STID 459

Chevron

August 10, 1995

Chevron U.S.A. Products Company
6001 Bollinger Canyon Rd., Bldg. L
P.O. Box 5004
San Ramon, CA 94583-0804

Site Assessment & Remediation Group
Phone (510) 842-9500

Ms. Jennifer Eberle
Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Service Station #9-2506
2630 Broadway, Oakland, CA

Dear Ms. Eberle:

Enclosed is the Quarterly Groundwater Sampling report dated July 14, 1995, prepared by our consultant Gettler-Ryan, Inc. for the above referenced site. Ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. As previously agreed, monitoring and sampling of wells B-2 and B-4 has been suspended. Dissolved concentrations of these constituents observed during this sampling event are consistent with historical results. Depth to ground water was measured at approximately 4.6 to 10.6 feet below grade. The site appears to lie on a ground water divide with gradient flowing to the northwest and southeast.

Chevron will continue the monitoring and sampling program at this site and report findings on a quarterly basis for one additional quarter to establish a baseline trend of ground water gradient, flow direction, and dissolved hydrocarbon concentrations.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Ms. Y.M. Byeman

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GETTLER-RYAN INC.

July 14, 1995

Mark Miller
Chevron USA Products Company
P.O. Box 5004
San Ramon, CA 94583

Re: Chevron Service Station #9-2506
2630 Broadway
Oakland, CA
Job #5203.80

Dear Mr. Miller:

This report documents the quarterly groundwater sampling event performed by Gettler-Ryan, Inc. (G-R). On June 5, 1995, field personnel were on-site to gauge and sample ten wells (B-1, B-3, B-5 through B-12) at Chevron Service Station #9-2506 located at 2630 Broadway in Oakland, California.

Static groundwater levels were measured on June 5, 1995. All wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site wells. Static water level data and groundwater elevations are presented in Table 1. A potentiometric map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Quarterly Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Superior Prescision Analytical, Inc. Analytic results are presented in Table 1. The chain of custody document and laboratory analytic report are attached. G-R is not responsible for laboratory omissions or errors.

Thank you for allowing Gettler-Ryan to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Respectfully submitted,

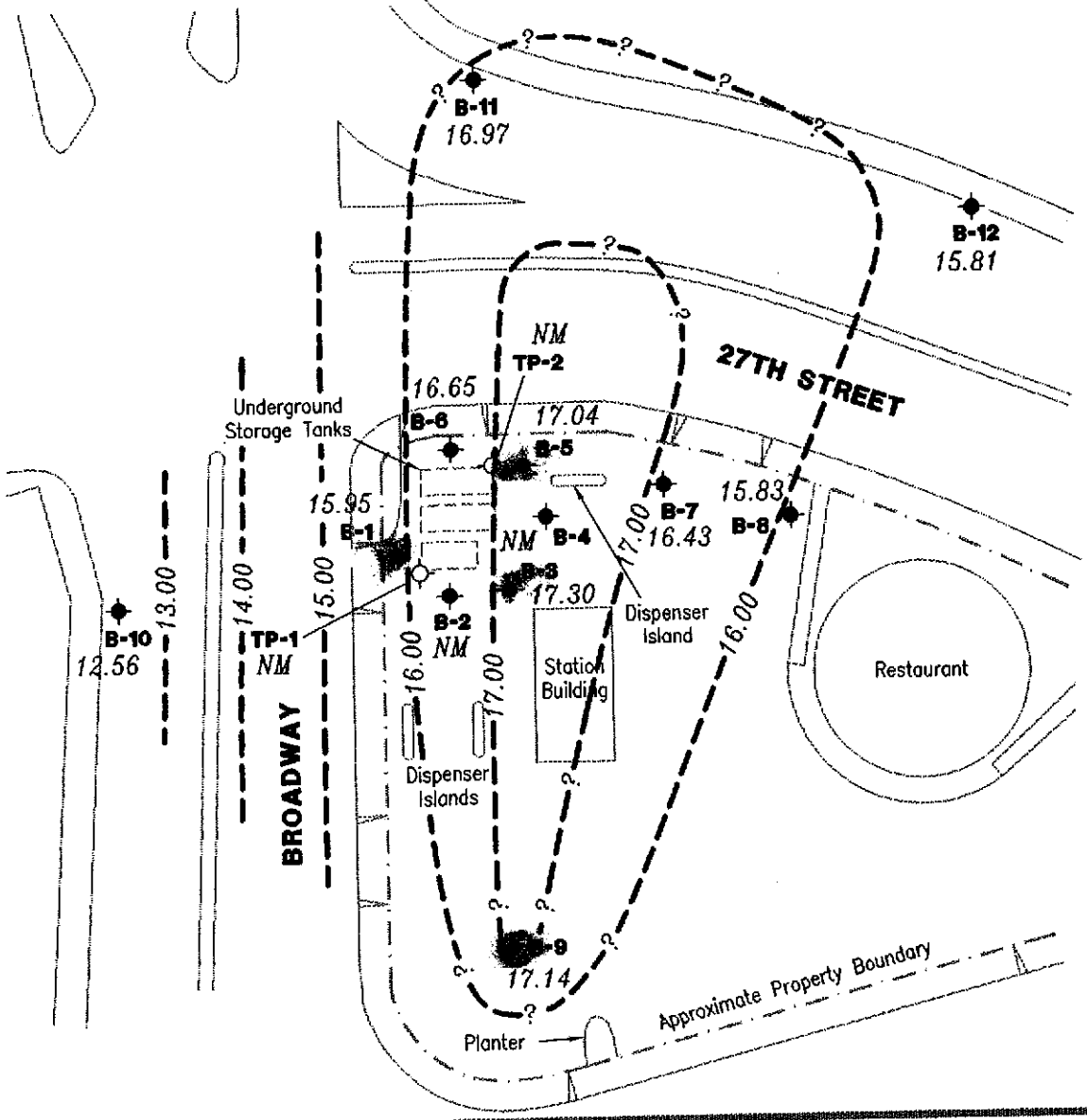
Argy Leyton
Environmental Project Manager

Stephen J. Carter
Senior Geologist, R.G. 5577

REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

AML/SJC/rjb
5203.QML

Figure 1: Potentiometric Map
Table 1: Water Level Data and Groundwater Analytic Results
Attachments: Standard Operating Procedure - Quarterly Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytic Report



EXPLANATION:

- ✦ Groundwater monitoring well
- ⊖ Tank backfill well
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level (MSL)
- 99.99 Groundwater elevation contour, dashed where inferred.
- NM Not measured

Approximate groundwater flow direction at a gradient of 0.02 to 0.03 Ft./Ft.

ppb

	TPHg	B
B-1	3000	610
B-3	2500	850
B-5	58,000	2300
B-9	3,000	130

N

0 60

Scale in Feet

FIGURE 1

POTENTIOMETRIC MAP
Chevron Service Station No. 9-2506
2630 Broadway
Oakland, California

DATE June 5, 1995

REVISED DATE

JOB NUMBER 5203.85

REVIEWED BY

Gettler - Ryan Inc.
6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<-------- ppb -------->				
B-1/										
23.00[1]	3/18/82	7.81	15.19	0	—	—	—	—	—	—
	3/25/82	8.67	14.33	0	—	—	—	—	—	—
	5/21/82	9.30	13.70	0	—	—	—	—	—	—
	5/26/82	10.18	12.82	0	—	—	—	—	—	—
	6/24/82	9.92	13.08	0	—	—	—	—	—	—
	9/9/93	9.90	13.10	0	8015/8020	8,800[2]	240	280	<2.5	<7.5
	12/2/93	9.10	13.90	0	8015/8020	1,100	100	7.9	3.4	3.9
	3/17/94	9.41	13.59	0	8015/8020	1,600	370	13	13	26
	6/10/94	9.89	13.11	0	8015/8020	1,400	270	24	18	78
	9/15/94	11.24	11.76	0	8015/8020	4,100	740	<5	270	300
25.67[3]	12/28/94	9.25	16.42	0	8015/8020	1,200	200	32	37	79
	3/29/95	8.32	17.35	0	8015/8020	13,000	540	54	77	120
	6/5/95	9.72	15.95	0	8015/8020	3,400	610	<25	<25	<25
B-2/										
22.28[1]	3/18/82	3.83	18.45	0	—	—	—	—	—	—
	3/25/82	5.79	16.49	0	—	—	—	—	—	—
	5/21/82	4.85	17.43	0	—	—	—	—	—	—
	5/26/82	8.53	13.75	0	—	—	—	—	—	—
	6/24/82	8.40	13.88	0	—	—	—	—	—	—
	9/9/93	6.46	15.82	0	8015/8020	4,700	470	630	180	590
	12/2/93	5.41	16.87	0	8015/8020	2,200	59	27	110	350
	3/17/94	7.44	14.84	0	8015/8020	1,800	52	33	97	320
	6/10/94	8.15	14.13	0	8015/8020	1,200	37	48	20	93
	9/15/94	10.00	12.28	0	8015/8020	4,900	710	12	340	450
25.13[3]	12/28/94	7.32	17.81	0	8015/8020	2,600	63	49	56	370
	3/29/95[3]	—	—	—	—	—	—	—	—	—
B-3/										
21.78[1]	3/18/82	5.65	16.13	0	—	—	—	—	—	—
	3/25/82	5.75	16.03	0	—	—	—	—	—	—
	5/21/82	5.58	16.20	0	—	—	—	—	—	—
	5/26/82	7.99	13.79	0	—	—	—	—	—	—
	6/24/82	7.68	14.10	0	—	—	—	—	—	—
	9/9/93	5.99	15.79	0	8015/8020	7,800	500	760	180	720
	12/2/93	5.70	16.08	0	8015/8020	9,800	790	870	380	1,500

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<---ppb--->				
B-3	3/17/94	6.50	15.28	0	8015/8020	2,400	88	55	74	270
(cont)	6/10/94	7.23	14.55	0	8015/8020	2,300	110	95	84	240
	9/15/94	9.16	12.62	0	8015/8020	5,000	670	9.3	340	410
24.35[5]	12/28/94	6.44	17.91	0	8015/8020	4,100	650	34	320	440
	3/29/95	5.47	18.88	0	8015/8020	3,300	170	2.2	51	8.9
	[illegible]	7.05	17.30	0	8015/8020	2,500	850	31	170	85
B-4/										
21.35[1]	3/18/82	4.65	16.70	0	—	—	—	—	—	—
	3/25/82	5.08	16.27	0	—	—	—	—	—	—
	5/21/82	—	—	2.5	—	—	—	—	—	—
	5/26/82	9.21	12.14	—	—	—	—	—	—	—
	6/24/82	8.22	13.13	0.5	—	—	—	—	—	—
	9/9/93	6.09	15.26	0	8015/8020	88,000	3,200	16,000	2,000	9,500
	12/2/93	5.54	15.81	0	8015/8020	110,000	3,600	25,000	2,800	15,000
	3/17/94	6.00	15.35	0	8015/8020	60,000	1,400	16,000	1,800	8,900
	6/10/94	6.87	14.48	0	8015/8020	25,000	770	880	190	1,100
	9/15/94	8.74	12.61	0	8015/8020	3,300	800	8.0	300	350
24.11[5]	12/28/94	5.74	18.37	0	8015/8020	17,000	400	4,000	630	2,900
	3/29/95[5]	—	—	—	—	—	—	—	—	—
B-5/										
21.53[1]	3/18/82	5.13	16.40	0	—	—	—	—	—	—
	3/25/82	5.27	16.26	0	—	—	—	—	—	—
	5/21/82	4.40	17.13	0	—	—	—	—	—	—
	5/26/82	7.55	13.98	0	—	—	—	—	—	—
	6/24/82	7.27	14.26	0	—	—	—	—	—	—
	9/9/93	6.45	15.08	0	8015/8020	110,000	1,800	1,800	6,300	25,000
	12/2/93	5.13	16.40	0	8015/8020	81,000	4,400	3,800	6,700	28,000
	3/17/94	6.55	14.98	0	8015/8020	38,000	2,100	3,100	1,800	9,100
	6/10/94	7.34	14.19	0	8015/8020	110,000	5,100	7,000	5,400	27,000
	9/15/94	6.34	15.19	0	8015/8020	2,700	770	15	240	320
24.23[5]	12/28/94	6.55	17.68	0	8015/8020	94,000	4,600	10,000	4,400	19,000
	3/29/95	5.59	18.64	0	8015/8020	59,000	1,500	3,100	2,100	8,100
	[illegible]	7.19	17.04	0	8015/8020	58,000	2,300	4,300	2,400	11,000

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<----------ppb---------->				
B-6/										
22.03[1]	3/18/82	7.56	14.47	0	—	—	—	—	—	—
	3/25/82	6.08	15.95	0	—	—	—	—	—	—
	5/21/82	4.85	17.18	0	—	—	—	—	—	—
	5/26/82	8.31	13.72	0	—	—	—	—	—	—
	6/24/82	8.03	14.00	0	—	—	—	—	—	—
	9/9/93	8.12	13.91	0	8015/8020	6,800[2]	<0.5	<0.5	<0.5	<1.5
	12/2/93	7.06	14.97	0	8015/8020	320	29	<0.5	<0.5	<0.5
	3/17/94	7.57	14.46	0	8015/8020	570	130	6.2	4.7	14
	6/10/94	8.21	13.82	0	8015/8020	1,500	100	81	51	240
	9/15/94	9.94	12.09	0	8015/8020	6,400	900	24	490	620
24.72[3]	12/28/94	7.45	17.27	0	8015/8020	350	110	4.4	3.7	14
	3/29/95	6.40	18.32	0	8015/8020	3,300	46	<0.5	1.3	1.2
	6/[illegible]/95	8.07	16.65	0	8015/8020	[illegible]	<0.5	<0.5	<0.5	<0.5
B-7/										
19.54[1]	3/18/82	4.08	15.46	0	—	—	—	—	—	—
	3/25/82	4.00	15.54	0	—	—	—	—	—	—
	5/21/82	3.00	16.54	0	—	—	—	—	—	—
	5/26/82	4.96	14.58	0	—	—	—	—	—	—
	6/24/82	4.90	14.64	0	—	—	—	—	—	—
	9/9/93	6.54	13.00	0	8015/8020	230	1.3	2.3	0.6	2.1
	12/2/93	6.20	13.34	0	8015/8020	190	4.7	<0.5	1.1	1.9
	3/17/94	5.19	14.35	0	8015/8020	320	15	3.3	1.0	3.0
	6/10/94	5.97	13.57	0	8015/8020	210	6.1	5.7	2.3	5.8
	9/15/94	7.78	11.76	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
22.22[3]	12/28/94	5.04	17.18	0	8015/8020	520	17	4.8	2.5	2.1
	3/29/95	4.35	17.87	0	8015/8020	420	6.0	2.3	1.8	0.9
	6/[illegible]/95	5.79	16.43	0	8015/8020	[illegible]	<0.5	<0.5	<0.5	<0.5
B-8/										
18.49[1]	3/18/82	4.27	14.22	0	—	—	—	—	—	—
	3/25/82	4.06	14.43	0	—	—	—	—	—	—
	5/21/82	4.86	13.63	0	—	—	—	—	—	—
	5/26/82	4.96	13.53	0	—	—	—	—	—	—
	6/24/82	4.87	13.62	0	—	—	—	—	—	—
	9/9/93	5.20	13.29	0	8015/8020	<50	[illegible]	<0.5	<0.5	<1.5

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<——— ppb ———>				
B-8	12/2/93	5.31	13.18	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
(cont)	3/17/94	4.87	13.62	0	8015/8020	<50	1.7	0.5	<0.5	0.6
	6/10/94	5.63	12.86	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/15/94	7.10	11.39	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
21.01[3]	12/28/94	4.63	16.38	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/29/95	4.20	16.81	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/5/95	**5.18**	**15.83**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
B-9[4]	8/4/94	11.53	14.08	—	8015/8020	650	4.4	2.4	6.3	14
	11/2/94	9.42	16.19	—	8015/8020	—	—	—	—	—
25.61[5]	12/28/94	8.35	17.26	0	8015/8020	2,400	290	8.4	90	36
	3/29/95	7.43	18.18	0	8015/8020	5,900	540	24	200	84
	6/5/95	**8.47**	**17.14**	**0**	**8015/8020**	**3,000**	**130**	**<25**	**<25**	**<25**
B-10[4]	8/4/94	10.95	12.20	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	11.19	11.96	—	8015/8020	—	—	—	—	—
23.15[3]	12/28/94	10.30	12.85	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/29/95	9.68	13.47	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/5/95	**10.59**	**12.56**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
B-11[4]	8/4/94	10.39	14.84	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	11.50	13.73	—	8015/8020	—	—	—	—	—
25.23[3]	12/28/94	9.09	16.14	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/29/95	7.40	17.83	0	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/5/95	**8.26**	**16.97**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
B-12[4]	8/4/94	6.41	13.99	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	11/2/94	8.75	11.65	—	8015/8020	—	—	—	—	—
20.40[3]	12/28/94	2.76	17.64	0	8015/8020	74	1.0	2.6	1.3	4.4
	3/29/95	2.46	17.94	0	8015/8020	210	<0.5	<0.5	0.7	1.6
	6/5/95	**4.59**	**15.81**	**0**	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**0.7**
TP-1/ —	9/9/93	7.33	—	0	8015/8020	8,500	770	890	120	590
TP-2/ —	9/9/93	6.18	—	0	8015/8020	13,000	2,400	3,200	380	1,900

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G)	B	T	E	X
						<----------ppb---------->				
Trip-Lab Blank										
TB-LB	9/9/93	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/17/94	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/10/94	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	9/15/94	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	12/28/94	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/29/95	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	6/5/95	—	—	—	**8015/8020**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
Bailer Blank										
BB	9/9/93	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<1.5
	12/2/93	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	<0.5
	3/17/94	—	—	—	8015/8020	<50	<0.5	<0.5	<0.5	0.6

Table 1. Water Level Data and Groundwater Analytic Results - Chevron Service Station #9-2506, 2630 Broadway, Oakland, California (continued)

EXPLANATION:

DTW = Depth to water
TOC = Top of casing elevation
GWE = Groundwater elevation
msl = Measurements referenced relative to mean sea level
TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
ppb = Parts per billion
— = Not analyzed/Not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)
8020 = EPA Method 8020 for BTEX

NOTES:

Water level data and laboratory analytic results prior to March 29, 1995, compiled from the quarterly monitoring reports prepared for Chevron by Sierra Environmental Services.

* Product thickness was measured on and after September 9, 1993, with an MMC flexi-dip interface probe.

1 Top of casing elevations were compiled from IT Enviroscience Program Report, August 2, 1982. TOC for MW-1 was assumed to be 23 feet MSL.
2 Laboratory indicates a non-typical gasoline pattern.
3 Wells were resurveyed. Top of casing elevations were compiled from RESNA Subsurface Investigation Report, October 19, 1994.
4 Water level and analytic data prior to 12/28/94 from RESNA Subsurface Investigation Report, October 19, 1994.
5 Well removed from monitoring program January 11, 1995, per approval of Alameda County Health Services.

STANDARD OPERATING PROCEDURE
QUARTERLY GROUNDWATER SAMPLING

Gettler-Ryan field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss pevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytic laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservative (if any), and the sample collector's initials. The water samples are placed in cooler maintained at 4 C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivery to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory-supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron USA Products Company, the purge and decontamination water generated during sampling activities is taken to Chevron's Richmond Refinery for disposal.

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-1 | Well Condition: Okay

Well Location Description: SW corner of Tank Complex

Well Diameter: 2" in | Hydrocarbon Thickness:

Total Depth: 29.04 ft

Depth to Liquid: 9.72 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume: 3 x 19.32 x 0.17 (VF) = 9.8 # Estimated purge Volume: 9.8 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 14:54 | Purging Flow Rate: 1.7 gpm.

Sampling Time: ___

Time	pH	Conductivity	Temperature	Volume
14:56	7.14	664	68.5	3.4
14:58	7.18	660	68.5	7.8
15:00	7.14	665	68.5	10.2
15:05	7.13	670	68.5	12.0

Weather Conditions: Sunny Breezy

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-1	3x40ml VOA	Y	HCL	Superior	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-3 | Well Condition: dry

Well Location Description: SE Corner of Taxi Complex

Well Diameter: 2" in | Hydrocarbon Thickness: 0

Total Depth: 18.85 ft

Depth to Liquid: 7.05 ft

Volume Factor (VF)			
	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

# of casing Volume: 3 x 11.80 x 0.17 x (VF) 2.0 # Estimated purge Volume: 6.0 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 15:09 | Purging Flow Rate: ___ gpm.

Sampling Time: 15:17

Time	pH	Conductivity	Temperature	Volume
15:10	7.52	953	71.3	2
15:11	7.40	950	70.5	4
15:12	7.29	939	70.5	6
15:17	7.31	990	70.3	8

Weather Conditions: Sunny clear

Water Color: Clear | Odor: Mild

Sediment Description: None.

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-3	3x40ml VOA	Y	HCL	Superior	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER F. Cline DATE 6-5-95

ADDRESS 2630 Broadway JOB # 5203.85

CITY Oakland CA SS# 9-2506

Well ID B-5 Well Condition okay

Well Location Description NE Corner of tank complex

Well Diameter 2" in Hydrocarbon Thickness 0

Total Depth 18.98 ft

Depth to Liquid 7.19 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume 3 x 11.79 x 0.17 (VF) 20 # Estimated purge Volume 60 gal.

Purge Equipment Suction Sampling Equipment Bailer

Did well dewater No If yes, Time ___ Volume ___

Starting Time 14:26 Purging Flow Rate ___ gpm.

Sampling Time ___

Time	pH	Conductivity	Temperature	Volume
14:27	7.23	754	71.2	2
14:28	7.20	754	71.8	4
14:29	7.26	755	71.6	6
14:34	7.24	756	71.7	9

Weather Conditions Clear Sunny Breezy

Water Color: Clear Odor: None

Sediment Description None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-5	3x40ml VOA	Y	HCl	Sapivior	Gas BTXE

Comments ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-6 | Well Condition: okay

Well Location Description: NW Corner of Tank Complex

Well Diameter: 2" in | Hydrocarbon Thickness:

Total Depth: 19.40 ft

Depth to Liquid: 8.07 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume: 3 x 11.33 x 0.17 (VF) = 5.79 | # Estimated purge Volume: 5.7 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: NO | If yes, Time: ___ | Volume: ___

Starting Time: 2:43

Sampling Time: 14:51

Purging Flow Rate: ___ gpm.

Time	pH	Conductivity	Temperature	Volume
2:44	7.65	715	72.7	2
2:45	2.65	726	70.1	4
2:46	7.64	729	70.2	6
2:51	7.63	7.28	7012	9

Weather Conditions: Sunny Breezy

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-6	3x40ml VOA	Y	HCL	Supervisor	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-7 | Well Condition: okay

Well Location Description: In NE Driveway ~ 40' from B-8

Well Diameter: 2" in | Hydrocarbon Thickness: 0

Total Depth: 19.31 ft

Depth to Liquid: 5.99 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume: 3 x 13.32 x 0.17 (VF) = 6.79 # Estimated purge Volume: 6.9 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: NO | If yes, Time: ___ | Volume: ___

Starting Time: 14:15

Sampling Time: 14:23

Purging Flow Rate: ___ gpm.

Time	pH	Conductivity	Temperature	Volume
14:16	7.31	231	71.6	2.5
14:17	7.34	307	72.1	5.0
14:18	7.32	310	72.5	7.5
14:23	7.36	304	72.6	8.0

Weather Conditions: Clear Sunny Breezy

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-7	3x40ml VOA	Y	HCL	Supvicr	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-8 | Well Condition: okay

Well Location Description: N/E Corner of Property in Handicap spot

Well Diameter: 2" in | Hydrocarbon Thickness:

Total Depth: 18.00 ft

Depth to Liquid: 5.18 ft

Volume Factor (VF)			
2" = 0.17	6" = 1.50	12" = 5.80	
3" = 0.38			
4" = 0.66			

# of casing Volume: 3 x 12.82 x 0.17 x(VF) 2.2 = Estimated purge Volume 6.6 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: NO | If yes, Time: ___ | Volume:

Starting Time: 14:03 | Purging Flow Rate: ___ gpm.

Sampling Time: 14:10

Time	pH	Conductivity	Temperature	Volume
14:04	7.61	900	72.3	2.2
14:08	7.64	879	70.3	4.4
14:06	7.65	873	70.2	6.6
14:10	7.64	874	70.3	7C

Weather Conditions: Sunny clear Breezy

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-8	3x40ml VOA	Y	HCL	Superior	Gas BTXE

Comments:

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-9 | Well Condition: okay

Well Location Description: South Side of Building ≈ 50' from SW Corner

Well Diameter: 2" in | Hydrocarbon Thickness: 0

Total Depth: 18.90 ft

Depth to Liquid: 8.47 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume: 3 x 10.43 x 0.17 x (VF) 1.0 = # Estimated purge Volume: 5.3 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: No | If yes, Time: ___ | Volume: ___

Starting Time: 13:21 | Purging Flow Rate: 2 gpm.

Sampling Time: 13:29

Time	pH	Conductivity	Temperature	Volume
13:22	7.21	1019	73.0	2.0
13:23	7.23	1048	72.0	4.0
13:24	7.24	1052	72.0	6.0
13:29	7.23	1050	71.9	

Weather Conditions: Sunny clear Breezy

Water Color: None | Odor: Mild

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-9	3x40ml VOA	Y	HCL	Superior	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline DATE: 6-5-95

ADDRESS: 2630 Broadway JOB #: 5203.85

CITY: Oakland CA SS#: 9-2506

Well ID: B-10 Well Condition: okay

Well Location Description: " [illegible] West side of Broadway in Parking Strip

Well Diameter: 2" in Hydrocarbon Thickness: 0

Total Depth: 19.95 ft

Depth to Liquid: 10.59 ft

Volume Factor (VF)			
2" = 0.17	6" = 1.50	12" = 5.80
3" = 0.38		
4" = 0.66		

# of casing Volume: 3 x 8.36 x 0.17 x(VF) 1.4 # Estimated purge Volume: 4.3 gal.

Purge Equipment: Suction Sampling Equipment: Bailer

Did well dewater: No If yes, Time ___ Volume ___

Starting Time: 12:53 Purging Flow Rate: 1.5 gpm.

Sampling Time: 1300

Time	pH	Conductivity	Temperature	Volume
12:54	7.41	479	71.3	1.5
12:55	7.16	480	68.0	3.0
12:56	7.20	482	68.0	4.5
13:00	7.18	480	67.9	5.0

Weather Conditions: Sunny Clear Breezy

Water Color: None Clear Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-10	3x40ml VOA	Y	HCL	Superior	Gas BTXE

Comments

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-11 | Well Condition: Okay

Well Location Description: N of site NE Corner in sidewalk Area

Well Diameter: 2" in | Hydrocarbon Thickness: 0

Total Depth: 18.21 ft

Depth to Liquid: 8.26 ft

Volume Factor (VF)	2" = 0.17	6" = 1.50	12" = 5.80
	3" = 0.38		
	4" = 0.66		

# of casing Volume: 3 x 9.95 x 0.17 (VF) = 1.7 | #Estimated purge Volume: 5.1 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: NO | If yes, Time: ___ | Volume: ___

Starting Time: 12:38 | Purging Flow Rate: 1.7 gpm.

Sampling Time: 12:43

Time	pH	Conductivity	Temperature	Volume
12:36	7.27	923	20.5	1.7
12:37	7.24	930	20.4	3.4
12:38	7.20	931	20.3	5.1
12:43	7.22	931		6.6

Weather Conditions: Sunny clear

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-11	3x40ml VOA	Y	HCL	Supvicr	Gas BTXE

Comments: ___

WELL SAMPLING FIELD DATA SHEET

SAMPLER: F. Cline | DATE: 6-5-95

ADDRESS: 2630 Broadway | JOB #: 5203.85

CITY: Oakland CA | SS#: 9-2506

Well ID: B-12 | Well Condition: decay

Well Location Description: offsite NE of property North side of 27th Ave in Park strip

Well Diameter: 2" in | Hydrocarbon Thickness:

Total Depth: ~~18.04~~ ft

Depth to Liquid: 4.59 ft

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66	6" = 1.50	12" = 5.80

# of casing Volume: 3 x 13.45 x 0.17 x (VF) 2.2 = # Estimated purge Volume: 6.8 gal.

Purge Equipment: Suction | Sampling Equipment: Bailer

Did well dewater: NC | If yes, Time: ___ | Volume:

Starting Time: 12:10 | Purging Flow Rate: 2.2 gpm.

Sampling Time: 12:18

Time	pH	Conductivity	Temperature	Volume
12:11	7.70	525	73.1	~~9.2~~
12:12	6.91	516	70.1	4.4
12:13	6.93	520	69.9	6.6
12:18	6.92	518	70.1	7.0

Weather Conditions: Sunny clear

Water Color: Clear | Odor: None

Sediment Description: None

LABORATORY INFORMATION

Sample ID	Container	Refrig	Preservative Type	Lab	Analysis
B-12	3x40ml VOA	Y	HCL	Superior	Gas BTX

Comments:

Superior Precision Analytical, Inc.

A member of ESSCON Environmental Support Service Consortium

GETTLER RYAN INC.
6747 SIERRA CT, SUITE G
DUBLIN, CA 94568

Date: June 20, 1995

Attn: ARGY LEYTON

Laboratory Number : 81815

Project Number/Name : 5203.85

This report has been reviewed and

approved for release.

C. Athom for.

Senior Chemist
Account Manager

GETTLER RYAN INC.
Attn: ARGY LEYTON

Project 5203.85
Reported on June 20, 1995

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Chronology

Laboratory Number 81815

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
TB-LB	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	01
B-12	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	02
B-11	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	03
B-10	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	04
B-8	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	05
B-7	06/05/95	06/06/95	06/13/95	06/13/95	BF131.04	06
B-6	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	07
B-9	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	08
B-1	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	09
B-5	06/05/95	06/06/95	06/13/95	06/13/95	BF131.04	10
B-3	06/05/95	06/06/95	06/12/95	06/12/95	BF121.05	11

QC Samples

QC Batch #	QC Sample ID	Type	Ref.	Matrix	Extract.	Analyzed
BF121.05-02	Method Blank	MB		Water	06/12/95	06/12/95
BF121.05-03	MW2	MS	81820-01	Water	06/12/95	06/12/95
BF121.05-04	MW2	MSD	81820-01	Water	06/12/95	06/12/95
BF131.04-01	Method Blank	MB		Water	06/13/95	06/13/95
BF131.04-02	MW-1	MS	81829-01	Water	06/13/95	06/13/95
BF131.04-03	MW-1	MSD	81829-01	Water	06/13/95	06/13/95

Certified Laboratories

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GETTLER RYAN INC.
Attn: ARGY LEYTON

Project 5203.85
Reported on June 20, 1995

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
81815-01	TB-LB	Water	1.0	-
81815-02	B-12	Water	1.0	-
81815-03	B-11	Water	1.0	-
81815-04	B-10	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	81815-01 Conc. ug/L	81815-01 RL	81815-02 Conc. ug/L	81815-02 RL	81815-03 Conc. ug/L	81815-03 RL	81815-04 Conc. ug/L	81815-04 RL
Gasoline_Range	ND	50	ND	50	ND	50	ND	50
Benzene	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Ethyl Benzene	ND	0.5	ND	0.5	ND	0.5	ND	0.5
Total Xylenes	ND	0.5	0.7	0.5	ND	0.5	ND	0.5
>> Surrogate Recoveries (%) <<								
Trifluorotoluene (SS)	100		100		99		99	

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Project 5203.85
Reported on June 20, 1995

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
81815-05	B-8	Water	1.0	-
81815-06	B-7	Water	1.0	-
81815-07	B-6	Water	1.0	-
81815-08	B-9	Water	50.0	-

R E S U L T S O F A N A L Y S I S

Compound	81815-05 Conc. ug/L	RL	81815-06 Conc. ug/L	RL	81815-07 Conc. ug/L	RL	81815-08 Conc. ug/L	RL
Gasoline_Range	ND	50	65	50	230	50	3000	2500
Benzene	ND	0.5	ND	0.5	ND	0.5	130	25
Toluene	ND	0.5	ND	0.5	ND	0.5	ND	25
Ethyl Benzene	ND	0.5	ND	0.5	ND	0.5	ND	25
Total Xylenes	ND	0.5	ND	0.5	ND	0.5	ND	25
>> Surrogate Recoveries (%) <<								
Trifluorotoluene (SS)	100		106		98		100	

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GETTLER RYAN INC.
Attn: ARGY LEYTON

Project 5203.85
Reported on June 20, 1995

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
81815-09	B-1	Water	50.0	-
81815-10	B-5	Water	100.0	-
81815-11	B-3	Water	10.0	-

R E S U L T S O F A N A L Y S I S

Compound	81815-09 Conc. ug/L	RL	81815-10 Conc. ug/L	RL	81815-11 Conc. ug/L	RL
Gasoline_Range	3000	2500	58000	5000	2500	500
Benzene	610	25	2300	50	850	5.0
Toluene	ND	25	4300	50	31	5.0
Ethyl Benzene	ND	25	2600	50	170	5.0
Total Xylenes	ND	25	11000	50	85	5.0
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)	102		106		92	

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Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 81815
Method Blank(s)

	BF121.05-02		BF131.04-01	
	Conc. ug/L	RL	Conc. ug/L	RL
Gasoline_Range	ND	50	ND	50
Benzene	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5
Ethyl Benzene	ND	0.5	ND	0.5
Total Xylenes	ND	0.5	ND	0.5
>> Surrogate Recoveries (%) <<				
Trifluorotoluene (SS)	99		104	

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Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 81815

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
BF121.05 03 / 04 - Sample Spiked: 81820 - 01						
Gasoline_Range	ND	320	230/299	72/93	65-135	25
Benzene	ND	20	20/21	100/105	65-135	5
Toluene	ND	20	20/21	100/105	65-135	5
Ethyl Benzene	ND	20	21/21	105/105	65-135	0
Total Xylenes	ND	60	62/61	103/102	65-135	1
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				99/100	50-150	
For Water Matrix (ug/L)						
BF131.04 02 / 03 - Sample Spiked: 81829 - 01						
Gasoline_Range	ND	320	350/380	109/119	65-135	9
Benzene	ND	20	21/22	105/110	65-135	5
Toluene	ND	20	21/22	105/110	65-135	5
Ethyl Benzene	ND	20	21/22	105/110	65-135	5
Total Xylenes	ND	60	61/65	102/108	65-135	6
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				103/102	50-150	

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

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