May 17, 2005

PHASE II SUBSURFACE INVESTIGATION REPORT

6293 College Avenue
Oakland, California

Project No. 11065

Prepared For

Patrick Ellwood
Ellwood Commercial Real Estate
1345 Grand Avenue, Ste 101
Oakland, CA 94610

Prepared By

AEI Consultants
2500 Camino Diablo, Suite 100
Walnut Creek, CA 94597
(925) 944-2899

AEI

AEI CONSULTANTS
Environmental & Civil Engineering
2500 Camino Diablo, Suite 100, Walnut Creek, CA 94597
Phone: (925) 944-2899 Fax: (925) 944-2895

May 17, 2005

Patrick Ellwood
Ellwood Commercial Real Estate
1345 Grand Avenue, Ste 101
Oakland, CA 94610

Subject: **Phase II Subsurface Investigation**
6293 College Avenue
Oakland, California
Project No. 11065

Dear Mr. Ellwood:

The following letter report describes the activities and results of the subsurface investigation performed by AEI Consultants at the above referenced property (Figure 1: Site Location Map). The scope of work for this investigation was designed to determine whether a significant release of volatile organic compounds (VOCs), particularly Tetrachloroethylene (PCE), has occurred at the dry-cleaning facility. In addition, a survey of the possible underground storage tank location (UST) was performed to investigate whether it exists.

I Background

The subject property is located on the west side of College Avenue in a mixed commercial and residential area of Oakland. The property totals approximately 1.17 acres and is improved with a three story building totaling 11,353 square feet. The building is occupied by commercial and office tenants including a dry cleaning operation located on the first floor. In addition to the subject property building, the property is improved with a concrete surfaced parking area and associated landscaping. The property was developed with the current improvements in 1986. The surrounding properties consist of a restaurant to the north, a parking lot and bank to the south, College Avenue and a gasoline station to the east and private residences to the west. Prior to 1986, the subject property was occupied by a plumbing supply company.

AEI Consultants (AEI) conducted a Phase I Environmental Site Assessment (ESA) in March 2004. Based on a review of historical sources, the site was occupied by a plumbing supply company and is currently occupied by a dry cleaner. AEI reviewed a building plan that indicated that a underground gasoline storage tank (UST) may have been located in the northwest corner of the property.

The AEI Phase I Environmental Assessment recommended a geophysical survey be conducted to attempt to determine if the UST existed and that a subsurface investigation be conducted in connection the ongoing dry cleaning operations.

II Investigative Efforts

The initial scope of work proposed included four soil borings drilled to a maximum depth of 20 feet deep and a geophysical survey in the area of the former UST.

On May 22, 2005, AEI conducted a geophysical survey using electro-magnetic survey (E-M Survey) and ground penetrating radar (GPR) in the northwest corner of the site and in the area around the dry cleaning machines where the soil borings were planned. The usefulness of the EM survey was limited to some extent by the presence of steel re-bar in the concrete, however the electrical supply line to the automatic electric gate was located and an anomalous area just inside the gate with no re-bar was identified.

GPR was used to clear the proposed boring locations and to sweep the northwest area of the site. GPR identified the sanitary sewer line along the back of the building and storm drain along the west property line. An anomaly that appeared to be a backfilled excavation approximately 8 feet deep was identified that coincided with the EM anomaly. GPR also identified what appeared to be a shallow (1.5 – 2.0 feet deep), narrow backfilled trench that ran through the center of the parking area, through the larger GPR and WM anomaly. The decision was made to drill an additional (fifth) soil boring through this anomaly and analyze a soil sample for petroleum hydrocarbons as gasoline, diesel and motor oil (TPH-g, TPH-d and TPH-mo) and for benzene, toluene, ethylbenzene and total xylenes (BTEX).

AEI performed the subsurface investigation at the property on May 3, 2005. Prior to mobilization, AEI applied for a subsurface drilling permit from the Alameda County Public Works Agency (ACPWA). Drilling permit number W05-0469 was issued by ACPWA. A copy of the drilling permit is attached as Appendix A. Underground Service Alert (USA) was notified (Ticket # 149043) more than two business days prior to the drilling to allow local utilities to be marked. Notification of the drilling schedule was made to the ACPWA. No county inspector made an appearance at the site.

Five (5) soil borings (SB1 through SB5) were advanced to depths ranging from 12 to 25 ft. bgs. Soil samples were collected from all boring at regular intervals beginning at a depth of 3.0 to 4.0 feet below the ground surface (bgs).

The first boring (SB1) was advanced past the contract depth to a total depth 25-feet bgs to determine the depth of groundwater. The locations of the soil borings are shown on Figure 2.

Soil Sample Collection

The temporary borings were advanced with a Geoprobe® model 5410 direct-push drilling rig by Environmental Control Associates, a licensed California drilling contractor (C57 – 695970). Soil was then continuously cored in each boring using an approximately 2" outer diameter sampling tube, which held in 1.75-inch diameter acrylic liners 4-feet in length.

One sample was cut from the liners at regular intervals (3- 4 feet) and retained for possible chemical analysis. The soil samples retained for possible chemical analysis were sealed with Teflon film and plastic end-caps. Each sample was labeled with at minimum, company name and project number, unique sample identifier, sampler's name, time and date of collection. The samples were placed in individual zipper locking bags and placed in a cooler with wet ice, pending transportation to the laboratory. The borings were logged by the AEI Professional Geologist using the Unified Soil Classification System (USCS). Copies of the boring logs, including depth of samples collected are included in Appendix B.

Groundwater Sample Collection

A groundwater sample was collected from soil boring SB-1, which encountered water at a depth of 24 feet bgs. A new unused, ¾-inch PVC casing was placed in the boring to facilitate collection of the water samples. The casing consisted of 5-feet of 0.010-inch slotted casing and sufficient blank casing to rise above the ground surface. The water samples were collected using ¼-inch polyethylene tubing with a check valve on the bottom. Water samples were collected directly into three 40-milliliter (ml) volatile organic compound vials (VOAs).

The sample was labeled with at minimum, company name and project number, unique sample identifier, sampler's name, time and date of collection. The samples were placed in individual zipper locking bags and placed in a cooler with water ice, pending transportation to the laboratory.

Boring Destruction

Following sample collection, each boring was sealed to the surface with neat cement emplaced through a treamie pipe in accordance with Alameda County Public Works Agency and State of California guidelines.

Laboratory Analysis

On May 3, 2005, the soil and groundwater samples were transported to McCampbell Analytical Inc. (Department of Health Services Certification #1644) under chain of custody protocol. The shallowest soil sample from borings SB-1 through SB-4 and the sample from 12 feet bgs in boring SB5 were selected for chemical analysis. All other soil samples were placed on hold at the laboratory for potential additional analysis, should it be deemed necessary. The results of soil and groundwater analyses are shown on Tables 1a and 1b. Chain of custody documents and copies of the analytical reports are included in Appendix C

The soil samples selected from borings SB-1 through SB-4 were analyzed for halogenated volatile organic compound (HVOCs) by EPA method 8260 (8010 Basic list). The soil sample from boring SB-5 was analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), BTEX and MTBE by methods SW8015 Cm/8021B. Analysis for Multi-range petroleum hydrocarbons; Total Petroleum Hydrocarbons as diesel (TPH-d), Total Petroleum Hydrocarbons as motor oil (TPH-mo) was done by method SW8015C. Four soil samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B.

Groundwater sample from SB-1 was analyzed for HVOCs was performed by EPA Method 8260B for the basic 8010 list.

III Findings

Soil Analyses

No detectable concentrations of TPH-g, TPH-d or TPH-mo were reported in the soil sample from SBN5. Tetrachloroethene (PCE) was detected in soil borings SB-1 through SB-4 at concentrations ranging from 0.080 µg/kg (SB2) to 0.26 µg/kg (SB-4). No other HVOC analytes were detected in the soil samples.

Groundwater Analyses

PCE was detected at a concentration of 48 µg/L in the groundwater sample from boring SB-1. Chloroform was reported at a concentration of 0.83 µg/L. No other HVOC analytes were detected in the groundwater sample from SB-1.

VI Conclusions

The presence of low levels of PCE in the soil and groundwater indicate that a small release of PCE has occurred in the area of the dry cleaning facility at the site. The presence of chloroform in the groundwater is probably the result of interaction between PCE or chlorine released by breakdown of the PCE with naturally occurring organic compounds in the soil of groundwater beneath the site.

VI Recommendations

AEI recommends the following actions:

- No further investigation of the suspected UST in the NW corner of the property.
- Due to the fact that a release of hazardous material has been discovered, a copy of this report should be forwarded to the ACHCSA.
- Request an immediate determination as to whether any further action will be required relative to the HVOCs detected.

VII Report Limitation

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of site conditions encountered. 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 the required information, but it cannot be assumed that they are representative of areas not sampled. All conclusions and/or recommendations are based on these analyses and 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 field, which existed at the time and location of the work.

If you have any questions regarding our investigation, please do not hesitate to contact Robert Flory or Peter McIntyre at (925) 944-2899.

Sincerely,
AEI Consultants

PROFESSIONAL GEOLOGIST
ROBERT F. FLORY
No. 5825
STATE OF CALIFORNIA

Robert F. Flory, P.G. 10/31/06
Senior Project Geologist

Peter J. McIntyre, P.G.
Program Manager

Figures
Figure 1: Site Map
Figure 2: Site Plan

Tables
Table 1a: Soil Analytical Data, HVOCs
Table 1b: Groundwater Analytical Data, HVOCs

Appendix A *Boring Permit*
Appendix B *Boring Logs*
Appendix C *Laboratory Analyses*

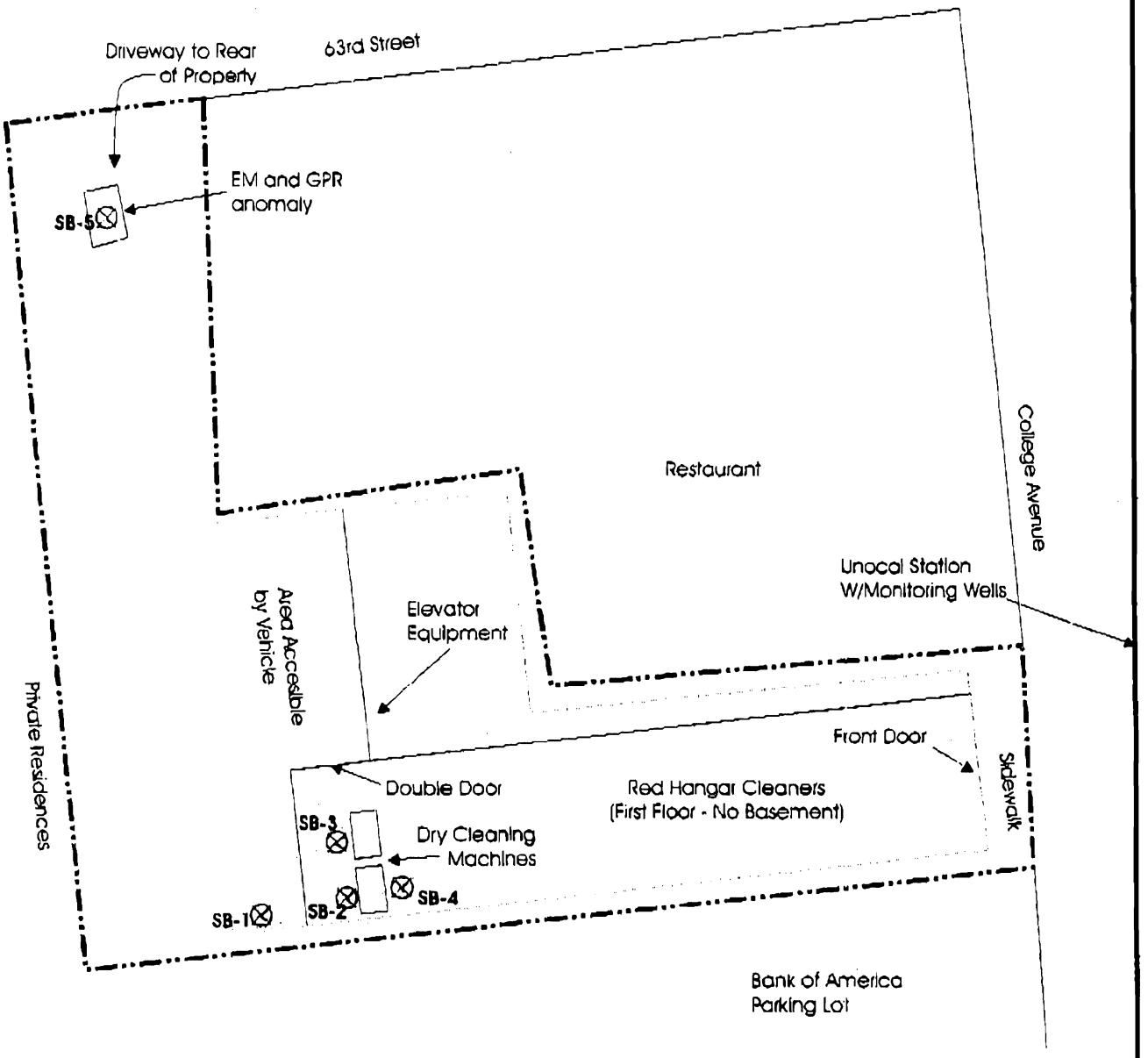
FIGURES

AEI CONSULTANTS

2500 Camino Diablo, Suite 100, Walnut Creek, CA 94597

SITE LOCATION PLAN

6235 College Avenue Oakland, CA	**FIGURE 1** Job No: 11065



LEGEND

N

Subject Property Line

Soil Boring ⊗ SB-1

AEI CONSULTANTS

2500 Camino Diablo, Suite 200, Walnut Creek, CA 94597

Drawn by: T. Petersen — Scale: Not to Scale

SITE PLAN

6235 College Avenue
Oakland, CA

FIGURE 2
Job No: 11065

TABLES

Table 1a: **Soil Analytical Data, HVOCs**
6293 College Ave, Oakland, CA

Sample ID	Sampling Date	PCE µg/kg	Chloroform µg/kg	All Others µg/kg
			(EPA method 8260B)	
SB1-3.0	05/03/05	0.17	ND<0.010	All ND
SB2-3.0	05/03/05	0.080	ND<0.010	All ND
SB3-3.0	05/03/05	0.19	ND<0.010	All ND
SB4-4.0	05/03/05	0.26	ND<0.010	All ND
RWQCB Screening level - Residential usage		0.088		
RWQCB Screening level - Commercial/Industrial		0.25		

Notes:
µg/kg = micrograms per kilogram
PCE = Tetrachloroethylene

Table 1b: **Groundwater Analytical Data, HVOCs**
6293 College Ave, Oakland, CA

Sample ID	Sampling Date	PCE µg/L	Chloroform µg/L	All Others µg/L
			(EPA method 8260B)	
SB1-W	05/03/05	48	0.83	All ND
RWQCB Groundwater screening level		5	100	

Notes:
µg/L = micrograms per liter

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-6633 James You
FAX (510) 782-1939 www.acfcwcd.org

APPLICANT: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS
DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEPARATE PERMIT APPLICATION

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 6235 College Ave Oakland, CA 94618

CLIENT Name Ellwood Commercial Real Estate / Patrick Ellwood
Address 1495 Grand Ave Phone 510-283-9111
City Piedmont Zip 94610

APPLICANT Name AEI Consultants / Robert F. Ebey, P.E. 25
Address 2500 Camino Diablo, Ste 100 Phone 925-944-2899 Fax 925-944-2895
City Walnut Creek Zip 94597

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 NAME ECA
DRILLER'S LICENSE NO. 695970

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter ____ in. Depth ____ ft.
Surface Seal Depth ____ ft. Owner's Well Number ____

GEOTECHNICAL/CONTAMINATION PROJECTS
Number of Borings 4 Maximum
Hole Diameter 2 in. Depth 20 ft.

STARTING DATE 5-3-05
COMPLETION DATE 5-3-05

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

APPLICANT'S SIGNATURE [signature] DATE 4/18/05
PLEASE PRINT NAME Robert F. Ebey, PE Rev.5-11-04

FOR OFFICE USE

PERMIT NUMBER W05-0464
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 original Department of Water Resources-Well Completion Report.
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/CONTAMINATION
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

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

F. WELL DESTRUCTION
Send a map of work site. A seperate permit is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS BA1

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

CKA 10275

APPROVED [signature] DATE 4/19/05

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544-1395
PHONE (510) 670-6633 James Yoo FAX (510) 782-1939

PERMIT NO. W05-0464

WATER RESOURCES SECTION
GROUNDWATER PROTECTION ORDINANCE
B#1-GENERAL CONDITIONS: GEOTECHNICAL & CONTAMINATION BOREHOLES

1. Prior to any drilling activities, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that Federal, State, County or to the City and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained.

2. Boreholes shall not be left open for a period of more than **24 hours**. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permitte, permittee's, contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statues regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on-or off site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

4. Permit is valid only for the purpose specified herein **May 5 to May 5, 2005**. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

5. Drilling Permit(s) can be voided/ canceled only in writing. It is the applicants responsibilities to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

6. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

7. **Applicant shall contact George Bolton for a inspection time at 510-670-5594 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.**

APPENDIX B

Boring Logs

Project: Ellwood Project Location: 6293 College Place, Oakland, CA Project Number: 11065	**Log of Boring SB -1** Sheet 1 of 1

Date(s) Drilled **May 3, 2005**	Logged By **Robert F. Flory**	Checked By **Jeff Rosenberg**
Drilling Method **Direct push**	Drill Bit Size/Type **2 inch**	Total Depth of Borehole **26 feet bgs**
Drill Rig Type **Geoprobe 5410**	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured **17.5 feet ATD, 15.8 feet after 5 minutes**	Sampling Method(s) **Tube**	Permit No.: **ACPWA # W05-0464**
Borehole Backfill **Cement Slurry**	Location	

Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
0			CL		Concrete 4" base rock 2" Silty Clay, very dark brown - dark brown 7.5YR 3/1-3/2, firm, dry		
5			CL		Silty Clay, dark reddish gray - reddish brown 5YR 4/2-4/3, firm, slightly moist		
10			CL		Silty Clay, brown - dark yellowish brown 7.5 YR 4/3 - 10YR 4/6, firm, moist		
			CL-ML		Very Silty Clay - Very Clayey Silt, brown - strong brown 7.5YR 4/3 - 4/6, moderately firm, moist		
15			ML		Clayey Sandy Silt, brown - strong brown 7.5YR 4/3 - 4/6, very clayey, moderately firm, moist		
			ML		(after 5 minutes) ▽ Clayey Silt, strong brown 7.5YR 4/6, w/s sand - pea gravel, moderately firm, moist		
			ML		(ATD) ▽ Clayey Silt, dark yellowish brown - yellowish brown 10YR 4/6-5/6, w/s sand - pea gravel, moderately firm, moist		
20			ML		Clayey Sandy Silt, dark yellowish brown - yellowish brown 10YR 4/6-5/6, w/s pea gravel, moderately firm, moist		
25			SM-ML		Sandy Gravelly Silt - Gravelly Silty Sand, dark yellowish brown - yellowish brown 10YR 4/6-5/6, w/s pea gravel, moderately firm, wet		
30					Bottom of Boring at 26 feet bgs		

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUE DIL & MISC\11065 PH II Ellwood Comm Oakland - RFF\Boring logs-bgs\ DP boring 30 tp5

Figure

Project: Ellwood
Project Location: 6293 College Place, Oakland, CA
Project Number: 11065

Log of Boring SB-2

Sheet 1 of 1

Date(s) Drilled **May 3, 2005**	Logged By **Robert F. Flory**	Checked By **Jeff Rosenberg**
Drilling Method **Direct push**	Drill Bit Size/Type **2 inch**	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Geoprobe 5410**	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured **Not Encountered ATD**	Sampling Method(s) **Tube**	Permit No.: **ACPWA # W05-0464**
Borehole Backfill **Cement Slurry**	Location	

Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
0					Concrete 4" base rock 2"		
			CL		Silty Clay, very dark brown - dark brown 7.5YR 3/1-3/2, firm, dry		
5			CL		Silty Clay, dark reddish gray - reddish brown 5YR 4/2-4/3, firm, slightly moist		
10			CL		Silty Clay, brown - dark yellowish brown 7.5 YR 4/3 - 10YR 4/6, firm, moist		
					Bottom of Boring at 12 feet bgs		
15							
20							
25							
30							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUE DIL & MISC\11065 PH II Ellwood Comm) Oakland - PDF\Boring logs bgs tDP boring 30 tpll

Project: Ellwood
Project Location: 6293 College Place, Oakland, CA
Project Number: 11065

Log of Boring SB-3

Sheet 1 of 1

Date(s) Drilled **May 3, 2005**	Logged By **Robert F. Flory**	Checked By **Jeff Rosenberg**
Drilling Method **Direct push**	Drill Bit Size/Type **2 inch**	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Geoprobe 5410**	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured **Not Encountered ATD**	Sampling Method(s) **Tube**	Permit No.: **ACPWA # W05-0464**
Borehole Backfill **Cement Slurry**	Location	

Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
0			CL		Concrete 4" base rock 2"		
					Silty Clay, dark brown 7.5YR 3/2, firm, dry		
5			CL		Silty Clay, reddish brown 5YR 4/3, firm, slightly moist		
			CL		Silty Clay, brown - dark yellowish brown 7.5 YR 4/3 - 10YR 4/6, firm, moist		
10					Bottom of Boring at 12 feet bgs		
15							
20							
25							
30							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUE DIL & MISC\11065 PH II (Ellwood Comm Oakland - RFP\Boring logs.bgs IDP boring 3D.tpl

Project: Ellwood
Project Location: 6293 College Place, Oakland, CA
Project Number: 11065

Log of Boring SB-4

Sheet 1 of 1

Date(s) Drilled **May 3, 2005**	Logged By **Robert F. Flory**	Checked By **Jeff Rosenberg**
Drilling Method **Direct push**	Drill Bit Size/Type **2 inch**	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Geoprobe 5410**	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured **ATD**	Sampling Method(s) **Tube**	Permit No.: **ACPWA # W05-0464**
Borehole Backfill **Cement Slurry**	Location	

Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
0			CL		Concrete 4" base rock 2"		
					Silty Clay, very dark grayish brown - very dark brown 10YR 3/2-2/2, firm, dry		
5			CL		Silty Clay, dark reddish gray - reddish brown 5YR 4/2-4/3, firm, slightly moist		
10			CL		Silty Clay, brown - dark yellowish brown 7.5 YR 4/3 - 10YR 4/6, firm, moist		
					Bottom of Boring at 12 feet bgs		
15							
20							
25							
30							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\QUE DIL & MISC\11065 PH II Ellwood Comm Oakland - RFF\Boring logs bgs\DP boring 30.tpl

Project: Ellwood
Project Location: 6293 College Place, Oakland, CA
Project Number: 11065

Log of Boring SB-5

Sheet 1 of 1

Date(s) Drilled **May 3, 2005**	Logged By **Robert F. Flory**	Checked By **Jeff Rosenberg**
Drilling Method **Direct push**	Drill Bit Size/Type **2 inch**	Total Depth of Borehole **12 feet bgs**
Drill Rig Type **Geoprobe 5410**	Drilling Contractor	Approximate Surface Elevation
Groundwater Level and Date Measured **Not Encountered ATD**	Sampling Method(s) **Tube**	Permit No.: **ACPWA # W05-0464**
Borehole Backfill **Cement Slurry**	Location	

Depth, feet	Sample Type	Sample Number	USCS Symbol	Graphic Log	MATERIAL DESCRIPTION	PID Reading, ppm	REMARKS AND OTHER TESTS
0			CL		Concrete 4" base rock 2"		
					Silty Clay, very dark brown - dark brown 7.5YR 3/1-3/2, firm, dry		
5			CL		Silty Clay, reddish brown - brown 5YR 4/3 - 7.5YR 4/4, firm, slightly moist		
10			GC		Clayey Gravel, brown - yellowish brown 10 YR 4/3 - 5/6, 1 1/2" maximun clasts, firm, moist		
					Bottom of Boring at 12 feet bgs		
15							
20							
25							
30							

Figure

X:\PROJECTS\CHARACTERIZATION & REMEDIATION\DUE DIL & MISC\11065 PH II (Elwood Comm) Oakland - RFP\Boring logs.bgs (DP boring 30 ft)!

APPENDIX C

Laboratory Analyses
With
Chain of Custody Documentation

McCampbell Analytical, Inc.

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

AEI Consultants 2500 Camino Diablo, Ste. #200 Walnut Creek, CA 94597	Client Project ID: #11065; Ellwood	Date Sampled: 05/03/05
		Date Received: 05/03/05
	Client Contact: Robert Flory	Date Reported: 05/09/05
	Client P.O.:	Date Completed: 05/09/05

WorkOrder: 0505047

May 09, 2005

Dear Robert:

Enclosed are:

1). the results of **6** analyzed samples from your **#11065; Ellwood 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,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

AEI Consultants	Client Project ID: #11065; Ellwood	Date Sampled: 05/03/05
2500 Camino Diablo, Ste. #200		Date Received: 05/03/05
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 05/03/05
	Client P.O.:	Date Analyzed: 05/04/05

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0505047

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
018A	SB5-11 5	S	ND	ND	ND	ND	ND	ND	1	97
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	NA	NA	NA	NA	1	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/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 (stoddard solvent / mineral spirit?), f) one to a few isolated non-target peaks present, g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

AEI Consultants	Client Project ID: #11065; Ellwood	Date Sampled: 05/03/05
2500 Camino Diablo, Ste. #200		Date Received: 05/03/05
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 05/03/05
	Client P.O.:	Date Analyzed: 05/05/05

Diesel (C10-23) and Oil (C18+) Range Extractable Hydrocarbons as Diesel and Motor Oil*

Extraction method: SW3550C Analytical methods: SW8015C Work Order: 0505047

Lab ID	Client ID	Matrix	TPH(d)	TPH(mo)	DF	% SS
0505047-018A	SB5-11.5	S	ND	ND	1	94

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA	ug/L
	S	1.0	5.0	mg/Kg

* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel (asphalt?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

AEI Consultants	Client Project ID: #11065; Ellwood	Date Sampled: 05/03/05
2500 Camino Diablo, Ste. #200		Date Received: 05/03/05
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 05/03/05
	Client P.O.:	Date Analyzed: 05/05/05

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0505047

Lab ID	0505047-001A	0505047-007A	0505047-010A	0505047-013A	Reporting Limit for DF =1	
Client ID	SB1-3.0	SB2-3.0	SB3-3.0	SB4-4		
Matrix	S	S	S	S		
DF	1	1	1	2	S	W
Compound	**Concentration**				mg/kg	µg/L
Bromodichloromethane	ND	ND	ND	ND<0.010	0.005	NA
Bromoform	ND	ND	ND	ND<0.010	0.005	NA
Bromomethane	ND	ND	ND	ND<0.010	0.005	NA
Carbon Tetrachloride	ND	ND	ND	ND<0.010	0.005	NA
Chlorobenzene	ND	ND	ND	ND<0.010	0.005	NA
Chloroethane	ND	ND	ND	ND<0.010	0.005	NA
2-Chloroethyl Vinyl Ether	ND	ND	ND	ND<0.010	0.005	NA
Chloroform	ND	ND	ND	ND<0.010	0.005	NA
Chloromethane	ND	ND	ND	ND<0.010	0.005	NA
Dibromochloromethane	ND	ND	ND	ND<0.010	0.005	NA
1,2-Dichlorobenzene	ND	ND	ND	ND<0.010	0.005	NA
1,3-Dichlorobenzene	ND	ND	ND	ND<0.010	0.005	NA
1,4-Dichlorobenzene	ND	ND	ND	ND<0.010	0.005	NA
Dichlorodifluoromethane	ND	ND	ND	ND<0.010	0.005	NA
1,1-Dichloroethane	ND	ND	ND	ND<0.010	0.005	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	ND<0.010	0.005	NA
1,1-Dichloroethene	ND	ND	ND	ND<0.010	0.005	NA
cis-1,2-Dichloroethene	ND	ND	ND	ND<0.010	0.005	NA
trans-1,2-Dichloroethene	ND	ND	ND	ND<0.010	0.005	NA
1,2-Dichloropropane	ND	ND	ND	ND<0.010	0.005	NA
cis-1,3-Dichloropropene	ND	ND	ND	ND<0.010	0.005	NA
trans-1,3-Dichloropropene	ND	ND	ND	ND<0.010	0.005	NA
Methylene chloride	ND	ND	ND	ND<0.010	0.005	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND<0.010	0.005	NA
Tetrachloroethene	0.17	0.080	0.19	0.26	0.005	NA
1,1,1-Trichloroethane	ND	ND	ND	ND<0.010	0.005	NA
1,1,2-Trichloroethane	ND	ND	ND	ND<0.010	0.005	NA
Trichloroethene	ND	ND	ND	ND<0.010	0.005	NA
Trichlorofluoromethane	ND	ND	ND	ND<0.010	0.005	NA
Vinyl Chloride	ND	ND	ND	ND<0.010	0.005	NA
Surrogate Recoveries (%)						
%SS1:	80	82	81	92		
%SS2:	99	101	100	101		
%SS3:	92	91	90	96		
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; o) see attached narrative

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

AEI Consultants	Client Project ID: #11065; Ellwood	Date Sampled: 05/03/05
2500 Camino Diablo, Ste. #200		Date Received: 05/03/05
Walnut Creek, CA 94597	Client Contact: Robert Flory	Date Extracted: 05/06/05
	Client P.O.:	Date Analyzed: 05/06/05

Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0505047

					Reporting Limit for DF =1	
Lab ID	0505047-019A					
Client ID	SB1-W					
Matrix	W					
DF	1				S	W
Compound	**Concentration**				µg/kg	µg/L
Bromodichloromethane	ND				NA	0.5
Bromoform	ND				NA	0.5
Bromomethane	ND				NA	0.5
Carbon Tetrachloride	ND				NA	0.5
Chlorobenzene	ND				NA	0.5
Chloroethane	ND				NA	0.5
2-Chloroethyl Vinyl Ether	ND				NA	1.0
Chloroform	0.83				NA	0.5
Chloromethane	ND				NA	0.5
Dibromochloromethane	ND				NA	0.5
1,2-Dichlorobenzene	ND				NA	0.5
1,3-Dichlorobenzene	ND				NA	0.5
1,4-Dichlorobenzene	ND				NA	0.5
Dichlorodifluoromethane	ND				NA	0.5
1,1-Dichloroethane	ND				NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND				NA	0.5
1,1-Dichloroethene	ND				NA	0.5
cis-1,2-Dichloroethene	ND				NA	0.5
trans-1,2-Dichloroethene	ND				NA	0.5
1,2-Dichloropropane	ND				NA	0.5
cis-1,3-Dichloropropene	ND				NA	0.5
trans-1,3-Dichloropropene	ND				NA	0.5
Methylene chloride	ND				NA	0.5
1,1,2,2-Tetrachloroethane	ND				NA	0.5
Tetrachloroethene	48				NA	0.5
1,1,1-Trichloroethane	ND				NA	0.5
1,1,2-Trichloroethane	ND				NA	0.5
Trichloroethene	ND				NA	0.5
Trichlorofluoromethane	ND				NA	0.5
Vinyl Chloride	ND				NA	0.5
Surrogate Recoveries (%)						
%SS1:	95					
%SS2:	103					
%SS3:	107					
Comments						

* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
1102nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0505047

EPA Method: SW8021B/8015Cm	Extraction: SW5030B	BatchID: 16101	Spiked Sample ID: 0505032-048A

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) £	ND	0.60	104	100	3.82	102	99.9	1.77	70 - 130	70 - 130
MTBE	ND	0.10	92.1	91.5	0.642	87.8	88.7	1.02	70 - 130	70 - 130
Benzene	ND	0.10	104	102	1.73	95.4	94.2	1.22	70 - 130	70 - 130
Toluene	ND	0.10	88.2	87.2	1.12	86.3	83.9	2.80	70 - 130	70 - 130
Ethylbenzene	ND	0.10	114	113	0.594	114	112	1.82	70 - 130	70 - 130
Xylenes	ND	0.30	100	100	0	100	96.7	3.39	70 - 130	70 - 130
%SS:	99	0.10	98	116	16.5	107	114	6.33	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16101 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505047-018A	5/03/05 1:08 PM	5/03/05	5/04/05 7:47 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0505047

EPA Method: SW8015C	Extraction: SW3550C			BatchID: 16103			Spiked Sample ID: 0505032-048A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	ND	20	105	105	0	102	106	4.29	70 - 130	70 - 130
%SS:	92	50	92	92	0	100	104	3.85	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16103 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505047-018A	5/03/05 1:08 PM	5/03/05	5/05/05 8:04 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil QC Matrix: Soil WorkOrder: 0505047

EPA Method: SW8260B	Extraction: SW5030B				BatchID: 16117			Spiked Sample ID: 0505047-010A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Chlorobenzene	ND	0.050	119	119	0	114	114	0	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	0.050	118	120	2.13	113	111	1.56	70 - 130	70 - 130
1,1-Dichloroethene	ND	0.050	92.4	88.4	4.37	85.6	84.9	0.791	70 - 130	70 - 130
Trichloroethene	ND	0.050	90.5	90.7	0.223	87.2	86.7	0.672	70 - 130	70 - 130
%SS1:	81	0.050	102	101	1.39	100	99	1.52	70 - 130	70 - 130
%SS2:	100	0.050	97	97	0	99	99	0	70 - 130	70 - 130
%SS3:	90	0.050	118	119	1.33	109	115	5.26	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16117 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505047-001A	5/03/05 8:15 AM	5/03/05	5/05/05 4:57 AM	0505047-007A	5/03/05 9:45 AM	5/03/05	5/05/05 5:40 AM
0505047-010A	5/03/05 10:20 AM	5/03/05	5/05/05 6:22 AM	0505047-013A	5/03/05 11:25 AM	5/03/05	5/05/05 7:27 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2)

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

LR QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0505047

EPA Method: SW8260B **Extraction: SW5030B** **BatchID: 16114** **Spiked Sample ID: 0505049-001B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
Chlorobenzene	ND	10	119	118	0.242	119	119	0	70 - 130	70 - 130
1,2-Dichloroethane (1,2-DCA)	ND	10	117	116	0.639	117	119	1.31	70 - 130	70 - 130
1,1-Dichloroethene	ND	10	87.4	86.8	0.706	88.1	90.2	2.31	70 - 130	70 - 130
Trichloroethene	ND	10	91.5	89.1	2.71	89.9	92.3	2.63	70 - 130	70 - 130
%SS1:	101	10	100	100	0	100	101	1.41	70 - 130	70 - 130
%SS2:	95	10	96	96	0	97	95	1.65	70 - 130	70 - 130
%SS3:	105	10	116	117	1.35	119	119	0	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16114 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505047-019A	5/03/05 9:30 AM	5/06/05	5/06/05 9:19 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and freon 113 may occasionally appear in the method blank at low levels.

DHS Certification No. 1644

QA/QC Officer

AEI - 050447

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

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory	Bill To:
Company: AEI Consultants	AEI Consultants
2500 Camino Diablo, Suite 100	
	E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122	Fax: (925) 944-2895
Project #: 11065	Project Name: Ellwood
Project Location: 6293 College Ave., Oakland, CA	
Sampler Signature:	

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	Soil	Air	Sludge	Other	METHOD PRESERVED Ice	HCl	HNO_3	Other	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Multi-Range (8015) TPH-d/mo	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 basic list by 8012B	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260 – 8010 Target List	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010) Total lead	RCI	Other: TPH multi-range EPA 8015	Comments
SB1-3.0		5-3-05	0815	1	2x6		X				X												X							
SB1-6.5			0820	1																					Hold						
SB1-11.5			0825	1																					Hold						
SB1-14.5			0855	1																					Hold						
SB1-17.5			0850	1																					Hold						
SB1-21			0900	1																					Hold						
SB2-3.0			0945	1																			X								
SB2-7.5			0950	1																					Hold						
SB2-9.5			1010	1																											
SB3-3.0			1020	1																			X								
SB3-6.0			1030	1																					Hold						
SB3-9.5		V	1160	1	V																										

Relinquished By:	Date:	Time:	Received By:
	5/5/5	1730	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTHER
ICE/t° ✓ ✓				
GOOD CONDITION				
HEAD SPACE ABSENT				
DECHLORINATED IN LAB				
PRESERVATION APPROPRIATE				
CONTAINERS ✓				
PERSERVED IN LAB				

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUR 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

EDF Required? Coelt (Normal) No Write On (DW) No

Report To: Robert Flory	Bill To:
Company: AEI Consultants	AEI Consultants
2500 Camino Diablo, Suite 100	
	E-Mail: rflory@aeiconsultants.com
Tele: (925) 944-2899 ext. 122	Fax: (925) 944-2895
Project #: 11065	Project Name: Ellwood
Project Location: 6293 College Ave., Oakland, CA	
Sampler Signature:	

SAMPLE ID (Field Point Name)	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	Analysis Request: BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Multi-Range (8015)/TPH-d/mo	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010 basic list by 8012B	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260 – 8010 Target List	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010) Total lead	RCI	Other: TPH multi-range EPA 8015	Comments
SB4-4			1125				X																X								
SB4-5			1130																												
SB4-9.5			1150																					Hold							
SB5-3.5			1245																												
SB5-7.5			1250																												
SB5-11.5			1305												X	X															
SB1-4			0930			X																	X								

Relinquished By:	Date:	Time:	Received By:
	5/3/05	1730	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

	VOAS	O&G	METALS	OTHER
ICE/t° ✓				
GOOD CONDITION ✓	PRESERVATION			
HEAD SPACE ABSENT ✓	APPROPRIATE			
DECHLORINATED IN LAB	CONTAINERS ✓			
PERSERVED IN LAB				

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0505047 **ClientID: AEL**

Report to:
Robert Flory
AEI Consultants
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597
TEL: (925) 283-6000
FAX: (925) 283-6121
ProjectNo: #11065; Ellwood
PO:

Bill to:
Diane
All Environmental, Inc.
2500 Camino Diablo, Ste. #200
Walnut Creek, CA 94597

Requested TAT: 5 days
Date Received: 05/03/2005
Date Printed: 05/03/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0505047-001	SB1-3.0	Soil	05/03/2005	☐	A														
0505047-007	SB2-3.0	Soil	05/03/2005	☐	A														
0505047-010	SB3-3.0	Soil	05/03/2005	☐	A														
0505047-013	SB4-4	Soil	05/03/2005	☐	A														
0505047-018	SB5-11.5	Soil	05/03/2005	☐			A	A											
0505047-019	SB1-W	Water	05/03/2005	☐		A													

Test Legend:

1	8010BMS_S	2	8010BMS_W	3	G-MBTEX_S	4	TPH(DMO)_S	5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Rosa Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.