Alameda County

October 31, 2005

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Project No. 029

Environmental Health

Mr. Don Hwang Alameda County Health Care Services Agency Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Groundwater Monitoring Report July 2005 Pacific Supply Company 1735 24th Street Oakland, California

Dear Mr. Hwang:

This correspondence has been prepared by Brunsing Associates, Inc. (BAI) to provide a report summarizing the fieldwork completed at 1735 24th Street, Oakland, California on July 20, 21, and 22, 2005, and the results of the laboratory analyses of the groundwater samples collected. The fieldwork was completed in accordance with the Alameda County Health Care Services Agency (ACHCSA) correspondence dated November 6, 2003.

Site Background

In May 1987, efforts were initiated to abandon a 1,000-gallon underground gasoline storage tank at Pacific Supply Company's West Oakland site. Soil and associated vapor samples from exploratory boreholes at the site were analyzed by Anatec Laboratories. The results indicated that soil in the vicinity of the tank was contaminated with gasoline and raised the possibility that gasoline may have reached groundwater below the site. During subsequent removal of the tank by Erikson Industrial Services, substantial deterioration of the tank body was documented. Gasoline odors were also detected during tank removal operations.

In order to assess the extent of soil and groundwater quality beneath and immediately adjacent to the Pacific Supply Company site and the potential for migration of contaminants from off-site sources, BAI carried out a two-phase soil and groundwater investigation. Monitoring wells MW-1 through MW-5 (Plate 2) were constructed in September 1988 as the first phase of the soil and groundwater investigation. Monitoring wells MW-6 and MW-7 were constructed on December 19, 1989 during Phase II of the same investigation. The construction and sampling of these wells are documented in BAI's Report of Findings, dated March 23, 1990. The results of the Phase I and II investigations indicated that light petroleum hydrocarbons had migrated beyond the immediate vicinity of the former underground storage tank (UST); however, it was concluded that hydrocarbons in the soil and groundwater had not extended beyond the limits of the property.

The Pacific Supply Company initiated quarterly groundwater monitoring at the request of the ACHCSA in May 1992. Initially, only on-site wells were monitored for total petroleum hydrocarbons (TPH) as gasoline, benzene, toluene, ethylbenzene and xylenes (BTEX), and lead. Later, the five on-site and the two off-site wells were monitored quarterly.

A vapor extraction pilot study was performed in June 1992 to determine the feasibility of using vapor extraction technology as an in-situ corrective action to remove volatile petroleum hydrocarbons from the shallow subsurface soils. A two-inch diameter vapor extraction well (VEW-1) was installed at the location indicated on Plate 2 to an approximate depth of eight feet below ground surface (bgs). The results of the 4-day pilot study indicated that the lithology at the site permitted the flow of air through the soils at a sufficient rate so as to volatilize hydrocarbon constituents in the soil. The radius of influence was determined in the field by measuring the relative pressure at several probe locations positioned at various radial distances away from the extraction well. The results indicated that the estimated radius of influence from the two-inch diameter extraction well was approximately 30 feet at a relatively low pressure of less than 50 inches of water, as discussed in BAI's report titled "Vapor Extraction Remedial Design Report and Specification," dated May 24, 1993.

In response to an ACHCSA December 1992 request, BAI also performed an investigation to attempt to delineate the zero line of contamination. Ten soil borings (B-1 through B-10) were drilled as part of this investigation to depths of approximately seven to ten feet bgs (Plate 2). From each boring, one soil sample was retained from a



depth of approximately seven to eight feet bgs for analytical testing of TPH as gasoline and BTEX. Further discussions of this investigation are provided in BAI's report titled "Vapor Extraction Remedial Design Report and Specification," dated May 24, 1993.

Vapor recovery wells VRW-1 through VRW-9 were constructed in August 1993 as part of a vapor recovery system. During installation of the extraction wells, soil samples were collected for chemical analysis in the borings at the depth where groundwater was first encountered, at approximately seven feet bgs. Installations of these wells were documented in a February 7, 1994 report. A vapor extraction system was installed in the fall of 1993 as an interim remedial action. The system began operation on December 26, 1993. The system consisted of an internal combustion engine with a spray aeration tank for treatment of groundwater, and an activated carbon treatment polishing step prior to groundwater discharge. The internal combustion unit and spray aeration unit was manufactured by Remediation Service International (RSI), under the trade name Spray Aeration Vapor Extraction (SAVE) system.

On June 28, 1996, the treatment system was shut down with the concurrence of Pacific Supply Company. Prior to shut down, the system had destroyed an estimated 6,550 pounds of petroleum hydrocarbons since start of operations on December 26, 1993. After shut down, the water in the water tank was treated and discharged to the sanitary sewer under the existing permit and the inside of the tank was cleaned on July 15, 1996.

The permit with the Bay Area Air Quality Management District (BAAQMD) expired on September 1, 1996, and was not renewed. The water discharge permit was discontinued on July 31, 1996. The total volume of water discharged to the sanitary sewer was 151,089 gallons. In December 1996, the shut down and decommissioning of the system was authorized by Jennifer Eberle of the Alameda County Department of Health Services.

Groundwater monitoring continued following the shut down of the vapor extraction system. In August 2000, BAI supervised the drilling of 3 soil borings in 24th Street, on the north side of the Pacific Supply Company building in a downgradient direction from the former UST location. Grab groundwater samples were collected to evaluate whether off-site migration of hydrocarbon contamination in groundwater was occurring. One of the three groundwater samples was reported to contain low levels of TPH as gasoline, BTEX, and petroleum oxygenates. The results of the field



investigation are presented in BAI's "Groundwater Investigation and Monitoring Report," dated December 14, 2000.

The drilling activities were performed on July 21, 2004 to determine the effectiveness of the vapor extraction system and to collect soil samples for geotechnical properties to aid in the evaluation of risk based cleanup scenarios. Soil borings CB-1 through CB-14 were drilled to depths ranging from 7 to 8.5 feet bgs. The soil samples selected for laboratory analyses were collected based on the elevation of the historical contamination in the vicinity of the boring, or direction from the ACHCS. The results of this investigation are presented in BAI's report titled "Soil Parameters and Confirmation Soil Sampling Investigation Report", dated January 31, 2005.

Table 1 presents a summary of groundwater analytical data and groundwater elevations for the monitoring wells. Table 2 presents the groundwater concentrations and groundwater elevations for vapor recovery wells. Plate 2 presents a site map that shows the historical boring and sampling locations. Groundwater elevations and flow directions for July 2005 are provided on Plate 3.

Scope of Work

The scope of work performed for this sampling event included collecting groundwater samples for laboratory analysis from monitoring wells MW-1 through MW-3, and vapor extraction wells VRW-1 through VRW-9. The groundwater sampling was completed on July 20 through 22, 2005. Prior to sampling, groundwater levels were measured in the 12 wells on July 20, 2005. The groundwater sampling protocol and field logs are included in Appendix A. BACE Analytical & Field Services (BAFS) analyzed the groundwater samples for total petroleum hydrocarbons (TPH) as gasoline and for benzene, toluene, ethylbenzene, and xylenes by EPA Test Method 8260. The groundwater analytical report for the groundwater samples is presented in Appendix B.

Groundwater Flow Direction

Groundwater elevations and flow directions are presented on Plate 3. The groundwater flow direction was predominately to the north, with the highest elevation observed in well VRW-4. The groundwater elevation measured in well VRW-4 was slightly higher



than the adjacent wells, causing a local mounding effect in this area. Using data for wells MW-2, VRW-3, and VRW-8, the groundwater flow direction was towards the north and the gradient was approximately 0.002 foot per foot (ft/ft).

Discussion of Groundwater Analytical Results

Petroleum hydrocarbons were reported in all of the groundwater samples except for those collected from wells MW-1 and MW-3. TPH as gasoline was reported in the samples collected from wells MW-2 and VRW-1 through VRW-9 at concentrations ranging from 0.11 to 19 mg/l. BTEX were reported in the VRW-2, VRW-4, VRW-5, VRW-6, and VRW-7 samples at concentrations ranging from 0.84 to 3,740 μ g/l. Benzene, toluene, and xylenes were also reported in the samples collected from wells VRW-1 and VRW-8. The groundwater samples collected from wells VRW-3 also contained 2.02 μ g/l of toluene. The MW-2 sample contained TPH as gasoline at 2.7 mg/l, benzene at 5.84 μ g/l, and xylenes at 5.81 μ g/l. The highest TPH as gasoline and BTEX concentrations were reported in the sample collected from well VRW-4.

Conclusion

The petroleum hydrocarbons reported in the July 2005 groundwater sample collected from well VRW-4 significantly increased compared to the December 2004 reported concentrations. Although the current TPH as gasoline concentration is the highest reported to date for this well, benzene concentrations have been reported higher three times (Table 2). The TPH as gasoline and benzene concentrations reported in the VRW-2 and VRW-5 samples also increased significantly compared to the December 2004 data.

BAI is currently waiting for the ACHCSA response to the January 31, 2005 report titled "Soil Parameters and Confirmation Soil Sampling Investigation Report". Groundwater sampling is currently scheduled for December 2005. A report summarizing the results of the December 2005 monitoring event will be provided after the analytical results have been obtained and reviewed by BAI. Because petroleum hydrocarbons have not been reported in the recent groundwater samples collected from wells MW-1 and MW-3, BAI recommends that these wells no longer be sampled.



If you should have any questions regarding this report, please contact Diana Dickerson at (707) 838-3027.

Sincerely,

Diana M. Dickerson, P.G., R.E.A.

Principal Geologist

David E. Conley, P.G.

Senior Geologist

cc: Ms. Normita Callison





LIST OF ATTACHMENTS

TABLES

Table 1. Summary of Groundwater Analytical Data for Monitoring Wells

Table 2. Summary of Groundwater Analytical Data for Vapor Extraction Wells

PLATES

Plate 1. Vicinity Map

Plate 2. Site Map

Plate 3. Groundwater Elevations, July 20, 2005

APPENDICES

Appendix A. Monitoring Well Sampling Protocol and Field Reports

Appendix B. Analytical Laboratory Report



		Depth to	Groundwater	TPH as			1741 - Ib	Xylenes	Lead	MTBE
Well	Sampling	Groundwater	Elevation	gasoline	Benzene	Toluene	Ethylbenzene	-		
Name	Date	(feet)	(feet, MSL)	(mg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)	(mg/L)	(μg/L) _
MW-1	10/14/1988	7.99	0.88	1.1	1.1	ND		ND	- ND (1)	<u>-</u>
MW-1	12/29/1989	7.74	1.13	ND	ND	ND	ND	ND _	ND (1)	
MW-1 MW-1	5/28/1992	7.81	1.06	ND	ND	ND _	ND	ND_	0.003(2)	
MW-1	9/3/1992	7.90	0.97	ND	ND	ND	ND	ND	0.12 (2)	
MW-1 MW-1	11/24/1992	7.90	0.97	ND	ND	ND_	ND	ND	0.017 (2)	_
	3/9/1993	7.38	1.49	ND	ND	ND _	ND	ND	ND (1)	
MW-1	7/21/1993	7.68	1.19	ND	ND	ND	ND	ND	ND (1)	
MW-1	11/3/1993	7.83	1.04	ND	ND	ND_	ND	ND	ND (1)	<u> </u>
MW-1	2/1/1994	7.30	1.57	ND	ND	ND	ND	ND_	ND (1)	
MW-1	6/2/1994	7.43	1.44	ND	ND	ND	ND	ND	ND (1)	
MW-1		7.70	1,17	ND	ND	ND.	ND	ND	ND (1)	
MW-1	9/1/1994	6.90	1.97	ND	ND	ND	ND	ND		
MW-1	12/13/1994	7.30	1.57	0.06	3.8	ND	ND	ND		
MW-1	3/7/1995	7.87	1.00	0.09	12	0.8	0.5	1.3		
MW-1	6/9/1995	7.67	1.20	ND	4.1	ND	ND	ND		<u> </u>
MW-1	9/21/1995		1.72	ND	ND	ND	ND	ND_		
MW-1	12/18/1995	7.15	2.13	0.09	1.4	0.5	ND	0.8		<u> </u>
MW-1	2/29/1996	6.74	1.11	 0102			_	_		<u> </u>
MW-1	7/15/1996	7.76	2.07	0.06	0.6	<0.5	<0.5	<0.5		
MW-1	1/7/1997	6.80	1.20	0.00		_	_	_		_
MW-1	7/12/1997	7.67	1.94	<0.05	<0.5	<0.5	<0.5	1.1		
MW-1	1/26/1998	6.93		- 0.03		_	_	_	_	
MW-1	7/3/1998	7.51	1.36	<0.05	<0.5	<0.5	<0.5	<0.5		
MW-1	1/13/1999	7.63		-0.05	-		_	_		
MW-1	9/27/1999	7.77	1.10	<0.05	<0.5	<0.5	<0.5	<0.5		<5.0
MW-1	1/28/2000	6.85	2.02	0.35	<0.5	<0.5	<0.5	<0.5	_	<1.0
MW-1	5/16/2002	7.45	1.42		<0.5	<0.5	<0.5	<0.5	_	_
MW-1	6/10/2003	7.32	4.15	<0.05	<0.30	<0.30	<0.50	<0.50	-	_
MW-1	11/19/2003	7.30	4.17	<0.050		<1.0	<1.0	<1.0		_
MW-1	6/23/2004	7.49	3.98	0.37	<1.0		<0.5	<0.5		 -
MW-1	12/10/2004	6.27	5.20	<0.050	<0.5	<0.5		<0.50		_
MW-1	7/21/2005	7.41	4.06	<0.05	< 0.50	<0.50	<0.50			

		Depth to	Groundwater	TPH as				1	Tand	мтве
Well	Sampling	Groundwater	Elevation	gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)	(mg/L)	(μg/L)
MW-2	10/14/1988	7.29	0.85	11	23	20		16		-
MW-2	12/29/1989	6.87	1.27	4	200	6.7	ND	ND	0.22 (1)	
MW-2	5/28/1992	6.92	1.22	8.9	550	48	ND	13	ND (2)	_
MW-2	9/3/1992	7.26	0.88	2.1	760	6.2	1.8	5.1	0.006 (2)	
MW-2	11/24/1992	7.28	0.86	4.2	370	15	3.4	9.5	ND (2)	
MW-2	3/9/1993	6.73	1.41	4.3	280	14	3.7	7.1	ND (1)	
MW-2	7/21/1993	7.02	1.12	3.4	250	9.6	2.5	11	ND(1)	
MW-2	11/4/1993	7.22	0.92	2.5	230	7.8	2.1	9.9	ND(1)	
MW-2	2/1/1994	6.93	1.21	3.4	240	17	ND	15	ND(1)	
MW-2	6/2/1994	6.86	1.28	3.0	150	9.8	3.0	10	ND(1)	
MW-2	9/1/1994	7.10	1.04	2.1	120	9.8	2.0	9.6	ND(1)	
MW-2	12/13/1994	6.58	1.56	2.0	200	10	2.7	11	_	
MW-2	3/7/1995	6.69	1.45	3.0	500	15	5.8	16		
MW-2	6/9/1995	7.00	1.14	2.1	300	14	5.8	13		
MW-2	9/21/1995	6.91	1.23	1.6	120	9.6	ND	15		
MW-2	12/18/1995	6.73	1.41	2.8	120	16	5.2	19		_
MW-2	2/29/1996	6.36	1.78	1.7	170	15	2.9	17	_	
MW-2	7/15/1996	7.11	1.03	2.8	160	22	3.5	17		
MW-2	1/7/1997	6.40	1.74	3.0	350	25	8.1	24		
MW-2 MW-2	7/12/1997	6.98	1.16	2.1	55	11	<2.5	18		
MW-2	1/26/1998	6.45	1.69	1.8	310	29	5.0	15		
MW-2	7/3/1998	6.91	1.23	1.9	85	9.3	1.8	17		
MW-2	1/13/1999	7.07	1.07	2.1	48	33	2.0	16		
MW-2	9/27/1999	7.22	0.92	1.5	20	6.8	2.6	11		
MW-2	1/28/2000	6.61	1.53	1.3	22	6.4	1.5	11		<5.0
MW-2 MW-2	5/17/2002	6.95	1.19	3.3	25.4	<5.0	<5.0	<5.0		<10
MW-2	6/10/2003	6.71	4.09	1.6	52	2.3	32	9.1		_
MW-2 MW-2	11/19/2003	6.95	3.85	3.7	9.7	<1.1	<1.1	7.5		
MW-2 MW-2	6/23/2004	6.96	3.84	1.1	6.30	2.36	<1.0	7.41	_	
MW-2	12/9/2004	6.54	4.26	3.0	13.0	13.0	<0.5	24		
MW-2	7/22/2005	6.89	3.91	2.7	5.84	<2.5	<2.5	5.81	_	

TABLE 1. SUMMARY OF GROUNDWATER ANALYTICAL DATA FOR MONITORING WELLS Pacific Supply Company, 1735 24th Street, Oakland, California

	G	Depth to Groundwater	Groundwater Elevation	TPH as	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	МТВЕ
Well	Sampling		(feet, MSL)	(mg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(mg/L)	(μg/L)
Name	Date	(feet)	0.88	3.4	ND	ND		2.8	-	
MW-3	10/14/1988	8.25	1.34	ND	ND	ND	ND	ND	0.205 (1)	
MW-3	12/29/1989	7.79		ND	0.8	0.5	ND	ND	0.016 (2)	_
MW-3	5/28/1992	7.83	1.30	ND ND	ND	ND	ND	ND	0.033 (2)	
MW-3	9/3/1992	8.22	0.91	ND ND	ND	ND	ND	ND	0.011 (2)	_
MW-3	11/24/1992	8.29	0.84	0.1	1.8	ND	ND	ND	ND(1)	_
MW-3	3/9/1993	7.30	1.83	ND	ND	ND	ND	ND	ND(1)	
MW-3	7/21/1993	7.87	1.26	0.07	0.6	0.5	ND	ND	ND(1)	_
MW-3	11/4/1993	8.23	0.90		ND ND	ND	ND	ND	ND(1)	_
MW-3	2/1/1994	7.56	1.57	ND	ND ND	ND	ND	ND	ND(1)	_
MW-3	6/2/1994	7.46	1.67	0.06	1.7	0.9	ND	ND	ND(1)	_
MW-3	9/1/1994	7.83	1.30	0.07	<u> </u>	ND	ND	ND		_
MW-3	12/13/1994	7.07	2.06	0.06	1.4	ND ND	ND	ND	_	
MW-3	3/8/1995	7.27	1.86	0.06	1.5	ND ND	ND	ND	_	
MW-3	6/9/1995	7.79	1.34	0.10	5.7		ND	ND		
MW-3	9/21/1995	7.87	1.26	ND_	1.5	ND	ND	ND		
MW-3	12/18/1995	7.30	1.83	ND_	1.3	ND	ND	0.7		
MW-3	2/29/1996	6.84	2.29	ND_	2.1	0.6	ND ND			
MW-3	7/15/1996	7.79	1.34	<u> </u>	-	-	<0.5	<0.5		
MW-3	1/7/1997	6.62	2.51	0.05	1.0	<0.5				
MW-3	7/12/1997	7.83	1.30					<0.5		
MW-3	1/26/1998	6.60	2.53	<0.05	0.8	<0.5	<0.5			
MW-3	7/3/1998	7.48	1.65	_				<0.5		
MW-3	1/13/1999	7.63	1.50	< 0.05	<0.5	<0.5	<0.5	- <0.3		
MW-3	9/27/1999	7.94	1.19							<5.0
MW-3	1/28/2000	7.12	2.01	<0.05	<0.5	<0.5	<0.5	<0.5		
MW-3	6/5/2003	7.53	4.23	<0.05	<0.5	<0.5	<0.5	<0.5	<u> </u>	ļ————
MW-3	11/19/2003	7.83	3.93	0.16	< 0.54	<0.54	<0.55	<1.6		-
MW-3	6/23/2004	7.65	4.11	<0.05	<1.0	<1.0	<1.0	<1.0	-	-
MW-3	12/8/2004	7.53	4.23	< 0.050	<0.5	<0.5	<0.5	<0.5		
MW-3	7/20/2005	7.62	4.14	<0.10	<1.0	<1.0	<1.0	<1.0	-	_



		Depth to	Groundwater	TPH as		Т-1	Ethylbenzene	Xylenes	Lead	мтве
Well	Sampling	Groundwater	Elevation	gasoline	Benzene	Toluene	<u>-</u>]		
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(µg/L)	(μg/L)	(μg/L)	(mg/L)	(µg/L)
MW-4	10/14/1988	8.33	0.74	4.6	1.2	ND		2.2		-
MW-4	12/29/1989	8.08	0.99	0.5	0.7	ND	ND	ND	ND (1)	
MW-4	5/28/1992	8.19	0.88	0.27	8.8	11	ND	3.2	0.030 (2)	
MW-4	9/3/1992	8.37	0.70	0.20	4.5	4.4	ND	1.9	0.022 (2)	-
MW-4	11/24/1992	8.28	0.79	0.14	3.2	3.2	ND	1.0	0.005 (2)	
MW-4	3/9/1993	7.98	1.09	0.47	10	ND	ND	2.5	ND (1)	
MW-4	7/21/1993	8.17	0.90	0.28	4.4	5.9	ND	ND	ND(1)	
MW-4	11/4/1993	8.14	0.93	0.08	1.3	1.6	ND	ND	ND(1)	
MW-4	2/1/1994	7.79	1.28	0.08	ND	ND	ND	ND	ND(1)	
MW-4	6/2/1994	7.53	1.54	0.30	3.1	2.9	ND	0.8	ND(1)	
MW-4	9/1/1994	7.69	1.38	0.12	1.6	ND	ND	ND	ND(1)	
MW-4	12/13/1994	6.70	2.37	ND	ND	ND	ND	ND		_
MW-4	3/8/1995	6.83	2.24	0.09	ND	ND	ND	ND		
MW-4	6/9/1995	7.66	1.41	0.19	ND	ND	ND	ND		
MW-4	9/21/1995	7.93	1.14	0.09	ND	ND	ND	ND		
MW-4	12/18/1995	6.98	2.09	_	_	_		_		
MW-4	2/29/1996	6,54	2.53	0.14	1.6	1.0	ND	0.6		-
MW-4	7/15/1996	7.74	1.33	_	_	_	_			
MW-4	1/7/1997	6.46	2.61	0.09	1.0	0.5	<0.5	<0.5		-
MW-4	7/12/1997	7.82	1.25		_	_	_			
MW-4	1/26/1998	6.67	2.40	0.09	1.1	0.8	<0.5	<0.5		
MW-4	7/3/1998	7.45	1.62	_	_	_	_	_		
MW-4	1/13/1999	7.51	1.56	0.12	1.1	0.62	<0.5	0.57		
MW-4	9/27/1999	7.88	1.19			-	_	_		_
MW-4	1/28/2000	6.73	2.34	0.072	<0.5	<0.5	<0.5	<0.5		<5.0



Well	Sampling	Depth to Groundwater	Groundwater Elevation	TPH as gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	мтве
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(mg/L)	(μg/L)
MW-5	10/14/1988	8.04	0.89	3.2	ND	ND	_	ND	-	
MW-5	12/29/1989	7.40	1.53	ND	ND	ND	ND	ND	ND (1)	
MW-5	5/28/1992	7.53	1.40	ND	ND	ND	ND	ND	0.008 (2)	
MW-5	9/3/1992	8.02	0.91	ND	ND	ND	ND	ND	0.034 (2)	
MW-5	11/24/1992	7.75	1.18	ND	ND	ND	ND	ND	0.011 (2)	
MW-5	3/9/1993	6.91	2.02	ND	ND	ND	ND	ND	ND (1)	-
MW-5	7/21/1993	7.57	1.36	ND	ND	ND	ND	ND	ND(1)	-
MW-5	11/4/1993	7.77	1.16	ND	ND	ND	ND	ND _	ND(1)	_
MW-5	2/1/1994	7.05	1.88	ND	ND	ND	ND	ND	ND(1)	_
MW-5	6/2/1994	7.18	1.75	ND	ND	ND	ND	ND	ND(1)	
MW-5	9/1/1994	7.53	1.40	ND	ND	ND	ND	ND		
MW-5	3/8/1995	6.67	2.26	ND	ND	ND	ND	ND		-
MW-5	6/9/1995	7.33	1.60	ND	ND	ND	ND	ND		_
MW-5	9/21/1995	7.67	1.26	ND	ND	ND	ND	ND		_
MW-5	12/18/1995	6.62	2.31			_	_	_	_	
MW-5	2/29/1996	6.16	2.77	ND	ND	ND	ND	ND	_	
MW-5	7/15/1996	7.47	1.46	_						_
MW-5	1/7/1997	6.11	2.82	< 0.05	<0.5	<0.5	<0.5	<0.5		
	7/12/1997	7.61	1.32	_		_	_	_		_
MW-5	1/26/1998	6.17	2.76	< 0.05	<0.5	<0.5	<0.5	<0.5		
MW-5	7/3/1998	7.23	1.70	_	_	_		_	_	-
MW-5	1/13/1999	7.27	1.66	< 0.05	<0.5	<0.5	<0.5	<0.5		
MW-5	9/27/1999	7.76	1.17	_				_	<u> </u>	-
MW-5	1/28/2000	6.43	2.50	<0.05	<0.5	<0.5	<0.5	<0.5	-	<5.0



Well	Sampling	Depth to Groundwater	Groundwater Elevation	TPH as gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Lead	МТВЕ
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(μg/L)	(µg/L)	(μg/L)	(mg/L)	(μg/L)
MW-6	12/29/1989	5.02	1.11	1.1	5.4	4.5	ND	ND	ND (1)	
MW-6	3/9/1993	5.10	1.03	2.3	2.3	2.8	ND	3.1	ND (1)	·
MW-6	7/21/1993	5.23	0.90	0.59	ND	7.6	ND	ND	ND(1)	_
MW-6	11/4/1993	5.25	0.88	1.5	ND	1.2	ND	0.7	ND(1)	
MW-6	2/1/1994	5.05	1.08	1.9	2.5	3.9	1.6	1.1	ND(1)	
MW-6	6/2/1994	4.49	1.64	1.3	ND	1	ND	ND	ND(1)	
MW-6	9/1/1994	4.53	1.60	2.2	ND	1.7	ND	ND	ND(1)	_
MW-6	12/13/1994	4.27	1.86	0.66 (3)	ND	ND	ND	ND		-
MW-6	3/8/1995	3.37	2.76	1.0 (3)	ND	ND	ND	ND		_
MW-6	6/9/1995	4.40	1.73	1.5	ND	3.3	ND	ND	_	_
MW-6	9/21/1995	4.69	1.44	0.28	ND	ND	ND	ND		_
MW-6	12/18/1995	4.42	1.71		_		_		- -	



Pacific Supply Company, 1735 24th Street, Oakland, California

		Depth to	Groundwater	TPH as	D	Talarana	Ethylbenzene	Xylenes	Lead	MTBE
Well	Sampling	Groundwater	Elevation	gasoline	Benzene	Toluene	_	-		
Name	Date	(feet)	(feet, MSL)	(mg/L)	(μg/L)	(μg/L)	(μg/L)	(μg/L)	(mg/L)	(µg/L)
MW-7	12/29/1989	8.35	-3.32	ND	ND	ND	ND	ND	0.235 (1)	
MW-7	3/9/1993	13.60	-8.57	ND	ND	ND	ND	ND	ND (1)	_
MW-7	7/21/1993	12.59	-7.56	ND	ND	ND	ND	ND	ND(1)	
MW-7	11/4/1993	9.84	-4.81	ND	ND	ND	ND	ND	ND(1)	
MW-7	2/1/1994	10.38	-5.35	ND	ND	ND	ND	ND	ND(1)	_
MW-7	6/2/1994	10.10	-5.07	ND	ND	ND	ND	ND	ND(1)	
MW-7	9/1/1994	9.63	-4.60	ND	ND	ND	ND	ND	ND(1)	
MW-7	12/13/1994	11.27	-6.24	ND	ND	ND	ND	ND		
MW-7	3/7/1995	9.68	-4.65	ND	ND	ND	ND	ND		
MW-7	6/9/1995	9.37	-4.34	ND	ND	ND	ND	ND		_
MW-7	9/21/1995	9.43	-4.40	ND	ND	ND	ND	ND		
MW-7	12/18/1995	13.28	-8.25		_	_				_
MW-7	2/29/1996	11.70	-6.67	ND	ND	ND	ND	ND		
MW-7	7/15/1996	11.12	-6.09	_		_	-			
MW-7	1/7/1997	14.35	-9.32	<0.05	<0.5	<0.5	<0.5	<0.5		_
MW-7	7/12/1997	15.12	-10.09	_	_	_	_			
MW-7	1/26/1998	15.28	-10.25	<0.05	<0.5	<0.5	<0.5	<0.5		
MW-7	7/3/1998	14.10	-9.07	_	_	_	_	-		_
MW-7	1/13/1999	14.55	-9.52	<0.05	<0.5	<0.5	<0.5	<0.5	-	_
MW-7	9/27/1999	14.03	-9.00	_	_			-		
MW-7	1/28/2000	10.91	-5.88	<0.05	<0.5	<0.5	<0.5	<0.5	_	<5.0

MTBE = methyl tertiary butyl ether. TPH = total petroleum hydrocarbons.

MSL = mean seal level.

Groundwater elevations prior to 2003 based on the following well casing elevations in feet above MSL:

MW-1 (8.87'), MW-2 (8.14'), MW-3 (9.13'), MW-4 (9.07'), MW-5 (8.93'), MW-6 (6.13') and MW-7 (5.03').

New survey data was obtained on June 23, 2003 by Phelps and Associates Land Surveyors.

June 2003 water levels were measured on June 5, 2003.

June 2004 water levels were measured on June 22, 2004.

December 2004 water levels were measured on December 8, 2004.



⁽¹⁾⁼Organic Lead, (2)=Total Lead, and (3)=chromatographic peak array does not match gasoline standard.

ND = not detected at laboratory reporting limit. <= less than given laboratory reporting limit.

 $[\]mu g/L = \text{micrograms per liter.}$ mg/L = milligrams per liter. -= not requested.

TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA FOR VAPOR EXTRACTION WELLS

Sample	Sample Collection	Depth to Groundwater	Top of Casing Elevation	Groundwater Elevation	TPH as gasoline	Benzene	Toluene	Ethyl- benzene	Xylenes	мтве	Other Oxygenates & Lead Scavengers
ID	Date	(feet)	(feet, MSL)	(feet, MSL)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)
VRW-I	11/3/1993		_		3	1600	19	1.1	16	-	
VRW-1	6/10/2003	7.31	11.18	3.87	0.44	5.9	<0.5	< 0.5	1.9	-	-
VRW-1	11/19/2003	7.33	11.18	3.85	1.2	19	<0.54	< 0.55	6.3	-	-
VRW-1	6/22/2004	7.32	11.18	3.86	0.32	3.23	<1.0	<1.0	3.36	-	•
VRW-1	12/9/2004	6.93	11.18	4.25	0.32	8.0	<3	<3	3.7	-	-
VRW-1	7/22/2005	7,25	11.18	3.93	0.69	5,35	1,27	< 0.50	3.66	-	_
VRW-2	11/4/1993	_	-	_	7.2	3,300	600	2.4	870		-
VRW-2	5/17/2002		-	-	2.8	471	<10	<10	<10	<20	<10 to <20
VRW-2	6/9/2003	6.87	11.08	4.21	0.47	38	2.8	<1.0	<1.0	-	-
VRW-2	11/19/2003	7.00	11.08	4.08	1.3	51	<0.54	< 0.55	4.0	-	-
VRW-2	6/25/2004	7.00	11.08	4.08	0.24	274	4.10	4.11	8.22	-	-
VRW-2	12/9/2004	6.45	11.08	4.63	< 0.050	9.6	4.2	2.5	4.3	-	•
VRW-2	7/21/2005	6.93	11.08	4.15	2.1	102	1.43	0.84	3.81	ı	-
VRW-3	11/4/1993	_		_	5.7	120	41	1.1	380	-	-
VRW-3	5/17/2002	_	_	_	0.42	10.9	<0.5	<0.5	1.07	<1.0	<0.50 to <1.0
VRW-3	6/9/2003	7.41	11.62	4.21	0.061	4.8	< 0.5	<0.5	<0.5	-	-
VRW-3	11/19/2003	7.48	11.62	4.14	0.16	1.7	<0.54	< 0.55	2.7	-	-
VRW-3	6/25/2004	7.58	11.62	4.04	0.12	2.00	< 0.50	<0.50	1.00	-	-
VRW-3	12/10/2004	6.34	11.62	5.28	0.22	27	3.7	1.0	3.1	-	-
VRW-3	7/22/2005	7.50	11.62	4.12	0.11	<1.0	<1.0	<1.0	2.02	-	-
VRW-4	11/4/1993	_		_	9.0	4,400	900	5.4	990	-	***************************************
VRW-4	5/15/2002				11	4,270	741	512	1,130	<50	<25 to <50
VRW-4	6/5/2003	7.01	11.33	4.32	2.2	1,200	100	12	89	-	-
VRW-4	11/19/2003	7.44	11.33	3.89	1.7	210	2.4	<2.2	36	-	
VRW-4	6/22/2004	7.20	11.33	4.13	14	4,540	611	739	1,170	-	-
VRW-4	12/8/2004	6.99	11.33	4.34	2.7	780	68	90	160	-	
VRW-4	7/20/2005	7.12	11.33	4.21	19	3,740	381	480	643	-	-
VRW-5	11/4/1993	_	—	_	0.90	68	33	2.5	32	-	-
VRW-5	5/16/2002		<u></u>	_	0.87	44.3	<5.0	<5.0	<5.0	<10	<5.0 to <10
VRW-5	6/9/2003	7.33	11.56	4.23	0.93	90	<1.0	14	0.16	-	•
VRW-5	11/19/2003	7.53	11.56	4.03	2.9	250	<1.1	24	41	-	_
VRW-5	6/23/2004	7.47	11.56	4.09	0.72	40.5	<1.0	1.17	8.04	-	-
VRW-5	12/10/2004	7.11	11.56	4.45	0.72	60	10	<3	33	-	-
VRW-5	7/21/2005	7.38	11.56	4.18	1.6	102	3.83	4.62	12.4	-	



TABLE 2. SUMMARY OF GROUNDWATER ANALYTICAL DATA FOR VAPOR EXTRACTION WELLS

Pacific Supply Company, 1735 24th Street, Oakland, California

Sample ID	Sample Collection Date	Depth to Groundwater (feet)	Top of Casing Elevation (feet, MSL)	Groundwater Elevation (feet, MSL)	TPH as gasoline (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (μg/L)	MTBE (μg/L)	Other Oxygenates & Lead Scavengers (µg/L)
VRW-6	11/4/1993		-		0.41	6.6	1.0	ND	31	-	-
VRW-6	5/15/2002	-	_	-	0.73	178	4.58	1.41	6.10	<1.0	<0.50 to <1.0
VRW-6	6/6/2003	7.21	11.43	4.22	< 0.05	<0.5	<0.5	<0.5	<0.5	-	
VRW-6	11/19/2003	7.39	11.43	4.04	0.21	13	<0.54	1.0	2.5	-	-
VRW-6	6/23/2004	7.36	11.43	4.07	0.42	43.4	3.60	1.69	13.0	-	
VRW-6	12/9/2004	6.71	11.43	4.72	0.14	8.0	21	<0.5	3.6	-	
VRW-6	7/21/2005	7.32	11.43	4.11	0.33	18.3	1.13	0.95	5.05	-	-
VRW-7	11/4/1993	_	_	_	0.10	ND	ND	ND	ND	-	•
VRW-7	5/16/2002	_	=	-	1.6	28.9	0.980	<0.50	<0.50	<1.0	<0.50 to <1.0
VRW-7	6/6/2003	7.47	11.70	4.23	0.36	19	1.3	<0.5	2.2	-	-
VRW-7	11/19/2003	7.78	11.70	3.92	1.1	14	<0.54	1.7	5.6	-	-
VRW-7	6/22/2004	7.61	11.70	4.09	1.3	130	8.06	9.81	15.9	-	<u> </u>
VRW-7	12/9/2004	7.54	11.7	4.16	0.34	28	<3	<3	5.0	-	<u> </u>
VRW-7	7/21/2005	7.54	11.7	4.16	1.7	48.1	2.76	2.56	6.94	-	
VRW-8	11/4/1993	_	_	_	5.9	460	54	ND	53	-	
VRW-8	5/16/2002	_	<u>-</u>	_	3.3	248	16.0	<10	<10	<20	<10 to <20
VRW-8	6/6/2003	7.42	11.62	4.20	1.8	70	10	11	6.1		-
VRW-8	11/19/2003	7.85	11.62	3.77	3.6	36	<2.7	<2.7	4.3	-	
VRW-8	6/23/2004	7.56	11.62	4.06	2.1	115	11.8	<5.0	18.2	-	
VRW-8	12/9/2004	7.41	11.62	4.21	1.3	30	9.0	<3	7.6	-	-
VRW-8	7/21/2005	7.49	11.62	4.13	4.1	24.8	3.44	<2.5	7.34	-	-
VRW-9	11/4/1993	_	_	_	0.47	36	18	ND	1.0	-	
VRW-9	5/16/2002	_	_	_	0.080	0.990	2.00	<0.50	5.93	<1.0	<0.50 to <1.0
VRW-9	6/6/2003	7.67	11.87	4.20	0.58	10	4.4	4.9	< 0.50	-	-
VRW-9	11/19/2003	8.01	11.87	3.86	0.86	<1.1	<1.1	<1.1	5.5	-	•
VRW-9	6/22/2004	7.76	11.87	4.11	0.61	<1.0	1.35	<1.0	5.55	-	-
VRW-9	12/9/2004	7.51	11.87	4.36	0.57	8.8	10	<0.5	5.5	-	
VRW-9	7/21/2005	7.71	11.87	4.16	0.66	<1.0	<1.0	<1.0	2.83	-	-

mg/L = milligrams per liter

μg/L = micrograms per liter

na = not analyzed.

ND = not detected above laboratory reporting limits.

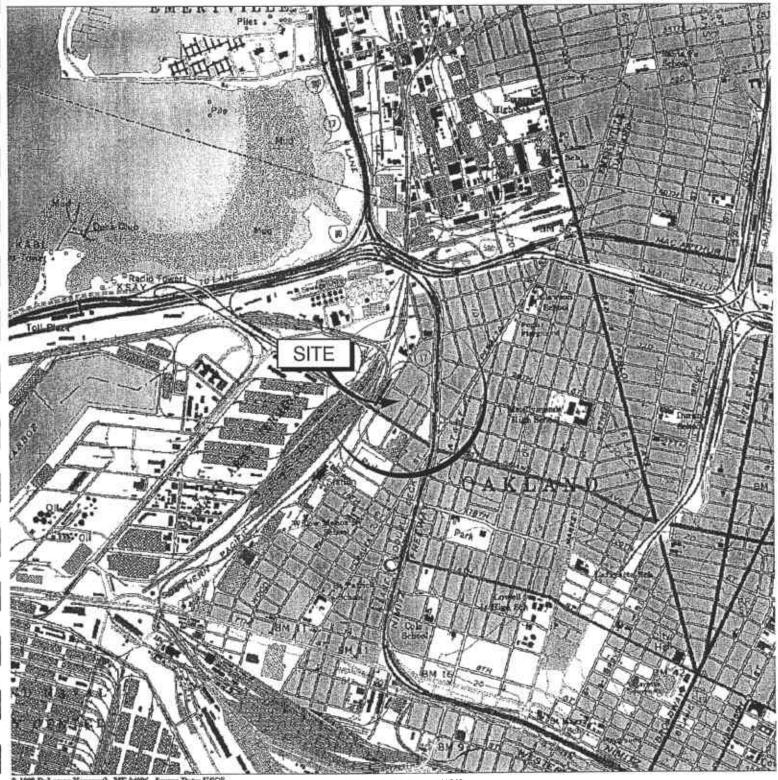
MSL = Mean Sea Level

< = less than the specified laboratory reporting limit

June 2004 groundwater elevations were collected on June 22, 2004.

December 2004 groundwater elevations were collected on December 8, 2004.

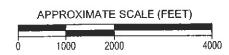




1999 DeLoruse Yacamuth, ME 04096 Source Data: USGS

- 700 ft Scale: 1 : 24,004 Detail: 13-0 Dartman NAD27



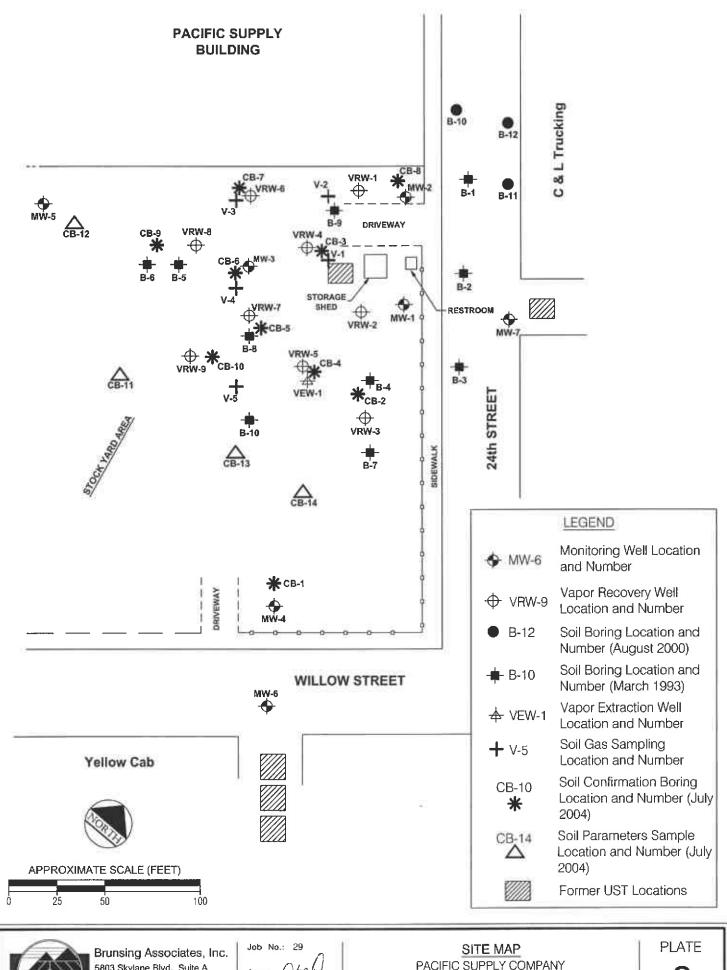




Brunsing Associates, Inc. 5803 Skylane Blvd., Suite A Windsor, California 95492 Tel: (707) 838-3027 VICINITY MAP
PACIFIC SUPPLY COMPANY
Oakland, California

PLATE

1

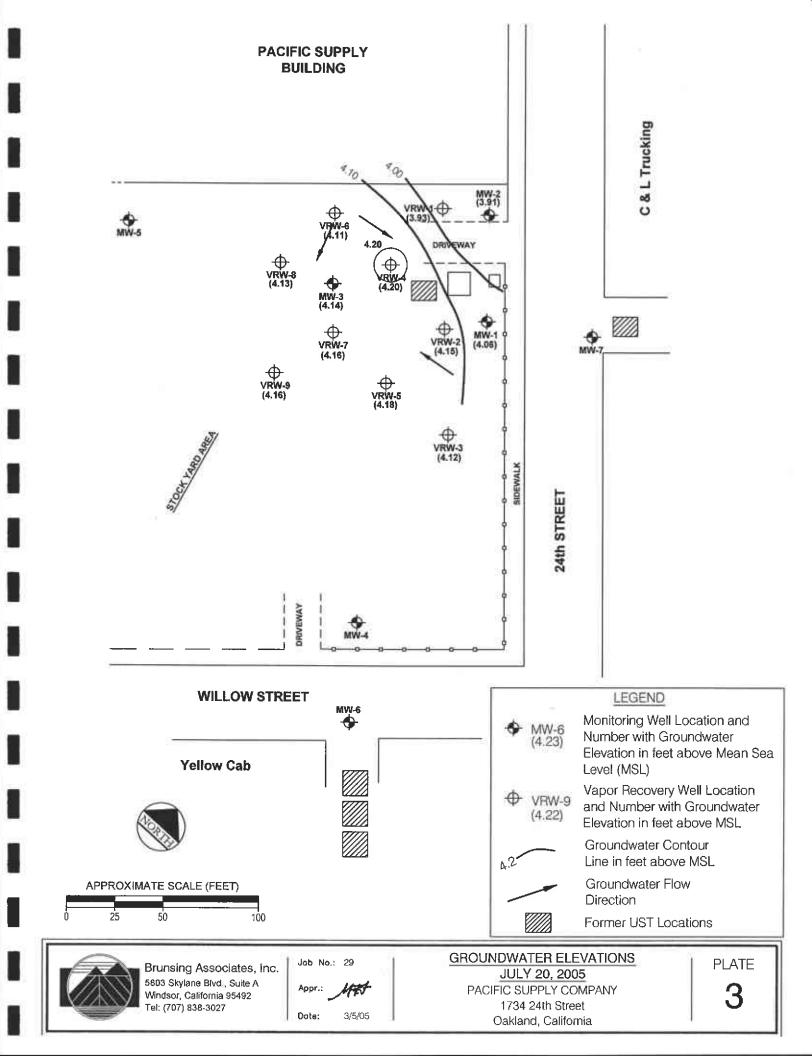






PACIFIC SUPPLY COMPANY 1734 24th Street Oakland, California

2



APPENDIX A

Monitoring Well Sampling Protocol and Field Reports



Groundwater Sampling Protocol

Monitoring Wells

Prior to purging a monitoring well, groundwater levels are measured with a Solinst electric depth measurement device, or an interface probe, in all wells that are to be measured. At sites where petroleum hydrocarbons are possible contaminants, the well is checked for floating product using a clear bailer, a steel tape with water/oil paste, or an interface probe, during the initial sampling round. If floating product is measured during the initial sampling round or noted during subsequent sampling rounds, floating product measurements are continued.

After the water level and floating product measurements are complete, the monitoring well is purged until a minimum of three casing volumes of water are removed, water is relatively clear of sediment, and pH, conductivity, and temperature measurements of the water become relatively stabile. If the well is purged dry, groundwater samples are collected after the water level in the well recovers to at least 80 percent of the original water column measured in the well prior to sampling, or following a maximum recovery period of two hours. The well is purged using a factory-sealed, disposable, polyethylene bailer, a four-inch diameter submersible Grundfos pump, a two-inch diameter ES-40 purge pump, or a peristaltic pump. The purge water is stored on-site in clean, 55-gallon drums.

A groundwater sample is collected from each monitoring well following re-equilibration of the well after purging. The groundwater sample is collected using a factory-sealed disposable, polyethylene bailer with a sampling port, or a factory-sealed Teflon bailer. A factory provided attachment designed for use with volatile organic compounds (VOCs) is attached to the polyethylene bailer sampling port when collecting samples to be analyzed for VOCs. The groundwater sample is transferred from the bailer into sample container(s) that are obtained directly from the analytical laboratory.

The sample container(s) is labelled with a self-adhesive tag. The following information is included on the tag:

- Project number
- Sample number
- Date and time sample is collected
- Initials of sample collector(s).

Individual log sheets are maintained throughout the sampling operations. The following information is recorded:



- Sample number
- Date and time well sampled and purged
- Sampling location
- Types of sampling equipment used
- Name of sampler(s)
- Volume of water purged.

Following collection of the groundwater sample, the sample is immediately stored on blue ice in an appropriate container. A chain-of-custody form is completed with the following information:

- Date the sample was collected
- Sample number and the number of containers
- · Analyses required
- Remarks including preservatives added and any special conditions.

The original copy of the chain-of-custody form accompanies the sample containers to a California-certified laboratory. A copy is retained by BAI and placed in company files.

Sampling equipment including thermometers, pH electrodes, and conductivity probes are cleaned both before and after their use at the site. The following cleaning procedures are used:

- Scrub with a potable water and detergent solution or other solutions deemed appropriate using a hard bristle brush
- Rinse with potable water
- Double-rinse with organic-free or deionized water
- Package and seal equipment in plastic bags or other appropriate containers to prevent contact with solvents, dust, or other contaminants.

In addition, the pumps are cleaned by pumping a potable water and detergent solution and deionized water through the system. Cleaning solutions are contained on-site in clean 55-gallon drums.

Domestic and Irrigation Wells

Groundwater samples collected from domestic or irrigation wells are collected from the spigot that is the closest to the well. Prior to collecting the sample, the spigot is allowed to flow for at least 5 minutes to purge the well. The sample is then collected directly into laboratory-supplied containers, sealed, labeled, and stored on blue ice in an appropriate container, as described above. A chain-of-custody form is completed and submitted with the samples to the analytical laboratory.



UST Yes_ Fund Site: × No

FIELD REPORT

PACIFIC SUPPLY

PAGE _ I OF 4

JOB NO: 29

PROJECT: 1735 24TH STREET, OAKLAND, CA.

INITIAL: CDS

SUBJECT: GREUNOWATER SAMPLING

DATE: 7-20-05 PROJECT PHASE NUMBER: 04

VEHICLE USED: FORD F-150

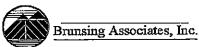
Total Time: **9,50**

End. Mileage:

Beg. Mileage: [13.013

TOTAL MILEAGE: 72

IME	DESCRIPTION OF WORK AND CONVERSATION RECORD:	
0544	LOAD EQUIPMENT AND SUPPLES.	
0636	TO SITE,	
0803_	ARRIVE ATSITE SET-UP FOR GROUNDWATER SAN	punt
_	ACLESSED WELLS TO BE SAMPLED.	
	MEASURED TWO-REJNES OF DISTANCE TO WATER AT	wells Mw-1
	MW-2, MW-3, VRW-1, VRW-2, VRW-3, VRW-2	t vru-s
	VEW-6, YEW-7, VEW-9 AND VEW-9.	
	PERFORMED SOM DUNK AT WELLS MW-3 AND VRW-4	
	STORED PLRUEWATER IN DRUM LOCATED IN THE FORM	nez
	REMEDIATION SASTEM COMPOUND AREA!	
	Chased wells And Manunents	
	DECEN SAMPLING EQUIPMENT.	
	LODO EQUIPMENT AND SUPPLIES.	
	COMPLETED FIELD NOTES AND LORGED SOMPLES	ON CHAIN OF CUSTOOT,
1430	LEAVE S, TE.	
. 21		
1452	FRAVEL; FINISHED WITH WORK	
		DRUM COUNT:
		Water = [‡] Devipmt Water = Soil = Decon Water =
		<u> </u>



PROJECT: PACIFIC SUPPLY

17

PROJECT NUMBER: 29

INSTRUMENT TYPE: ET(いしゃ)

INITIALS: CAS DATE: 7-20-05

WELL	DEPTH TO	DISTANCE	TIME	EQUILIBRATED	
NUMBER	PRODUCT	TO WATER	(24 HOUR)	(CHECK FOR YES)	NOTES
Mw-1	ø	7.41	1009		
Mw-2	B	6.89	1013		
MW-3	Ø	7.62	1032		
VRW-1	Ø	7.24	1014		
VRW-2	Ø	6,93	1036		
VRW-3	ø	7.49	1006		
VRW-4	Ø	7.12	1018		
VRW-5	Ø	7.37	1608		
VRW-6	Ø	7.31	1025		
VRW-7	95	7.54	1031		
N52-8	ø	7.49	1027		
VRW-9	B	7,72	1030		
MW-l	ø	7.41	1039	/	
MW-2	Ø	6.89	1040	✓	
MW-3	Ø	7.62	1050		
VRW-1	B	7,25	1041	V .	
VRW-Z	ø	6.93	1053	~	
VRW-3	ø	7.50	1038	1	
VRW-4	ø	7.12	1043	V	
VRW-5	ø	7.38	1052	1	
VRW-6	ø	7.32	1044	V	
V2W-7	Ø	7.54	1048	~	
VRW-8	Ø	7-49	1046	V	
vew-9	ø	7.71	1047	V	
	1		1		

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 3 OF4

						
PROJECT:	PAcific	SUPPLY				PROJECT NUMBER: 29
WELL# M	w-3	PRECIP. IN L	AST 5 DAYS:		WIND -	DATE: 7-20-05
STARTING	TIME: /	136	FINISHING 7	「IME:] てろ	2	INITIALS: CDS
CALCULATI	ON OF PUR	GE VOLUM	<u>E</u>			G
2" WELL	DEPTH:	16.00] - D.T.W.	7.62	☐ = H20 COLUM	N: 8.38 X 0.5 = 4.19 L
4" WELL	DEPTH:] - D.T.W.		= H20 COLUM	
THEREFO	RE TOTAL	PURGE G/	ALLONS EQUA	LS		4 s
			FIE	LD ME	ASUREMEN	T S
	GALLONS			· · · · · · · · · · · · · · · · · · ·		
TIME	REMOVED	р <u>Н</u>	CONDUCTIVITY	TEMP.		<u>OBSERVATIONS</u>
1157	7	7,26	*Or	23,5	CLEARYELL	ow-Brown, GREANIC ODOR
	· · · · · · · · · · · · · · · · · · ·			,		
1201	2.5	7,53	*or	23,5	CLOUST TE	LOW-BAGWN, ORLANDE EDOR, SANDY
						<u> </u>
1204	4	7.52	* Or	23,2	CLOUPY 7E	LOW-BROWN, ORVANICODOR SANDY
		•				
SAMPLIN	lG:	SAMPLE	ANALYSIS:	TALLAS	BTEX	
		SAM	MPLE TIME:	1217] DID WELL	GO DRY? NO
WATER	EVELS:	NOTES:				
TIME	D.T.W.	00	COUTOF	Pance	>3999µ5	·
1222	8.32		-		_	
					·	
			•			
				•		

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 4 OF 4

				برحنا المساحد	سعوس المساورة	·		_			
PROJECT:	PROJECT: PACIFIC SUPPLY PROJECT NUMBER: 29										
WELL# v	ew-4	PRECIP. IN	LAST 5 DAYS:	 	WIND -		DATE: 7-20-05				
STARTING	TIME:	054	FINISHING 1	ΠΜ Ε : 130	0		INITIALS: CDS				
CALCULAT	CALCULATION OF PURGE VOLUME G										
2" WELL	A										
4" WELL	DEPTH:	20.00] - D.T.W.	7.12		OLUMN:	12.88 X 2.0 = 25.76 O				
			- ALLONS EQUA			'	N 26 S				
MENERO	NE TOTAL	PORGE G	ALLONS EGOA	LO							
FIELD MEASUREMENTS											
TILLE	GALLONS	11			T		oporpi u Tolio				
TIME	REMOVED	рH	CONDUCTIVITY	TEMP.			<u>OBSERVATIONS</u>				
1116	(6.86	2428	25.7	CLEAR	a k bs	שוב ססס פ				
	<u> </u>	0.06				1	THE ODD OF				
1126	7	7.39	* or	23.3	TURBIO	Braw N.	ORGANIC ODOR, SAPAT				
						,					
(134	16	7.66	3908	72.1	TURBID	Brown	BEGANICODOR, SANDY				
			<u> </u>								
SAMPLI	NG:	SAMPLE	E ANALYSIS:	TPH. GAS	: 1	BIEX					
		QAI		1253		WELL GO	DRY? YES				
		UNI	· · · · · · · · · · · · · · · · · · ·	1 2 2 3	7 0.0	*******	763				
WATER	LEVELS:	NOTES:									
TIME	D.T.W.	. سد	Or invers	Ø .	7 7000	. c i	•				
1135	19.10	<u>-77</u>	Or : OUT OF	Party 17 Carlo	1 344-1	N S					
1235	7.21										
1258	8,08		<u>-</u>					•			
											
											
			 	•	,	•					
			· · · · · · · · · · · · · · · · · · ·								

UST Yes Fund Site: No

FIELD REPORT

PACIFIC SUPPLY

PROJECT: 1735 Z4TH STREET, CALLAND, CA

INITIAL: CPS

JOB NO: 29

SUBJECT: L'ROUND WATER SAMPLING

DATE: 7-21-05 PROJECT PHASE NUMBER: 04

VEHICLE USED: FORD F-150

PAGE 1 OF 8

Total Time: 9.00

End. Mileage: __

Beg. Mileage: 173085

			_	
		TOTAL MILI	EAGE:	l t
TIME	DESCRIPTION OF WORK AND CONVERSATION RECORD:			
0629	TO SITE.			
0650	ARRIVE AT SITE, SET-UP FOR GROUNDWATER SAMPL	l 1862		
C 40 4 7 7	The series we sale is not all toke a management 2 4W M	1 NO 15" -		
	PERFORMED SAMPLING ATWELLS MW-1, VRW-2, VRW	-5 VRW-6		
			, -	
	VRW-7 VRW-8 AND VRW-9.			
			772 a-	
	STORED DURGEWATER IN DRUMS LOCATED AT THE FOR	-m = 12 545	IEN	
	COMPOUND AREA.			
	CLOSED WELLS AND HONOMENTS.			
<u>-</u>				
	DECON SAMPLING EQUIPMENT,			
	LOAD EQUIPMENT AND SUPPLIES.			
		-		
	COMPLETED FIELD NOTES AND LOUGED SAMPLES ON CI	TAIN OF CU	PG 67 2	
				<u> </u>
150S	LEAUE SITE,			
1526	TRAVEL, FINISHED WITH WORK			
	I thenke A franchis a form as store as a six of Angle thenking			
		DRUM COUNT:		
		Water = 4	Devipmt Wa	tor ↔
			Decon Wate	



BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING SHEET 2 OF 8

	ROJECT: 17	Azific Su	PPLY				PROJECT NUMBER: 29				
Ц		w-\ F		AST 5 DAYS:		WIND -	DATE: 7-21-05	ļ			
i (*			FINISHING T	ime: /039	5	INITIALS: CD S				
	CALCULATION	ON OF PUR	GE VOLUMI				G A				
	2" WELL	DEPTH: [[9.00	- p.T.W.	7.41	= H20 COLUMN		1			
	4" WELL DEPTH: D.T.W = H20 COLUMN: X 2.0 = O										
	THEREFOR	RE TOTAL I	PURGE GA	LLONS EQUA	LS		6 s				
				FIE	LD MEA	SUREMENT	<u>s</u>				
	TIME	GALLONS REMOVED	рΗ	CONDUCTIVITY	TEMP.		OBSERVATIONS	;			
	1004	{_{_{_{_{_{_{_{_{_{_{_{_{_{_{_{_	7.53	*or	20.8	CLOUDY YELL	eur-Brown BREANICODON,				
	٠	-			<u> </u>	SEDIMENT	,				
	1008	3	7.41	*Or	20.2	TURBIO GRE	7-BLACK, ODURNICODOR, SEDIM	EN:			
	1613	6	7.47	3949	19.7	TURBIO BLACK	ORDANICO DO - SEDIMENT				
					1			-			
	SAMPLI	<u>NG:</u>	SAMPLI	E ANALYSIS:	TPH. WAS	BTEV	<u> </u>				
1	<i>;</i>		SA	MPLE TIME:	1026	DID WELL	GO DRY? No				
	WATER	LEVELS:	NOTES	•			•				
	TIME	D.T.W.	₩ Or	: OUT OF C	LANGE	2 3999 45					
·	1030	11.21	·								
		<u> </u>	<u> </u>								
	-										
l											
1						·		_			
		<u> </u>	<u> </u>	<u> </u>	- 	•		• •			

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING SHEET 3 OF 8

PROJECT: /	PACIFIC :	Suprey				PROJECT NUMBER: 29				
WELL# V	2w-2	PRECIP. IN L	AST 5 DAYS: ~		WIND -	DATE: 7 - 21 - 03				
			FINISHING T		46	INITIALS: LPS				
CALCULATI	ON OF PUR	GE VOLUM	E			G				
2" WELL	•		•		-	L				
4" WELL	DEPTH: [20.00	- D.T.W.	6,93	= H20 COLUMN	1: 13.67 X 2.0 = 26.14 O				
THEREFO	RE TOTAL	PURGE GA	ALLONS EQUA	LS		· 26 S				
:	FIELD MEASUREMENTS									
TIME	GALLONS REMOVED	pН	CONDUCTIVITY	TEMP.	·	<u>OBSERVATIONS</u>				
0854		7.34	*0r	199	H CLEAN.	DELANIC SDACE				
	÷č									
1968	/3	7.91	*or	21.1		LEEN - BROWN GREANIC O DOG				
					SEDIMENT	SANDY				
7170	26	7.44	3826	21.2	TURBIO GREE	EN-BROWN, OPLANIC ODOR				
		· ·			SEDIMENT, S	ANOY				
				<u></u>	<u> </u>					
SAMPLIN	<u>1G:</u>	SAMPLE	ANALYSIS:	TPH. GAS	Brek					
		SAN	MPLE TIME:	0926	- -	GO DRY? No.				
WATER	LEVELS:	NOTES:			<u> </u>					
TIME	D.T.W.	٠	Dr: OUTOF	RANGE	>39995	·				
0940	9.55	T								
				 						
						•				
		·								
		· ·		· .						

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 4 OF 8

PROJECT: PACIFIC S	UPPLY				PROJECT NUMBER: 29					
WELL#VRW-5	PRECIP. IN L	AST 5 DAYS:		WIND 🗸	DATE: 7_21-05					
STARTING TIME: 1342 FINISHING TIME: 1434 INITIALS: CDS										
CALCULATION OF PURGE VOLUME A										
2" WELL DEPTH: D.T.W = H20 COLUMN: X 0.5 = L										
4" WELL DEPTH: [L 4" WELL DEPTH: 20.00 - D.T.W. 7.38 = H20 COLUMN: 12.42 X 2.0 = 25.24 O N									
THEREFORE TOTAL	PURGE GA	ALLONS EQUA	LS		25 8					
FIELD MEASUREMENTS										
GALLONS TIME REMOVED	рH	CONDUCTIVITY	TEMP.		<u>OBSERVATIONS</u>					
1250	7.31	*0,	20.6	Tuasio bast	- BLACK, ORGANIC ODER, SEDIMENT					
		*Or		- , , , ,	· · · · · · · · · · · · · · · · · · ·					
:358 12	7.28	CSF	18,9	ivasio baci	- GREEN, ORDANICO DER, SEDIMENT					
i 406 25	7,26	3941.	18.4	TERBIDGET	-BLACK ORGANIC OBOR, SEDIMENT					
			-							
SAMPLING:	SAMPLE	E ANALYSIS:	TPH. GAS	BTEX						
,	SAI	MPLE TIME:	:418] DID WELL (GO DRY? No					
WATER LEVELS:	NOTES:									
TIME D.T.W.	* بر	OF: 007 01	FRANGE	7 3999 NS						
1422 7.52			 	· · · · · ·						
<u> </u>	<u> </u>	<u> </u>	<u> </u>							
		<u> </u>								
		· · · · · · · · · · · · · · · · · · ·	<u> </u>							
		···								

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 5 OF 8

PROJECT:	PROJECT: PACIFIC SUPPLY PROJECT NUMBER: 2-9											
WELL# V	WELL#VEW-6 PRECIP. IN LAST 5 DAYS: WIND DATE: 7-21-05											
STARTING	TIME: 6	746	FINISHING	ПМЕ: 134 ₁	i	NITIALS: CDS						
CALCULAT	CALCULATION OF PURGE VOLUME A											
2" WELL												
4" WELL	4" WELL DEPTH: 20.00 - D.T.W. 7.32 = H20 COLUMN: 12.68 X 2.0 = 25.36 O											
THEREFO	THEREFORE TOTAL PURGE GALLONS EQUALS N S											
FIELD MEASUREMENTS												
,	GALLONS	,										
TIME	REMOVED	рН	CONDUCTIVITY	TEMP.	<u> </u>	BSERVATIONS						
0511	1	7.16	3987	19,2	CIERT Date	AUL 000						
		7,10	7 (8 7	1-1,2-		ANC ODOR						
0816	\$	7,19	*Or	19.6	CLOUPY GREEN	-BOOWN ORLANICODER SANDT						
0822	15	7.26	Kor	፤ኖ.ገ	Transis belen	-BROWN CRUMNIC BOOK SANOY						
		<u> </u>										
			<u> </u>									
SAMPLI	NG:	SAMPLE	ANALYSIS:	TAI GAS	BIEX							
		SAM	MPLE TIME:	1329	DID WELL GO	DRY? YES						
WATER	LEVELS:	NOTES:	 ,		•							
TIME	D.T.W.	* *	Or: out of	RANGE	>3999 15	<u> </u>						
0823	[9.17.											
0923	16.02											
1023	15.07	_										
1337	12.72		•									
				•	· .							
					•							

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 6 OF 8

•					
PROJECT:	PACIFIC S	Supply			PROJECT NUMBER: 29
WELL# <i>VP</i>	lw-7	PRECIP. IN L	AST 5 DAYS:		WIND DATE: 7-21-05
STARTING	TIME: 0	651	FINISHING T	ПМЕ: 13 <i>0°</i>	9 INITIALS: 205
CALCULAT	ON OF PUR	GE VOLUM	E		G A
2" WELL	DEPTH:		- D.T.W.] = H20 COLUMN: X 0.5 = L
4" WELL	DEPTH:	20.00] - D.T.W.	7.54	= H20 COLUMN: 12.46 X 2.0 = 24.92 O
THEREFO	RE TOTAL	PURGE GA	ALLONS EQUA	LS	. · 25 S
			FIE	LD MEA	ASUREMENTS
	GALLONS				
TIME .	REMOVED	рH	CONDUCTIVITY	TEMP,	<u>OBSERVATIONS</u>
0732	,	7,11	*Or	20.1	CLEAR YELLOW BROWN ORVANIC OPOR SHEET
0738	7	7.28	*01	20.7	TURRID GREEN - BROWN ORLANIC ODOR SHEEN,
<u> </u>				<u> </u>	SANOT
0743	14	7.34	*Or	20.7	TURBIO GREEN - BEINN, ORLANC OCOR SHEEN
1	·	<u> </u>			SANO7.
SAMPLI	<u> </u> NG:	JSAMPLE	ANALYSIS:	TP4 - U93	Sus Sus
		SAI	MPLE TIME:	1363	DID WELL GO DRY? 155
WATER	LEVELS:	NOTES:	<u></u>	•	
TIME	D.T.W.	Or	. our of R	ANUE 7	73999 45
-0745	19,35				
0805	11,01				
0945	8.62				
1307	8.23	:	·	 _	
		<u> </u>		- 1	
			\$ 9 \$\$ \$\docume{\psi}\$		
	J				

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION WELL SAMPLING

WELL SAMPLING SHEET 7 OF 8

PROJECT:	Pacifics	upped					PROJECT NUMBER: 29		
WELL#V	Zw-8	PRECIP. IN	LAST 5 DAYS:		WIND		DATE: 7-21-05		
STARTING	TIME: [039	FINISHING .	TIME: [133	š		INITIALS: 403		
CALCULAT	ION OF PUR	RGE VOLUM	i <u>E</u>	· <u>·</u> .	······································	 · · · . · . · . · . · . 	G		
2" WELL	DEPTH:] - D.T.W.] = H20	COLUMN	1: X 0.5 = L		
4" WELL	DEPTH:	20.00] - D.T.W.	7.49] = H20	COLUMN	1: 12.51 X 2.0 = 25.02 O		
THEREFO	RE TOTAL	PURGE GA	ALLONS EQUA	LS			25 S		
FIELD MEASUREMENTS									
TIME	GALLONS REMOVED	рH	CONDUCTIVITY	<u>TEMP.</u>			<u>OBSERVATIONS</u>		
10848	ı	7,26	₩ 00	20.7	COLE	Y:	ELLOW-BROWN ORUANICOOOR		
	•					· · ·			
1054	12	7.26	*0+	20.2	TUCK	no baer	EN - BROWN ORGANIC ODOR		
							SANOY		
1101	25	7-26	*or	20.0		•	EN-BROWN, ORGANIC ODOR,		
·		·			SEDIN	NENT,	Yeurs		
				<u> </u>					
SAMPLII	<u>\G:</u>	SAMPLE	ANALYSIS:	TPH.GAS		BTEX			
		SAM	MPLE TIME:	1114	ווס [O WELL G	GO DRY? NO.		
WATER	LEVELS:	NOTES:	···············		<u>. = 37</u>				
TIME	D.T.W.	* Or:	out of Re	MUE 7.	3999 N	- >	·		
1119	7.63								
									
• 							· .		
			•						
		·				<u> :</u>			

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 8 OF 8

PROJECT:	PACIFIC	Supply	•			PROJECT NUMBER: 29	_			
WELL# V@	-w- 9	PRECIP. IN I	LAST 5 DAYS: .		WIND	DATE: 7-21-05				
STARTING	TIME: ()	34	FINISHING '	TIME: / ユチ	2	INITIALS: CDS				
CALCULATION OF PURGE VOLUME A										
2" WELL DEPTH: D.T.W = H20 COLUMN: X 0.5 =										
4" WELL	DEPTH:	20.00] - D.T.W.	7.71] = H20 COLI	UMN: 12.29 X 2.0 = 74.58 0)			
THEREFOR	E TOTAL	PURGE G/	ALLONS EQUA	LS		2-S S				
FIELD MEASUREMENTS										
I	GALLONS	, U			·					
TIINE 1	REMOVED	<u>p H</u>	CONDUCTIVITY	TEMP.		<u>OBSERVATIONS</u>				
1155	[7.35	*Or	24.2	TUEBIO 6	MEEN-BROWN, NO EDOR, SEDIMENT				
					SAND9		···			
1202	12	7.77	*Or	23.1	TURBIOL	TREEN-BROWN ORVANICAGOR SA	منج دم			
			•			·				
1216	25	7.59	*Or	22.9	TURBIOLO	REEN-BROWN, GRUANILODER, SANDT				
					<u> </u>		_			
		· , ,				<u> </u>				
SAMPLING	<u>G:</u>	SAMPLE	ANALYSIS:	TPH.LAS	Bre	Ek .				
		SAN	MPLE TIME:	;231	DID WE	ELL GO DRY? No				
WATER LE	EVELS:	NOTES:	· - ·		•					
TIME	D.T.W.	* Or	OUT OF LA	LNGE >	3499 NS	·				
1236	7.84				f					
			· · · · · · · · · · · · · · · · · · ·							
							,			
			·							
		•		•						
· ·				<u> </u>	·					

FILE COPY

UST Fund Site:

Yes <u>X</u> No

FIELD REPORT

PAGE ___ OF _5_

JOB NO: 29

PACIFIC SUPPLY

INITIAL: COS

PROJECT: 1735 24TH STREET, OAKLAND, CA.

Total Time: 8.75

SUBJECT: GOODS WATER SAMPLING

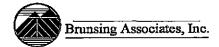
End. Mileage: 168

DATE: 7-22-05 PROJECT PHASE NUMBER: 04

VEHICLE USED: FORD F-150

Beg. Mileage: 173096

TOTAL MILEAGE: DESCRIPTION OF WORK AND CONVERSATION RECORD: TIME To Site. 0631 ARALVE AT SITE. SET-UP FOR GROUND WATER SAMPLING. 0647 MEASURED TWO ROUNDS OF DISTANCE TO WATER AT WELLS MW-2, VRW-1 AND VRW-3 PERFORMED SAMPLING AT WELLS MW-Z, VRW-1 AND VRW-3. STORED PURGEWATER IN DRUMS LOCATED IN THE FORMER SYSTEM COMPOUND ALEA. CLOSED WELLS AND MODUMENTS, DECON SAMPLING EGUIPMENT. LOAD EQUIPMENT AND SUPPLIES. COM OLETED FIELD NOTES AND LOGGED FAMPLES ON CHAIN OF CUSTODY. 1224 LEAVE SITTE. ADDIVE AT OFFICE, SUBMITTED SAMPLES FOR ANDLYSIS. 1542 UNLOAD EGUIPMENT AND SUPPLIES, 1613 FINISHED WITH WOOK DRUM COUNT: Water = 5 Devipmt Water = Decon Water = Soil =



PROJECT: PACIFIC SUPPLY

PROJECT NUMBER: 29

INSTRUMENT TYPE: ET (WLP)

INITIALS: CDS DATE: 7-22-05

WELL NUMBER	DEPTH TO PRODUCT	DISTANCE TO WATER	TIME (24 HOUR)	EQUILIBRATED (CHECK FOR YES)	NOTES
MW-Z		6.89	0708		
VRW-1		7.25	0709		
VRW-3		7.50	0711		
Mw-2		6.90	0714	/	
VRW-1		7.26	0716	1	
1 RW-3		7.50	0719	1	
					
			·		
			<u> </u>	ļ	
 		<u> </u>			
<u> </u>					
		:			
	<u> </u>	<u> </u>			

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 3 OF S

PROJECT:	PACIFIC	SU PPLY					PROJECT NUMBER: 29	
WELL# M	w-2	PRECIP. IN I	LAST 5 DAYS:		WIND	~	DATE: 7 - 22 - 05	
STARTING	TIME: (1720	FINISHING	ΓIME: O 59	fo		Initials: CDS	
CALCULAT	ON OF PUR	RGE VOLUM	E		·····	<u></u>		G
2" WELL	DEPTH:] - D.T.W.] = H20	COLUM	N: X 0.5 =	A L
4" WELL	DEPTH:	20,00] - D.T.W.	6.90] = H20	COLUM	N: [3,10 X 2.0 = 2,6,20	0
THEREFO	RE TOTAL	PURGE G/	ALLONS EQUA	LS			26	N S
			FIE	LD ME	ASURI	EMENT	rs en	
	GALLONS		<u> </u>					····
TIME	REMOVED	рН	CONDUCTIVITY	<u>TEMP.</u>	 		<u>OBSERVATIONS</u>	
0756)	7.06	**Gr	19.4	016		LOW O READIC ODOR	
3130	•		۸.		, , ,	***		
9 <u>£</u> 92	13	7,19	* Or	19.8	CLEA	r Br	amn hooser	_
			_					
0816	26	7.59	3111	19.9	CLEC	R.BR	own, no abor	
•				-	<u> </u>	•		
					<u> </u>			_
SAMPLI	√G:	SAMPLE	ANALYSIS:	TPH. OAS	:	BTEX		
		SAM	MPLE TIME:	0821	ום [D WELL	GO DRY? N⇒	
WATER	LEVELS:	NOTES:						
TIME	D.T.W.	* O	r: out of	@An (==	7 3999	25	•	
0825	6.95			/	<u>, </u>	<u> </u>		-
		· ·						_
	,				_			•
			,					
								<u> </u>

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 4 OF 5

						عن علامه من من بالمناب عن المناب - المناب
PROJECT:	Pacific	Supply				PROJECT NUMBER: 29
WELL# V	ew-1	PRECIP. IN I	LAST 5 DAYS:	<u></u>	WIND -	DATE: 7 - 22-05
STARTING	TIME: 0	841	FINISHING	TIME: 09	+6	INITIALS: = 55
CALCULAT	ION OF PUR	RGE VOLUM	Œ		· · · · · · · · · · · · · · · · · · ·	G
2" WELL	DEPTH:] - D.T.W.] = H20 COLUMN	1: X 0.5 = L
4" WELL	DEPTH:	20.00] - D.T.W.	7.26	= H20 COLUMN	1: 12.74 X 2.0 = 25.48 O
THEREFO	RE TOTAL	PURGE GA	ALLONS EQUA	LS		25 S
			FIE	LD ME	ASUREMENT	<u>s</u>
	GALLONS	,]	·	
TIME	REMOVED	На	CONDUCTIVITY	TEMP.		<u>OBSERVATIONS</u>
. 5			*-	<u> </u>	<u> </u>	
० ४८।	11	7.42	*or	20,2	CLEARORAN	WE - BROWN , ORLYANIC ODOR
5280	12	7.37	*00	19,9	CLEAR DARK	K BROWN, DRUANK O DOR SEDIMENT
0916	25	7.68	* 01	20,1	TURBID BI AZ	LORLANIC ODOR SEDIMENT
·		•	·			
SAMPLI	NG:	SAMPLE	ANALYSIS:	TPH. UAS	B在X	
		SAN	MPĻE TIME:	0926		O DRY? No
WATER	LEVELS:	NOTES:	<u> </u>			
TIME	D.T.W.	N. C.	COUTOFR	we F	र <i>49</i> ६ . ८	•
0932	72,90	- - 70 - 01	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,	2.11 /12	
			,			
• .						
			•		·	
		· ·				
· · · · ·					· ·	· · · · · · · · · · · · · · · · · · ·

BRUNSING ASSOCIATES, INC. ENVIRONMENTAL DIVISION

WELL SAMPLING

SHEET 5 OF S

PROJECT:	PACIFICS	SUPPLY		<u> </u>		PROJECT NUMBER: 29
WELL# (18W-3	PRECIP. IN	LAST 5 DAYS:		WIND ~	DATE: 7-22-05
STARTING	G TIME:	0947	FINISHING '	TIME: 104	/3	INITIALS: 455
l	TION OF PUI					G A
ł	DEPTH:		• -] = H20 COLUMN:	
	DEPTH:		•		= H20 COLUMN:	12.50 X 2.0 = 25.00 O
THEREFO	RE TOTAL	PURGE G	ALLONS EQUA	LS		25 s
			FIE	LD ME	ASUREMENTS	
TIME	GALLONS REMOVED	рH	CONDUCTIVITY	TEMP.		ODOED/ATIONS
	JAE WOVED	<u> </u>	CONDUCTIVITY	<u>IEWIP</u> ,	·	<u>OBSERVATIONS</u>
1006	i	7,55	*Or	21,8	CLEAR, ORL	ANIC ODOFA
1313	12	7.33	* 0.	20,5	THESTO A	AL BEOWN, ORLAND DOOR, SEDIMENT
	· · · · · · · · · · · · · · · · · · ·		,,			<u> </u>
1023	25	7.48	* or	20,1	TURBIO DARK	Brown organico Der Sediment
				<u>-</u>	<u> </u>	
SAMPLII	NG:	SAMPLE	ANALYSIS:	TPHUAS	BIEX	
		SAN	MPLE TIME:	1633	DID WELL GO	DRY? NO
WATER	LEVELS:	NOTES:				
TIME	D.T.W.	ar A	r; out of	Q Any	72999 C	•
1038	13.30.			,	73.11.13	
			 			
			· · · · · · · · · · · · · · · · · · ·			·
			···	·		
				•	•	

APPENDIX B

Analytical Laboratory Report



Laboratory Report Project Overview

Laboratory:

Bace Analytical, Windsor, CA

Lab Report Number:

4604

Project Name:

1735 24TH STREET

Work Order Number:

29

Control Sheet Number:

NA

Case Narrative

Bace Analytical, Windsor, CA

Report Date:

09/04/2005

Project:

1735 24TH STREET

Report Number: 4604

Order #:

29

Please be advised that the volatile aromatics analysis (BTEX) required for this sample log was performed by means of EPA 8260B (GC/MS) rather than by EPA 8021 as specified on the chain of custody. The reporting limits of the two methods are equivalent. There will be no additional fee assessed for the GC/MS analysis.

Approved by: Wallowy &

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotcti	Run Sub
4604	MW-1	4604-1	W	CS	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	18
							5	5	5		
4604	MW-1	4604-1	W	cs	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	18
							5	5	5		
4604	MW-2	4604-2	W	CS	8260FAB	SW5030B	07/22/200	07/28/200	07/28/200	20050728A	19
							5	5	5		
4604	MW-2	4604-2	W	CS	8260TPH	SW5030B	07/22/200	07/28/200	07/28/200	20050728A	19
4604	1 MA (2	4604.2	14/	CC	9360EAB	CIMEOSOD	5	5	5	200507004	20
4604	MW-3	4604-3	W	CS	8260FAB	SW5030B	07/20/200 5	07/28/200 5	07/28/200 5	20050728A	20
4604	MW-3	4604-3	w	cs	8260TPH	SW5030B	07/20/200	07/28/200	07/28/200	20050728A	20
1001	10101-0	4004-0	**	Ų.	02001111	04430000	5	5	5	200301207	20
4604	VRW-1	4604-4	w	cs	8260FAB	SW5030B	07/22/200	07/28/200	07/28/200	20050728A	21
							5	5	5		
4604	VRW-1	4604-4	W	CS	8260TPH	SW5030B	07/22/200	07/28/200	07/28/200	20050728A	21
							5	5	5		
4604	VRW-2	4604-5	W	CS	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	22
							5	5	5		
4604	VRW-2	4604-5	W	CS	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	22
1001	10144	4004.0	14.	~~	0000545	C\4/5000B	5	5	5		
4604	VRW-3	4604-6	W	CS	8260FAB	SW5030B	07/22/200 5	07/28/200 5	07/28/200 5	20050728A	23
4604	VRW-3	4604-6	w	CS	8260TPH	SW5030B	07/22/200	07/28/200	07/28/200	20050728A	23
7007	V1001-0	4004-0	**	00	02001111	01100000	5	5	5	200307207	23
4604	VRW-4	4601-7	w	cs	8260FAB	SW5030B	07/20/200	07/28/200	07/28/200	20050728A	24
							5	5	5		
460 4	VRW-4	4601-7	W	CS	8260TPH	SW5030B	07/20/200	07/28/200	07/28/200	20050728A	24
							5	5	5		
4604	VRW-5	4604-8	W	cs	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	25
							5	5	5		
4604	VRW-5	4604-8	W	CS	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	25
4004) (D) (C)	4004.0	187	-00	0000545	CIMEDOOD	5	5	5	000507004	••
4604	VRW-6	4604-9	W	CS	8260FAB	SW5030B	07/21/200 5	07/28/200 5	07/28/200 5	20050728A	26
4604	VRW-6	4604-9	w	cs	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	26
		1307-0	**		32001111	3110000	5	5	5	LUUUUI KUM	20
4604	VRW-7	4604-10	W	cs	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	27
				-			5	5	5		
1604	VRW-7	4604-10	W	CS	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	27

Report Summary

_abreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotcti	Run Sut
		- .					5	5	5		
604	VRW-8	4604-11	W	cs	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	28
							5	5	5		
604	VRW-8	4604-11	W	CS	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	28
004							5	5	5		
604	VRW-9	4 604-12	W	CS	8260FAB	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	29
604	VENUE	1004.10					5	5	5		
604	VRW-9	4604-12	W	CS	8260TPH	SW5030B	07/21/200	07/28/200	07/28/200	20050728A	29
		4004.4	3.84		2222515	*****	5	5	5		
		4601-1	W	NC	8260FAB	SW5030B	11	07/28/200	07/28/200	20050728A	8
		4601-6	w	NO	OGEOTELL	OWEDOOD		5	5		
		4001-0	VV	NC	8260TPH	SW5030B	11	07/28/200	07/28/200	20050728A	15
		4604MB	w	1 121	8260FAB	SW5030B	11	5	5	000507004	
		4004NB	**	ED!	02001 AB	34430305	1 1	07/28/200 5	07/28/200 5	20050728A	3
		4604MB	w	1 B1	8260TPH	SW5030B	11	07/28/200	07/28/200	20050728A	2
				LD.	02001111	OV10000D	, ,	5	5	20050726A	3
		4604M\$	W	MS1	8260FAB	SW5030B	11	07/28/200	=	20050728A	9
						***************************************		5	5	200307207	3
		4604MS	W	MS1	8260TPH	SW5030B	11	07/28/200	-	20050728A	16
								5	5		, 0
		4604SD	W	SD1	8260FAB	SW5030B	11	07/28/200	07/28/200	20050728A	10
								5	5		· -
		4604SD	W	SD1	8260TPH	SW5030B	11	07/28/200	07/28/200	20050728A	17
								5	5		

Analysis:

Page: 1

Project Name: **1735 24TH STREET** VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: MW-1 Lab Samp ID: 4604-1

Descr/Location: MW-1 Rec'd Date: 07/22/2005 Sample Date: 07/21/2005 07/28/2005 Prep Date: Sample Time: 1026 Analysis Date: 07/28/2005

Matrix: Water QC Batch: 20050728A Basis:

Not Filtered Notes:

Analyte	Det Limit	Rep Limit	:	Note	Result	Units	Pvc Dil
Benzene	0.27	0.50	PQL		ND	UG/L	1
Toluene	0.25	0.50	PQL		ND	UG/L	1
Ethylbenzene	0.25	0.50	PQL		ND	UG/L	1
Kylenes	0.25	0.50	PQL		ND	UG/L	1
SURROGATE AND INTERNAL	STANDARD RECOV	ERIES:	-	•			
1-Bromofluorobenzene		86-118	SLSA		94%		
Toluene-d8		88-110	SLSA		98%		
Dibromofluoromethane		86-115	SLSA		98%		

Approved by: Walling A Got Date: 9/4/05

Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Page: 2

Project Name: 1735 24TH STREET Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: MW-2 Lab Samp ID: 4604-2 Descr/Location: MW-2 Rec'd Date: 07/22/2005

Sample Date: 07/22/2005 Prep Date: 07/28/2005 Sample Time: 0821 Analysis Date: 07/28/2005 20050728A

Matrix: Water QC Batch: Basis: Not Filtered Notes:

Analyte Det Limit Rep Limit Note Result Units Pvc Dil Benzene 1.4 2.5 **PQL** 5.84 UG/L 5 Toluene PQL 1.3 2.5 DX ND UG/L 5 Ethylbenzene 1.3 2.5 **PQL** ND UG/L 5 **Xylenes** 1.3 2.5 **PQL** 5.81 UG/L 5 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 94% 86-118 SLSA Toluene-d8 98% 88-110 SLSA Dibromofluoromethane 99% 86-115 SLSA 1

DX: Value < lowest standard (MQL), but > than MDL

Walliam & G Approved by: ___

Lab Report No.: 4604 Date: 09/04/2005

Project Name: **1735 24TH STREET** Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB Prep Meth: SW5030B

Field ID: MW-3 Lab Samp ID: 4604-3 Descr/Location: MW-3 Rec'd Date: 07/22/2005

Sample Date: 07/20/2005 Prep Date: 07/28/2005 Sample Time: 1217 Analysis Date: 07/28/2005 Matrix: Water QC Batch: 20050728A

Basis: Not Filtered Notes:

Analyte	Dot Limit	Dan Limit		Ninto	Danish	11	Due Dil	
Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	0.54	1.0	PQL		ND	UG/L	2	
Toluene	0.50	1.0	PQL		ND	UG/L	2	
Ethylbenzene	0.50	1.0	PQL		ND	UG/L	2	
Xylenes	0.50	1.0	PQL		ND	UG/L	2	
SURROGATE AND INTERNAL STAND	ARD RECOV	ERIES:						
4-Bromofluorobenzene		86-118	SLSA		93%			1
Toluene-d8		88-110	SLSA		97%			1
Dibromofluoromethane		86-115	SLSA		99%			1

William & Got Approved by: ___

Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Page: 4

Project Name: **1735 24TH STREET** Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Lab Samp ID: 4604-4 Field ID: VRW-1

Descr/Location: VRW-1 Rec'd Date: 07/22/2005 Sample Date: 07/22/2005 Prep Date: 07/28/2005 Sample Time: 0926 Analysis Date: 07/28/2005

Matrix: Water QC Batch: 20050728A Basis: Not Filtered Notes:

Analyte Det Limit Rep Limit Note Result Units Pvc Dil Benzene 0.27 0.50 PQL 5.35 UG/L 1 Toluene 0.25 PQL 1.27 UG/L 0.50 1 Ethylbenzene UG/L 0.25 0.50 **PQL** ND 1 **Xylenes** 0.25 0.50 **PQL** 3.66 UG/L 1 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 93% 86-118 SLSA Toluene-d8 88-110 SLSA 97% Dibromofluoromethane 86-115 SLSA 99%

William & Approved by:

Project Name:

1735 24TH STREET Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Page: 5

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-2 Lab Samp ID: 4604-5

 Descr/Location:
 VRW-2
 Rec'd Date:
 07/22/2005

 Sample Date:
 07/21/2005
 Prep Date:
 07/28/2005

 Sample Time:
 0926
 Analysis Date:
 07/28/2005

Matrix: Water QC Batch: 20050728A

Basis: Not Filtered Notes:

							 	
Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	0.27	0.50	PQL		102	UG/L	1	
Toluene	0.25	0.50	PQL		1.43	UG/L	1	
Ethylbenzene	0.25	0.50	PQL		0.84	UG/L	1	
Xylenes	0.25	0.50	PQL		3.81	UG/L	1	
SURROGATE AND INTERNAL ST	ANDARD RECOV	ERIES:						
4-Bromofluorobenzene		86-118	SLSA		92%			1
Toluene-d8		88 -1 10	SLSA		98%			1
Dibromofluoromethane		86-115	SLSA		99%			1

Approved by: William & Coty Date: 9/

102%

Lab Report No.: 4604 Date: 09/04/2005

Dibromofluoromethane

Project Name: 1735 24TH STREET Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-3 Lab Samp ID: 4604-6
Descr/Location: VRW-3 Rec'd Date: 07/22/2005

 Sample Date:
 07/22/2005
 Prep Date:
 07/28/2005

 Sample Time:
 1033
 Analysis Date:
 07/28/2005

 Matrix:
 Water
 QC Batch:
 20050728A

Matrix: Water QC Batch:
Basis: Not Filtered Notes:

Analyte **Det Limit** Rep Limit Note Units Pvc Dil Result Benzene 0.54 1.0 **PQL** ND UG/L 2 Toluene 0.50 1.0 PQL ND UG/L 2 UG/L 2 Ethylbenzene 0.50 1.0 PQL ND **PQL** 202 UG/L 2 **Xylenes** 0.50 1.0 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 86-118 **SLSA** 97% 1 Toluene-d8 88-110 **SLSA** 97% 1

86-115

SLSA

Approved by: William & Poty Date: 9/4/05

Lab Report No.: 4604 Date: 09/04/2005

Project Name: 1735 24TH STREET Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-4 Lab Samp ID: 4601-7
Descr/Location: VRW-4 Rec'd Date: 07/22/2005

 Sample Date:
 07/20/2005
 Prep Date:
 07/28/2005

 Sample Time:
 1253
 Analysis Date:
 07/28/2005

 Matrix:
 Water
 QC Batch:
 20050728A

Basis: Not Filtered Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	•
Benzene	5.4	10.	PQL		3740.	UG/L	20	,
Toluene	5.0	10.	PQL		381.	UG/L	20	
Ethylbenzene	5.0	10.	PQL		480.	UG/L	20	
Xylenes	5.0	10.	PQL		643.	UG/L	20	
SURROGATE AND INTERNAL S	STANDARD RECOV	ERIES:						
4-Bromofluorobenzene		86-118	SLSA		93%			1
Toluene-d8		88-110	SLSA		95%			1
Dibromofluoromethane		86-115	SLSA		99%			1

Approved by: William & Golf

Lab Report No.: 4604 Date: 09/04/2005

Project Name: 1735 24TH STREET Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-5 Lab Samp ID: 4604-8

 Descr/Location:
 VRW-5
 Rec'd Date:
 07/22/2005

 Sample Date:
 07/21/2005
 Prep Date:
 07/28/2005

 Sample Time:
 1418
 Applysis Date:
 07/28/2005

Sample Time: 1418 Analysis Date: 07/28/2005 Matrix: Water QC Batch: 20050728A

Basis: Not Filtered Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	1.4	2.5	PQL		102.	UG/L	5	
Toluene	1.3	2.5	PQL	!	3.83	UG/L	5	
Ethylbenzene	1.3	2.5	PQL		4.62	UG/L	5	
Xylenes	1.3	2.5	PQL		124	UG/L	5	
SURROGATE AND INTERNAL ST 4-Bromofluorobenzene	TANDARD RECOV	ERIES: 86-118	SLSA		94%	-		1
Toluene-d8		88-110	SLSA		98%			1
Dibromofluoromethane		86-115	SLSA		99%			1

Approved by: William & Coty

Lab Report No.: 4604 Date: 09/04/2005

Project Name: 1735 24TH STREET Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-6 Lab Samp ID: 4604-9

 Descr/Location:
 VRW-6
 Rec'd Date:
 07/22/2005

 Sample Date:
 07/21/2005
 Prep Date:
 07/28/2005

 Sample Time:
 1329
 Analysis Date:
 07/28/2005

Matrix: Water QC Batch: 20050728A

Basis: Not Filtered Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	0.27	0.50	PQL		183	UG/L	1	
Toluene	0.25	0.50	PQL		1.13	UG/L	1	
Ethylbenzene	0.25	0.50	PQL		0.95	UG/L	1	
Xylenes	0.25	0.50	PQL		5.05	UG/L	1	
SURROGATE AND INTERNAL S	STANDARD RECOV	ERIES:	·					
4-Bromofluorobenzene		86-118	SLSA		93%			1
Toluene-d8		88-110	SLSA		98%			-
Dibromofluoromethane		86-115	SLSA		100%			-

Approved by: Wallown & Coty

Lab Report No.: 4604 Date: 09/04/2005

Project Name: **1735 24TH STREET** Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-7 Lab Samp ID: 4604-10 Descr/Location:

VRW-7 Rec'd Date: 07/22/2005 Sample Date: 07/21/2005 07/28/2005 Prep Date: Sample Time: 1303 Analysis Date: 07/28/2005

Matrix: Water QC Batch: 20050728A Basis: Not Filtered Notes:

Analyte Det Limit Rep Limit Note Result Units Pvc Dil Benzene 0.54 1.0 48.1 UG/L 2 PQL 2 Toluene UG/L 0.50 1.0 PQL 276 2 Ethylbenzene 0.50 PQL 256 UG/L 1.0 **Xylenes PQL** 6.94 UG/L 2 0.50 1.0 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 96% 86-118 SLSA 97% Toluene-d8 88-110 SLSA

Dibromofluoromethane 86-115 SLSA 100%

William & Pots Approved by:

Project Name: **1735 24TH STREET** Analysis: VOCs by GC/MS Fuel Additives Plus BTEX

Project No: 29 Method: 8260FAB

Prep Meth: SW5030B

Field ID: VRW-8

Descr/Location: VRW-8 Sample Date: 07/21/2005 Sample Time: 1114 Matrix: Water

Basis: Not Filtered

Lab Samp ID: 4604-11

Rec'd Date: 07/22/2005 07/28/2005 Prep Date:

Page: 11

Analysis Date: 07/28/2005 QC Batch: 20050728A

Notes:

Analyte	Det Limit	Rep Limit	:	Note	Result	Units	Pvc Dil	
Benzene	1.4	2.5	PQL		24.8	UG/L	5	
Toluene	1.3	2.5	PQL		3.44	UG/L	5	
Ethylbenzene	1.3	2.5	PQL		ND	UG/L	5	
Xylenes	1.3	2.5	PQL		7.34	UG/L	5	
SURROGATE AND INTERNAL ST. 4-Bromofluorobenzene	ANDARD RECOV	ERIES: 86-118	SLSA		94%	-		
Toluene-d8		88-110	SLSA		98%			
Dibromofluoromethane		86-115	SLSA		98%			

Wreevery of Golf Approved by:

VOCs by GC/MS Fuel Additives Plus BTEX Analysis:

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Project Name: 1735 24TH STREET

Project No:

29

Method: 8260FAB

Prep Meth: SW5030B

Field ID:

VRW-9

VRW-9

Sample Date: Sample Time:

Descr/Location:

1231

Matrix: Basis:

Water

07/21/2005

Not Filtered

Lab Samp ID: 4604-12

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

Analysis Date: 07/28/2005 QC Batch:

20050728A

Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	0.54	1.0	PQL		ND	UG/L	2	
Toluene	0.50	1.0	PQL		ND	ŲG/L	2	
Ethylbenzene	0.50	1.0	PQL		ND	UG/L	2	
Xylenes	0.50	1.0	PQL		283	UG/L	2	
SURROGATE AND INTERNAL STAND 4-Bromofluorobenzene	ARD RECOV	ERIES: 86-118	SLSA		96%			1
Toluene-d8		88-110	SLSA		97%			1
Dibromofluoromethane		86-115	SLSA		100%			1

William & Goty Approved by:

Page: 13

Project Name: Project No:

1735 24TH STREET

29

Analysis:

Total Petroleum Hydrocarbons (TPH) by GC/MS

Method:

8260TPH

Prep Meth: SW5030B

Field ID:

MW-1

Descr/Location: Sample Date:

MW-1 07/21/2005

Sample Time:

1026

Matrix: Basis:

Water

Not Filtered

Lab Samp ID: 4604-1

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

Analysis Date: 07/28/2005 QC Batch:

20050728A

Notes:

Units Pvc Dil Det Limit Note Result Analyte Rep Limit 0.04 ND MG/L 1 Gasoline Range Organics (C5-C12) 0.05 PQL SURROGATE AND INTERNAL STANDARD RECOVERIES:

4-Bromofluorobenzene 86-115 SLSA 98%

William &

Page: 14

Project Name: Project No:

1735 24TH STREET

Analysis:

Total Petroleum Hydrocarbons (TPH) by GC/MS

Method:

8260TPH

Prep Meth: SW5030B

Field ID:

MW-2

Descr/Location: Sample Date:

MW-2 07/22/2005

Sample Time:

0821

Matrix: Basis:

Water

Not Filtered

Lab Samp ID: 4604-2

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

QC Batch:

Analysis Date: 07/28/2005 20050728A

Notes:

Pvc Dil Units Note Result Analyte Det Limit Rep Limit MG/L 5 0.20 **PQL** 27 Gasoline Range Organics (C5-C12) 0.25 SURROGATE AND INTERNAL STANDARD RECOVERIES:

4-Bromofluorobenzene

86-115 SLSA

94%

William & Poty

Date: 9/1/05

Approved by:

Total Petroleum Hydrocarbons (TPH) by GC/MS Analysis:

Project Name: **1735 24TH STREET**

Project No: 29

Page: 15

Method: 8260TPH

Prep Meth: SW5030B

Field ID:

MW-3

MW-3

07/20/2005

Sample Date: Sample Time: Matrix:

Descr/Location:

1217

Basis:

Water

Not Filtered

Lab Samp ID: 4604-3

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

Analysis Date: 07/28/2005 QC Batch:

20050728A

Notes:

Units Pvc Dil Analyte Note Result **Det Limit** Rep Limit 0.08 ND MG/L 2 Gasoline Range Organics (C5-C12) 0.10 **PQL** SURROGATE AND INTERNAL STANDARD RECOVERIES: 93% 4-Bromofluorobenzene 86-115 SLSA

Walliam & Jots

Page: 16

Project Name:

1735 24TH STREET

Analysis:

Total Petroleum Hydrocarbons (TPH) by GC/MS

Project No:

29

Method:

8260TPH

Prep Meth: SW5030B

Field ID:

VRW-1

Descr/Location: Sample Date:

VRW-1 07/22/2005

Sample Time:

0926

Matrix: Basis:

Water

Not Filtered

Lab Samp ID: 4604-4

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

Analysis Date: 07/28/2005 QC Batch:

20050728A

Notes:

Units Pvc Dil Analyte Det Limit Rep Limit Note Result MG/L 0.05 PQL 0.69 1 Gasoline Range Organics (C5-C12) 0.04 SURROGATE AND INTERNAL STANDARD RECOVERIES:

4-Bromofluorobenzene

SLSA 86-115

98%

Approved by: William # 4

Date: <u>9/4/05</u>

Total Petroleum Hydrocarbons (TPH) by GC/MS

Page: 17

Project Name: **1735 24TH STREET** Analysis:

Project No: Method: 8260TPH 29

Prep Meth: SW5030B

Field ID: VRW-2

Descr/Location: VRW-2 Sample Date: 07/21/2005 Sample Time: 0926

Matrix: Water Basis: Not Filtered

Lab Samp ID: 4604-5 Rec'd Date: 07/22/2005 07/28/2005 Prep Date: Analysis Date: 07/28/2005 QC Batch: 20050728A

Notes:

Units Pvc Dil Note Analyte **Det Limit** Rep Limit Result MG/L 0.04 0.05 PQL 21 1 Gasoline Range Organics (C5-C12)

SURROGATE AND INTERNAL STANDARD RECOVERIES:

92% 4-Bromofluorobenzene 86-115 SLSA

Walliam &

Page: 18

Project Name: Project No:

1735 24TH STREET

Analysis:

Total Petroleum Hydrocarbons (TPH) by GC/MS

Method:

8260TPH

Prep Meth: SW5030B

Field ID:

VRW-3 VRW-3

Descr/Location: Sample Date: Sample Time:

07/22/2005

Matrix: Basis:

1033 Water

Not Filtered

Lab Samp ID: 4604-6

Rec'd Date:

07/22/2005

Prep Date:

07/28/2005 Analysis Date: 07/28/2005

QC Batch:

20050728A

Notes:

Units Pvc Dil Analyte Det Limit Rep Limit Note Result Gasoline Range Organics (C5-C12) 0.08 0.10 PQL 0.11 MG/L 2 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 86-115 **SLSA** 96%

William & 4 Approved by:

Analysis: Total Petroleum Hydrocarbons (TPH) by GC/MS

Project Name: **1735 24TH STREET**

Project No:

29

Page: 19

Method:

8260TPH

Prep Meth: SW5030B

Field ID:

VRW-4

Descr/Location: Sample Date:

VRW-4 07/20/2005

Sample Time:

1253

Matrix: Basis:

Water Not Filtered Lab Samp ID: 4601-7

Rec'd Date:

07/22/2005 07/28/2005

Prep Date: Analysis Date: 07/28/2005

QC Batch:

20050728A

Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil				
	Det Littile	- IXEP LITTIL		NOIG	1 NGSUIL	Office	1 40 011				
Gasoline Range Organics (C5-C12)	0.80	1.0	PQL		19.	MG/L	20				
SURROGATE AND INTERNAL STANDARD RECOVERIES:											
4-Bromofluorobenzene		86-115	SLSA		93%			1			

William & 4

Page: 20

Project Name:

1735 24TH STREET

Analysis:

Total Petroleum Hydrocarbons (TPH) by GC/MS

Project No:

Method: 8260TPH

Prep Meth: SW5030B

Field ID:

VRW-5

Descr/Location: Sample Date:

VRW-5 07/21/2005

Sample Time:

1418

Matrix: Basis:

Water

Not Filtered

Lab Samp ID: 4604-8

Rec'd Date: Prep Date:

07/22/2005 07/28/2005

QC Batch:

Analysis Date: 07/28/2005 20050728A

Notes:

Units Det Limit Note Result Pvc Dil Analyte Rep Limit 0.20 1.6 MG/L Gasoline Range Organics (C5-C12) 0.25 **PQL** 5 SURROGATE AND INTERNAL STANDARD RECOVERIES: 94% 4-Bromofluorobenzene 86-115 SLSA

Approved by: William & Pots

Total Petroleum Hydrocarbons (TPH) by GC/MS

Project Name:

1735 24TH STREET

Analysis:

Project No:

Method: 8260TPH

Prep Meth: SW5030B

Field ID:

VRW-6

VRW-6

Rec'd Date:

Lab Samp ID: 4604-9 07/22/2005

Descr/Location: Sample Date:

07/21/2005

Prep Date:

07/28/2005

Sample Time:

1329

Analysis Date: 07/28/2005

Matrix:

Water

QC Batch:

20050728A

Basis:

Not Filtered

Notes:

Note

Analyte

Det Limit Rep Limit

Result Units Pvc Dil 0.33

Gasoline Range Organics (C5-C12)

0.04

0.05

PQL

MG/L 1

Page: 21

SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene

86-115 SLSA

93%

William &

Lab Report No.: 4604 Date: 09/04/2005

Total Petroleum Hydrocarbons (TPH) by GC/MS Project Name: **1735 24TH STREET** Analysis: Project No: 29 Method: 8260TPH Prep Meth: SW5030B Field ID: VRW-7 Lab Samp ID: 4604-10 Descr/Location: VRW-7 Rec'd Date: 07/22/2005 Sample Date: 07/21/2005 Prep Date: 07/28/2005 Sample Time: 1303 Analysis Date: 07/28/2005 Matrix: Water QC Batch: 20050728A Basis: Not Filtered Notes: Units Analyte Det Limit Rep Limit Note Result Pvc Dil Gasoline Range Organics (C5-C12) MG/L 0.08 0.10 PQL 1.7 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 96%

86-115

SLSA

William 18 4

Project Name: Total Petroleum Hydrocarbons (TPH) by GC/MS **1735 24TH STREET** Analysis:

Project No: 29 Method: 8260TPH Prep Meth: SW5030B

Field ID: VRW-8 Lab Samp ID: 4604-11 Descr/Location: VRW-8 Rec'd Date: 07/22/2005

Sample Date: 07/21/2005 Prep Date: 07/28/2005 Sample Time: 1114 Analysis Date: 07/28/2005

Matrix: Water QC Batch: 20050728A Basis: Not Filtered Notes:

Note Units Pvc Dil Analyte **Det Limit** Rep Limit Result MG/L Gasoline Range Organics (C5-C12) 0.20 0.25 PQL 4.1 5 SURROGATE AND INTERNAL STANDARD RECOVERIES: 4-Bromofluorobenzene 94% 86-115 SLSA

William & John

Date: 9/4/05

Page: 23

Lab Report No.: 4604 Date: 09/04/2005

Project Name: Project No:	1735 24TH STREET 29		Analysis: Method: Prep Meth:	s (TPH)	by GC/MS						
Field ID:	VRW-9		Lab Samp	ID: 4604-12							
Descr/Location:	VRW-9		Rec'd Date: 07/22/2005								
Sample Date:	07/21/2005		Prep Date:	07/28/2005							
Sample Time:	1231		Analysis Da	ate: 07/28/2005							
Matrix:	Water		QC Batch:	20050728A							
Basis:	Not Filtered		Notes:								
Analyte		Det Limit	Rep Limit	Note	Result	Units	Pvc Dil				
Gasoline Range	Organics (C5-C12)	0.08	0.10 PG	ıL	0.66	MG/L	2				
SURROGATE Al 4-Bromofluorobe	ND INTERNAL STAND	ARD RECOV	ERIES: 86-115 SL	SA	96%						

Approved by: William & Poty

____ Date: <u>9/4/05</u>___

QA/QC Report Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4604 Date: 09/04/2005

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QC Batch:

20050728A

Analysis:

VOCs by GC/MS Fuel Additives Plus BTEX

Matrix:

Water

Method:

8260FAB

Lab Samp ID: 4604MB

Prep Meth: SW5030B

Basis:

Analysis Date: 07/28/2005 Not Filtered Prep Date: 07/28/2005 Notes:

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil	
Benzene	0.27	0.50	PQL		ND	UG/L	1	
Toluene	0.25	0.50	PQL		ND	UG/L	1	
Ethylbenzene	0.25	0.50	PQL		ND	UG/L	1	
Xylenes	0.25	0.50	PQL		ND	UG/L	1	
SURROGATE AND INTERNAL STAI	NDARD RECOV	ERIES:						
4-Bromofluorobenzene		86-118	SLSA		96%			1
Toluene-d8		88-110	SLSA		100%			1
Dibromofluoromethane		86-115	SLSA		99%			1

QA/QC Report Method Blank Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4604 Date: 09/04/2005

Page: 26

QC Batch:

20050728A

Analysis:

Total Petroleum Hydrocarbons (TPH) by

Matrix:

Method:

Water

8260TPH

Lab Samp ID: 4604MB

Prep Meth: SW5030B

Prep Date: 07/28/2005

Basis:

Analysis Date: 07/28/2005 Not Filtered

Notes:

				·				
Analyte	Det Limit	Rep Limit	:	Note	Result	Units	Pvc Dil	
Gasoline Range Organics (C5-C12)	0.04	0.05	PQL		ND	MG/L	1	

SURROGATE AND INTERNAL STANDARD RECOVERIES:

4-Bromofluorobenzene

86-115 SLSA

96%

QA/QC Report Matrix Spike/Duplicate Matrix Spike Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4604 Date: 09/04/2005 Page: 27

QC Batch: Matrix:

20050728A

Water

Lab Samp ID: 4604MS

Basis:

Not Filtered

Project Name: Lab Generated or Non COE Sample

Project No.:

Lab Generated or Non COE Sample

Field ID:

Lab Generated or Non COE Sample

Lab Ref ID:

4601-1

	Analysis	Spike Level		Sample	Spike	Result		% Recoveries			Acceptance Criteria		
Analyte	Method	MS	DMS	Result	MS	DMS	Units	MS	DMS	RPD	% R	ec	RPD
Benzene	8260FAB	10.0	10.0	ND	11.6	11.6	UG/L	116	116	0.00	127-76	MSA	20MSP
Ethylbenzene	8260FAB	10.0	10.0	ND	10.9	11.1	UG/L	109	111	1.8	130-70	MSA	20MSP
Toluene	8260FAB	10.0	10.0	ND	11.4	11.7	UG/L	114	117	2.6	125-76	MSA	20MSP
Xylenes	8260FAB	30.0	30.0	ND	31.5	33.1	UG/L	105	110	4.7	130-70	MSA	20MSP
4-Bromofluorobenzene	8260FAB	100.	100.	96.	95.	94.	PERCENT	95.0	94.0	1.1	118-86	SLSA	20SLSP
Dibromofluoromethane	8260FAB	100.	100.	100.	101.	99.	PERCENT	101	99.0	2.0	115-86	SLSA	20SLSP
Toluene-d8	8260FAB	100.	100.	98.	98.	99.	PERCENT	98.0	99.0	1.0	110-88	SLSA	20SLSP

QA/QC Report Matrix Spike/Duplicate Matrix Spike Summary

Bace Analytical, Windsor, CA

Lab Report No.: 4604 Date: 09/04/2005

Page: 28

QC Batch:

20050728A

Matrix:

Water

Lab Samp ID: 4604MS

Basis:

Not Filtered

Project Name: Lab Generated or Non COE Sample

Project No.:

Lab Generated or Non COE Sample

Field ID:

Lab Generated or Non COE Sample

Lab Ref ID:

4601-6

	Analysis	Spike	e Level	Sample	Spike	Result	<u> </u>	% Recove	ries		Accept Crite	
Analyte	Method	ms [']	DMS	Result	MS	DMS	Units	MS DMS	RPD	% R	ec	RPD
Gasoline Range Organics (C5-C12)	8260TPH	0.50	0.52	ND	0.53	0.52	MG/L	106 100	5.8	130-70	MSA	20MSP
4-Bromofluorobenzene	8260TPH	100.	100.	95.	94.	95.	PERCENT	94.0 95.0	1.1	115-86	SLSA	20SLSP

Chain-of Custody Form

Droject #	Project Name D		Analysis											4477			
Project # 29.	Project Name Praifics - PPL 1735 24+ STREET	•					Ť						(c.o.c. No. 11776			
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L.P. No.	Sampler's Signature Min Scott		No. of Con-	TPH. LAS	(اتره) لا										STANDARD TAT		
Date	Sample I.D.	Time Sample	tainers	10	Brex										1		
Sampled		(24 Hour) Type	 	 \'\	```		 			_		-			4604-1		
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7-20-05	MW-3	1217		[X]	\bowtie												
7-22-05	VRW-I	0926		\times	\times										-4		
	VRW-2	0926		X	X										-5		
		1033	1-1-		\mathbf{X}	-									-6_		
	VRW-3		11	K	$\langle \rangle$		†		1	1					ーナ		
	VRW-4	1253	+-	\bigcirc			+ +			+				一	-8		
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1	Relinquished by: Date/Time			Received for Laboratory by: / DIANA DICKERS N									Windsor, CA 95492 (707) 838-3027				
(signed)	i i			(signed)									(707) 838-3627 (707) 838-4420 fax				
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