



December 5, 1996

Scott Seery

~~Amy Leech~~

Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

ENVIRONMENTAL
PROTECTION
90 DEC -9 PM 2:03

RE: **System Pulsing Update Report**
Former Chevron Service Station 9-2960
2416 Grove Way
Castro Valley, California
WA Job #4-0552-56

Dear Ms. Leech:

As you requested in your June 12, 1996, letter to Kenneth Kan of Chevron, Weiss Associates (WA), on behalf of Chevron Products Company (Chevron), presents this soil vapor extraction (SVE) system pulsed operation performance evaluation for the SVE system at the above referenced site. Below we describe the historic system operating cycle, the June pulsing results, the July through October pulsing results, and present our conclusions and recommendation to discontinue operating the SVE and ground water extraction (GWE) systems.

Background

Since start-up in June 1994, the system has operated on a continuous cycle. Monthly, WA measured hydrocarbon vapor concentrations from vapor extraction well C-1 and the system influent and effluent sample ports using a flame ionization detector (FID). Well hydrocarbon vapor concentrations were correlated with well vacuum, well vapor flow rates, influent hydrocarbon concentrations and system flow rates to optimize system performance. **The well vacuum was adjusted to draw the greatest flow rate from well C-1 to maximize mass removal.** Dilution of the influent hydrocarbon vapor to the thermal oxidizer was minimized to maximize the thermal oxidizer's operating efficiency. Although the system was operated on a continuous cycle, occasional shutdowns of varying lengths were experienced between regular site visits due to variations in site conditions including well flow rate fluctuations, vapor concentration fluctuations, power interruptions and high water levels in the liquid knockout drum. Before restarting the system after a shutdown event, WA measured well vapor hydrocarbon concentrations using a FID (Table 1).

Amy Leech
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Table 1. Historic Well Vapor Hydrocarbon Concentrations

Date	Well C-1 Total Hydrocarbon Vapor Concentration (a) (ppmv)	Depth to Water in Well C-1 (feet)	System Status Upon Arrival (on/off)	Notes
28-Jun.-94	49,700	17.9	on	
13-Jul.-94	43,500		off	b
26-Jul.-94	40,500		on	
2-Aug.-94	25,200	16.67	off	b
6-Sep.-94	20,700	17.63	on	b
4-Oct.-94	4,200		on	b
22-Nov.-94	3,500		off	
12-Dec.-94	5,350	16.53	off	
5-Jan-95	6,000	16.65	off	
1-Feb.-95	400	14.48	off	
1-Mar-95	2,750	15.57	off	
12-Apr.-95	250	14.32	on	
22-May-95	250		on	
29-Jun.-95	4,750	16.93	off	
27-Jul.-95	560	15.8	on	
28-Aug.-95	150	15.75	on	
13-Sep.-95	3,800	16.91	off	
30-Oct.-95	6,250	15.8	on	
21-Nov.-95	1,250		off	
14-Dec.-95	9,850	17.4	off	
17-Jan.-96	1,500	16.01	off	
29-Feb.-96	1,600		on	
21-Mar-96	5	13.85	on	
17-Apr.-96	1	15.87	off	
23-May-96	2,500	16.33	off	
13-Jun.-96	1,000	16.67	off	
26-Jun.-96	1,800	14.72	off	c

Notes:

- a) Hydrocarbon concentrations were measured in the field with a flame ionization detector (FID).
- b) Well vapor concentration is estimated by multiplying the system influent concentration by 3 (the approximated dilution factor of the system influent).
- c) A sample was sent to Sequoia Analytical for total petroleum hydrocarbon as gasoline (TPH-G) and benzene analysis. Results: TPH-G = 680 ppmv and benzene = 5 ppmv.

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On June 13, 1996, WA shut-off the SVE system to begin a two week off pulsing cycle. On June 26, 1996, WA returned to the site and collected a vapor sample from the vapor extraction well C-1 and submitted it to Sequoia Analytical of Redwood City, California, for analysis for total petroleum hydrocarbons as gasoline by Modified EPA method 8015 modified and benzene, toluene, ethyl benzene, and total xylenes (BTEX) by EPA method 8020. WA also measured a well vapor sample from C-1 and analyzed it in the field with a FID for comparison with historic data.

The C-1 hydrocarbon vapor sample results indicated that after the 13 day shutdown the soil vapor concentration was 680 ppmv TPH-G and 5.0 ppmv benzene. The FID result from June 26 was 1,800 ppmv and is consistent with recent well vapor concentrations.

Based on the results of the June pulsing, WA proposed to continue pulsing the system through October 1996.

System Pulsing Schedule

WA continued system pulsing over the four months following June. The system operated for a one month period and the extraction well was sampled, then the system was shut down for one month and the extraction well was sampled again. This pulsing schedule began in July and continued through October with the final pulsing vapor sample being collected on November 20, 1996. After the October sample collection the SVE system was turned off. The pulsing schedule is summarized in Table 2 below:

Table 2. Soil Vapor Extraction Pulsing Schedule

Month	Sampling	System Status Upon Arrival	System Status Upon Departure
July	Static well vapor	Off	Turn SVE system on
August	Well vapor during SVE operation.	On	Turn SVE system off
September	Static well vapor.	Off	Turn SVE system on
October	Well vapor during SVE operation.	On	Turn SVE system off.
November	Static well vapor.	Off	SVE system off, and prepare a system pulsing status report.

System Pulsing Results

Laboratory analytic results indicate that after less than one month of system operation, the extraction well hydrocarbon vapor concentrations decrease to less than 41 ppmv TPH-G and below the laboratory benzene detection limit of 0.031 ppmv.

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Within a month of shutting the system off, the extraction well hydrocarbon vapor concentrations rebound to a maximum TPH-G concentration of 1,500 ppmv. **This result indicates that there are residual hydrocarbons in soil beneath the site and that this removal is limited by diffusion.** However benzene levels remain under 7.2 ppmv based on laboratory results. The SVE system July through October pulsing FID measurements and laboratory results are included in Table 3. Laboratory analytical results are included in Attachment A.

Table 3. Well Vapor TPH-G And Benzene Concentrations During Pulsing

Date	TPH-G Laboratory Results (ppmv)	Benzene Laboratory Results (ppmv)	Total Hydrocarbons by FID (ppmv)	Depth to Water in Well C-1 (feet)	System Status Upon Arrival (on/off)
17-Jul.-96	9,900	40	3,200	17.05	off
6-Aug.-96	41	<0.031	11	16.44	on
10-Sep.-96	360	<0.31	320	16.43	off
28-Oct.-96	11	<0.031	7	16.36	on
20-Nov.-96	1,500	7.2	20,000	16.34	off

NOTES:

Hydrocarbon concentrations were measured in the field with a flame ionization detector (FID).

After the November sampling visit the SVE system remained off as proposed in the August 12, 1996 System Pulsing Update Report.

Discussion Of Ground Water Monitoring Data

Separate phase hydrocarbons have not been detected on site since January 1995. Ground water monitoring results indicate that the benzene plume is limited to ground water monitoring wells C-1 and C-2. The three down gradient wells, C-3, C-6 and C-7, and the two upgradient wells C-4 and C-5, are non-detect for benzene and define the extent of the hydrocarbon plume. Methyl t-butyl ether (MTBE) has not been detected in soil or ground water at this site. **Fourth quarter 1996 results have indicated an increase in benzene concentrations in the source area wells C-1 and C-2.** Evaluation of the monitoring well data does not show a correlation between dissolved benzene concentrations and ground water elevation fluctuations. The 4th Quarter Ground Water Monitoring Report is included as Attachment B.

Conclusions And Recommendations

Based on the data collected during three months of pulsed vapor extraction, in less than a month, benzene vapor concentrations in extracted vapor decreased to below detection limits and hydrocarbon removal became diffusion limited. Benzene vapor concentrations during SVE system operation are below the laboratory detection limit of 0.031 for benzene and static soil vapor benzene

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concentrations are less than 7.2 ppmv. Operating a thermal oxidizer with such low influent vapor concentrations is an inefficient method of remediating the hydrocarbons remaining beneath this site.

Historic and current ground water monitoring data indicate that the dissolved benzene plume is limited to the ground water in the vicinity of monitoring wells C-1 and C-2. Ground water monitoring well MW-3 has not had a detection of benzene in over a year, indicating that the plume is shrinking. Clean upgradient wells MW-4 and MW-5 and clean downgradient wells MW-3, MW-6 and MW-7 define the plumes lateral extent.

Based on the data presented in this report, ~~WA recommends approval to remove the above ground portions of the SVE system and GWE system at this site and implementation of passive remediation to manage the residual hydrocarbons beneath this site.~~ The recent increase in benzene concentrations in source area wells C-1 and C-2 warrant continued quarterly ground water monitoring for these wells. We recommend monitoring ground water according to the schedule outlined below for the next four quarters to assure that passive remediation is occurring:

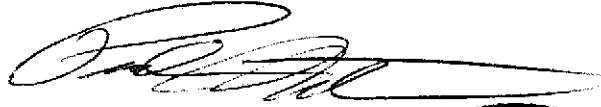
- Monitor upgradient monitoring wells C-4 and C-5 annually in January;
- Monitor source area wells C-1 and C-2 quarterly to establish that the plume is stable or shrinking;
- Monitoring downgradient wells C-3 and C-6 quarterly to insure a stable plume; and
- Discontinue monitoring downgradient well C-7 unless benzene begins to be consistently detected in well C-3 .

Amy Leech
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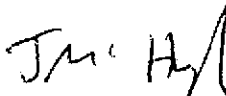
6

We appreciate the attention you have given to this case. If you have any questions please contact Paul Nuti with Weiss Associates at (510) 450-6164 or Phil Briggs with Chevron at (510) 842-9136.

Sincerely,
Weiss Associates



Paul M. Nuti
Senior Staff Engineer


Jerry McHugh, P.E.
Principal Engineer



Enclosures: Attachment A - Analytical Report
Attachment B - 4th Quarter Ground Water Monitoring Report

CC: Philip Briggs, Chevron Products Company

PMN/JM.pmn

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ATTACHMENT A

ANALYTICAL REPORT



Sequoia Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94591
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: Well Gas Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9611D38-01	Sampled: 11/20/96 Received: 11/21/96 Analyzed: 11/22/96 Reported: 11/26/96
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QC Batch Number: GC112296BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	190	1500
Benzene	1.6	7.2
Toluene	1.3	N.D.
Ethyl Benzene	1.2	N.D.
Xylenes (Total)	1.2	1.3
Chromatogram Pattern: Gas & Unidentified HC		+ < C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	149 Q

analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



Fax copy of Lab Report

and COC to Chevron Contact: Yes No

Chain-of-Custody

Chevron Facility Number 9-2960
 Facility Address 2416 Grove Way Contra Costa
 Consultant Project Number 4-0557-56
 Consultant Name Wrin Associates
 Address 5100 Shellmound St. Emeryville, CA 94608
 Project Contact (Name) Paul Nuti
 (Phone) 510-450-6000 (Fax Number) 510-547-5043

Chevron Contact (Name) Phillip Diigo
 (Phone) 510-842-8876
 Laboratory Name Sequoia
 Laboratory Release Number 3325230
 Samples Collected by (Name) Paul Cardon
 Collection Date 11/20/96
 Signature Paul Cardon

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Cholesterol	Type of Sample C = Composite D = Discrete	Time	Sample Preservation	Lead (Yes or No)	Analysis To Be Performed															
								BTX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5920)	Purgeable Hydrocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8140)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (3000 or 4000)	OTHER ANALYSES							
<u>Well Cas</u>	<u>1</u>	<u>2</u>	<u>A</u>	<u>Co</u>	<u>11/21/96</u>	<u>None</u>	<u>N</u>	<u>X</u>															

SAME DAY

Sdy-Record

PICKUP

Remarks

9611D38

Relinquished By (Signature) Paul Cardon Organization WA Date/Time 11/20/96
 Relinquished By (Signature) Paul Nuti Organization Wrin Associates Date/Time 11/21/96
 Relinquished By (Signature) Paul Nuti Organization Sequoia Date/Time 11/21/96
 Relinquished By (Signature) Paul Nuti Organization Sequoia Date/Time 11/21/96

Turn Around Time	1
	2
	4
	8
	16
	32

DEC 02 '96 11:40AM SEQUOIA ANALYTICAL



Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: Sys Eff Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9610H91-01	Sampled: 10/28/96 Received: 10/29/96 Analyzed: 10/31/96 Reported: 11/04/96
Attention: Paul Nuti		

QC Batch Number: GC103196BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	N.D.
Benzene	0.031	N.D.
Toluene	0.027	N.D.
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	90

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: Sys Inf Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9610H91-02	Sampled: 10/28/96 Received: 10/29/96 Analyzed: 10/31/96 Reported: 11/04/96
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QC Batch Number: GC103196BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	N.D.
Benzene	0.031	N.D.
Toluene	0.027	0.11
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	0.20
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	93

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: Well Gas Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9610H91-03	Sampled: 10/28/96 Received: 10/29/96 Analyzed: 10/31/96 Reported: 11/04/96
Attention: Paul Nuti		

QC Batch Number: GC103196BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	11
Benzene	0.031	N.D.
Toluene	0.027	N.D.
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	N.D.
Chromatogram Pattern: Unidentified HC		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	90

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Weiss & Associates 5500 Shellmound Emeryville, CA 94608 Attention: Paul Nuti	Client Project ID: Chevron 9-2960, Castro Valley Matrix: Liquid Work Order #: 9610H91 -01-03	Reported: Nov 12, 1996
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QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC103196BTEX03A	GC103196BTEX03A	GC103196BTEX03A	GC103196BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	G. Fish	G. Fish	G. Fish	G. Fish
MS/MSD #:	9610D1408	9610D1408	9610D1408	9610D1408
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	10/31/96	10/31/96	10/31/96	10/31/96
Analyzed Date:	10/31/96	10/31/96	10/31/96	10/31/96
Instrument I.D.#:	GCHP-03	GCHP-03	GCHP-03	GCHP-03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	9.3	9.0	27
MS % Recovery:	110	93	90	90
Dup. Result:	8.9	7.5	7.5	22
MSD % Recov.:	89	75	75	73
RPD:	21	21	18	20
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK103196	BLK103196	BLK103196	BLK103196
Prepared Date:	10/31/96	10/31/96	10/31/96	10/31/96
Analyzed Date:	10/31/96	10/31/96	10/31/96	10/31/96
Instrument I.D.#:	GCHP-03	GCHP-03	GCHP-03	GCHP-03
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
LCS Result:	11	8.7	8.5	26
LCS % Recov.:	110	87	85	87

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

Mike Gregory
Mike Gregory
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9610H91.WAA <1>



Chevron U.S.A. Inc.
 P.O. BOX 5004
 San Ramon, CA 94583
 FAX (415)842-9591

Chevron Facility Number 9-2960
 Facility Address 2416 GROVE WAY CASTROVILLY
 Consultant Project Number 40552-56
 Consultant Name WELLS ASSOCIATES
 Address 5500 SHELLMOUND; EMERYVILLE, CA 94608
 Project Contact (Name) PAUL NUTI
 (Phone) 510 450-6164 (Fax Number) 510 450 541 5043

Chevron Contact (Name) Phil Briggs
 (Phone) 510-842-8752
 Laboratory Name GETE PM Sequoia
 Laboratory Release Number 3325030 ~~34521502~~
 Samples Collected by (Name) DAVID CHARLES
 Collection Date 10/28/96
 Signature [Signature]

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed <u>9610491</u>													Remarks		
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)								
SYS INF		3	W	G	1429	HCL	Y	X															
SYS MID		↓	↓	↓	1423		↓	↓															
SYS EFF		↓	↓	↓	1422		↓	↓															
SYS EFF	1	1	A	G	1318	NONE	N	X															
SYS INF	2	↓	↓	↓	1320		↓	↓															
WELL GAS	3	↓	↓	↓	1324		↓	↓															

Released to Secure Locked Area

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>W.A.</u>	Date/Time <u>10/28/96 1658</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>WA</u>	Date/Time <u>10/28/96 15</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>WA</u>	Date/Time <u>10/29/96 15</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>10/29/96</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEQ</u>	Date/Time <u>10/29/96 340</u>	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>10/29/96 1546</u>

Turn Around Time (Circle Choice)

- 24 Hrs.
- 48 Hrs.
- 5 Days
- 10 Days

As Contracted 1 GWE
SVE

COC-3303/03 9/1/96



Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: Well Gas Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9609501-01	Sampled: 09/10/96 Received: 09/11/96 Analyzed: 09/12/96 Reported: 09/17/96
Attention: Paul Nuti		


QC Batch Number: GC091296BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	38	360
Benzene	0.31	N.D.
Toluene	0.27	N.D.
Ethyl Benzene	0.23	N.D.
Xylenes (Total)	0.23	N.D.
Chromatogram Pattern: Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	420 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Weiss Associates	Client Proj. ID: Chevron 9-2960, Castro Valley	Sampled: 09/10/96
5500 Shellmound	Sample Descript: Sys-Inf-A.D.	Received: 09/11/96
Emeryville, CA 94608	Matrix: AIR	
Attention: Paul Nuti	Analysis Method: 8015Mod/8020	Analyzed: 09/12/96
	Lab Number: 9609501-02	Reported: 09/17/96

QC Batch Number: GC091296BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	190	320
Benzene	1.6	4.7
Toluene	1.3	N.D.
Ethyl Benzene	1.2	N.D.
Xylenes (Total)	1.2	N.D.
Chromatogram Pattern: Unidentified HC		< C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	193 Q

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: SYS-Eff Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9609501-03	Sampled: 09/10/96 Received: 09/11/96 Analyzed: 09/12/96 Reported: 09/17/96
Attention: Paul Nuti		


QC Batch Number: GC091296BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	N.D.
Benzene	0.031	N.D.
Toluene	0.027	N.D.
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager





Sequoia
Analytical

680 Chesapeake Drive
404 N. Wiget Lane
819 Striker Avenue, Suite 8

Redwood City, CA 94063
Walnut Creek, CA 94598
Sacramento, CA 95834

(415) 364-9600
(510) 988-9600
(916) 921-9600

FAX (415) 364-9233
FAX (510) 988-9673
FAX (916) 921-0100

Weiss Associates
5500 Shellmound
Emeryville, CA 94608
Attention: Paul Nuti

Client Proj. ID: Chevron 9-2960, Castro Valley

Lab Proj. ID: 9609501

Received: 09/11/96

Reported: 09/17/96

LABORATORY NARRATIVE

#Q - Surrogate coelution was confirmed.

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager





Weiss & Associates
5500 Shellmound
Emeryville, CA 94608
Attention: Paul Nuti

Client Project ID: Chevron 9-2960, Castro Valley
Matrix: Liquid

Work Order #: 9609501 -01, -03

Reported: Sep 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC091296BTEX02A	GC091296BTEX02A	GC091296BTEX02A	GC091296BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	R. Burton	R. Burton	R. Burton	R. Burton
MS/MSD #:	9609J23-01	9609J23-01	9609J23-01	9609J23-01
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/12/96	9/12/96	9/12/96	9/12/96
Analyzed Date:	9/12/96	9/12/96	9/12/96	9/12/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	11	9.6	9.2	30
MS % Recovery:	110	96	92	100
Dup. Result:	12	10	9.9	33
MSD % Recov.:	120	100	99	110
RPD:	8.7	4.1	7.3	9.5
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK091296	BLK091296	BLK091296	BLK091296
Prepared Date:	9/12/96	9/12/96	9/12/96	9/12/96
Analyzed Date:	9/12/96	9/12/96	9/12/96	9/12/96
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	13	12	11	37
LCS % Recov.:	130	120	110	123

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL


Mike Gregory
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS= Matrix Spike, MSD= MS Duplicate, RPD= Relative % Difference

9609501.WAA <1>





Weiss & Associates Client Project ID: Chevron 9-2960, Castro Valley
 5500 Shellmound Matrix: Liquid
 Emeryville, CA 94608
 Attention: Paul Nuti Work Order #: 9609501 -02 Reported: Sep 23, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC091296BTEX17A	GC091296BTEX17A	GC091296BTEX17A	GC091296BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	9608426-03	9608426-03	9608426-03	9608426-03
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	9/12/96	9/12/96	9/12/96	9/12/96
Analyzed Date:	9/12/96	9/12/96	9/12/96	9/12/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	12	11	11	33
MS % Recovery:	120	110	110	110
Dup. Result:	12	12	11	34
MSD % Recov.:	120	120	110	113
RPD:	0.0	8.7	0.0	3.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	BLK091296	BLK091296	BLK091296	BLK091296
Prepared Date:	9/12/96	9/12/96	9/12/96	9/12/96
Analyzed Date:	9/12/96	9/12/96	9/12/96	9/12/96
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	11	10	10	30
LCS % Recov.:	110	100	100	100

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

Please Note:
 The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

Mike Gregory
 Mike Gregory
 Project Manager

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

9609501.WAA <2>





Weiss Associates 5500 Shellmound Emeryville, CA 94608	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: SYS EFF Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9608322-02	Sampled: 08/06/96 Received: 08/07/96 Analyzed: 08/09/96 Reported: 08/14/96
Attention: Paul Nuti		

QC Batch Number: GC080996BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	N.D.
Benzene	0.031	N.D.
Toluene	0.027	N.D.
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	106

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Weiss Associates 5500 Shellmound Emeryville, CA 94608 Attention: Paul Nuti	Client Proj. ID: Chevron 9-2960, Castro Valley Sample Descript: WELL GAS Matrix: AIR Analysis Method: 8015Mod/8020 Lab Number: 9608322-03	Sampled: 08/06/96 Received: 08/07/96 Analyzed: 08/09/96 Reported: 08/14/96
---	---	---

QC Batch Number: GC080996BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ppmv	Sample Results ppmv
TPPH as Gas	3.8	41
Benzene	0.031	N.D.
Toluene	0.027	N.D.
Ethyl Benzene	0.023	N.D.
Xylenes (Total)	0.023	0.032
Chromatogram Pattern:		C6-C12
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	124

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager





Weiss & Associates
5500 Shellmound
Emeryville, CA 94608
Attention: Paul Nuti

Client Project ID: Chevron 9-2960, Castro Valley
Matrix: Liquid

Work Order #: 9608322 -01 - 03

Reported: Aug 20, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC080996BTEX03A	GC080996BTEX03A	GC080996BTEX03A	GC080996BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa
MS/MSD #:	G9608224-06	G9608224-06	G9608224-06	G9608224-06
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	8/9/96	8/9/96	8/9/96	8/9/96
Analyzed Date:	8/9/96	8/9/96	8/9/96	8/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
Result:	9.3	9.2	9.5	28
MS % Recovery:	93	92	95	93
Dup. Result:	9.5	9.4	9.4	28
MSD % Recov.:	95	94	94	93
RPD:	2.1	2.2	1.1	0.0
RPD Limit:	0-25	0-25	0-25	0-25

LCS #:	GBLK080996	GBLK080996	GBLK080996	GBLK080996
Prepared Date:	8/9/96	8/9/96	8/9/96	8/9/96
Analyzed Date:	8/9/96	8/9/96	8/9/96	8/9/96
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L
LCS Result:	10	10	10	30
LCS % Recov.:	100	100	100	100

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130
Control Limits				

SEQUOIA ANALYTICAL

[Signature]
Mike Gregory
Project Manager

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9608322.WAA <1>





NEI/GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Midwest Region

4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

July 25, 1996

Paul Nuti
Weiss Associates
5500 Shellmound South
Emeryville, CA 94608

RE: GTEL Client ID: WSS02CHV08
Login Number: W6070323
Project ID (number): 4-0552-55
Project ID (name): CHEVRON/9-2960/2416 GROVE WAY/CASTRO VALLEY/CA

Dear Paul Nuti:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 07/20/96.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Weber, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: WSS02CHV08
 Login Number: W6070323
 Project ID (number): 4-0552-55
 Project ID (name): CHEVRON/9-2960/2416 GROVE WAY/CASTRO VALLEY/CA

Method: MOD 8015/8020
 Matrix: Air

GTEL Sample Number	W6070323-04	W6070323-05	W6070323-06	--
Client ID	WELL GAS	SYS INF	SYS EFF	--
Date Sampled	07/17/96	07/17/96	07/17/96	--
Date Analyzed	07/20/96	07/20/96	07/20/96	--
Dilution Factor	5.00	1.00	1.00	--

Analyte	Reporting		Concentration:			
	Limit	Units				
Benzene	0.5	ug/L	15.	7.1	< 0.5	--
Toluene	0.5	ug/L	11.	5.5	< 0.5	--
Ethylbenzene	0.5	ug/L	6.3	2.7	< 0.5	--
Xylenes (total)	0.5	ug/L	7.2	4.1	< 0.5	--
BTEX (total)	--	ug/L	40.	19.	--	--
TPH as Gasoline	50	ug/L	9900	3200	< 50	--
TFT	--	%	119.	69.6	66.4	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

MOD 8015/8020:

Note: This method for air analysis is not an EPA approved method and all results should be treated as estimates. All quality assurance procedures are based on aqueous standards and may not be reflective of the gaseous matrix of the samples. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

GTEL Client ID: WSS02CHV08
Login Number: W6070323
Project ID (number): 4-0552-55
Project ID (name): CHEVRON/9-2960/2416 GROVE WAY/CASTRO VALLEY/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: MOD 8015/8
Matrix: Air

Conformance/Non-Conformance Summary

(X = Requirements Met * = See Comments -- = Not Required NA = Not Applicable)

Conformance Item	Volatile Organics	Semi-Volatile Organics	Inorganics (MT, WC)
GC/MS Tune	--	--	NA
Initial Calibration	--	--	--
Continuing Calibration	X	--	--
Surrogate Recovery	--	--	NA
Holding Time	*	--	--
Method Accuracy	--	--	--
Method Precision	X	--	--
Blank Contamination	X	--	--

Comments:

Project ID (Number): 4-0552-55
Project ID (Name): Chevron SS #9-2960
2416 Grove Way
Castro Valley, CA
Work Order Number: W6-07-0323
Date Reported: 07-25-96

METHOD BLANK REPORT

Volatile Organics in Air
EPA Method Modified 8015/8020

Date of Analysis: 19-Jul-96 QC Batch No: 071996GC10-1

Analyte	Concentration, ug/L
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
Xylene (total)	<0.5
TPH as Gasoline	<50

GTEL Client ID: WSS02CHV08
Login Number: W6070323
Project ID (number): 4-0552-55
Project ID (name): CHEVRON/9-2960/2416 GROVE WAY/CASTRO VALLEY/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: MOD 8015/8
Matrix: Air

Calibration Verification Sample Summary

Analyte	Spike Amount	Check Sample Concentration	QC Percent Recovery	Acceptability Limits Recovery
MOD 8015/8020	Units:ug/L	QC Batch:071996GC10-6		
Benzene	20.0	17.4	87.0	77-123%
Toluene	20.0	18.0	90.0	77.5-122.5%
Ethylbenzene	20.0	17.6	88.0	63-137%
Xylenes (Total)	60.0	54.6	91.0	85-115%
TPH as Gasoline	500	459	91.8	80-120%

Notes:

QC check source: Supelco #LA12389

GTEL Client ID: WSS02CHV08
Login Number: W6070323
Project ID (number): 4-0552-55
Project ID (name): CHEVRON/9-2960/2416 GROVE WAY/CASTRO VALLEY/CA

QUALITY CONTROL RESULTS

Volatile Organics
Method: MOD 8015/8
Matrix: Air

Duplicate Sample Results

Analyte	Original Concentration	Duplicate Concentration	RPD, %	Acceptability Limits, %
MOD 8015/8020 Units: ug/L	QC Batch: 071996GC10-10	GTEL Sample ID: W6070243-02		Client ID: Batch QC
Benzene	3250	3340	2.73	23.9
Toluene	3740	3860	3.16	27.2
Ethylbenzene	1230	1270	3.20	21.6
Xylenes (Total)	2870	2960	3.09	22.0

Notes:

NA - The concentration of the analyte is less than the reporting limit.

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number 9-2960
Facility Address 2416 GROVE WAY CASTROVILLY
Consultant Project Number 4-0552-55
Consultant Name WELLS ASSOCIATES
Address 5500 SHELLENDOWN; EMPEYVILLE, CA 94608
Project Contact (Name) PAULL NUTI
(Phone) 510 450-6164 (Fax Number) 510 450-5415043

Chevron Contact (Name) KEN KAN
(Phone) 510-842-8752
Laboratory Name GTEL
Laboratory Release Number 3452150
Samples Collected by (Name) DAVID CHARLES
Collection Date 7/17/96
Signature David Charles

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analytes To Be Performed											Remarks			
								BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)							
SYS INF	01	2	W	G	1514	HCL	Y	X														
SYS MID	02	↓	↓	↓	1515	↓	↓	↓														
SYS EFF	03	↓	↓	↓	1516	↓	↓	↓														
WELL GAS	04	1	A	↓	1546	NONE	N	↓														
SYS INF	05	↓	↓	↓	1603	↓	↓	↓														
SYS EFF	06	↓	↓	↓	1611	↓	↓	↓														

3316-07-08

Relinquished By (Signature) <u>David Charles</u>	Organization <u>W.A.</u>	Date/Time <u>7/17/96 17:30</u>	Received By (Signature) <u>Ken Kan</u>	Organization <u>W.A.</u>	Date/Time <u>7/17/96 17:30</u>
Relinquished By (Signature) <u>Ken Kan</u>	Organization <u>W.A.</u>	Date/Time <u>7/19/96 10:50</u>	Received By (Signature) <u>Paul Weber</u>	Organization <u>NET/GTEL</u>	Date/Time <u>7/19/96</u>
Relinquished By (Signature) <u>Paul Weber</u>	Organization <u>NET/GTEL</u>	Date/Time <u>7/19/96 16:45</u>	Received For Laboratory By (Signature) <u>1 0 1 7096 071271</u>	Date/Time <u>7/20/96 0840</u>	

Turn Around Time (Circle Choice)

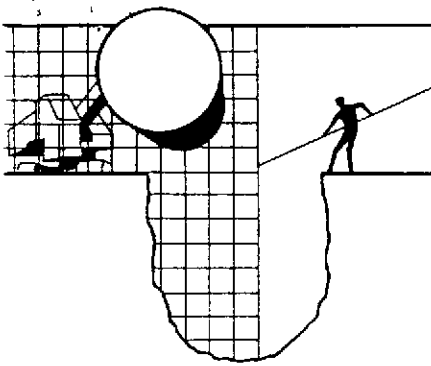
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

OVO seals
12

3316-07-08

ATTACHMENT B

4TH QUARTER GROUND WATER MONITORING REPORT



BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

November 14, 1996

Phil Briggs
Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, CA 94583-0804

4th Quarter 1996 Monitoring at 9-2960

Fourth Quarter 1996 Groundwater Monitoring at
Chevron Service Station Number 9-2960
2416 Grove Way
Castro Valley, CA

Monitoring Performed on October 17, 1996

Groundwater Sampling Report 961017-D-3

This report covers the routine quarterly monitoring of groundwater wells at this Chevron facility. Blaine Tech Services, Inc.'s work at the site includes inspection, gauging, evacuation, purgewater containment, sample collection and sample handling in accordance with standard procedures that conform to Regional Water Quality Control Board requirements.

Routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated volume of a three-case volume purge, elapsed evacuation time, total volume of water removed, and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater is, likewise, collected and transported to McKittrick Waste Treatment Site for disposal.

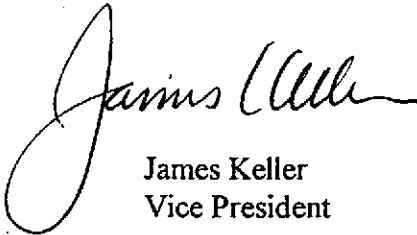
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL DATA AND ANALYTICAL RESULTS**. The full analytical report for the most recent samples is located in the **Analytical Appendix**. The table also contains new groundwater elevation calculations taken from the computer plotted gradient map which is located in the **Professional Engineering Appendix**.

At a minimum, Blaine Tech Services, Inc. field personnel are certified upon completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. concentrates on objective data collection and does not participate in the interpretation of analytical results, the definition of geological or hydrological conditions, the formulation of recommendations, or the marketing of remedial systems.

Please call if you have any questions.

Yours truly,

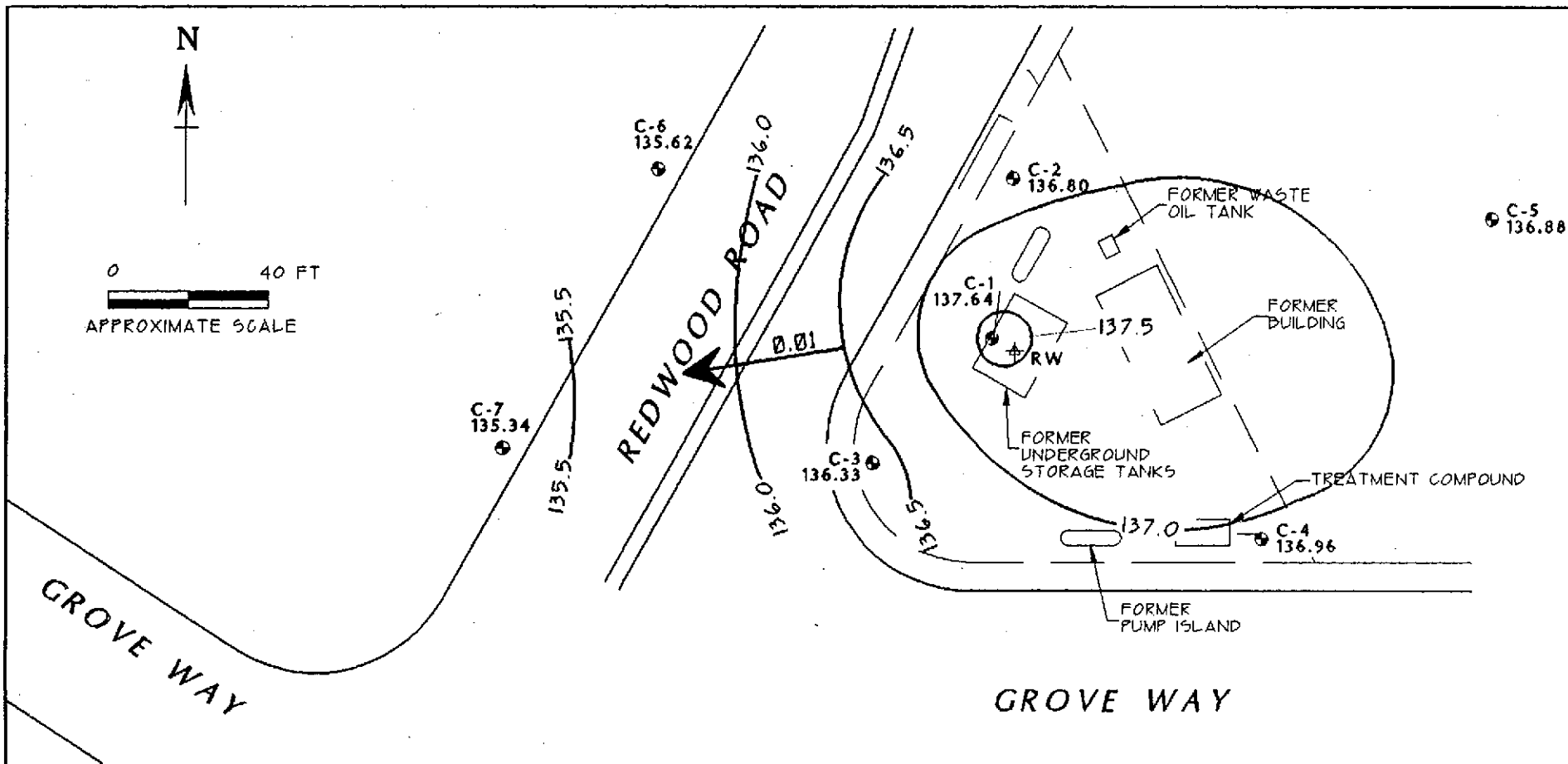


James Keller
Vice President

JPK/cg

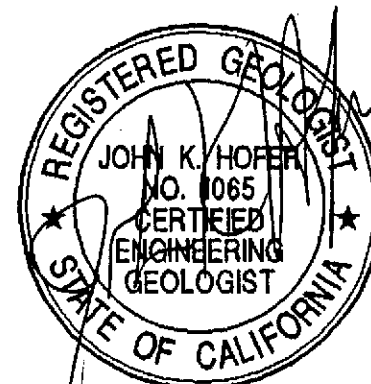
attachments: Professional Engineering Appendix
Cumulative Table of Well Data and Analytical Results
Analytical Appendix
Field Data Sheets

Professional Engineering Appendix



EXPLANATION

- C-7 GROUND-WATER MONITORING WELL
- ⊕ RW RECOVERY WELL (NOT MEASURED)
- 135.34 GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 136.5 GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
- 0.01 APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET



NOTES:

TITLE : GROUND-WATER ELEVATION CONTOUR MAP -
 OCTOBER 17, 1996
 LOCATION : FORMER CHEVRON SERVICE STATION #9-2960
 2416 GROVE WAY, CASTRO VALLEY, CALIFORNIA
 SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC



GEOCONSULTANTS, INC
 SAN JOSE, CALIFORNIA
 Project No. G758-09
 DRWG NO: W101796 | REV:

**Table of
Well Data and
Analytical Results**

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.				Volumetric Measurements are in gallons.			Analytical results are in parts per billion (ppb)						
DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-1													
10/23/86	153.36	--	--	--	--	--	--	3100	6400	3700	--	4300	--
09/10/87	153.36	--	--	--	--	--	--	120,000	25,000	60,000	13,000	56,000	--
10/03/90	153.36	134.69	18.67	--	--	--	--	--	--	--	--	--	--
10/25/90	153.36	135.22	18.71	0.71	--	--	--	--	--	--	--	--	--
01/22/91	153.36	135.22	18.70	0.70	--	--	--	--	--	--	--	--	--
02/21/91	153.36	135.44	18.62	0.88	--	--	--	--	--	--	--	--	--
04/01/91	153.36	136.47	16.91	0.03	--	--	--	--	--	--	--	--	--
04/11/91	153.36	136.49	16.90	0.04	--	--	--	--	--	--	--	--	--
07/01/91	153.36	135.75	17.61	0.00	--	--	--	--	--	--	--	--	--
09/24/91	153.36	135.17	18.98	0.99	--	--	--	--	--	--	--	--	--
10/23/91	153.36	135.03	19.32	1.24	--	--	--	--	--	--	--	--	--
11/22/91	153.36	134.53	18.83	0.97	--	--	--	--	--	--	--	--	--
01/09/92	153.36	136.10	17.26	--	--	--	--	--	--	--	--	--	--
03/06/92	153.36	137.16	16.69	0.61	--	--	--	--	--	--	--	--	--
06/04/92	153.36	136.44	17.10	0.22	--	--	--	--	--	--	--	--	--
09/28/92	153.36	--	18.71	0.77	--	--	--	--	--	--	--	--	--
12/17/92	153.36	--	17.54	0.45	--	--	--	--	--	--	--	--	--
04/29/93	153.36	137.50	16.40	0.68	--	--	--	--	--	--	--	--	--
07/26/93	153.36	136.92	16.85	0.51	--	--	--	--	--	--	--	--	--
10/22/93	153.36	135.55	17.83	0.03	--	--	--	--	--	--	--	--	--
01/24/94	153.36	--	--	--	--	--	--	--	--	--	--	--	--
04/11/94	153.36	136.01	17.76	0.51	--	--	--	--	--	--	--	--	--
07/01/94	153.36	135.95	17.46	0.06	--	--	--	--	--	--	--	--	--
10/06/94	153.36	135.24	18.18	0.08	--	--	--	--	--	--	--	--	--
01/11/95	153.36	136.63	16.79	0.08	0.039	0.039	--	--	--	--	--	--	--
04/07/95	153.36	139.23	14.13	--	--	0.039	--	44,000	410	100	130	5400	--
07/20/95	153.36	136.84	16.52	--	--	0.039	--	16,000	96	81	53	1000	--
09/22/95	153.36	137.22	16.14	--	--	0.039	--	59,000	150	36	16	56	--
01/02/96	153.36	137.43	15.93	--	--	0.039	--	29,000	4500	1100	520	1900	<250
04/26/96	153.36	137.31	16.05	--	--	0.039	--	7200	1300	340	130	390	--
07/22/96	153.36	143.14	10.22	--	--	0.039	--	7300	2500	170	360	520	--
10/17/96	153.36	137.64	15.72	--	--	--	--	19,000	3400	59	360	430	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Vertical Measurements are in feet.			Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)					
	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-2													
10/23/86	151.84	--	--	--	--	--	--	30,000	2700	1900	--	1500	--
09/10/87	151.84	--	--	--	--	--	--	14,000	2600	2900	500	1200	--
10/16/89	151.84	--	--	--	--	--	--	600	260	34	1.7	41	--
01/04/90	151.84	--	--	--	--	--	--	2600	470	150	23	130	--
04/05/90	151.84	--	--	--	--	--	--	500	280	29	6.3	19	--
07/02/90	151.84	--	--	--	--	--	--	2400	670	110	17	76	--
10/03/90	151.84	--	--	--	--	--	--	--	--	--	--	--	--
10/25/90	151.84	135.24	16.60	--	--	--	--	1300	390	47	9.0	58	--
01/22/91	151.84	135.15	16.69	--	--	--	--	2600	680	88	29	130	--
02/21/91	151.84	135.53	16.31	--	--	--	--	--	--	--	--	--	--
04/01/91	151.84	136.76	15.08	--	--	--	--	--	--	--	--	--	--
04/11/91	151.84	136.61	15.23	--	--	--	--	--	--	--	--	--	--
07/01/91	151.84	135.88	15.96	--	--	--	--	--	--	--	--	--	--
09/24/91	151.84	135.33	16.51	--	--	--	--	3600	1400	63	6.9	63	--
10/23/91	151.84	135.18	16.66	--	--	--	--	--	--	--	--	--	--
11/22/91	151.84	135.47	16.37	--	--	--	--	--	--	--	--	--	--
01/09/92	151.84	136.28	15.56	--	--	--	--	7100	770	740	190	690	--
03/06/92	151.84	137.47	14.37	--	--	--	--	3200	250	230	59	220	--
06/04/92	151.84	136.80	15.04	--	--	--	--	1500	<0.5	180	42	130	--
09/28/92	151.84	135.44	16.40	--	--	--	--	6400	940	230	57	220	--
12/17/92	151.84	136.46	15.38	--	--	--	--	1500	370	160	6.0	25	--
04/29/93	151.84	136.87	14.97	--	--	--	--	1800	690	120	74	140	--
07/29/93	151.84	136.92	14.92	--	--	--	--	4300	1500	96	29	96	--
10/22/93	151.84	136.03	15.81	--	--	--	--	820	560	57	15	58	--
01/24/94	151.84	--	--	--	--	--	--	--	--	--	--	--	--
04/11/94	151.84	136.49	15.35	--	--	--	--	2000	240	48	36	110	--
07/01/94	151.84	136.44	15.40	--	--	--	--	370	55	12	3.1	8.6	--
10/06/94	151.84	135.84	16.00	--	--	--	--	150	47	4.8	1.8	5.4	--
01/11/95	151.84	137.06	14.78	--	--	--	--	52	0.65	<0.5	<0.5	<0.5	--
04/07/95	151.84	138.93	12.91	--	--	--	--	1500	260	64	52	85	--
07/20/95	151.84	136.81	15.03	--	--	--	--	3000	500	100	96	110	--
09/22/95	151.84	137.05	14.79	--	--	--	--	2000	630	120	20	79	--
01/02/96	151.84	137.37	14.47	--	--	--	--	1900	240	110	58	180	<12
04/26/96	151.84	137.97	13.87	--	--	--	--	1300	340	190	44	120	--
07/22/96	151.84	136.73	15.11	--	--	--	--	3700	1100	140	150	330	--
10/17/96	151.84	136.80	15.04	--	--	--	--	22000	2800	1600	350	1800	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Vertical Measurements are in feet.			Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)					
	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-3													
10/23/86	154.13	--	--	--	--	--	--	3300	49	24	--	20	--
09/10/87	154.13	--	--	--	--	--	--	200	110	2.6	<2.0	<2.0	--
10/16/89	154.13	--	--	--	--	--	--	900	640	4.2	1.6	16	--
01/04/90	154.13	--	--	--	--	--	--	920	430	7.0	6.0	7.0	--
04/05/90	154.13	--	--	--	--	--	--	930	690	3.4	5.1	4.8	--
07/02/90	154.13	--	--	--	--	--	--	1700	590	11	4.8	9.4	--
10/03/90	154.13	134.97	19.16	--	--	--	--	--	--	--	--	--	--
10/25/90	154.13	134.85	19.28	--	--	--	--	750	510	2.0	6.0	5.0	--
01/22/91	154.13	134.95	19.18	--	--	--	--	430	260	2.0	2.0	5.0	--
01/22/91	154.13	134.95	19.18	--	--	--	--	400	250	2.0	2.0	5.0	--
02/21/91	154.13	135.25	18.88	--	--	--	--	--	--	--	--	--	--
04/01/91	154.13	136.54	17.59	--	--	--	--	--	--	--	--	--	--
04/11/91	154.13	136.32	17.81	--	--	--	--	--	--	--	--	--	--
07/01/91	154.13	135.57	18.56	--	--	--	--	--	--	--	--	--	--
09/24/91	154.13	135.01	19.12	--	--	--	--	260	52	0.7	0.8	2.2	--
10/23/91	154.13	134.89	19.24	--	--	--	--	--	--	--	--	--	--
11/22/91	154.13	135.10	19.03	--	--	--	--	--	--	--	--	--	--
01/09/92	154.13	135.90	18.23	--	--	--	--	240	120	0.9	<0.5	1.6	--
03/06/92	154.13	137.09	17.04	--	--	--	--	230	68	1.2	1.2	1.3	--
06/04/92	154.13	136.34	17.79	--	--	--	--	80	36	0.6	0.5	0.7	--
09/28/92	154.13	135.13	19.00	--	--	--	--	84	49	<0.5	<0.5	1.5	--
12/17/92	154.13	135.95	18.18	--	--	--	--	220	30	<0.5	<0.5	<0.5	--
04/29/93	154.13	135.35	18.78	--	--	--	--	380	12	0.6	<0.5	<1.5	--
07/26/93	154.13	136.41	17.72	--	--	--	--	800	38	1.1	<0.5	<1.5	--
10/22/93	154.13	135.63	18.50	--	--	--	--	200	64	0.6	<0.5	<1.5	--
01/24/94	154.13	135.62	18.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	154.13	136.09	18.04	--	--	--	--	100	3.6	2.1	<0.5	2.3	--
07/01/94	154.13	136.01	18.12	--	--	--	--	140	3.7	1.2	<0.5	1.0	--
10/06/94	154.13	135.50	18.63	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

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Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-3 (CONT'D)													
01/11/95	154.13	137.01	17.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	154.13	138.34	15.79	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	154.13	136.37	17.76	--	--	--	--	<50	1.5	1.9	<0.5	3.5	--
09/22/95	154.13	136.58	17.55	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	154.13	136.88	17.25	--	--	--	--	<50	<0.5	<0.5	<0.5	1.1	<2.5
04/26/96	154.13	137.42	16.71	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/22/96	154.13	136.50	17.63	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/17/96	154.13	136.33	17.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-4													
10/23/86	156.00	--	--	--	--	--	--	570	3.0	4.0	--	5.0	--
09/10/87	156.00	--	--	--	--	--	--	500	3.0	<0.5	<0.5	<0.5	--
10/16/89	156.00	--	--	--	--	--	--	<500	12	1.0	<0.5	0.8	--
01/04/90	156.00	--	--	--	--	--	--	<500	5.0	<0.5	<0.5	0.9	--
04/05/90	156.00	--	--	--	--	--	--	<50	6.6	<0.5	<0.5	0.7	--
07/02/90	156.00	--	--	--	--	--	--	71	4.1	<0.5	<0.5	<0.5	--
10/03/90	156.00	--	--	--	--	--	--	--	--	--	--	--	--
10/25/90	156.00	135.57	20.43	--	--	--	--	<50	2.0	<0.5	<0.5	<0.5	--
01/22/91	156.00	135.50	20.50	--	--	--	--	<50	3.0	<0.5	<0.5	<0.5	--
02/21/91	156.00	135.77	20.23	--	--	--	--	--	--	--	--	--	--
04/01/91	156.00	136.97	19.03	--	--	--	--	--	--	--	--	--	--
04/11/91	156.00	136.95	19.05	--	--	--	--	--	--	--	--	--	--
07/01/91	156.00	136.10	19.90	--	--	--	--	--	--	--	--	--	--
09/24/91	156.00	135.59	20.41	--	--	--	--	--	--	--	--	--	--
10/23/91	156.00	135.47	20.53	--	--	--	--	87	1.6	<0.5	<0.5	<0.5	--
11/22/91	156.00	135.65	20.35	--	--	--	--	--	--	--	--	--	--
01/09/92	156.00	136.46	19.54	--	--	--	--	51	4.3	<0.5	<0.5	<0.5	--
01/20/92	156.00	136.46	19.54	--	--	--	--	<50	4.8	<0.5	<0.5	<0.5	--
03/06/92	156.00	137.74	18.26	--	--	--	--	<50	0.8	<0.5	<0.5	<0.5	--
06/04/92	156.00	137.08	18.92	--	--	--	--	<50	<0.5	<0.5	<0.5	0.7	--
09/28/92	156.00	135.69	20.31	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	156.00	136.43	19.57	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	156.00	138.22	17.78	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/26/93	156.00	--	--	--	--	--	--	--	--	--	--	--	--
08/18/93	156.00	137.09	18.91	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	156.00	136.61	19.39	--	--	--	--	<50	2.1	2.1	1.1	4.3	--
01/24/94	156.00	136.58	19.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	156.00	136.86	19.14	--	--	--	--	<50	<0.5	0.6	<0.5	0.5	--
07/01/94	156.00	136.80	19.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	156.00	136.26	19.74	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

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Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Vertical Measurements are in feet.			Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)					
	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-4 (CONT'D)													
01/11/95	156.00	139.70	16.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	156.00	139.49	16.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	156.00	137.20	18.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	156.00	137.26	18.74	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/26/96	156.00	137.65	18.35	--	--	--	--	<50	1.6	1.8	0.96	2.4	<2.5
04/26/96	156.00	138.43	17.57	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/22/96	156.00	137.00	19.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/17/96	156.00	136.96	19.04	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Vertical Measurements are in feet.			Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)						
	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE	
C-5														
10/03/90	153.38	135.60	17.78	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/25/90	153.38	135.46	17.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/09/90	153.38	135.46	17.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/22/91	153.38	135.58	17.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
02/21/91	153.38	135.87	17.51	--	--	--	--	--	--	--	--	--	--	--
04/01/91	153.38	137.07	16.31	--	--	--	--	--	--	--	--	--	--	--
04/11/91	153.38	137.02	16.36	--	--	--	--	--	--	--	--	--	--	--
07/01/91	153.38	136.26	17.12	--	--	--	--	--	--	--	--	--	--	--
09/24/91	153.38	135.68	17.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/24/91	153.38	135.68	17.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/23/91	153.38	135.56	17.82	--	--	--	--	--	--	--	--	--	--	--
11/22/91	153.38	135.77	17.61	--	--	--	--	--	--	--	--	--	--	--
01/09/92	153.38	136.34	17.04	--	--	--	--	<50	<0.5	0.7	<0.5	<0.5	<0.5	--
03/06/92	153.38	137.62	15.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/04/92	153.38	136.98	16.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/28/92	153.38	135.80	17.58	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/17/92	153.38	136.56	16.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/29/93	153.38	138.14	15.24	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
07/26/93	153.38	137.08	16.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
10/22/93	153.38	136.30	17.08	--	--	--	--	52	2.3	2.7	1.1	5.2	--	--
01/24/94	153.38	136.25	17.13	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/11/94	153.38	136.75	16.63	--	--	--	--	<50	<0.5	0.7	<0.5	0.8	<0.5	--
07/01/94	153.38	136.73	16.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/06/94	153.38	136.16	17.22	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/11/95	153.38	137.41	15.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/07/95	153.38	139.37	14.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/20/95	153.38	137.17	16.21	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/29/95	153.38	137.07	16.31	--	--	--	--	82	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/02/96	153.38	137.56	15.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
04/26/96	153.38	138.41	14.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/22/96	153.38	137.06	16.32	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/17/96	153.38	136.88	16.50	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)					
				SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-6													
10/03/90	152.84	134.70	18.14	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/25/90	152.84	134.55	18.29	--	--	--	--	<50	<0.5	1.0	<0.5	<0.5	--
11/09/90	152.84	134.58	18.26	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/22/91	152.84	134.69	18.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/21/91	152.84	134.92	17.92	--	--	--	--	--	--	--	--	--	--
04/01/91	152.84	135.73	17.11	--	--	--	--	--	--	--	--	--	--
04/11/91	152.84	135.83	17.01	--	--	--	--	--	--	--	--	--	--
07/01/91	152.84	135.12	17.72	--	--	--	--	--	--	--	--	--	--
09/24/91	152.84	135.72	17.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/23/91	152.84	134.59	18.25	--	--	--	--	--	--	--	--	--	--
11/22/91	152.84	134.79	18.05	--	--	--	--	--	--	--	--	--	--
01/09/92	152.84	135.42	17.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/06/92	152.84	136.33	16.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/04/92	152.84	135.83	17.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/28/92	152.84	134.84	18.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	152.84	135.58	17.26	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	152.84	136.61	16.23	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/29/93	152.84	135.88	16.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	152.84	135.38	17.46	--	--	--	--	74	7.4	6.1	3.3	9.7	--
01/24/94	152.84	135.38	17.46	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	152.84	135.64	17.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/94	152.84	135.66	17.18	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	152.84	135.19	17.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	152.84	136.18	16.66	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	152.84	137.25	15.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	152.84	135.80	17.04	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	152.84	135.74	17.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	152.84	136.08	16.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
04/26/96	152.84	136.64	16.20	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/22/96	152.84	135.79	17.05	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/17/96	152.84	135.62	17.22	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	Total			Notes	Analytical results are in parts per billion (ppb)						
				SPH Thickness	SPH Removed	SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE	
C-7														
10/03/90	155.34	134.52	20.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/25/90	155.34	134.43	20.91	--	--	--	--	<50	<0.5	1.0	<0.5	<0.5	<0.5	--
11/09/90	155.34	134.40	20.94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/22/91	155.34	133.84	21.50	--	--	--	--	<50	4.0	<0.5	<0.5	<0.5	<0.5	--
02/21/91	155.34	134.63	20.71	--	--	--	--	--	--	--	--	--	--	--
04/01/91	155.34	135.34	20.00	--	--	--	--	--	--	--	--	--	--	--
04/11/91	155.34	135.29	20.05	--	--	--	--	--	--	--	--	--	--	--
07/01/91	155.34	134.82	20.52	--	--	--	--	--	--	--	--	--	--	--
09/24/91	155.34	134.52	20.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/23/91	155.34	134.43	20.91	--	--	--	--	--	--	--	--	--	--	--
11/22/91	155.34	134.55	20.79	--	--	--	--	--	--	--	--	--	--	--
01/09/92	155.34	135.18	20.16	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/06/92	155.34	135.92	19.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/04/92	155.34	135.53	19.81	--	--	--	--	250	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/28/92	155.34	134.69	20.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/17/92	155.34	135.32	20.02	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/29/93	155.34	136.19	19.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
07/26/93	155.34	135.57	19.77	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
10/22/93	155.34	135.17	20.17	--	--	--	--	--	--	--	--	--	--	--
01/24/94	155.34	135.11	20.23	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/11/94	155.34	135.39	19.95	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/01/94	155.34	135.42	19.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/06/94	155.34	135.03	20.31	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/11/95	155.34	135.98	19.36	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/07/95	155.34	136.84	18.50	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/20/95	155.34	135.46	19.88	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/22/95	155.34	135.38	19.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/02/96	155.34	135.64	19.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<2.5
04/26/96	155.34	136.17	19.17	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/22/96	155.34	135.49	19.85	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/17/96	155.34	135.34	20.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet.

Volumetric Measurements are in gallons.

Analytical results are in parts per billion (ppb)

DATE	Vertical Measurements are in feet.			Volumetric Measurements are in gallons.			Notes	Analytical results are in parts per billion (ppb)						
	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed		TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE	
TRIP BLANK														
10/03/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/25/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
11/09/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/22/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/24/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/09/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
03/06/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
06/04/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/28/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
12/17/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/29/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
07/26/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
10/22/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<1.5	--
01/24/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/11/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/01/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/06/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/11/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/07/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/20/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
09/22/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
01/02/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
04/26/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
07/22/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--
10/17/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.

Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons

SPH = Separate-Phase Hydrocarbons

MTBE = Methyl t-butyl ether