Pangea
ENVIRONMENTAL SERVICES, INC.

February 9, 2005

Mr. Robert Schultz
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - Fourth Quarter 2004**
Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California
Fuel Leak Case No. RO0000304

Dear Mr. Schultz:

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Fourth Quarter 2004*. The report describes groundwater monitoring and sampling activities conducted at the subject site. The report also describes planned activities for the subject site.

If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring Report - Fourth Quarter 2004*

cc: Mr. Hooshang Hadjian, 2108 San Ramon Valley Blvd, San Ramon, CA 94583

Pangea Environmental Services, Inc., 64 Sonia Street, Suite B, Oakland, California 94618
(510) 435-8664 tel • (510) 654-4006 fax • inquiry@pangeaenv.com • www.pangeaenv.com

Pangea
ENVIRONMENTAL SERVICES, INC.

GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2004

Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California

February 9, 2005

Prepared for:

Mr. Hooshang Hadjian
2108 San Ramon Valley Blvd
San Ramon, CA 94583

Prepared by:

Pangea Environmental Services, Inc.
64 Sonia Street, Suite B
Oakland, California 94618

Written by:

Bob Clark-Riddell, P.E.
Principal Engineer

Sanjiv Gill
Scientist

GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2004

Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California

February 9, 2005

INTRODUCTION

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. (Pangea) performed groundwater monitoring and sampling during this quarter at the subject site. The purpose of the monitoring and sampling is to evaluate groundwater flow direction and dissolved hydrocarbon concentrations. The groundwater monitoring well locations and select site features are shown on Figure 1. Historical and current analytical results and groundwater elevation data are summarized on Table 1 and Figure 2.

SITE BACKGROUND

The Chevron-branded service station is located at the southwest corner of Dublin Boulevard and Village Parkway in Dublin, California (Figure 1). The site currently contains three underground storage tanks (USTs). Land use surrounding the site is mixed residential and commercial.

GROUNDWATER MONITORING AND SAMPLING

On December 15, 2004, groundwater monitoring and sampling was conducted at the site. Site monitoring wells were gauged for depth to water. Groundwater samples were obtained from seven of the eight groundwater monitoring wells. Monitoring well EA-1 was inaccessible and not gauged or sampled.

Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, positive air displacement pump, or a peristaltic pump. During well purging, field technicians measured the pH, temperature, conductivity and turbidity. A groundwater sample was collected from each well with a disposable bailer, and decanted into the appropriate containers supplied by the analytic laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4° C. All samples were transported under chain-of-custody to the State-certified analytical laboratory. Purge water was stored onsite in DOT-approved 55-gallon drums. Field data sheets are presented as Appendix A.

MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are described below and summarized on Table 1 and Figure 2. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C, and benzene, toluene, ethylene, xylenes (BTEX), and methyl tert butyl ethane (MTBE) by EPA Method 8021B. If MTBE was detected a confirmation was conducted by EPA Method 8260B. Samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B.

Groundwater Flow Direction

The inferred groundwater flow direction based on depth-to-water data from December 15, 2004 is shown on Figure 2. Groundwater apparently flowed from offsite wells MW-4 and MW-5 toward the site in the approximate southeast direction, while groundwater at the eastern portion of the site apparently flowed in the northeast direction. The groundwater elevation was lowest in site well MW-2 located in the southwestern corner of the site. The inferred groundwater flow direction is fairly consistent with the previous monitoring event in February 2003. Depth-to-water and groundwater elevation data for the site are presented in Table 1. The groundwater flow direction may be affected by the 18" diameter sanitary sewer line running beneath the southern portion of Dublin Boulevard. In a letter dated October 30, 1995 to the County, Gettler Ryan Inc. stated that the top of the sanitary sewer line was approximately 16 feet below grade surface (bgs), while the depth to water in nearby wells MW-1 and MW-3 has ranged from approximately 11 to 13 feet bgs.

Hydrocarbon Distribution in Groundwater

Petroleum hydrocarbons were only detected in one well (MW-3) of the seven sampled wells, as shown on Table 1 and Figure 2. TPHg and benzene concentrations detected in well MW-3 were 33,000 micrograms per liter (µg/L) and 1,700 µg/L, respectively.

Fuel Oxygenate Distribution in Groundwater

MTBE was detected by EPA Method 8021 above reporting limits in four of the seven sampled wells. As confirmed by EPA Method 8260B, the concentrations of MTBE in wells MW-1 MW-2, MW-3 and EA-3 were 1,900 µg/L, 1,600 µg/L, 89,000 µg/L and 17 µg/L, respectively (Table 1 and Figure 2).

PLANNED SITE ACTIVITIES

Soil and Water Investigation Workplan

Pangea is conducting the numerous tasks required by the November 2, 2004 letter from the Alameda County Environmental Health (ACEH). As communicated to the ACEH, Pangea anticipates completing the requested Soil and Water Investigation Workplan by the end of February 2005.

Upcoming Monitoring and Proposed Frequency

Pangea will continue quarterly groundwater monitoring and sampling at the site in accordance with the approved sampling frequency. Pangea proposes to sample four key site wells quarterly (EA-1, EA-3, MW-1, MW-2 and MW-3) and three wells annually (EA-2, MW-4 and MW-5). This sampling frequency is based on the prior approved sampling frequency, with the slight modification of quarterly sampling for wells EA-3 and MW-1 rather than semi-annual sampling.

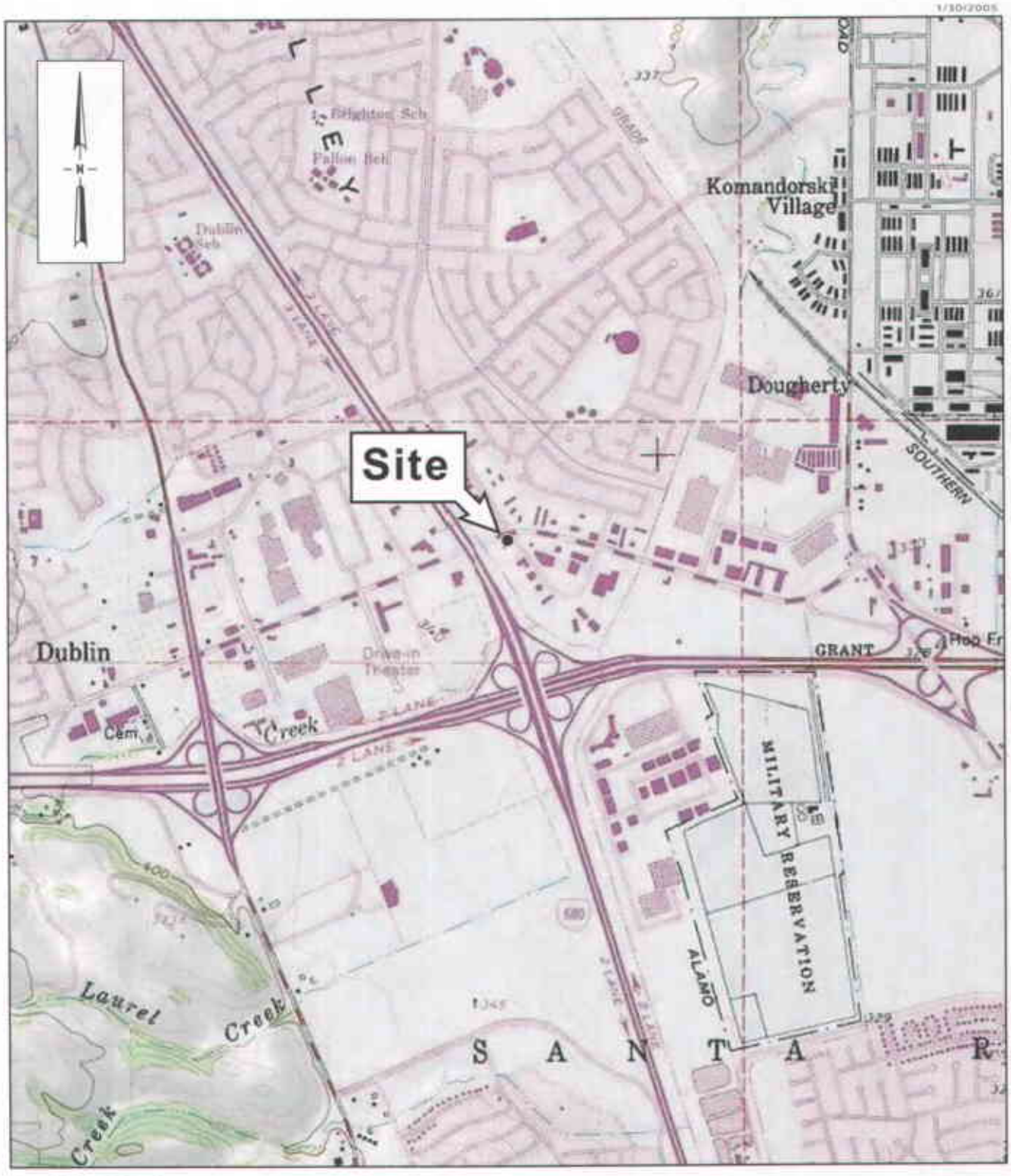
All wells will be gauged for depth to water. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B. If detected by Method 8021B, MTBE will be confirmed by EPA Method 8260B. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

ATTACHMENTS

Figure 1 – Vicinity Map
Figure 2 - Groundwater Elevation Contour and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data

Appendix A – Groundwater Monitoring Field Data Sheets
Appendix B – Laboratory Analytical Report



SOURCE: TOPO! MAPS

0 1/8 1/4 1/2 1

SCALE: 1" = 1/4 MILE

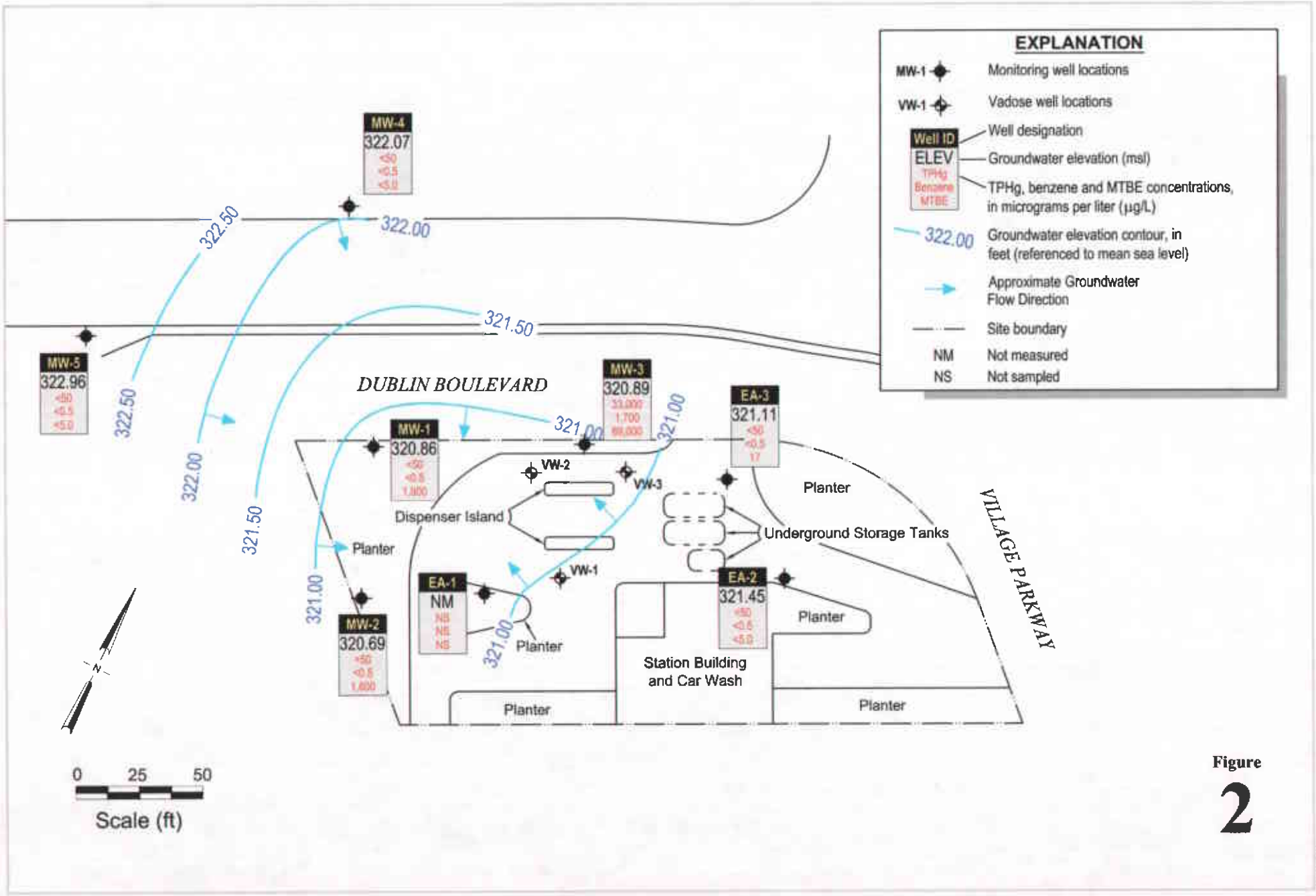
Figure 1

Chevron-branded Service Station

7240 Dublin Boulevard
Dublin, California

Pangea
Environmental Services, Inc.

Vicinity Map



Figure

2

Chevron-branded Service Station
7240 Dublin Boulevard
Dublin, California

Pangea
Environmental Services, Inc.

Groundwater Elevation and Hydrocarbon Concentration Map

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
EA-1	10/17/88	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	
331.21	10/24/88	10.64	322.77	--	--	--	--	--	--	--	
	11/02/88	10.69	322.72	--	--	--	--	--	--	--	
	12/20/88	10.51	322.9	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	03/28/89	9.87	323.54	<250	<0.5	<0.5	<0.5	<0.5	--	--	
	08/02/89	10.34	323.07	<50	<0.1	<0.1	<0.1	<0.1	--	<0.1	
	11/06/89	10.65	322.76	<500	<3.0	<5.0	<5.0	<5.0	--	<5.0	
	01/25/90	10.6	322.81	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	
	04/23/90	10.58	322.83	71	2	5	3	8	--	<0.5	
	08/01/90	10.88	322.53	300	86	21	10	33	--	--	
	10/24/91	11.12	322.29	280	69	13	11	16	--	--	
	01/31/91	11.16	322.25	460	160	11	17	17	--	--	
	08/21/91	10.8	322.61	2,400	400	220	44	120	--	--	
	08/21/91	10.8	322.61	2,300	390	210	42	120	--	--	Duplicate
	10/07/91	10.79	322.62	--	--	--	--	--	--	--	
	01/28/92	10.79	322.62	3,600	320	360	110	310	--	--	
	01/28/92	10.79	322.62	3,000	290	320	99	270	--	--	Duplicate
	06/05/92	10.84	322.57	1,700	290	89	61	130	--	--	
	09/30/92	11.06	322.35	2,100	160	260	80	350	--	--	
	12/30/92	10.15	323.26	3,200	240	180	110	310	--	--	
	03/29/93	9.42	323.99	23,000	700	3,000	610	3,000	--	--	
	06/25/93	10.42	322.99	2.7	130	590	130	590	--	--	
	09/16/93	10.66	322.75	3.9	410	830	220	890	--	--	
	12/20/93	10.6	322.81	27	1,200	2,600	1,100	4,200	--	--	
	03/29/94	10.41	323	6.3	250	700	200	830	--	--	
	06/22/94	10.4	323.01	4.1	71	240	110	460	<30	<10	
	09/20/94	10.37	323.04	8,500	1,200	1,300	370	1,400	--	--	
	10/04/94	10.34	323.07	7,600	97	360	150	620	--	--	
	11/30/94	9.46	323.95	8,800	180	490	240	900	--	--	
	03/02/95	9.96	321.07	6.9	82	570	210	970	--	--	
	06/15/95	9.8	321.23	4.8	44	210	160	620	<25	--	
	09/26/95	10.48	320.55	13,000	150	620	370	1,400	<125	--	
	12/28/95	10.14	320.89	11,000	74	250	200	750	79	--	
	02/29/96	8.74	322.29	17,000	59	480	350	1,600	<325	--	
	06/27/96	10.21	320.82	3,600	22	130	130	49	46	--	
	09/12/96	10.49	320.72	2,000	20	<10	18	44	<50	--	
	03/31/97	10.19	321.02	17,000	87	230	330	1,200	310	--	
	12/23/98	9.83	321.38	290	20	0.88	1.1	16	<2.5	--	
	03/25/99	9.13	322.08	500	21	<0.5	21	<0.5	18	--	
	02/03/00	9.05	322.16	2,310	35.7	90	21.8	147	1,280 (365)	--	
	01/23/01	--	--	--	--	--	--	--	--	--	Inaccessible
	05/01/01	9.82	321.39	7,710	19.9	12.6	22.3	64	31.8	--	
	08/28/01	10.04	321.17	4,800	69	<25	50	140	160	--	
	11/27/01	10.05	321.16	5,300	25	<5.0	30	120	<20	--	
	02/28/02	--	--	--	--	--	--	--	--	--	Inaccessible
	05/22/02	9.05	322.16	110	<1.0	<0.50	1	<1.5	<2.5	--	
	08/20/02	9.21	322	410	2.6	<0.50	8.5	29	<5.0	--	
	11/11/02	9.01	322.2	3,800	<0.50	1.3	17	47	<5.0	--	
	05/08/03	8.23	322.98	1,700	11	0.97	63	161	<2.0	--	
	12/15/04	--	--	--	--	--	--	--	--	--	Inaccessible

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
EA-2	10/17/88	--	--	<50	<0.5	<0.5	<0.5	1.2	--	--	
330.41	10/24/88	9.7	322.89	--	--	--	--	--	--	--	
	11/02/88	10.03	322.56	--	--	--	--	--	--	--	
	12/20/88	9.98	322.61	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	03/28/89	8.8	323.79	<250	<2	<0.5	<0.5	<0.5	--	<0.5	
	08/02/89	9.44	323.15	<50	<0.1	<0.1	<0.1	<0.1	--	<0.1	
	11/06/89	9.53	323.06	<500	<3.0	<5.0	<5.0	<5.0	--	<5.0	
	01/25/90	9.27	323.32	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	
	04/23/90	9.35	323.24	<50	0.6	0.8	<0.5	2	--	<0.5	
	08/01/90	9.71	322.88	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	10/24/90	10.08	322.51	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	Duplicate
	08/21/91	9.8	322.79	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	10/07/91	9.98	322.61	--	--	--	--	--	--	--	
	01/28/92	9.81	322.78	<50	0.8	<0.5	<0.5	<0.5	--	--	
	06/05/92	9.86	322.73	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	09/30/92	10.6	321.99	66	1	3.2	1.3	7.4	--	--	
	12/30/92	9.11	323.48	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	03/29/93	7.73	324.86	<50	<0.5	<0.5	<0.5	<1.5	--	--	
	06/25/93	9.22	323.37	<50	<0.5	<0.5	<0.5	<1.5	--	--	
	09/16/93	10	322.59	<50	<0.5	<0.5	<0.5	<1.5	--	--	
	12/20/93	9.38	323.21	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	03/29/94	9.3	323.29	<50	<0.5	0.6	<0.5	<0.5	--	--	
	06/22/94	9.49	323.1	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	09/26/94	9.72	322.87	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	10/04/94	9.58	323.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	11/30/94	8.7	323.89	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	03/02/95	8.54	321.67	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	06/07/95	8.42	321.79	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	09/26/95	9.34	320.87	540	6.8	<0.5	47	29	13	--	
	12/28/95	8.84	321.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	02/29/96	7.44	322.77	<50	<0.5	<0.5	<0.5	1.5	<2.5	--	
	06/27/96	8.83	321.38	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	09/12/96	9.4	321.01	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	03/31/97	9.11	321.3	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	12/23/98	8.91	321.5	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	03/25/99	8.1	322.31	<50	<0.5	<0.5	<0.5	<0.5	2.7	--	
	02/03/00	8.36	322.05	<50	<0.5	<0.5	<0.5	<0.5	<2.5 (<2.0)	--	
	01/23/01	9.08	321.33	441 (1)	1.27	0.542	40.3	31	72.9	--	
	05/01/01	8.87	321.54				SAMPLED ANNUALLY				
	08/28/01	9.45	320.96				SAMPLED ANNUALLY				
	11/27/01	9.5	320.91				SAMPLED ANNUALLY				
	02/28/02	9.05	321.36	<50	<0.50	<0.50	<0.5	<1.5	74		
	05/22/02	9.04	321.37				SAMPLED ANNUALLY				
	08/20/02	9	321.41				SAMPLED ANNUALLY				
	11/11/02	9.03	321.38				SAMPLED ANNUALLY				
	05/08/03	7.26	323.15	<50	<0.5	<0.5	<0.5	<0.5	2.2/0.9	--	
	12/15/04	**8.96**	**321.45**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	--	

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
EA-3	10/17/88	--	--	<50	1.8	<0.5	<0.5	3	--	--	
331.5	10/24/88	11.03	322.61	--	--	--	--	--	--	--	
	11/02/88	11.03	322.61	--	--	--	--	--	--	--	
	12/20/88	10.96	322.68	240	90	1.2	13	3.3	--	--	
	03/28/89	9.77	323.87	2,300	380	130	240	910	--	--	
	08/02/89	10.65	322.99	<50	<0.1	<0.1	<0.1	<0.1	--	<0.1	
	11/06/89	10.78	322.86	<500	<3.0	<5.0	<5.0	<5.0	--	<5.0	
	01/25/90	10.66	322.98	<50	<0.5	<0.5	<0.5	<0.5	--	<0.5	
	04/23/90	10.68	322.96	<50	0.8	<0.5	0.9	<0.5	--	<0.5	
	08/01/90	11.03	322.61	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	10/24/90	11.35	322.29	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	01/31/91	11.52	322.12	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	08/21/91	--	--	--	--	--	--	--	--	--	
	10/07/91	11.15	322.49	180	40	20	4.7	8.4	--	--	
	10/7/1991	--	--	200	43	17	4.1	6.7	--	--	Duplicate
	01/28/92	11.08	322.56	640	69	85	13	46	--	--	
	06/05/92	10.98	322.66	250	63	8.3	3	9.5	--	--	
	09/30/92	11.38	322.26	330	120	33	6.3	22	--	--	
	12/30/92	10.48	323.16	58	7.6	1.3	2.5	5.4	--	--	
	03/29/93	9.3	324.34	120	11	4.5	6.2	13	--	--	
	06/25/93	10.46	323.18	<50	<0.5	<0.5	<0.5	<1.5	--	--	
	09/16/93	10.9	322.74	85	3.9	8.8	4.5	22	--	--	
	12/20/93	10.66	322.98	190	12	12	13	50	--	--	
	03/29/94	10.5	323.14	<50	<0.5	1.2	<0.5	0.9	--	--	
	06/22/94	10.64	323	<50	<0.5	<0.5	<0.5	<0.5	<3.0	<1.0	
	09/26/94	10.72	322.92	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	10/04/94	10.68	322.96	<50	<0.5	<0.5	<0.5	0.7	--	--	
	11/30/94	9.66	323.98	170	6.1	3	6.5	28	--	--	
	03/02/95	9.92	321.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	
	06/07/95	9.72	321.58	<50	<0.5	<0.5	<0.5	<0.5	3.2	--	
	09/26/95	10.6	320.7	2,000	140	<5.0	<5.0	190	280	--	
	12/28/95	9.82	321.48	<50	<0.5	<0.5	<0.5	<0.5	26	--	
	02/29/96	8.28	323.02	<50	2.1	<0.5	2.5	6	31	--	
	06/27/96	9.91	321.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	09/12/96	10.59	320.91	13,000	<20	<20	<20	<20	48	--	
	03/31/97	--	--	--	--	--	--	--	--	--	Inaccessible
	04/15/97	10.25	321.25	<125	2	<1.2	<1.2	<1.2	680	--	
	12/23/98	--	--	--	--	--	--	--	--	--	Inaccessible
	03/25/99	--	--	--	--	--	--	--	--	--	Inaccessible
	02/03/00	--	--	--	--	--	--	--	--	--	Inaccessible
	01/23/01	10.31	321.19	862 (1)	3.97	1.15	18.9	48.6	289	--	
	05/01/01	10.15	321.35				SAMPLED SEMI-ANNUALLY				
	08/28/01	10.56	320.94	<50	<0.50	<0.50	<0.50	<0.50	37	--	
	11/27/01	10.65	320.85				SAMPLED SEMI-ANNUALLY				
	02/28/02	10.37	321.13	<50	1.3	<0.50	2	1.8	90	--	
	05/22/02	10.27	321.23				SAMPLED SEMI-ANNUALLY				
	08/20/02	10.3	321.2	<50	<0.50	<0.50	<0.50	<1.5	40	--	
	11/11/02	9.05	322.45				SAMPLED SEMI-ANNUALLY				
	05/08/03	8.83	322.67	<50	<0.5	<0.5	<0.5	<0.5	39/37	--	
	12/15/04	**10.39**	**321.11**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**18 (17)**	--	

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
MW-1	10/04/94	12.8	320.76	2,100	150	170	61	320	--	--	
333.66	11/30/94	12.38	321.18	1,500	210	17	73	130	--	--	
	03/02/95	12.88	320.68	2,600	510	<10	160	<10	--	--	
	06/07/95	12.58	320.98	710	160	<2.0	45	<2.0	<10	--	
	09/26/95	13.15	320.41	1,100	140	1.4	92	1.8	<5.0	--	
	12/28/95	13.09	320.47	750	96	2.5	61	7.4	37	--	
	02/29/96	12.17	321.39	250	17	<0.5	18	0.81	9	--	
	06/27/96	12.95	320.61	710	72	<2.0	92	2.2	<10	--	
	09/12/96	13.11	320.55	300	53	<0.5	32	0.65	21	--	
	03/31/97	12.99	320.67	<200	4.1	<2.0	4.8	<2.0	640	--	
	12/23/98	13.87	319.79	<50	<50	<0.5	<0.5	<0.5	3200	--	
	03/25/99	12.01	321.65	<50	<0.5	<0.5	<0.5	<0.5	5,200 (5,200)	--	
	02/03/00	11.91	321.75	<500	<5.0	<5.0	<5.0	<5.0	3,180 (3,350)	--	
	01/23/01	12.57	321.09	<50.0	<0.500	<0.500	<0.500	<0.500	4,420	--	
	05/01/01	12.6	321.06				SAMPLED SEMI-ANNUALLY				
	08/28/01	12.74	320.92	<50	<0.50	<0.50	<0.50	<0.50	4,800	--	
	11/27/01	12.7	320.96				SAMPLED SEMI-ANNUALLY				
	02/28/02	12.7	320.96	<50	<0.50	<0.50	<0.50	<1.5	1,400	--	
	05/22/02	12.38	321.28				SAMPLED SEMI-ANNUALLY				
	08/20/02	12.57	321.09	<50	<0.50	<0.50	<0.50	<1.5	1,400	--	
	11/11/02	11.31	322.35				SAMPLED SEMI-ANNUALLY				
	05/08/03	11.85	321.81	<50	<0.50	<0.50	<0.50	<0.50	1,300 (1,200)	--	
	12/15/04	**12.80**	**320.86**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1,700 (1,900)**	--	
MW-2	10/04/94	8.56	320.62	2300	160	280	96	480	--	--	
329.29	11/30/94	8.33	320.85	1,600	170	16	110	120	--	--	
	03/02/95	8.35	320.83	1,200	220	5.6	140	36	--	--	
	06/07/95	8.62	320.56	160	25	<0.5	16	<0.5	240	--	
	09/26/95	8.71	320.47	150	15	<0.5	7.2	<0.5	120	--	
	12/28/95	8.78	320.4	400	34	1.3	26	5.1	170	--	
	02/29/96	7.82	321.36	120	29	<0.5	<0.5	<0.5	790	--	
	06/27/96	8.72	320.46	150	13	<0.5	7	<0.5	850	--	
	09/12/96	8.81	320.48	<1,000	18	<10	<10	<10	3,100	--	
	03/31/97	8.65	320.64	<500	<5.0	<5.0	<5.0	<5.0	1,400	--	
	12/23/98	8.32	320.97	<50	<0.5	<0.5	<0.5	<1.5	900	--	
	03/25/99	7.89	321.4	<50	2.6	<0.5	<0.5	<0.5	1,100 (670)	--	
	02/03/00	7.53	321.76	<125	<1.25	<1.25	<1.25	<1.25	1,020 (1,100)	--	
	01/23/01	8.18	321.11	<50.0	<0.500	<0.500	<0.500	<0.500	642	--	
	05/01/01	8.43	320.86	70.8	<0.500	<5.00	<5.00	<5.00	342	--	
	08/28/01	8.39	320.9	<50	<0.50	<0.50	<0.50	<0.50	530	--	
	11/27/01	8.46	320.83	210	<0.50	<0.50	<0.50	<1.5	260	--	
	02/28/02	8.48	320.81	<50	<0.50	<0.50	<0.50	<1.5	180	--	
	05/22/02	8.14	321.15	<50	<0.50	<0.50	<0.50	<1.5	180	--	
	08/20/02	8.24	321.05	<50	<0.50	<0.50	<0.50	<1.5	160	--	
	11/11/02	8.06	321.23	<50	<0.50	<0.50	<0.50	<1.5	130	--	
	05/08/03	7.86	321.43	<50	<0.50	<0.50	<0.50	<0.50	180 (160)	--	
	12/15/04	**8.60**	**320.69**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**1,400 (1,600)**	--	

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
MW-3	10/04/94	12.06	320.67	6,300	610	750	68	670	--	--	
332.86	11/30/94	11.38	321.35	17	3,600	490	430	610	--	--	
	03/02/95	11.97	320.76	8,500	2,200	<50	240	<50	64,000	--	
	06/07/95	11.54	321.19	3,000	710	18	220	44	3,100	--	
	09/26/95	12.36	320.37	<10,000	230	<100	130	<100	64,000	--	
	12/28/95	12.07	320.66	<12,500	760	<125	<125	<125	100,000	--	
	02/29/96	11.01	321.72	1,600	380	<10	84	17	33,000	--	
	06/27/96	11.93	320.8	1,400	<2.5	4.3	130	4	96,000	--	
	09/12/96	12.26	320.6	<10,000	560	<100	110	<100	100,000	--	
	03/31/97	12.04	320.82	<25,000	1,200	370	<250	380	130,000	--	
	12/23/98	12.92	319.94	--	--	--	--	--	--	--	0.1' SPH; 0.079 gal SPH removed
	03/25/99	12.56	320.3	--	--	--	--	--	--	--	0.05' SPH; 0.05 gal SPH removed
	02/03/00	11.12	321.74	92,100	4,780	11,400	2,270	15,800	137,000 (162,000)	--	
	1/23/2001	11.78	321.08	60,600	4,810	7,500	1,870	11,000	148,000	--	Absorbent sock in well
	5/1/2001	10.66	322.2	56,000	3,760	5,640	<2,500	8,740	136,000	--	Absorbent sock in well
	8/28/2001	11.79	321.07	32,000	3,800	2,600	1,200	7,500	160,000	--	Absorbent sock in well
	11/27/2001	11.98	320.88	110,000	1,300	2,400	1,500	9,400	90,000	--	Absorbent sock removed
	02/28/02	11.81	321.05	24,000	1,900	820	520	3,100	90,000	--	
	05/22/02	11.6	321.26	110,000	4,000	3,200	2,800	18,000	140,000	--	
	08/20/02	11.81	321.05	37,000	2,600	1,500	890	4,800	110,000	--	
	11/11/02	11.63	321.23	81,000	2,900	2,100	2,100	14,000	110,000	--	
	05/08/03	10.91	321.95	5,700	770	69	130	365	76,000 (70,000)	--	
	12/15/04	**11.97**	**320.89**	**33,000**	**1,700**	**430**	**1,300**	**7,000**	**70,000 (89,000)**	--	
MW-4	03/01/96	9.9	322.74	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
332.63	04/02/96	9.77	322.87	--	--	--	--	--	--	--	
	06/27/96	10	322.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	09/12/96	11.67	320.96	<50	<0.5	<0.5	<0.5	<0.5	3.5	--	
	03/31/97	10.59	322.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	12/23/98	10.37	322.26	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
	03/25/99	9.91	322.72	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	02/03/00	10.32	322.31	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0 (3)	--	
	01/23/01	10.54	322.09	<50	<0.500	<0.500	<0.500	<0.500	<5.00	--	
	05/01/01	10.32	322.31				SAMPLED ANNUALLY				
	08/28/01	10.57	322.06				SAMPLED ANNUALLY				
	11/27/01	10.29	322.34				SAMPLED ANNUALLY				
	02/28/02	10.3	322.33	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	
	05/22/02	10.12	322.51				SAMPLED ANNUALLY				
	08/20/02	10.43	322.2				SAMPLED ANNUALLY				
	11/11/02	9.89	322.74				SAMPLED ANNUALLY				
	05/08/03	9.79	322.84	<50	<0.5	<0.5	<0.5	<0.5	<2	--	
	12/15/04	**10.56**	**322.07**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	--	
MW-5	03/01/96	10.62	322.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
333.47	04/02/96	10.14	323.06	--	--	--	--	--	--	--	
	06/27/96	10.22	322.98	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	09/12/96	10.85	322.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	03/31/97	10.44	322.6	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	12/23/98	10.21	322.83	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	

Table 1. Groundwater Monitoring Data and Analytical Results - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	1,2-DCA	Notes
				←			µg/L			→	
MW-5 (Cont'd)	D3/25/99	9.92	323.12	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
	02/03/00	9.63	323.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.03	--	
	01/23/01	10.35	322.69	<50	<0.500	<0.500	<0.500	<0.500	<5.00	--	
	05/01/01	10.34	322.7				SAMPLED ANNUALLY				
	08/28/01	10.44	322.6				SAMPLED ANNUALLY				
	11/27/01	10.17	322.87				SAMPLED ANNUALLY				
	02/28/02	10.2	322.84	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	
	05/22/02	10.38	322.66				SAMPLED ANNUALLY				
	08/20/02	10.36	322.68				SAMPLED ANNUALLY				
	11/11/02	10.03	323.01				SAMPLED ANNUALLY				
	05/08/03	9.56	323.48	<50	<0.5	<0.5	<0.5	<0.5	3.4/<0.5	--	
	12/15/04	**10.08**	**322.96**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	--	

ABBREVIATIONS AND NOTES:

Groundwater monitoring data and laboratory analytical results prior to December 14, 2004, were scanned from a report by SOMA.
(ft) = Feet
(msl) = Mean sea level
TOC Elev. (ft) = Top of casing elevation
µg/L = micrograms per liter - approximately equal to parts per billion = ppb
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015M.
BTEX by EPA Method 8020/8021.
MTBE = Methyl tertiary-butyl ether by EPA Method 8020/8021. (Concentrations in parentheses are by EPA Method 8260B).
1,2-DCA = 1,2-Dichloroethane
SPH = Separate Phase Hydrocarbons Thickness, in feet
-- = Not Measured/Not Analyzed
1 Laboratory report indicates weathered gasoline C6-C12.

APPENDIX A

Groundwater Monitoring Field Data Sheets

WELL GAUGING DATA

Project # 041215-PC2 Date 12/15/04 Client PANGEA

Site ~~7240~~ 7240 Dublin Blvd., Dublin

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or ~~TOC~~	
MW-1	2					12.80	25.26	TOC	
MW-2	2					8.60	19.91		
MW-3	2					11.97	22.10		
MW-4	2					10.56	19.72		
MW-5	2	~~Well inaccessible~~			MW01 11/31/05	10.08 ~~10.56~~	20.51		
EA-1	~~4~~	Well inaccessible - TOAR CLD				~~8.21~~	~~8.30~~		
EA-2	4					8.96	39.08		
EA-3	4					10.39	34.67		

WELL MONITORING DATA SHEET

Project #: 041215-PCZ	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 25.26	Depth to Water (DTW): 12.80
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.29	

Purge Method: Bailer; Disposable Bailer; (Positive Air Displacement); Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

2 (Gals.) X	3	=	6 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1255	17.8	7.00	3283	>1000	2	
1258	18.2	6.74	3356	>1000	4	
1302	17.7	6.80	3246	>1000	6	

Did well dewater? Yes (No) Gallons actually evacuated: 6

Sampling Date: 12/15/04 Sampling Time: 1325 Depth to Water: 15.09

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: (TPH-G BTEX MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041215-PCB	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: MW-2	Well Diameter: ② 3 4 6 8 ____
Total Well Depth (TD): 19.91	Depth to Water (DTW): 8.60
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.86	

Purge Method: Bailer; Disposable Bailer; ^Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: Bailer; ^Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1.8 (Gals.) X 3 = 5.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1310	18.2	6.81	2035	243	1.8	cloudy
1312	18.5	6.82	1970	157	3.6	↓
1315	18.3	6.82	1903	124	5.4	

Did well dewater? Yes (No) Gallons actually evacuated: 5.5

Sampling Date: 12/15/04 Sampling Time: 1340 Depth to Water: 9.92

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: (TPH-G BTEX MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041215-PC2	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 22.10	Depth to Water (DTW): 11.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.00	

Purge Method: Bailer, (Disposable Bailer), Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other____

Sampling Method: Bailer, (Disposable Bailer), Extraction Port, Dedicated Tubing, Other: ____

1.6 (Gals.) X 3 = 4.8 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1540	19.8	6.71	2434	>1000	1.6	
1542	20.1	6.60	2422	>1000	3.2	
1545	19.3	6.63	2373	297	4.8	

Did well dewater? Yes (No) Gallons actually evacuated: 4.8

Sampling Date: 12/15 Sampling Time: 1550 Depth to Water: 13.89

Sample I.D.: (DUP) MW-3 Laboratory: Kiff CalScience Other (McCampbell)

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L	
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV	

WELL MONITORING DATA SHEET

Project #: 041215-R2	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 19.72	Depth to Water (DTW): 10.56
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.39	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other____

Sampling Method: Bailer / (Disposable Bailer) / Extraction Port / Dedicated Tubing / Other: ____

1.5 (Gals.) X 3 = 4.5 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1350	20.7	6.7	2903	555	1.5	
1352	20.6	6.8	2904	>1000	3	
1354	20.6	6.8	2908	>1000	4.5	

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Date: 12/15/04 Sampling Time: 1400 Depth to Water: 12.01

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: (TPH-G) BTEX ~~MTBE~~ TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041215-PC2	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 20.51	Depth to Water (DTW): 10.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 12.17	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other:_____

1.7 (Gals.) X	3	= 5.1 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (C))	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1515	17.9	7.08	~~1645~~ 1373	>1000	1.7	
1518	19.3	7.03	1501	71000	3.4	
1520	19.0	4.05	1645	>1000	5.1	

Did well dewater? Yes (No) Gallons actually evacuated: 5.1

Sampling Date: 12/15/04 Sampling Time: 1530 Depth to Water: 11.88

Sample I.D.: MW5 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: (TPH-G BTEX MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041215-PC2	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: EB-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 39.08	Depth to Water (DTW): 8.90
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.94	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: ____

19.6 (Gals.) X	3 =	58.8 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1412	18.9	6.87	8055	768	19.6	cloudy
1416	19.3	6.90	9083	335	39.2	↓
1420	19.1	6.89	9103	127	58.8	↓

Did well dewater? Yes (No) Gallons actually evacuated: 59

Sampling Date: 12/15/04 Sampling Time: 1432 Depth to Water: 14.09

Sample I.D.: EB-2 Laboratory: Kiff CalScience Other McCampbell

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 041215-PC2	Client: PANGEA
Sampler: PC	Date: 12/15/04
Well I.D.: EA-3	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 34.67	Depth to Water (DTW): 10.39
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (TOC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.25	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: Bailer; (Disposable Bailer); Extraction Port; Dedicated Tubing; Other: _____

15.8 (Gals.) X 3 = 47.4 Gals.
1 Case Volume · Specified Volumes · Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F or (°C))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1444	20.1	6.96	5928	62	16	
1447	20.5	6.97	5623	36	32	
1451	20.2	6.94	5397	29	48	

Did well dewater? Yes (No) Gallons actually evacuated: 48

Sampling Date: 12/15/04 Sampling Time: 1508 Depth to Water: 15.19

Sample I.D.: EA-3 Laboratory: Kiff CalScience Other (McCampbell)

Analyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Oxygenates (5) Other:

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

APPENDIX B

Laboratory Analytical Report

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pangea Environmental Services, I 64 Sonia Street Oakland, CA 94618	Client Project ID: Dublin Car Wash	Date Sampled:
		Date Received:
	Client Contact: Bob Clark-Riddell	Date Reported: 12/30/04
	Client P.O.:	Date Completed: 12/30/04

WorkOrder: 0412366

December 30, 2004

Dear Bob:

Enclosed are:

1). the results of **7** analyzed samples from your **Dublin Car Wash project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pangea Environmental Services, I	Client Project ID: Dublin Car Wash	Date Sampled: 12/15/04
64 Sonia Street		Date Received: 12/16/04
Oakland, CA 94618	Client Contact: Bob Clark-Riddell	Date Extracted: 12/19/04-12/22/04
	Client P.O.:	Date Analyzed: 12/19/04-12/22/04

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0412366

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND	1700	ND	ND	ND	ND	1	97
002A	MW-2	W	ND	1400	ND	ND	ND	ND	1	96
003A	MW-3	W	33,000,a	70,000	1700	430	1300	7000	200	103
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	105
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	109
006A	EA-2	W	ND	ND	ND	ND	ND	ND	1	107
007A	EA-3	W	ND	18	ND	ND	ND	ND	1	107
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	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: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Pangea Environmental Services, I	Client Project ID: Dublin Car Wash	Date Sampled: 12/15/04
64 Sonia Street		Date Received: 12/16/04
Oakland, CA 94618	Client Contact: Bob Clark-Riddell	Date Extracted: 12/24/04
	Client P.O.:	Date Analyzed: 12/24/04

Methyl tert-Butyl Ether*

Extraction method: SW5030B Analytical methods: SW8260B Work Order: 0412366

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
001A	MW-1	W	1900	100	104
002A	MW-2	W	1600	50	104
003A	MW-3	W	89,000	2500	97
007A	EA-3	W	17	1	106

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) client defined reporting limit.

RL = Reporting Limit; MDL = Method Detection Limit; DF = Dilution Factor; J = Estimated value; concentration detected between the MDL and RL.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0412366

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 14381 Spiked Sample ID: 0412369-002A

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	LCS / LCSD
TPH(btex)£	ND	60	97	98.4	1.50	83.4	85.4	2.36	70 - 130	70 - 130
MTBE	ND	10	113	116	2.27	97	96.7	0.292	70 - 130	70 - 130
Benzene	ND	10	105	107	2.28	98.8	96.1	2.82	70 - 130	70 - 130
Toluene	ND	10	104	105	1.00	101	98.2	2.72	70 - 130	70 - 130
Ethylbenzene	ND	10	109	109	0	103	101	2.23	70 - 130	70 - 130
Xylenes	ND	30	96	96.3	0.347	100	100	0	70 - 130	70 - 130
%SS:	107	10	105	105	0	101	98	2.38	70 - 130	70 - 130

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

NONE

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 applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = 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.

DHS Certification No. 1644 _____QA/QC Officer

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0412366

EPA Method: SW8260B Extraction: SW5030B BatchID: 14452 Spiked Sample ID: 0412464-003C

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	LCS / LCSD
Methyl-t-butyl ether (MTBE)	ND	10	92.9	91.4	1.63	104	100	3.01	70 - 130	70 - 130
%SS1:	108	10	103	99	3.75	101	99	2.07	70 - 130	70 - 130

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

NONE

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.

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

NR = 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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0412366 **ClientID: PEO**

Report to:
Bob Clark-Riddell
Pangea Environmental Services, Inc.
64 Sonia Street
Oakland, CA 94618
TEL: (510) 435-8664
FAX: (510) 654-4006
ProjectNo: Dublin Car Wash
PO:

Bill to:
Bob Clark-Riddell
Pangea Environmental Services, Inc.
64 Sonia Street
Oakland, CA 94618

Requested TAT: **5 days**
Date Received: **12/16/2004**
Date Printed: **12/23/2004**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0412366-001	MW-1	Water	12/15/04 1:25:00	☐	A	A	A												
0412366-002	MW-2	Water	12/15/04 1:40:00	☐	A	A													
0412366-003	MW-3	Water	12/15/04 3:50:00	☐	A	A													
0412366-004	MW-4	Water	12/15/04 2:00:00	☐	A														
0412366-005	MW-5	Water	12/15/04 3:30:00	☐	A														
0412366-006	EA-2	Water	12/15/04 2:32:00	☐	A														
0412366-007	EA-3	Water	12/15/04 3:00:00	☐	A	A													

Test Legend:

1	G-MBTEX_W	2	MTBE_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Elisa Venegas

Comments: MW-1,MW-2,MW-3,EA-3 added for MTBE conformation by 8260 on 12/23/04

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

04123606

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF BTS # 041215-PC2

CLIENT: PANGEA Environmental Services

SITE: Dublin Car Wash
7420 Dublin Blvd.
Dublin, CA

LAB: McCampbell | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to : PANGEA Env. Services
Attn: Bob Clark-Riddell
EDF Required
* Confirm MTBE hits by EPA 8260

CONDUCT ANALYSIS TO DETECT

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-G/BTEX/ * MTBE (8015B/8021)	MTBE confirm by 8260 per memo 12-23-04	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1 MW-1	12/15/04	1325	W	3	HCl VOAs		X	X				
MW-2		1340		3			X	X				
MW-3		1550		3			X	X				
MW-4		1400		3			X					
MW-5		1530		3			X					
EA-2		1432		3			X					
EA-3		1508		3			X	X				

SAMPLING COMPLETED: DATE 12/15/04 TIME 1600
SAMPLING PERFORMED BY P. Cornish

RESULTS NEEDED NO LATER THAN: Standard 5 day TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	12/16/04	1552	[signature]	12/16/04	3:56
[signature]	12/16/04	230	[signature]	12/16	7:30
[signature]					

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #

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

PRESERVATION: VOAS ✓ | O&G | METALS | OTHER