CONESTOGA-ROVERS
& ASSOCIATES

5900 Hollis Street, Suite A, Emeryville, California 94608
Telephone: 510-420-0700 Facsimile: 510-420-9170
www.CRAworld.com

October 30, 2008

Reference No. 120741

Mr. Jerry Wickham
Alameda County Department of Environmental Health
UST Local Oversight Program
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Dear Mr. Wickham:

Re: Groundwater Monitoring Report – Third Quarter 2008
Gatzke / Hooshi's Auto Service
1499 MacArthur Boulevard
Oakland, California 94602
Fuel Leak Case #RO0000516

On behalf of Ms. Naomi Gatzke, Conestoga-Rovers & Associates, Inc. (CRA) is submitting this *Third Quarter 2008 Monitoring Report* for the subject site. This report describes Third Quarter 2008 activities and results as well as anticipated Fourth Quarter 2008 activities.

If you have any questions or comments regarding this report or the project, please contact Mark Jonas at (510) 420-3307.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Mark Jonas, P.G.
Senior Project Manager

MJ/aa/1
Encl. *Third Quarter 2008 Monitoring Report*

c.c.: Ms. Naomi Gatzke

GROUNDWATER MONITORING REPORT - THIRD QUARTER 2008

GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA 94602

AGENCY CASE NO. RO0000516

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: 510-420-0700
Fax: 510-420-9170

web: http:\\www.CRAworld.com

OCTOBER 29, 2008
REF. NO. 120741 (1)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

On behalf of Ms. Naomi Gatzke, Conestoga-Rovers & Associates, Inc. (CRA) is submitting this *Third Quarter 2008 Monitoring Report* for the subject site. Presented are the third quarter 2008 groundwater monitoring activities and results and the anticipated fourth quarter 2008 activities.

Figure 1 is a vicinity map. Figure 2 is a recent groundwater elevation contour and hydrocarbon concentration map. Table 1 includes monitoring well construction details. Table 2 provides recent and historic groundwater level measurements, elevations, hydrochemical, and separate phase hydrocarbon (SPH) data. Appendix A contains field data sheets for this monitoring event. Appendix B presents the recent laboratory analytical report. Appendix C includes time-series plots with benzene and total petroleum hydrocarbons as gasoline (TPHg) concentrations and groundwater elevations

1.1 SITE INFORMATION

Site Address	1499 MacArthur Boulevard, Oakland
Site Use	Auto Service Business
Client and Contact	Naomi Gatzke
Consultant and Contact Person	Conestoga-Rovers & Associates Mark Jonas, P.G.
Lead Agency and Contact Person	Alameda County Environmental Health Mr. Jerry Wickham, P.G.
Agency Case No.	RO0000516

2.0 SITE ACTIVITIES AND RESULTS

2.1 CURRENT QUARTER'S ACTIVITIES

2.1.1 FIELD ACTIVITIES

On July 9, 2008, Muskan Environmental Sampling (MES) conducted quarterly monitoring and sampling activities. MES measured well water levels in all wells and collected groundwater samples for monitoring wells MW-1, MW-2, and MW-5 (Figure 2). Groundwater depth measurements have been submitted to the GeoTracker database.

Prior to groundwater sampling, groundwater levels were measured in all monitoring wells. Each monitoring well was then purged before sampling. MES purged at least three well-casing volumes of groundwater from each monitoring well. Field measurements of pH, conductivity, and temperature of purged groundwater were measured after the extraction of each successive casing volume. Well purging continued until consecutive pH, specific conductance, and temperature measurements appeared to stabilize. Field measurements, purge volumes, and sample collection data were recorded on field sampling data forms, provided in Appendix A.

Groundwater samples were collected using new disposable bailers, decanted into appropriate sampling containers supplied by the analytical laboratory. Samples were labeled, placed in protective foam sleeves, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under a chain-of-custody (COC) to the laboratory. The COC used for this monitoring event is provided in Appendix B.

2.1.2 SAMPLE ANALYSES

Groundwater samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a California-certified laboratory (DHS License No. 1644). All groundwater samples were analyzed for TPHg by modified United States Environmental Protection Agency (EPA) Method SW8015C; and benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) by EPA Method SW8021B. The analytical laboratory report is included in Appendix B. Groundwater analytical results are provided on Table 2 and summarized on Figure 2. Groundwater analytical results have been submitted to the GeoTracker database.

2.2 CURRENT QUARTER'S RESULTS

Groundwater Flow Direction	Southwest
Hydraulic Gradient	0.073
Range of Measured Water Depth from Top of Casing in Monitoring Wells	7.79 to 10.08 feet
Were Measureable Separate Phase Hydrocarbons Observed	No

Based on depth-to-water measurements collected during the monitoring event on July 9, 2008, groundwater appears to generally flow towards the southwest with an apparent gradient of 0.073 feet per foot (Figure 2). The gradient and flow direction are consistent with historical data. Depth-to-water and groundwater elevation data for the site are in Table 2.

Hydrocarbons were detected in all three of the sampled wells, MW-1, MW-2, and MW-5. TPHg concentrations ranged from 140 micrograms per liter (µg/L) to 30,000 µg/L. The highest concentration of TPHg was detected in monitoring well MW-5. BTEX was detected in well MW-2 at concentrations of 370 µg/L, 170 µg/L, 760 µg/L, and 2,200 µg/L respectively. BTEX was also detected in MW-5 at concentrations of 130 µg/L, 600 µg/L, 290 µg/L, and 4,000 µg/L respectively. No MTBE was detected in any of the sampled wells this quarter.

TPHg was detected in five of the twelve sampled wells at concentrations ranging from 500 to 2,200 micrograms per liter (µg/L). The maximum TPHg concentration was detected in well MW-12. Benzene was detected in four of the twelve sampled wells at concentrations ranging from 3.8 µg/L to 110 µg/L. MTBE was detected in seven of the twelve sampled wells at concentrations ranging from 2.1 µg/L to 7.7 µg/L. The maximum benzene and MTBE concentrations were detected in well MW-13.

2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

During the fourth quarter 2008, CRA will measure water levels in all wells and collect groundwater samples from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and

MW-6 in accordance with the sampling schedule. CRA will then prepare a groundwater monitoring report summarizing the monitoring activities and results.

Based on the sampling schedule, monitoring wells MW-1, MW-2, and MW-5 are sampled on a quarterly basis and monitoring wells MW-3, MW-4, and MW-6 are sampled on an annual basis during the fourth quarter. Groundwater samples are analyzed for TPHg by modified EPA Method SW8015C, with BTEX and MTBE analyzed by EPA Method SW8021B.

A Work Plan for additional characterization will also be presented in fourth quarter 2008.

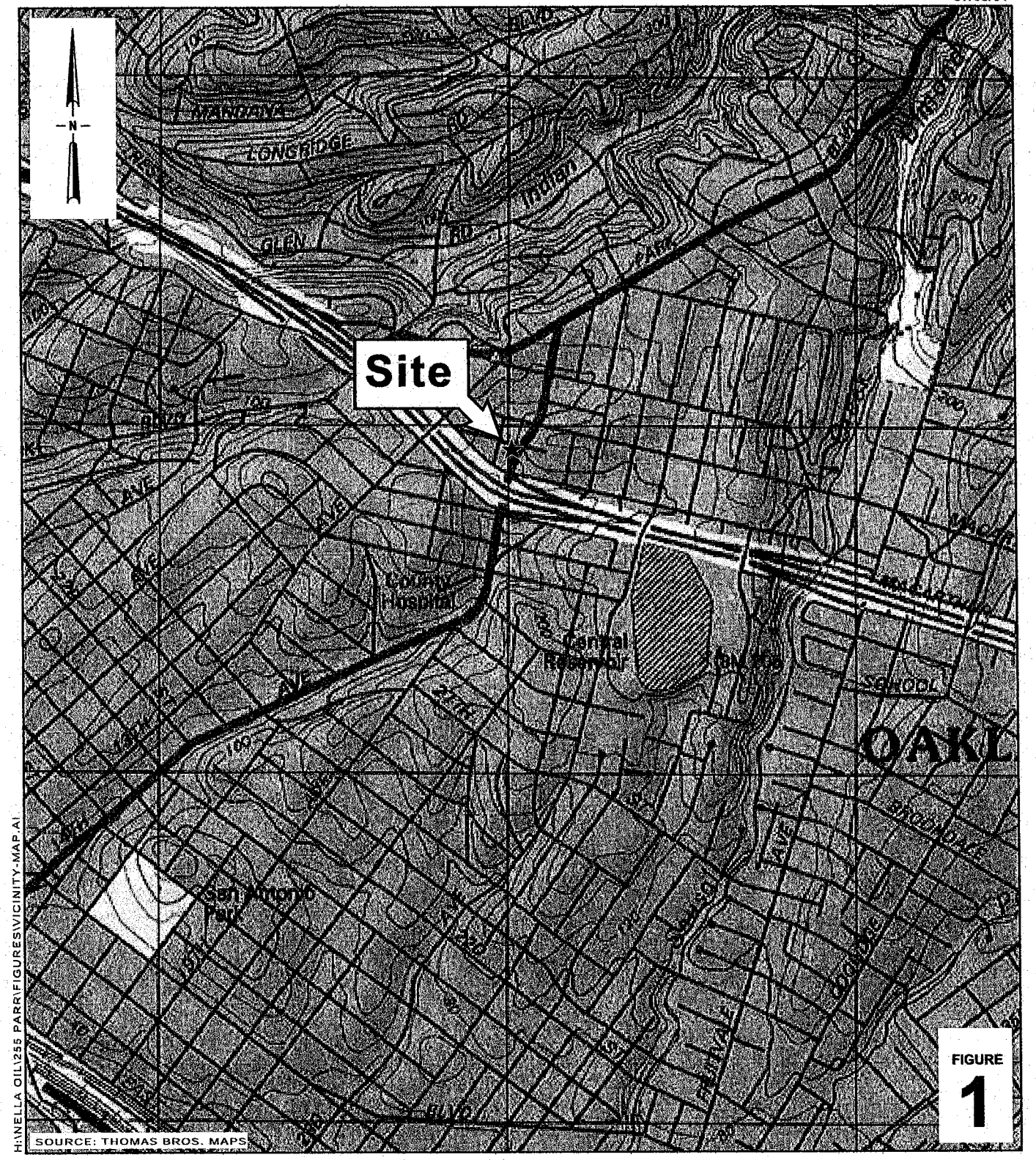
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Michael Werner For
Bryan Fong
Staff Geologist

Mark Jonas, P.G.
Senior Project Manager

FIGURES

07/08/04



H:\NELLA OIL\255 PARR\FIGURES\VICINITY-MAP.AI

FIGURE 1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

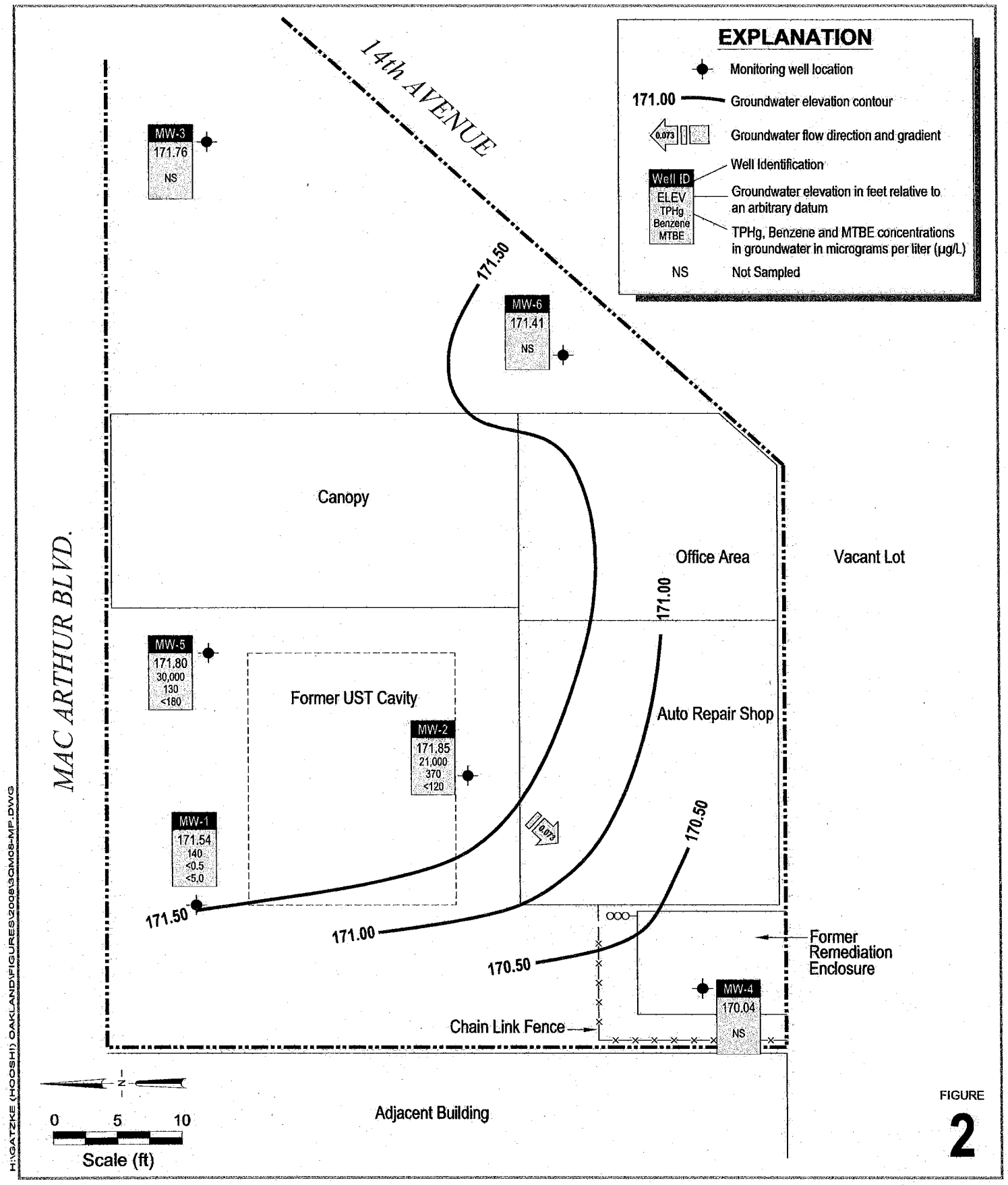
Hooshi's Auto Service

1499 MacArthur Boulevard

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



H:\GATZKE (HOOSHI) OAKLAND\FIGURES\2008\3QM08-MP.DWG

FIGURE
2

Hooshi's Auto Service
1499 MacAurthur Boulevard
Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Groundwater Elevation Contour and Hydrocarbon Concentration Map
July 9, 2008

TABLES

TABLE 1

MONITORING WELL CONSTRUCTION DETAILS
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	*Former ID*	*Date Installed*	*Date Destroyed*	*Borehole diameter* (in)	*Depth of borehole* (ft)	*Casing diameter* (in)	*Screened interval* (ft bgs)	*Filter Pack* (ft bgs)	*Bentonite seal* (ft bgs)	*Cement* (ft bgs)	*TOC elevation* (ft above msl)
MW-1	B1	1/7/1993	--		20*	2					180.83
MW-2	B2	1/7/1993	--		20*	2					180.24
MW-3	B3	1/7/1993	--		20*	2					179.55
MW-4	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	180.12
MW-5	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	180.09
MW-6	--	6/27/1996	--		20	2	4.5 - 19	3.5 - 19	2.5 - 3.5	1 - 2.5	179.63

Abbreviations / Notes

ft = feet
in = inches
ft bgs = feet below grade surface
ft above msl = feet above mean sea level
TOC = top of casing
Elevations surveyed by Virgil Chavez Land Surveying.
* = Depth assume by downhole measurement.

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
2006 Grab Groundwater Analytical Data											
B-1*	12/21/2006	--	--	--	13,000	37 / 28	32 / ND<17	380 / 520	1,100 / 1,300	ND<17	a,i
B-2*	12/21/2006	--	--	--	40,000	1,100 / 1,100	1,300 / 1,300	990 / 840	6,400 / 5,900	ND<50	a,i
B-3*	12/21/2006	--	--	--	300	1.9 / 3.2	1.0 / 0.98	0.76 / 1.4	0.62 / 1.2	ND<0.5	a,i
B-4*	12/21/2006	--	--	--	7,600	110 / 87	32 / 22	470 / 520	520 / 450	ND<10	a,i
B-5*	12/22/2006	--	--	--	72,000	-- / 850	-- / 3,100	-- / 2,800	-- / 16,000	ND<100	a,b
Monitoring Well Groundwater Analytical Data											
MW-1	1/4/1993	--	--	--	539	130	12	22	13	--	
181.00	4/22/1993	--	--	--	1,130	75	8.0	38	11	--	
	12/27/1994	--	--	--	770	22	6.6	14	21	--	
	6/27/1996	14.11	166.89	--	3,300	260	34	59	170	80	
	12/10/1996	13.71	167.29	--	1,500	84	11	22	32	34	
	5/8/1998	13.85	167.15	--	3,200	300	12	62	36	ND<120	a
	8/17/1998	14.11	166.89	--	1,700	160	18	32	27	39	a
	11/4/1998	14.28	166.72	--	1,100	11	4.3	3.6	6.5	ND<50	a
	2/17/1999	13.41	167.59	--	320	200	47	72	75	57	a
	5/27/1999	14.16	166.84	--	2,500	81	12	29	41	ND<80	a
	8/19/1999	14.18	166.82	--	780	19	ND<0.5	5.7	4.5	28	a
180.83	11/23/1999	14.43	166.40	--	1,300	24	0.64	1.8	3.3	ND<100	a
	2/17/2000	13.85	166.98	--	1,300	60	9.1	22	19	22/16	a,b
	5/9/2000	14.01	166.82	--	2,700	55	13	19	25	34/29	a
	8/15/2000	14.24	166.59	--	--	--	--	--	--	--	
	12/1/2000	8.75	172.08	--	480	6.4	5.9	1.1	3.9	18 (21)	a
180.63	2/8/2001	8.49	172.14	--	64	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1/5.6	a,c
	4/9/2001	8.71	171.92	--	--	--	--	--	--	--	
	4/24/2001	7.90	172.73	--	77	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.6/3.7	c
	8/6/2001	8.83	171.80	--	140	1.7	0.55	ND<0.5	0.63	5.8/4.0	a
	10/22/2001	8.91	171.72	--	120	0.92	ND<0.5	ND<0.5	0.59	11(10)	a
	2/1/2002	8.15	172.48	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/19/2002	8.63	172.00	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/16/2002	8.79	171.84	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/3/2002	8.90	171.73	--	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	f
	1/10/2003	7.93	172.70	--	ND<50	ND<0.5	0.74	ND<0.5	ND<0.5	ND<5.0	
	4/21/2003	8.17	172.46	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/9/2003	8.92	171.71	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/7/2003	9.13	171.50	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/22/2004	8.20	172.43	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/2/2004	7.09	173.54	--	110	0.52	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	12/29/2004	6.15	174.48	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/27/2005	7.15	173.48	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	4/6/2005	6.84	173.79	--	140	ND<0.5	0.55	ND<0.5	0.70	ND<5.0	c
	7/28/2005	7.36	173.27	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/14/2005	7.51	173.12	--	220	1.2	ND<0.5	0.56	0.75	ND<5.0	a
	1/30/2006	6.80	173.83	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/11/2006	6.60	174.03	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/14/2006	7.53	173.10	--	170	0.65	0.60	ND<0.5	ND<0.5	ND<5.0	a
	10/13/2006	7.47	173.16	--	200	0.93	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	1/12/2007	7.40	173.23	--	92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c,i
	4/20/2007	7.14	173.49	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/30/2007	7.81	172.82	--	130	0.52	ND<0.5	ND<0.5	0.61	ND<10	a,c
	10/24/2007	8.15	172.48	--	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
MW-1 cont'd	1/15/2008	7.79	172.84	--	86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	4/17/2008	8.64	171.99	--	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c
	7/9/2008	**9.09**	**171.54**	--	**140**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<0.5**	**ND<5.0**	**c**
MW-2	1/4/1993	--	--	--	149,000	21,700	25,000	ND	7,760	--	
180.45	4/22/1993	--	--	--	136,300	9,900	15,870	15,300	2,190	--	
	12/27/1994	--	--	--	94,000	11,000	18,000	2,700	16,000	--	
	6/27/1996	12.61	168.64	1.00	--	--	--	--	--	--	
	12/10/1996	11.10	169.55	0.25	--	--	--	--	--	--	
	5/8/1998	10.81	169.66	0.03	--	--	--	--	--	--	
	8/17/1998	12.16	168.31	0.02	--	--	--	--	--	--	
	11/4/1998	12.61	167.86	0.02	--	--	--	--	--	--	
	2/17/1999	9.82	170.66	0.04	--	--	--	--	--	--	
	5/27/1999	11.07	169.48	0.13	--	--	--	--	--	--	
	8/19/1999	12.79	167.68	0.02	--	--	--	--	--	--	
180.24	11/23/1999	12.14	168.20	0.12	--	--	--	--	--	--	
	2/17/2000	10.01	170.37	0.18	--	--	--	--	--	--	
	5/9/2000	10.88	169.38	0.03	--	--	--	--	--	--	
	8/15/2000	12.28	167.97	0.01	--	--	--	--	--	--	
	12/1/2000	8.03	172.21	Sheen Field	260,000	1,100	5,000	1,900	17,000	ND<100	a
	2/8/2001	7.86	172.38	Sheen Field	2,900	1.7	14	5.0	140	ND<5.0	c,d
	4/9/2001	7.95	172.29	Sheen Field	--	--	--	--	--	--	
	4/24/2001	6.90	173.34	Sheen Lab	56,000	360	980	1,000	4,700	ND<5.0	a,b
	8/6/2001	8.15	172.09	Sheen Field & Lab	54,000	680	1,900	1,500	7,800	ND<200/ND<10	a,b,j
	10/22/2001	8.22	172.02	Sheen Field & Lab	32,000	420	770	1,100	4,100	ND<250	a,b
	2/1/2002	8.07	172.17	--	26,000	310	490	920	1,600	ND<1,000	a
	4/19/2002	8.60	171.64	--	16,000	300	240	1,000	990	ND<100	a
	7/16/2002	8.21	172.03	--	5,700	120	18	340	15	ND<50	a
	10/3/2002	8.14	172.10	--	4,400	44	16	68	20	ND<25	a
	1/10/2003	6.98	173.26	Sheen Lab	16,000	300	320	580	830	ND<100	a,b
	4/21/2003	7.25	172.99	--	12,000	350	260	610	380	ND<50	a
	7/9/2003	7.99	172.25	--	3,300	51	7.4	47	2.8	ND<17	a
	10/7/2003	8.21	172.03	--	2,400	93	11	34	22	ND<50	a
	1/22/2004	7.24	173.00	--	5,900	240	130	350	200	ND<50	a
	4/2/2004	6.29	173.95	--	37,000	840	1,500	1,300	5,900	ND<500	a
	12/29/2004	5.37	174.87	--	9,300	240	230	330	880	ND<50	a
	1/27/2005	6.38	173.86	Sheen Field	37,000	1,200	1,400	1,300	5,200	<250	a
	4/6/2005	5.88	174.36	--	21,000	400	340	780	1,700	ND<100	a
	7/28/2005	6.61	173.63	--	35,000	690	1,200	1,200	5,200	ND<500	a
	10/14/2005	6.80	173.44	Sheen Field & Lab	14,000	380	120	780	1,200	ND<100	a, b
	1/30/2006	5.91	174.33	Sheen Field & Lab	22,000	310	140	1,300	2,800	ND<50	a,b,i
	4/11/2006	5.65	174.59	Sheen Field & Lab	18,000	280	170	780	1,400	ND<250	a,b,i
	7/14/2006	6.76	173.48	Sheen Field & Lab	49,000	340	140	1,600	4,800	ND<500	a,b
	10/13/2006	6.74	173.50	Sheen Field & Lab	21,000	490	73	600	1,100	ND<110	a,b,i
	1/12/2007	6.55	173.69	Sheen Field	16,000	320	170	600	2,100	ND<250	a,i
	4/20/2007	6.39	173.85	Sheen Field & Lab	15,000	340	160	420	1,700	ND<120	a,b
	7/30/2007	7.09	173.15	Sheen Field	17,000	430	170	740	2,100	ND<100	a
	10/24/2007	7.40	172.84	Sheen Field & Lab	14,000	370	40	240	490	ND<100 (8.3)	a,b
	1/15/2008	6.90	173.34	Sheen Field	13,000	440	180	510	1,700	ND<250	a,i
	4/17/2008	7.89	172.35	Sheen Field	29,000	410	200	830	2,700	ND<130	a
	7/9/2008	**8.39**	**171.85**	**Sheen Field**	**21,000**	**370**	**170**	**760**	**2,200**	**ND<120**	**a**

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
MW-3	1/4/1993	--	--	--	1,610	772	14	11	ND	--	
179.94	4/22/1993	--	--	--	3,040	980	34	19	16	--	
	12/27/1994	--	--	--	2,600	180	9.0	7.2	13	--	
	6/27/1996	13.20	166.74	--	2,000	22	2.9	11	7.4	56	
	12/10/1996	13.13	166.81	--	970	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24	
	5/8/1998	13.03	166.91	--	780	3.7	2.1	1.1	2.4	ND<32	a
	8/17/1998	13.22	166.72	--	870	2.8	ND<0.5	ND<0.5	3.7	ND<5.0	b,c
	11/4/1998	13.31	166.63	--	770	1.6	4.4	2.0	6.9	ND<30	c
	2/17/1999	12.89	167.05	--	650	6.2	3.4	1.5	2.6	ND<5.0	b,c
	5/27/1999	12.32	167.62	--	570	1.5	1.2	0.72	1.1	ND<20	a
	8/19/1999	13.19	166.75	--	830	ND<0.5	1.9	ND<0.5	1.3	ND<20	c,d
179.55	11/23/1999	13.26	166.29	--	900	ND<0.5	1.8	0.56	1.4	ND<20	c,d
	2/17/2000	12.78	166.77	--	250	ND<0.5	1.5	ND<0.5	0.62	ND<5.0	d
	5/9/2000	12.92	166.63	--	690	ND<0.5	2.1	0.85	1.6	ND<5.0	a
	8/15/2000	13.19	166.36	--	610	ND<0.5	2.3	0.75	1.2	ND<5.0	c,d
	12/1/2000	7.50	172.05	--	120	ND<0.5	0.90	0.65	0.62	ND<5.0	c,d
	2/8/2001	7.20	172.35	--	87	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	c,d
	4/9/2001	7.33	172.22	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/6/2001	7.61	171.94	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/22/2001	7.58	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/1/2002	7.53	172.02	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.5/8.5	
	4/19/2002	7.95	171.60	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.0/11	
	7/16/2002	7.68	171.87	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20/30	
	10/3/2002	7.78	171.77	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/10/2003	6.91	172.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19/16	
sampled annually	4/21/2003	7.21	172.34	--	--	--	--	--	--	--	
	7/9/2003	8.05	171.50	--	--	--	--	--	--	--	
	10/7/2003	8.19	171.36	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/22/2004	7.13	172.42	--	--	--	--	--	--	--	
	4/2/2004	5.73	173.82	--	--	--	--	--	--	--	
	12/29/2004	4.88	174.67	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/27/2005	5.80	173.75	--	--	--	--	--	--	--	
	4/6/2005	5.49	174.06	--	--	--	--	--	--	--	
	7/28/2005	6.02	173.53	--	--	--	--	--	--	--	
	10/14/2005	6.11	173.44	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/30/2006	5.45	174.10	--	--	--	--	--	--	--	
	4/11/2006	5.22	174.33	--	--	--	--	--	--	--	
	7/14/2006	6.15	173.40	--	--	--	--	--	--	--	
	10/13/2006	6.03	173.52	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/12/2007	5.98	173.57	--	--	--	--	--	--	--	
	4/20/2007	5.76	173.79	--	--	--	--	--	--	--	
	7/30/2007	6.44	173.11	--	--	--	--	--	--	--	
	10/24/2007	6.82	172.73	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/15/2008	6.45	173.10	--	--	--	--	--	--	--	
	4/17/2008	7.30	172.25	--	--	--	--	--	--	--	
	7/8/2008	**7.79**	**171.76**	--	--	--	--	--	--	--	
MW-4	6/27/1996	17.03	163.51	--	720	2	0.5	2.5	23	3.2	
180.54	12/10/1996	8.50	172.04	--	80	2.4	ND<0.5	ND<0.5	6.6	ND<2.0	

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
MW-4 cont'd	5/8/1998	11.46	169.08	--	ND<50	0.60	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/17/1998	13.98	166.56	--	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	ND<5.0	
	11/4/1998	14.36	166.18	--	96	9.7	8.1	4.8	18	ND<5.0	a
	2/17/1999	8.39	172.15	--	ND<50	ND<0.5	ND<0.5	ND<0.5	0.5	ND<5.0	
	5/27/1999	12.80	167.74	--	ND<50	ND<0.5	1.0	ND<0.5	2.9	ND<5.0	
	8/19/1999	14.42	166.12	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
180.12	11/23/1999	14.63	165.49	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/17/2000	8.15	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	5/9/2000	12.81	167.31	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/15/2000	14.29	165.83	--	ND<50	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	12/1/2000	12.80	167.32	--	81	6.0	8.4	1.0	5.6	ND<5.0	a
	2/8/2001	12.57	167.55	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/9/2001	12.50	167.62	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/6/2001	14.00	166.12	--	59	1.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	a
	10/22/2001	14.05	166.07	--	130	6.3	ND<0.5	0.88	ND<0.5	ND<5.0	a
	2/1/2002	13.47	166.65	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/19/2002	13.55	166.57	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/16/2002	14.05	166.07	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/3/2002	13.09	167.03	--	77	2.1	0.51	ND<0.5	ND<0.5	ND<5.0	a
	1/10/2003	12.04	168.08	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	20/15	a
sampled annually	4/21/2003	12.15	167.97	--	--	--	--	--	--	--	
	7/9/2003	12.90	167.22	--	--	--	--	--	--	--	
	10/7/2003	13.15	166.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/22/2004	12.09	168.03	--	--	--	--	--	--	--	
	4/2/2004	8.97	171.15	--	--	--	--	--	--	--	
	12/29/2004	7.85	172.27	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/27/2005	8.28	171.84	--	--	--	--	--	--	--	
	4/6/2005	8.07	172.05	--	--	--	--	--	--	--	
	7/28/2005	10.83	169.29	--	--	--	--	--	--	--	
	10/14/2005	11.49	168.63	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/30/2006	8.04	172.08	--	--	--	--	--	--	--	
	4/11/2006	8.03	172.09	--	--	--	--	--	--	--	
	7/14/2006	10.72	169.40	--	--	--	--	--	--	--	
	10/13/2006	11.25	168.87	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/12/2007	8.89	171.23	--	--	--	--	--	--	--	
	4/20/2007	9.22	170.90	--	--	--	--	--	--	--	
	7/30/2007	11.29	168.83	--	--	--	--	--	--	--	
	10/24/2007	10.08	170.04	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/15/2008	8.26	171.86	--	--	--	--	--	--	--	
	4/17/2008	10.84	169.28	--	--	--	--	--	--	--	
	7/9/2008	**10.08**	**170.04**	--	--	--	--	--	--	--	
MW-5	6/27/1996	13.62	166.74	0.16	--	--	--	--	--	--	
180.23	12/10/1996	13.26	167.77	1.00	--	--	--	--	--	--	
	5/8/1998	13.15	167.11	0.04	--	--	--	--	--	--	
	8/17/1998	13.36	166.89	0.02	--	--	--	--	--	--	
	11/4/1998	13.52	166.73	0.02	--	--	--	--	--	--	
	2/17/1999	13.02	167.23	0.02	--	--	--	--	--	--	
	5/27/1999	13.80	166.71	0.35	--	--	--	--	--	--	

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
MW-5 cont'd	8/19/1999	13.45	166.86	0.10	--	--	--	--	--	--	
180.09	11/23/1999	14.03	166.35	0.36	--	--	--	--	--	--	
	2/17/2000	13.28	167.02	0.26	--	--	--	--	--	--	
	5/9/2000	13.55	166.77	0.29	--	--	--	--	--	--	
	8/15/2000	13.58	166.54	0.04	--	--	--	--	--	--	
	12/1/2000	8.00	172.09	0.00	54,000	240	1,700	870	1,000	ND<300	c,d
180.04	2/8/2001	7.88	172.16	Sheen Lab	33,000	63	420	120	4,500	ND<50	a,b
	4/9/2001	7.97	172.07	0.00	--	--	--	--	--	--	
	4/24/2001	7.00	173.04	0.00	3,200	ND<1.0	11	7	260	ND<5.0	c,d
	8/6/2001	8.17	171.87	--	2,700	11	40	21	240	ND<5.0	a
	10/22/2001	8.15	171.89	Sheen Lab	20,000	200	1,200	330	2,900	ND<100	a,b
	2/1/2002	8.07	171.97	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/19/2002	8.51	171.53	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/16/2002	8.40	171.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	1.7	ND<5.0	
	10/3/2002	8.18	171.86	--	15,000	94	830	460	2,200	ND<500	a
	1/10/2003	6.95	173.09	--	290	ND<0.5	1.8	ND<0.5	17	ND<5.0	a
	4/21/2003	7.18	172.86	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/9/2003	7.95	172.09	--	ND<50	ND<0.5	ND<0.5	ND<0.5	2.7	ND<5.0	
	10/7/2003	8.22	171.82	--	9,800	120	340	180	2,000	ND<50	a
	1/22/2004	7.18	172.86	--	250	ND<0.5	0.82	ND<0.5	29	ND<5.0	d
	4/2/2004	6.23	173.81	--	4,300	6.3	18	59	750	ND<25	a
	12/29/2004	5.27	174.77	--	72	ND<0.5	0.78	ND<0.5	6.5	ND<5.0	d
	1/27/2005	6.25	173.79	--	3,300	<5.0	22	18	320	<50	a
	4/6/2005	5.90	174.14	Sheen Field	3,100	1.3	6.9	7.2	100	ND<10	c,d
	7/28/2005	6.50	173.54	--	18,000	53	230	130	2,100	ND<500	a
	10/14/2005	6.65	173.39	Sheen Field & Lab	23,000	140	370	240	2,100	ND<500	a, b
	1/30/2006	5.96	174.08	Sheen Field & Lab	2,500	1.0	8.7	ND<1.0	130	ND<10	b,c,d
	4/11/2006	5.63	174.41	Sheen Field	1,200	1.3	3.1	1.7	54	ND<5.0	a
	7/14/2006	6.65	173.39	Sheen Field & Lab	13,000	27	66	30	480	ND<50	a,b
	10/13/2006	6.60	173.44	Sheen Field & Lab	23,000	170	390	260	2,500	ND<250	a,b
	1/12/2007	6.50	173.54	Sheen Field & Lab	17,000	72	130	70	1,600	ND<250	a,b,i
	4/20/2007	6.22	173.82	Sheen Field & Lab	10,000	55	120	37	620	ND<50	a,b
	7/30/2007	6.95	173.09	Sheen Field	41,000	120	580	270	3,100	ND<250	a
	10/24/2007	7.27	172.77	Sheen Field & Lab	31,000	210	440	300	2,500	ND<200 (ND<5.0)	a,b,j
	1/15/2008	6.89	173.15	Sheen Field & Lab	14,000	87	120	39	1,400	ND<100	a,b
	4/17/2008	7.80	172.24	Sheen Field & Lab	21,000	35	150	71	1,100	ND<80	a,b
	7/9/2008	**8.24**	**171.80**	**Sheen** Field & Lab	**30,000**	**130**	**600**	**290**	**4,000**	**ND<180**	**a,b**
MW-6	6/27/1996	18.55	161.48	--	ND	ND	ND	ND	ND	--	
180.03	12/10/1996	11.79	168.24	--	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<2.0	
	5/8/1998	11.62	168.41	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/17/1998	12.66	167.37	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	11/4/1998	13.56	166.47	--	68	3.8	3.7	2.8	11	ND<5.0	a
	2/17/1999	12.91	167.12	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	5/27/1999	13.03	167.00	--	ND<50	1.0	1.7	0.82	4.9	ND<5.0	
	8/19/1999	13.10	166.93	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
179.63	11/23/1999	13.58	166.05	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/17/2000	10.72	168.91	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	5/9/2000	11.71	167.92	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/15/2000	12.49	167.14	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	Date	TOC Depth to Groundwater	Groundwater Elevation	SPH Thickness	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Notes
TOC (ft*)		(ft)	(ft msl**)	(ft)	←			(µg/L)		→	
MW-6 cont'd	12/1/2000	8.64	170.99	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/8/2001	8.20	171.43	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/9/2001	8.53	171.10	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	8/6/2001	8.69	170.94	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/22/2001	8.75	170.88	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	2/1/2002	8.31	171.32	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	4/19/2002	8.62	171.01	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	7/16/2002	8.84	170.79	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	10/3/2002	8.71	170.92	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/10/2003	6.99	172.64	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19 (16)	
sampled annually	4/21/2003	7.15	172.48	--	--	--	--	--	--	--	
	7/9/2003	7.98	171.65	--	--	--	--	--	--	--	
	10/7/2003	8.28	171.35	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/22/2004	7.15	172.48	--	--	--	--	--	--	--	
	4/2/2004	6.56	173.07	--	--	--	--	--	--	--	
	12/29/2004	5.63	174.00	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/27/2005	6.66	172.97	--	--	--	--	--	--	--	
	4/6/2005	6.25	173.38	--	--	--	--	--	--	--	
	7/28/2005	6.71	172.92	--	--	--	--	--	--	--	
	10/14/2005	6.86	172.77	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/30/2006	6.35	173.28	--	--	--	--	--	--	--	
	4/11/2006	5.89	173.74	--	--	--	--	--	--	--	
	7/14/2006	6.80	172.83	--	--	--	--	--	--	--	
	10/13/2006	6.75	172.88	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/12/2007	6.61	173.02	--	--	--	--	--	--	--	
	4/20/2007	6.45	173.18	--	--	--	--	--	--	--	
	7/30/2007	6.98	172.65	--	--	--	--	--	--	--	
	10/24/2007	7.30	172.33	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	1/15/2008	6.93	172.70	--	--	--	--	--	--	--	
	4/17/2008	7.78	171.85	--	--	--	--	--	--	--	
	7/9/2008	**8.22**	**171.41**	--	--	--	--	--	--	--	
Trip Blank	5/8/1998	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	11/4/1998	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	5/27/1999	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	11/23/1999	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	
	12/1/2000	--	--	--	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5.0	

TABLE 2

GROUNDWATER ELEVATION AND ANALYTICAL DATA
GATZKE / HOOSHI'S AUTO SERVICE
1499 MACARTHUR BOULEVARD, OAKLAND, CALIFORNIA

Well ID	*Date*	*TOC Depth to Groundwater*	*Groundwater Elevation*	*SPH Thickness*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*	*Notes*
TOC (ft)*		*(ft)*	*(ft msl**)*	*(ft)*	←			*(µg/L)*		→	

Abbreviations and Methods:

TOC = Top of casing elevation

ft = Measured in feet

ft msl = elevation in feet mean sea level.

SPH = Separate phase hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method SW8015C

Benzene, toluene, ethylbenzene, and xylenes by EPA Method SW8021B

MTBE = Methyl tertiary butyl ether by EPA Method SW8021B or SW8260B in parenthesis.

µg/L = Micrograms per liter

-- = Not sampled, not analyzed, not applicable, or no SPH measured or observed.

ND<0.5 = Not Detected (ND) above Detection Limit.

x.x/y.y = Result of EPA Method SW8021B / Result of EPA Method SW8260B

TOC Depth to Groundwater = Groundwater depth measured in feet below TOC

Sheen = A sheen was observed on the water's surface.

Field = Observed in the field

Lab = Observed in analytical laboratory

Analytical Laboratory Notes:

a - Unmodified or weakly modified gasoline is significant.

b - Lighter than water immiscible sheen is present.

c - No recognizable pattern on laboratory chromatogram.

d - Heavier gasoline range compounds are significant (aged gasoline?).

f - One to a few isolated non-target peaks present on laboratory chromatogram.

i- Liquid sample contains greater than ~1 vol. % sediment

j - Sample diluted due to high organic content.

* = 2006 grab groundwater samples collected from 20 ft bgs.

** = Calculated groundwater elevation corrected for SPH by the relation: Groundwater Elevation = Well Elevation - Depth to Water + (0.8xSPH thickness (ft))

*** = Due to the air sparge system running during sampling, samples collected on 4/9/01 were anomalous. Well was resampled on 4/24/01 with the air sparge system off.

APPENDIX A

GROUNDWATER MONITORING FIELD DATA SHEETS

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL GAUGING SHEET

Client: Conestoga-Rovers and Associates

Site Address: 1499 MacArthur Boulevard, Oakland, CA

Date: 7/9/2008 **Signature:**

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	9:15		9.09		20.05	
MW-2	9:25		8.39		19.90	
MW-3	9:10		7.79		19.95	
MW-4	9:00		10.08		19.95	
MW-5	9:20		8.24		14.70	
MW-6	9:05		8.22		20.08	

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	7/9/2008
Client:	Conestoga-Rovers and Associates
Site Address:	1499 MacArthur Boulevard, Oakland, CA
Well ID:	MW-1
Well Diameter:	2"
Purging Device:	Disposable Bailer
Sampling Method:	Disposable Bailer

Total Well Depth:	20.05
Depth to Water:	9.09
Water Column Height:	10.96
Gallons/ft:	0.16
1 Casing Volume (gal):	1.75
3 Casing Volumes (gal):	5.26

Fe=	**mg/L**
ORP=	**mV**
DO=	**mg/L**

COMMENTS:
very turbid, silty

TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)
9:40	1.8	20.6	7.03	951
9:45	3.5	20.9	7.01	943
9:50	5.3	20.1	7.03	936

Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-1	7/9/2008	9:55	40 ml VOA	HCl, ICE	TPHg BTEX MTBE	8015, 8021, 8260

Signature:

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	7/9/2008
Client:	Conestoga-Rovers and Associates
Site Address:	1499 MacArthur Boulevard, Oakland, CA
Well ID:	MW-2
Well Diameter:	2"
Purging Device:	Disposable Bailer
Sampling Method:	Disposable Bailer

Total Well Depth:	19.90	**Fe=**	**mg/L**
Depth to Water:	8.39	**ORP=**	**mV**
Water Column Height:	11.51	**DO=**	**mg/L**
Gallons/ft:	0.16		
1 Casing Volume (gal):	1.84		
3 Casing Volumes (gal):	5.52		

COMMENTS:
very turbid, silty, heavy sheen

TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)
10:30	1.8	19.1	6.79	660
10:35	3.7	19.0	6.81	665
10:40	5.5	18.8	6.81	677

Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-2	7/9/2008	10:45	40 ml VOA	HCl, ICE	TPHg BTEX MTBE	8015, 8021, 8260
				Signature:		

MUSKAN
ENVIRONMENTAL
SAMPLING

WELL SAMPLING FORM

Date:	7/9/2008
Client:	Conestoga-Rovers and Associates
Site Address:	1499 MacArthur Boulevard, Oakland, CA
Well ID:	MW-5
Well Diameter:	2"
Purging Device:	Disposable Bailer
Sampling Method:	Disposable Bailer

Total Well Depth:	14.70	**Fe=**	**mg/L**
Depth to Water:	8.24	**ORP=**	**mV**
Water Column Height:	6.46	**DO=**	**mg/L**
Gallons/ft:	0.16		
1 Casing Volume (gal):	1.03		
3 Casing Volumes (gal):	3.10		

COMMENTS:
very turbid, silty, light sheen

TIME:	CASING VOLUME (gal)	TEMP (Celsius)	pH	COND. (µS)
10:05	1.0	20.9	7.05	533
10:10	2.1	20.2	6.96	536
10:15	3.1	20.2	6.96	548

Sample ID:	Sample Date:	Sample Time:	Container Type	Preservative	Analytes	Method
MW-5	7/9/2008	10:20	40 ml VOA	HCl, ICE	TPHg BTEX MTBE	8015, 8021, 8260
				Signature:		

APPENDIX B

LABORATORY ANALYTICAL REPORT

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #120741; Hooshi's	Date Sampled: 07/09/08
5900 Hollis St, Suite A		Date Received: 07/10/08
Emeryville, CA 94608	Client Contact: Mark Jonas	Date Reported: 07/17/08
	Client P.O.:	Date Completed: 07/15/08

WorkOrder: 0807266

July 17, 2008

Dear Mark:

Enclosed within are:

1) The results of the **3** analyzed samples from your project: **#120741; Hooshi's,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701 080726

Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ PDF ☐ Excel ☐ Write On (DW) ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Mark Jonas	Bill To: Cunningham-Rovers & Associates
Company: Cunningham-Rovers & Associates	
5900 Hollis St., Ste. A	
Emeryville, CA	E-Mail: mjonas@cravworld.com
Tele: (510) 420-3307	Fax: (510) 420-9170
Project #: 120741	Project Name: Hoshins
Project Location: 1499 MacArthur Blvd, Oakland, CA	
Sampler Signature: Muskan Environmental Sampling	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	Analysis Request: BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Arochors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other: confirm all MTBE hits by 8260	Comments: Filter Samples for Metals analysis: Yes / No
MW-1		7-9-08	9:55	4	Voa	X					X	X			X																X	
MW-2		"	10:45	"	"	X					X	X			X																X	
MW-5		"	10:20	"	"	X					X	X			X																X	

LJ+

	Date:	Time:	Received By:
Relinquished By:	7/10/08	4:35p	
Relinquished By:			Received By:
Relinquished By:			Received By:

ICE/t° 6.3°C
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB MA
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓

COMMENTS:

PRESERVATION VOAS ✓ O&G METALS OTHER pH<2

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807266 **ClientCode: CETE**

☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Mark Jonas
Conestoga-Rovers & Associates
5900 Hollis St, Suite A
Emeryville, CA 94608
(510) 420-0700 FAX (510) 420-9170

Email: mjonas@CRAworld.com
cc:
PO:
ProjectNo: #120741; Hoash's

Bill to:
Accounts Payable
Conestoga-Rovers & Associates
5900 Hollis St, Ste. A
Emeryville, CA 94608

Requested TAT: 5 days

Date Received: **07/10/2008**
Date Printed: **07/10/2008**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0807266-001	MW-1	Water	7/9/2008 9:55	☐	A	B	A									
0807266-002	MW-2	Water	7/9/2008 10:45	☐	A	B										
0807266-003	MW-5	Water	7/9/2008 10:20	☐	A	B										

Test Legend:

1	G-MBTEX_W	2	MTBE_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Sample Receipt Checklist

Client Name: **Conestoga-Rovers & Associates**

Date and Time Received: **7/10/08 6:32:46 PM**

Project Name: **#120741; Hoash's**

Checklist completed and reviewed by: Samantha Arbuckle

WorkOrder N°: **0807266** Matrix Water

Carrier: Client Drop-In

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐
Chain of custody signed when relinquished and received?	Yes ☑	No ☐
Chain of custody agrees with sample labels?	Yes ☑	No ☐
Sample IDs noted by Client on COC?	Yes ☑	No ☐
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐
Sampler's name noted on COC?	Yes ☑	No ☐

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	NA ☐
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	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 ☐	
Container/Temp Blank temperature	Cooler Temp: 6.7°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

** NOTE: If the "No" box is checked, see comments below.*

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Conestoga-Rovers & Associates	Client Project ID: #120741; Hooshi's	Date Sampled: 07/09/08
		Date Received: 07/10/08
5900 Hollis St, Suite A	Client Contact: Mark Jonas	Date Extracted: 07/13/08-07/15/08
Emeryville, CA 94608	Client P.O.:	Date Analyzed 07/13/08-07/15/08

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0807266

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	140,d9	ND	ND	ND	ND	ND	1	112
002A	MW-2	W	21,000,d1	ND<120	370	170	760	2200	10	113
003A	MW-5	W	30,000,d1,b6	ND<180	130	600	290	4000	10	105

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	µg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b6) lighter than water immiscible sheen/product is present
d1) weakly modified or unmodified gasoline is significant
d9) no recognizable pattern

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder 0807266

EPA Method SW8021B/8015Cm	Extraction SW5030B				BatchID: 36872			Spiked Sample ID: 0807260-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	97.1	82.9	15.8	92.3	91.7	0.653	70 - 130	20	70 - 130	20
MTBE	ND	10	92.9	94.4	1.51	79.5	93.7	16.3	70 - 130	20	70 - 130	20
Benzene	ND	10	83.6	77.5	7.27	81.7	85.6	4.73	70 - 130	20	70 - 130	20
Toluene	ND	10	79.3	75.6	4.80	81.4	83.7	2.76	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88.5	82.8	6.72	81.7	84.3	3.07	70 - 130	20	70 - 130	20
Xylenes	ND	30	85.3	80.2	6.15	75.6	80	5.66	70 - 130	20	70 - 130	20
%SS:	92	10	98	96	1.88	105	99	5.45	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 36872 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807266-001A	07/09/08 9:55 AM	07/15/08	07/15/08 6:51 PM	0807266-002A	07/09/08 10:45 AM	07/13/08	07/13/08 4:09 AM
0807266-003A	07/09/08 10:20 AM	07/13/08	07/13/08 4:41 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.

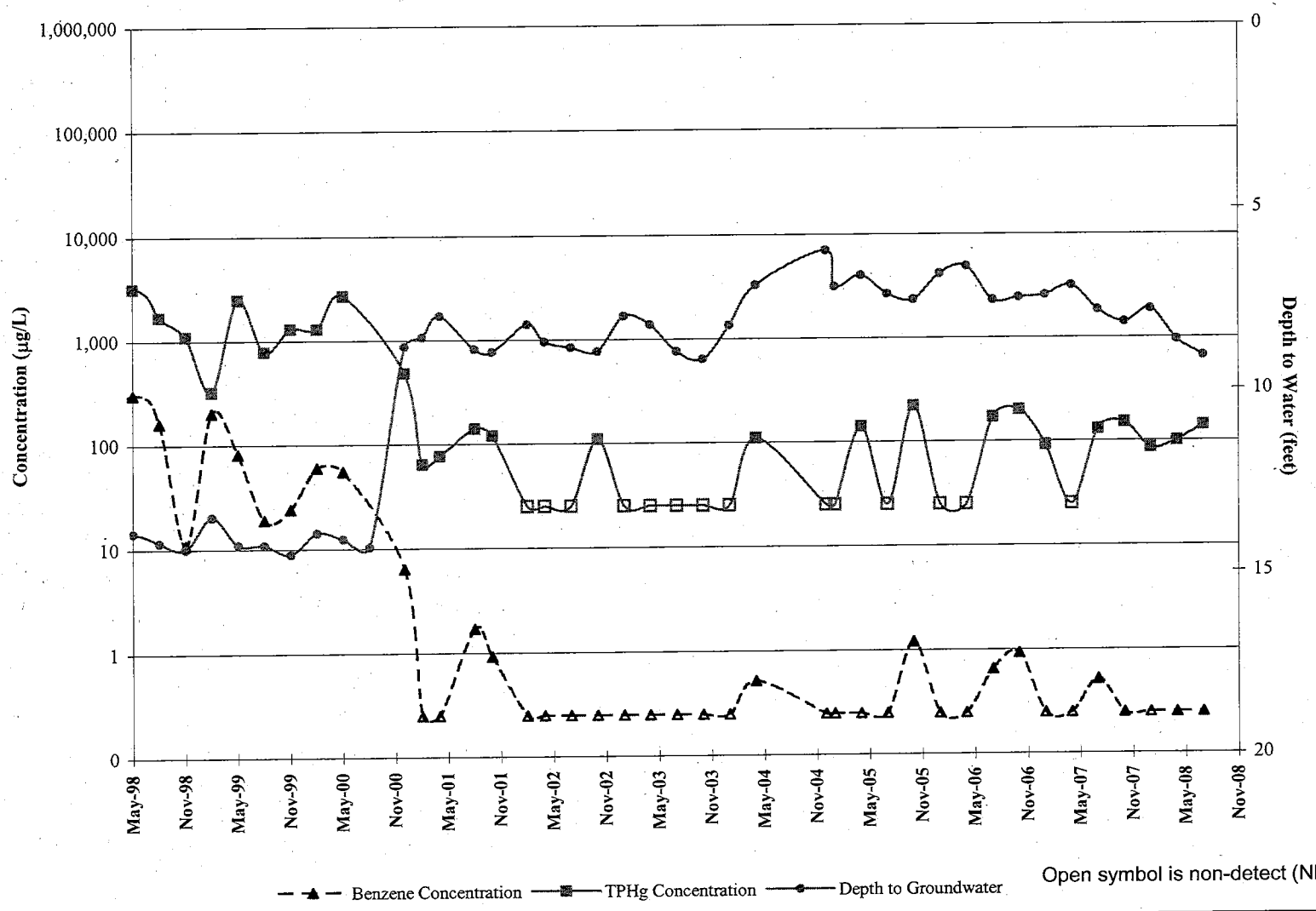
DHS ELAP Certification 1644

QA/QC Officer

APPENDIX C

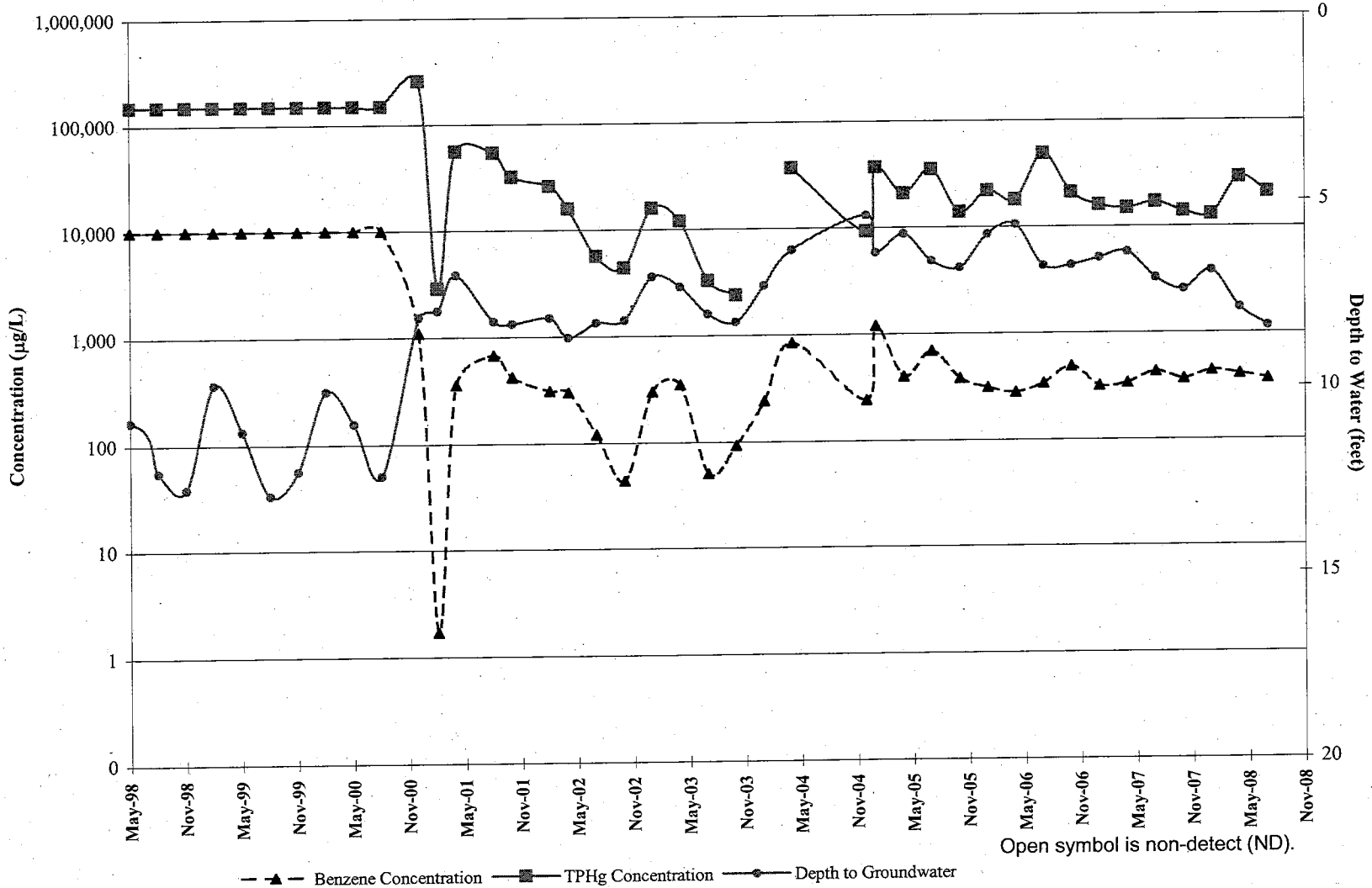
TPHg AND BENZENE CONCENTRATION TREND GRAPHS

Monitoring Well MW-1
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA

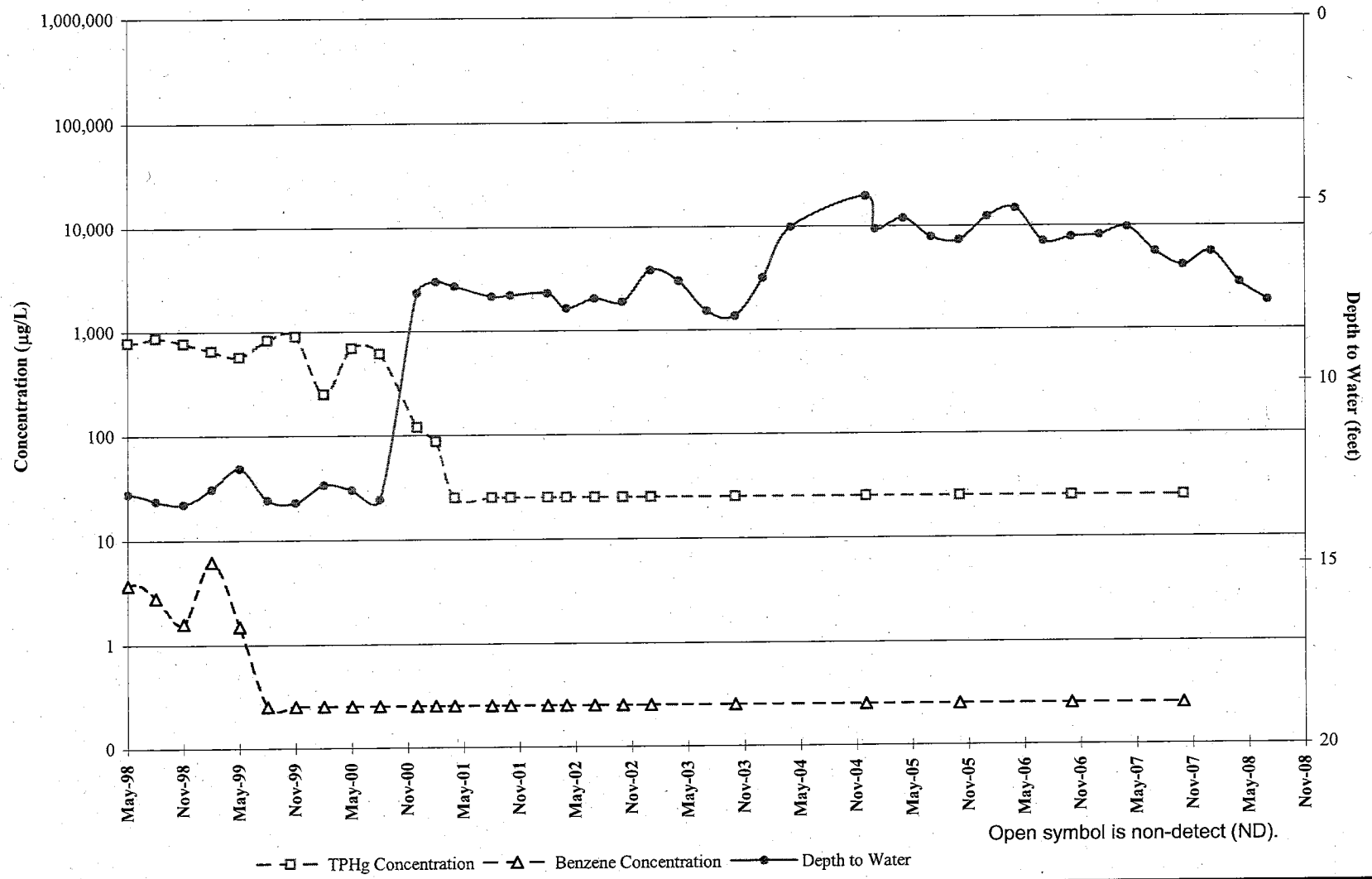


Open symbol is non-detect (ND).

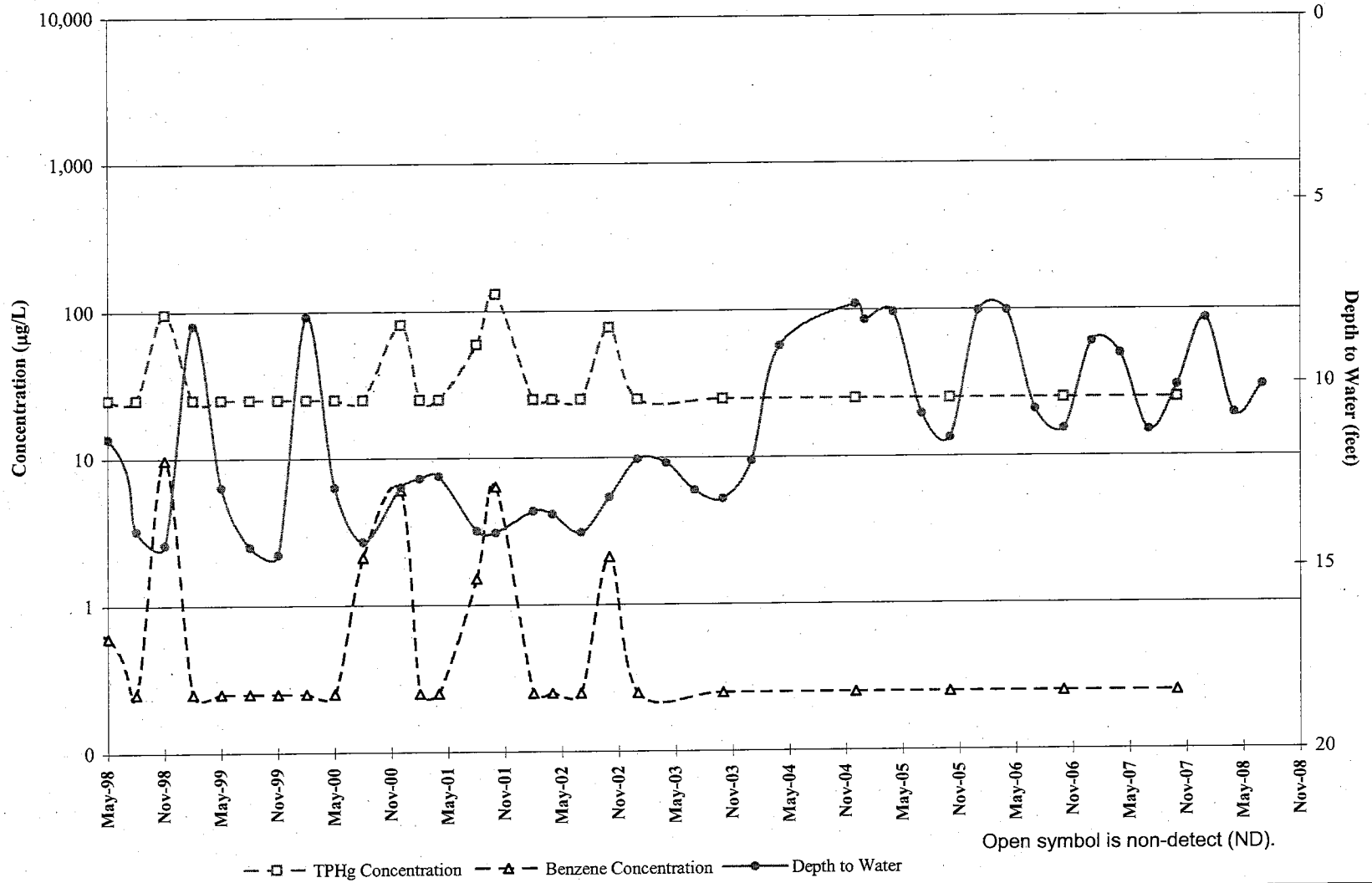
Monitoring Well MW-2
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



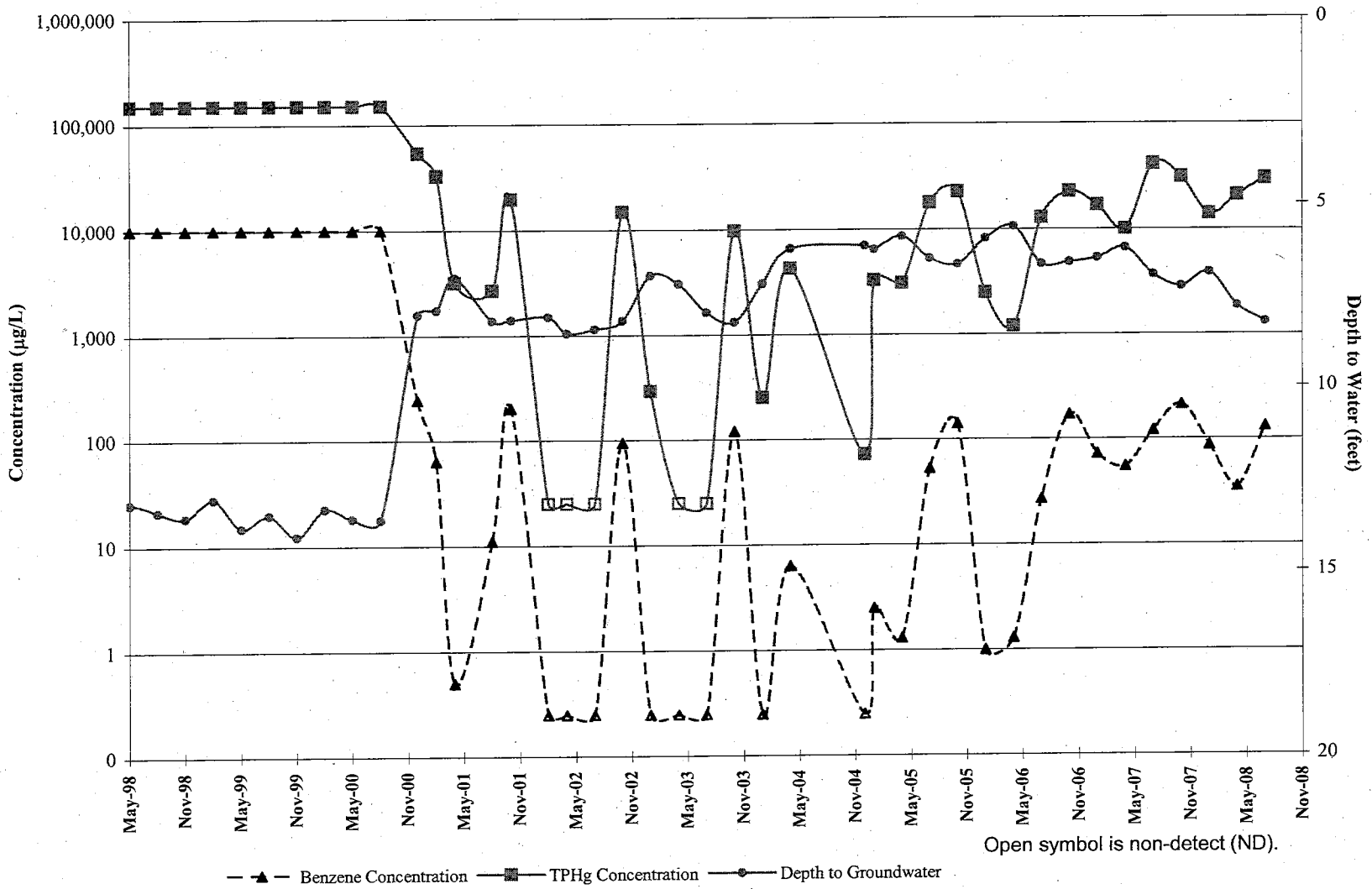
Monitoring Well MW-3
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



Monitoring Well MW-4
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



Monitoring Well MW-5
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA



Monitoring Well MW-6
TPHg and Benzene Concentration Trend
Hooshi's Auto Service, 1499 MacArthur Boulevard, Oakland, CA