ALLCAL PROPERTY SERVICES, INC.
ENVIRONMENTAL INVESTIGATIONS

February 17, 1999

REPORT OF SOIL AND GROUNDWATER ASSESSMENT AND PROPOSED WORK PLAN FOR FURTHER ASSESSMENT

Morris F. Donnelly
Jeffery W. Kerry
Kerry & Associates
151 Callan Avenue, Suite 202
San Leandro, CA 94577

RE: Palace Garage, 14336 Washington Avenue, San Leandro, CA 94587

Dear Messrs. Donnelly and Kerry:

Thank you for contracting with Allcal Property Services, Inc. (ALLCAL) to write this letter report of a soil and groundwater assessment at the above referenced property. The assessment was conducted according to a January 20, 1999, work plan approved by the Alameda County Health Care Services Agency (ACHCSA) in a January 25, 1999, letter (attached).

BACKGROUND

The following background regarding tank closure and soil remediation is summarized from information provided by you (Client).

On February 11, 1991, an underground, 550-gallon, single-walled, steel, gasoline tank was removed by Verl's Construction, Inc. (Verl). The tank and its associated dispenser and piping were located at the northeast corner of the Palace Garage building (see attached SITE PLAN). Examination of the tank, after its removal, revealed four small holes at the top of the southerly end of the tank. Two holes were pin size and the other two were about .25 and .5 inches in diameter. The piping appeared in good condition. Based on visual observations, the presence of odor, and head-space analysis using a photo-ionization detector (PID), it was determined the soil in the tank excavation contained gasoline contamination. One discrete soil sample (SS-1) was collected for chemical analysis from native soil directly below the tank at a depth of about 10 feet below grade. Results of chemical analyses detected total petroleum hydrocarbons as gasoline (TPHG) at a concentration of 19 parts per million (ppm).

Benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected at concentrations of .21 ppm, .41 ppm, .043 ppm, and .14 ppm, respectively. Organic lead was detected at a concentration of 7 ppm.

On the day of the tank removal, additional soil excavation (overexcavation) was conducted to remove contaminated soil. It is reported (June 8, 1994, Kerry & Associates letter) that additional soil was removed to the depth that the on-site backhoe could reach, about 18 to 20 feet. A March 7, 1991, tank closure report prepared by Century West Engineering Corporation (Century West) included PID head-space measurements, from 5 to 12.5 feet deep, that were recorded during overexcavation activities. The head-space measurements showed increasing field vapors, from 170 ppm at 5 feet below grade to 880 ppm at 12.5 feet below grade. A February 25, 1991, letter from Verl indicates that soil samples from the bottom of the final excavation had vapor concentrations "substantially" lower than those shallower in the excavation; however, there is no documentation of these lower concentrations. One composite soil sample (SS-2.1, 2.2, and 2.3) was collected for chemical analysis from the stockpiled soil (resulting from tank removal and overexcavation activities) to assess disposal options. Results of chemical analyses detected concentrations of TPHG at 1,900 ppm. BTEX were detected at concentrations of 1.2 ppm, 14 ppm, 11 ppm, and 67 ppm, respectively. Organic lead was detected at a concentration of 9.9 ppm.

After conducting remedial overexcavation, the hole was lined with plastic and backfilled with pea gravel.

No groundwater was encountered during the tank removal or overexcavation activities.

The excavated soil was spread and aerated on site. After aeration, Century West sampled and characterized the soil for off-site disposal. Verl hauled and disposed of the soil to a landfill in Richmond, California.

SOIL AND GROUNDWATER ASSESSMENT PROCEDURES

As a further assessment of gasoline contamination of the vadose zone soil and groundwater, ALLCAL drilled four soil borings for the collection and analysis of soil and "grab" groundwater samples.

The following work was conducted:

- Submitted a January 20, 1999, work plan to the Client and ACHCSA for their comment and approval.
- Obtained a soil boring permit from the Alameda County Public Works Agency (ACPWA) and notified Underground Service Alert (USA).

- Drilled four exploratory soil borings and continuously logged the soil profile.
- Collected two soil samples and one "grab" groundwater sample from each boring for chemical analysis.
- Analyzed all soil and groundwater samples for TPHG, BTEX, and methyl tert-butyl ether (MTBE).
- Sealed all borings to ground surface with hydrated bentonite and asphalt or cement.
- Prepared this report.

Details of the above work are presented below.

Pre-field Activities:

Prior to drilling soil borings, ALLCAL: (1) obtained approval of a January 20, 1999, work plan from the ACHCSA, (2) obtained a soil boring permit (attached) from the ACPWA, (3) visited the site to mark the locations of the proposed soil borings and notified USA, (4) subcontracted Fisch Environmental Exploration Services (C57 License 683856), located in Valley Springs, California, to drill the soil borings, and (5) gave 48 hours notice to the ACHCSA prior to drilling the borings.

Locations of Soil Borings:

On February 1, 1999, ALLCAL supervised the drilling of four soil borings (SB-1 through SB-4), at the approximate locations shown in the attached SITE PLAN, to further assess vadose zone soil and groundwater contamination by TPHG, BTEX, and MTBE. The boring locations were chosen based on drill rig accessibility and the estimated direction of regional groundwater flow (southwest to south-southwest).

Soil boring SB-1 was drilled at a location estimated to be downgradient from the former underground tank and in the area of the former piping and dispenser. Soil borings SB-2 and SB-3 were drilled at locations cross-gradient to the direction of estimated groundwater flow to assess the cross-gradient, lateral extent of potential soil and groundwater contamination. Soil boring SB-4 was drilled at a location about 20 feet southwest of boring SB-1 (in the estimated downgradient direction from boring SB-1).

Soil and Groundwater Assessment Methodology:

The following discusses soil boring and soil and groundwater sampling procedures. See Attachments A, B, and C for ALLCAL's sample handling procedures, quality assurance and quality control procedures, and waste handling and decontamination procedures.

Soil Boring and Soil and Groundwater Sampling Procedures

Soil borings SB-2 and SB-3, the first two drilled, were continuously cored to a total depth of about 20 feet to investigate the depth to groundwater and to examine the aquifer lithology. The remaining two borings were continuously cored to the top of the aquifer, a depth of about 16.

All borings were drilled with the Geoprobe System, small diameter (about 2-inch) drill casing, direct-push technology. Soil samples were continuously collected as core into a polyethylene terephthalate glycol (PETG) liner in 4-foot depth intervals. The liner was contained within the 2-inch drill casing. The drill casing and enclosed PETG liner, were pushed by drill rods in 4-foot depth intervals to the total depth of each boring. After driving each 4-foot interval, the drill casing and enclosed liner were retrieved, and the soil core was examined for contamination, for selection of soil samples to be analyzed, and for construction of lithologic logs.

Two soil samples were selected from each boring at depths of about 10 to 10.5 feet and 15 to 15.5 feet, and preserved for chemical analysis. In boring SB-4, the upper sample was collected at the depth of 11.5 to 12 feet because apparent contamination was present at this depth. Soil samples were also selected at various depths for head-space analysis using a PID (see attached EXPLORATORY BORING LOGS). Head-space analysis was conducted by placing a handful of soil in a quart-size plastic bag, sealing the bag air-tight, placing the bag in the sun, and allowing at least 15 minutes for gasoline vapors from the soil to volatilize into the head-space of the bag. The probe of the PID was then inserted into the head-space of the bag, while minimizing the entrance of fresh air, and the concentration of vapors was recorded in ppm.

To minimize the potential for cross-contamination, the drill casing was cleaned with trisodium phosphate or Alconox-type detergent and rinsed with clean tap water between sampling events and prior to beginning each boring.

"Grab" groundwater samples were collected by using a Geoprobe, stainless-steel, discrete water sampler. "Grab" samples were obtained by using an expendable drive point to drive the sampler to the sampling depth, then; about 4 feet of an internal screen was exposed to allow water to enter the sampler. Water was collected from the sampler with Teflon tubing having an attached ball valve. The tubing was moved up and down within the water column until water was "pushed" up the tubing and discharged in 40-milliliter vials. In borings SB-2 and SB-3, the discrete water sampler was driven from 20 to 21 feet in depth before exposing the screen and collecting a water sample. In the remainder of the borings, the discrete water sampler was pushed from 16 to 21 feet before exposing the screen and collecting a water sample.

After all soil and groundwater samples were collected, each boring was sealed to within about 4 inches of grade with hydrated bentonite; the remainder of the boring was sealed with asphalt for borings SB-1, SB-2, and SB-3 and with cement for boring SB-4.

A log of the soil profile was prepared for each boring (attached). The soil was logged according to the Unified Soil Classification System by a California Registered Geologist.

Drill cuttings are stored on site in four, labeled, 5-gallon pails. The labels show contents, date stored, suspected contaminant, expected date of removal, company name, contact person, and telephone number.

Sample Handling Methods

Soil samples selected for chemical analysis were preserved in PETG liners with no head-space by quickly covering the open ends with Teflon sheeting and capping them with plastic end-caps. The samples were labeled to show site name, project number, date, time, sample name, depth collected, and sampler name; sealed in quart-size plastic bags; and stored in an iced-cooler.

"Grab" groundwater samples were stored in laboratory provided, 40-milliliter, HCL-preserved VOAs having Teflon-lined plastic caps. Each sample was labeled and stored as above.

Chemical Analyses

All soil and groundwater samples were delivered under chain-of-custody to California Department of Health Services certified McCampbell Analytical Inc., located in Pacheco California, for chemical analysis for TPHG, BTEX, and MTBE by EPA Methods GCFID, 5030/8015 modified; 8020; and 8020; respectively.

RESULTS OF SOIL AND GROUNDWATER ASSESSMENT

Soil Profile and Occurrence of Groundwater

Below the surface cover of asphalt, concrete, and/or aggregate base material, the soil profile was similar among the borings. In all borings, a clay was encountered beneath the surface cover. In borings SB-1 and SB-4, the above clay extended to the depths of 14 and 12 feet, respectively; beneath the clay, a clayey silt was present to the total depth explored, 16 feet in both borings. In borings SB-2 and SB-3, the above clay extended to the depths of 16 and 15.5 feet, respectively; beneath the clay, a saturated sand was present to the total depth explored, 20 feet in both borings.

Groundwater was not detected in the cored interval of boring SB-1, however, groundwater was present in the remaining borings at a depth ranging from about 15.5 to 16 feet. This depth range correlated with the top of the sandy aquifer.

Results of Chemical Analyses

Soil Samples

In soil boring SB-1, at the depths of 10 and 15 feet, TPHG was detected at concentrations of 440 ppm and 4,700 ppm, respectively, and benzene was detected at concentrations of .51 ppm and 12 ppm, respectively. The laboratory noted that the 440 ppm sample results were of heavier gasoline range compounds and may be aged gasoline. The 4,700 ppm sample results are believed to be characteristic of the capillary fringe and not representative of the vadose zone soil.

In soil boring SB-2, TPHG was detected at the depth of 15 feet at a concentration of 790 ppm. At the depth of 10 and 15 feet, benzene was detected at the concentrations of .016 ppm and .64 ppm, respectively. The 790 ppm sample results are believed to be characteristic of the capillary fringe and not representative of the vadose zone soil.

In soil boring SB-3, TPHG and benzene were nondetectable.

In soil boring SB-4, TPHG and benzene were detected at the depth of 15 feet at concentrations of 35 ppm and .029 ppm, respectively. The laboratory noted that the 35 ppm sample results were of heavier gasoline range compounds and may be aged gasoline and had no recognizable pattern. This sample is believed to be characteristic of the capillary fringe and not representative of the vadose zone soil.

See the attached table for concentrations of other BTEX chemicals in the above soil borings.

The reader is referred to the attached EXPLORATORY BORING LOGS for results of head-space analyses.

No MTBE was detected in any of the soil samples.

Groundwater Results

TPHG was detected in the "grab" groundwater samples of borings SB-1, SB-2, SB-3, and SB-4 at concentrations of 69,000 parts per billion (ppb), 69,000 ppb, 1,700 ppb, and 4,000 ppb, respectively. The laboratory noted that the water samples from borings SB-1 and SB-2 contained lighter than water immiscible sheen.

Benzene was detected in the "grab" groundwater samples of borings SB-1, SB-2, SB-3, and SB-4 at concentrations of 370 ppb, 670 ppb, 8.8 ppb, and 18 ppb, respectively.

See the attached table for concentrations of other BTEX chemicals in the above water samples.

No MTBE was detected in any of the water samples.

CONCLUSIONS

The following discussion of the site's potential risk or no risk to human health and the environment is based on detected concentrations of benzene in the soil and groundwater and the American Society of Testing and Materials' (ASTM) standard for Risked Based Corrective Action (RBCA), ASTM E-1739-95.

Vadose Zone Soil

The shallower soil samples from each boring are considered representative of the vadose zone and the deeper soil samples from each boring are considered representative of the capillary fringe. Gasoline contamination in the vadose zone samples suggests that the contamination presents no significant risk to human health or the environment.

The highest benzene concentration detected in vadose zone samples was 0.51 ppm in boring SB-1. This boring is located outdoors in the vicinity of the former dispenser and associated piping and the contamination is contained in a low permeable clay. With respect to the ASTM RBCA Tier 1 Risk-Based Screening Level Look-Up Table, 0.51 ppm of benzene becomes significant at a target level cancer risk of 1 in 100,000 (.168 ppm) in a commercial/industrial setting and when the contamination is evaluated in terms of leachate to protect groundwater ingestion.

Since the groundwater at this site is not used as drinking water and it is reasonable to assume the benzene contamination is localized to the area of boring SB-1, ALLCAL concludes that no vadose zone remediation is necessary.

Groundwater

Since groundwater at the site is not used as drinking water, the potential health hazard for groundwater ingestion is not considered here.

With respect to the ASTM RBCA Tier 1 Risk-Based Screening Level Look-Up Table, benzene concentrations in the water samples from borings SB-1 and SB-2 exceed the target level cancer risk of 1 in 100,000 (214 ppb) in a commercial/industrial setting and when the contamination is evaluated in terms of vapor intrusion from groundwater to buildings.

Because of the potential health hazard of the groundwater detected at the site, ALLCAL recommends additional soil borings to further assess the extent of gasoline contamination.

PROPOSED WORK PLAN FOR FURTHER SITE ASSESSMENT

In a telephone conversation between ALLCAL and Scott Seery of the ACHCSA, it was agreed that an additional three soil borings for the collection of soil and "grab" groundwater samples would

be appropriate as the next phase of assessment.

Proposed Locations of Soil Borings

The locations of the borings are proposed to be offsite in northerly and westerly directions from the former underground tank location since significant groundwater contamination was detected in borings SB-1 and SB-2. Proposed boring locations are shown in the attached SITE PLAN. Soil and groundwater contamination may be adequately characterized southerly and southeasterly of the former tank location by borings SB-3 and SB-4, consequently, no further work is proposed in this area of the site at this time.

Proposed Soil and Groundwater Assessment Methodology

ALLCAL proposes to collect, handle, and analyze soil and groundwater samples as described in the previously approved January 20, 1999, work plan, with the exception that **"grab" groundwater samples will be collected with a "mini" bailer.**

One soil sample is proposed to be collected from each boring at a depth of about 1 to 2 feet above the groundwater aquifer. Additional soil samples will be collected where apparent significant contamination is present in any of the borings.

Permits and Site Health and Safety Plan

A soil boring permit will be obtained from the ACPWA and all work will be conducted under ALLCAL's previously approved SITE HEALTH AND SAFETY PLAN.

Report

ALLCAL will document the work conducted and analytical results in a report. The report will include: copies of all permits required to conduct the work, a site plan showing locations of the soil borings, graphic boring logs, results of chemical analyses, and copies of certified analytical reports with chains-of-custody.

Time Schedule

ALLCAL proposes to conduct the above scope of work within four weeks of obtaining approval of the above work plan from the Client and the ACHCSA and on obtaining contractual agreement with the Client.

LIMITATIONS

This report is based on laboratory analyses of soil and groundwater samples. The chemical analytical results for the samples are considered applicable to that horizontal and vertical location

from which they were collected. The conclusions contained herein are based on field observations, analytical data, and professional judgment which is in accordance with current standards of professional practice.

Representations made of soil and groundwater conditions between sample locations are extrapolations based on professional opinions and judgments and accepted industry practice. No warranty is expressed or implied. The extent of testing and data collection directly affects the statistical confidence level of all work performed. As a practical matter, to reach or even approach a 100 percent statistical level would be prohibitively expensive.

The findings and conclusions of this report are valid as of the present time; however, the passing of time could change the conditions of the subsurface due to natural processes or the influence of man. Accordingly, the findings of this report may be invalidated, wholly or partly, by changes beyond ALLCAL's control. Therefore, this report should not be relied upon after an extended period of time without being reviewed by a Registered Geologist or Civil Engineer.

If you have any questions, please call me at (510) 581-2320.

Sincerely,

John V. Mrakovich

John V. Mrakovich, Ph.D.
Registered Geologist No. 4665

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

January 25, 1999

STID 2355

Morris F. Donnelly
Jeffrey W. Kerry
Kerry & Associates
151 Callahan Avenue, Ste. 202
San Leandro, CA 94577

RE: Palace Garage, 14336 Washington Avenue, San Leandro

Dear Messrs. Donnelly and Kerry:

Thank you for our receipt of the January 20, 1999 All Cal Property Service, Inc. (All Cal) work plan for the initial phase of the investigation at the subject site. All Cal proposes the installation of up to four (4) "Geoprobe" soil borings in locations about the former underground storage tank pit. The results of this work will help guide any additional work that might be required to adequately assess the extent of the impact, and will assist in determining the appropriate corrective action.

The cited All Cal work plan has been accepted with the following clarification:

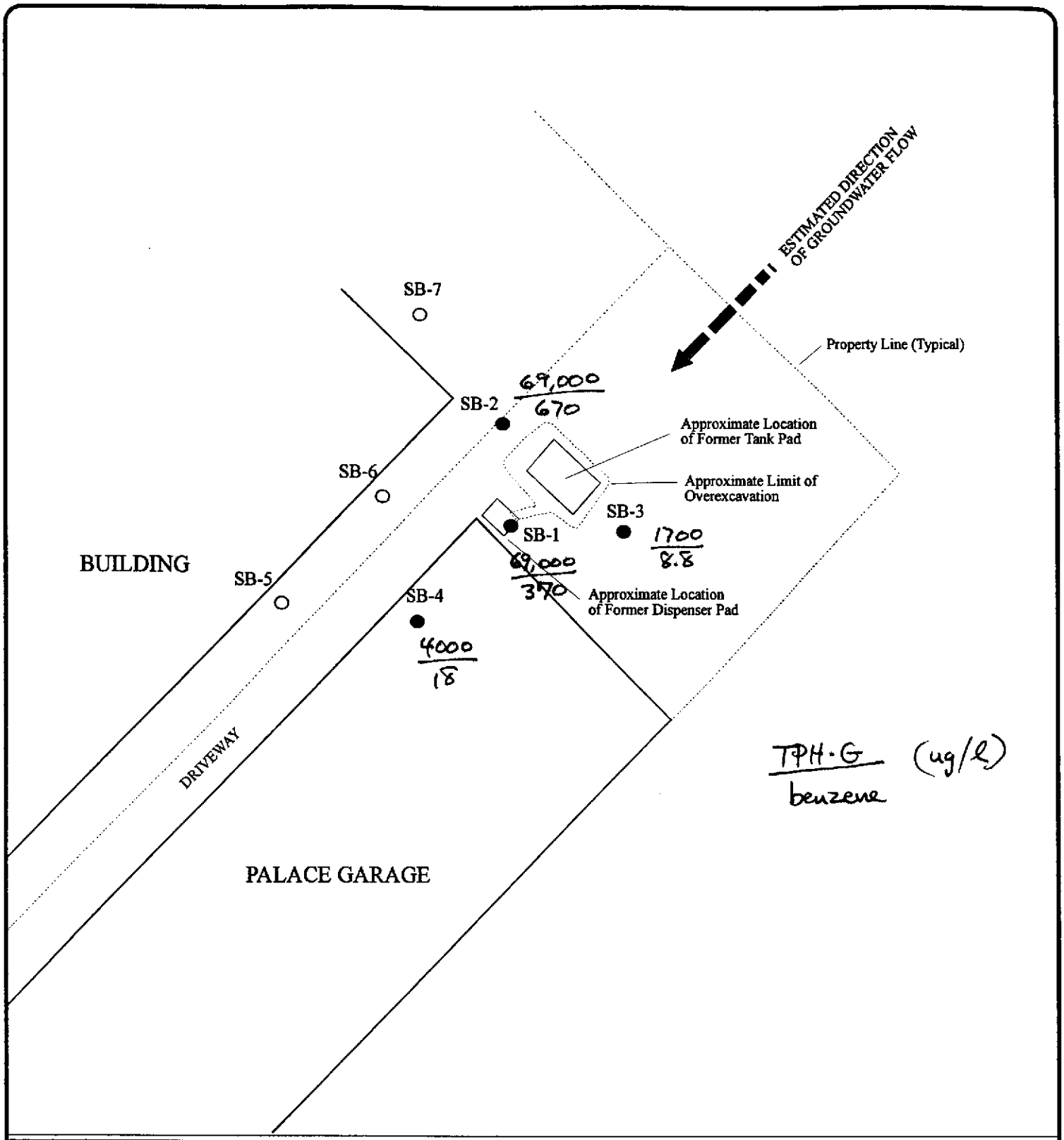
- Groundwater samples are to be collected from the completed boreholes using a device that will minimize the potential for the loss of volatile constituents in collected samples. A "mini" bailer is such a device.

Please call me at (510) 567-6783 when fieldwork has been scheduled.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Mee Ling Tung, Director, Environmental Health
Chuck Headlee, RWQCB
Mike Bakaldin, San Leandro Hazardous Materials Program
Bob Chambers, Alameda County District Attorney's Office
John Mrakovich, All Cal Property Services, Inc.
27973 High Country Dr., Hayward, CA 94542-2530



Legend

SB-5 ○ Proposed Name and Location of Soil Boring

SB-1 ● Name and Location of Soil Boring

0 20

Approximate Scale (ft)

N

ALLCAL PROPERTY SERVICES

SITE PLAN

PALACE GARAGE
14336 WASHINGTON AVENUE
SAN LEANDRO, CA 94587

ALAMEDA COUNTY PUBLIC WORKS AGENCY

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

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 14336 WASHINGTON AVE. SAN LEANDRO CA 94577

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

CLIENT
Name JEFFERY KERRY
Address 151 CALLAN AVE #202 Phone 510 483-4211
City SAN LEANDRO Zip 94577

APPLICANT
Name JOHN MARKOWSKI
ALLCAL PROF. SVS. INC. Fax 5105818490
Address 27973 ALICE COURT #D Phone 5105812820
City HAYWARD CA Zip 94542

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	X
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	X GEOPROBE		

DRILLER'S LICENSE NO. C57 683865

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

GEOTECHNICAL PROJECTS
Number of Borings 4 Maximum
Hole Diameter 2 in. Depth 25 ft.

ESTIMATED STARTING DATE 2/1/99
ESTIMATED COMPLETION DATE 2/1/99

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

APPLICANT'S SIGNATURE John Markowski DATE 1/25/99

FOR OFFICE USE

PERMIT NUMBER 99WR0035
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

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

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

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

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

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

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED Alvin Kan DATE 1/26/99

TABLE

SUMMARY OF SOIL AND GROUNDWATER CHEMICAL ANALYSES

Soil Boring	Matrix	Depth (ft)	TPHG	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
SB-1	soil[1]	10-10.5	440b	0.51	2.6	8.1	47	<0.5
SB-1	soil	15-15.5	4700a	12	21	88	480	<10
SB-2	soil	10-10.5	<1.0	0.016	0.012	<0.005	0.016	<0.05
SB-2	soil	15-15.5	790a	0.64	4.8	5.3	18	<0.5
SB-3	soil	10-10.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3	soil	15-15.5	<1.0	<0.005	0.021	<0.005	0.010	<0.05
SB-4	soil	11.5-12	<1.0	<0.005	0.010	<0.005	0.007	<0.05
SB-4	soil	15-15.5	35bj	0.029	0.32	0.13	0.22	<0.05
SB-1	water[2]	17-21	69000ah	370	6200	3500	15000	<200
SB-2	water	17-21	69000ah	670	760	2700	8600	<400
SB-3	water	17-21	1700a	8.8	28	52	160	<5.0
SB-4	water	17-21	4000a	18	170	120	480	<10.0

[1] Contaminant concentrations for soil reported in parts per million (ppm).
[2] Contaminant concentrations for water reported in parts per billion (ppb).
a) Unmodified or weakly modified diesel is significant.
b) Heavier gasoline range compounds are significant (aged gasoline?).
h) Higher than water immiscible sheen is present.
j) No recognizable pattern.

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

ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #135; 14336 Washington Ave.	Date Sampled: 02/01/99
		Date Received: 02/02/99
	Client Contact: John Mrakovich	Date Extracted: 02/02/99
	Client P.O:	Date Analyzed: 02/02/99

02/09/99

Dear John:

Enclosed are:

1). the results of **12** samples from your **#135; 14336 Washington Ave.** project,

2). a QC report for the above samples

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

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

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

ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #135; 14336 Washington Ave.	Date Sampled: 02/01/99
		Date Received: 02/02/99
	Client Contact: John Mrakovich	Date Extracted: 02/02-02/04/99
	Client P.O:	Date Analyzed: 02/02-02/04/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Recovery Surrogate
02653	SB-1-10-10.5	S	440,b	ND<0.5	0.51	2.6	8.1	47	109
02654	SB-1-15-15.5	S	4700,a	ND<10	12	21	88	480	---#
02655	SB-1W	W	69,000,a,h	ND<200	370	6200	3500	15,000	115
02656	SB-2-10-10.5	S	ND	ND	0.016	0.012	ND	0.016	105
02657	SB-2-15-15.5	S	790,a	ND<0.5	0.64	4.8	5.3	18	114
02658	SB-2W	W	69,000,a,h	ND<400	670	760	2700	8600	118
02659	SB-3-10-10.5	S	ND	ND	ND	ND	ND	ND	101
02660	SB-3-15-15.5	S	ND	ND	ND	0.021	ND	0.010	111
02661	SB-3W	W	1700,a	ND	8.8	28	52	160	---#
02662	SB-4-11.5-12	S	ND	ND	ND	0.010	ND	0.007	114
02663	SB4-15-15.5-	S	35,b,j	ND	0.029	0.32	0.13	0.22	103
02664	SB-4W	W	4000,a	ND<10	18	170	120	480	112
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

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

cluttered chromatogram; sample peak coelutes with surrogate peak

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

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/01/99-02/02/99 Matrix: WATER

Analyte	Concentration (mg/L) Sample (#02263)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	116.8	112.2	100.0	116.8	112.2	4.0
Benzene	0.0	11.1	11.6	10.0	111.0	116.0	4.4
Toluene	0.0	11.4	11.8	10.0	114.0	118.0	3.4
Ethyl Benzene	0.0	11.3	11.3	10.0	113.0	113.0	0.0
Xylenes	0.0	32.4	32.2	30.0	108.0	107.3	0.6
TPH(diesel)	0.0	154	161	150	103	107	4.5
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

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

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 02/01/99-02/02/99 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#95829)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.167	2.281	2.03	107	112	5.1
Benzene	0.000	0.212	0.210	0.2	106	105	0.9
Toluene	0.000	0.222	0.218	0.2	111	109	1.8
Ethylbenzene	0.000	0.212	0.214	0.2	106	107	0.9
Xylenes	0.000	0.618	0.630	0.6	103	105	1.9
TPH(diesel)	0	292	288	300	97	96	1.5
TRPH (oil and grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

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

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McCAMBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553
Telephone: (510) 798-1620 Fax: (510) 798-1622

CHAIN OF CUSTODY RECORD

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

Report To: JOHN MRAKOVICH Bill To:
Company: ALLCAL PROPERTY SVS., INC.
27973 HIGH COUNTRY DRIVE
HAYWARD, CA 94542
Tele: (510) 581 2320 Fax: (510) 581 8490
Project #: 135 Project Name:
Project Location: 14336 WASHINGTON AVE., SAN LEANDRO, CA
Sampler Signature: John Mrakovich

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015) MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other	Comments
SB-1-10.0-10.5	SB-1	2/1/99	12:25	1	LINER		X				X				X																02653
SB-1-15.0-15.5	↓		12:45	1	LINER		X				X																				02654
x2 SB-1W	↓		12:55	2	40 ML VOA	X						X																				02655
SB-2-10.0-10.5	SB-2		9:30	1	LINER		X				X																				02656
SB-2-15.0-15.5	↓		9:50	1	LINER		X				X																				02657
SB-2W SK	↓		10:30	2	40 ML VOA	X						X																				02658
SB-3-10.0-10.5	SB-3		11:10	1	LINER		X				X																				02659
SB-3-15.0-15.5	↓		11:25	1	LINER		X				X																				02660
x2 SB-3W	↓		11:55	2	40 ML VOA	X						X																				02661
SB-4-11.5-12.0	SB-4		1:35	1	LINER		X				X																				02662
SB-4-15.0-15.5	↓		1:50	1	LINER		X				X																				02663
x2 SB-4W	↓		2:00	2	40 ML VOA	X						X																				02664

Relinquished By:	Date:	Time:	Received By:
J. Mrakovich	2/2/99	9:05	Andrea Mrakovich
Relinquished By:	Date:	Time:	Received By:
Andrea Mrakovich	2/2/99	9:58	Stan Falk 2853
Relinquished By:	Date:	Time:	Received By:
Stan Falk	2-2-99	12:23	VNA V (MF)

Remarks:

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

Liar

ATTACHMENT A

SAMPLE HANDLING PROCEDURES

Soil and groundwater samples will be packaged carefully to avoid breakage or contamination and will be delivered to the laboratory in an iced-cooler. Sample bottle/sleeve lids will not be mixed. All sample lids will stay with the original containers.

Samples will be stored in iced-coolers to maintain custody, control temperature, and prevent breakage during transportation to the laboratory. Ice, blue ice, or dry ice will be used to cool samples during transport to the laboratory. Water samples will be cooled with crushed ice.

Each sample will be identified by affixing a label on the container(s). This label will contain the site identification, sample identification number, date and time of sample collection, and the collector's initials.

Soil samples collected in brass or stainless-steel tubes or PETG liners will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes and liners will be labeled, sealed in quart-size bags, and placed in an iced-cooler for transport to the laboratory.

All groundwater sample containers will be precleaned and will be obtained from a State Department of Health Services certified analytical laboratory.

A chain-of-custody form will be completed for all samples and accompany the sample cooler to the laboratory. All sample transfers will be documented in the chain-of-custody. All field personnel are personally responsible for sample collection and the care and custody of collected samples until the samples are transferred or properly dispatched.

The custody record will be completed by the field technician or professional who has been designated as being responsible for sample shipment to the appropriate laboratory. The custody record will include the following information: site identification, name of person collecting the sample(s), date and time sample(s) were collected, type of sampling conducted (composite/grab), location of sampling station, number and type of containers used, and signature of the person relinquishing samples to another person with the date and time of transfer noted.

ATTACHMENT B

QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

The overall objectives of the field sampling program include generation of reliable data that will support development of a remedial action plan. Sample quality will be checked by the use of proper sampling, handling, and testing methods. Additional sample quality control methods may include the use of background samples, equipment rinsate samples, and trip and field blanks. Chain-of-custody forms, use of a qualified laboratory, acceptable detection limits, and proper sample preservation and holding times also provide assurance of accurate analytical data.

A quality assurance and quality control (QA/QC) program may be conducted in the field to ensure that all samples collected and field measurements taken are representative of actual field and environmental conditions and that data obtained are accurate and reproducible. These activities and laboratory QA/QC procedures are described below.

Field Samples: Additional samples may be taken in the field to evaluate both sampling and analytical methods. Three basic categories of QA/QC samples that may be collected are trip blanks, field blanks, and duplicate samples.

Trip blanks are a check for cross-contamination during sample collection, shipment, and laboratory analysis. They are water samples that remain with the collected samples during transportation and are analyzed along with the field samples to check for residual contamination. Analytically confirmed organic-free water will be used for organic parameters and deionized water for metal parameters. Blanks will be prepared by the laboratory supplying the sample containers. The blanks will be numbered, packaged, and sealed in the same manner as the other samples. One trip blank will be used for each sample set of less than 20 samples. At least 5% blanks will be used for sets greater than 20 samples. The trip blank is not to be opened by either the sample collectors or the handlers.

The field blank is a water sample that is taken into the field and is opened and exposed at the sampling point to detect contamination from air exposure. The water sample is poured into appropriate containers to simulate actual sampling conditions. Contamination due to air exposure can vary considerably from site to site.

The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels.

Duplicate samples are identical sample pairs (collected in the same place and at the same time), placed in identical containers. For soils, adjacent sample liners will be analyzed. For the purpose of data reporting, one is arbitrarily designated the sample, and the other is designated as a duplicate sample. Both sets of results are reported to give an indication of the precision of sampling and analytical methods.

The laboratory's precision will be assessed without the laboratory's knowledge by labeling one of the duplicates with false identifying information. Data quality will be evaluated on the basis of the duplicate results.

Laboratory QA/QC: Execution of a strict QA/QC program is an essential ingredient in high-quality analytical results. By using accredited laboratory techniques and analytical procedures, estimates of the experimental values can be very close to the actual value of the environmental sample. The experimental value is monitored for its precision and accuracy by performing QC tests designed to measure the amount of random and systematic errors and to signal when correction of these errors is needed.

The QA/QC program describes methods for performing QC tests. These methods involve analyzing method blanks, calibration standards, check standards (both independent and the United States Environmental Protection Agency-certified standards), duplicates, replicates, and sample spikes. Internal QC also requires adherence to written methods, procedural documentation, and the observance of good laboratory practices.

ATTACHMENT C

WASTE HANDLING AND DECONTAMINATION PROCEDURES

Decontamination: Any drilling, sampling, or field equipment that comes into contact with soil or groundwater will be decontaminated prior to its use at the site and after each incident of contact with the soil or groundwater being investigated. Decontamination is essential to obtain samples that are representative of environmental conditions and to accurately characterize the extent of soil and groundwater contamination. Hollow-stem auger flights, the drill bit, and all other soil boring devices will be steam-cleaned between the drilling of each boring.

All sample equipment, including the split-spoon sampler and brass or stainless-steel tubes, will be cleaned by washing with trisodium phosphate or Alconox type detergent, followed by rinsing with tap water. Where required by specific regulatory guidelines, a nonphosphate detergent will be used.

Waste Handling: Waste materials generated during site characterization activities will be handled and stored as hazardous waste and will be stored on site in appropriately labeled containers. Waste materials anticipated include: excavated soil, drill cuttings, development and purge water, water generated during aquifer testing, water generated during decontamination, and used personnel protection equipment such as gloves and Tyvek. The site owner will be responsible for providing the storage containers and will be responsible for the disposal of the waste materials. Drill cuttings from individual borings will be stored separately in drums or covered by plastic sheeting, and the appropriate disposal procedure will be determined by the site owner following receipt of the soil sample analytical results. Storage containers will be labeled to show material stored, known or suspected contaminant, date stored, expected removal date, company name, contact, and telephone number.

EXPLORATORY BORING LOG

Project Number: 135

Boring Number: SB-1

Project Name: 14336 Washington Avenue
San Leandro, CA 94587

Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 2/1/99

Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
							0 - .33 FT.: ASPHALT
24/48						CL	.33 - 5.0 FT.: CLAY (CL), BLACK, SANDY, FIRM, DAMP, NO ODOR.
	212			5			
48/48						CL	5.0 - 14.0 FT.: CLAY (CL), BROWN, SANDY, FIRM, DAMP, SLIGHT GASOLINE ODOR BEGINNING AT 10.5 FEET.
48/48	378			10			
48/48				15		ML	14.0 - 16.0 FT.: CLAYEY SILT (ML), GREEN, MOIST TO SATURATED, GASOLINE ODOR.
	321						CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED TO 21 FEET WITH 4 FEET OF SCREEN EXPOSED.

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH HYDRATED BENTONITE HOLE PLUG.

EXPLORATORY BORING LOG

Project Number: 135

Project Name: 14336 Washington Avenue
San Leandro, CA 94587

Boring Number: SB-2

Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC Date: 2/1/99

Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SW	0 - .33 FT.: ASPHALT
18/48							.33 - 2.0 FT.: AGGREGATE BASE MATERIAL; GRAVELLY SAND (SW), GREY, GRAVEL TO .75-INCH DIAMETER, FINE TO COARSE-GRAINED, CLAYEY, SILTY, DAMP, NO ODOR.
				5			
48/48							
	12					CL	2.0 - 16.0 FT.: CLAY (CL), DARK GREEN, SILTY, FIRM, DAMP, GASOLINE ODOR BEGINNING AT 6.0 FEET.
48/48	22			10			
							@ 12 FT.: THIN WET ZONE.
48/48	189		▼	15			@ 14 FT.: VERY SANDY TO BASE.
						SP	16.0 - 20.0 FT.: SAND (SP), GREY-GREEN, FINE TO MEDIUM-GRAINED, SATURATED, GASOLINE ODOR, PRODUCT/SHEEN ON DRILL RODS.
48/48	116			20			
							CONTINUOUSLY CORED TO 20 FT. DISCRETE WATER SAMPLER PUSHED TO 21 FEET WITH 4 FEET OF SCREEN EXPOSED.

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH HYDRATED BENTONITE HOLE PLUG.

EXPLORATORY BORING LOG

Project Number: 135 Boring Number: SB-3

Project Name: 14336 Washington Avenue, San Leandro, CA 94587 Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC Date: 2/1/99 Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SW	0 - .33 FT.: ASPHALT
36/48						CL	.33 - 2.0 FT.: AGGREGATE BASE MATERIAL; GRAVELLY SAND (SW), RED-BROWN, GRAVEL TO .75-INCH DIAMETER, FINE TO COARSE-GRAINED, CLAYEY, SILTY, DAMP, NO ODOR.
	5			5			2.0 - 4.0 FT.: CLAY (CL), BLACK, SANDY, FIRM, DAMP, NO ODOR.
48/48						CL	4.0 - 9.0 FT.: CLAY (CL), BROWN, SANDY, FIRM, DAMP, NO ODOR.
48/48				10		CL	9.0 - 15.5 FT.: CLAY (CL), GREEN, SANDY, FIRM, DAMP, GASOLINE ODOR.
48/48	8		▼	15			@ 14 FT.: VERY SANDY TO BASE.
48/48						SP	15.5 - 20.0 FT.: SAND (SP), BROWN, MEDIUM TO COARSE-GRAINED, SATURATED, GASOLINE ODOR.
				20			CONTINUOUSLY CORED TO 20 FT. DISCRETE WATER SAMPLER PUSHED TO 21 FEET WITH 4 FEET OF SCREEN EXPOSED.

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH HYDRATED BENTONITE HOLE PLUG.

EXPLORATORY BORING LOG

Project Number: 135 Boring Number: SB-4

Project Name: 14336 Washington Avenue, San Leandro, CA 94587 Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC Date: 2/1/99 Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SW	0 - .33 FT.: CONCRETE
24/48							.33 - 2.0 FT.: AGGREGATE BASE MATERIAL; GRAVELLY SAND (SW), MOTTLED BROWN AND YELLOW-GREEN, GRAVEL TO .75-INCH DIAMETER, FINE TO COARSE-GRAINED, CLAYEY, SILTY, DAMP, NO ODOR.
						CL	
				5			2.0 - 6.0 FT.: CLAY (CL), BLACK, SANDY, FIRM, DAMP, NO ODOR.
48/48	1						
						CL	6.0 - 12.0 FT.: CLAY (CL), DARK BROWN, SANDY, FIRM, DAMP, NO ODOR.
48/48				10			
	4						@ 11.5 FT.: GREEN WITH GASOLINE ODOR TO BASE.
48/48	26		▼			ML	12.0 - 16.0 FT.: CLAYEY SILT (ML), GREEN, DAMP, GASOLINE ODOR.
				15			@ 15.5 FT.: VERY SANDY, SATURATED.
							CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED TO 21 FEET WITH 4 FEET OF SCREEN EXPOSED.
				20			

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH HYDRATED BENTONITE HOLE PLUG.