AEI CONSULTANTS
Environmental & Civil Engineering Services

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September 13, 2000

Mr. Barney Chan
Alameda County Health Care Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

Subject: **Groundwater Investigation Report**
625 Hegenberger Road
Oakland, California
AEI Project No. 20826

568

Dear Mr. Chan:

Enclosed is a copy of the groundwater investigation report for the above referenced site. Please call me at (925) 283-6000 or Joseph Derhake at (310) 798-4255 if you have any questions regarding this site.

Sincerely,

Peter McIntyre
Project Geologist

September 10, 2000

SOIL BORING AND GROUNDWATER MONITORING WELL INSTALLATION AND SAMPLING REPORT

#568

625 Hegenberger Road
Oakland, California

Project No. 20826

Prepared For

Mr. Dinesh Maniar
Diversified Investment Management Group
400 Oyster Point Boulevard, Suite 415
South San Francisco, CA 94080

Prepared By

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AEI

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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this report on behalf of Diversified Investment Management Group as part of the groundwater investigation at 625 Hegenberger Road in Oakland, California (Figure 1: Site Location Map). The investigation was performed under the direction of the Alameda County Health Care Services Agency (ACHCSA) and is part of the continued site assessment of the groundwater issues at the site.

This report describes the activities associated with the installation of two down-gradient groundwater monitoring wells and groundwater sample collection from a deeper soil boring in the center of the known contaminant plume. Additionally, this report includes the results of the groundwater monitoring and sampling episode performed on August 9, 2000.

2.0 SITE DESCRIPTION AND BACKGROUND

In October 1993, three underground storage tanks and related structures were removed from the site under the observation of Levine Fricke. Approximately 300 cubic yards (cy) of soil was excavated during the tank removal. Levine Fricke and Subsurface Consultants performed several shallow soil borings and installed six groundwater monitoring wells at the site. Results of the comprehensive soil investigation indicated that hydrocarbon contamination was present in elevated levels at the site.

The quarterly monitoring of the six monitoring wells was performed by Levine Fricke through January 1995. AEI began monitoring the wells in October 1995. In March 1996, AEI destroyed one of the wells (designated MW-24) in anticipation of excavation activities.

AEI excavated and aerated 1,600 cubic yards of contaminated soil in the spring and summer of 1996 as detailed in AEI's report, "Phase II Environmental Site Assessment" dated March 3, 1997. The excavation extended through the capillary fringe, approximately 5 to 7 feet below ground surface (bgs). Figure 2 shows the areas excavated. It was concluded after the excavation activities that the majority of the impacted soil was removed and treated. However, TPH as gasoline, benzene, and MTBE remain in the groundwater in significant concentrations. Please refer to Table 3 for historical groundwater quality data.

The excavation was backfilled with pea gravel through the capillary fringe to approximately ½ foot above static groundwater. The remainder of the excavation was filled with the treated soil.

On October 1, 1999, AEI installed one (1) 4" diameter well (EW-01) just west of the former tank hold (Figure 2). The well was screened from 5 feet below ground surface (bgs) to 22.5 feet bgs.

The well was installed in the apparent center of the hydrocarbon plume, to be used as an extraction well for groundwater treatment.

3.0 Geology and Hydrogeology

According to logs of recent soil borings advanced by AEI, the near surface sediments beneath the site consist of silty and sandy clay to approximately 10 feet bgs. First encountered static groundwater exists beneath the site between 5 and 6.5 feet bgs. The water bearing deposits in this shallow saturated zone consist of clay with fine to medium sand with angular clasts up to 2 cm in size. Sand increases with depth to approximately 16 feet bgs.

The deeper soil boring revealed silty clay mud below 16 feet. Sands and sub-angular to angular gravel increase with depth to approximately 37 feet bgs below which stiff, tight clay was encountered. Refusal conditions were encountered at 44.5 feet bgs.

Water level measurements were collected from the eight wells in order to calculate the groundwater gradient and flow direction. Based on these measurements, the groundwater beneath the site flows to the west and north. This flow direction is consistent with historical flow directions on the eastern portion of the site. The groundwater flow direction is depicted in Figure 2. Water table elevations are summarized in Table 2.

4.0 Permits

Prior to beginning drilling activities, drilling permits for the two wells and one soil boring were obtained from Alameda County Public Works Agency, Water Resources Section. Copies of permits obtained during this project are included in Appendix A.

5.0 Soil Boring

On June 1, 2000, one soil boring (AEI B-28) was advanced. The boring was placed in the apparent center of the dissolved hydrocarbon plume. The boring was advanced to investigate groundwater quality at depths beneath first groundwater. The boring was advanced to 44.5 feet bgs, at which depth refusal was encountered.

The boring was drilled with a direct-push drilling rig using a duel rod system, to limit vertical migration of groundwater. The boring was continuously logged using the United Soil Classification System (USCS) by an AEI geologist. Undisturbed soil was collected within acrylic liners within the inner rod. The outer rod was then advanced. Groundwater samples were collected

at various depths by exposing a screened interval of the inner rods within the desired water bearing deposits. Water samples were collected with a drop tube into 40 ml VOA vials. Refer to Appendix B for a log of the soil boring, including sample collection depths and field observations.

The soil and groundwater samples were sealed, labeled and stored over wet ice to await transportation to the laboratory. The samples were delivered to McCampbell Analytical, Inc. (DOHS Cert. # 1644) of Pacheco, California on June 1, 2000.

Three groundwater samples were analyzed for TPH as gasoline by EPA method 5030/8015 and benzene, toluene, ethyl-benzene, and xylenes (BTEX) and MTBE by EPA method 502/8020.

TPH as gasoline was detected at 6 feet, 20 feet, and 27 feet bgs at 150,000 µg/l, 80,000 µg/l, and 1,700 µg/l, respectively. Benzene was detected at these depths at 13,000 µg/l, 3,500 µg/l, and 29 µg/l, respectively. Please refer to Table 1 for detailed results of the water sample analysis from this boring.

6.0 Well Installation

On June 6, 2000, two additional soil borings were advanced on the western side of the property. These borings were converted to 2" groundwater monitoring wells. Please refer to Figure 2 for the locations of the wells. These borings were advanced with a hollow-stem auger drilling rig. Cuttings generated during well installation activities were stored on-site in 55-gallon drums.

The two soil borings were converted to groundwater monitoring wells (MW-26 and MW-27). The wells were constructed of 10 feet of 0.020" factory-slotted well screen and 5 feet of flush threaded blank Schedule 40 PVC casing. The well casings were installed through the hollow augers. The well screen in each well was fitted with a flush-threaded bottom cap. No. 2/12 Monterey sand was poured through the auger to form a sand pack from the bottom of the well to 2 feet above the slotted well screen. A bentonite seal was placed above the sand pack. The remainder of the boring was filled to 0.5 feet below grade with neat cement grout. A flush mounted traffic rated well box was installed over the casing, and an expanding, locking inner cap was placed on the casing top. Refer to the boring logs (Appendix B) for a visual description of the well construction.

The two newly installed wells were developed on June 20, 2000. A surge block was used prior to pumping water from the wells. Approximately 20 gallons of water were removed from each well. The water was initially turbid, but became clear by the end of the development of each well. The purged water was stored on-site in 55-gallon drums.

7.0 WELL MONITORING AND SAMPLING

The two newly installed wells, along with the six other onsite wells, were monitored and sampled on August 9, 2000. Prior to measuring groundwater depth, the wells were opened and groundwater levels were allowed to equilibrate.

Following collection of groundwater depth measurements, each of the eight wells was purged with an electric purge pump. A minimum of three well volumes were removed from each well. During the purging of the wells, groundwater parameters including temperature, pH, specific conductivity, and dissolved oxygen were monitored. Refer to Appendix C for field sampling data.

The wells were allowed to recharge to at least 90% of their original water volume prior to the collection of a sample. Samples were collected from each well using a clean, disposable bailer. Water was poured from the bailers into 40 ml VOA vials capped so that there was no head space or visible air bubbles within the sample containers. The samples were labeled and placed on ice and transported under chain of custody protocol for analysis to McCampbell Analytical Inc.

The eight groundwater samples were analyzed for TPH as gasoline by EPA method 5030/8015 and benzene, toluene, ethyl-benzene, and xylenes (BTEX) and MTBE by EPA method 502/8020.

TPH as gasoline was detected up to 6,700 µg/l, in EW-01. The highest concentrations detected of benzene and MTBE were also in this well, at 2,700 µg/l and 1,300 µg/l, respectively. No concentrations of any hydrocarbons were detected above laboratory reporting limits in the two newly installed down-gradient wells.

8.0 DEEP WELL SURVEY

A survey of deep wells within ½ mile radius of the site was performed at the Department of Water Resources (DWR) in Sacramento. Additionally, information was provided to AEI by ACHCSA regarding several reportedly abandon well field in the site area. Please refer to the following table for information on the wells identified and to Figure 2 for their locations.

Location	Site ID #	Distance (feet)	Direction	Depth (feet)	Screen Interval	Use
Fitchburg well group (20 wells?)	1	~ 2,500	Northwest	NA	NA	Municipal
Damon well group	2	~ 4,500	North	NA	NA	Municipal
Oakland Coliseum (11 wells)	3	1,000 – 2,500	Northwest	70 - 112	78 – 98	Observation
7825 San Leandro Street (1 well)	4	1,250	Northeast	510	324 – 479	Industrial
550 85th Avenue (2 wells?)	5	1,850	Southeast	448	130 – 240	Industrial

NA – Information not available

AEI

Although the screened interval of the Fitchburg and Damon well groups were not available, the other well logs indicate that the wells at the Coliseum site are screened in the 70 to 100 foot bgs range. The other two wells are screened below 100 feet deep. Although these various wells may pose as a conduit to deeper water bearing zones for near surface impacted groundwater vertical migration, these wells are all outside of the limit of impacted groundwater associated with this site. The exact locations of the abandoned former municipal well fields have not been determined; however, at this time, the dissolved hydrocarbon plume associated with this site is confined to beneath the property is each direction toward the suspected well fields. Unless further information becomes available regarding currently unknown deep wells or the hydrocarbon plume spreads from the site, AEI does not consider any of the deep wells identified to date as threatened by this site.

9.0 SUMMARY AND CONCLUSIONS

Two additional groundwater monitoring wells were installed on the down-gradient, western end of the property. Additionally a deeper soil boring was performed in the center of the impacted area. This work was performed in conjunction with continued groundwater monitoring program to investigate the lateral and vertical extent of impacted groundwater.

Groundwater flow direction in the former excavation area has been generally to the west and northwest. Two additional wells were installed on the western portion of the property. Groundwater samples collected from these wells showed no detectable concentrations of TPH as gasoline, BTEX compounds, or MTBE. Based on this, the extent of impacted groundwater has been defined in the down-gradient (westerly) direction.

A deeper soil boring was performed in the apparent center of the dissolved hydrocarbon plume. Three groundwater samples were collected from what appeared to be the first (near surface) groundwater bearing zone. The samples showed concentrations of hydrocarbons present at depths of 27 feet bgs, but did show a significant decline in concentrations at this depth from the top of the aquifer. Although refusal was encountered before the next groundwater bearing zone was encountered, stiff clay and silty clay existed beneath the first water bearing deposits. The logs of a boring performed approximately 2,300 north/northwest of the site also indicated a stiff clay layer from approximately 28 feet bgs to the next zone bearing free water at approximately 55 feet bgs. If this log can be assumed to be generally representative of deposits under this site, it is apparent that an aquitard is present below 28 to 37 feet bgs, which would limit the vertical migration of hydrocarbons through to the next deeper aquifer.

Although several sites within one mile of this property have deep wells, the hydrocarbon plume beneath the subject property appears to be confined to beneath the property, the groundwater

gradient is relatively flat, and unless further information becomes available or the plume becomes unstable, these deep wells will not be considered threatened by this site.

Concentrations of TPH as gasoline, benzene, and MTBE have been persistent in the shallow groundwater. Dissolved oxygen content is approximately 1 mg/l lower in the hydrocarbon impacted wells than the two down-gradient non-impacted wells. Low dissolved oxygen content in the center of the plume may be limiting the natural bio-degradation of dissolved hydrocarbons.

AEI will continue to monitor the groundwater quality in the on-site wells during the installation and operation of the proposed groundwater treatment system. The samples collected from the wells will be monitored for dissolved oxygen content and the samples will be analyzed for TPH as gasoline with BTEX and MTBE. Samples with MTBE detected will be analyzed ~~by~~ for fuel oxygenates by EPA method 8260B. The next episode of monitoring and sampling is scheduled for November 2000.

10.0 Report Limitations and Signatures

This report presents a summary of work completed by AEI, including observations and descriptions of site conditions. Where appropriate, it includes analytical results for samples taken during the course of the work. The number and location of samples are chosen to provide required information, but it cannot be assumed that they are entirely representative of all areas not sampled. All conclusions and recommendations are based on these analyses, observations, and the governing regulations. Conclusions beyond those stated and reported herein should not be inferred from this document.

These services were performed in accordance with generally accepted practices in the environmental engineering and construction field that existed at the time and location of the work.

Sincerely,
AEI Consultants

Peter McIntyre
Project Geologist

Joseph P. Derhake, PE
Principal

AEI

SOURCE:
USGS SAN LEANDRO QUAD
SCALE: 1: 24,000

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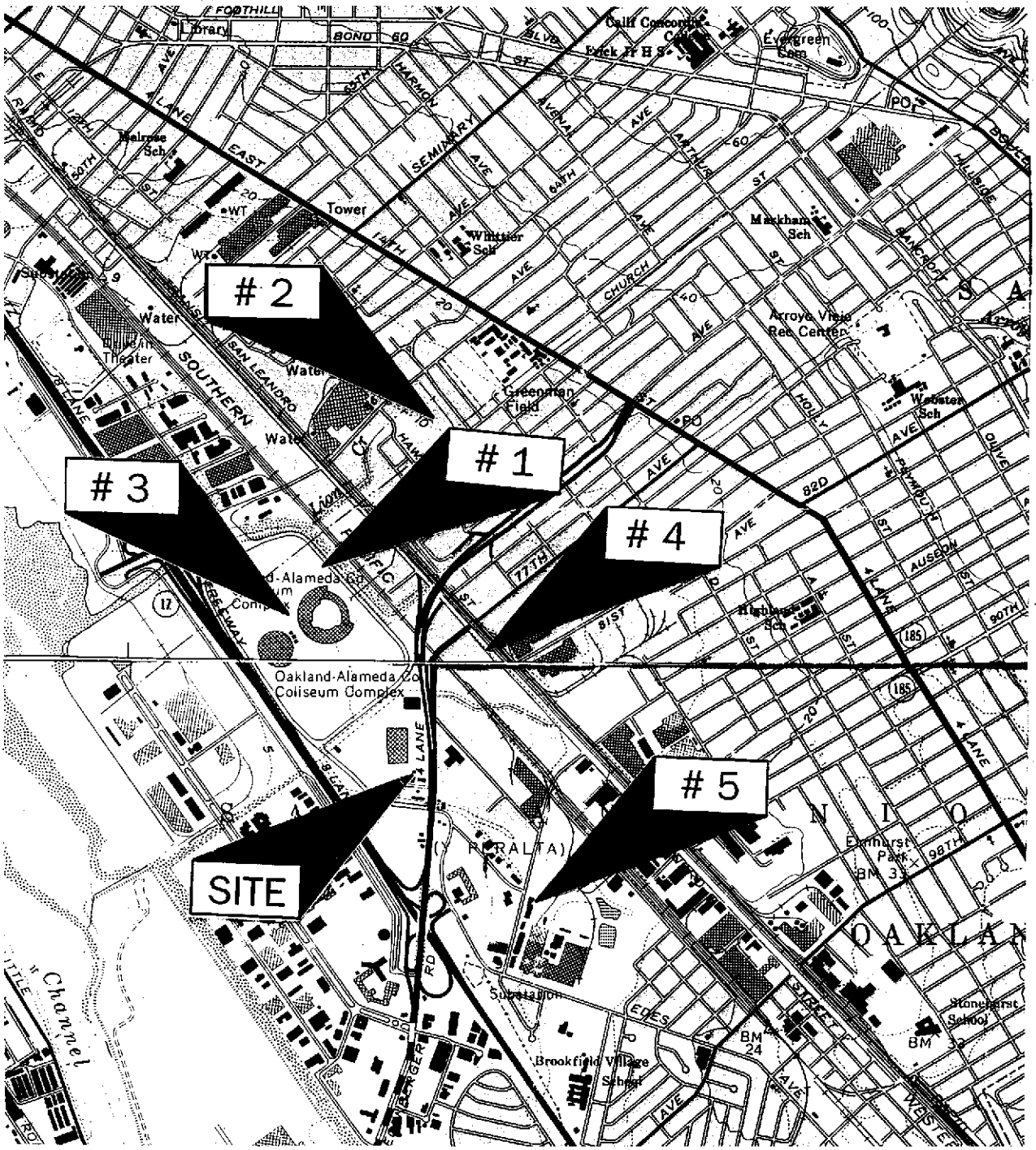
3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE LOCATION MAP

625 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

FIGURE 1
PROJECT NO. 20826



SOURCE:
USGS OAKLAND EAST AND
SAN LEANDRO QUADS
SCALE: 1 in = 2,000 ft.

Please refer to Page 5 for details on the site numbers identified above.

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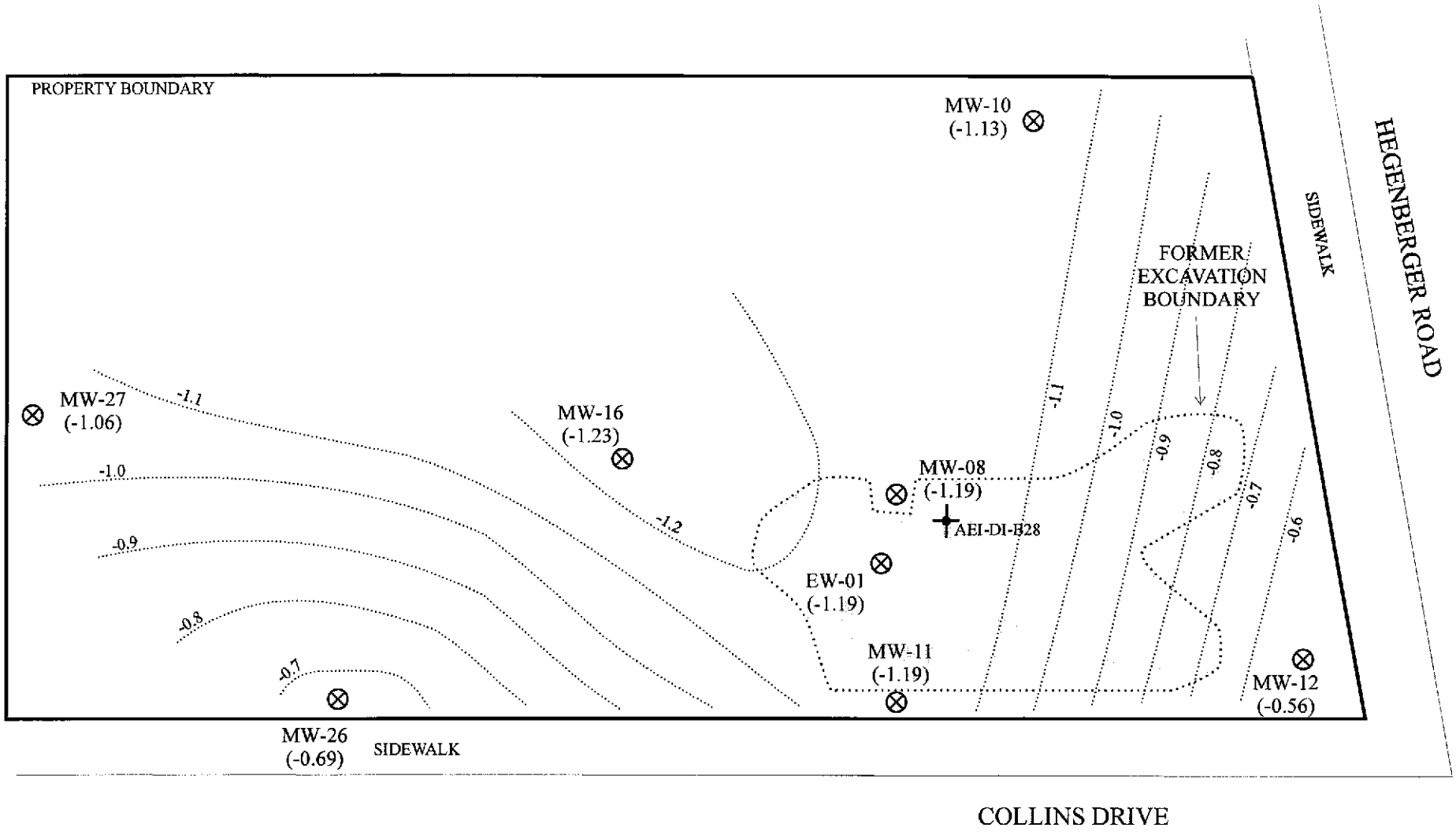
3210 OLD TUNNEL RD, STE B, LAFAYETTE, CA

DEEP WELL LOCATIONS

625 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

FIGURE 2
PROJECT NO. 20826



⊗ MONITORING WELL LOCATIONS WITH GROUNDWATER ELEVATIONS SHOWN IN PARENTHESES

-1.1 GROUNDWATER ELEVATION CONTOUR SHOWN IN FEET ABOVE MEAN SEA LEVEL -8/9/00

✦ DEEP BORING LOCATION

SCALE: 1 in. = 45 ft.

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3210 OLD TUNNEL ROAD, SUITE B, LAFAYETTE, CA

SITE PLAN WITH WATER TABLE CONTOURS

625 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

FIGURE 3
PROJECT NO 20826

Table 1

Groundwater Analytical Data: AEI B-28

June 8, 2000

Sample ID	TPH as gasoline µg/L	MTBE µg/L	Benzene µg/L	Toluene µg/L	Ethyl-benzene µg/L	Xylenes µg/L
DB-6'	150,000	<3,300 (TOO HI)	13,000	15,000	3,400	23,000
DB-20'	80,000	<600 (DL)	3,500	8,900	1,800	13,000
DB-27'	1,700	<5	29	82	28	220
MDL	50	5	0.5	0.5	0.5	0.5

MDL = Method Detection Limit

ND = Not detected above the Method Detection Limit (unless otherwise noted)

µg/L = micrograms per liter (ppb)

mg/L = milligrams per liter (ppm)

* = This sample was reanalized by EPA method 8260 for fuel oxygenates ← which sample ?

Table 2
Groundwater Elevations
625 Hegenberger Road, Oakland, California

Well ID	Date	Well Elevation (ft msl)	Depth to Water (ft)	Groundwater Elevation (ft msl)
MW-8	12/22/93	4.88	6.72	-1.84
MW-10	12/22/93	4.21	6.00	-1.79
MW-11	12/22/93	5.04	6.84	-1.80
MW-12	12/22/93	4.58	6.07	-1.49
MW-16	12/22/93	5.53	7.48	-1.95
MW-8	6/30/94	4.88	6.55	-1.67
MW-10	6/30/94	4.21	5.79	-1.58
MW-11	6/30/94	5.04	6.73	-1.69
MW-12	6/30/94	4.58	6.06	-1.48
MW-16	6/30/94	5.53	7.28	-1.75
MW-8	9/27/94	4.88	7.20	-2.32
MW-10	9/27/94	4.21	6.39	-2.18
MW-11	9/27/94	5.04	7.41	-2.37
MW-12	9/27/94	4.58	6.57	-1.99
MW-16	9/27/94	5.53	7.93	-2.40
MW-8	1/4/95	4.88	6.21	-1.67
MW-10	1/4/95	4.21	5.42	-1.58
MW-11	1/4/95	5.04	6.45	-1.69
MW-12	1/4/95	4.58	5.50	-1.48
MW-16	1/4/95	5.53	7.03	-1.50
MW-8	1/10/95	4.88	5.09	-2.32
MW-10	1/10/95	4.21	4.67	-2.18
MW-11	1/10/95	5.04	5.72	-2.37
MW-12	1/10/95	4.58	4.46	-1.99
MW-16	1/10/95	5.53	6.21	-2.40
MW-24	1/10/95	5.49	5.97	-0.48
MW-8	10/2/95	4.88	7.66	-2.78
MW-10	10/2/95	4.21	6.87	-2.66
MW-11	10/2/95	5.04	7.85	-2.81
MW-12	10/2/95	4.58	6.99	-2.41
MW-16	10/2/95	5.53	8.40	-2.87
MW-24	10/2/95	5.49	8.31	-2.82
MW-8	1/8/96	4.88	7.45	-2.57
MW-10	1/8/96	4.21	6.82	-2.61
MW-11	1/8/96	5.04	7.91	-2.87
MW-12	1/8/96	4.58	6.65	-2.07
MW-16	1/8/96	5.53	8.23	-2.70
MW-24	1/8/96	5.49	8.08	-2.59
MW-8	4/25/96	4.88	7.32	-2.44
MW-10	4/25/96	4.21	7.48	-3.27
MW-11	4/25/96	5.04	7.51	-2.47
MW-12	4/25/96	4.58	6.56	-1.98
MW-16	4/25/96	5.53	8.06	-2.53
MW-8	3/25/97	4.88	6.75	-1.87
MW-10	3/25/97	4.21	5.83	-1.62
MW-11	3/25/97	5.04	6.83	-1.79
MW-12	3/25/97	4.58	6.03	-1.45
MW-16	3/25/97	5.53	7.35	-1.82
MW-8	7/3/97	4.88	8.70	-3.82
MW-10	7/3/97	4.21	5.87	-1.66
MW-11	7/3/97	5.04	6.83	-1.79
MW-12	7/3/97	4.58	6.03	-1.45
MW-16	7/3/97	5.53	7.35	-1.82
MW-8	10/2/97	4.88	6.70	-1.82
MW-10	10/2/97	4.21	5.90	-1.69
MW-11	10/2/97	5.04	6.85	-1.81
MW-12	10/2/97	4.58	6.08	-1.50
MW-16	10/2/97	5.53	7.36	-1.83
MW-8	1/28/98	4.88	5.20	-0.32
MW-10	1/28/98	4.21	4.40	-0.19
MW-11	1/28/98	5.04	5.33	-0.29
MW-12	1/28/98	4.58	4.54	-0.04
MW-16	1/28/98	5.53	5.90	-0.37
MW-8	2/9/00	4.88	5.12	-0.24
MW-10	2/9/00	4.21	5.25	-1.04
MW-11	2/9/00	5.04	6.25	-1.21
MW-12	2/9/00	4.58	5.33	-0.75
MW-16	2/9/00	5.53	6.81	-1.28
MW-8	8/9/00	3.96	5.15	-1.19
MW-10	8/9/00	4.20	5.33	-1.13
MW-11	8/9/00	5.01	6.20	-1.19
MW-12	8/9/00	4.58	5.14	-0.56
MW-16	8/9/00	5.51	6.74	-1.23
MW-26	8/9/00	5.12	5.81	-0.69
MW-27	8/9/00	4.06	5.12	-1.06
EW-01	8/9/00	5.19	6.38	-1.19

Notes: All elevations are measured from the top of casing.
ft msl = feet above mean sea level
NA = Not Available
All well elevations were re-surveyed 9/5/00 by Logan Survey (lic. # 5003)

Table 3
Water Quality Parameters
625 Hegenberger Road, Oakland, California

Well ID	Date	Well Volume (gallons)	Volume Withdrawn (gallons)	Well Volumes Withdrawn	Stabilized Temperature (deg. C)	Qualitative Turbidity	Stabilized pH	Stabilized Dissolved Oxygen (mg/L)	Stabilized Redox Potential (mV)	N (mg/L)	P (mg/L)	K (mg/L)
MW-8	12/22/93	1.5	4.50	3.00	19.40	turbid*						
MW-10	12/22/93	1.6	7.00	4.38	20.80	moderately turbid						
MW-11	12/22/93	1.5	4.50	3.00	20.20	turbid						
MW-12	12/22/93	1.6	5.30	3.31	20.30	moderately turbid						
MW-16	12/22/93	1.1	4.50	4.09	20.50	turbid						
MW-8	6/30/94	1.5	8.00	5.33	21.00	turbid*						
MW-10	6/30/94	1.6	6.00	3.75	21.00	turbid						
MW-11	6/30/94	1.4	6.00	4.29	20.20	turbid						
MW-12	6/30/94	1.6	6.00	3.75	20.60	moderately turbid						
MW-16	6/30/94	1.1	4.50	4.09	21.80	turbid						
MW-8	9/27/94	1.4	4.50	3.21	21.60	turbid*						
MW-10	9/27/94	1.5	6.00	4.00	22.60	turbid						
MW-11	9/27/94	1.3	3.00	2.31	21.00	turbid						
MW-12	9/27/94	1.5	6.00	4.00	22.50	turbid						
MW-16	9/27/94	1.0	3.00	3.00	22.60	turbid						
MW-8	1/10/95	1.7	5.30	3.12	17.20	turbid*						
MW-10	1/10/95	1.8	6.00	3.33	19.50	turbid						
MW-11	1/10/95	1.6	5.30	3.31	18.60	turbid						
MW-12	1/10/95	1.8	6.00	3.33	19.30	turbid						
MW-16	1/10/95	1.2	6.00	5.00	19.30	turbid						
MW-24	1/10/95	4.9	41.00	8.37	18.90	turbid						
MW-8	10/2/95	1.1	11.00	10.00	22.80	moderately turbid	6.49					
MW-10	10/2/95	1.5	11.00	7.33	22.60	turbid	7.20					
MW-11	10/2/95	1.0	12.00	12.00	22.00	moderately turbid	6.85					
MW-12	10/2/95	1.3	11.00	8.46	22.90	turbid	7.20					
MW-16	10/2/95	1.1	11.00	10.00	22.60	turbid	7.20					
MW-24	10/2/95	3.4	20.00	5.88	22.80	turbid	7.10					
MW-8	1/8/96	1.1	12.00	10.91	17.30**	slightly turbid	6.74**					
MW-10	1/8/96	1.5	10.00	6.67	17.90**	slightly turbid	6.62**					
MW-11	1/8/96	1.0	5.50	5.50	17.60**	slightly turbid	6.65**					
MW-12	1/8/96	1.2	10.00	8.33	18.00**	slightly turbid	6.49**					
MW-16	1/8/96	0.9	5.00	5.56	19.00**	slightly turbid	7.50**					
MW-24	1/8/96	3.4	35.00	10.29	17.60**	slightly turbid	6.67**					
MW-8	4/25/96	1.1	5.00	4.55	21.11	clear	6.53					
MW-10	4/25/96	1.4	5.00	3.57	22.83	slightly turbid	6.70					
MW-11	4/25/96	1.1	5.50	5.00	21.39	clear	6.58					
MW-12	4/25/96	1.2	5.00	4.17	22.39	clear	6.50					
MW-16	4/25/96	1.2	5.00	4.17	25.33	slightly turbid	7.12					
MW-8	3/25/97	2.2	10.00	4.55	18.17	clear	6.67	0.23	-140.00			
MW-10	3/25/97	3.4	12.00	3.57	19.72	slightly turbid	6.79	0.33	-131.00			
MW-11	3/25/97	2.0	10.00	5.00	18.56	clear	6.64	0.19	-120.00			
MW-12	3/25/97	2.4	10.00	4.17	18.44	clear	6.67	0.19	-79.00			
MW-16	3/25/97	2.4	10.00	4.17	17.94	slightly turbid	7.02	0.10	-135.00			
MW-8	7/3/97	1.1	12.00	10.91	19.58	clear	6.43	0.04	-99.00	<0.5	1.8	
MW-10	7/3/97	1.5	12.00	8.00	21.51	slightly turbid	6.67	0.17	-104.00			
MW-11	7/3/97	1.4	12.00	8.57	19.38	clear	6.36	0.05	-84.00	<0.5	1.8	
MW-12	7/3/97	1.5	12.00	8.00	20.62	clear	6.50	0.10	-76.00			
MW-16	7/3/97	1.0	12.00	12.00	19.66	clear	6.76	0.06	-103.00			
MW-8	10/2/97	1.1	4.50	4.09	21.23	clear	6.93	NA	NA			
MW-10	10/2/97	1.4	5.00	3.57	23.04	slightly turbid	7.26	NA	NA			
MW-11	10/2/97	1.1	7.00	6.36	22.94	clear	6.73	NA	NA			
MW-12	10/2/97	1.2	4.50	3.75	20.94	clear	7.15	NA	NA			
MW-16	10/2/97	1.2	7.00	5.83	19.11	slightly turbid	7.22	NA	NA			
MW-8	1/28/98	2.5	15.00	6.00	18.53	slightly greenish	6.86	0.10	-132.00			
MW-10	1/28/98	2.7	15.00	5.56	20.89	moderately turbid	7.05	0.09	-133.00			
MW-11	1/28/98	2.5	15.00	6.00	20.12	slightly greenish	6.74	0.11	-72.00			
MW-12	1/28/98	2.6	14.00	5.38	19.83	moderately turbid	6.90	0.11	-105.00			
MW-16	1/28/98	2.4	16.00	6.67	19.08	slightly turbid	7.20	0.18	-51.00			
MW-8	2/9/00	1.5	5.00	3.30	63.00***	slightly greenish	8.35	1.24	NA	19	3.4	35
MW-10	2/9/00	1.7	5.00	3.00	67.70	slightly turbid	8.56	0.70	NA	15	6.4	66
MW-11	2/9/00	1.6	5.00	3.20	63.50	slightly turbid	8.35	0.62	NA	<0.2	2.1	49
MW-12	2/9/00	1.6	5.00	3.10	62.80	clear	8.41	1.28	NA	10	3.1	33
MW-16	2/9/00	0.9	5.00	5.50	63.20	slightly turbid	8.63	3.13	NA	<0.2	1.8	12
EW-01	2/9/00	10.4	32.00	3.07	60.00	slightly turbid	8.48	0.51	NA	21	1.7	51
MW-8	8/9/00	1.5	5.00	3.37	18.85	Slightly turbid	6.68	1.55	NA			
MW-10	8/9/00	1.7	5.00	3.03	21.85	Turbid - clears	6.68	1.63	NA			
MW-11	8/9/00	1.4	5.50	3.93	19.65	Slightly turbid	6.48	1.48	NA			
MW-12	8/9/00	1.7	5.00	3.01	21.32	clear	6.72	1.69	NA			
MW-16	8/9/00	0.9	4.00	4.35	20.50	Turbid - clears	6.62	1.33	NA			
MW-26	8/9/00	1.5	5.00	3.40	21.27	Turbid - clears	6.99	2.78	NA			
MW-27	8/9/00	1.6	5.00	3.18	24.44	clear	6.93	2.21	NA			
EW-01	8/9/00	10.5	31.00	2.96	18.37	Turbid - clears	6.69	1.32	NA			

? Why no readings

Notes:
* A slight hydrocarbon sheen was reported.
** Only one measurement collected.
*** Temperature expressed in degrees Farenheight
N = Nitrogen (total)
P = Phosphorous (total)
K = Potassium

Table 4
Historic Groundwater Monitoring Data
625 Hegenberger Road, Oakland, California
(concentrations in mg/L)

Well ID	Date	Consultant/ Lab		TPHg	MTBE	Benzene	Toluene		Ethyl-Benzene	Xylenes	TPHo	TPHd	Total Lead
MW-8	(1)	SUB	(2)	NA	NA	3.7	BDL		0.29	0.69	NA	NA	BDL
	5/28/93	HC/SUP		19	NA	6.4	0.028		0.16	0.036	NA	1	(3)
	12/22/93	LF/AEN	(4)	56	NA	16	5.9993	(5)	0.65	2.7	<0.2	0.3	<0.04
	6/30/94	LF/AEN	(4)	41	NA	11	4.8		2.2	8.2	0.5	<0.5	<0.04
	9/27/94	LF/AEN		28	NA	8.5	0.26		1.6	5.3	<0.2	0.62	<0.04
	1/10/95	LF/AEN		58	NA	10	11		2.4	12	<0.2	0.07	NA
	10/2/95	AEI/PEL		28	NA	0.051	0.016		0.054	0.08	<0.5	<0.05	NA
	1/8/96	AEI/MAI		72	NA	8.6	13		2.2	12	<0.25	3.7	NA
duplicate	1/8/96	AEI/MAI		62	NA	7.2	9.5		1.6	8	NA	NA	NA
	4/25/96	AEI/MAI		33	NA	7.6	2.3		1.5	4.8	NA	3.1	NA
	3/25/97	AEI/MAI		23	1.5	8.3	0.08		0.35	0.38	NA	1.9	NA
	7/3/97	AEI/MAI		14	1.3	6.6	0.032		0.19	0.1	NA	1.4	NA
duplicate	7/3/97	AEI/MAI		15	1.7	7.3	0.034		0.16	0.11	NA	1.4	NA
	10/2/97	AEI/MAI		7.6	0.89	3.5	0.014		0.037	0.021	NA	0.81	NA
	1/28/98	AEI/MAI		21	0.9	5.5	0.27		0.73	0.78	NA	2.7	NA
	9/9/99	AEI/MAI		2.5	0.38	0.79	0.0028		0.0047	0.008	NA	NA	NA
	2/9/00	AEI/MAI		39	0.46	6.4	4.3		0.95	0.39	NA	NA	NA
	8/9/00	AEI/MAI		**5.5**	**0.54**	**1.7**	**0.015**		**0.13**	**0.37**	**NA**	**NA**	**NA**
MW-10	(1)	SUB		NA	NA	0.0017	BDL		BDL	BDL	NA	NA	BDL
	5/28/93	HC/SUP		<0.05	NA	<0.0003	<0.0003		<0.0003	<0.0009	NA	0.054	(3)
	12/22/93	LF/AEN		<0.05	NA	<0.0005	<0.0007	(5)	<0.0005	<0.0002	<0.2	0.58	<0.04
	6/30/94	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	0.6	<0.05	<0.04
	9/27/94	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	<0.2	0.61	<0.04
	1/10/95	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	<0.2	0.6	NA
	10/2/95	AEI/PEL		0.35	NA	0.0044	0.0026		0.0023	0.0064	<0.5	<0.05	NA
	1/8/96	AEI/MAI		0.05	NA	0.0058	0.0071		0.0012	0.0064	<0.25	<0.05	NA
	4/25/96	AEI/MAI		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	3/25/97	AEI/MAI		<0.05	<0.005	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	7/3/97	AEI/MAI		<0.05	<0.005	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	10/2/97	AEI/MAI		<0.05	<0.005	<0.0005	<0.0005		<0.0005	<0.0005	NA	0.11	NA
	1/28/98	AEI/MAI		<0.05	<0.005	0.0057	<0.0005		<0.0005	<0.0005	NA	ND	NA
	8/19/99	AEI/MAI		<0.05	<0.005	0.0057	<0.0005		<0.0005	<0.0005	NA	NA	NA
	2/9/00	AEI/MAI		<0.05	<0.005	0.0057	<0.0005		<0.0005	<0.0005	NA	NA	NA
	8/9/00	**AEI/MAI**		**<0.05**	**<0.005**	**0.0057**	**<0.0005**		**<0.0005**	**<0.0005**	**NA**	**NA**	**NA**
MW-11	(1)	SUB	(6)	NA	NA	0.053	BDL		BDL	BDL	NA	NA	0.21
	5/28/93	HC/SUP		1.2	NA	0.45	0.017		0.0015	0.0021	NA	<0.05	(3)
	12/22/93	LF/AEN		9.2	NA	4.5	0.0383	(5)	0.012	0.043	<0.2	0.53	<0.04
	6/30/94	LF/AEN		8.8	NA	1.5	0.013		0.69	1.2	1.1	<0.05	<0.04
duplicate	6/30/94	LF/AEN		9.7	NA	1.7	0.014		0.73	1.3	NA	NA	NA
	9/27/94	LF/AEN		15	NA	6.5	0.026		0.87	0.59	<0.2	0.91	<0.04
	1/10/95	LF/AEN		14	NA	0.89	0.22		0.84	2.4	0.2	1.1	NA
	10/2/95	AEI/PEL		7.1	NA	0.047	0.0057		0.011	0.036	<0.5	<0.05	NA
	1/8/96	AEI/MAI		12	NA	1.2	0.099		0.79	1.4	<0.25	2	NA
	4/25/96	AEI/MAI		5.8	NA	0.23	0.059		0.2	0.77	NA	1.4	NA
	3/25/97	AEI/MAI		0.76	0.13	0.13	0.049		0.0029	0.001	NA	0.49	NA
	7/3/97	AEI/MAI		0.29	0.38	<0.0005	<0.0005		0.6	<0.0005	NA	<0.05	NA
	10/2/97	AEI/MAI		0.22	0.72	0.0088	0.00073		<0.0005	0.00067	NA	0.22	NA
	1/28/98	AEI/MAI		0.54	0.36	0.14	0.00081		<0.0005	<0.0005	NA	0.16	NA
	8/19/99	AEI/MAI		0.59	0.72	0.18	0.0032		<0.0005	<0.0005	NA	NA	NA
	2/9/00	AEI/MAI		0.68	0.28	0.1	0.0031		<0.0005	0.0029	NA	NA	NA
	8/9/00	**AEI/MAI**		**0.35**	**0.41**	**0.0017**	**0.0026**		<0.0005	**0.00084**	**NA**	**NA**	**NA**
MW-12	(1)	SUB		NA	NA	0.0017	BDL		BDL	BDL	NA	NA	BDL
	5/28/93	HC/SUP		<0.05	NA	<0.0003	<0.0003		<0.0003	<0.0009	NA	<0.05	(3)
	12/22/93	LF/AEN		0.05	NA	<0.0005	<0.0007	(5)	<0.0005	<0.0002	<0.2	0.3	<0.04
	6/30/94	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	0.4	<0.05	<0.04
	9/27/94	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	<0.2	0.4	<0.04
duplicate	9/27/94	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	NA	NA	NA
	1/10/95	LF/AEN		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0002	<0.2	0.3	NA
	10/2/95	AEI/PEL		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0005	<0.5	<0.05	NA
	1/8/96	AEI/MAI		<0.05	NA	0.0024	0.0027		0.00054	0.0028	<0.25	<0.05	NA
	4/25/96	AEI/MAI		<0.05	NA	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	3/25/97	AEI/MAI		<0.05	0.016	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	7/3/97	AEI/MAI		<0.05	0.016	<0.0005	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	10/2/97	AEI/MAI		<0.05	0.017	<0.0005	<0.0005		<0.0005	<0.0005	NA	0.12	NA
	1/28/98	AEI/MAI		<0.05	0.013	0.0013	<0.0005		<0.0005	<0.0005	NA	<0.05	NA
	8/19/99	AEI/MAI		<0.05	0.0091	<0.0005	<0.0005		<0.0005	<0.0005	NA	NA	NA
	2/9/00	AEI/MAI		<0.05	0.0062	<0.0005	<0.0005		<0.0005	<0.0005	NA	NA	NA
	8/9/00	**AEI/MAI**		**<0.05**	**0.0064**	**<0.0005**	**<0.0005**		**<0.0005**	**<0.0005**	**NA**	**NA**	**NA**

Table 4
Historic Groundwater Monitoring Data
625 Hegenberger Road, Oakland, California
(concentrations in mg/L)

Well ID	Date	Consultant/ Lab		TPHg	MTBE	Benzene	Toluene		Ethyl Benzene	Xylenes	TPHo	TPHd	Total Lead
MW-16	(1)	SUB	(7)	NA	NA	BDL	BDL		BDL	BDL	NA	NA	BDL
	5/28/93	HC/SUP		<0.05	NA	0.0028	<0.0003		<0.0007	<0.0009	NA	<0.05	(3)
	12/22/93	LF/AEN		2.2	NA	<0.0005	<0.0007	(5)	<0.0005	<0.0002	<0.2	0.52	<0.04
	6/30/94	LF/AEN		<0.05	NA	0.008	<0.0005		<0.0005	<0.0002	0.9	<0.05	<0.04
	9/27/94	LF/AEN		0.07	NA	0.017	<0.0005		<0.0005	<0.0002	<0.2	0.59	<0.04
	1/10/95	LF/AEN		0.3	NA	0.19	<0.0005		<0.0005	<0.0002	<0.2	0.7	NA
	10/2/95	AEI/PEL		0.55	NA	0.0077	0.0007		0.0035	0.013	<0.5	<0.05	NA
	1/8/96	AEI/MAI		0.36	NA	<0.0005	<0.0005		0.004	0.0097	<0.25	0.14	NA
	4/25/96	AEI/MAI		1.1	NA	0.39	0.0037		0.0032	0.014	NA	0.33	NA
	3/25/97	AEI/MAI		0.31	2.1	<0.0005	<0.0005		<0.0005	0.0014	NA	0.12	NA
	7/3/97	AEI/MAI		0.25	1.9	<0.0005	<0.0005		<0.0005	<0.0005	NA	0.13	NA
	10/2/97	AEI/MAI		0.29	2	<0.0005	<0.0005		<0.0005	<0.0005	NA	0.18	NA
	1/28/98	AEI/MAI		0.15	1.9	<0.0005	<0.0005		<0.0005	<0.0005	NA	0.13	NA
	9/9/99	AEI/MAI		<0.05	0.88	<0.0005	<0.0005		<0.0005	<0.0005	NA	NA	NA
	2/9/00	AEI/MAI		<0.05	0.088	<0.0005	0.0006		<0.0005	0.00087	NA	NA	NA
	8/9/00	**AEI/MAI**		**<0.05**	**0.80**	**<0.0005**	**<0.0005**		**<0.0005**	**<0.0005**	**NA**	**NA**	**NA**
MW-24	1/10/95	LF/AEN		31	NA	12	1.9		1.1	1.3	0.2	0.9	NA
duplicate	1/10/95	LF/AEN		31	NA	12	2		1.1	1.3	0.2	0.8	NA
	10/2/95	AEI/PEL		8.6	NA	0.044	0.011		0.012	0.04	<0.5	<0.05	NA
	1/8/96	AEI/MAI	(8)	22	NA	8.8	0.14		0.5	0.28	<0.25	1.5	NA
EW-01	2/9/00	AEI/MAI		2.6	0.75	0.8	0.048		0.021	0.091	NA	NA	NA
	8/9/00	**AEI/MAI**		**6.7**	**1.3**	**2.7**	**0.019**		**0.12**	**0.031**	**NA**	**NA**	**NA**
MW-26	**8/9/00**	**AEI/MAI**		**<0.05**	**<0.005**	**<0.0005**	**<0.0005**		**<0.0005**	**<0.0005**	**NA**	**NA**	**NA**
MW-27	**8/9/00**	**AEI/MAI**		**<0.05**	**<0.005**	**<0.0005**	**<0.0005**		**<0.0005**	**<0.0005**	**NA**	**NA**	**NA**
Blanks													
Trip Blank	5/28/93	HC/SUP		<0.05		<0.0003	<0.0003		<0.0003	<0.0009	NA	NA	BDL
MW-12-BB	12/22/93	LF/AEN		<0.05		<0.0005	0.0007		<0.0005	<0.0002	NA	NA	(3)
MW-16-BB	12/22/93	LF/AEN		NA		NA	NA		NA	NA	NA	NA	<0.04
MW-12-BB	6/30/94	LF/AEN		<0.05		<0.0005	<0.0005		<0.0005	<0.0002	NA	NA	<0.04
MW-12-BB	9/27/94	LF/AEN		<0.05		<0.0005	<0.0005		<0.0005	<0.0002	NA	NA	NA
Trip Blank	9/27/94	LF/AEN		<0.05		<0.0005	<0.0005		<0.0005	<0.0002	NA	NA	NA
MW-11-BB	1/10/95	LF/AEN		<0.05		<0.0005	<0.0005		<0.0005	<0.0002	NA	NA	NA

Notes

BDL	below detection limit
NA	not analyzed
NS	not sampled
TPHd	total petroleum hydrocarbons as diesel
TPHg	total petroleum hydrocarbons as gasoline
TPHo	total petroleum hydrocarbons as oil
MTBE	methyl tertiary butyl ether
AEN	American Environmental Networks, Pleasant Hill, California
HC	HartCrowser, San Francisco, California
LF	Levine Fricke, Emeryville, California
SUB	Subsurface Consultants, Oakland, California
SUP	Superior Analytical Laboratories, Martinez, California
AEI	All Environmental, Inc., Lafayette, California
PEL	Priority Analytical Laboratories, Milpitas, California
MAI	McCampbell Analytical Inc., Pacheco, California
(1)	Date of groundwater sampling unavailable.
(2)	18 mg/ total volatile hydrocarbons also detected
(3)	All May 1993 samples also analyzed for total organic lead (DHS Method). The compound was not detected above the detection limit of 4 mg/l.
(4)	A slight hydrocarbon sheen was observed on the surface of the well water.
(5)	Toluene detection for 22-Dec-93 were qualified using 0.0007 mg/l as a baseline. The bailer blank (MW-12-BB) contained toluene at 0.0007 mg/l.
(6)	0.24 mg/l total volatile hydrocarbons also detected
(7)	0.38 mg/l total volatile hydrocarbons also detected
(8)	Well Mw-24 was abandoned on April 5, 1996.

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 525 Hegenberger Rd
Oakland, California

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

CLIENT
Name Dinesh Manian
Address 400 Oyster Pt Blvd Phone _____
City S. San Francisco CA Zip 94080

APPLICANT
Name AEI Consultants Fax 925 283-6000 6121
Address 2500 Old Tunnel Rd Phone 925 283-6000
City Lafayette CA Zip 94549

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE

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

DRILLING METHOD:

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

DRILLER'S LICENSE NO. 706 927

WELL PROJECTS
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

GEOTECHNICAL PROJECTS
Number of Borings 2 Maximum
Hole Diameter 2 in. Depth 50 ft.

ESTIMATED STARTING DATE 4/24/00
ESTIMATED COMPLETION DATE 4/24/00

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

APPLICANT'S SIGNATURE _____ DATE 4/13/00

FOR OFFICE USE

PERMIT NUMBER WO0-187
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 Frank L Codd DATE 4-21-00

Post-it® Fax Note 7671	Date 4-20	# of pages ▶ 1
To Carrie	From Lucy	
Co./Dept.	Co.	
Phone #	Phone #	
Fax # 925 283 6121	Fax #	

*** TOTAL PAGE.01 ***

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 625 Hegenberger Rd
Oakland, California

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

CLIENT
Name Dinesh Manian
Address 400 Oyster Pt Blvd Phone
City S. San Francisco CA Zip 94080

APPLICANT
Name AEI Consultants Fax 925 283-6000 6121
Address 3210 Old Tunnel Rd Phone 925 283-6000
City Lafayette CA Zip 94549

TYPE OF PROJECT

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

PROPOSED WATER SUPPLY WELL USE

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

DRILLING METHOD:

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

DRILLER'S LICENSE NO. 485-165

WELL PROJECTS
Drill Hole Diameter 10 in. Maximum Depth 20 ft.
Casing Diameter 2 in. Number 2
Surface Seal Depth 3 ft.

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

ESTIMATED STARTING DATE 4/24/00
ESTIMATED COMPLETION DATE 4/20/00

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

APPLICANT'S SIGNATURE _____ DATE 4/13/00

FOR OFFICE USE

PERMIT NUMBER W00-188
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 Hank L Cobb DATE 4-21-00

Post-it® Fax Note 7671 | Date 4-20 | # of pages ▶ 1
To Carrie | From Chris
Co./Dept. | Co.
Phone # | Phone #
Fax # 925 283 6121 | Fax #

*** TOTAL PAGE.01 ***

Project No: 20826

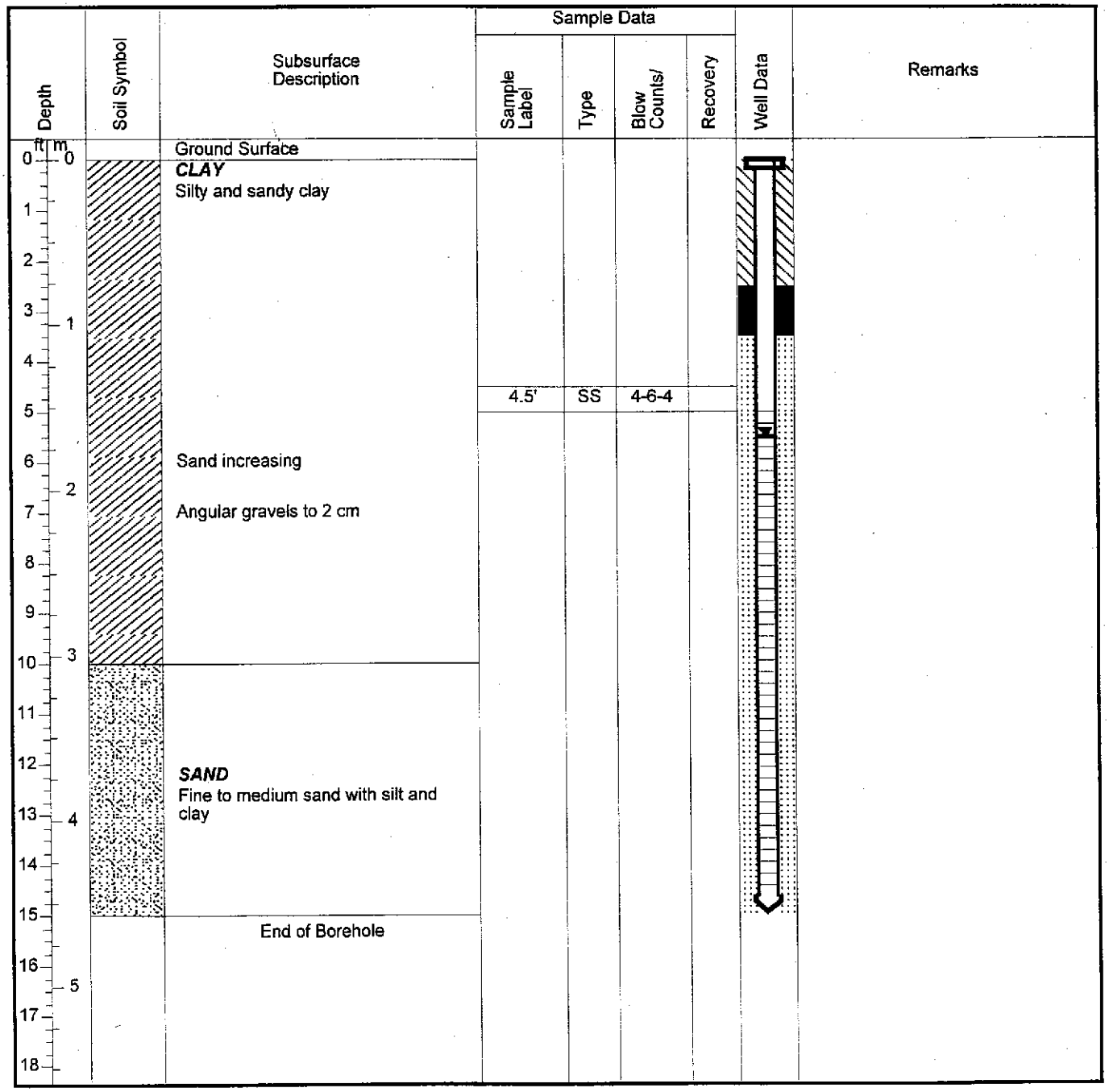
Sheet: 1 of 1

Project Name: Hegenberger

Client: Diversified

Location:

Log of Borehole: MW-26



Drill Date 6/1/00

Drill Method: HOLLOW AUGER

Total Depth: 15

Depth to Water: 5.5

Reviewed by: JPD

Logged by: PJM

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Project No: 20826

Sheet: 1 of 1

Project Name: Hegenberger

Client: Diversified

Location:

Log of Borehole: MW-27

Depth (ft)	Depth (m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
0	0		Ground Surface						
0–10	0–3		***CLAY*** Silty and sandy clay. Sand and gravel present						
10–15	3–4		***SAND*** Fine to medium sand with silt and clay						
15	4		End of Borehole						

Drill Date 6/1/00

Drill Method: HOLLOW AUGER

Total Depth: 15

Depth to Water: 5.0

Reviewed by: JPD

Logged by: PJM

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Project No: 20826

Sheet: 1 of 2

Project Name: Hegenberger

Client: Diversified

Location:

Log of Borehole: AEI B-28

Depth (ft)	Depth (m)	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
0	0		Ground Surface						
1									
2									
3	1								
4									
5			***CLAY*** Sandy clay with pea gravel (fill material)						
6				DB-6	GW				
7	2								
8									Strong Hydrocarbon (HC) odor
9									
10	3								
11									HC Product observed on soil
12									
13	4		***SAND*** Medium to coarse sand with anglar gravel (up to 30%) to .5 cm						
14									
15									
16	5								
17									No HC odor
18			***CLAY*** Silty clay with sand and minor gravel						
19									
20	6			DB-20	GW				
21			Sand and coarse gravel present						
22									
23	7								
24									
25									

Drill Date 6/8/00

Drill Method: DIRECT PUSH

Total Depth: 44.5

Depth to Water: 6.2 feet

Reviewed by: JPD

Logged by: PJM

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

Project No: 20826

Sheet: 2 of 2

Project Name: Hegenberger

Client: Diversified

Location:

Log of Borehole: AEI B-28

Depth	Soil Symbol	Subsurface Description	Sample Data: Sample Label	Sample Data: Type	Sample Data: Blow Counts/	Sample Data: Recovery	Well Data	Remarks
26–8		***SAND*** Medium to coarse sand, clean with gravel to 1 cm	DB-27	GW				
27								
28								
29								
30–9								
31								
32								
33–10								
34								
35								
36–11								
37		***CLAY*** Stiff clay						
38								
39								
40–12								
41								
42								
43–13								
44								
45		End of Borehole						
46–14								
47								
48								
49								
50–15								

Drill Date 6/8/00

Drill Method: DIRECT PUSH

Total Depth: 44.5

Depth to Water: 6.2 feet

Reviewed by: JPD

Logged by: PJM

AEI Consultants
3210 Old Tunnel Road, Suite B
Lafayette, CA 94549
(925) 283-6000

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-8

Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	3.96
Depth of Well	14.40
Depth to Water	5.15
Water Elevation	-1.19
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	4.44
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	1	19.49	6.80	339	2.53	
	3	18.94	6.72	362	1.73	
	5	18.85	6.68	365	1.55	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Strong hydrocarbon odor.

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-10	
Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	4.20
Depth of Well	15.7
Depth to Water	5.33
Water Elevation	-1.13
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	4.97
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	1	21.79	6.88	566	2.60	
	3	21.84	6.88	564	1.91	
	5	21.85	6.86	565	1.63	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-11	
Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	5.01
Depth of Well	15
Depth to Water	6.20
Water Elevation	-1.19
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	4.22
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5.5
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	1	20.77	6.56	281	2.48	
	3	19.99	6.58	265	2.84	
	5	19.65	6.48	268	1.48	
COMMENTS (i.e., sample odor, well recharge time & percent, etc.)						

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-12

Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade – Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	4.58
Depth of Well	15.5
Depth to Water	5.14
Water Elevation	-0.56
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	4.97
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	1	21.25	6.84	246	2.32	
	3	21.30	6.78	231	1.92	
	5	21.32	6.72	217	1.69	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: MW-16	
Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	5.51
Depth of Well	12.5
Depth to Water	6.74
Water Elevation	-1.23
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	2.76
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	4
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	1	25.01	7.04	254	3.71	
	2	20.5	6.95	291	1.43	
	4	20.5	6.62	286	1.33	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM	
Monitoring Well Number: EW-01	
Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA
MONITORING WELL DATA	
Well Casing Diameter (2"/4"/6")	4"
Seal at Grade – Type and Condition	
Well Cap & Lock – OK/Replace	
Elevation of Top of Casing	5.19
Depth of Well	22.5
Depth to Water	6.38
Water Elevation	-1.19
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	
4" casing: (TD – DTW)(0.65)(3)	31.4
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	30
Appearance of Purge Water	
GROUNDWATER SAMPLES	
Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	Redox Potential (mV)
	10	18.26	6.64	575	1.58	
	16	18.27	6.70	508	1.45	
	26	18.37	6.69	471	1.32	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)
Strong hydrocarbon odor

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS - GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-26

Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock – OK/Replace	OK
Elevation of Top of Casing	5.12
Depth of Well	15.0
Depth to Water	5.81
Water Elevation	-0.69
Three Well Volumes (gallons)*	
2" casing: (TD - DTW)(0.16)(3)	4.41
4" casing: (TD - DTW)(0.65)(3)	
6" casing: (TD - DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	
	1	22.12	7.27	124	2.14	
	3	21.69	7.14	124	2.46	
	5	21.27	6.99	123	2.78	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

Well pumped dry during purging – slow recharge

TD - Total Depth of Well
DTW - Depth To Water

AEI CONSULTANTS – GROUNDWATER MONITORING WELL FIELD SAMPLING FORM

Monitoring Well Number: MW-27

Project Name: Hegenberger	Date of Sampling: 8/9/00
Job Number: 20826	Name of Sampler: D. Roy
Project Address: 625 Hegenberger Road	Oakland, CA

MONITORING WELL DATA

Well Casing Diameter (2"/4"/6")	2"
Seal at Grade -- Type and Condition	Cement / Good
Well Cap & Lock – OK/Replace	OK
Elevation of Top of Casing	4.06
Depth of Well	15.0
Depth to Water	5.12
Water Elevation	-1.06
Three Well Volumes (gallons)*	
2" casing: (TD – DTW)(0.16)(3)	4.72
4" casing: (TD – DTW)(0.65)(3)	
6" casing: (TD – DTW)(1.44)(3)	
Actual Volume Purged (gallons)	5
Appearance of Purge Water	

GROUNDWATER SAMPLES

Number of Samples/Container Size	2 X 40 ml VOAs

Time	Vol Remvd (gal)	Temp C	pH	Cond (mS)	Dissolved Oxygen (mg/L)	
	1	24.47	6.99	146	2.15	
	3	24.44	6.95	146	2.31	
	5	24.44	6.93	146	2.21	

COMMENTS (i.e., sample odor, well recharge time & percent, etc.)

TD - Total Depth of Well
DTW - Depth To Water

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157	Client Project ID: #20826	Date Sampled: 08/09/2000
		Date Received: 08/11/2000
	Client Contact: Peter McIntyre	Date Extracted: 08/11/2000
	Client P.O:	Date Analyzed: 08/11/2000

08/18/2000

Dear Peter:

Enclosed are:

1). the results of **8** samples from your **#20826** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. 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, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
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All Environmental, Inc.	Client Project ID: #20826	Date Sampled: 08/09/2000
3210 Old Tunnel Road, Suite B		Date Received: 08/11/2000
Lafayette, CA 94549-4157	Client Contact: Peter McIntyre	Date Extracted: 08/11-08/14/2000
	Client P.O:	Date Analyzed: 08/11-08/14/2000

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
44892	MW-08	W	5500,a	540	1700	15	130	37	---#
44893	MW-10	W	ND	ND	ND	ND	ND	ND	101
44894	MW-11	W	350,a	410	1.7	2.6	ND	0.84	105
44895	MW-12	W	ND	6.4	ND	ND	ND	ND	100
44896	MW-16	W	ND	800	ND	ND	ND	ND	106
44897	EW-01	W	6700,a	1300	2700	19	120	31	96
44898	MW-26	W	ND	ND	ND	ND	ND	ND	101
44899	MW-27	W	ND	ND	ND	ND	ND	ND	100
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 Ave. South, #D7, Pacheco, CA 94553-5560
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QC REPORT

Date: 08/11/00-08/12/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 40793				Instrument: GC-3			
Surrogate1	0.000	95.0	95.0	100.00	95	95	0.0
Xylenes	0.000	273.0	276.0	300.00	91	92	1.1
Ethyl Benzene	0.000	92.0	93.0	100.00	92	93	1.1
Toluene	0.000	93.0	94.0	100.00	93	94	1.1
Benzene	0.000	96.0	95.0	100.00	96	95	1.0
MTBE	0.000	110.0	112.0	100.00	110	112	1.8
GAS	0.000	824.1	830.0	1000.00	82	83	0.7
SampleID: 81100				Instrument: MB-1			
Oil & Grease	0.000	19.6	19.4	20.00	98	97	1.0
SampleID: 81400				Instrument: GC-2 A			
Surrogate1	0.000	106.0	101.0	100.00	106	101	4.8
TPH (diesel)	0.000	350.0	335.0	300.00	117	112	4.4

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

21474 sale242.doc

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

Report To: Peter McIntyre Bill To:
Company: AEI Consultants
3240 Old Tunnel Rd. Suite B
Lafayette, CA 94549
Tele: ( ) 925 /283 6000 Fax: ( ) 925 283 6121
Project #: 20824 Project Name:
Project Location:
Sampler Signature:

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	pH	TSS	TOC	Specific Conductivity	Comments
MW-08		8/9/00		3		X									X																		44892
MW-10				3		X									X																		44893
MW-11				3		X									X																		44894
MW-12				3		X									X																		44895
MW-16				3		X									X																		44896
EW-01				3		X									X																		44897
MW-26				3		X									X																		44898
MW-27				3		X									X																		44899

Relinquished By	Date	Time	Received By
	8/11/00	5:45	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks:

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓

VOAS	O&G	METALS	OTHER

McCAMPBELL ANALYTICAL INC.
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All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157	Client Project ID: #20826; Dinesh - DB	Date Sampled: 06/08/2000
		Date Received: 06/08/2000
	Client Contact: Peter McIntyre	Date Extracted: 06/08/2000
	Client P.O:	Date Analyzed: 06/08/2000

06/15/2000

Dear Peter:

Enclosed are:

1). the results of **3** samples from your **#20826; Dinesh - DB** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. 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, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #20826; Dinesh - DB	Date Sampled: 06/08/2000
3210 Old Tunnel Road, Suite B		Date Received: 06/08/2000
Lafayette, CA 94549-4157	Client Contact: Peter McIntyre	Date Extracted: 06/08/2000
	Client P.O:	Date Analyzed: 06/08/2000

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
39918	DB-6	W	150,000,a,h,i	ND<3300	13,000	15,000	3400	23,000	107
39919	DB-20	W	80,000,a,i	ND<600	3500	8900	1800	13,000	96
39920	DB-27	W	1700,a,i	ND	29	82	28	220	---#
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 Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

Date: 06/08/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 38090				Instrument: GC-3			
Surrogate1	0.000	98.0	96.0	100.00	98	96	2.1
Xylenes	0.000	272.0	279.0	300.00	91	93	2.5
Ethyl Benzene	0.000	92.0	94.0	100.00	92	94	2.2
Toluene	0.000	93.0	96.0	100.00	93	96	3.2
Benzene	0.000	96.0	99.0	100.00	96	99	3.1
MTBE	0.000	96.0	104.0	100.00	96	104	8.0
GAS	0.000	926.2	923.8	1000.00	93	92	0.3
SampleID: 6900				Instrument: GC-11 B			
Surrogate1	0.000	110.0	113.0	100.00	110	113	2.7
TPH (diesel)	0.000	324.0	330.0	300.00	108	110	1.8
SampleID: 6700				Instrument: IR-1			
Surrogate1	0.000	98.5	97.5	100.00	99	98	1.0
TRPH	0.000	27.1	27.0	23.70	114	114	0.4

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

ALL ENVIRONMENTAL, INC.

Environmental Engineering & Construction

~~901 Moraga Road, Suite C~~ 3210 O/a Tunnel Rd ste B
Lafayette, CA 94549
(925) 283-6000 Fax: (925) 283-6121

20573 zab210.doc

CHAIN OF CUSTOD

PAGE 1 OF 1

TAT: RUSH / 24 hr / 48 hr / 5 day X / other

AEI PROJECT MANAGER Peter McIntyre
PROJECT NAME Dinesh - DB
PROJECT NUMBER 20826
TOTAL # OF CONTAINERS 11
RCVD. GOOD CONDITION/COLD ☑ Y ☐ N

SAMPLE ID	DATE	TIME	MATRIX	TPH(g), BTEX, MTBE SOIL: EPA 5030/8015M, 8020 WATER: EPA 5030/8015M, 602	TPH(d) SOIL: EPA 5030/8015M WATER: EPA 5030/8015M	BTEX, MTBE SOIL: EPA 8020 WATER: EPA 602	TOTAL OIL & GREASE SOIL: EPA 413.1 or STD. 5520 D/E&F WATER: STD. 5520 B&F	VOLATILE HALOCARBONS SOIL: EPA 8010 WATER: EPA 601	VOC's SOIL: EPA 8240 WATER: EPA 624	SEMI-VOLATILE ORGANICS SOIL: EPA 8270/3550 WATER: EPA 625/3510	TOTAL LEAD (TTLC) SOIL: 6010 (ICP) WATER: 239.2 (AA)	LUFT 5 METALS SOIL: EPA 7130, 7190, 7420, 7520, 7950 WATER:	HOLD	# OF CONTAINERS
+5 DB-6	6/8/00		water	X										3
+10 DB-20	↓		↓	X										4
+5 DB-27				X										4

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
PRESERVATION APPROPRIATE ✓
CONTAINERS

VOAS | O&G | METALS | OTHER

COMMENTS / INSTRUCTIONS

ANALYTICAL LABORATORY McCampbell Analytical
ADDRESS
PHONE ( ) FAX ( )

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE	SIGNATURE	SIGNATURE	SIGNATURE
PRINTED NAME PETER MCINTYRE	PRINTED NAME S. VALLES	PRINTED NAME	PRINTED NAME
COMPANY AEI	COMPANY MAH	COMPANY	COMPANY
DATE 6/8/00 TIME 1400	DATE 6/8/00 TIME	DATE TIME	DATE TIME

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 3210 Old Tunnel Road, Suite B Lafayette, CA 94549-4157	Client Project ID: #20826; Dinesh	Date Sampled: 06/01/00
		Date Received: 06/01/00
	Client Contact: Peter McIntyre	Date Extracted: 06/01/00
	Client P.O:	Date Analyzed: 06/01/00

06/08/00

Dear Peter:

Enclosed are:

1). the results of 1 samples from your **#20826; Dinesh** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. 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, Lab Director

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http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #20826; Dinesh	Date Sampled: 06/01/00
3210 Old Tunnel Road, Suite B		Date Received: 06/01/00
Lafayette, CA 94549-4157	Client Contact: Peter McIntyre	Date Extracted: 06/01/00
	Client P.O:	Date Analyzed: 06/01/00

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
39118	AEI-26	S	ND	ND	ND	ND	ND	ND	103
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 Ave. South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

Date: 06/01/00 Matrix: Soil

Extraction: N/A

Compound	Concentration: mg/kg				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 33288					Instrument: GC-12		
Surrogate1	0.000	95.0	96.0	100.00	95	96	1.0
Xylenes	0.000	319.0	320.0	300.00	106	107	0.3
Ethyl Benzene	0.000	106.0	106.0	100.00	106	106	0.0
Toluene	0.000	103.0	104.0	100.00	103	104	1.0
Benzene	0.000	105.0	106.0	100.00	105	106	0.9
MTBE	0.000	102.0	103.0	100.00	102	103	1.0
GAS	0.000	980.1	953.5	1000.00	98	95	2.8
SampleID: 33288					Instrument: GC-2 B		
Surrogate1	0.000	101.0	101.0	100.00	101	101	0.0
TPH (diesel)	0.000	257.0	275.0	300.00	86	92	6.8
SampleID: 33288					Instrument: IR-1		
Surrogate1	0.000	105.0	107.0	100.00	105	107	1.9
TRPH	0.000	22.0	21.1	20.80	106	101	4.2

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☑ 5 DAY

Report To: Bill To:

Company: All Environmental

~~901 Moraga Road, Suite C~~ 3210 Old Tunnel Rd Ste B

Lafayette, CA 94549

Tele: (925) 283-6000 Fax: (925) 283-6121

Project #: 20826 Project Name: Dinesh

Project Location: Hegenberger

Sampler Signature:

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
~~AET-26~~														
AET-26		6/1/00	8:00	1			X				X			

Analysis Request

BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
X																

39118

Relinquished By:	Date:	Time:	Received By:
	6/1/00	12:50	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

Remarks:

	VOAS	O&G	METALS	OTHER
ICE/T ✓				
GOOD CONDITION ✓	PRESERVATION APPROPRIATE ✓			
HEAD SPACE ABSENT	CONTAINERS			

TB.nn

Limv

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #20826; Hegen Berger	Date Sampled: 08/19/99
		Date Received: 08/19/99
	Client Contact: Peter McIntyre	Date Extracted: 08/19/99
	Client P.O:	Date Analyzed: 08/19/99

08/26/99

Dear Peter:

Enclosed are:

1). the results of 3samples from your **#20826; Hegen Berger** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. 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, Lab Director

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http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #20826; Hegen Berger	Date Sampled: 08/19/99
901 Moraga Road, Suite C		Date Received: 08/19/99
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 08/20/99
	Client P.O:	Date Analyzed: 08/20/99

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
17502	MW-10	W	ND	ND	ND	ND	ND	ND	103
17503	MW-11	W	590,c	720	180	3.2	ND	ND	112
17504	MW-12	W	ND	9.1	ND	ND	ND	ND	106
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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 08/20/99-08/21/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#17000)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	105.5	105.4	100.0	105.5	105.4	0.1
Benzene	0.0	9.4	9.9	10.0	94.0	99.0	5.2
Toluene	0.0	9.6	10.1	10.0	96.0	101.0	5.1
Ethyl Benzene	0.0	9.9	10.4	10.0	99.0	104.0	4.9
Xylenes	0.0	30.0	31.3	30.0	100.0	104.3	4.2
TPH(diesel)	0.0	8104	8063	7500	108	108	0.5
TRPH (oil & grease)	0	24700	26800	23700	104	113	8.2

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

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

ALL ENVIRONMENTAL, INC.
Environmental Engineering & Construction
901 Moraga Road, Suite C
Lafayette, CA 94549
(925) 283-6000 Fax: (925) 283-6121

CHAIN OF CUSTODY

PAGE 1 OF 1

16397 Zaske8 TAT: RUSH / 24 hr / 48 hr / 5 day / other

AEI PROJECT MANAGER Peter McIntyre
PROJECT NAME Hegenberger
PROJECT NUMBER 20326
TOTAL # OF CONTAINERS 6
RCVD. GOOD CONDITION/COLD ☒ Y ☐ N

SAMPLE ID	DATE	TIME	MATRIX	TPH(g), BTEX, MTBE SOIL: EPA 8015M, 8020 WATER: EPA 8015M, 8020	TPH(d) SOIL: EPA 8015M WATER: EPA 8015M	BTEX, MTBE SOIL: EPA 8020 WATER: EPA 602	TOTAL OIL & GREASE SOIL: EPA 413.1 or STD. 5520 D/F&F WATER: STD. 5520 B&F	VOLATILE HALOCARBONS SOIL: EPA 8010 WATER: EPA 601	VOCs SOIL: EPA 8240 WATER: EPA 624	SEMI-VOLATILE ORGANICS SOIL: EPA 8270/3550 WATER: EPA 625/3510	TOTAL LEAD (TTLC) SOIL: 6010 (ICP) WATER: 239.2 (AA)	LUFT 5 METALS SOIL: EPA 7130, 7190, 7420, 7520, 7950 WATER:				HOLD	# OF CONTAINERS
+ MW-10	8/19		water	X													2
+ MW-11	8/19			X													2
+ MW-12	8/19		↓	X													2

17502
17503
17504

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓
VOAS | O&G | METALS | OTHER

COMMENTS / INSTRUCTIONS

ANALYTICAL LABORATORY McCampbell
ADDRESS
PHONE ( ) FAX ( )

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE Pete McIntyre	SIGNATURE Gina ABuffe	SIGNATURE	SIGNATURE
PRINTED NAME AEI	PRINTED NAME MAI	PRINTED NAME	PRINTED NAME
COMPANY 452	COMPANY	COMPANY	COMPANY
DATE 8/19/99 TIME	DATE 8/15/99 TIME 4:55	DATE TIME	DATE TIME

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc. 901 Moraga Road, Suite C Lafayette, CA 94549	Client Project ID: #20826; Hegenberger	Date Sampled: 09/09/99
		Date Received: 09/10/99
	Client Contact: Peter McIntyre	Date Extracted: 09/10/99
	Client P.O:	Date Analyzed: 09/10/99

09/17/99

Dear Peter:

Enclosed are:

1). the results of **2** samples from your **#20826; Hegenberger** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. 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, Lab Director

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Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

All Environmental, Inc.	Client Project ID: #20826; Hegenberger	Date Sampled: 09/09/99
901 Moraga Road, Suite C		Date Received: 09/10/99
Lafayette, CA 94549	Client Contact: Peter McIntyre	Date Extracted: 09/13/99
	Client P.O:	Date Analyzed: 09/13/99

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
19027	MW-8	W	2500,a	380	790	2.8	4.7	8.0	105
19028	MW-16	W	ND	880	ND	ND	ND	ND	108
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: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 09/12/99-09/13/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#18261)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	103.5	101.2	100.0	103.5	101.2	2.2
Benzene	0.0	10.2	9.8	10.0	102.0	98.0	4.0
Toluene	0.0	10.5	9.7	10.0	105.0	97.0	7.9
Ethyl Benzene	0.0	10.0	9.8	10.0	100.0	98.0	2.0
Xylenes	0.0	31.2	29.8	30.0	104.0	99.3	4.6
TPH(diesel)	0.0	7727	7737	7500	103	103	0.1
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

AEI ENVIRONMENTAL, INC.

Environmental Engineering & Construction

901 Moraga Road, Suite C
Lafayette, CA 94549
(925) 283-6000 Fax: (925) 283-6121

CHAIN OF CUSTODY

PAGE 1 OF 1

16698 ZA1E83 TAT: RUSH / 24 hr / (48 hr) / 5 day / other

AEI PROJECT MANAGER: Peter McIntyre
PROJECT NAME: Hegenberger
PROJECT NUMBER: 28826
TOTAL # OF CONTAINERS: 4
RCVD. GOOD CONDITION/COLD: [X] Y [ ] N

SAMPLE ID	DATE	TIME	MATRIX	TPH(g), BTEX, MTBE SOIL: EPA 8015M, 8020 WATER: EPA 8015M, 8020	TPH(d) SOIL: EPA 8015M WATER: EPA 8015M	BTEX, MTBE SOIL: EPA 8020 WATER: EPA 602	TOTAL OIL & GREASE SOIL: EPA 413.1 or STD. 5520 D/F/F WATER: STD. 5520 B&F	VOLATILE HALOCARBONS SOIL: EPA 8010 WATER: EPA 601	VOCs SOIL: EPA 8240 WATER: EPA 624	SEMI-VOLATILE ORGANICS SOIL: EPA 8270/3550 WATER: EPA 625/3510	TOTAL LEAD (TTLC) SOIL: 6010 (ICP) WATER: 239.2 (AA)	LUFT 5 METALS SOIL: EPA 7190, 7190, 7420, 7520, 7050 WATER:	HOLD	# OF CONTAINERS
* MW-8	9/9/99		H_2O	X										2
* MW-16	"		"	X										2

19027
19028

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE CONTAINERS

VOAS	O&G	METALS	OTHER
✓			

COMMENTS / INSTRUCTIONS: McCampbell

ANALYTICAL LABORATORY
ADDRESS
PHONE ( ) FAX ( )

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
SIGNATURE	SIGNATURE: Gina A Butler	SIGNATURE	SIGNATURE
PRINTED NAME: Peter McIntyre	PRINTED NAME: Gina A Butler	PRINTED NAME	PRINTED NAME
COMPANY: AEI	COMPANY	COMPANY	COMPANY
DATE 9/10/99 TIME 5:30	DATE 9/10/99 TIME 5:30	DATE TIME	DATE TIME