PARKER ENVIRONMENTAL SERVICES

February 11, 1999

Environmental Site Investigation
Methods and Findings:
Installation of Three Groundwater Monitoring Wells,
Collection and Analysis of Soil and Groundwater Samples,
Groundwater Flow Calculations

at
Foothill Beacon
16210 Foothill Boulevard
San Leandro, California

prepared for:

Mr. Hooshang Hadjian
Foothill Beacon
7240 Dublin Boulevard
Dublin, CA 94568

prepared by

REGISTERED ENVIRONMENTAL ASSESSOR
No. 1059
Expires: 6-99
STATE OF CALIFORNIA

James D. Parker, R.E.A. #1059
President, Parker Environmental Services

REGISTERED GEOLOGIST
GARY D. LOWE
No. 127
CERTIFIED HYDROGEOLOGIST
STATE OF CALIFORNIA

reviewed by
Gary D. Lowe, R.G., C.E.G.
Principal, Hydrogeologist
H2OGEOL, A GroundWater Consultancy

REGISTERED GEOLOGIST
GARY D. LOWE
No. 1559
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

Project Number 192-01-03

190 East 7th Street • Pittsburg, CA 94565-2317 • FAX (925) 439-2566 • Phone (925) 439-1024

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I. INTRODUCTION

The following text, tables, figures and appendices represents Parker Environmental Services' (Parker) report of environmental site investigation methods and findings for the property located at 16210 Foothill Boulevard, San Leandro, California ("the site"). The purpose of the site investigation activities was to evaluate if petroleum hydrocarbon release discovered during tank removal had reached the groundwater. The collection and analysis of subsurface soil and groundwater samples was performed at three monitoring well locations. This investigation evaluated on-site soil and groundwater conditions. The Alameda County Environmental Management Department, Hazardous Materials Division is the lead agency for the site and project.

II. SITE DESCRIPTION

The project site is located on the southeast corner of the intersection of Carolyn Street and Foothill Boulevard in San Leandro, California. The site is currently used as a convenience store that retails gasoline under the name Foothill Beacon.

Soil conditions are expected to be weathered bedrock. Groundwater was known to exist at about 11 feet BGS in the tank excavation in January, 1997.

The site elevation ranges between 137 and 140 feet above mean sea level (MSL) and is relatively flat. Stormwater drainage is controlled by the parking lot slopes, curbs and gutters to drainage ditches and storm sewers.

Site UST History

Four underground storage tanks were removed from this site by California Petroleum Equipment, Inc., of Fresno on January 28, 1997. There were two 8,000 gallon tanks and two 5,000 gallon tanks, single wall steel, and appeared to be in fair condition, with some pitting evident on the tanks with close inspection.

The Alameda County inspector probed the pitted areas and found two 1/4" to 1/2" holes at the end of one of the 5,000 gallon tanks. The holes were about 3 feet from the bottom of the tank at the weld by the tank cylinder and tank end. Although the metal was soft enough to disintegrate with the probing of a screwdriver, it appears that the tank did not leak from these spots. The tanks were sitting in about 4 feet of water, and if the tanks leaked, water would have been 3 to four feet deep in this tank. Since no water was pumped from the tank during service, the tank was apparently intact until removal. Groundwater was 11 feet below grade surface on the day of the tank removal, as measured by tape measure.

Sample Collection

Prior to the tank removals, samples were taken of soils in the pipe trenches and under the former island locations (Samples P-1 through P-9) at depths of 2 to 3 feet BGS with a backhoe. Standing water was observed in the tank pit prior to and after the tanks were

removed. The tank pit samples (T-1 through T-5, W-1) and additional pipe trench samples (P-10, P-11) were obtained on January 30, 1997. The soil samples were obtained as described above. The water sample was obtained by lowering a teflon bailer into the standing water, allowing the bailer to completely submerge, and placing the sample water in two 40-milliliter vials.

The sampled soils were comprised mainly of stiff clays, and smelled moderately of aged or fresh gasoline.

Sample Analysis Results

The soil samples were analyzed at a State Certified Environmental Laboratory for total petroleum hydrocarbons as gasoline (TPH-g), methyl-tert butyl ether (MTBE), and benzene, toluene, ethylbenzene, xylenes (BTEX) by EPA methods 8015 modified/8020 (Attachment A: Soil Sample Analytical Data).

The native soil samples indicated low level gasoline contamination with background lead concentrations. Sample results are presented in Table 1 below.

Table 1 – Tank Removal Sample Analytical Results
Foothill Beacon, 16210 Foothill Boulevard
San Leandro, California

Sample	TPH-gas	MTBE	benzene	toluene	ethyl-benzene	xylenes
1/28/97						
P-1@2'	ND	ND	ND	ND	ND	ND
P-2@2'	ND	ND	ND	ND	ND	0.011
P-3@2'	870	7.4	ND<0.03	0.59	ND<0.03	98
P-4@2'	ND	ND	ND	ND	ND	ND
P-5@3'	150	110	2.3	10	2.3	19
P-6@3'	360	0.43	0.26	1.5	1.0	14
P-7@3'	1.1	0.70	0.028	0.074	0.009	0.031
P-8@2'	ND	0.16	ND	ND	ND	0.012
P-9@2'	180	1.5	ND	0.093	0.16	0.32
1/30/97						
T-1@10.5'	10	9.4	0.17	0.23	0.074	0.68
T-2@10.5'	1.4	1.3	0.38	0.008	ND	ND
T-3@10.5'	17	0.24	0.042	0.027	0.026	0.056
T-4@10.5'	2.5	0.10	ND	0.009	ND	0.044
T-5@10.5'	130	0.48	1.1	0.19	3.0	5.8
P-10@6'	3.2	.38	ND	0.007	ND	0.005
P-11@9.5'	130	2.6	1.8	2.3	3.0	18
Det. lim. (S)	1.0	0.05	0.005	0.005	0.005	0.005
W-1@11'	4000	2800	110	88	46	620
Det. lim. (W)	50	5.0	0.5	0.5	0.5	0.5

Soil results are in mg/kg or parts per million (ppm). Water results are in µg/L or parts per billion (ppb).
ND = not detected at or above method detection limits

Approximately 15,000 gallons of water were removed from the tank pit and hauled offsite for disposal before the new tanks were installed.

Local Topography, Geology and Hydrology

The site has a slight slope toward the southwest, dropping about four feet from the southeast to northwest property corners. This site is near a cut area next to the hills facing San Francisco Bay. The Hayward Fault parallels the hill ridge, but its exact location in relation to this property is unknown. Near surface soils were found to be stiff gravelly clays. Beneath this lay Cenozoic sandstone and shale deposits (State of California Division of Mines and Geology, Geologic Map of California, revised 1977).

Shallow groundwater has been measured at this site 11 feet below grade surface (BGS). The groundwater flow direction is unknown, but expected to be toward the west.

III. METHODS AND PROCEDURES

A work plan and site safety plan were prepared and submitted to the Alameda County Department of Environmental Health for review and approval to commence. Upon approval, permits for well construction were obtained from the Alameda County Public Works Agency, Water Resources Division (Appendix A: Permits, Notifications). Excavation limit markings were made and Underground Service Alert was notified for underground utilities locating.

The project scope included the drilling and installation of three groundwater-monitoring wells. Soil sampling was performed during the drilling of the well borings. After well installation, the wells were developed, then purged and sampled. The well casing tops were surveyed for groundwater flow calculations.

The well locations were chosen to intercept the expected hydrocarbon release by the former underground storage tanks.

Drilling and Soil Sampling

The drilling, well installation and soil sampling took place on October 13, 1998. The well borings were drilled with a truck mounted hydraulic rotary drill using 4.25" I.D. by 8" OD hollow stem augers. No utilities or underground structures were encountered during the drilling. Excavated soils were placed on plastic sheeting, then covered with plastic sheeting in a secured area on site. The augers and down hole tools were high-pressure hot water washed before use and between borings. All used waters were retained in DOT 17H drums and remain on site.

Undisturbed soil samples were procured at five-foot intervals during drilling. Brass sampler liners were cleaned with a TSP-substitute solution and rinsed in tap water prior to insertion into the sampler, a California modified split barrel. The sampler was then inserted through the augers to the boring bottom within the augers. Successive blows advanced the sampler from a 140-pound hammer utilizing about a 30-inch drop. Blow counts per six-inch interval were recorded. The sampler was extracted from the boring

and the liners removed. The samples were utilized for logging of soil characteristics, and possibly selected for chemical analysis.

Only completely full sampler liners representing the lower foot of the sampled interval were selected. Selected soil samples were sealed at each end with aluminum foil and plastic caps. The samples were then placed into a cooler with ice and chain of custody procedures and documentation were initiated (Appendix B: Sampling Documentation).

Subsurface materials drilled or sampled exuded no odors from MW-1 or MW-2. A faint gasoline odor was noted at 3' BGS in MW-3. Two soil samples were retained from MW-1, while three soil samples from MW-2 and MW-3 were selected for lab analysis. At the lab, the selected soil samples were analyzed for TPH as gasoline by EPA methods 5030/8015 and MTBE and BTEX by EPA method 8020.

Site Geology

A geologist using the Unified Soil Classification System (USCS) continuously logged the site soils (Appendix C: Boring & Well Completion Logs). The Munsell Soil Color Charts and the Munsell based Rock Color Chart were used for color descriptions. After approximately .40 feet of asphalt and base rock, MW-1 had dark yellowish brown 10YR 4/4 gravelly stiff clay with no odor to a depth of 7.5 feet BGS. Next is a 0.5-foot layer of cobble, which is followed by dark yellowish brown 10YR 4/4 clayey gravel and sandy gravel with individual cobbles of pale olive 5Y 8/3, very weathered. This gradually transitions to a black 10YR 2/1 sticky clay at 13.5 feet BGS, and continues to 25 feet BGS. Yellowish brown 10YR 5/8 mottled dark yellowish pebbly sandy clayey silt is next, and continues to the bottom of the boring at 38.9 feet BGS.

MW-2 had 0.75-feet of asphalt and base rock, and then very dark brow 10YR 2/2 mottled dark brown 7.5YR 3/4 stiff clay to a depth of 15.5-feet BGS. Next is dark yellowish brown 10YR 5/4 gravelly clayey sand to the total borehole depth of 24.8 feet BGS. MW-3 had 0.75 feet of asphalt and base rock, then black 10YR 2/1 mottled greenish clay 5/1 clay, to a depth of 13.5 feet BGS. Next is dark yellowish brown 10YR 5/4 sandy clayey sand to a depth of 16.5 feet BGS. Then is a layer of dark yellowish brown 10YR 5/4 sandy clayey silt of a depth of 24 feet BGS. The final foot of soil consists of dark yellowish brown 10YR 5/4 stiff clay.

First groundwater was encountered at 32 feet BGS in MW-1, 16 feet BGS in MW-2, and 16 feet BGS in MW-3. The groundwater exists under some pressure, as the water levels in each well were found to have risen and stabilized at about 11.5 feet depth BGS.

Groundwater Monitoring Well Installation

Upon termination of drilling, the wells were installed through the augers to total depth (40' BGS for MW-1, 25' BGS for MW-2 and MW-3). Flush threaded, two inch I.D. schedule 40 PVC casing (20 feet for MW-1, and 10 feet for MW-2, MW-3) and well screen (20 feet for MW-1, and 15 feet for MW-2 and MW-3) of machine slotted 0.020") were inserted through the augers to total depth. Lonestar #3 washed sand was poured through the augers, around the casing up to about 17 feet (MW-1) and 7 feet (MW-2, MW-3) BGS. About 0.5 foot of medium bentonite chips were placed above the sand,

then hydrated with tap water. Portland cement grout filled the remainder of the well annulus up to original grade. A surveying and water level measurement mark was made at the top of casing. Locking well caps and flush mount, water tight, traffic rated well covers finished the wells to the surface.

Table 2 - Monitoring Well Installation Details
Foothill Beacon
16210 Foothill Boulevard, San Leandro, California

	MW-1	MW-2	MW-3
Date Installed	October 13, 1998	October 13, 1998	October 13, 1998
Well Diameter	2"	2"	2'
Sch. 40 PVC Blank Depth	20'	10'	10'
Screen Length	19.29'	14.55'	14.37'
Screen Size	0.020"	0.020"	0.020"
Bentonite Seal	16.5 – 17'	7 – 7.5'	7 – 7.5'
Finished Well Depth	39.29'	24.55'	24.37'
Total Bore Depth	39.9'	24.8'	25'

Groundwater Monitoring Well Development, Purging, Sampling

On October 26, 1998 the three new monitoring wells were developed using a submersible electric pump. Groundwater was pumped at about 1.25 gallons per minute from MW-1 until about 50 gallons were removed. MW-2 had excessive silt in the well and only 4 gallons were removed in 10 minutes before the well was dumped dry. MW-3 yielded 25 gallons at a rate of about 1 gallon per minute. The water was pumped into DOT 17H/E drums and stored on site.

On November 2, 1998 the wells were sampled. The depth to water was measured at each location using an electronic sounding device with 0.01 feet accuracy. The sounder probe was washed and rinsed between wells. Prior to sampling, MW-2 was surged with a 1.5-inch PVC pipe inserted to the well bottom. After about 10 surges, the pipe was removed, and the well was pumped with the electric submersible pump. The well cleared up nicely, and 17 gallons of water and silt were removed without pumping the well dry. Approximately 15 gallons were removed from MW-1, and 16 gallons from MW-3.

After each well was purged and sampled, the pump, down hole wiring and tubing were washed in buckets with a TSP-substitute solution and rinsed twice in tap water. Washing water was retained in labeled drums and stored on site.

After purging, the wells were allowed to recover for a few minutes. The 40-milliliter vials were filled from the pump discharge hose. The pump was throttled down to flow less than 0.5 liters per minute to minimize disturbance of the sample water. The vials were filled until no headspace remained and a positive meniscus was apparent. The

bottles were sealed, labeled, and placed into a cooler with ice for transport to the state certified analytical lab. Chain of custody documentation was initiated.

At the lab, the samples were analyzed for TPH as gasoline by EPA methods 5030/8015, BTEX by EPA Method 602, and for the oxygenated compounds associated with gasoline by EPA Method 8260.

Well Surveying, Groundwater Gradient

The marks at the top of the well casings were surveyed by a State Licensed Land Surveyor (Benchmark Consultants of Antioch, CA) to the nearest 0.001 foot, rounded to the nearest 0.01 foot (Table 2: Well Elevation Data). Elevations were shot from an established vertical datum taken from a 7.5 minute USGS Map. From the well elevations and depth to groundwater measurements, the elevation of the potentiometric surface was established relative to mean sea level (MSL). The top of casing elevations for the three monitor wells range from 137.94 feet at MW-2 to 138.88 feet above MSL at MW-3. Groundwater elevations at the wells range from 127.15' at MW-1 to 127.45' at MW-3 (Figure 3 - Potentiometric Surface Map).

Table 3 - Well Elevation Data
Foothill Beacon
16210 Foothill Boulevard, San Leandro, California
Groundwater levels measured October 26, 1998 and November 2, 1998

Well	Well Depth (Feet TOC)	T.O.C. Elev. (Feet MSL)	Depth to Water (Feet TOC)		Water Elev. (Feet MSL)	
			10/26	11/02	10/26	11/02
MW-1	38.29	138.57	11.42	11.39	127.15	127.18
MW-2	24.55	137.94	10.49	10.54	127.45	127.40
MW-3	24.37	138.88	11.60	11.52	127.28	127.36

TOC represents top of casing. From the survey and depth to groundwater measurement data, the site groundwater on October 26, 1998 gradient direction was N 79.83 °E, with an average gradient of 0.0082 ft./ft. while the gradient on November 2, 1998 was found to have an average gradient direction of S 69.30 °E, with an average gradient of 0.0036 ft./ft. A gradient representation is attached (Figure 3 – Groundwater Gradient Map For 11/2/98).

? – map depicts something different

IV. SAMPLE ANALYTICAL RESULTS

Soil Sample Analytical Results

Eight soil samples from the three monitoring wells were analyzed for TPH as gasoline, MTBE, and BTEX (Figure 3 - Soil Sample Results). Two samples were analyzed from MW-1, while three samples were analyzed for both MW-2 and MW-3.

Laboratory analysis showed no hydrocarbons detected in the soil samples from MW-1 and MW-2, while MW-3 showed trace amounts of MTBE, Ethylbenzene and Xylenes. Table 3 shows sample results, and copies of the laboratory report are attached.

Table 4 - Soil Sample Analysis Results
Foothill Beacon
16210 Foothill Boulevard, San Leandro, California
Samples Collected October 13, 1998

Sample I.D.	TPH-gas	MTBE	benzene	toluene	ethylbenzene	xylenes
MW-1 @ 25.5'	ND	ND	ND	ND	ND	ND
MW-1 @ 30.5'	ND	ND	ND	ND	ND	ND
MW-2 @ 5.5'	ND	ND	ND	ND	ND	ND
MW-2 @10.5'	ND	ND	ND	ND	ND	ND
MW-2 @ 15.5'	ND	ND	ND	ND	ND	ND
MW-3 @ 5.5'	ND	1.8	ND	ND	0.005	0.019
MW-3 @ 10.5'	ND	0.38	ND	ND	ND	ND
MW-3 @ 15.5'	ND	0.34	ND	ND	ND	ND
Detect. limit	1.0	0.05	0.005	0.005	0.005	0.005

* Results are in mg/kg or parts per million (ppm). ND = not detected at or above method detection limits.

Groundwater Sample Analytical Results

Groundwater samples were obtained from the wells on November 2, 1998 and analyzed for TPH as gasoline (EPA method 5030/8015) with BTEX and MTBE (method 602. Sample analysis shows no TPH-g, BTEX or MTBE detected in MW-1 and MW-2. TPH-g and BTEX were not detected in MW-3, but MTBE was detected at 190 parts per billion (ppb).

Table 5 - Groundwater Sample Results, TPH-g and BTEX
Foothill Beacon
16210 Foothill Boulevard, San Leandro, California
Samples Collected on November 2, 1998

Sample I.D.	TPH-gas	MTBE	benzene	toluene	ethylbenzene	xylenes
MW-1	ND	ND	ND	ND	ND	ND
MW-2	ND	ND	ND	ND	ND	ND
MW-3	ND	190	ND	ND	ND	ND
Detect. limit	50	5.0	0.5	0.5	0.5	0.5

* Results are in µg/kg or parts per billion (ppb). ND = not detected at or above method detection limits.

V. SUMMARY AND CONCLUSIONS

Three 2-inch monitoring wells were installed at this site. One well is 39 feet deep, while the other two wells are about 25 feet deep. No odors were detected during drilling and well installation of MW-1 and MW-2. A slight gasoline odor was noticed from the shallow soils of MW-3. Similarly, soil sample results show detectable petroleum hydrocarbons only in MW-3.

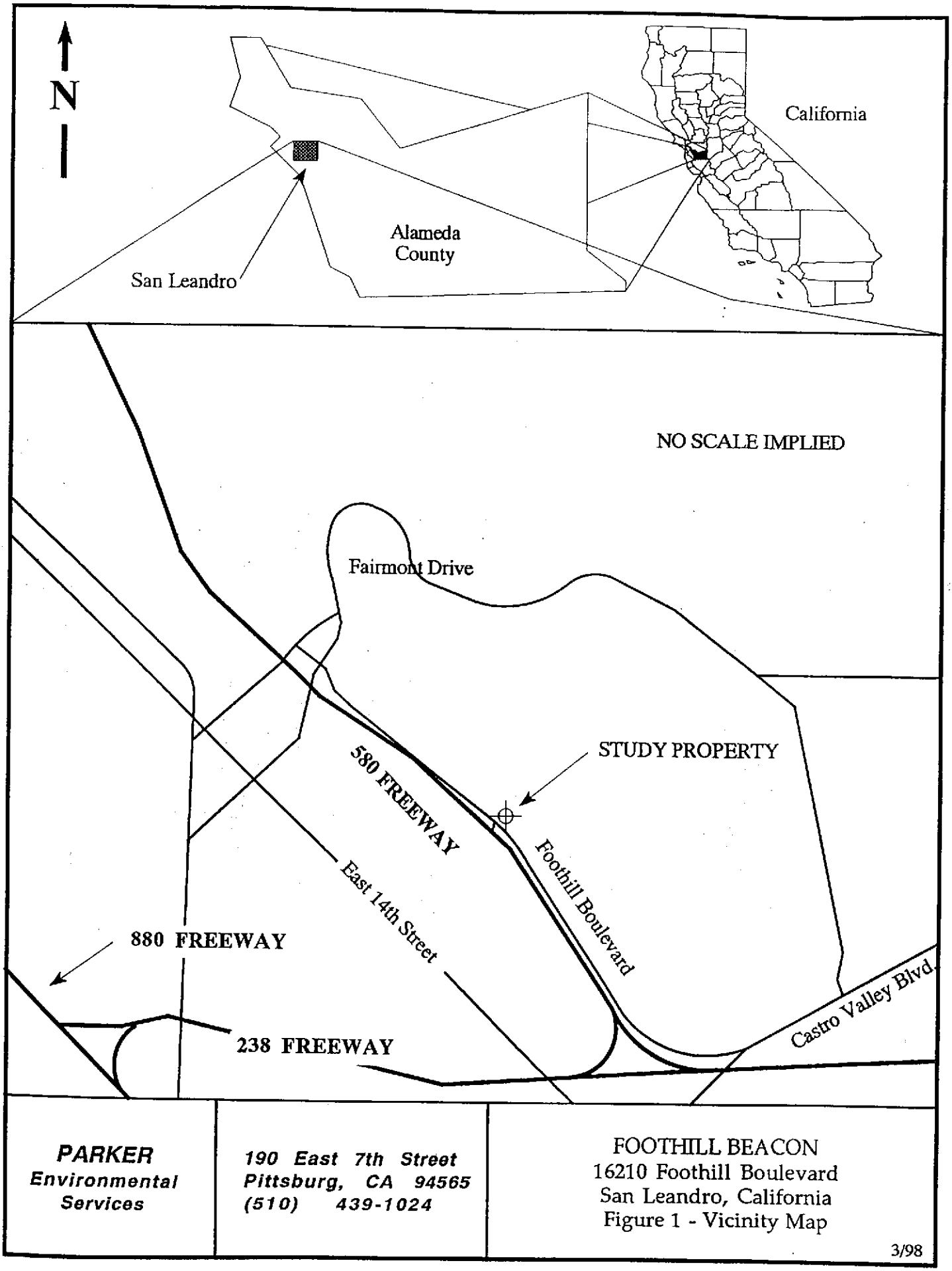
Groundwater at this site is about 10 to 11 feet BGS, at an elevation of about 127 feet above mean sea level (MSL). Apparent groundwater gradient direction is N 79.83° E, with a gradient of 0.0082 ft/ft. on October 26, 1998 while the gradient direction on November 2, 1998 was S 69.30 °E, with an average gradient of 0.0036 ft./ft.

Laboratory analyses of the groundwater samples show only detectable MTBE in MW-3 at 190 parts per billion. MW-1 and MW-2 samples were non-detect for all analytes tested.

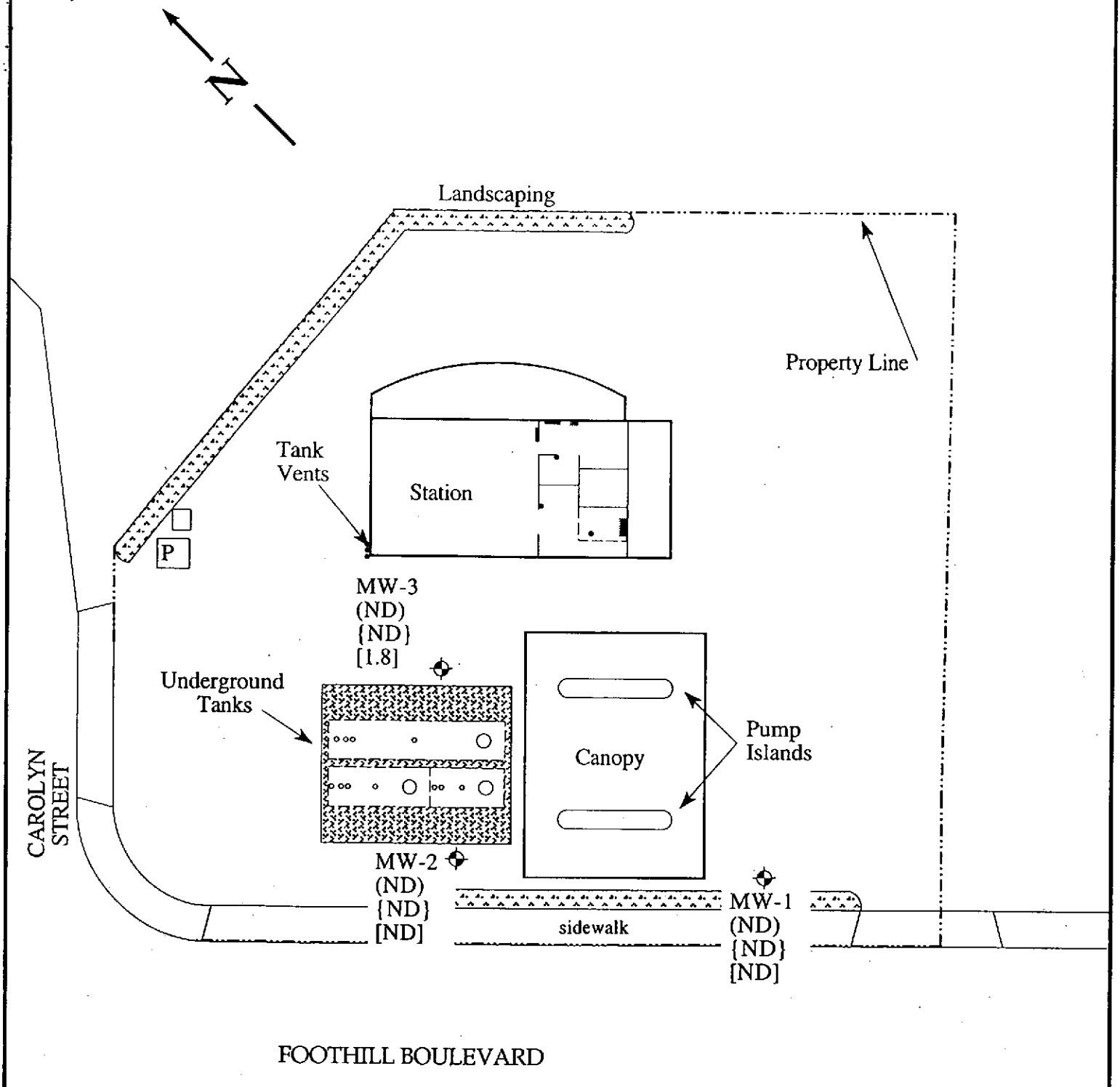
VI. RECOMMENDATIONS

Parker Environmental Services recommends monitoring of the wells continue quarterly. This will provide information concerning seasonal variations of groundwater elevations and gradients. It will also provide a history of petroleum hydrocarbons amounts in the groundwater.

Copies of this and future reports will be sent to the Alameda County Environmental Health office and the California RWQCB, San Francisco Bay Region, Oakland.



PARKER *Environmental Services*	*190 East 7th Street Pittsburg, CA 94565 (510) 439-1024*	FOOTHILL BEACON 16210 Foothill Boulevard San Leandro, California Figure 1 - Vicinity Map 3/98



Key:

◈ = monitoring well

(X.X) = TPH-g

{X.X} = Benzene

[X.X] = MTBE

580 FREEWAY

Scale: 1" = 30'

Samples collected October 13, 1998.
Results are in parts per million (ppm).

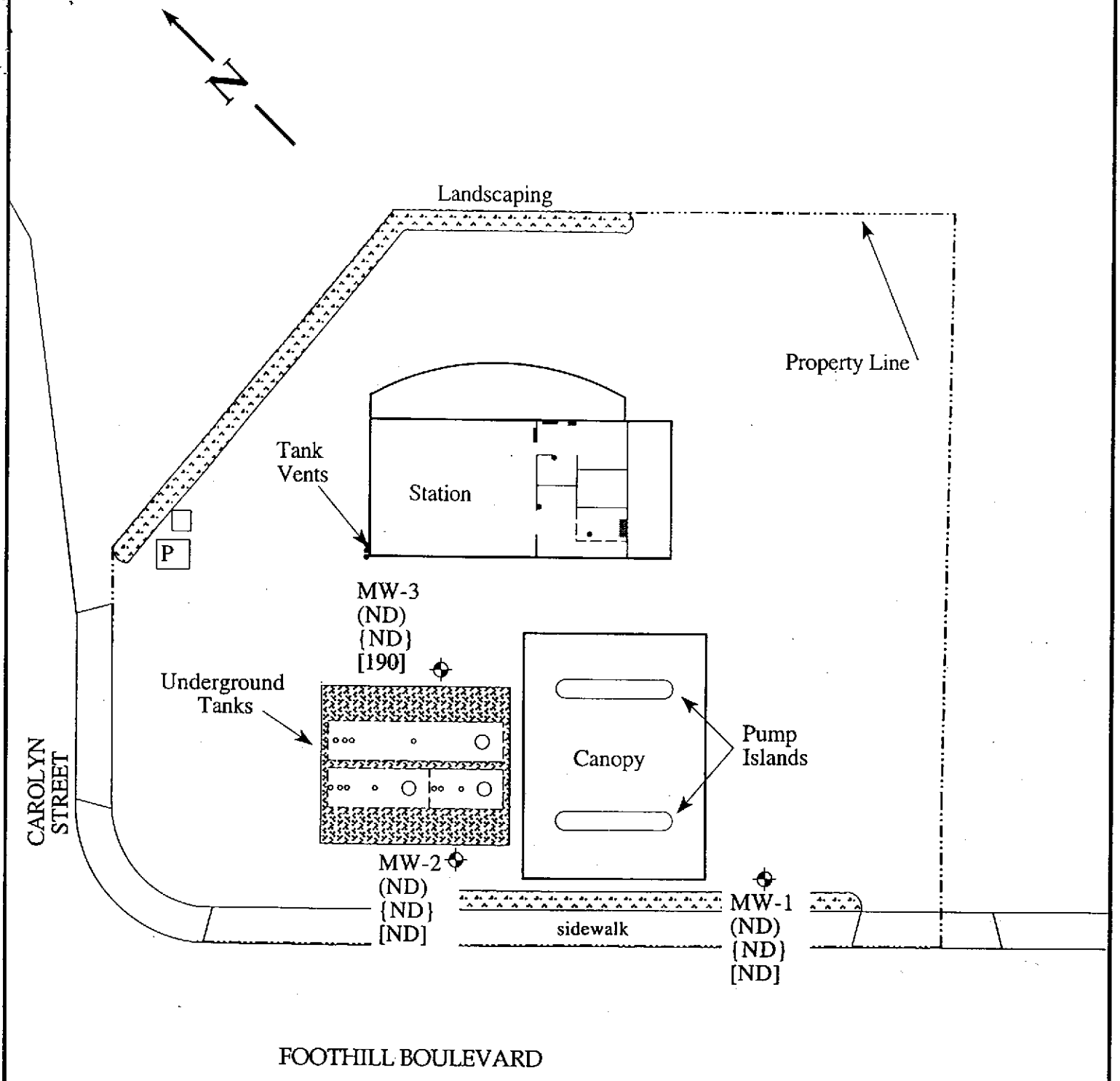
Location of site features are approximate.

PARKER
Environmental Services

190 East 7th Street
Pittsburg, CA 94565
(925) 439-1024

Figure 2a, Soil Sample Results
Foothill Beacon
16210 Foothill Boulevard
San Leandro, CA

12/98



Key:

◈ = monitoring well

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580 FREEWAY

Scale: 1" = 30'

Samples collected November 2, 1998.
Results are in parts per billion (ppb).

Location of site features are approximate.

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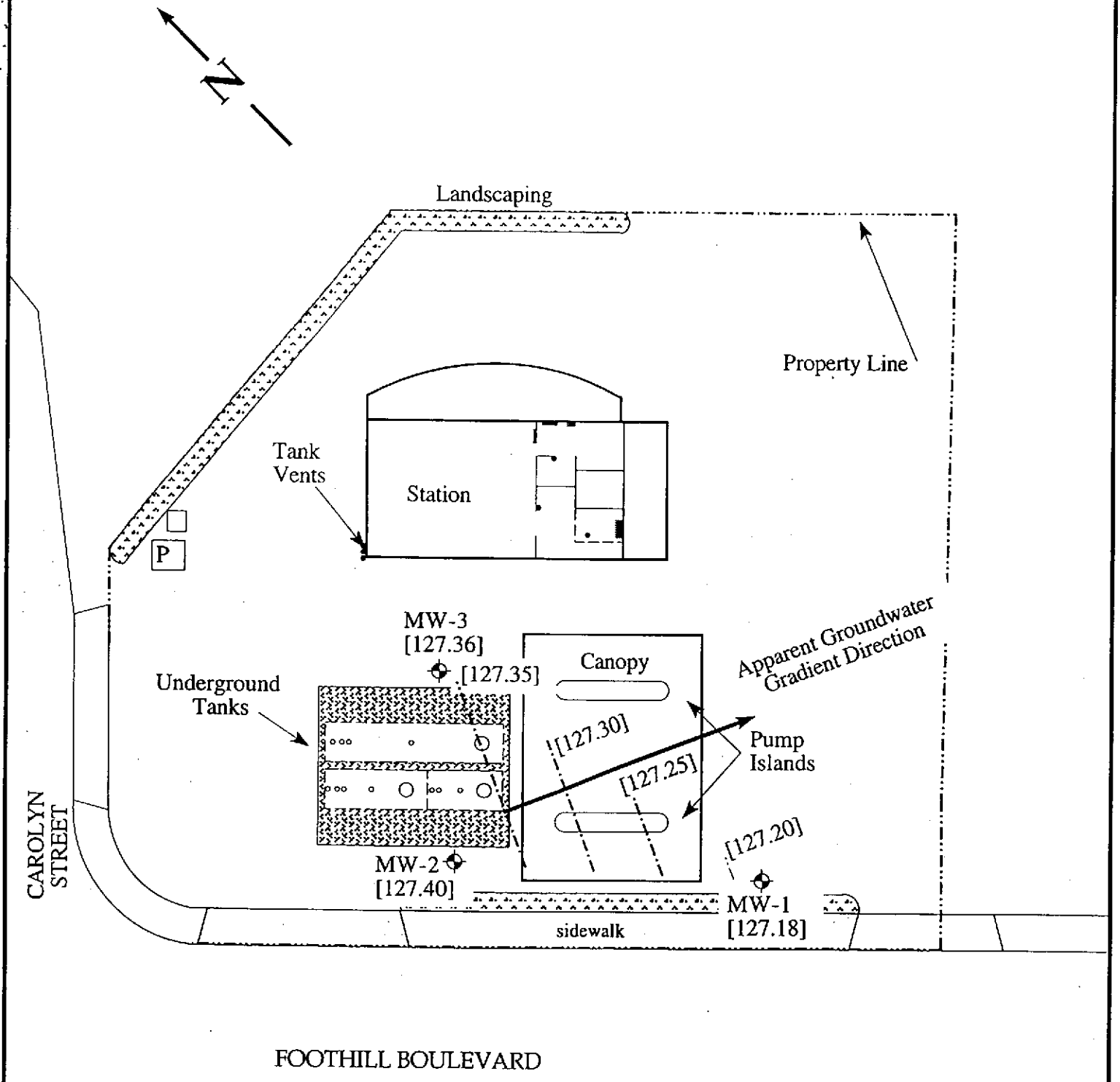
Figure 2b, Groundwater Sample Results
Foothill Beacon
16210 Foothill Boulevard
San Leandro, CA

12/98



Scale: 1" = 30'

= monitoring well

[X.X] = groundwater elevation

= line of equal elevation

Location of site features are approximate.

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(925) 439-1024

Figure 3 - Groundwater Gradient
Foothill Beacon
16210 Foothill Boulevard
San Leandro, CA

12/98

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT FOOTHILL BEACON
16210 FOOTHILL BLVD.
SAN LEANDRO CA

California Coordinates Source _____ ft. Accuracy ± _____ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT
Name MR. HOOSHANG HADJIAN
Address 7240 Dublin Blvd Phone 925-828-2765
City DUBLIN CA Zip 94568

APPLICANT
Name PARKER ENVIRONMENTAL
TIM PARKER Fax 925 439 2566
Address 190 E. 7th St. Phone 925 439 1024
City PITTSBURG, CA Zip 94565-2317

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☐
Monitoring	☒	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE N/A

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☒
Cable	☐	Other	☐		

DRILLER'S LICENSE NO. (C57) 554979

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 25 ft.
Surface Seal Depth 15 ft. Number 3

GEOTECHNICAL PROJECTS
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 8/25/98
ESTIMATED COMPLETION DATE 8/26/98

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE James Parker DATE 8/12/98

FOR OFFICE USE

PERMIT NUMBER _____
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED _____ DATE _____

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Parker Environmental Services	Client Project ID: Foot hill Beacon; 16210 Foothill Blvd., San Leandro	Date Sampled: 10/13/98
190 East 7th Street		Date Received: 10/14/98
Pittsburg, CA 94565	Client Contact: Jim Parker	Date Extracted: 10/14/98
	Client P.O:	Date Analyzed: 10/14-10/16/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & 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)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
96938	MW-1/25.5	S	ND	ND	ND	ND	ND	ND	96
96939	MW-1/30.5	S	ND	ND	ND	ND	ND	ND	97
96940	MW-2/5.5	S	ND	ND	ND	ND	ND	ND	96
96941	MW-2/10.5	S	ND	ND	ND	ND	ND	ND	97
96942	MW-2/15.5	S	ND	ND	ND	ND	ND	ND	97
96943	MW-3/5.5	S	ND	1.8	ND	ND	0.005	0.019	99
96944	MW-3/10.5	S	ND	0.38	ND	ND	ND	ND	100
96945	MW-3/15.5	S	ND	0.34	ND	ND	ND	ND	103
Reporting Limit unl01ess otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); 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; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Parker Environmental Services 190 East 7th Street Pittsburg, CA 94565	Client Project ID: Foot hill Beacon; 16210 Foothill Blvd., San Leandro	Date Sampled: 10/13/98
		Date Received: 10/14/98
	Client Contact: Jim Parker	Date Extracted: 10/16/98
	Client P.O:	Date Analyzed: 10/20/98

Lead*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction °	Lead*	% Recovery Surrogate
96943	MW-3/5.5	S	TTLC	ND	104
96944	MW-3/10.5	S	TTLC	ND	100
96945	MW-3/15.5	S	TTLC	ND	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	3.0 mg/kg	
		W	TTLC	0.005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

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

+Lead is analysed using EPA method 6010 (ICP)for soils, sludges, 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 - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

Edward Hamilton, Lab Director

PARKER
Environmental Services
190 East 7th Street
Pittsburg, CA 94565
(510) 439-1024
Fax (510) 439-2566

CHAIN OF CUSTODY FORM 12674 XPE 392

Job, Client: Mr. Hooshang Hadjian
Site Name ~~Dublin Auto~~ Foothill Beacon
Location: 16210 Foothill Blvd., San Leandro
Date 10/13/98

Sample Number	Type: Soil	Type: Water	Time	TPH-g	TPH-d	BTEX	O & G	MTBE	Metals (list)	Asbestos	Other	Remarks
MW-1/25	✓		0905	✓		✓		✓	1 Pb		If TPH-g detectable	96938
MW-1/30.5	✓		09:10	✓		✓		✓	1 Pb		10/16 per S.P.	96939
MW-2/5.5	✓		12:06	✓		✓		✓	1 Pb		5 day	96940
MW-2/10.5	✓		12:12	✓		✓		✓	1 Pb			96941
MW-2/15.5	✓		12:20	✓		✓		✓	1 Pb			96942
MW-3/5.5	✓		14:08	✓		✓		✓	1 Pb			96943
MW-3/10.5	✓		14:14	✓		✓		✓	1 Pb			96944
MW-3/15.5	✓		14:22	✓		✓		✓	1 Pb			96945

Sampler Name (Print) Gary O. Love **Sampler Signature**

Relinquished By: Date and Time	Received By: Date and Time
10/14/98	GNJ 608 10-14-98 10:45
Relinquished By: Date and Time	Received By: Date and Time
GNJ 608 10-14-98 11:00 AM	10/14/98 1045
Relinquished By: Date and Time	Received By: Date and Time
10/14/98 1253	10-14-98 1253
Relinquished By: Date and Time	Received By: Date and Time

Sampling Site Sketch

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE CONTAINERS ✓	VOAS	O&G	METALS	OTHER

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
FOOTHILL BEACON	192-01-03	MW-1	10/26/98		J. PARKER	1 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
40	37.27 / 39.29	☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
~~11.42~~	12:45	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
Volume (gal)	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon " ☐ 1 1/4 inch ☐ 3 inch
Volume to be Evacuated ☐ x 3 ☐ x 4		Sampling Port No. Volume / Rate (gpm)

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	13:57			
Start Time	13:18			
Minutes	~~39~~			
Amt Evacuated	50			

Total Evacuated _____ gal

Total Minutes _____ min

Evacuation Rate _____ gpm

Pumped Dry?	After (gal)	Recovery
☐ Yes ☒ No		Time / Depth to Water
Depth to ~~Water~~ During Pumping (ft)	Time	1.
~~X~~	11:93 / 14:00	2.
Depth to Water for 80% Recovery	Recovery Rate (gpm)	3.
		4.
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling	5.

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1				
2				
3				
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☐ PE Hose ☐ End of Bailer ☐ Other:	Depth to Water (ft)	Refrigerated? ☐ Yes ☐ No
Sample Color	Odor	
Sediment/Foreign Matter		
Sampling Sequence		

Sample ID Number	Volume	Time	Preservative	Analysis	Lab

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, L = liter, Other: describe

Notes:

1 = TPH-g, BTEX & MTBE

2 = TPH-d

3 = 8260 Oxygenates

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page	of
FOOTHILL BEACON	192-01-03	MW-2	10/26/98		J. PARKER	2	3

Well Depth (ft)	Sounded Depth (ft)	Sampling Equipment
25	19.62 / 21.57'	☑ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft)	Date/Time	
10.49	10/26/98 12:59	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
*	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer / Teflon " ☐ 1/2 inch ☐ 1 1/4 inch ☐ 3 inch
Volume (gal)		Sampling Port No.
Volume to be Evacuated ☐ x 3 ☐ x 4		Volume / Rate (gpm)

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	14:42			
Start Time	14:32			
Minutes				
Amt Evacuated				

Total Evacuated: 4 gal
Total Minutes: 10 min
Evacuation Rate: .4 gpm

Pumped Dry?	After (gal)
☒ Yes ☐ No	~2.0
Depth to Water During Pumping (ft)	Time
	14:45 18.4'
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

Time	Depth to Water
1.	
2.	
3.	
4.	
5.	

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1				
2				
3				
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☐ PE Hose ☐ End of Bailer ☐ Other:	Depth to Water (ft)	Refrigerated? ☐ Yes ☐ No
Sample Color	Odor	
Sediment/Foreign Matter		
Sampling Sequence		

Sample ID Number	Volume	Time	Preservative	Analysis	Lab

Container Codes	P = Plastic Bottle V = VOA	B = Brown Glass C = Clear Glass	ml = milliliter Other: describe	L = liter

Notes:

1 = TPH-g, BTEX & MTBE

2 = TPH-d

3 = 8260 Oxygenates

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
FOOTHILL BEACON	192-01-03	MW-3	10-26-98		J. PARKER	3 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
25'	24.87 ~~25.25~~	☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
11.60	10/26/98 13:11	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
Volume (gal)	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon " ☐ 1 1/4 inch ☐ 3 inch Sampling Port No. Volume / Rate (gpm)
Volume to be Evacuated ☐ x 3 ☐ x 4		

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	13:57			
Start Time	~~13:18~~	14:58		
Minutes	~~39~~			
Amt Evacuated	~~50~~			
Total Evacuated	gal	25		
Total Minutes	~~39~~ min			
Evacuation Rate	gpm			

Pumped Dry?	After (gal)
☐ Yes ☒ No	
Depth to Water During Pumping (ft) ~~14.99~~	Time ~~15:00~~
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

Time	Depth to Water
1.	
2.	
3.	
4.	
5.	

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1				
2				
3				
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☐ PE Hose ☐ End of Bailer ☐ Other:	Depth to Water (ft)	Refrigerated? ☐ Yes ☐ No

Sample Color Odor

Sediment/Foreign Matter

Sampling Sequence

Sample ID Number	Volume	Time	Preservative	Analysis	Lab

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes:

1 = TPH-g, BTEX & MTBE

2 = TPH-d

3 = 8260 Oxygenates

McCAMPBELL ANALYTICAL INC.
110 Second Avenue South, #D7, Pacheco, CA 94553
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Parker Environmental Services	Client Project ID: #192-01-02; Hooshand Hodjian	Date Sampled: 11/02/98
190 East 7th Street		Date Received: 11/02/98
Pittsburg, CA 94565	Client Contact: Jim Parker	Date Extracted: 11/02-11/03/98
	Client P.O:	Date Analyzed: 11/02-11/03/98

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & 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)*	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
98023	MW-1	W	ND	ND	ND	ND	ND	ND	92
98024	MW-2	W	ND	ND	ND	ND	ND	ND	96
98025	MW-3	W	ND	190	ND	ND	ND	ND	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); 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; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

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: 11/02/98-11/03/98 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#97977)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	83.2	90.7	100.0	83.2	90.7	8.6
Benzene	0.0	8.5	8.7	10.0	85.0	87.0	2.3
Toluene	0.0	8.7	8.9	10.0	87.0	89.0	2.3
Ethyl Benzene	0.0	8.8	9.1	10.0	88.0	91.0	3.4
Xylenes	0.0	26.3	27.1	30.0	87.7	90.3	3.0
TPH(diesel)	0.0	167	171	150	112	114	2.4
TRPH (oil & grease)	0	26300	26500	23700	111	112	0.8

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

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

PARKER

Environmental Services
190 East 7th Street
Pittsburg, CA 94565
(925) 439-1024
Fax (925) 439-2566

CHAIN OF CUSTODY FORM

12878 xPE396

Job, Client: 192-01-02 Hooshang Abdjian
Site Name Foothill Beacon
Location: Foothill Blvd, San Leandro, CA

Date 11-2-98

Sample Number	Type: Soil	Type: Water	Time	TPH-g	TPH-d	BTEX	O & G	MTBE	Metals (list)	Asbestos	Other	Remarks
(+) MW-1		X	13:10	X		X		X				NORMAL TAT 98023
+ MW-2		X	12:38	X		X		X				98024
(+) MW-3		X	13:39	X		X		X				98025

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

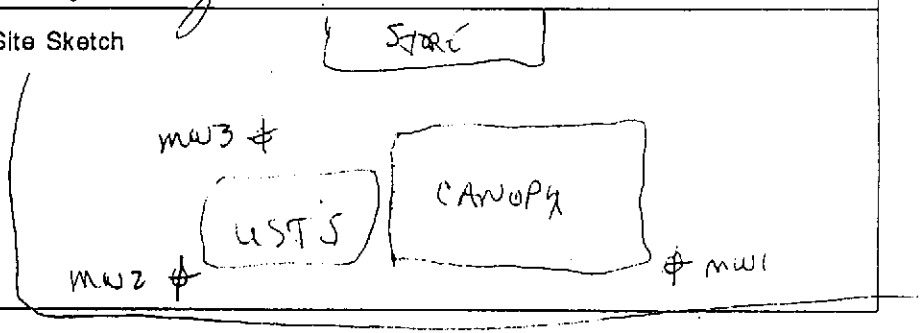
VOAS ✓ | O&G | METALS | OTHER

Sampler Name (Print) Jim Parker

Sampler Signature Jim Parker

Relinquished By: Date and Time	Received By: Date and Time
Jim Parker 11/2/98 14:25	Nma A Bullu 11/2
Relinquished By: Date and Time	Received By: Date and Time
Relinquished By: Date and Time	Received By: Date and Time
Relinquished By: Date and Time	Received By: Date and Time

Sampling Site Sketch



WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
Foothill Beacon	192-01-03	MW-1	11-2-98		Jim Parker	1 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
40	38.60	☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
11.39	11/2/98 11:38	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
27.21	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon " ☐ 1 1/4 inch ☐ 3 inch
Volume (gal)		Sampling Port No.
4.43		Volume / Rate (gpm)
Volume to be Evacuated		
☒ x 3 ☐		
13.30		

Evacuation	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time				
Start Time				
Minutes				
Amt Evacuated				

Total Evacuated: 15 gal
Total Minutes: _____ min
Evacuation Rate: _____ gpm

Pumped Dry?	After (gal)
☐ Yes ☐ No	
Depth to Water During Pumping (ft)	Time
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

Time	Depth to Water
1.	
2.	
3.	
4.	
5.	

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1				
2				
3				
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☒ PE Hose ☐ End of Bailer ☐ Other:	13:10	11/2/98
	Depth to Water (ft)	Refrigerated? ☐ Yes ☐ No

Sample Color: Clear Odor: NONE

Sediment/Foreign Matter: NONE

Sampling Sequence

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-1	2 V	13:10	HCl	TPHg BTEX MTBE	McCampbell

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes:

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
Foothill Beacon	192-01-03	MW-2	11/2/98		Jim Parker	2 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
25	24.55	☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
10.54	11/2/98 11:43	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
14.01	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon " ☐ 1 1/4 inch ☐ 3 inch
Volume (gal)		Sampling Port No.
2.28		
Volume to be Evacuated		Volume / Rate (gpm)
☐ x 3 ☒ x 4		
9.13		

Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1			
2			
3			
4			
5			
6			

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time				
Start Time				
Minutes				
Amt Evacuated				

Total Evacuated 17 gal

Total Minutes _____ min

Evacuation Rate _____ gpm

Pumped Dry? ☐ Yes ☐ No After (gal)

Depth to Water During Pumping (ft) Time

Depth to Water for 80% Recovery | Recovery Rate (gpm)

Sampled After: ☐ 80% Rec. ☐ 2 hrs | % Recovery at Time of Sampling

Recovery

Time	Depth to Water
1.	
2.	
3.	
4.	
5.	

Point of Collection: ☒ PE Hose ☐ End of Bailer ☐ Other:

Time Samples Taken: 12:38 Depth to Water (ft)

Date: 11/2/98 Refrigerated? ☒ Yes ☐ No

Sample Color: Brown Odor: NONE

Sediment/Foreign Matter: Slight

Sampling Sequence

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-2	2V	12:38	HCl/ice	TPH BTEX MTBE	McCampbell

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes:

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
Foothill Beacon	192-01-03	MW-3	11/2/98		Jim Parker	3 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
25'	24.91'	☐ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
11.52	11/2/98 11:47	
Well Diameter (in.)	LHC Present?	LHC Thickness
2	☐ Yes ☒ No	N/A

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
16.39'	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon ☐ 1 1/4 inch ☐ 3 inch Sampling Port No.
Volume (gal)		Volume / Rate (gpm)
2.51'		
Volume to be Evacuated ☐ x 3 ☒ x 4		
10.04		

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time				
Start Time				
Minutes				
Amt Evacuated				

Total Evacuated: 16 gal

Total Minutes: _____ min

Evacuation Rate: _____ gpm

Pumped Dry? ☐ Yes ☐ No — After (gal)

Depth to Water During Pumping (ft) — Time

Depth to Water for 80% Recovery — Recovery Rate (gpm)

Sampled After: ☐ 80% Rec. ☐ 2 hrs — % Recovery at Time of Sampling

Recovery

	Time	Depth to Water
1.		
2.		
3.		
4.		
5.		

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1				
2				
3				
4				
5				
6				

Point of Collection: ☒ PE Hose ☐ End of Bailer ☐ Other:

Time Samples Taken: 13:39 — Depth to Water (ft)

Date: 11/2/98 — Refrigerated? ☒ Yes ☐ No

Sample Color — Odor

Sediment/Foreign Matter

Sampling Sequence

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-3	2-V	13:39	HCl/Ice	TPHg BTEX, MTBE	McCampbell

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes:

H2OGEOL
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-1 Sheet 1 of 2

Project No.: Date: 10/13/98
Client: Parker Environmental Services, Inc.
Location: Foothill Beacon
16210 Foothill Boulevard, San Leandro, California
Logged by: GDL Driller: DM/AV

Drilling Co. WetHazMat Drilling Drill Model CME 76
Drilling Method HSA Borehole Diameter 8.25-in
Ground Surface Elevation unknown Datum: ground surface
Borehole MW-1 was completed as a monitoring well MW-1

Water Level	11.42			
Time	11:45			
Date	10/26/98			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-1/			0.15 ASPHALT; .25 baserock
		1					
		2					
		3					
		4				CL	
		5					
14							
12		6		6.6'			Dark yellowish brown 10YR 4/4, gravelly stiff clay.. No odor.
30							
		7					
		8					Cobble
		9				GC/ CL	
		10					
50		11		10.6'			Mixed dark yellowish brown 10YR 4/4 clayeygravel/sandy clay. individual cobbles pale olive 5Y6/3 very weathered, No odor.
		12					
		13					
		14					
		15					
9							
11		16		16.5'		CL	Black 10YR 2/1 sticky clay, No odor.
14							
		17					
		18					
		19					
		20					
7							
8		21		20.5'			Pale olive 5Y 6/4 mottled brownish yellow 10YR 6/6 silty clay. No odor.
10							
		22				CL	
		23					
		24					
		25					
9						ML	Yellowish brown 10YR 5/6 mottled dark yellowish brown pebbly sandy clayey silt. No odor.

Neat Cement Grout
Bentonite Seal
2-inch PVC casing and screen.

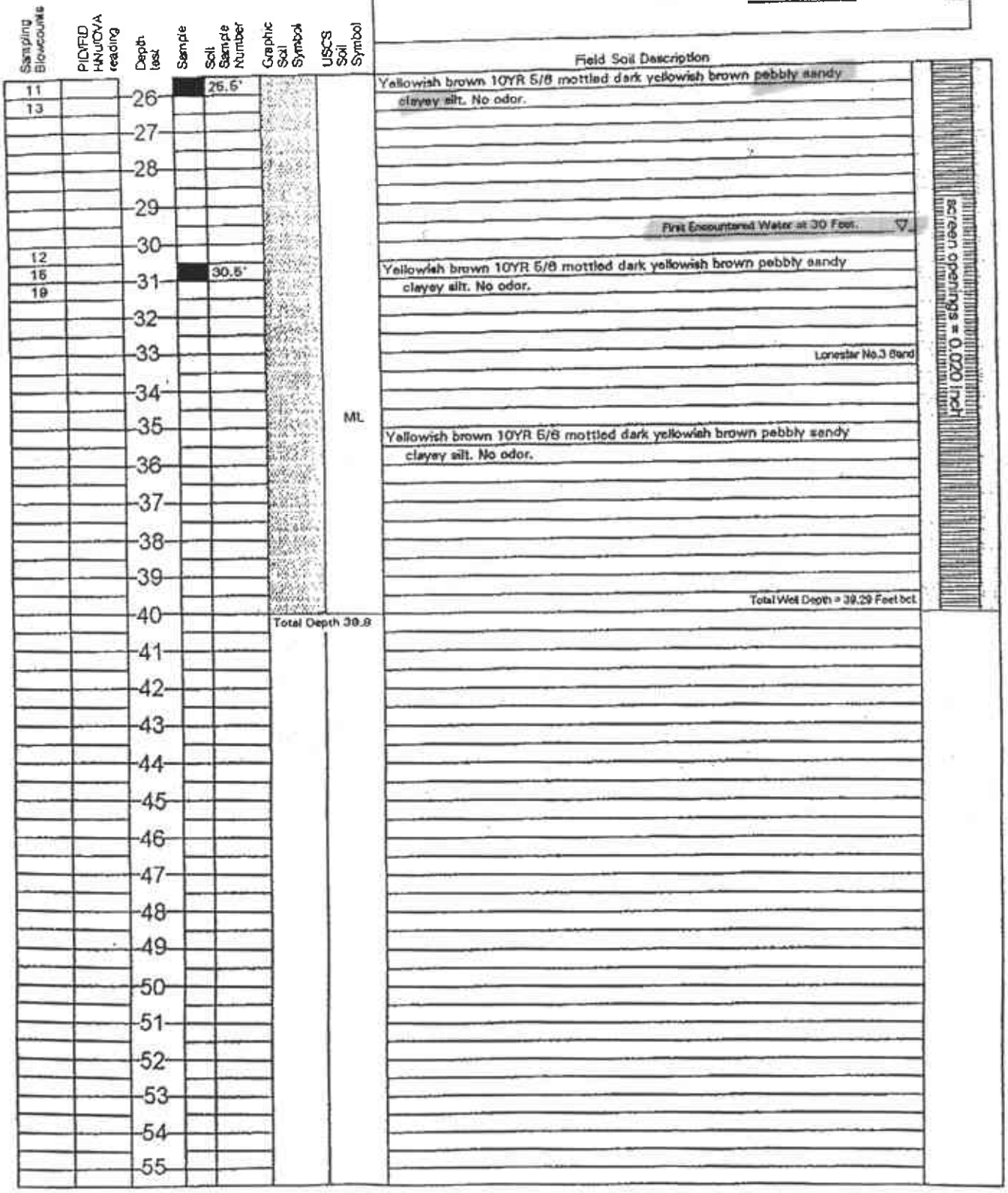
H2OGEOL A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

Location: Foothill Beacon

16210 Foothill Boulevard, San Leandro, California

BOREHOLE No. MW-1 Sheet 2 of 2



H2OGEOL

A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-2   Sheet 1 of 1

Project No.:	Date: 10/13/98
Client: Parker Environmental Services, Inc.	
Location: Foothill Beacon, 16210 Foothill Boulevard, San Leandro, California	
Logged by: GDL	Driller: DM/AV

Drilling Co.	WetHazMat Drilling	Drill Model	CME 75
Drilling Method	HSA	Borehole Diameter	8.25-in
Ground Surface Elevation	unknown	Datum:	ground surface

Borehole MW-2 was completed as a monitoring well MW-2

Water Level	10.44			
Time	11:59			
Date	10/26/98			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	USCS Soil Symbol	Field Soil Description	Well Construction
		0		MW-2/		0.25 ASPHALT; 0.5 baserock	
		1–4			CL		Neat Cement Grout
6, 10, 10		5–6	■	5.5'	CL	Very dark brown 10YR 2/2 mottled dark brown 7.5YR 3/4 stiff clay. No odor.	
		7					Bentonite Seal
5, 10, 11		10–11	■	10.5'	CL	Black N/2 clay. No odor.	
9, 11, 14		15–16	■	15.5'	SW	First Encountered Water at 16 Feet. ▽ Dark yellowish brown 10YR 5/4 gravelly clayey sand. No odor.	Lonestar No.3 Sand
		20			SW	Dark yellowish brown 10YR 5/4 gravelly clayey sand. No odor.	
		24.8				Total Depth 24.8	Total Well Depth = 24.55 Feet bct

2-inch PVC casing and screen.

Screen openings = 0.020 inch

H2OGEOL INC
A GROUND WATER CONSULTANCY

BOREHOLE LITHOLOGIC LOG

BOREHOLE No. MW-3 Sheet 1 of 1

Project No.:	Date: 10/13/98	Drilling Co. WstHazMat Drilling	Drill Model CME 75
Client: Parker Environmental Services, Inc.		Drilling Method HSA	Borehole Diameter 8.25-in
Location: Foothill Beacon		Ground Surface Elevation unknown	Datum: ground surface
18210 Foothill Boulevard, San Leandro, California		Borehole MW-3 was completed as a monitoring well MW-3	
Logged by: GDL	Driller: DM/AV		

Water Level	11.60			
Time	12:11			
Date	10/26/98			

Sampling Blowcounts	PID/FID HNu/OVA reading	Depth feet	Sample	Soil Sample Number	Graphic Soil Symbol	USCS Soil Symbol	Field Soil Description
				MW-3			0.25 ASPHALT; 0.5 baserock
		1					
		2					
		3					At 3'Faint fuel odor.
		4				CL	
		5					
8							Black 10YR 2/1 mottled greenish gray 10Y 6/1 clay. No odor.
7		6		6.6'			
9							
		7					
		8					
		9					
		10				CL	
9							Black 10YR 2/1 mottled greenish gray 10Y 6/1 clay. No odor.
12		11		10.5'			
14							
		12					
		13					
		14					
		15					Dark yellowish brown 10YR 5/4 sandy clayey sand. No odor.
9							First Encountered Water at 16 Feet. ▽
11		16		15.5'			
14							
		17					
		18					
		19					
		20				SM/ ML	Dark yellowish brown 10YR 5/4 silty sand/sandy silt. No odor.
		21					
		22					
		23					
		24					Dark yellowish brown 10YR 5/4 stiff clay. No odor.
		25				CL	Total Well Depth = 24.97 Feet bct
							Total Depth 25

Neat Cement Grout

Bentonite Seal

2-inch PVC casing and screen.

Screen openings = 0.020 inch

Lonestar No.3 Sand