BOD
0711				MW-8					Total Iron & Ferric Iron
0741				S-1					HPC
0919				S-2					TOC
0841				EX-1					TDS
1017				EX-2					NO <sub>3</sub> NO <sub>2</sub> @ Ammonium
0636				EX-3					Total TP & Ortho-P
				EX-4					
									* BOD And HPC
									Sub To CCS #07040
									0122

## ADDITIONAL INSTRUCTIONS:

Signature	Print Name	Company	Date	Time
Relinquished by <u>G. Wilkins</u>	Print Name <u>G. Wilkins</u>	Company <u>Stratus</u>	04-09-07	1333
Received by <u>Lia Bryla</u>	Print Name <u>Lia Bryla</u>	Company <u>ALPHA</u>	4-9-07	1333
Relinquished by <u>Patricia Edna</u>	Print Name <u>Patricia Edna</u>	Company <u>Patricia Alpha</u>	4/10/07	9:37
Received by				

\*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air \*\*: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

**Alpha Analytical, Inc.**

255 Glendale Avenue  
Suite 21  
Sparks, Nevada 89431-5778  
Phone: (775) 355-1044  
Fax: (775) 355-0406

**Subcontractor:**

CLS Labs  
3249 Fitzgerald Rd.  
Suite 21  
Rancho Cordova, CA 95742

**SUB CHAIN-OF-CUSTODY RECORD****Work Order : STR07040922**

\*Please reference the Work Order number on all reports and invoices.

\*Also please include the dates of analysis and detection limits.

Please send the report to Alpha Analytical (Sparks).

**Attention To Reyna Vallejo (reyna@alpha-analytical.com).**

TEL: (916) 638-7301

EDD Required:

FAX: (916) 638-4510

**Yes**

Acct #:

Page 1 of 1

**Report Due By : 5:00 PM****On : 18-Apr-07****Required QC:**

Final Rpt, MBLK, LCS, MS/MSD With Surrogates

09-Apr-07

Alpha's Sample ID	Client's Sample ID	Matrix	Collection Date	Type (#) of Bottles		Requested Tests		Sample Comments
				Preserved	Other	SM5210B	Standard Method 9215B	
STR07040922-04A	MW-7	Aqueous	04/09/07 09:30	OTHERP (1)	1LHDPE-U (1)	Biochemical Oxygen Demand	Heterotrophic Plate Count	BOD and HPC subbed to CLS by Sac Office.
STR07040922-05A	MW-8	Aqueous	04/09/07 08:25	OTHERP (1)	1LHDPE-U (1)	Biochemical Oxygen Demand	Heterotrophic Plate Count	BOD and HPC subbed to CLS by Sac Office.
STR07040922-08A	EX-1	Aqueous	04/09/07 09:19	OTHERP (1)	1LHDPE-U (1)	Biochemical Oxygen Demand	Heterotrophic Plate Count	BOD and HPC subbed to CLS by Sac Office.
STR07040922-09A	EX-2	Aqueous	04/09/07 08:41	OTHERP (1)	1LHDPE-U (1)	Biochemical Oxygen Demand	Heterotrophic Plate Count	BOD and HPC subbed to CLS by Sac Office.
STR07040922-10A	EX-3	Aqueous	04/09/07 10:17	OTHERP (1)	1LHDPE-U (1)	Biochemical Oxygen Demand	Heterotrophic Plate Count	BOD and HPC subbed to CLS by Sac Office.
								BOD and HPC subbed to CLS by Sac Office.

**Comments:**

Relinquished by:

Date/Time

Date/Time

Relinquished by:

4-9-04 1500

Received by:

3

4-17 1500

Received by:



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

FILE COPY

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received 04/23/07

MAY 16 200

Job#: USA 57

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B  
Volatile Organic Compounds (VOCs) EPA Method SW8260B

Client ID :	Parameter	Concentration	Reporting	Date	Date
			Limit	Sampled	Analyzed
MW-5	TPH-P (GRO)	ND	50 µg/L	04/23/07	04/26/07
Lab ID :	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	04/23/07	04/26/07
STR07042325-03A	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	04/23/07	04/26/07
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	04/23/07	04/26/07
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	04/23/07	04/26/07
	1,2-Dichloroethane	ND	1.0 µg/L	04/23/07	04/26/07
	Benzene	ND	0.50 µg/L	04/23/07	04/26/07
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	04/23/07	04/26/07
	Toluene	ND	0.50 µg/L	04/23/07	04/26/07
	1,2-Dibromoethane (EDB)	ND	2.0 µg/L	04/23/07	04/26/07
	Ethylbenzene	ND	0.50 µg/L	04/23/07	04/26/07
	m,p-Xylene	ND	0.50 µg/L	04/23/07	04/26/07
	o-Xylene	ND	0.50 µg/L	04/23/07	04/26/07

Gasoline Range Organics (GRO) C4-C13

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger Scholl

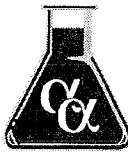
Randy Gardner

Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

PG  
5/1/07

Report Date



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received 04/23/07

Job#: USA 57

### Total Organic Carbon as NonPurgeable Organic Carbon EPA Method SW9060/415.1/SM-5310C

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-3				
Lab ID :	STR07042325-01A	Total Organic Carbon	11,000	1,000 µg/L	04/23/07 04/24/07
Client ID :	S-1				
Lab ID :	STR07042325-02A	Total Organic Carbon	6,700	1,000 µg/L	04/23/07 04/24/07

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

Report Date



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

Iron by Spectrophotometer  
SM3500-Fe D

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-3				
Lab ID :	STR07042325-01A	Iron, Ferrous (+2) Iron, Total	ND 1,000	50 µg/L 300 µg/L	04/23/07 04/24/07 04/23/07 04/27/07
Client ID :	S-1				
Lab ID :	STR07042325-02A	Iron, Ferrous (+2) Iron, Total	ND 5,400	50 µg/L 300 µg/L	04/23/07 04/24/07 04/23/07 04/27/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

5/1/07

Report Date



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

Ammonia as Nitrogen  
EPA Method 350.3 / SM4500-NH3F

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-3				
Lab ID :	STR07042325-01A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/23/07 04/27/07
Client ID :	S-1				
Lab ID :	STR07042325-02A	Nitrogen, Ammonia (As N)	ND	100 µg/L	04/23/07 04/27/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

5/1/07

Report Date



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

### Anions by IC EPA Method 300.0 / 9056

	Parameter	Concentration	Reporting Limit	Date / Time Sampled	Date / Time Analyzed
Client ID : MW-3	Nitrite (NO <sub>2</sub> ) - N	ND	250 µg/L	04/23/07 05:17	04/24/07 17:07
Lab ID : STR07042325-01A	Nitrate (NO <sub>3</sub> ) - N	ND	250 µg/L	04/23/07 05:17	04/24/07 17:07
Client ID : S-1	Nitrite (NO <sub>2</sub> ) - N	ND	250 µg/L	04/23/07 05:54	04/24/07 17:26
Lab ID : STR07042325-02A	Nitrate (NO <sub>3</sub> ) - N	ND	250 µg/L	04/23/07 05:54	04/24/07 17:26

ND = Not Detected

Reported in micrograms per Liter, per client request.

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / info@alpha-analytical.com

Report Date



# *Alpha Analytical, Inc.*

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861  
Job#: USA 57

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005

Anions by Ion Chromatography (IC) EPA Method 300.0 / SW9056

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID : MW-3					
Lab ID : STR07042325-01A	Sulfate (SO <sub>4</sub> )	20,000	500 µg/L	04/23/07	04/24/07
Client ID : S-1					
Lab ID : STR07042325-02A	Sulfate (SO <sub>4</sub> )	44,000	500 µg/L	04/23/07	04/24/07

Reported in micrograms per Liter, per client request.

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Report Date



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## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

Orthophosphate in Water  
EPA Method 365.2 / SM4500PE

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-3				
Lab ID :	STR07042325-01A	Total Orthophosphate	100	100 µg/L	04/23/07 04/24/07
Client ID :	S-1				
Lab ID :	STR07042325-02A	Total Orthophosphate	ND	100 µg/L	04/23/07 04/24/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

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5/1/07

Report Date



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## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

### Phosphorus

EPA Method 365.2 / SM4500PE

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-3</b>				
Lab ID :	STR07042325-01A	Phosphorus, Total (As P)	ND	100 µg/L	04/23/07 04/25/07
Client ID :	<b>S-1</b>				
Lab ID :	STR07042325-02A	Phosphorus, Total (As P)	ND	100 µg/L	04/23/07 04/25/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

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5/1/07

**Report Date**



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## ANALYTICAL REPORT

Stratus Environmental  
3330 Cameron Park Drive  
Cameron Park, CA 956828861

Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

Sulfide  
EPA Method 376.2 / SM4500-S D

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	MW-3				
Lab ID :	STR07042325-01A	Sulfide	ND	100 µg/L	04/23/07 04/26/07
Client ID :	S-1				
Lab ID :	STR07042325-02A	Sulfide	ND	100 µg/L	04/23/07 04/26/07

ND = Not Detected

Reported in micrograms per Liter, per client request.

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5/1/07

Report Date



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## ANALYTICAL REPORT

Stratus Environmental  
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Attn: Gowri Kowtha  
Phone: (530) 676-6001  
Fax: (530) 676-6005  
Date Received : 04/23/07

Job#: USA 57

### Total Dissolved Solids (TDS) EPA Method 160.1 / SM 2540 C

	Parameter	Concentration	Reporting Limit	Date Sampled	Date Analyzed
Client ID :	<b>MW-3</b>				
Lab ID :	STR07042325-01A	Solids, Total Dissolved (TDS)	1,700,000	10,000 µg/L	04/23/07 05/01/07
Client ID :	<b>S-1</b>				
Lab ID :	STR07042325-02A	Solids, Total Dissolved (TDS)	650,000	10,000 µg/L	04/23/07 04/30/07

Reported in micrograms per Liter, per client request.

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5/1/07

Report Date



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## **VOC Sample Preservation Report**

**Work Order:** STR07042325

**Project:** USA 57

Alpha's Sample ID	Client's Sample ID	Matrix	pH
07042325-03A	MW-5	Aqueous	2

5/1/07

Report Date



# Alpha Analytical, Inc.

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Date:  
29-Apr-07

## QC Summary Report

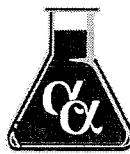
Work Order:  
07042325

Method Blank		Type	MBLK	Test Code: SM3500-Fe D						
File ID:		Batch ID: W070424FER						Analysis Date: 04/24/2007 00:00		
Sample ID:	MBLK-W070424FER	Units : µg/L	Run ID: WETLAB_070424F						Prep Date:	04/24/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Iron, Ferrous (+2)		ND	50							Qual
Laboratory Control Spike		Type	LCS	Test Code: SM3500-Fe D						
File ID:		Batch ID: W070424FER						Analysis Date: 04/24/2007 00:00		
Sample ID:	LCS-W070424FER	Units : µg/L	Run ID: WETLAB_070424F						Prep Date:	04/24/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Iron, Ferrous (+2)		1440	50	1500		96	85	115		Qual
Sample Matrix Spike		Type	MS	Test Code: SM3500-Fe D						
File ID:		Batch ID: W070424FER						Analysis Date: 04/24/2007 00:00		
Sample ID:	07042325-01AMS	Units : µg/L	Run ID: WETLAB_070424F						Prep Date:	04/24/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Iron, Ferrous (+2)		1420	50	1500	0	95	70	130		Qual
Sample Matrix Spike Duplicate		Type	MSD	Test Code: SM3500-Fe D						
File ID:		Batch ID: W070424FER						Analysis Date: 04/24/2007 00:00		
Sample ID:	07042325-01AMSD	Units : µg/L	Run ID: WETLAB_070424F						Prep Date:	04/24/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Iron, Ferrous (+2)		1420	50	1500	0	94	70	130	1421	0.3(20)

### Comments:

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Reported in micrograms per Liter, per client request.



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Date:  
29-Apr-07

## QC Summary Report

Work Order:  
07042325

Method Blank		Type	MBLK	Test Code: SM3500-Fe D					
File ID:		Batch ID: W070427FETA						Analysis Date: 04/27/2007 00:00	
Sample ID:	MBLK-W070427FETA	Units : $\mu\text{g/L}$		Run ID: WETLAB_070427D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Iron, Total		ND	300						
Laboratory Control Spike		Type	LCS	Test Code: SM3500-Fe D					
File ID:		Batch ID: W070427FETA						Analysis Date: 04/27/2007 00:00	
Sample ID:	LCS-W070427FETA	Units : $\mu\text{g/L}$		Run ID: WETLAB_070427D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Iron, Total		9900	1500	10000	99	85	115		
Sample Matrix Spike		Type	MS	Test Code: SM3500-Fe D					
File ID:		Batch ID: W070427FETA						Analysis Date: 04/27/2007 00:00	
Sample ID:	07042325-01AMS	Units : $\mu\text{g/L}$		Run ID: WETLAB_070427D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Iron, Total		9660	1500	10000	1046	86	70	130	
Sample Matrix Spike Duplicate		Type	MSD	Test Code: SM3500-Fe D					
File ID:		Batch ID: W070427FETA						Analysis Date: 04/27/2007 00:00	
Sample ID:	07042325-01AMSD	Units : $\mu\text{g/L}$		Run ID: WETLAB_070427D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Iron, Total		10000	1500	10000	1046	90	70	130	9662 3.4(20)

### Comments:

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Date:  
29-Apr-07

## QC Summary Report

Work Order:  
07042325

Method Blank		Type	MBLK	Test Code: EPA Method 350.3 / SM4500-NH3F						
File ID:		Batch ID: W070427AMM						Analysis Date: 04/27/2007 00:00		
Sample ID:	MBLK-W070427AMM	Units : µg/L	Run ID: WETLAB_070427B						Prep Date:	04/27/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Nitrogen, Ammonia (As N)		ND	100							Qual
Laboratory Control Spike		Type	LCS	Test Code: EPA Method 350.3 / SM4500-NH3F						
File ID:		Batch ID: W070427AMM						Analysis Date: 04/27/2007 00:00		
Sample ID:	LCS-W070427AMM	Units : µg/L	Run ID: WETLAB_070427B						Prep Date:	04/27/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Nitrogen, Ammonia (As N)		5210	100	5000		104	70	130		Qual
Sample Matrix Spike		Type	MS	Test Code: EPA Method 350.3 / SM4500-NH3F						
File ID:		Batch ID: W070427AMM						Analysis Date: 04/27/2007 00:00		
Sample ID:	07042325-01AMS	Units : µg/L	Run ID: WETLAB_070427B						Prep Date:	04/27/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Nitrogen, Ammonia (As N)		5060	100	5000		0	101	65	138	Qual
Sample Matrix Spike Duplicate		Type	MSD	Test Code: EPA Method 350.3 / SM4500-NH3F						
File ID:		Batch ID: W070427AMM						Analysis Date: 04/27/2007 00:00		
Sample ID:	07042325-01AMSD	Units : µg/L	Run ID: WETLAB_070427B						Prep Date:	04/27/2007
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)
Nitrogen, Ammonia (As N)		5300	100	5000		0	106	65	138	5060 4.6(20)

### Comments:

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Date:  
25-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

File ID:	Sample ID:	Units :	Result	Type	Test Code:	Batch ID:	Analysis Date:
13	MB-17313	µg/L		MBLK	EPA Method 300.0 / 9056	17313A	04/24/2007 16:12
							Prep Date: 04/24/2007
	Analyte			PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)		Qual
Nitrite (NO <sub>2</sub> ) - N		ND	250				
Nitrate (NO <sub>3</sub> ) - N		ND	250				

### Laboratory Fortified Blank

File ID:	Sample ID:	Units :	Result	Type	Test Code:	Batch ID:	Analysis Date:
14	LFB-17313	µg/L		LFB	EPA Method 300.0 / 9056	17313A	04/24/2007 16:30
							Prep Date: 04/24/2007
	Analyte			PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)		Qual
Nitrite (NO <sub>2</sub> ) - N		1290	250	1250	103	90	110
Nitrate (NO <sub>3</sub> ) - N		1280	250	1250	103	90	110

### Sample Matrix Spike

File ID:	Sample ID:	Units :	Result	Type	Test Code:	Batch ID:	Analysis Date:
18	07042325-02ALFM	µg/L		LFM	EPA Method 300.0 / 9056	17313A	04/24/2007 17:44
							Prep Date: 04/24/2007
	Analyte			PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)		Qual
Nitrite (NO <sub>2</sub> ) - N		1310	250	1250	0	105	80
Nitrate (NO <sub>3</sub> ) - N		1270	250	1250	0	102	80

### Sample Matrix Spike Duplicate

File ID:	Sample ID:	Units :	Result	Type	Test Code:	Batch ID:	Analysis Date:
19	07042325-02ALFMD	µg/L		LFMD	EPA Method 300.0 / 9056	17313A	04/24/2007 18:03
							Prep Date: 04/24/2007
	Analyte			PQL	SpkVal SpkRefVal %REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit)		Qual
Nitrite (NO <sub>2</sub> ) - N		1330	250	1250	0	106	80
Nitrate (NO <sub>3</sub> ) - N		1270	250	1250	0	102	80

### Comments:

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Date:  
25-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

File ID:	13	Type	MBLK	Test Code: EPA Method 300.0 / 9056							
Sample ID:	MB-17313	Units :	µg/L	Batch ID: 17313B Analysis Date: 04/24/2007 16:12							
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO <sub>4</sub> )		ND		500							

### Laboratory Fortified Blank

File ID:	14	Type	LFB	Test Code: EPA Method 300.0 / 9056							
Sample ID:	LFB-17313	Units :	µg/L	Batch ID: 17313B Analysis Date: 04/24/2007 16:30							
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO <sub>4</sub> )		10400	500	10000		104	90	110			

### Sample Matrix Spike

File ID:	18	Type	LFM	Test Code: EPA Method 300.0 / 9056							
Sample ID:	07042325-02ALFM	Units :	µg/L	Batch ID: 17313B Analysis Date: 04/24/2007 17:44							
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO <sub>4</sub> )		52000	500	10000	44160	78	80	120			M3

### Sample Matrix Spike Duplicate

File ID:	19	Type	LFMD	Test Code: EPA Method 300.0 / 9056							
Sample ID:	07042325-02ALFMD	Units :	µg/L	Batch ID: 17313B Analysis Date: 04/24/2007 18:03							
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Sulfate (SO <sub>4</sub> )		53800	500	10000	44160	97	80	120	51960	3.6(10)	

### Comments:

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M3 = The accuracy of the spike recovery value is reduced since the analyte concentration in the sample is disproportionate to the spike level. The method control sample recovery was acceptable.

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Date:  
25-Apr-07

## OC Summary Report

Work Order:  
07042325

Method Blank		Type MBLK	Test Code: EPA Method 365.2 / SM4500PE							
File ID:				Batch ID: W070424OPHOS		Analysis Date: 04/24/2007 00:00				
Sample ID:	MBLK-W070424OPHOS	Units : µg/L	Result	Run ID: WETLAB_070424C		Prep Date: 04/24/2007				
Analyte				PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Orthophosphate		ND		100						
Laboratory Control Spike		Type LCS	Test Code: EPA Method 365.2 / SM4500PE							
File ID:				Batch ID: W070424OPHOS		Analysis Date: 04/24/2007 00:00				
Sample ID:	LCS-W070424OPHOS	Units : µg/L	Result	Run ID: WETLAB_070424C		Prep Date: 04/24/2007				
Analyte				PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Orthophosphate		1050		100	1000			105	80	116
Sample Matrix Spike		Type MS	Test Code: EPA Method 365.2 / SM4500PE							
File ID:				Batch ID: W070424OPHOS		Analysis Date: 04/24/2007 00:00				
Sample ID:	07042325-01AMS	Units : µg/L	Result	Run ID: WETLAB_070424C		Prep Date: 04/24/2007				
Analyte				PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Orthophosphate		1140		100	1000			102	104	80
								116		
Sample Matrix Spike Duplicate		Type MSD	Test Code: EPA Method 365.2 / SM4500PE							
File ID:				Batch ID: W070424OPHOS		Analysis Date: 04/24/2007 00:00				
Sample ID:	07042325-01AMSD	Units : µg/L	Result	Run ID: WETLAB_070424C		Prep Date: 04/24/2007				
Analyte				PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Total Orthophosphate		1150		100	1000			102	105	80
								116	1140	0.6(20)

**Comments:**

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Date:  
25-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

File ID:	Sample ID:	Type	Test Code:	EPA Method 365.2 / SM4500PE								
Analyte	Result	Units : µg/L	Batch ID:	W070425TPHOS	Analysis Date: 04/25/2007 00:00							
Phosphorus, Total (As P)	ND	Run ID: WETLAB_070425B	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual	

### Laboratory Control Spike

File ID:	Sample ID:	Type	Test Code:	EPA Method 365.2 / SM4500PE								
Analyte	Result	Units : µg/L	Batch ID:	W070425TPHOS	Analysis Date: 04/25/2007 00:00							
Phosphorus, Total (As P)	1040	Run ID: WETLAB_070425B	PQL	100	1000	104	80	118	Prep Date:	04/25/2007	Qual	

### Sample Matrix Spike

File ID:	Sample ID:	Type	Test Code:	EPA Method 365.2 / SM4500PE								
Analyte	Result	Units : µg/L	Batch ID:	W070425TPHOS	Analysis Date: 04/25/2007 00:00							
Phosphorus, Total (As P)	1220	Run ID: WETLAB_070425B	PQL	100	1000	0	122	80	118	M1	Qual	

### Sample Matrix Spike Duplicate

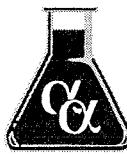
File ID:	Sample ID:	Type	Test Code:	EPA Method 365.2 / SM4500PE								
Analyte	Result	Units : µg/L	Batch ID:	W070425TPHOS	Analysis Date: 04/25/2007 00:00							

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M1 = Matrix spike recovery was high, the method control sample recovery was acceptable.

Reported in micrograms per Liter, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
29-Apr-07

## QC Summary Report

Work Order:  
07042325

Method Blank		Type	MBLK	Test Code: EPA Method 376.2 / SM4500-S D					
File ID:		Batch ID: W070426SULF						Analysis Date: 04/26/2007 00:00	
Sample ID:	MBLK-W070426SULF	Units : µg/L		Run ID: WETLAB_070426D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		ND	100						
Laboratory Control Spike		Type	LCS	Test Code: EPA Method 376.2 / SM4500-S D					
File ID:		Batch ID: W070426SULF						Analysis Date: 04/26/2007 00:00	
Sample ID:	LCS-W070426SULF	Units : µg/L		Run ID: WETLAB_070426D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		873	100	1000	87	75	130		
Sample Matrix Spike		Type	MS	Test Code: EPA Method 376.2 / SM4500-S D					
File ID:		Batch ID: W070426SULF						Analysis Date: 04/26/2007 00:00	
Sample ID:	07042325-01AMS	Units : µg/L		Run ID: WETLAB_070426D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		240	100	1000	0	24	65	150	M2
Sample Matrix Spike Duplicate		Type	MSD	Test Code: EPA Method 376.2 / SM4500-S D					
File ID:		Batch ID: W070426SULF						Analysis Date: 04/26/2007 00:00	
Sample ID:	07042325-01AMSD	Units : µg/L		Run ID: WETLAB_070426D					
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal %RPD(Limit) Qual
Sulfide		240	100	1000	0	24	65	150	240 0.0(20) M2

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.

Reported in micrograms per Liter, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
01-May-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

File ID:						
Sample ID:	MBLK-W070427TDS	Units : $\mu\text{g/L}$	Run ID: WETLAB_070501A			Analysis Date: 05/01/2007 00:00
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Solids, Total Dissolved (TDS)	ND	10000				

### Laboratory Control Spike

File ID:						
Sample ID:	LCS-W070427TDS	Units : $\mu\text{g/L}$	Run ID: WETLAB_070501A			Analysis Date: 05/01/2007 00:00
Analyte		Result	PQL	SpkVal	SpkRefVal	%REC LCL(ME) UCL(ME) RPDRefVal %RPD(Limit) Qual
Solids, Total Dissolved (TDS)	200000	10000	200000	100	80	120

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per Liter, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
30-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

File ID:	Sample ID:	Units :	Result	Type	Test Code:	EPA Method SW9060/415.1/SM-5310C						
		µg/L	PQL	MLBK	Batch ID:	TOC042407	Analysis Date: 04/24/2007 13:20					
Analyte							Prep Date:	04/24/2007				
Total Organic Carbon		ND	1000									

### Laboratory Control Spike

File ID:	Sample ID:	Units :	Result	Type	Test Code:	EPA Method SW9060/415.1/SM-5310C						
		µg/L	PQL	LCS	Batch ID:	TOC042407	Analysis Date: 04/24/2007 12:58					
Analyte							Prep Date:	04/24/2007				
Total Organic Carbon		4760	1000	5000		95	74	126				

### Sample Matrix Spike

File ID:	Sample ID:	Units :	Result	Type	Test Code:	EPA Method SW9060/415.1/SM-5310C						
		µg/L	PQL	MS	Batch ID:	TOC042407	Analysis Date: 04/24/2007 15:32					
Analyte							Prep Date:	04/24/2007				
Total Organic Carbon		6750	1000	5000	1965	96	56	137				

### Sample Matrix Spike Duplicate

File ID:	Sample ID:	Units :	Result	Type	Test Code:	EPA Method SW9060/415.1/SM-5310C						
		µg/L	PQL	MSD	Batch ID:	TOC042407	Analysis Date: 04/24/2007 16:02					
Analyte							Prep Date:	04/24/2007				
Total Organic Carbon		6830	1000	5000	1965	97	56	137	6752	1.2(20)		

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per liter, per client request.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
30-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

Sample ID:	Analyte	Type	MBLK	Test Code: EPA Method SW8015B						
		Units : $\mu\text{g/L}$	PQL	Run ID: MSD_09_070425A	Batch ID: MS09W0425D	Analysis Date:	04/25/2007 22:40	Prep Date:	04/25/2007	RPDRefVal %RPD(Limit)
	TPH-P (GRO)	ND	50							
	Surr: 1,2-Dichloroethane-d4	10.3		10	103	75	128			
	Surr: Toluene-d8	10.1		10	101	80	120			
	Surr: 4-Bromofluorobenzene	9.68		10	97	80	120			

### Laboratory Control Spike

Sample ID:	Analyte	Type	LCS	Test Code: EPA Method SW8015B						
		Units : $\mu\text{g/L}$	PQL	Run ID: MSD_09_070425A	Batch ID: MS09W0425D	Analysis Date:	04/25/2007 21:54	Prep Date:	04/25/2007	RPDRefVal %RPD(Limit)
	TPH-P (GRO)	407	50	400	102	70	130			
	Surr: 1,2-Dichloroethane-d4	10.5		10	105	75	128			
	Surr: Toluene-d8	9.97		10	99.7	80	120			
	Surr: 4-Bromofluorobenzene	10.1		10	101	80	120			

### Sample Matrix Spike

Sample ID:	Analyte	Type	MS	Test Code: EPA Method SW8015B						
		Units : $\mu\text{g/L}$	PQL	Run ID: MSD_09_070425A	Batch ID: MS09W0425D	Analysis Date:	04/26/2007 01:21	Prep Date:	04/26/2007	RPDRefVal %RPD(Limit)
	TPH-P (GRO)	1950	250	2000	0	98	60	131		
	Surr: 1,2-Dichloroethane-d4	52.5		50	105	75	128			
	Surr: Toluene-d8	50.4		50	101	80	120			
	Surr: 4-Bromofluorobenzene	49.9		50	99.8	80	120			

### Sample Matrix Spike Duplicate

Sample ID:	Analyte	Type	MSD	Test Code: EPA Method SW8015B						
		Units : $\mu\text{g/L}$	PQL	Run ID: MSD_09_070425A	Batch ID: MS09W0425D	Analysis Date:	04/26/2007 01:45	Prep Date:	04/26/2007	RPDRefVal %RPD(Limit)
	TPH-P (GRO)	2050	250	2000	0	102	60	131	1952	4.7(20)
	Surr: 1,2-Dichloroethane-d4	52		50	104	75	128			
	Surr: Toluene-d8	50		50	100	80	120			
	Surr: 4-Bromofluorobenzene	50.6		50	101	80	120			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

Reported in micrograms per liter, per client request



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

Date:  
30-Apr-07

## OC Summary Report

Work Order:  
07042325

### Method Blank

Analyte	Sample ID:	Type	MLBK	Test Code: EPA Method SW8260B					Analysis Date: 04/25/2007 22:40				
				Units : µg/L	Run ID: MSD_09_070425A		Analysis Date: 04/25/2007 22:40			Prep Date:	04/25/2007		
				Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)				ND	10								
Methyl tert-butyl ether (MTBE)				ND	0.5								
Di-isopropyl Ether (DIPE)				ND	1								
Ethyl Tertiary Butyl Ether (ETBE)				ND	1								
1,2-Dichloroethane				ND	1								
Benzene				ND	0.5								
Tertiary Amyl Methyl Ether (TAME)				ND	1								
Toluene				ND	0.5								
1,2-Dibromoethane (EDB)				ND	2								
Ethylbenzene				ND	0.5								
m,p-Xylene				ND	0.5								
o-Xylene				ND	0.5								
Surr: 1,2-Dichloroethane-d4				10.3		10		103	75	128			
Surr: Toluene-d8				10.1		10		101	80	120			
Surr: 4-Bromofluorobenzene				9.68		10		97	80	120			

### Laboratory Control Spike

Analyte	Sample ID:	Type	LCS	Test Code: EPA Method SW8260B					Analysis Date: 04/25/2007 21:09				
				Units : µg/L	Run ID: MSD_09_070425A		Analysis Date: 04/25/2007 21:09			Prep Date:	04/25/2007		
				Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)				9.73	0.5	10		97	70	130			
Benzene				9.5	0.5	10		95	70	130			
Toluene				9.81	0.5	10		98	80	120			
Ethylbenzene				10.2	0.5	10		102	80	120			
m,p-Xylene				10.8	0.5	10		108	70	130			
o-Xylene				10.5	0.5	10		105	70	130			
Surr: 1,2-Dichloroethane-d4				9.93		10		99	75	128			
Surr: Toluene-d8				10.2		10		102	80	120			
Surr: 4-Bromofluorobenzene				9.91		10		99	80	120			

### Sample Matrix Spike

Analyte	Sample ID:	Type	MS	Test Code: EPA Method SW8260B					Analysis Date: 04/26/2007 00:36				
				Units : µg/L	Run ID: MSD_09_070425A		Analysis Date: 04/26/2007 00:36			Prep Date:	04/26/2007		
				Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)				50.8	1.3	50	0	102	62	139			
Benzene				47.5	1.3	50	0	95	70	130			
Toluene				49.2	1.3	50	0	98	67	130			
Ethylbenzene				50.5	1.3	50	0	101	70	130			
m,p-Xylene				53.4	1.3	50	0	107	69	130			
o-Xylene				53	1.3	50	0	106	70	130			
Surr: 1,2-Dichloroethane-d4				50.6		50		101	75	128			
Surr: Toluene-d8				50.9		50		102	80	120			
Surr: 4-Bromofluorobenzene				47.6		50		95	80	120			

### Sample Matrix Spike Duplicate

Analyte	Sample ID:	Type	MSD	Test Code: EPA Method SW8260B					Analysis Date: 04/26/2007 00:58				
				Units : µg/L	Run ID: MSD_09_070425A		Analysis Date: 04/26/2007 00:58			Prep Date:	04/26/2007		
				Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)				48.4	1.3	50	0	97	62	139	50.8	4.8(20)	
Benzene				45.7	1.3	50	0	91	70	130	47.53	3.8(20)	
Toluene				47.9	1.3	50	0	96	67	130	49.24	2.8(20)	
Ethylbenzene				49.5	1.3	50	0	99	70	130	50.48	1.9(20)	
m,p-Xylene				52.3	1.3	50	0	105	69	130	53.36	2.0(20)	
o-Xylene				51.9	1.3	50	0	104	70	130	52.99	2.2(20)	
Surr: 1,2-Dichloroethane-d4				50.4		50		101	75	128			
Surr: Toluene-d8				50.6		50		101	80	120			
Surr: 4-Bromofluorobenzene				48.3		50		97	80	120			



# *Alpha Analytical, Inc.*

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

---

Date:  
30-Apr-07

## QC Summary Report

Work Order:  
07042325

Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

April 30, 2007

**CLS Work Order #: CQD0873  
COC #: None**

Reyna Vallejo  
Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks, NV 89431

**Project Name: STR07042325**

Enclosed are the results of analyses for samples received by the laboratory on 04/23/07 14:00. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233

# CALIFORNIA LABORATORY SERVICES

04/30/07 11:29

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07042325  
Project Number: [none]  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0873  
COC #: None

## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>STR07042325-01A (MW-3) (CQD0873-01) Water   Sampled: 04/23/07 05:17   Received: 04/23/07 14:00</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03487	04/24/07	04/29/07	EPA 405.1	
<b>STR07042325-02A (S-1) (CQD0873-02) Water   Sampled: 04/23/07 05:54   Received: 04/23/07 14:00</b>									
Biochemical Oxygen Demand	ND	3.0	mg/L	1	CQ03487	04/24/07	04/29/07	EPA 405.1	

# CALIFORNIA LABORATORY SERVICES

04/30/07 11:29

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07042325  
Project Number: [none]  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0873  
COC #: None

## Microbiological Parameters by APHA Standard Methods

Analyte	Result	Reporting	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>STR07042325-01A (MW-3) (CQD0873-01) Water</b> Sampled: 04/23/07 05:17 Received: 04/23/07 14:00										
Plate Count	27000		100	CFU/mL	100	CQ03515	04/23/07	04/25/07	SM 9215	HT-I
<b>STR07042325-02A (S-1) (CQD0873-02) Water</b> Sampled: 04/23/07 05:54 Received: 04/23/07 14:00										
Plate Count	110		1	CFU/mL	1	CQ03515	04/23/07	04/25/07	SM 9215	HT-J

# CALIFORNIA LABORATORY SERVICES

04/30/07 11:29

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07042325  
Project Number: [none]  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0873  
COC #: None

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch CQ03487 - General</b>										
Blank (CQ03487-BLK1)										
Biochemical Oxygen Demand	ND	3.0	mg/L			Prepared: 04/24/07	Analyzed: 04/29/07			
LCS (CQ03487-BS1)										
Biochemical Oxygen Demand	189	3.0	mg/L	200		Prepared: 04/24/07	Analyzed: 04/29/07	94.5	55-125	
LCS Dup (CQ03487-BSD1)										
Biochemical Oxygen Demand	192	3.0	mg/L	200		Prepared: 04/24/07	Analyzed: 04/29/07	96.0	55-125	1.57
										24

# CALIFORNIA LABORATORY SERVICES

04/30/07 11:29

Alpha Analytical, Inc.-Sparks  
255 Glendale Ave.; Suite 21  
Sparks NV, 89431

Project: STR07042325  
Project Number: [none]  
Project Manager: Reyna Vallejo

CLS Work Order #: CQD0873  
COC #: None

## Notes and Definitions

HT-1 The sample was received outside of the EPA recommended holding time.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

# Alpha Analytical, Inc.

Phone : (775) 355-1044 FAX : (775) 355-0406

## Sample Receipt Checklist

Date Report is due to Client : **5/2/2007**

Date of Notice : **4/24/2007 9:34:53 A**

Please take note of any NO check marks. If we receive no response concerning these items within 24 hours of the date of this notice, all of the samples will be analyzed as requested.

Client Name: **Stratus Environmental**

Project ID : **USA 57**

Project Manager: **Gowri Kowtha**

Client's EMail: **gkowtha@stratusinc.net**

Work Order Number: **STR07042325**

Client's Phone: **(530) 676-6001**

Client's FAX: **(530) 676-6005**

Date Received: **4/23/2007**

Received by: Kathryn Murray

### Chain of Custody (COC) Information

Carrier name FedEx

Chain of custody present ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Custody seals intact on shipping container/cooler ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No      Not Present <input type="checkbox"/>
Custody seals intact on sample bottles ?	Yes <input type="checkbox"/>	<input type="checkbox"/> No      Not Present <input checked="" type="checkbox"/>
Chain of custody signed when relinquished and received ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Chain of custody agrees with sample labels ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Sample ID noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Date and time of collection noted by Client on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Samplers's name noted on COC ?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No
Internal Chain of Custody (COC) requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No
Sub Contract Lab Used :	None <input type="checkbox"/>	<input checked="" type="checkbox"/> See Comments

### Sample Receipt Information

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	Not Present <input type="checkbox"/>
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	

### Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	Cooler Temperature <b>4°C</b>
Container/Temp Blank temperature in compliance (0-6°C)?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
Water - VOA vials have zero headspace / no bubbles?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	No VOA vials submitted <input type="checkbox"/>
Sample labels checked for correct preservation?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	
TOC Water - pH acceptable upon receipt (H <sub>2</sub> SO <sub>4</sub> pH<2)?	Yes <input checked="" type="checkbox"/>	<input type="checkbox"/> No	N/A <input type="checkbox"/>

### Analytical Requirement Information

Are non-Standard or Modified methods requested ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No
Are there client specific Project requirements ?	Yes <input type="checkbox"/>	<input checked="" type="checkbox"/> No      If YES : see the Chain of Custody (COC)

Comments : BOD and HPC subbed to CLS by Sac office.

Billing Information :

# CHAIN-OF-CUSTODY RECORD

## Alpha Analytical, Inc.

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
3330 Cameron Park Drive  
Suite 550  
Cameron Park, CA 95682-8861

Gowri Kowtha

TEL : (530) 676-6001

FAX : (530) 676-6005

EMail gkowtha@stratusinc.net

**CA**

Page: 1 of 2

WorkOrder : STR07042325

Report Due By : 5:00 PM On : 02-May-07

EDD Required : Yes

Sampled by : C HILL

Cooler TempSamples ReceivedDate Printed

4 °C

23-Apr-07

24-Apr-07

Report Attention : Gowri Kowtha

Job : USA 57

CC Report :

PO :

Client's COC # : 17590

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	Date	No. of Bottles			Requested Tests								Sample Remarks	
				ORG	SUB	TAT	PWS #	3500FE_2O_S_W	3500FE_TO_T_W	AMMONIA_W	ANIONS(A)_W	ANIONS(B)_W	BOD	HETEROTR_OPIC	ORTHOPHOS_W	
STR07042325-01A	MW-3	AQ	04/23/07 05:17	8	2	6		FE+2	FE,Total	NH3	NO2,NO3,S O4	NO2,NO3,SO4	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac office.
STR07042325-02A	S-1	AQ	04/23/07 05:54	8	2	6		FE+2	FE,Total	NH3	NO2,NO3,S O4	NO2,NO3,SO4	BOD	SUB	Ortho	BOD and HPC subbed to CLS by Sac office.
STR07042325-03A	MW-5	AQ	04/23/07 06:20	5	2	6										

Comments:

Chain prelogged 4/23/07 in order for Sac office to sub BOD and HPC for samples -01 and -02 to CLS, rest of samples rec'd 4/24/07. Security seals intact. Frozen ice. Send copy of receipt checklist with final report. TOC pH=2 for samples-01 & -02. : Added Sulfide and Sulfate analysis for -01 & -02, per Tammy at Stratus.

Signature

Print Name

Company

Date/Time

Logged in by:

*K Murray**K Murray*

Alpha Analytical, Inc.

4/24/07 1000

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.  
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Billing Information :

**CHAIN-OF-CUSTODY RECORD**

Page: 2 of 2

**Alpha Analytical, Inc.**

255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778

TEL: (775) 355-1044 FAX: (775) 355-0406

Client:

Stratus Environmental  
 3330 Cameron Park Drive  
 Suite 550  
 Cameron Park, CA 95682-8861

Gowri Kowtha

TEL : (530) 676-6001

FAX : (530) 676-6005

EMail gkowtha@stratusinc.net

Report Attention : Gowri Kowtha

Job : USA 57

CC Report :

PO :

Client's COC # : 17590

**CA****WorkOrder : STR07042325**

Report Due By : 5:00 PM On : 02-May-07

EDD Required : Yes

Sampled by : C HILL

Cooler Temp

Samples Received

Date Printed

4 °C

23-Apr-07

24-Apr-07

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Date	Requested Tests						Sample Remarks				
				ORG	SUB	TAT	PWS #	PHOSPHO RUS_W	SULFIDE	TDS	TOC_W	TPH/P_W	VOC_W	
STR07042325-01A	MW-3	AQ	04/23/07 05:17	8	2	6		Total	Sulfide	X	TOC			BOD and HPC subbed to CLS by Sac office.
STR07042325-02A	S-1	AQ	04/23/07 05:54	8	2	6		Total	Sulfide	X	TOC			BOD and HPC subbed to CLS by Sac office.
STR07042325-03A	MW-5	AQ	04/23/07 06:20	5	2	6						GAS-C	BTEX/OXY/ 1,2-DCA/EDB_C	

Comments:

Chain prelogged 4/23/07 in order for Sac office to sub BOD and HPC for samples -01 and -02 to CLS, rest of samples rec'd 4/24/07. Security seals intact. Frozen ice. Send copy of receipt checklist with final report. TOC pH=2 for samples-01 & -02. : Added Sulfide and Sulfate analysis for -01 & -02, per Tammy at Stratus.

Signature

Print Name

Company

Date/Time

Logged in by:

*K Murray**K Murray*

Alpha Analytical, Inc.

4/24/07 1000

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.  
 The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.  
 Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other)      Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

## Billing Information:

Name Stanley's Env  
 Address 3330 Cambrian Pk DR  
 City, State, Zip Cambrian Pk  
 Phone Number 7306766004 Fax 5306766025



## Samples Collected From Which State?

AZ  CA  NV  WA   
 ID  OR  OTHER

17590  
 Page # 1 of 1

## Analyses Required

I  II  III  IV

EDD / EDF? YES  NO   
 Global ID # T0600101808

## REMARKS

Client Name	P.O. #	Job #	Required QC Level?
Address	EMail Address		
City, State, Zip	Phone #	Fax #	
USA 57			
Archdale			
Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by <u>C Hill</u>
			Report Attention <u>GOLWAT</u>
		Lab ID Number (Office Use Only)	Sample Description
			TAT
			Field Filtered
05/17/07	04/23		STR07042325-01
05/19	)		MWR-3
06/20	)		S-1
			03 MWR-5
			STD N 10
			) N 10
			) N 5-V X X X X X X X X
			X BOD
			Total Iron
			Ferrous Iron
			HPC, TDC
			TDS,
			No3, No2
			Total Phosphates
			Ammonia
			Ortho Phosphates
			BOD AND HPC
			Sub To CLS
			#STR07042325

## ADDITIONAL INSTRUCTIONS:

Signature	Print Name	Company	Date	Time
Relinquished by <u>C Hill</u>	<u>C Hill</u>	<u>Stanley's</u>	4/23/07	1235
Received by <u>Lisa Bryla</u>	<u>Lisa Bryla</u>	<u>ALPHA</u>	4/23/07	1235
Relinquished by <u>K Murray</u>	<u>K Murray</u>	<u>AM</u>	4/24/07	0930
Received by				
Relinquished by				
Received by				

\*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air \*\*: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this coc. The liability of the laboratory is limited to the amount paid for the report.

CPDAs 73

**Alpha Analytical, Inc.**

255 Glendale Avenue  
Suite 21  
Sparks, Nevada 89431-5778  
Phone: (775) 355-1044  
Fax: (775) 355-0406

**Subcontractor:**

CLS Labs  
3249 Fitzgerald Rd.  
Suite 21  
Rancho Cordova, CA 95742

**SUB CHAIN-OF-CUSTODY RECORD****Work Order : STR07042325**

\*Please reference the Work Order number on all reports and invoices.

\*Also please include the dates of analysis and detection limits.

Please send the report to Alpha Analytical (Sparks).

Attention To Reyna Vallejo (reyna@alpha-analytical.com).

TEL: (916) 638-7301

EDD Required:

FAX: (916) 638-4510

Yes

Acct #:

Page 1 of 1

**Report Due By : 5:00 PM**  
**On : 02-May-07**

**Required QC:**

Final Rpt, MBLK, LCS, MS/MSD With Surrogates

23-Apr-07

Alpha's Sample ID	Client's Sample ID	Matrix	Collection Date	Type (#) of Bottles		SMS5210B	Standard Method 9215B	Requested Tests	Sample Comments
				Preserved	Other				
STR07042325-01A	MW-3	Aqueous	04/23/07 05:17		OTHER (2)	Biochemical Oxygen Demand	Heterotrophic Plate Count		
STR07042325-02A	S-1	Aqueous	04/23/07 05:54		OTHER (2)	Biochemical Oxygen Demand	Heterotrophic Plate Count		

**Comments:**

Relinquished by:	Date/Time	Date/Time
	4-23-07 14:00	Received by:
Relinquished by:		Received by:
		3 4-23-7 14:00

**APPENDIX D**

**GEOTRACKER**

**ELECTRONIC SUBMITTAL INFORMATION**

# Electronic Submittal Information

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## UPLOADING A GEO\_WELL FILE

**Processing is complete. No errors were found!  
Your file has been successfully submitted!**

**Submittal Title:** USA 57, GEO\_WELL, Second Quarter  
2007

**Submittal Date/Time:** 5/10/2007 2:07:24 PM

**Confirmation  
Number:** 9924574136

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CONTACT SITE [ADMINISTRATOR](#).

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**Confirmation Number:** 3984536349  
**Date/Time of Submittal:** 5/8/2007 9:53:33 AM

**Facility Global ID:** T0600101808

**Facility Name:** USA PETROLEUM

**Submittal Title:** Groundwater Analytical Report for 4-9-7

**Submittal Type:** Remediation O & M Reports

## Electronic Submittal Information

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**Confirmation Number:** 3396325230  
**Date/Time of Submittal:** 5/11/2007 3:58:39 PM

**Facility Global ID:** T0600101808

**Facility Name:** USA PETROLEUM

**Submittal Title:** Groundwater Analytical Report for 4-23-7

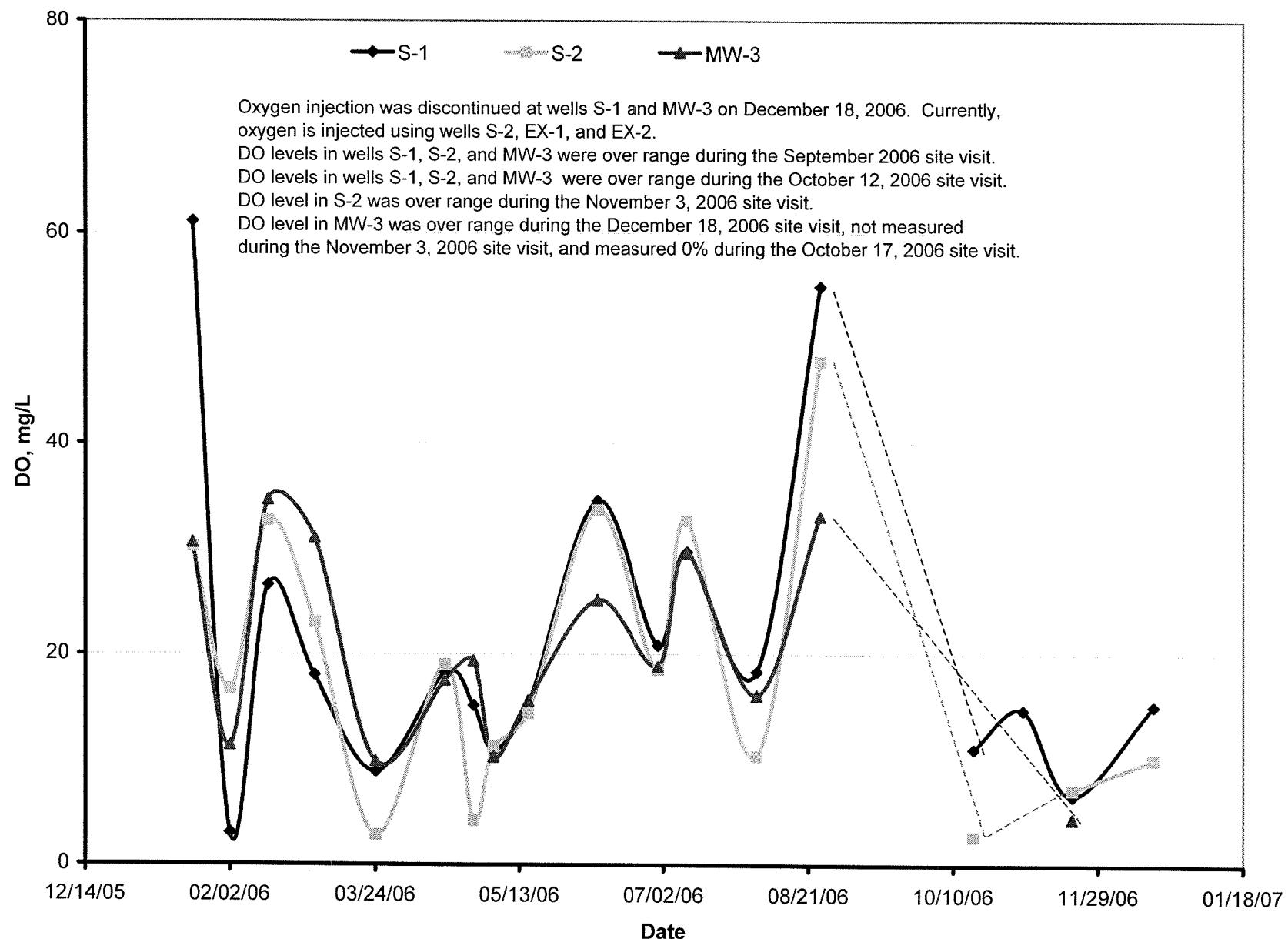
**Submittal Type:** Remediation O & M Reports

## **APPENDIX E**

### **HISTORICAL DO VARIATION WITH TIME AT INJECTION WELLS, AND AT OBSERVATION AND BACKGROUND WELLS**

## Historical DO Variation with Time at Injection Wells

Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California



## Historical DO Variation with Time at Observation and Background Wells

Former USA Service Station No. 57  
10700 MacArthur Boulevard  
Oakland, California

