

ERAS

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**WORK PLAN FOR
LIMITED PHASE II SUBSURFACE INVESTIGATION**

AT

**3137 Magnolia Street
Oakland, California**

ERAS PROJECT NUMBER: 17103B

Prepared for

Mr. Randy Nathan
c/o Steven Rood, Esq.
LAW OFFICE OF STEVEN ROOD
405 – 14th Street, Suite 212
Oakland, California 94612

December 1, 2017

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CERTIFICATION

This **Work Plan for Limited Phase II Subsurface Investigation** at 3137 Magnolia Street in Oakland, California, has been prepared by ERAS Environmental, Inc. (ERAS) under the professional supervision of the Registered Professional Geologist whose signature appears hereon.

This work plan was prepared in general accordance with the accepted standard of practice that exists in Northern California at the time the investigation was performed. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies.

Our firm has prepared this work plan for the Client's exclusive use for this particular project and in accordance with generally accepted professional practices within the area at the time of our investigation. No other representations, expressed or implied, and no warranty or guarantee is included or intended.

This work plan may be used only by the client and only for the purposes stated within a reasonable time from its issuance. Land use, site conditions (both on-site and off-site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify ERAS of such intended use. Based on the intended use of report, ERAS may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release ERAS from any liability resulting from the use of this report by any unauthorized party.

Sincerely,
ERAS Environmental, Inc.



Andrew Savage
Project Geologist



Curtis Payton
California Registered Professional Geologist 5608



December 1, 2017

1.0 INTRODUCTION

This work plan was prepared to describe the activities to assess the subsurface environmental conditions in the location of the subject site (the "Property"). ERAS applied for a drilling permit to evaluate the subsurface environmental conditions beneath the Property as part of a due diligence investigation of the Property. Because the adjacent site is a leak site being overseen by the Alameda County Department of Environmental Health (ACDEH), a work plan was requested by the ACDEH prior to the issuance of the drilling permit.

The Property is located on the northwest side of Magnolia Street between 30th Street and 32nd Street in the northwest portion of the City of Oakland. The Property consists of a single parcel (APN# 5-462-3-1) with an area of approximately 5,000 square feet, and contains a commercial building with an inside area of approximately 3,848 square feet that was constructed in 1959.

The location of the Property is shown on **Figure 1** and the layout of the Property is shown on **Figure 2**.

1.1 BACKGROUND

ERAS performed a Phase 1 Environmental Site Assessment (ESA) project for the Property and the results were summarized in a report dated June 22, 2017. Evidence was discovered during this assessment to indicate that activities historically conducted on or near the Property has caused contamination to soil and/or groundwater.

At the time of the site visit the Property was occupied by Wooden Window, Inc. According to the historical information reviewed, the Property contained a single-family dwelling in 1912. Between 1931 and 1946 the Property was a vacant lot. The current building was constructed in 1959, according to on-line real estate information. Between 1961 and 1999 the Property was utilized for metal manufacturing, automotive repair, and food distribution. The known past occupants and uses of the Property are as follows:

- 1912: Single family dwelling
- 1931-1952: Vacant Lot
- 1961: Bruehl's Metal Manufacturing
- 1967: Oakland Short Run Tool & Die
- 1973: Esirg's Food Distribution
- 1982-1994: A.G. Metals, Inc.
- 1999: H.B. Kilroy & L.H. Roe

ERAS recommended a limited subsurface investigation to determine whether contamination has impacted the Property which was detected at an adjacent site located at 1201 32nd Street. The adjacent site, the Little Property located at 1201 32nd Street is listed as an Open-SLIC case. Based on the records reviewed two subsurface investigations were performed on the adjacent site, the results of these investigations were summarized in reports dated June 20, 2000 and November 15,

2004.

Subsurface Investigation June 20, 2000

On June 20, 2000, International Geologic (IG) advanced two soil borings (B-1, and B-2) at the site for collection of soil and groundwater samples. The borings were located at the southeast and northwest corners as shown on the map in **Appendix A**. Samples were collected from between 15 feet below ground surface (bgs) and 19.5 feet bgs. Volatile organic compounds (VOCs) were detected in both soil and groundwater samples collected.

Laboratory analysis for VOCs indicated soil samples from Boring B1 (which is less than 5 feet from the Property) contained concentrations of trichloroethene (TCE) at concentrations up to 17 milligrams per kilogram (mg/Kg), above the current Regional Water Quality Control Board (RWQCB) environmental screening limit (ESL) of 0.46 mg/Kg. A groundwater samples from this boring contained 1,100,000 micrograms per liter ($\mu\text{g/L}$) of TCE and the groundwater sample from Boring B-2, on the opposite side of the Property contained a concentration of TCE of 8.8 $\mu\text{g/L}$, still above the ESL of 5 $\mu\text{g/L}$.

IG indicated the parcel at 1201 32nd Street was used for the following purposes.

- 1926 until approximately the mid 1950's by a machine shop
- 1959 until approximately 1962 by a printing business
- 1967 by a used laundry machine warehouse
- 1971 by Oakland Short Run Tool & Die
- after 1990 the site was used to store used parts and machinery
- 1998 the site was destroyed by fire and has been vacant since.

Subsurface Investigation November 15, 2004

On November 15, 2004 RGA Environmental, Inc. advanced three soil borings (B-3, B-4, and B-5). Laboratory analysis for VOCs in soil indicated that concentrations in the soil samples from Boring B-3 were below the laboratory RL. Concentrations in soil samples from Boring B-4 were below the laboratory RL except for PCE which was above the current ESL. Concentrations in soil samples from Boring B-5 were below the laboratory RL. All other VOCs tested for were also below the laboratory RL.

Laboratory analysis of groundwater indicated that groundwater samples from Boring B-3 were below the laboratory RL except for TCE which is above the current ESL. Groundwater samples from Boring B-4 contained concentrations below the RL except for TCE which was above the current ESL. Groundwater samples from Boring B-5 contained concentrations of PCE and TCE above the current ESL. All other VOCs tested for were below the laboratory RLs. See report as **Appendix B**.

Based on the close proximity of contamination in Boring B-1, it is possible contamination from this site has impacted subsurface environmental conditions beneath the Property.

The following is a summary of the detected contaminants:

Soil

Boring	Date	PCE	TCE
		milligrams per kilogram (mg/Kg)	
B1-S1-15.5 feet	6-12-00	<0.63	17
B1-S2-18 feet	6-12-00	<0.63	12
B2-S1-15 feet	6-12-00	<0.010	<5
B2-S2-19.5 feet	6-12-00	<0.010	<5
B3-5 feet	11-15-04	<0.005	<0.005
B4-5 feet	11-15-04	0.015	<0.005
B5-5 feet	11-15-04	<0.005	<0.005
ESL		0.42	0.46

Groundwater

Boring	Date	PCE	TCE
		micrograms per liter (µg/L)	
B1W	6-12-00	1.1	1,100,000
B2W	6-12-00	4.9	8.8
B3W	11-15-04	<500	28,000
B4W	11-15-04	<10	550
B5W	11-15-04	9.4	24
ESL		3.0	5.0

Bold indicates concentrations or reporting limits exceeding the ESLs

The locations of the borings are shown on the attached **Figure 2** along with the detected concentrations of TCE in groundwater.

2.0 ENVIRONMENTAL SETTING

2.1 REGIONAL PHYSIOGRAPHIC CONDITIONS

The Property is in the northwestern part of Oakland, in the eastern part of the in the San Francisco Bay area. The San Francisco Bay area occupies a broad alluvial valley that slopes gently northward toward San Francisco Bay and is flanked by alluvial fans deposited at the foot of the Diablo Range to the east and the Santa Cruz Mountains to the west.

The Property is located approximately 1 mile east of San Francisco Bay. Surface topography on and in the immediate vicinity of the Property is almost flat. Upland surfaces of the Coast Ranges begin approximately 3 miles to the east. Elevation of the Property is approximately 20 feet above Mean Sea Level (MSL) according to the United States Geological Survey (USGS) Oakland West Quadrangle Topographic Map. The topography in the vicinity of the Property slopes gently down to the southwest toward San Francisco Bay.

2.2 GEOLOGIC AND SOIL CONDITIONS

The sediments in the vicinity of the Property are fine-grained alluvial sediments that represent distal deposits of alluvial fans that were deposited by rivers draining upland surfaces to the east of the Property. These sediments were deposited in a low energy environment on the margins of San Francisco Bay. At shallow depths beneath these sediments are a series of Recent-age (<10,000 years) blue clay layers that become increasingly thicker toward San Francisco Bay. These clay layers are known as the Bay Mud and were deposited in San Francisco Bay during higher stands of sea level. In the vicinity of the Property it is likely that several hundred feet of these sediments overlie bedrock sedimentary rocks of the Jurassic-aged Franciscan Formation bedrock.

2.3 GROUNDWATER CHARACTERISTICS

The Property is located on the San Francisco Bay Plain in the northernmost part of the Santa Clara Valley Groundwater Basin, (RWQCB, 1986), the surface of which slopes gently down toward San Francisco Bay. The regional groundwater flow follows the topography, moving from areas of higher elevation to areas of lower elevation. The regional groundwater flow direction in the area of the Property is estimated to be toward the west.

A nearby leak site, Modern Mail Express, Inc., is located approximately 300 feet to the southeast of the Property. The depth to water has been reported to be approximately 3 feet below ground surface (bgs) to 10 feet bgs with a groundwater flow direction to the west (Rincon, 2013).

3.0 WORK PLAN

3.1 SCOPE OF PROPOSED INVESTIGATION

ERAS proposes a scope of work for this investigation as follows.

- Obtain a permit for drilling from the Alameda County Public Works Agency (ACPWA).
- Clear the boring locations for the presence of utilities by notifying Underground Service Alert and subcontracting a private underground locating/clearance service.
- Contract a state licensed drilling contractor to advance three borings using a direct push sample rig to approximately 20 feet bgs. These borings will be continuously logged.
- Collect a groundwater sample from the borings and submit for laboratory analysis.
- All groundwater samples will be analyzed for VOCs by EPA Method 8260.
- Prepare a report summarizing the results certified by a State of California Registered Geologist.

3.2 FIELD WORK COORDINATION

ERAS will procure a drilling permit from the ACPWA prior to drilling activities. The boring locations will be marked with paint and Underground Service Alert notified at least 48 hours in advance to give owners of underground utilities an opportunity to mark their lines. Prior to drilling, each boring location will be cleared using a private underground utility locator.

3.3 BORING LOCATIONS AND SAMPLING

The locations of the borings are shown on **Figure 2**. The Standard Operating Procedures for direct-push sampling is included in **Appendix B**.

Two of the borings will be advanced along the up-gradient northeastern side of the Property with one located in a close vicinity to boring B-1 previously advanced by International Geologic on June 20, 2000. An additional boring will be advanced centrally on the Property.

A groundwater sample will be collected from each boring for analysis. The groundwater samples will be kept chilled pending transport under chain-of-custody procedures to a California certified environmental analytical laboratory.

All groundwater samples will be analyzed for VOCs by EPA Method 8260.

3.4 FIELD AND REPORT SCHEDULE

The field work will be scheduled as soon as possible following approval of this work plan by the ACDEH. A report will be submitted within 30 working days of the completion of field activities.

4.0 REFERENCES

California Regional Water Quality Control Board, Water Quality Control Plan, San Francisco Bay Basin Region (2), December 1986.

EDR First Report with Topo, 3137 Magnolia Street, Oakland, CA 94608 Environmental Data Resources, Inc. June 5, 2017.

ERAS Environmental Inc., Phase 1 Environmental Site Assessment, 3137 Magnolia Street, Oakland, California, June 22, 2017.

Goldman, Harold B., Geology of San Francisco Bay prepared for San Francisco Bay Conservation and Development Commission, February 1967.

Helley, E.J., La Joie, K.R., Spangle, W.E., and Blair, M.L., Flatland Deposits of the San Francisco Bay Region, California - their geology and engineering properties and their importance to comprehensive planning, U.S. Geological Survey Professional Paper 943, 1974.

International Geologic, Summary Report Soil and Groundwater Sampling Conducted as Part of a Property Transaction Screen, 1201 32nd Street, Oakland, California, June 20, 2000.

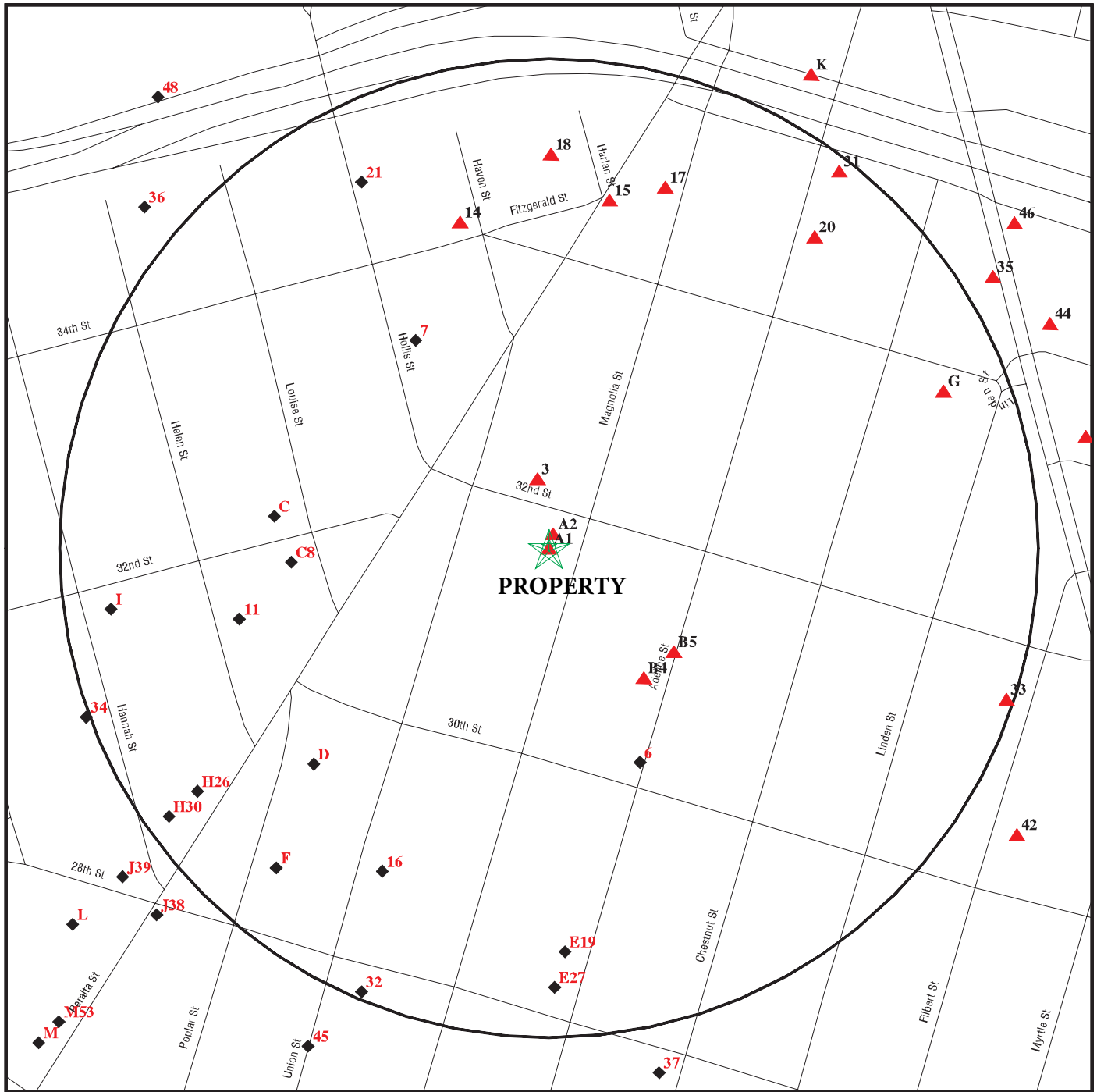
RGA Environmental, Inc., Subsurface Investigation Report (B-1 through B-3), 1201 32nd Street, Oakland, California, November 29, 2004.

Rincon Consultants, Inc., Phase I Environmental Site Assessment – ASTM 05, 3037, 3101, and 3115 Adeline Street, Oakland, California, November 15, 2013.

FIGURES

0.25 Mile Map

3137 MAGNOLIA ST. OAKLAND, CA 94608



Black Rings Represent Qtr. Mile Radius

- ★ Target Property (Latitude: 37.823788 Longitude: 122.28245)
- ▲ High or Equal Elevation Sites
- ◆ Low Elevation Sites
- ☒ National Priority List Sites

FIGURE 1 - SITE LOCATION MAP
3137 MAGNOLIA STREET, OAKLAND
ERAS PO# 17103B
 EDR First Report





Figure 2
Proposed Boring Location Map
 3137 Magnolia Street
 Oakland, California
 ERAS PO# 17103B

- Proposed Boring Locations
- Boring Locations
International Geologic, 2000
RGA, 2004



APPENDIX A

**INTERNATIONAL GEOLOGIC SUBSURFACE INVESTIGATION
JUNE 20, 2000**

32nd + Magnolia REPORT

6/12/2000

Summary Report

Soil and Groundwater Sampling
Conducted as Part of a Property Transaction Screen

GIVE TO MARY
IMPORTANT

of
1201 32nd Street
Oakland, California

INTRODUCTION

The work described in this letter report was recommended by International Geologic after a Transaction Screen was conducted at 1201 32nd Street, Oakland, California (Property) dated June 12, 2000. The findings of that Transaction Screen are presented below:

FINDINGS

- 1) The Property was a machine shop from 1926, until the mid to late 1950's. By 1959, it was occupied by a printing business until 1962 when a concrete slab was poured for "Sid's Linens" to support washing machines. By 1967, the Property was a used laundry machines warehouse, until 1971 when it was occupied by "Oakland Short Run Tool & Die". After approximately 1990, the Property was used to store used parts and machinery. The building burned in 1998, and the Property has been vacant since that time.
- 2) A records search conducted as part of a 1993 Transac the south at 1337 Magnolia Street, identified the Pt "Oakland Short Run Tool & Die" with a status of "h The CAL-SITES database is maintained by The State with known or potential hazardous substance target removed from the CAL-SITES list as of 1997.
- 3) The federal, state, and local agency records search in identified, nor is any adjoining property identified as l release of hazardous substances into the soil or groun
- 4) No significant staining or visible evidence of spills w walk through.



JUAN J. PEREZ
PRESIDENT



3355 RUBIN DR
OAKLAND, CA 94602
510 482 5723
FAX 510 530-5467

A REAL ESTATE CONSTRUCTION CO

- 5) Three 55-gallon drums and one 20-gallon drum were stored along the south side of the Property at the time of the site visit. One 55-gallon drum was empty, one was about half full of what appeared to be roofing tar, and the third drum was full of black oil or tar. The 20-gallon drum was full of white grease.
- 6) The closest documented release relative to the Property was from a leaking or overfilled gasoline storage tank formerly located approximately 500 feet to the northwest at Romak Iron Works at 3250 Hollis Street. The tank was removed in 1992, and the site is currently undergoing post-remedial groundwater monitoring. The site does not pose a substantive threat to soil or groundwater beneath the Property.

DISCUSSION

It could not be determined for the assessment the reasons why the Property was on the CAL SITES list during the 1990's. A file search conducted by personnel at the DTSC revealed no records for the Property. Property history does suggest the potential for an unauthorized release of petroleum hydrocarbons and/or volatile organic compounds (VOCs) into the subsurface. VOCs are in chlorinated solvents typically used by machine shops as a de-greasing agent, and in the dry cleaning process. Although it could not be confirmed that dry cleaning equipment was serviced or used on the Property, the possibility exists that it was. The fact that portions of the Property are unsealed, and that there appears to have been a system of liquids transfer on the surface of the Property through means of shallow trenches, increases the possibility that a release of contaminants to the subsurface could have occurred.

FIELD ACTIVITIES

Sample Collection

Prior to drilling, International Geologic obtained a permit from the Zone 7 Water Agency of Alameda County. A copy of the permit is included in Attachment 1. On June 12, 2000, two, 2-inch diameter borings were advanced in the southeast and northwest corners of the Property (B-1 and B-2 respectively). Boring locations are indicated on Figure 1.

Borings B-1 and B-2 were pushed to a depth of 20 feet below ground surface (bgs) using a Geoprobe® 5400 BPT rig operated by Precision Sampling of Richmond California. Soil samples were continuously collected from each borehole and contained in 2-inch diameter butyrate "Macro-Core" liners. The following soil samples were retained for laboratory analysis:

- Sample B1S1 collected from 15.5 feet bgs, boring B-1
- Sample B1S2 collected from 18 feet bgs, boring B-1
- Sample B2S1 collected from 15 feet bgs, boring B-2
- Sample B2S2 collected from 19.5 feet bgs, boring B-2

Groundwater was encountered in both boreholes at approximately 16 feet bgs. A temporary PVC well screen was placed in each borehole prior to groundwater sampling. The groundwater level in the temporary wells stabilized at approximately 11 feet bgs prior to sample collection. Groundwater samples were extracted from the temporary wells using a clean Teflon[®] bailer, then gently poured into laboratory-cleaned, 40-milliliter (ml) glass vials with .5 ml Hydrochloric acid added as a preservative. The sample vials were then sealed with Teflon[®]-lined caps, and inspected for air bubbles. Sample B1W was collected from boring B-1, and sample B2W was collected from boring B-2. After groundwater sample collection, the well screens were removed, and both borings were grouted to the surface with neat cement.

Sample Labeling and Handling

Sample containers were labeled in the field with the date, project number, and sample identification, then promptly placed in iced storage for transport to the laboratory. A Chain of Custody Record was initiated in the field and updated throughout handling of the samples. The samples were delivered to McCampbell Analytical of Pacifico, California (DHS Certified Number 1644) for analysis.

LABORATORY ANALYSIS

All samples were analyzed for volatile organic compounds by EPA Method 601.

LABORATORY ANALYTICAL RESULTS

Laboratory Analysis Data Sheets are included in Attachment 2 to this letter report. A summary of the analytical results are listed below. All Concentrations are expressed in parts per billion (ppb).

Boring B-1: Groundwater Sample B1W: 1,100,000 ppb trichloroethene.
(Soil Sample B1S1: 17,000 ppb trichloroethene) - solvent
Soil Sample B1S2: 12,000 ppb trichloroethene.

Boring B-2: Groundwater Sample B2W: 8.8 ppb trichloroethene.
Groundwater Sample B2W: 4.9 ppb tetrachloroethene. *ACZ - dry cleaning fluid*

The soil samples collected from Boring B-2 (B2S1 and B2S2) did not contain detectable concentrations of VOCs.

*• In the test
• Results
• State so they
• Monitor or add*

~~Chart~~
*Chlorinated compounds
which are carcinogenic.
Clay soil which holds*

INTERNATIONAL GEOLOGIC
JUNE 20, 2000

017.1.RPE
SUMMARY REPORT, 1201 72ND STREET, OAKLAND, CA

RECOMMENDATIONS

- 1) Additional subsurface exploration should be conducted on the Property to determine the extent of the VOC contamination.
- 2) The Alameda County Health Care Services Agency should be contacted to provide oversight for future environmental work.

If you have any questions or comments, please call me at (510) 530-8751. Thank you.

Sincerely,
International Geologic

Steve Blittman
Steve Blittman
Project Manager

Jeff Ramsey

Harbor
 * *1131 Parkway, Alameda*
567 6700 Hugo?
 call - *Susan on the other Ho3met*
 567-6863 No good for Section
 call ~~567~~-567 6700 Larry Suto not there

~~THE~~
6780

Chris - 5432410

International Geologic 2831 Sylhowe Road Oakland, CA 94602	Client Project ID: #017-1; Oakland	Date Sampled: 06/12/00
	Client Contact: Steve Bittman	Date Received: 06/12/00
	Client P.O.	Date Analyzed: 06/12-06/15/00

EPA method 801 or 8010

Volatile Halocarbons

Compound	Concentration	
	40130	40131
Bromodichloromethane	ND	ND
Bromoform ^(b)	ND	ND
Bromomethane	ND	ND
Carbon Tetrachloride ^(b)	ND	ND
Chlorobenzene	ND	ND
Chloroethane	ND	ND
1-Chloroethyl Vinyl Ether ^(c)	ND	ND
Chloroform ^(b)	ND	ND
Chloromethane	ND	ND
Dibromochloromethane	ND	ND
1,2-Dichlorobenzene	ND	ND
1,3-Dichlorobenzene	ND	ND
1,4-Dichlorobenzene	ND	ND
Dichlorodifluoromethane	ND	ND
1,1-Dichloroethane	ND	ND
1,2-Dichloroethane	ND	ND
1,1-Dichloroethene	ND	ND
cis-1,2-Dichloroethene	ND	ND
trans-1,2-Dichloroethene	ND	ND
1,2-Dichloropropane	ND	ND
cis-1,3-Dichloropropene	ND	ND
trans-1,3-Dichloropropene	ND	ND
Methylene Chloride ^(b)	ND<10	ND<10
1,1,1,2-Tetrachloroethane	ND	ND
Tetrachloroethene	ND<10	ND<10
1,1,1-Trichloroethane	ND	ND
1,1,2-Trichloroethane	ND	ND
Trichloroethene	ND	ND
Trichlorofluoromethane	ND	ND
Vinyl Chloride ^(c)	ND	ND
% Recovery Surrogate	104	93
Comments		

* Water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit, N/A means analysis not applicable to this analyte
 (b) bromomethane; (c) tetrachloroethane; (d) (2-chloroethyl) ethene; (e) trichloroethane; (f) dichloroethane; (g) chloroethane; (h) a lighter than water immiscible phase is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content

DHS Certification No. 1644

[Signature] Edward Hamilton, Lab Director

1000 SOUTH MILITARY ASSOCIATES

McCAMBELL ANALYTICAL INC.
 110 2nd AVENUE SUITE 407
 PALM BEACH, CA 94333

Telephone: (510) 798-1624 Fax: (510) 798-1622
 Report to: Steve Bellman Bill to: International Geologic
 Company: International Geologic
 2111 Sylvan Rd.
 Oakland, CA 94602
 Tele: (510) 530-8731 Fax: (510) 530-8794
 Project #: 017-1 Project Name:
 Project Location: Oakland
 Sampler Signature: Steve Bellman

CHAIN OF CUSTODY RECORD
 TURN AROUND TIME 1 2 3 4
 BUSINESS 24 HOUR 48 HOUR 5 DAY

SAMPLER ID	LOCATION	SAMPLING		# Containers	Type Container	MATRIX						METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Silage	Other	Ice	HCl	ENO	Other	
B1W		9/1/00		6	MA	X									
B1W				1	Water	X					X	X			
B1S1				1	Water	X					X	X			
B1S2				1	Water	X					X	X			
B2W				3	Water	X	X	X			X	X			
B2W				1	Water	X					X	X			
B2S1				1	Water	X					X	X			
B2S2		10/4/00		1	Water	X	X	X			X	X			

Analysis Request	Office	Comments
IRIS & THM's (EPA 921-813)		
TPH w/ Diesel (8013)		
Total Petroleum Oil & Grease (5310 (EPA826))		
Total Petroleum Hydrocarbons (3311)		
EPA 801 / 8010		
BTEX ONLY (EPA 807 / 8010)		
EPA 801 / 8030		
EPA 801 / 8030 PCB'S ONLY		
EPA 831 / 8340 / 8341		
EPA 833 / 8370		
PART 191 by EPA 831: 8370: 8370		
CA 117 Metals		
LEAD (724074212192/6010)		
AC		

401
 HOLD
 4014
 HOLD
 4014
 401
 4015
 4015

Prepared By: <u>Steve Bellman</u>	Date: <u>9/1/00</u>	Time: <u>1:00</u>	Received By: <u>Joe Buda</u>
Checked By: <u>Joe Buda</u>	Date: <u>9/1/00</u>	Time: <u>1:14</u>	Received By: <u>Marie Henegar</u>

Remarks: B1W had noticeable odor

LS 1202

MCCAMPBELL ANALYTICAL INC.
 110 2nd Avenue South, #137, Pacheco, CA 94553-5560
 Telephone: 925-798-1620 Fax: 925-798-1622
<http://www.mccampbell.com> E-mail: maln@mccampbell.com

International Geologic
 2831 Sylhowe Road
 Oakland, CA 94602

Client Project ID: #017-1: Oakland
 Date Sampled: 06/12/00
 Date Received: 06/12/00
 Client Contact: Steve Blitman
 Date Extracted: 06/12/00
 Client P.O.:
 Date Analyzed: 06/12-06/15/00

EPA Method 821 or 810 Volatile Halocarbons

Lab ID	40146	40147	40148	40149
Client ID	B1W	B1S1	B1S2	B1W
Matrix	W	S	S	W
Compound	Concentration			
Bromochloromethane	ND<10,000	ND<630	ND<300	ND
Bromoform	ND<10,000	ND<630	ND<300	ND
Dibromomethane	ND<10,000	ND<630	ND<300	ND
Carbon Tetrachloride	ND<10,000	ND<630	ND<300	ND
Chlorobenzene	ND<10,000	ND<630	ND<300	ND
Chloroethane	ND<10,000	ND<630	ND<300	ND
1,2-Dichloroethyl Vinyl Ether	ND<10,000	ND<630	ND<300	ND
Chloroform	ND<10,000	ND<630	ND<300	ND
Chloromethane	ND<10,000	ND<630	ND<300	ND
Dibromochloromethane	ND<10,000	ND<630	ND<300	ND
1,3-Dichlorobenzene	ND<10,000	ND<630	ND<300	ND
1,1-Dichloroethane	ND<10,000	ND<630	ND<300	ND
1,4-Dichlorobenzene	ND<10,000	ND<630	ND<300	ND
Dichlorodifluoromethane	ND<10,000	ND<630	ND<300	ND
1,1-Dichloroethene	ND<10,000	ND<630	ND<300	ND
1,2-Dichloroethene	ND<10,000	ND<630	ND<300	ND
1,1-Dichloroethane	ND<10,000	ND<630	ND<300	ND
cis 1,2-Dichloroethene	ND<10,000	ND<630	ND<300	ND
trans 1,2-Dichloroethene	ND<10,000	ND<630	ND<300	ND
1,2-Dichloropropane	ND<10,000	ND<630	ND<300	ND
cis 1,3-Dichloropropane	ND<10,000	ND<630	ND<300	ND
trans 1,3-Dichloropropane	ND<10,000	ND<630	ND<300	ND
Methylene Chloride	ND<10,000	ND<630	ND<300	ND
1,1,2,2-Tetrachloroethane	ND<10,000	ND<1500	ND<1200	ND<200
Tetrachloroethane	ND<10,000	ND<630	ND<300	ND
1,1,1-Trichloroethane	ND<10,000	ND<630	ND<300	ND
1,1,2-Trichloroethane	ND<10,000	ND<630	ND<300	ND
Trichloroethene	ND<10,000	ND<630	ND<300	ND
Trichlorofluoromethane	1,100,000	17,000	12,000	11
Vinyl Chloride	ND<10,000	ND<630	ND<300	ND
% Recovery Surrogate	92	93	90	91
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L; soil and sludge samples in ug/kg; wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.1ug/L; soils and sludges, ND<5ug/kg; wipes, ND<10ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis
 (a) bromomethane; (c) tetrachloroethane; (d) 1,2-dichloroethyl ethene; (e) trichloroethane; (f) dichloromethane; (g) chloroethane (h) lighter than water immiscible when is present, (i) liquid sample that contains greater than 5 vol. % sediment, (j) sample diluted due to high organic content.

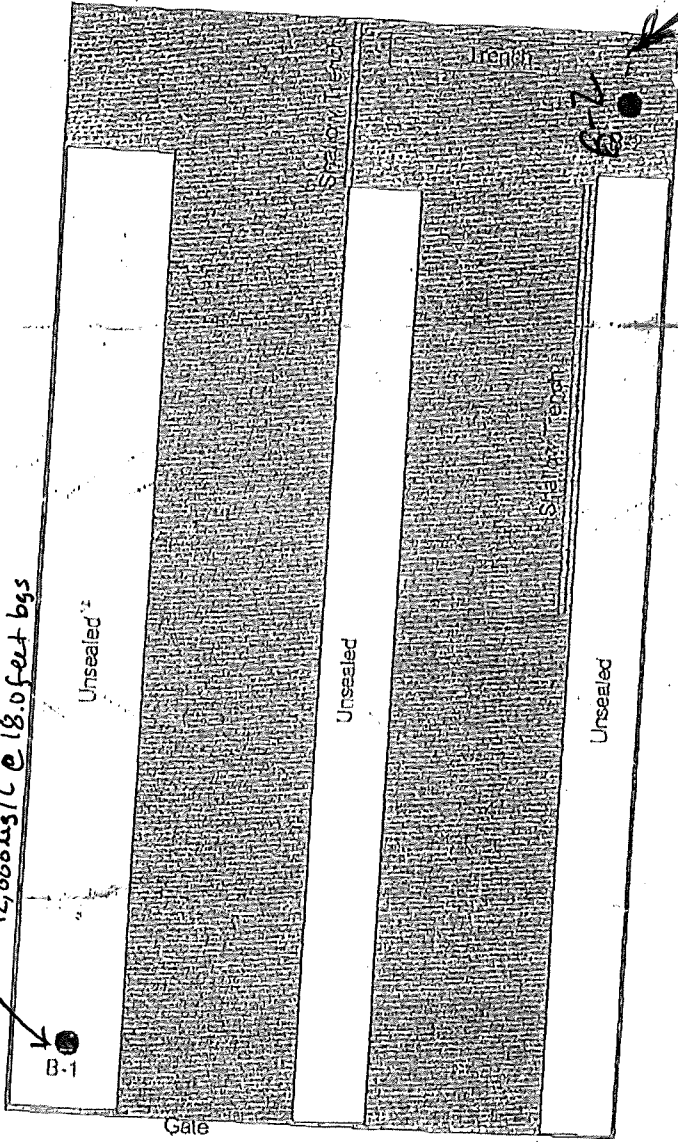
DHS Certification No. 1644

Ed Edward Hamilton, Lab Director

Adjoining Site at 1217 32nd Street

Property
Groundwater (B1W)
TCE
1,100,000 ug/L
Soil 17,000 ug/L @ 15.5 feet bgs
12,000 ug/L @ 18.0 feet bgs

North



~~B2W 8.8 ug/L TCE~~
B2W 8.8 ug/L TCE
B2W 4.9 ug/L PCE

International Geologic
Project Number 017-1

1201 32nd Street
Oakland, California

Magnolia Street
[Concrete Surface Symbol] = Concrete Surface
[Boring Location Symbol] = Boring Location

Figure 1
Not to Scale

APPENDIX B

**RGA ENVIRONMENTAL SUBSURFACE INVESTIGATION
NOVEMBER 15, 2004**

November 29, 2004
Report 0358.R1
RGA Job # PRZ10966

Mr. Juan Perez
Perez Construction
3355 Rubing Drive
Oakland, CA 94602



ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 11-15-2004 BY 60322 UCBAW

SUBJECT: SUBSURFACE INVESTIGATION REPORT (B1 THROUGH B3)
1201 32nd Street
Oakland, California

Dear Mr. Perez:

RGA Environmental, Inc. (RGA) is pleased to present this report documenting the drilling of three soil borings, designated as B1 through B3, and the collection of soil and groundwater samples from each soil boring at the subject site on November 15, 2004. The boreholes were drilled to evaluate the extent Halogenated Volatile Organic Compounds (HVOCs) in soil and groundwater at the subject site that had been detected at the subject site during a previous subsurface investigation performed by others. A Site Location Map is attached as Figure 1, and a Site Plan showing the drilling locations is attached as Figure 2.

All work was performed under the direct supervision of an appropriately registered professional. This work was performed in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

BACKGROUND

RGA's understanding of previous subsurface investigations at the site is based on review of portions of an undated report titled, "Summary Report – Soil and Groundwater Sampling Conducted as Part of a Property Transaction Screen" prepared by International Geologic of Oakland, California for the subject site. The report discusses historical use of the property and documents the drilling of two soil borings designated as B1 and B2 on June 12, 2000 at the site. The locations of the borings are shown on Figure 2.

Soil samples were retained for laboratory analysis at depths of approximately 15 and 19 feet below the ground surface. Groundwater was reported to have been initially encountered at a depth of approximately 16 feet below the ground surface, and subsequently stabilized at a depth of approximately 11 feet below the ground surface. One

groundwater sample was also collected from each borehole. All of the soil and groundwater samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 601.

The soil sample results showed that VOCs were not detected in the soil samples from borehole B2. In borehole B1, Trichloroethene (TCE) was detected at a concentration of 17 mg/kg at a depth of 15.5 feet and at a concentration of 12 mg/kg at a depth of 18 feet below the ground surface. TCE was detected in the groundwater samples from B1 and B2 at concentrations of 1,100 mg/L and 0.0088 mg/L, respectively. In addition, perchloroethene (PCE) was detected in the groundwater sample from borehole B2 at a concentration of 0.0049 mg/L.

Based on the results of the June 12, 2000 investigation and a request by Perez Construction to evaluate the extent of HVOCs in soil and groundwater at the site, RGA proposed that three boreholes designated as B3, B4 and B5 be drilled at the property between borings B1 and B2.

FIELD ACTIVITIES

Prior to drilling the boreholes, permit MW04-1133 was obtained from the Alameda County Public Works Agency. In addition, the drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, and a health and safety plan was prepared.

At the time of investigation, the site consisted of a vacant lot bordered by 32nd Street to the north, Magnolia Street to the east, and buildings to the south and west. The majority of the lot was covered with concrete. However, some portions of the lot consisted of bare earth.

Soil Boring Oversight and Sample Collection

On November 15, 2004 a total of three soil borings, designated as B3, B4, and B5, were drilled to characterize soil and groundwater conditions at the subject site. Boreholes B3 and B4 were continuously cored to a total depth of 19.0 feet and borehole B5 was continuously cored to a total depth of 20.0 feet. The drilling was completed by Vironex, Inc. of San Leandro, California using GeoProbe direct-push technology. Cellulose acetate liners were used in the GeoProbe core barrels to contain the continuous cores.

Subsurface materials were identified and evaluated based on the continuous cores from the boreholes and relative drilling difficulty. The soil from all of the borings was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System. All of the soil was evaluated with a 10.3 eV Photoionization Detector (PID) calibrated using a 100 ppm isobutylene standard. No organic vapors were

detected with the PID in any of the boreholes. No petroleum hydrocarbon or solvent odors were identified in any of the boreholes. The locations of the soil borings are shown on the attached Site Plan, Figure 2. Copies of the boring logs are attached with this report.

Soil samples were retained for laboratory analysis from a depth of 5.0 feet in each borehole in the following manner. An approximately six-inch long soil sample from the continuous core was retained in the cellulose acetate tubes by cutting the core barrel sample liner at the depths corresponding to the desired sample interval. The ends of the selected portion of tube were sequentially covered with aluminum foil and plastic endcaps, and the tube was then labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

Groundwater was initially encountered at a depth of 19.0 feet in boring B3, and in borings B4 and B5 at depths of 16.7 and 18.3 feet, respectively. Immediately after water was first encountered and the drilling equipment had been removed from the borehole, the depth to water in boreholes B3, B4 and B5 was measured at 8.0, 16.6, and 6.0 feet below the ground surface, respectively. A one-inch diameter PVC slotted pipe was placed into each borehole after groundwater was encountered for sample collection purposes.

One groundwater grab sample was collected from each borehole using polyethylene tubing and a stainless steel foot valve. No sheen or separate phase layers of petroleum hydrocarbons were observed and no petroleum hydrocarbon or solvent odors were detected in water in any of the boreholes. All water samples were transferred to 1-liter amber bottles and 40-milliliter glass Volatile Organic Analysis (VOA) vials containing hydrochloric acid preservative, which were sealed with Teflon-lined screw caps. The VOAs were overturned and tapped to ensure that air bubbles were not present. The samples were labeled and then placed into a cooler with ice pending delivery to the laboratory. Chain of custody procedures were followed for all sample handling.

All drilling equipment was steam cleaned prior to use at the site. All sampling equipment was either new disposable equipment, or was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. Following completion of sample collection activities, the boreholes were filled with neat cement grout. Soil generated during drilling was stored in one drum at the site pending characterization and disposal.

GEOLOGY AND HYDROGEOLOGY

Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene alluvium (Qpa). This alluvium is described as weakly consolidated, slightly weathered, poorly sorted, irregularly interbedded clay, silt, sand, and gravel.

The subsurface materials encountered in boreholes B3, B4, and B5 consisted of silty clay to the total depths explored of approximately 19.0, 19.0, and 20.0 feet, respectively, with the following exceptions. A clayey gravel layers were encountered in borehole B3 between the depths of 5.0 and 8.0 feet and 14.7 and 14.9 feet, and were encountered in borehole B4 between the depths of 5.5 and 7.0 feet and 16.7 and 17.0 feet. In addition, in borehole B4 a sand layer was encountered between the depths of 7.0 and 9.1 feet, and a silty sand layer was encountered between the depths of 17.0 and 19.0 feet below the ground surface.

Groundwater was initially encountered in the boreholes during drilling at depths of 16.7 to 19.0 feet, and was measured in the boreholes after removal of the drilling rods at depths of 8.0, 16.6, and 6.0 feet below the ground surface in boreholes B3, B4, and B5, respectively. The undated report prepared by International Geologic identified the depth to groundwater as approximately 16 feet below the ground surface based on the two soil borings drilled during the June, 2000 investigation.

The surface elevation at the site is between 15 and 20 feet above Mean Sea Level. Review of Figure 1 shows that the topography in the site vicinity gently slopes to the west, and that San Francisco Bay is located approximately 4000 feet northwest of the site. Based on the surface topography, the groundwater flow direction is assumed to be westerly.

LABORATORY ANALYSIS

All of the soil and groundwater samples from the boreholes were analyzed for HVOCs using EPA Method 8260B at McCampbell Analytical, Inc. (McCampbell) in Pacheco, California. McCampbell is a state-accredited hazardous waste testing laboratory, and is the same laboratory that was used for analysis of the samples collected by Geologic International during their June, 2000 investigation.

The sample results show that HVOCs were not detected in any of the soil samples with the exception of 15 ug/kg TCE in borehole B4 at a depth of 5.0 feet. The groundwater sample results show that TCE was detected in B3, B4 and B5 at concentrations of 28, 0.55 and 0.024 mg/L, respectively. In addition, PCE was detected in B5 at a concentration of 0.0094 mg/L. No other HVOCs were detected in any of the water samples.

The soil sample results are summarized in Table 1, and the groundwater sample results are summarized in Table 2. Copies of the laboratory analytical reports and chain of custody documentation are attached with this report.

DISCUSSION AND RECOMMENDATIONS

Review of the results from the June 2000 investigation in conjunction with the results from the current investigation indicate that the only HVOCs detected were TCE and PCE.

The only soil samples where TCE was detected were in the June 2000 B1 borehole at a concentration of 17 mg/kg at a depth of 15.5 feet and at a concentration of 12 mg/kg at a depth of 18 feet below the ground surface. The depth at which the TCE was detected in soil is approximately coincident with the depth to groundwater at the site. The TCE detected in soil in borehole B1 may have been transported horizontally to these locations by groundwater, and may not have originated at the ground surface in the vicinity of borehole B1. It is unknown if TCE is present at shallower depths at the B1 borehole location because soil samples were not collected for laboratory analysis at shallower depths from borehole B1. In the event that the source area for the TCE is at or near the ground surface in the southeast corner of the subject site, boreholes B3, B4 and B5 indicate that the horizontal extent of TCE in soil at the 5.0-foot depth at the site does not extend beyond the locations of boreholes B3, B4 and B5.

The highest concentrations of TCE in groundwater are in the southeast corner of the property at the B1 borehole location. Figure 3 shows isoconcentration contours for TCE in groundwater at the subject site. Review of Figure 3 shows that the TCE concentrations detected in the groundwater samples from all of the boreholes suggests that TCE is distributed in a westerly direction with a suspected source area in the vicinity of the southeast corner of the subject site. The westerly direction of distribution of TCE in groundwater is coincident with the inferred groundwater flow direction based on site vicinity topography.

PCE was only detected in the June 2000 B2 water sample at a concentration of 0.0049 mg/L, the B4 soil sample at a concentration of 15 ug/kg, and in the B5 water sample at a concentration of 0.0094 mg/L. Because of relatively high TCE concentrations in some of the samples, the associated detection limits for PCE in these samples were elevated. The low concentrations of PCE for samples where PCE was detected are below the elevated PCE detection limits for the samples where TCE was detected. It is possible that PCE could be present at concentrations below the elevated detection limits in samples where elevated PCE detection limits were reported. Isoconcentration contours for PCE in groundwater at the subject site are shown in Figure 4.

The San Francisco Bay Regional Water Quality Control Board (RWQCB) has established Environmental Screening Levels (ESLs) for preliminary evaluation of contaminants at sites. The Volume 1 ESL Tables published in July 2003 and updated in February 2004 establish a PCE soil concentration of 88 ug/kg for residential use and 250 ug/kg for industrial or commercial use of a property. Similarly, the ESL tables show TCE soil concentrations of 260 ug/kg for residential use and 460 ug/kg for conditions where groundwater is a current or potential source of drinking water or 730 ug/kg where groundwater is not a current or potential source of drinking water. Unless otherwise specified, groundwater in Alameda county is considered a potential source of drinking water.

Comparison of detected PCE concentrations in soil with associated ESLs show that the 15 ug/kg of PCE detected in borehole B4 is below all of the established ESLs for PCE in soil, and is therefore not considered to be of concern. However, the source of the PCE in the soil sample at borehole B4 has not been determined. Comparison of detected TCE concentrations in soil (in borehole B1) with associated ESLs shows that all detected concentrations of TCE in soil exceed all published ESLs for TCE in soil. When ESLs are exceeded, additional evaluation of the detected contaminants is warranted prior to obtaining case closure from the oversight regulatory agency.

Review of the Volume 1 ESL Tables shows PCE groundwater concentrations of 0.005 mg/L for conditions where groundwater is a current or potential source of drinking water or 0.12 mg/L where groundwater is not a current or potential source of drinking water. Similarly the ESL tables show TCE groundwater concentrations of 0.005 mg/L for conditions where groundwater is a current or potential source of drinking water or 0.36 mg/L where groundwater is not a current or potential source of drinking water. Comparison of the groundwater ESL for PCE with the detected concentrations of PCE shows that PCE in groundwater in borehole B2 is below the ESL and that PCE in borehole B5 is slightly above the ESL of 0.005 mg/L. Based on these results the extent of PCE appears to have been defined to the north of the site. However, as discussed above the elevated detection limits for the groundwater samples where PCE was not detected suggests that PCE may be present at higher concentrations

Comparison of the groundwater ESL for TCE with the detected concentrations of TCE shows that detected TCE concentrations exceeded the ESL of 0.005 mg/L in all five of the groundwater samples. Similar to PCE in groundwater, the extent of TCE in groundwater appears to have been defined to the north of the site.

Because the parcels adjacent to the site on the south and west are occupied by buildings, it is not readily possible to evaluate the presence of PCE and TCE in groundwater at these parcels. RGA recommends the following.

- 1) A copy of this report be provided to the Alameda County Department of Environmental Health, and that regulatory agency approval be obtained for any necessary additional investigation to expedite obtaining case closure.
- 2) A total of six offsite boreholes be drilled at locations shown on the attached Site Vicinity Map (Figure 3) to evaluate the extent of TCE and PCE in groundwater.
- 3) Soil samples be collected at a depth of approximately five feet below the ground surface from a minimum of three locations in the vicinity of borehole B1 to evaluate the southeast corner of the property as the source area for the TCE and PCE detected in groundwater. RGA recommends that excavation of a trench be considered for soil sample collection and evaluation of the southeast corner of the property.

LIMITATIONS

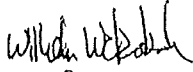
This report was prepared solely for the use of Mr. Juan Perez of Perez Construction. The content and conclusions provided by RGA in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

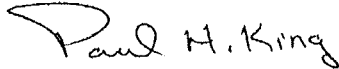
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. RGA is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 547-7771.

Sincerely,
RGA Environmental, Inc.




for
Karin Schroeter
Project Manager




Paul H. King
California Registered Geologist # 5901
Expires: 12/31/05

Attachments: Table 1 Summary of Laboratory Analytical Results-Soil Samples
Table 2 Summary of Laboratory Analytical Results-Groundwater Samples
Figure 1 Site Location Map
Figure 2 Site Plan
Figure 3 Site Vicinity Map with TCE Isoconcentration Contours in
Groundwater (mg/L)
Figure 4 Site Vicinity Map with PCE Isoconcentration Contours in
Groundwater (mg/L)
Soil Boring Logs (3)
Laboratory Analytical Reports
Chain of Custody Documentation

PHK/wrw
0358.R1

 McCampbell Analytical, Inc.		1102nd Avenue South, #D7, Pichero, CA 94553-5560 Telephone: 925-791-1620 Fax: 925-791-1622 Website: www.mccampbell.com E-mail: main@mccampbell.com			
RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #PRZ 10966; 1201 32nd St., Oakland		Date Sampled: 11/15/04		
	Client Contact: Wilhelm Welzenbach		Date Received: 11/16/04		
	Client P.O.:		Date Extracted: 11/16/04		
			Date Analyzed: 11/17/04		
Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*					
Extraction Method: SW5030B		Analytical Method: SW#2609		Work Order: 0411233	
Lab ID	0411233-001A	0411233-002A	0411233-003A		
Client ID	B3-5.0	B4-5.0	B5-5.0	Reporting Limit for DF =1	
Matrix	S	S	S		
DF	1	1	1	S	W
Compound	Concentration			µg/Kg	µg/L
Bromodichloromethane	ND	ND	ND	5.0	NA
Bromoform	ND	ND	ND	5.0	NA
Bromomethane	ND	ND	ND	5.0	NA
Carbon Tetrachloride	ND	ND	ND	5.0	NA
Chlorobenzene	ND	ND	ND	5.0	NA
Chloroethane	ND	ND	ND	5.0	NA
2-Chloroethyl Vinyl Ether	ND	ND	ND	5.0	NA
Chloroform	ND	ND	ND	5.0	NA
Chloromethane	ND	ND	ND	5.0	NA
Dibromochloromethane	ND	ND	ND	5.0	NA
1,2-Dichlorobenzene	ND	ND	ND	5.0	NA
1,3-Dichlorobenzene	ND	ND	ND	5.0	NA
1,4-Dichlorobenzene	ND	ND	ND	5.0	NA
Dichlorodifluoromethane	ND	ND	ND	5.0	NA
1,1-Dichloroethane	ND	ND	ND	5.0	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND	5.0	NA
1,1-Dichloroethene	ND	ND	ND	5.0	NA
cis-1,2-Dichloroethene	ND	ND	ND	5.0	NA
trans-1,2-Dichloroethene	ND	ND	ND	5.0	NA
1,2-Dichloropropane	ND	ND	ND	5.0	NA
cis-1,3-Dichloropropene	ND	ND	ND	5.0	NA
trans-1,3-Dichloropropene	ND	ND	ND	5.0	NA
Methylene chloride	ND	ND	ND	5.0	NA
1,1,2,2-Tetrachloroethane	ND	ND	ND	5.0	NA
Tetrachloroethene	ND	15	ND	5.0	NA
1,1,1-Trichloroethane	ND	ND	ND	5.0	NA
1,1,2-Trichloroethane	ND	ND	ND	5.0	NA
Trichloroethene	ND	ND	ND	5.0	NA
Trichlorofluoromethane	ND	ND	ND	5.0	NA
Vinyl Chloride	ND	ND	ND	5.0	NA
Surrogate Recoveries (%)					
%SS1:	101	105	104		
%SS2:	97	98	98		
%SS3:	103	105	106		
Comments					
* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sediment/solid samples in µg/kg, wipe samples in µg/wipe, produce/water/aqueous liquid samples in mg/L.					
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 (miscible when product is present); i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight.					

DHS Certification No. 1644

 Angela Rydelius, Lab Manager




Emeryville, CA 94608
510-547-7771
510-547-1983 fax
www.rgaenv.com

0441255

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: PRZ 10966		PROJECT NAME: 1201 32nd St, Oakland			NUMBER OF CONTAINERS	ANALYSIS(ES): HVOCS by 8710			PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach										
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION						
B3-5.0	11/15/04		soil	South (center) edge	1	X			ICE	Normal Turnaround
B4-5.0				middle of lot		X				
B5-5.0				north east corner		X				
FROM <input checked="" type="checkbox"/> GOOD CONDITION HEAD SPACE ADEQUATE <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> DECONTAMINATED IN LAB <input type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> PRESERVATION: YEARS <input type="checkbox"/> SOLID <input type="checkbox"/> LIQUID <input type="checkbox"/> OTHER <input type="checkbox"/>										
RELINQUISHED BY: (SIGNATURE) Wilhelm Welzenbach	DATE 11/16	TIME 2:25	RECEIVED BY: (SIGNATURE) [Signature]		TOTAL NO. OF SAMPLES (THIS SHIPMENT) 3	LABORATORY: McCampbell Analytical				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) 3	LABORATORY CONTACT: Angelabrydges (925) 788-1620				
RELINQUISHED BY: (SIGNATURE) [Signature]	DATE 11/16/04	TIME 5:45	RECEIVED FOR LABORATORY BY: (SIGNATURE) [Signature]		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO					
REMARKS:										

NOV 22 2004 1:18PM MCHAMPBELL ANALYTICAL 9257984612 P.2

 McC Campbell Analytical, Inc.		1102nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 Website: www.mccampbell.com E-mail: info@mccampbell.com			
RGA Environmental 1466 66th Street Emeryville, CA 94608	Client Project ID: #PRZ 10966; 1201 32nd St., Oakland	Date Sampled: 11/15/04			
	Client Contact: Wilhelma Weizenbach	Date Received: 11/16/04			
	Client P.O.:	Date Extracted: 11/17/04			
		Date Analyzed: 11/17/04			
Halogenated Volatile Organics by P&T and GC-MS (8010 Basic Target List)*					
Extraction Method: SW5010B		Analytical Method: SW8760B			
		Work Order: 0411238			
Lab ID	0411238-001A	0411238-002A	0411238-003A		
Client ID	B3-Water	B4-Water	B5-Water		
Matrix	W	W	W		
DF	1000	20	1		
			Reporting Limit for DF = 1		
			S W		
Compound	Concentration			µg/kg	µg/L
Bromodichloromethane	ND<500	ND<10	ND	NA	0.5
Bromoform	ND<500	ND<10	ND	NA	0.5
Bromomethane	ND<500	ND<10	ND	NA	0.5
Carbon Tetrachloride	ND<500	ND<10	ND	NA	0.5
Chlorobenzene	ND<500	ND<10	ND	NA	0.5
Chloroethane	ND<500	ND<10	ND	NA	0.5
2-Chloroethyl Vinyl Ether	ND<500	ND<10	ND	NA	0.5
Chloroform	ND<500	ND<10	ND	NA	0.5
Chloromethane	ND<500	ND<10	ND	NA	0.5
Dibromochloromethane	ND<500	ND<10	ND	NA	0.5
1,2-Dichlorobenzene	ND<500	ND<10	ND	NA	0.5
1,3-Dichlorobenzene	ND<500	ND<10	ND	NA	0.5
1,4-Dichlorobenzene	ND<500	ND<10	ND	NA	0.5
Dichlorodifluoromethane	ND<500	ND<10	ND	NA	0.5
1,1-Dichloroethane	ND<500	ND<10	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<500	ND<10	ND	NA	0.5
1,1-Dichloroethene	ND<500	ND<10	ND	NA	0.5
cis-1,2-Dichloroethene	ND<500	ND<10	ND	NA	0.5
trans-1,2-Dichloroethene	ND<500	ND<10	ND	NA	0.5
1,2-Dichloropropane	ND<500	ND<10	ND	NA	0.5
cis-1,3-Dichloropropene	ND<500	ND<10	ND	NA	0.5
trans-1,3-Dichloropropene	ND<500	ND<10	ND	NA	0.5
Methylene chloride	ND<500	ND<10	ND	NA	0.5
1,1,2,2-Tetrachloroethane	ND<500	ND<10	ND	NA	0.5
Tetrahydroethene	ND<500	ND<10	9.4	NA	0.5
1,1,1-Trichloroethane	ND<500	ND<10	ND	NA	0.5
1,1,2-Trichloroethane	ND<500	ND<10	ND	NA	0.5
Trichloroethene	28,000	550	24	NA	0.5
Trichlorofluoromethane	ND<500	ND<10	ND	NA	0.5
Vinyl Chloride	ND<500	ND<10	ND	NA	0.5
Surrogate Recoveries (%)					
%SS1:	101	102	103		
%SS2:	93	94	93		
%SS3:	102	101	100		
Comments	i	j	i		


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

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; k) reporting limit raised due to insufficient sample amount.

DHS Certification No. 1644

 Angela Rydelius, Lab Manager

McC Campbell Analytical, Inc.



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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0411238

ClientID: RGAE

Report to:

Wilhelm Wetzenbach
 RGA Environmental
 1488 68th Street
 Emeryville, CA 94608

TEL: (510) 547-7771
 FAX: (510) 547-1983
 ProjectNo: #PRZ 10968; 1201 32nd St., Oakland
 PO:

Bill to:

Accounts Payable
 RGA Environmental
 1488 68th Street
 Emeryville, CA 94608

Requested TAT: 5 days

Date Received: 10:18 PM

Date Printed: 11/16/04

Sample ID	ClientSampleID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	16	
0411238-001	B3-Water	Water	11/15/04	<input type="checkbox"/>	A															
0411238-002	B4-Water	Water	11/15/04	<input type="checkbox"/>	A															
0411238-003	B5-Water	Water	11/15/04	<input type="checkbox"/>	A															

Test Legend:

1	80108MS_W	2		3		4		5	
6		7		8		9		10	
11		12		13		14		16	

Prepared by: Melissa Valles

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.

NOV 22 2004 11:23 PM

NCURM-BELL HNHLY110HL

9257984512

P.7

Pym



1700 00 Street
Emeryville, CA 94601
510-547-7771
510-547-1983 fax
www.rgaenv.com

04/12/08

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: PK 7 10966			PROJECT NAME: 1201 32nd St., Oakland			NUMBER OF CONTAINERS 7	ANALYSIS(ES): HVOs by 8016	PRESERVATIVE ICE	REMARKS Normal Turnaround
SAMPLED BY: (PRINTED AND SIGNATURE) Wilhelm Welzenbach									
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES)	PRESERVATIVE	REMARKS	
B3 - water	11/19/04		water	South edge (center)	7	X	ICE	Normal Turnaround	
B4 - water	↓		↓	middle of lot	↓	X	↓	↓	
B5 - water	↓		↓	Northwest corner	↓	X	↓	↓	
WITH <input checked="" type="checkbox"/> GOOD CONTAMINATION TRAIL SPACE ABSENT <input checked="" type="checkbox"/> APPROPRIATE DISCONTINUED BY CAR <input checked="" type="checkbox"/> PRESERVED IN LAB PRESERVATIVE <input checked="" type="checkbox"/> VOA <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>									
RELINQUISHED BY: (SIGNATURE) Wilhelm Welzenbach	DATE 11/16/04	TIME 2:25	RECEIVED BY: (SIGNATURE) Scott Em	TOTAL NO. OF SAMPLES (THIS SHEET) 3		LABORATORY: McCampbell Analytical			
RELINQUISHED BY: (SIGNATURE) Scott Em	DATE 11/16/04	TIME 5:45	RECEIVED FOR LABORATORY BY: (SIGNATURE) J. Novell	TOTAL NO. OF CONTAINERS (THIS SHEET) 21		LABORATORY CONTACT: Angela Rydelius LABORATORY PHONE NUMBER: 1925 798-1620			
REMARKS: VOAs preserved to HCL.						SAMPLE ANALYSIS REQUEST SHEET ATTACHED: () YES (X) NO			

T30
T30
FS



FIGURE 1
 SITE LOCATION MAP
 1201 32nd Street
 Oakland, California



Base Map From:
 U.S. Geological Survey
 Oakland West, California
 7 1/2 Minute Quadrangle
 Photorevised 1980

RGA Environmental, Inc.
 1466 66th Street
 Emeryville, CA 94608


0 1,000 2,000

 SCALE IN FEET

TABLE 2
SUMMARY OF LABORATORY ANALYTICAL RESULTS
GROUNDWATER SAMPLES
(Samples Collected on November 15, 2004)

Sample Name	TCE	PCE	Other HVOCs by EPA 8260B
B3-water	28	ND<0.0005	ND<0.0005
B4-water	0.55	ND<0.0005	ND<0.0005
B5-water	0.024	0.0094	ND<0.0005

NOTES:

TCE = Trichloroethene.

PCE = Perchloroethene.

HVOCs = Halogenated Volatile Organic Compounds

ND = Not detected.

Results are in mg/L, unless otherwise indicated.

TABLE I
SUMMARY OF LABORATORY ANALYTICAL RESULTS
SOIL SAMPLES
(Samples Collected on November 15, 2004)

Sample Name	TCE	PCE	Other HVOCs by EPA 8260B
B3-5.0	ND<5.0	ND<5.0	ND<5.0
B4-5.0	ND<5.0	15	ND<5.0
B5-5.0	ND<5.0	ND<5.0	ND<5.0

NOTES:

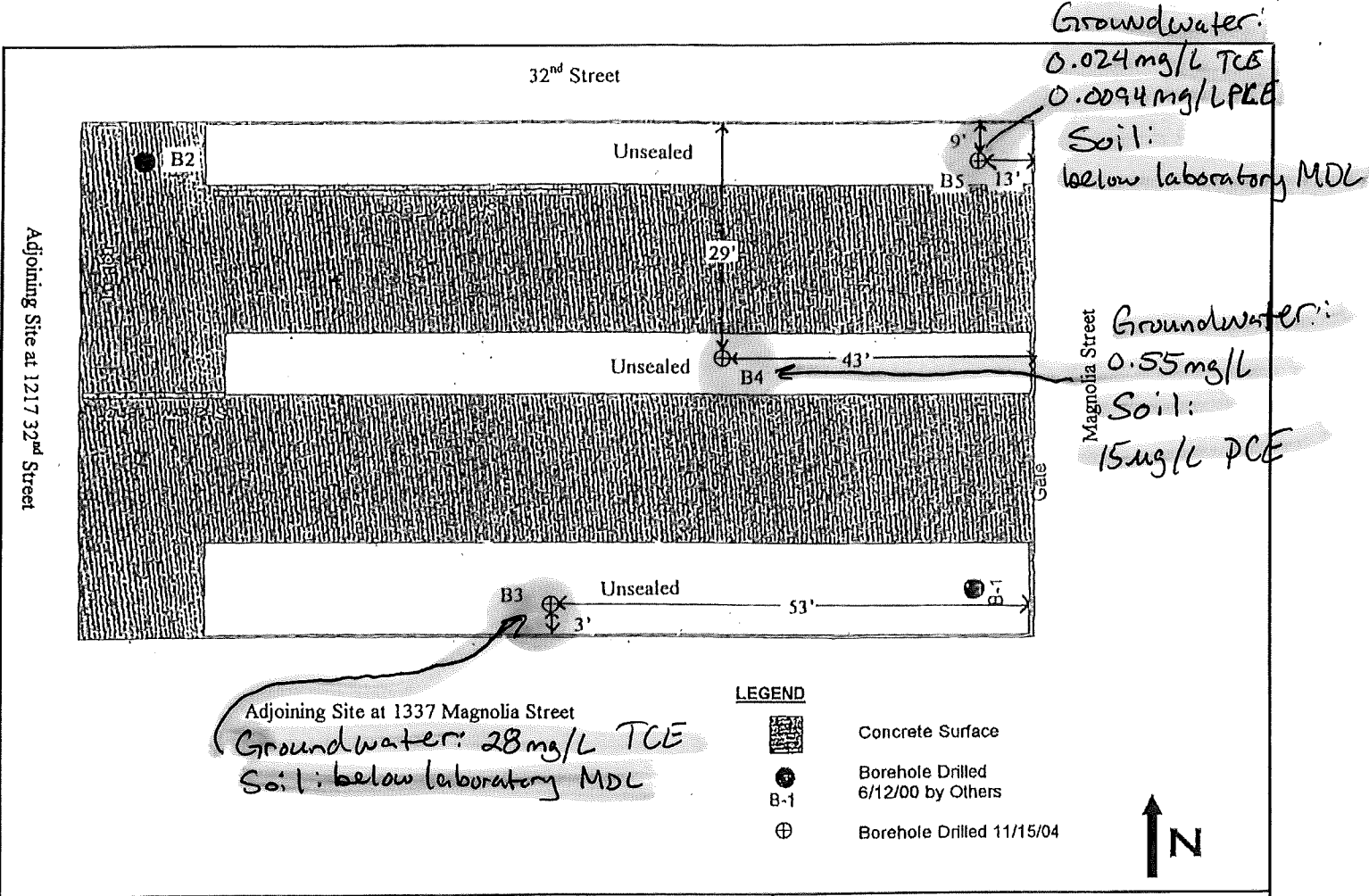
TCE = Trichloroethene.

PCE = Perchloroethene.

HVOCs = Halogenated Volatile Organic Compounds

ND = Not detected.

Results are in ug/kg, unless otherwise indicated.



Base Map Prepared From:
International Geologic
Summary Report — Project 017-1
June 20, 2000

FIGURE 2
SITE PLAN
1201 32nd Street
Oakland, California

NOT TO SCALE

APPENDIX C

Standard Operating Procedures

STANDARD OPERATING PROCEDURE – DIRECT PUSH BORINGS

SOIL CORING AND SAMPLING PROCEDURES

Prior to drilling, all boreholes will be hand dug to a depth of 4-5 feet below ground surface (bgs) to check for underground utilities.

Soil and groundwater samples are collected for lithologic and chemical analyses using a direct driven soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. As the rods are advanced, soil is driven into an approximately 2.5-inch-diameter sample barrel that is attached to the end of the rods. Soil samples are collected in sleeves inside the sample barrel as the rods are advanced. After being driven 4 to 5 feet into the ground, the rods are removed from the borehole. The sleeve containing the soil core is removed from the sample barrel, and can then be preserved for chemical analyses, or used for lithologic description. This process is repeated until the desired depth or instrument refusal is reached.

A soil core interval selected for analyses is cut from the sleeve using a pre-cleaned hacksaw. The ends of the tube are covered with aluminum foil or Teflon liner and sealed with plastic caps. The soil-filled liner is labeled with the bore number, sample depth, site location, date, and time. The samples are placed in bags and stored in a cooler containing ice. Soil from the core adjacent to the interval selected for analyses is placed in a plastic zip-top bag. The soil is allowed to volatilize for a period of time, depending on the ambient temperature. The soil is scanned with a flame-ionization detector (FID) or photo-ionization detector (PID).

All sample barrels, rods, and tools (e.g. hacksaw) are cleaned with Alconox or equivalent detergent and de-ionized water. All rinsate from the cleaning is contained in 55-gallon drums at the project site.

GROUNDWATER SAMPLING FROM DIRECT PUSH BORINGS

After the targeted water-bearing zone has been penetrated, the soil-sample barrel is removed from the borehole. Small-diameter well casing with 0.010-inch slotted well screen may be installed in the borehole to facilitate the collection of groundwater samples. Threaded sections of PVC are lowered into the borehole. Groundwater samples may then be collected with a bailer, peristaltic pump, submersible or other appropriate pump until adequate sample volume is obtained. Peristaltic pumps are not used in applications requiring a lift of greater than 1 foot of net head.

Groundwater samples are preserved, stored in an ice-filled cooler, and are delivered, under chain-of-custody, to a laboratory certified by the California Department of Health Services (DHS) for hazardous materials analysis.

BOREHOLE GROUTING FOR DIRECT PUSH BORINGS

Upon completion of soil and water sampling, boreholes will be abandoned with neat cement grout to the surface. If the borehole was advanced into groundwater, the grout is pumped through a grouting tube positioned at the bottom of the borehole.