



Epigene International
CONSULTING GEOLOGISTS

*Rec'd
3/2/93 at meeting
w/ Brinker & Alt*

November 25, 1992

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

Attn: Mr. James Brinker

Subject: Results of Groundwater Sampling and Analyses,
2301 East 12th Street, Oakland

Dear Mr. Brinker:

The site is located at the southwest corner of the intersection of East 12th Street and 23rd Ave. The location is shown on the attached location map. As per our agreement, the following tasks were carried out at the subject site in November of this year:

- 1) Monitoring of groundwater levels at the site as required as part of the overall site monitoring;
- 2) Quarterly sampling and analyses of the groundwater from the three wells on site as required by Alameda County. The water sample from each well were tested for TPH as gasoline with BTEX and TPH as diesel fuel.
- 3) Provide recommendations for additional work as may be required.

The groundwater levels measured for the three wells are listed below:

WELL	DEPTH	RELATIVE ELEVATION
MW-1	9.15	NA
MW-2	7.30	NA
MW-3	7.59	NA

The groundwater level data are inconsistent with the data previously reported for the site (Artesian Environmental Consultants, Aug. 1992). The relative elevations for the top of casing for the three wells as previously reported appear to be incorrect and new elevations need to be run. It is therefore not possible to calculate the exact gradient based on the existing data. The gradient appears to be toward the northwest, consistent with the regional setting.

Wells MW-2 and MW-3 was purged of approximately 6 gallons of water and a sample was collected using a new disposable bailer for each well. Because of the extended depth of MW-1, it was purged of approximately 15 gallons of water. MW-1 was sampled as discussed above. The samples were placed in a cooled ice chest and transported to a Certified Laboratory for analyses following chain of custody procedures. A copy of the chain of custody form is attached. The purge water was placed in 55 gallon drums that were present on site.

Prior to purging, each well was checked for the presence of floating product. MW-2 had 0.18 feet of product (gasoline?) on top of the groundwater. There was a sheen noted in MW-3 but no product was observed. No evidence of sheen or free product was present in MW-1.

The certified laboratory results are attached to this report and are summarized on Table 1. They indicate that relatively high

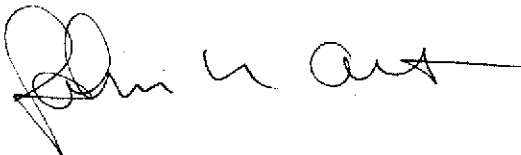
(how many well volumes?)

levels of TPH as both gasoline and diesel continue to be present in all three wells with the highest concentration in MW-2. BTEX compounds are also present in the groundwater samples from each of the wells. The locations of the wells are shown on the attached site plan.

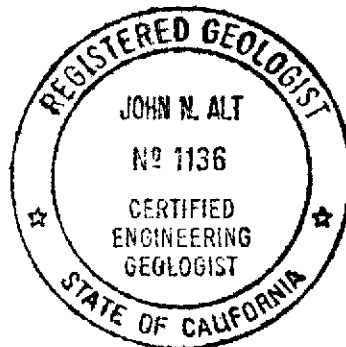
Because of the relatively high concentrations of TPH and BTEX in the groundwater and the presence of free product in MW-2 (which is located just offsite), additional exploratory work will be required to further characterize the site and site area. In addition, groundwater remediation will probably be required at the site. The recommendations for additional characterization and remediation will be provided in a separate letter.

It is recommended that the quarterly sampling and monitoring of groundwater levels in the three existing wells continue. It is a pleasure to continue to work with you on this project. Should you have any questions please contact the undersigned.

Sincerely,



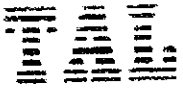
John N. Alt, CEG No. 1136



Trace Analysis Laboratory, Inc.

3423 Investment Boulevard, #8 • Hayward, California 94545

Telephone (510) 783-6960
Facsimile (510) 783-1512



November 23, 1992

Mr. John N. Alt
Epigene International
38750 Paseo Parkway, Suite B-4
Fremont, California 94536

Dear Mr. Alt:

Trace Analysis Laboratory received three water samples on November 6, 1992 for your project, 2301 E. 12th Street, Oakland (our custody log number 2659).

These samples were analyzed for Total Petroleum Hydrocarbons as Diesel and Gasoline, Benzene, Toluene, Ethylbenzene and Xylenes. Our analytical report and the completed chain of custody form are enclosed for your review.

Trace Analysis Laboratory is certified under the California Environmental Laboratory Accreditation Program. Our certification number is 1199.

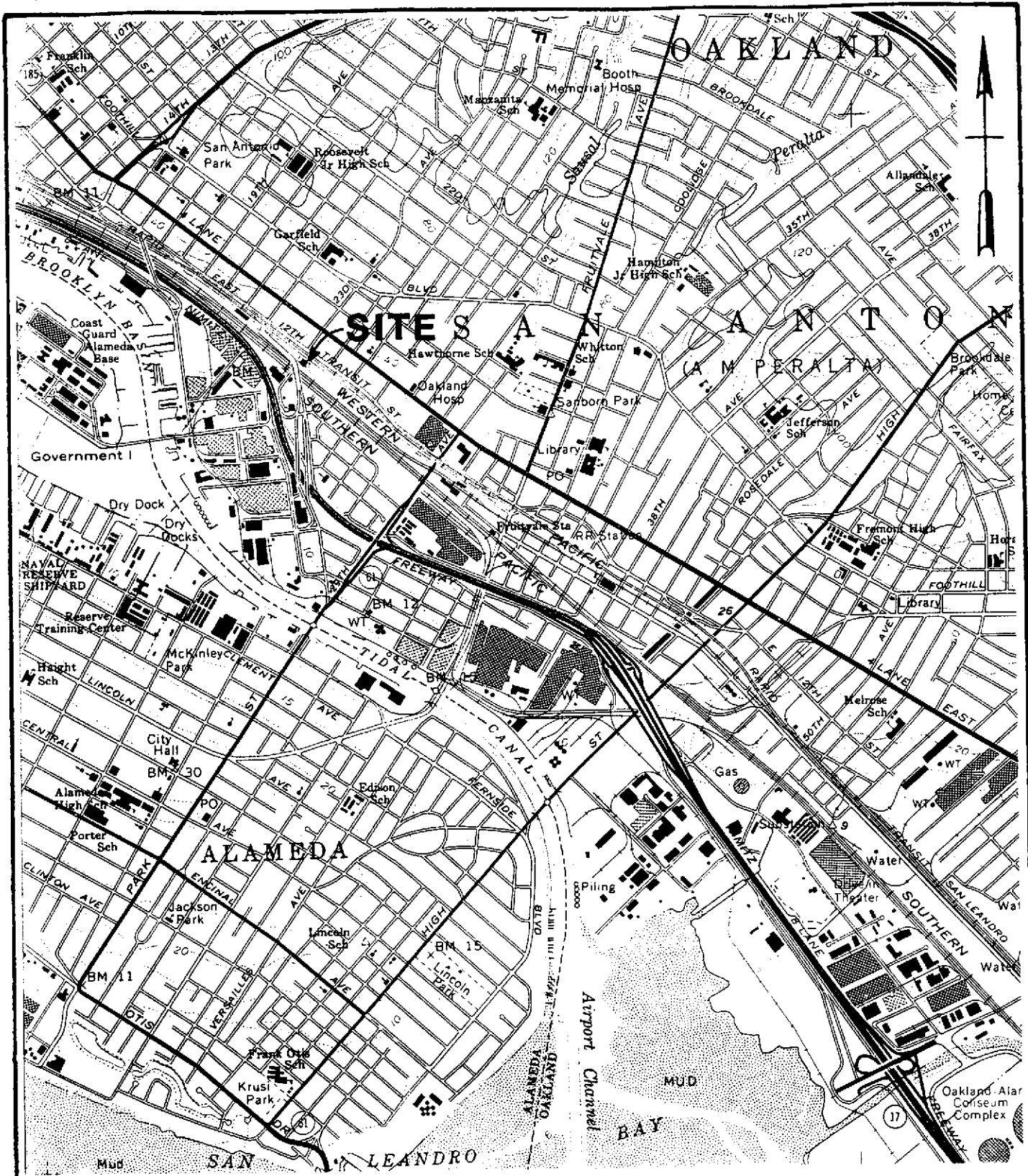
If you should have any questions or require additional information, please call me.

Sincerely yours,

A handwritten signature in cursive script that reads 'Jennifer Pakol'. The signature is written in black ink and is positioned above the typed name.

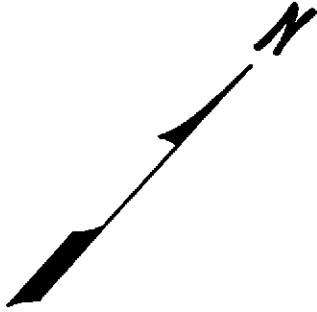
Jennifer Pakol
Project Specialist

Enclosures



From U.S.G.S. 7 1/2° Quadrangle OAKLAND EAST

PLATE	No.
SITE LOCATION MAP	



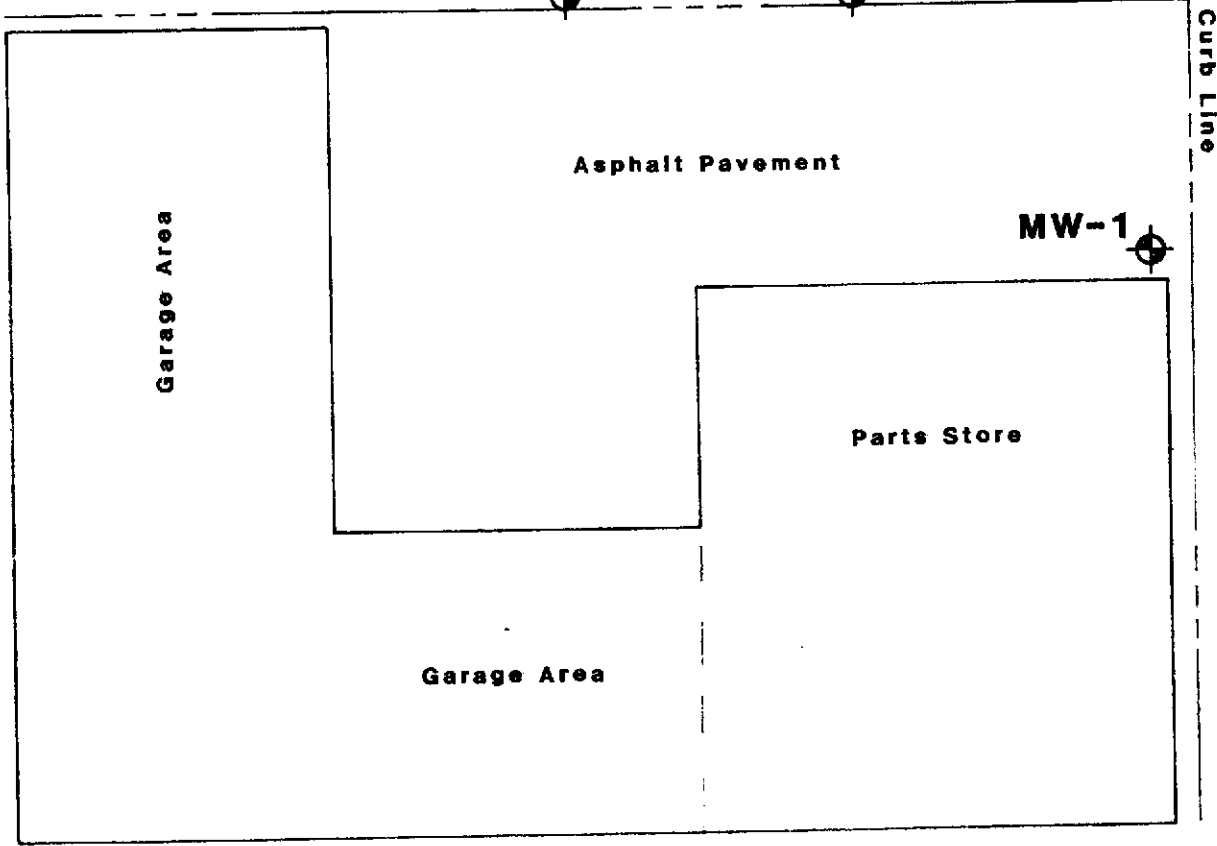
Cul-de-sac

23RD AVENUE

MW-2

MW-3

Approximate



Curb Line

12TH STREET

Map derived from
 Artesian Environmental Consultants,
 Mill Valley, California
 July, 1992

Approximate Scale: 1 Inch equals 20 Feet

PLATE	No.
SITE MAP	

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Telephone (510) 783-6960
Facsimile (510) 783-1512

LOG NUMBER: 2659
DATE SAMPLED: 11/06/92
DATE RECEIVED: 11/06/92
DATE EXTRACTED: 11/11/92
DATE ANALYZED: 11/12/92
DATE REPORTED: 11/23/92

CUSTOMER: Epigene International
REQUESTER: John N. Alt
PROJECT: 2301 E. 12 Street, Oakland

Sample Type: Water

Method and Constituent:	Units	MW-1		MW-2		MW-3	
		Concentration	Reporting Limit	Concentration	Reporting Limit	Concentration	Reporting Limit
DHS Method:							
Total Petroleum Hydrocarbons as Diesel	ug/l	670	50	17,000	50	21,000	50

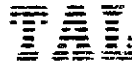
Method and Constituent:	Units	Method Blank	
		Concentration	Reporting Limit
DHS Method:			
Total Petroleum Hydrocarbons as Diesel	ug/l	ND	50

QC Summary:

% Recovery: 78
% RPD: 10

Concentrations reported as ND were not detected at or above the reporting limit.

These samples contain compounds eluting earlier than the diesel standard.



LOG NUMBER: 2659
 DATE SAMPLED: 11/06/92
 DATE RECEIVED: 11/06/92
 DATE ANALYZED: 11/11/92
 DATE REPORTED: 11/23/92
 PAGE: Two

Sample Type: Water


Method and Constituent:	Units	MW-1		MW-2		MW-3	
		Concen- tration	Reporting Limit	Concen- tration	Reporting Limit	Concen- tration	Reporting Limit
DHS Method:							
Total Petroleum Hydro- carbons as Gasoline	ug/l	8,000	62	19,000	62	10,000	50
Modified EPA Method 8020 for:							
Benzene	ug/l	2,400	5.0	2,800	5.0	78	2.0
Toluene	ug/l	6.1	5.5	120	5.5	3.1	2.2
Ethylbenzene	ug/l	41	6.5	790	6.5	830	2.6
Xylenes	ug/l	ND	18	1,100	18	13	7.0

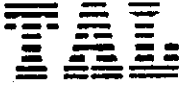
Method and Constituent:	Units	Method Blank	
		Concen- tration	Reporting Limit
DHS Method:			
Total Petroleum Hydro- carbons as Gasoline	ug/l	ND	50
Modified EPA Method 8020 for:			
Benzene	ug/l	ND	0.50
Toluene	ug/l	ND	0.50
Ethylbenzene	ug/l	ND	0.50
Xylenes	ug/l	ND	1.5

QC Summary:

% Recovery: 66
 % RPD: 16

Concentrations reported as ND were not detected at or above the reporting limit.


 Louis W. DuPuis
 Quality Assurance/Quality Control Manager



CHAIN OF CUSTODY RECORD

Proj. No.		Project Name		No. of Containers	Analyses: TPH G35 / BTEX TPH Diesel					REMARKS
2301 E. 12th St., Oakland										
Company Name and Address:										
Epicure International 38750 Paseo Padre Parkway, B-4 Fremont, CA 94536										
Project Manager:		John Alt								
Sample ID	Date	Time	Site Location							
MW 1	11/6	PM		2 Vials	X					
				1 liter		X				
MW 2	11/6	PM		2 Vials	X					
				1 liter		X				
MW 3	11/6	PM		2 Vials	X					
				1 liter		X				
Sampled by: (signature)			Date/Time	Relinquished by: (signature)			Date/Time			
John M. Alt			PM 11/6/92	John Alt			3:25 11/6/92			
Received by: (signature)			Date/Time	Relinquished by: (signature)			Date/Time			
Received for Laboratory by: (signature)			Date/Time	TURNAROUND TIME						
Karen Lauricella TAL			11/06/92 3:23 pm	Reg.			walk in water 2-40ml @ 1L. ea			
REMARKS						40 ml w/ Hcl ice KL Green Reg. TAT				