ENVIRONMENTAL
PROTECTION
95 MAR 13 PM 2:39

Epigene International
CONSULTING GEOLOGISTS

March 6, 1995

Mr. James Brinker
Bernabe and Brinker, Inc.
1281 30th Street
Oakland, CA 94608

Subject: Quarterly Monitoring Report for Site Located at 2301 East 12th Street, Oakland, First Quarter 1995

Dear Mr. Brinker;

The purpose of this report is to provide data regarding the results of investigations that have been carried out at the subject site during the first quarter. The site is located at the southwest corner of the intersection of East 12th Street and 23rd Ave. in Oakland. The location of the site is shown on Figure 1. A site plan is shown on Figure 2. The former tenant at the site, Alejo Auto Repair Shop vacated the property in June 1994 and the site continues to be vacant.

GROUNDWATER GRADIENT

The relative elevation for the top of casing for each of the wells was established using a spirit level. Measurements were made to hundredths of a foot at a spot marked on the north side of each casing. An assumed elevation of 10 feet for the top of casing of MW-1 was used for the elevation control. There are no reported City of Oakland benchmarks in the vicinity of the site.

Gauging of the depth to groundwater was carried out for each well on February 13, 1995 prior to any purging of the wells. An electronic probe was used to measure the depth to

groundwater from the surveyed mark on the top of the casing. The probe is calibrated to hundredths of a foot. The relative groundwater elevations were calculated and are presented in Table 1. Groundwater elevation contours are plotted on Figure 3.

In addition to the contouring, a direction and slope of the gradient was also calculated by a graphical solution to a three-point problem based on the groundwater elevations of MW-1, MW-5 and MW-6. The results of this calculation are plotted on Figure 3. The direction of the gradient is generally consistent with the groundwater elevation contouring. The direction of the gradient is more northerly than previous calculations. The reason for the change may be related to the heavy rains in January.

GROUNDWATER SAMPLING

Groundwater samples were collected on February 13/14 from all of the project wells. The wells were purged of approximately five casing volumes prior to sampling by bailing or pumping with a purge pump. Purge water was placed in new 55 gallon drums and left on the site. The samples were collected using a dedicated bailer for each well. The samples were placed in appropriate sample containers provided by the laboratory. After labeling each sample, it was stored in a cooled ice chest and transferred to a State certified laboratory under chain-of-custody control.

The requested analysis for each sample was based on the original workplan, amendment and the results of the past quarter sampling and analysis. The results of the water samples are summarized in Table 2 (hydrocarbons) and Table 3 (volatile halocarbons). In addition, LUFT metals were run for the samples from MW-2, MW-3 and EW-1. These results are presented in Table 4. The Certified Laboratory Report and chain-of custody documentation are included in Appendix A. Significant levels of contamination continue to be present in all of the project wells.

Mr. Barney Chan of Alameda County Department of Environmental Health has requested that a Remedial Action Plan be prepared during this quarter. A proposal was presented to you on February 24, 1995 outlining the scope of work required for the preparation of the plan. We await your authorization.

Submitted to ACEH on 6/23/95

Should you have any questions, please contact the undersigned.

Sincerely,

REGISTERED GEOLOGIST
JOHN N. ALT
№ 1136
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

John N. Alt, CEG No. 1136

Attachments

cc: Mr. Barney Chan, Alameda County Dept. of Environmental Health
Mr. Rich Hiett, RWQCB
Mr. Robert Shapiro, Esq.
Ms. Virginia Tracy, Silveira Properties

6/9/95 Con w/ J. Alt.
will send RAP out

TABLE 1 Groundwater Elevations; 2301 East 12th Street, Oakland
February 13, 1995

Well Number	Elevation Top of Casing (ft)*	Depth to Water (ft)	Groundwater Elevation (ft)
MW-1	10.00	7.67	2.33
MW-2	8.22	5.31	2.91
MW-3	8.71	6.52	2.19
MW-4	8.46	6.99	1.47
MW-5	8.48	7.40	1.08
MW-6	9.05	5.39	3.66
EW-1	8.63	5.88	2.75

* Based on assummed elevation of 10.00 feet for MW-1

Table 2 - Summary of Groundwater Sample Analysis TPH and BTEX; 2301 East 12th Street, Oakland
February 13/14, 1995
Results Presented in Parts Per Billion(PPB)

Analysis	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	EW-1
TPH Diesel	2500	4900	1600	630	1200	1000	1000
TPH Gas	16000	18000	7500	2600	4600	5500	3900
Benzene	3200	2000	220	100	130	1000	380
Toluene	110	120	17	100	7.9	17	5.9
Ethylben.	460	660	110	3.8	39	210	41
Xylenes	260	900	22	7.1	29	55	22
O&G 418.1	NA	20000	8300	NA	NA	NA	ND

Note: NA indicates Not Analyzed; ND indicated Not Detected within Detection Limits

Table 3 - Summary of Groundwater Sample Analysis, Volatile Halocarbons; 2301 East 12th Street, Oakland
February 13, 1995
Results Presented in Parts Per Billion(PPB)

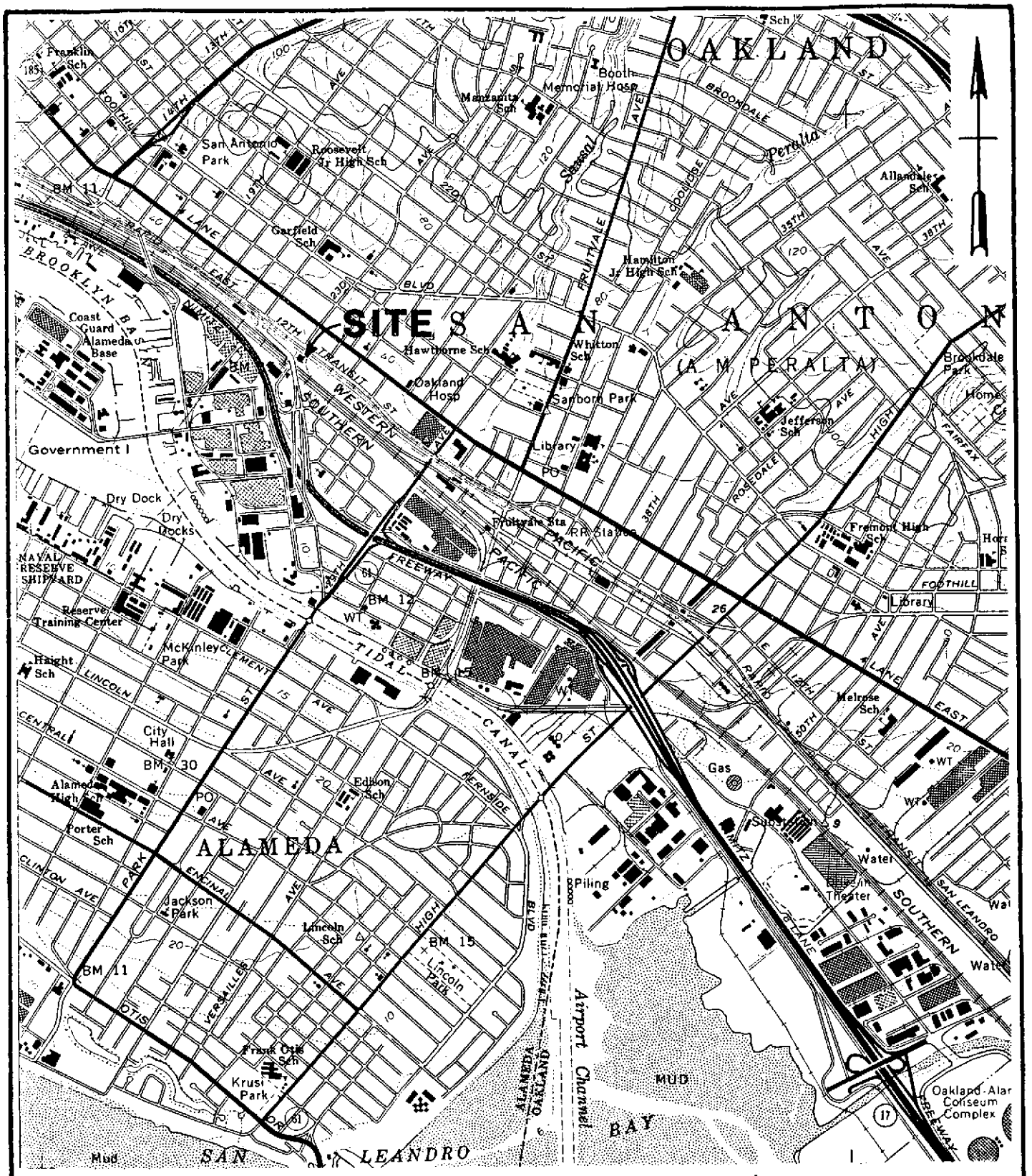
COMPOUND	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	EW-1
Chlorobenzene	ND	12	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND
cis 1,2-Dichloroethene	1.3	ND	4.3	ND	20	40	13
trans 1,2-Dichloroethene	ND	ND	1.3	ND	5.1	13	4.4
t.* 1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	5.1	ND	ND	99	53
Vinyl Chloride	ND	ND	ND	ND	8.4	87	ND
Detection limits	< 1	< 5	< 0.5	<0.5	< 1	< 5	< 2

* t. indicates trans; ND indicates Not Detected

Table 4 - Summary of Groundwater Sample Analysis, LUFT Metals; 2301 East 12th Street, Oakland
February 13, 199
Results Presented in Parts Per Million (PPM)

Analysis	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	EW-1
Lead	NA	0.008	ND	NA	NA	NA	ND
Cadmium	NA	ND	ND	NA	NA	NA	ND
Chromium	NA	ND	0.016	NA	NA	NA	0.085
Nickel	NA	0.032	0.053	NA	NA	NA	0.170
Zinc	NA	ND	ND	NA	NA	NA	ND

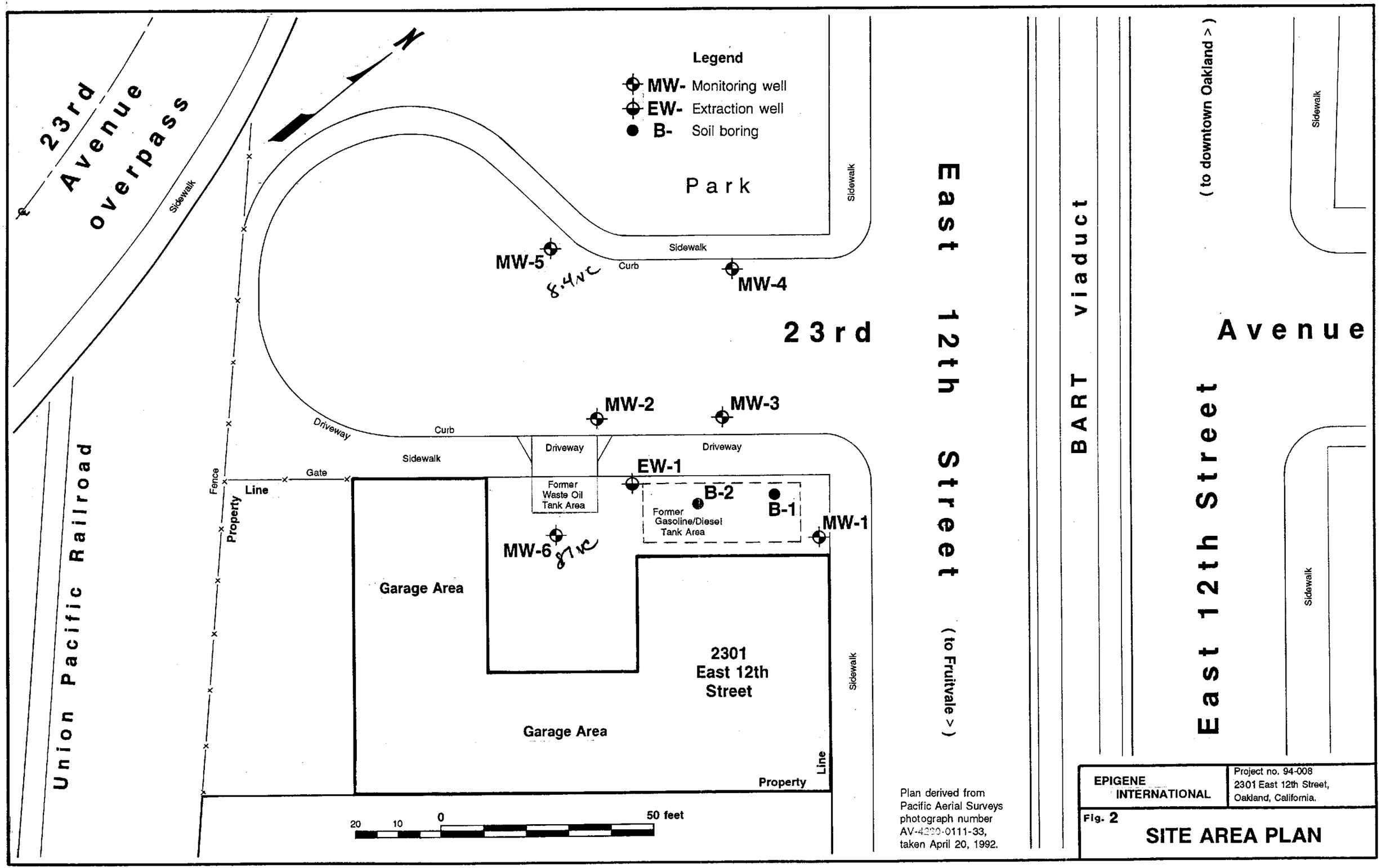
NA indicates Not Analyzed, ND indicates Not Detected

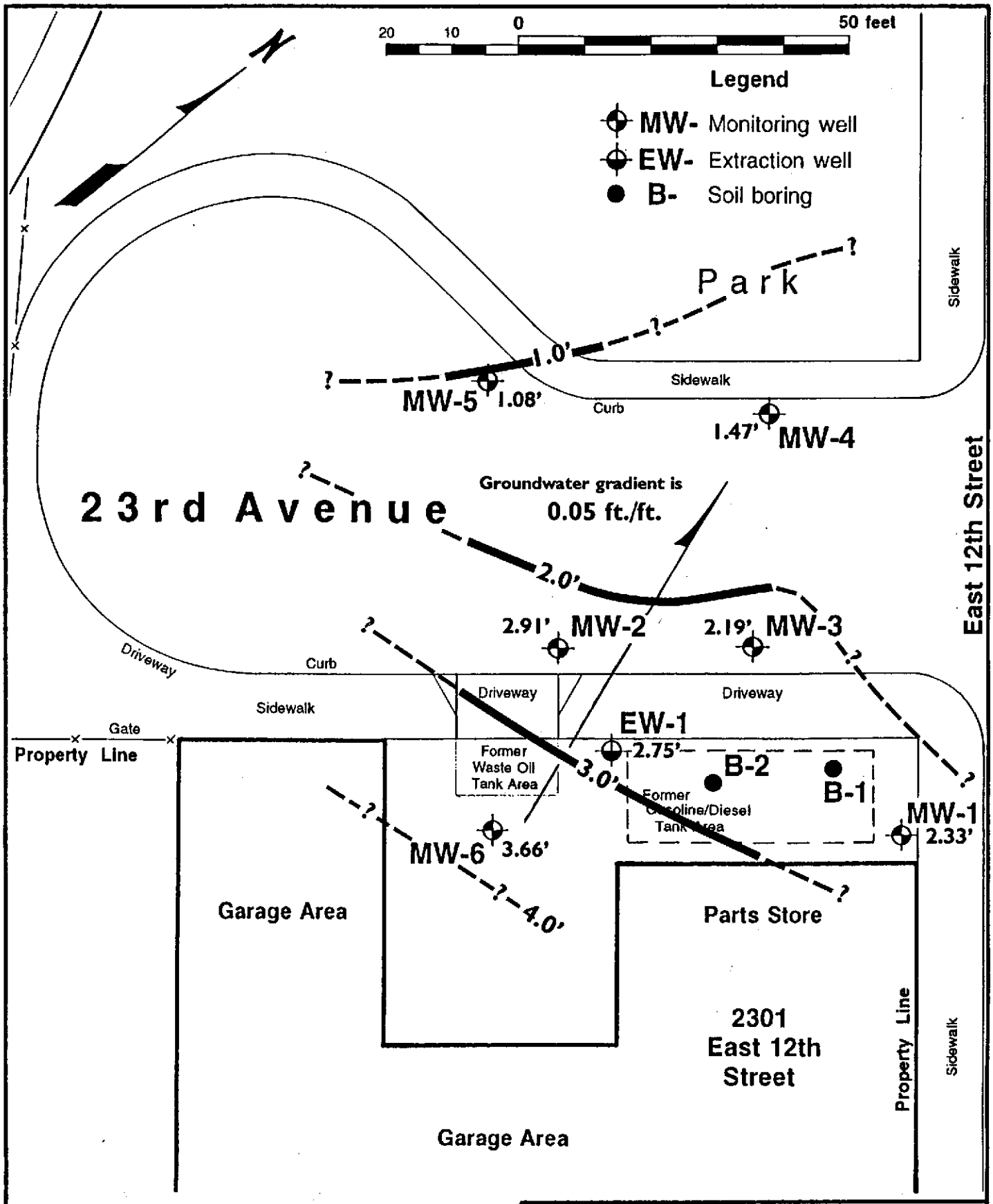


EPIGENE INTERNATIONAL	East 12th Street, Oakland, California.

Fig. 1

SITE LOCATION MAP


23rd Avenue overpass
Sidewalk
N
Legend
MW- Monitoring well
EW- Extraction well
B- Soil boring
Park
Sidewalk
Sidewalk
MW-5
8.4ve
Curb
MW-4
23rd
East 12th Street
(to Fruitvale >)
BART viaduct
(to downtown Oakland >)
Sidewalk
Avenue
East 12th Street
Sidewalk
MW-2
MW-3
Driveway
Curb
Driveway
Sidewalk
Driveway
Fence
Gate
Property Line
EW-1
Former Waste Oil Tank Area
B-2
B-1
Former Gasoline/Diesel Tank Area
MW-1
MW-6
8.1ve
Garage Area
2301 East 12th Street
Garage Area
Sidewalk
Property Line
Union Pacific Railroad
20 10 0 50 feet
Plan derived from Pacific Aerial Surveys photograph number AV-4220-0111-33, taken April 20, 1992.
EPIGENE INTERNATIONAL
Project no. 94-008
2301 East 12th Street, Oakland, California.
Fig. 2
SITE AREA PLAN



X.XX' Groundwater elevation in feet.

Groundwater elevations measured on

February 13, 1995.

Direction of groundwater gradient and slope value is based on groundwater elevations of MW's 1, 5, and 6.

EPIGENE INTERNATIONAL	Project No. 94-008 2301 East 12th Street, Oakland, California.

Fig. 3 **GROUNDWATER GRADIENT**

APPENDIX A

CERTIFIED LABORATORY REPORT

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

02/24/95

Dear John:

Enclosed are:

1). the results of 10 samples from your **# 95-008; 2301 E. 12th Street** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/18-02/19/95
	Client P.O:	Date Analyzed: 02/18-02/19/95

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

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
50287	EW-1	W	3900,c,d	380	5.9	41	22	106
50288	MW-1	W	16,000,c,b	3200	110	460	260	105
50289	MW-2	W	18,000,c,b,h	2000	120	660	900	100
50290	MW-3	W	7500,d	220	17	110	22	98
50291	MW-4	W	2600,d	100	100	3.8	7.1	93
50292	MW-5	W	4600,c,b	130	7.9	38	29	105
50293	MW-6	W	5500,b,c	1000	17	210	55	114#
Detection Limit unless other-wise stated; ND means Not Detected		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak co-elutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds are significant; no recognizable pattern; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/16/95
	Client P.O:	Date Analyzed: 02/16-02/17/95

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
50287	EW-1	W	1000,d	101
50288	MW-1	W	2500,d	99
50289	MW-2	W	4900,d,a,h	99
50290	MW-3	W	1600,d	102
50291	MW-4	W	630,d	102
50292	MW-5	W	1200,d	100
50293	MW-6	W	1000,d	101
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	
		S	10 mg/kg	

*water samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; surrogate and sample peaks co-elute or surrogate peak is on elevated baseline

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) modified diesel?; light(c_L) or heavy(c_H) diesel compounds are significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel(?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/21/95
	Client P.O:	Date Analyzed: 02/21/95

Total Recoverable Petroleum Hydrocarbons as Oil & Grease (with Silica Gel Clean-up) by Scanning IR Spectrometry*

EPA method 418.1 or 9073; Standard Methods 5520 C&F

Lab ID	Client ID	Matrix	TRPH+
50294	MW-2	W	20
50295	EW-1	W	ND
50296	MW-3	W	8.3
Detection Limit unless otherwise stated; ND means Not Detected		W	5 mg/L
		S	50 mg/kg

*water samples are reported in mg/L and soils in mg/kg

+ If TPH(d) is not requested then all positive results are run by direct injection chromatography with FID detection. The following comments pertain to these GC results: a) gasoline-range compounds (C6-C12) present; b) diesel range compounds (C10-C23) present; c) oil-range compounds (> C18) present; d) other patterned solvent(?); e) isolated peaks; f) GC compounds are absent or insignificant relative to TRPH inferring that complex biologically derived molecules (lipids?)are the source of IR absorption.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/16/95
	Client P.O:	Date Analyzed: 02/16/95

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	50287	50288	50289	50290
Client ID	EW-1	MW-1	MW-2	MW-3
Matrix	W	W	W	W
Compound[1]	Concentration*	Concentration*	Concentration*	Concentration*
Bromodichloromethane	ND< 2	ND< 1	ND< 5	ND
Bromoform[2]	ND< 2	ND< 1	ND< 5	ND
Bromomethane	ND< 2	ND< 1	ND< 5	ND
Carbon Tetrachloride[3]	ND< 2	ND< 1	ND< 5	ND
Chlorobenzene	ND< 2	ND< 1	12	ND
Chloroethane	ND< 2	ND< 1	ND< 5	ND
2-Chloroethyl Vinyl Ether[4]	ND< 2	ND< 1	ND< 5	ND
Chloroform[5]	ND< 2	ND< 1	ND< 5	ND
Chloromethane	ND< 2	ND< 1	ND< 5	ND
Dibromochloromethane	ND< 2	ND< 1	ND< 5	ND
1,2-Dichlorobenzene	ND< 2	ND< 1	ND< 5	ND
1,3-Dichlorobenzene	ND< 2	ND< 1	ND< 5	ND
1,4-Dichlorobenzene	ND< 2	ND< 1	ND< 5	ND
1,1-Dichloroethane	ND< 2	ND< 1	ND< 5	ND
1,2-Dichloroethane	ND< 2	ND< 1	ND< 5	ND
1,1-Dichloroethene	ND< 2	ND< 1	ND< 5	ND
cis 1,2-Dichloroethene	13	1.3	ND< 5	4.3
trans 1,2-Dichloroethene	4.4	ND< 1	ND< 5	1.3
1,2-Dichloropropane	ND< 2	ND< 1	ND< 5	ND
cis 1,3-Dichloropropene	ND< 2	ND< 1	ND< 5	ND
trans 1,3-Dichloropropene	ND< 2	ND< 1	ND< 5	ND
Methylene Chloride[6]	ND< 2	ND< 1	ND< 5	ND
1,1,2,2-Tetrachloroethane	ND< 2	ND< 1	ND< 5	ND
Tetrachloroethene[7]	ND< 2	ND< 1	ND< 5	ND
1,1,1-Trichloroethane	ND< 2	ND< 1	ND< 5	ND
1,1,2-Trichloroethane	ND< 2	ND< 1	ND< 5	ND
Trichloroethene	53	ND< 1	ND< 5	5.1
Trichlorofluoromethane	ND< 2	ND< 1	ND< 5	ND
Vinyl Chloride[8]	ND< 2	ND< 1	ND< 5	ND
% Recovery Surrogate	108	108	105	115
Comments	high TPH	high TPH,sheen	high TPH	high TPH

Detection limit unless otherwise stated: water, ND< 0.5ug/L; soil, ND< 10ug/kg.

* water samples are reported in ug/L, soil samples in ug/kg and all TCLP extracts in ug/L

(1) IUPAC allows "ylene" or "ene"; ex. ethylene or ethene; (2) tribromomethane; (3) tetrachloromethane; (4) (2-chloroethoxy) ethene; (5) trichlormethane; (6) dichloromethane; (7) perchlorethylene, PCE or perclor; (8) chloroethene; (9) unidentified peak(s) present.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/16/95
	Client P.O:	Date Analyzed: 02/16/95

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	50291	50292	50293	
Client ID	MW-4	MW-5	MW-6	
Matrix	W	W	W	
Compound[1]	Concentration*	Concentration*	Concentration*	Concentration*
Bromodichloromethane	ND	ND< 1	ND< 5	
Bromoform[2]	ND	ND< 1	ND< 5	
Bromomethane	ND	ND< 1	ND< 5	
Carbon Tetrachloride[3]	ND	ND< 1	ND< 5	
Chlorobenzene	ND	ND< 1	ND< 5	
Chloroethane	ND	ND< 1	ND< 5	
2-Chloroethyl Vinyl Ether[4]	ND	ND< 1	ND< 5	
Chloroform[5]	ND	ND< 1	ND< 5	
Chloromethane	ND	ND< 1	ND< 5	
Dibromochloromethane	ND	ND< 1	ND< 5	
1,2-Dichlorobenzene	ND	ND< 1	ND< 5	
1,3-Dichlorobenzene	ND	ND< 1	ND< 5	
1,4-Dichlorobenzene	ND	ND< 1	ND< 5	
1,1-Dichloroethane	ND	ND< 1	ND< 5	
1,2-Dichloroethane	ND	ND< 1	ND< 5	
1,1-Dichloroethene	ND	ND< 1	ND< 5	
cis 1,2-Dichloroethene	ND	20	40	
trans 1,2-Dichloroethene	ND	5.1	13	
1,2-Dichloropropane	ND	ND< 1	ND< 5	
cis 1,3-Dichloropropene	ND	ND< 1	ND< 5	
trans 1,3-Dichloropropene	ND	ND< 1	ND< 5	
Methylene Chloride[6]	ND	ND< 1	ND< 5	
1,1,2,2-Tetrachloroethane	ND	ND< 1	ND< 5	
Tetrachloroethene[7]	ND	ND< 1	ND< 5	
1,1,1-Trichloroethane	ND	ND< 2	ND< 5	
1,1,2-Trichloroethane	ND	ND< 1	ND< 5	
Trichloroethene	ND	ND< 1	99	
Trichlorofluoromethane	ND	ND< 1	ND< 5	
Vinyl Chloride[8]	ND	8.4	87	
% Recovery Surrogate	104	115	97	
Comments	high TPH	high TPH	high TPH	

Detection limit unless otherwise stated: water, ND< 0.5ug/L; soil, ND< 10ug/kg.

* water samples are reported in ug/L, soil samples in ug/kg and all TCLP extracts in ug/L

(1) IUPAC allows "ylene" or "ene"; ex. ethylene or ethene; (2) tribromomethane; (3) tetrachloromethane; (4) (2-chloroethoxy) ethene; (5) trichlormethane; (6) dichloromethane; (7) perchlorethylene, PCE or perclor; (8) chloroethene; (9) unidentified peak(s) present.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Epigene International 38750 Paseo Padre Pkwy, # A11 Fremont, CA 94536	Client Project ID: # 95-008; 2301 E. 12th Street	Date Sampled: 02/13-02/14/95
		Date Received: 02/15/95
	Client Contact: John Alt	Date Extracted: 02/16/95
	Client P.O:	Date Analyzed: 02/16-02/17/95

LUFT Metals*

EPA analytical methods				239.2,7420+	213.1,7130	218.1,7190	249.1,7520	289.1,7950
Lab ID	Client ID	Matrix	Extraction°	Lead*	Cadmium*	Chromium*	Nickel*	Zinc*
50287	EW-1	W	TTLC	ND	ND	0.085	0.17	ND
50289	MW-2	W	TTLC	0.008	ND	ND	0.032	ND
50290	MW-3	W	TTLC	ND	ND	0.016	0.053	ND
Detection Limit unless otherwise stated; ND means Not Detected		W	TTLC	0.005mg/L	0.01	0.005	0.02	0.05
		S	TTLC	4.0 mg/kg	1.0	5.0	2.0	1.0
		---	STLC,TCLP	0.20 mg/L	0.05	0.25	0.10	0.05

* soil samples are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L

+ Lead is analysed using EPA method 7420 (AA Flame)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/16-02/17/95 Matrix: Water/TCLP

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	94.4	96.8	100	94.4	96.8	2.6
Benzene	0	10.5	9.7	10	105.0	97.0	7.9
Toluene	0	11	10	10	110.0	100.0	9.5
Ethyl Benzene	0	10.3	9.8	10	103.0	98.0	5.0
Xylenes	0	31.8	30.1	30	106.0	100.3	5.5
TPH (diesel)	0	162	172	150	108	115	6.0
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/18-02/19/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	104.6	93.5	100	104.6	93.5	11.2
Benzene	0	9.4	9.3	10	94.0	93.0	1.1
Toluene	0	9.7	9.5	10	97.0	95.0	2.1
Ethyl Benzene	0	9.9	9.7	10	99.0	97.0	2.0
Xylenes	0	30.5	30	30	101.7	100.0	1.7
TPH (diesel)	0	156	160	150	104	107	2.1
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/21-02/22/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	95.6	93.0	100	95.6	93.0	2.8
Benzene	0	8.8	9.7	10	88.0	97.0	9.7
Toluene	0	9.2	9.9	10	92.0	99.0	7.3
Ethyl Benzene	0	9.2	10	10	92.0	100.0	8.3
Xylenes	0	28.5	31.1	30	95.0	103.7	8.7
TPH (diesel)	0	154	149	150	103	99	3.4
TRPH (oil & grease)	0	23100	23400	23700	97	99	1.3

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 02/16/95 Matrix: Water

Analyte	Concentration (ug/L)				% Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
1,1-DCE	0.0	11.1	11.2	10.0	111	112	0.9
Trichloroethene	0.0	9.5	9.6	10.0	95	96	1.0
EDB	0.0	9.6	9.5	10.0	96	95	1.0
Chlorobenzene	0.0	10.3	10.2	10.0	103	102	1.0
Benzene	0.0	10.7	11.1	10.0	107	111	3.7
Toluene	0.0	10.2	9.6	10.0	102	96	6.1
Chlorobz (PID)	0.0	9.9	9.6	10.0	99	96	3.1

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR AA METALS

Date: 02/17/95 Matrix: Water

Analyte	Concentration (mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
Total Lead	0.00	5.26	5.15	5.00	105	103	2.1
Total Cadmium	0.00	5.20	5.10	5.00	104	102	1.9
Total Chromium	0.00	5.29	5.18	5.00	106	104	2.1
Total Nickel	0.00	5.26	5.19	5.00	105	104	1.3
Total Zinc	0.00	5.22	5.10	5.00	104	102	2.3
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Copper	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

3679AEI36

CHAIN OF CUSTODY

Epigene International
CONSULTING GEOLOGISTS
38750 Paseo Padre Parkway, Suite B-4
Fremont, California, 94536
Business: (510) 791-1986 FAX: (510) 791-3306

Laboratory: McCampbell Analytical, Inc
110 2nd Ave South D-7
Pacheco, Ca. 94553
(510) 798-1620
Contact: Ed Hamilton

Contact: John Alt | Sampler: APA/MD
Project Name: 2301 E. 12th Street | No. 95-008
Date: 2/13/95 & 2/14/95

ICE/T° ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓
PRESERVATIVE: VOAS ✓ | O&G ✓ | METALS ✓ | OTHER
APPROPRIATE CONTAINERS ✓ O&G preserved in lab.

Sample I.D.	Date/Time Sampled	Matrix Desc.	Container No. of	Container Type	Lab. #	TPH/Gasoline	BTEX	TPH/Diesel	601/8010	602/8020	5 CAM				Comments
1. EW-1	2/13/95 1717	H_2O	4	VoAs		X	X		X						50287
2.	1717	"	1	liter bottle				X							
3.	1717	"	1	plastic bottle							X				
4. MW-1	1336	H_2O	4	VoAs		X	X		X						50288
5.	1336	"	1	liter bottle				X							
6. MW-2	1657	H_2O	4	VoAs		X	X		X						50289
7.	1657	"	1	liter bottle				X							
8.	1657	"	1	plastic bottle							X				
9. MW-3	1512	H_2O	4	VoAs		X	X		X						50290
10.	1512	"	1	liter bottle				X							

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
John Alt	2/15/95	2:55 PM	Bob Harrison	2/15/95	2:55
Bob Harrison	2/15/95	1800	Erinn Mahoney	2/15/95	18:00

Turnaround Time: Standard

Additional Comments: Note: All VoAs contain HCl as a preservative
All plastic bottles contain HNO3 as a preservative.

Page 1 of 2