

January 18, 1996

*0.5 hr. review*

*#5806*

Mr. Fidel Casillas  
2094 Harrington Avenue  
Oakland, CA 94601

RE: Soil and Groundwater Investigation, 2001 Fruitvale Avenue,  
Oakland, CA

Dear Mr. Casillas:

This Letter Report documents a limited soil and groundwater investigation conducted at the subject site by AllCal Property Services, Inc. (ALLCAL). The purpose of the investigation was to assess the site for hydrocarbon contamination in the vadose zone soil and groundwater. Soil and groundwater samples were collected by ALLCAL for chemical analysis for petroleum hydrocarbons and total lead. The investigation was limited in scope and did not investigate all suspected potential sources and types of contamination to the soil and/or groundwater.

*would like a copy*

Based on a Shell Oil Company (Shell) plot plan provided by the law office of Trump, Alioto, Trump & Prescott, ALLCAL collected soil samples beneath 5 potential sources of contamination to the soil and/or groundwater. These sources, as described on the plot plan, are 2 dispenser islands, 2 underground fuel storage tank complexes, and a sump containing 2-inch suction fuel lines and a selective manifold.

To evaluate if the above sources have contaminated the underlying soil and/or groundwater, ALLCAL collected 20 soil samples and 2 "grab" groundwater samples for chemical analysis. All samples were analyzed by California Department of Health Services certified McCampbell Analytical Inc. (McCampbell) located in Pacheco, California.

"Grab" groundwater samples are considered field-screening quality and indicators of the presence or absence of contamination; analytical results of water samples considered verifiable by regulatory agencies must be collected from properly constructed groundwater monitoring wells.

WORK CONDUCTED BY ALLCAL

As a limited investigation for contamination of the vadose zone soil and groundwater at the subject site, ALLCAL conducted the following work:

- . Obtained a soil boring permit from the Alameda County Flood Control and Water Conservation District, Water Resources Management Zone 7 (Zone 7), notified Underground Service Alert, and constructed a site plot plan.
- . Drilled 5 exploratory soil borings and collected 20 soil samples and 2 "grab" groundwater samples for chemical analysis.
- . Analyzed all soil and groundwater samples for total petroleum hydrocarbons as gasoline (TPHG) and benzene, toluene, ethylbenzene, and xylenes (BTEX); analyzed 9 soil samples and 1 water sample for total petroleum hydrocarbons as diesel (TPHD); and analyzed 5 soil samples and 2 water samples for total lead.
- . Sealed the soil borings to ground surface with neat Portland cement.
- . Prepared this Letter Report.

Details of the above work are presented below.

Prefield Activities:

Prior to drilling the soil borings, ALLCAL obtained a soil boring permit (Permit Number 95851) from Zone 7 (attached), visited the site to construct a site plot plan and mark the proposed soil boring locations, notified Underground Service Alert (Location Request Number 282966), and contracted with California licensed (C-57 license number 265556) water well driller PC Exploration, Inc. (PC) to drill the soil borings.

Locations of Soil Borings:

As a limited site investigation, ALLCAL drilled soil borings SB-1 through SB-5 at the locations shown in attached Figure 1. Boring SB-1 was drilled at the location of Shell's proposed underground tank complex; boring SB-2 was drilled at the location of a former underground tank complex preceding Shell's complex; boring SB-3 was drilled at Shell's proposed location of a sump containing 2-inch suction fuel lines and a selective manifold; borings SB-4 and SB-5 were drilled at Shell's proposed locations for dispenser islands.

Method of Investigation:

The following discusses soil boring and sampling procedures and results of chemical analyses. Attachments A, B, and C document ALLCAL's protocols relative to sample handling, waste handling and decontamination, and quality assurance and quality control procedures.

The soil borings were drilled to total depths ranging from about 19.5 to 26.5 feet by using 7-inch diameter, hollow-stem, auger drilling equipment. The augers were steam-cleaned before drilling the borings to prevent the introduction of offsite contamination for the initial boring or cross-contamination between borings. Representative soil samples were collected at about 5-foot depth intervals by advancing a California split-spoon sampler, equipped with 2-inch diameter by 6-inch long brass tubes, into the undisturbed soil beyond the tip of the augers. The sampling equipment was cleaned before each sampling event by washing with a trisodium phosphate soap solution followed by a rinse in clean tap water.

All vadose zone soil samples were field-screened for hydrocarbon contamination by headspace analysis for detection of volatile organic compounds using a Gastech, Inc., Tank Techtor hydrocarbon vapor detector (HVD). Headspace analysis was conducted by sealing soil samples in quart-size plastic bags and warming the bagged samples in the sun to promote volatilization of any hydrocarbons that may have been present in the soil. The headspace in the plastic bags was tested by inserting the probe of the HVD into the bag (while minimizing the entry of new air into the bag) and recording the response in parts permillion (ppm).

Groundwater was encountered at a depth of about 23 feet in borings SB-1 and SB-2 and at a depth of about 21.5 feet in boring SB-5. A review of the soil types logged in the above borings suggest that the groundwater in boring SB-5 may be perched. Groundwater was not encountered in any of the other borings.

Detailed boring logs (attached) showing soil lithology, soil sampling intervals, soil sample recoveries, and results of HVD headspace analyses were prepared from auger return material and split-spoon samples. The soil was logged according to the Unified Soil Classification System by a California Registered Geologist.

Drill cuttings were stored on site in 55-gallon drums. Each drum was labeled to show material stored, known or suspected contaminant, date filled, expected removal date, site name, contact person, and telephone number. Disposal of the cuttings is the client's responsibility.

All soil borings were sealed to ground surface with neat Portland cement.

Number, Location, and Handling of Soil and Groundwater Samples:

Four soil samples were collected from each boring for chemical analysis at depths of about 6, 11, 16, and 21 feet. In soil boring SB-4, a soil sample was collected at a depth of about 19 feet instead of 21 feet due to difficult drilling while in gravel. The soil samples were preserved in brass tubes with no headspace by quickly covering the open ends with aluminum 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 collected from borings SB-1 and SB-2. The water samples were collected in disposable polyethylene bailers and stored with no headspace in laboratory provided and preserved 40-milliliter glass vials having Teflon-lined caps. The samples were labeled to show site name, project number, date, time, sample name, and sampler name; and stored in an iced-cooler.

All soil and groundwater samples were delivered to McCampbell for chemical analysis for TPHG and BTEX by the United States Environmental Protection Agency (EPA) Methods GCFID 5030/modified 8015 and 8020, respectively. Additionally, the 3 deepest soil samples from borings SB-2, SB-4, and SB-5, and the water sample from boring SB-2 were analyzed for TPHD by EPA method GCFID 3550/modified 8015, and the deepest soil sample from each boring and both water samples were analyzed for total lead.

Results of Soil Chemical Analyses:

Analytical results of all chemical analyses are tabulated in the attached certified analytical report. Results of chemicals detected as TPHG are graphically displayed in Figures 1, 2, and 3 for depths of about 6, 16, and 21 feet. The deepest soil sample in each boring was selected for chemical analysis for total lead.

SB-1

All analytical results for TPHG and BTEX were nondetectable at a detection limit of 1 ppm and .005 ppm, respectively. Total lead was detected at a concentration of 8.7 ppm.

SB-2

Possible Stoddard solvent was detected as TPHG and TPHD in soil samples collected at depths of about 16 and 21 feet. TPHG was detected at concentrations of 170 ppm and 830 ppm, respectively,

and TPHD was detected at concentrations of 62 ppm and 410 ppm, respectively. All other soil samples were nondetectable for TPHG and TPHD. Oil range compounds (waste oil?) were also detected as TPHD in the above 2 samples. Low concentrations of some BTEX chemicals were detected in 3 soil samples. Total lead was detected at a concentration of 7.9 ppm.

#### SB-3

Unrecognizable chemicals were detected as TPHG at concentrations of 3.5 ppm and 20 ppm in the soil samples collected at depths of about 6 and 21 feet; low concentrations of some BTEX chemicals were also detected in these samples. Total lead was detected at a concentration of 3.0 ppm.

#### SB-4

Possible strongly-aged gasoline and unrecognizable chemicals were detected as TPHG and TPHD, respectively, at concentrations of 5.0 ppm and 14 ppm in the soil sample collected at the depth of about 19 feet. Low concentrations of xylenes were detected in 2 soil samples. Total lead was detected at a concentration of 8.3 ppm.

#### SB-5

Unrecognizable chemicals were detected as TPHG and TPHD, respectively, at concentrations of 300 ppm and 160 ppm in the soil sample collected at the depth of about 21 feet; low concentrations of some BTEX chemicals were also detected. Total lead was detected in this sample at a concentration of 3.2 ppm.

#### Results of Groundwater Chemical Analyses:

##### SB-1

The "grab" groundwater sample collected from the boring of SB-1 (WSB 1) detected gasoline as TPHG and benzene, toluene, ethylbenzene, and xylenes at concentrations of 1,300 parts per billion (ppb), 2.5 ppb, 1.7 ppb, 4.7 ppb, and 6.6 ppb, respectively. Total lead was detected at a concentration of 200 ppb.

##### SB-2

The "grab" groundwater sample collected from the boring of SB-2 (WSB 2) contained a water immiscible sheen and detected possible Stoddard solvent and unrecognizable compounds as TPHG and TPHD at concentrations of 3,400 ppb and 40,000 ppb, respectively. Benzene, toluene, ethylbenzene, xylenes, and total lead were detected at a concentrations of 9.6 ppb, 3.9 ppb, <.5 ppb, 14 ppb, and 190 ppb, respectively.

SUMMARY AND COMMENTS:

The subject investigation has detected chemicals in both soil and groundwater; however, the chemicals, in most cases, are not clearly identifiable as gasoline or diesel and in many instances may be Stoddard solvent. The chromatogram pattern for gasoline was only seen in the soil sample of boring SB-4 at a depth of about 19 feet; the gasoline appears to be strongly aged and was detected at a concentration of 5.0 ppm.

The "grab" groundwater sample from boring SB-1 also had a chromatogram pattern for gasoline which was detected at a concentration of 1,300 ppb; benzene, a known carcinogen, was detected at a concentration of 2.5 ppb in this sample. No chromatogram pattern for diesel was seen in any of the soil and groundwater samples analyzed for TPHD.

In all borings (see attached Figure 1), except SB-1, chemicals were detected as TPHG in soil samples at and near the bottom of the borings. In all cases, except for boring SB-4, the chemicals were unrecognizable or resembled Stoddard solvent.

In borings in which soil samples were analyzed for TPHD (SB-2, SB-4, and SB-5), chemicals were detected at and near the bottom of the borings and did not match a diesel chromatogram. In soil boring SB-2, the chemicals resembled Stoddard solvent and oil. In borings SB-4 and SB-5, unrecognizable compounds appeared along with gasoline range compounds.

The unrecognizable chemicals, possible Stoddard solvent, and oil may be related to a former waste oil tank(s). Chemicals having no recognizable pattern may be gasoline, Stoddard solvent, waste oil, or other chemicals altered by aging and biological activity.

The above contamination may have been detected near the bottom of the borings because of a fluctuating water table that contains a contaminant plume. Chemicals in the contaminant plume of the groundwater may be transferred to the soil matrix as the groundwater table moves up and down in response to seasonal changes in rainfall recharge. Groundwater was encountered within a depth range of 21.5 to 23 feet.

Contamination detected in the "grab" groundwater samples may be due to cross-contamination from the soil. More definitive and defensible water quality samples can be derived by sampling properly constructed groundwater monitoring wells.

Based on the detection of petroleum hydrocarbons in soil and groundwater samples collected at the subject site, California statutes and regulations may require additional soil and groundwater investigation and/or cleanup of contaminated soil and/or groundwater. The statutory authority in California for

further investigation and/or cleanup of contaminated soil and water to protect water quality and exposure to potentially hazardous substances may include the Porter Cologne Water Quality Control Act (Water Code); the Health and Safety Code; and Title 23, Division 3 of the California Code of Regulations and other possible statutes.

The Water Code is administered by the California State Water Resources Control Board (CSWRCB) whose "Statement of Policy with Respect to Maintaining High Quality of Waters in California," adopted in 1968 and reaffirmed in 1987, calls for protection of existing, and restoration of previous, high quality of the state's water.

Guidelines for site assessment and cleanup are contained in the CSWRCB's Leaking Underground Fuel Tank Field Manual: Guidelines for Site Assessment, Cleanup, and Underground Storage Tank Closure, dated October 1989, and supplemented and amended for the San Francisco Bay region by the California Regional Water Quality Control Board (CRWQCB)-San Francisco Bay Region's "Tri-Regional Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1991 and updated October 2, 1991.

In Alameda County, the lead agency for technical oversight of site assessment and remediation, in cooperation with the CRWQCB, is the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA) (510) 567-6777.

ALLCAL recommends that you immediately report the above documentation of contamination to the ACHCSA to determine if additional work may be required.

#### LIMITATIONS:

This Letter Report is based on subsurface exploration and laboratory analyses of soil and groundwater samples. The chemical analytical results for the samples are considered applicable to that boring or location from which they were collected. The soil encountered in the borings is believed to be representative of the site; however, the soil may vary in character between observation points. The conclusions contained herein are based on the field observations, analytical data, and professional judgement 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 judgements and accepted industry practice. Therefore, ALLCAL cannot and will not provide guarantees, certifications, or warranties that the subject property is or is not free of all contaminated soil or groundwater, and such assessments are provided only in order that

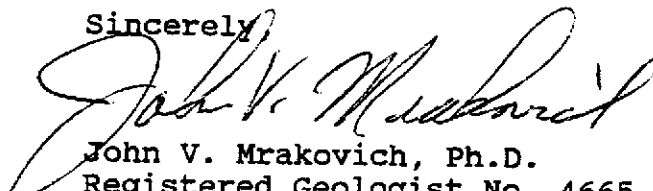
the client may make an informed decision.

The extent of testing and data collections directly affects the statistical confidence level of all work performed. As a practical matter, to reach or even approach a 100 percent statistical confidence level would be prohibitively expensive. Therefore, if a reassessment of the subject property becomes necessary in the future, ALLCAL will not reassess the area at its own cost. No other warranty is expressed or implied.

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 Civil Engineer or Registered Geologist.

I will transmit the required soil boring documentation to Zone 7. It has been my pleasure working for you. If you have any questions, please call me.

Sincerely,



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

Enclosure: Invoice

Attachments



## 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 (dry ice will be used for preserving soil samples collected for the Alameda County Water District) will be used to cool samples during transport to the laboratory. Water samples will be cooled with crushed ice. In the Alameda County Water District, water samples will be buried in the crushed ice with a thermometer, and the laboratory will be requested to record thermometer temperature at the time of receipt.

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 will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes 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

### 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 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.

## ATTACHMENT C

### 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.

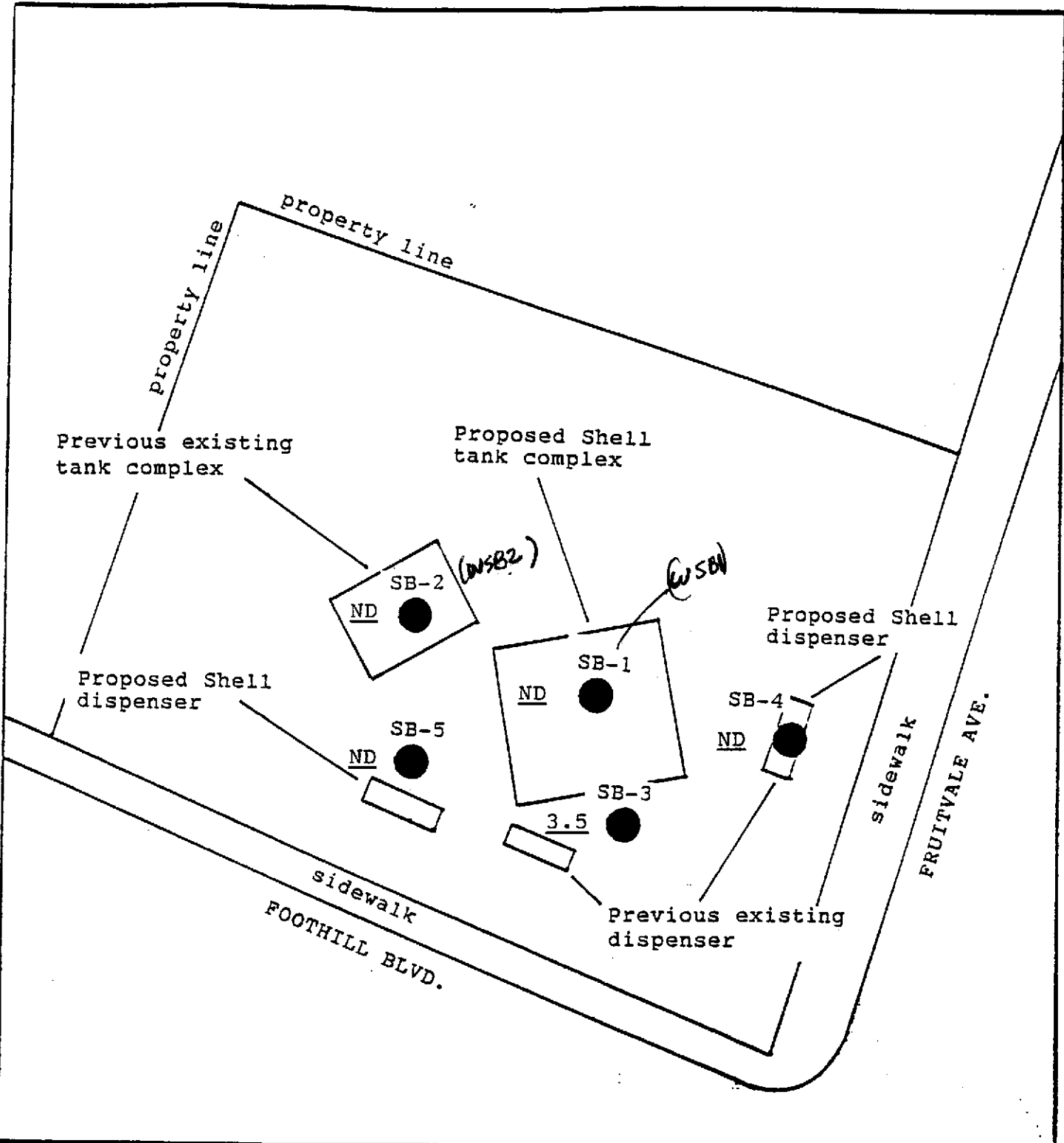
The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels.

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.



SB-1  
 ● Name and location of soil boring

ND Nondetectable

3.5 Concentration (ppm)

0                      20

APPROXIMATE SCALE (ft)



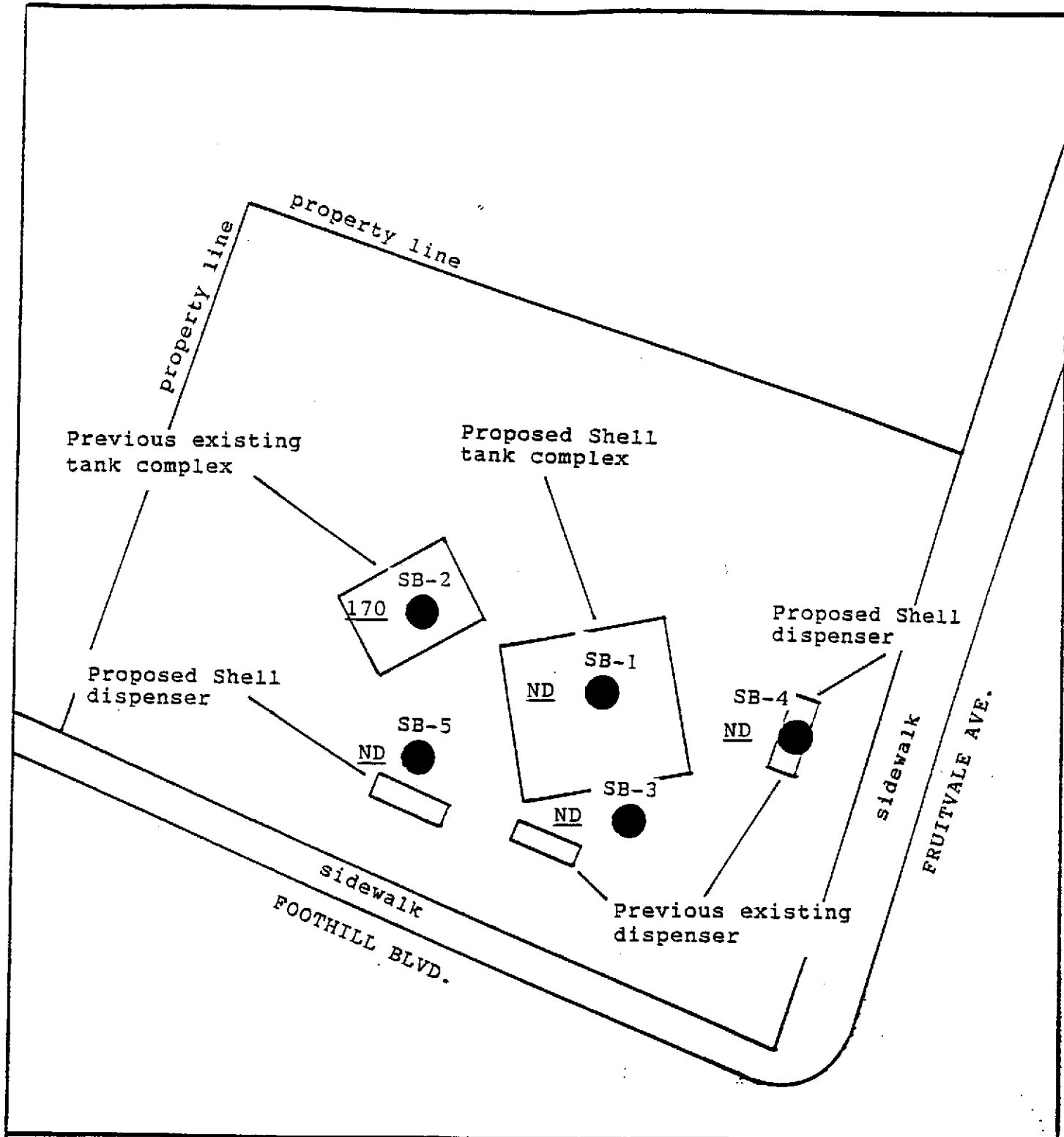
**ALLCAL** PROPERTY SERVICES

SITE PLAN

2001 FRUITVALE AVE.  
 OAKLAND, CA

TPHG CONCENTRATIONS  
 6.0-6.5 FEET

FIGURE 1



SB-1  
 ● Name and location of soil boring

ND Nondetectable

170 Concentration (ppm)

0                      20

APPROXIMATE SCALE (ft)



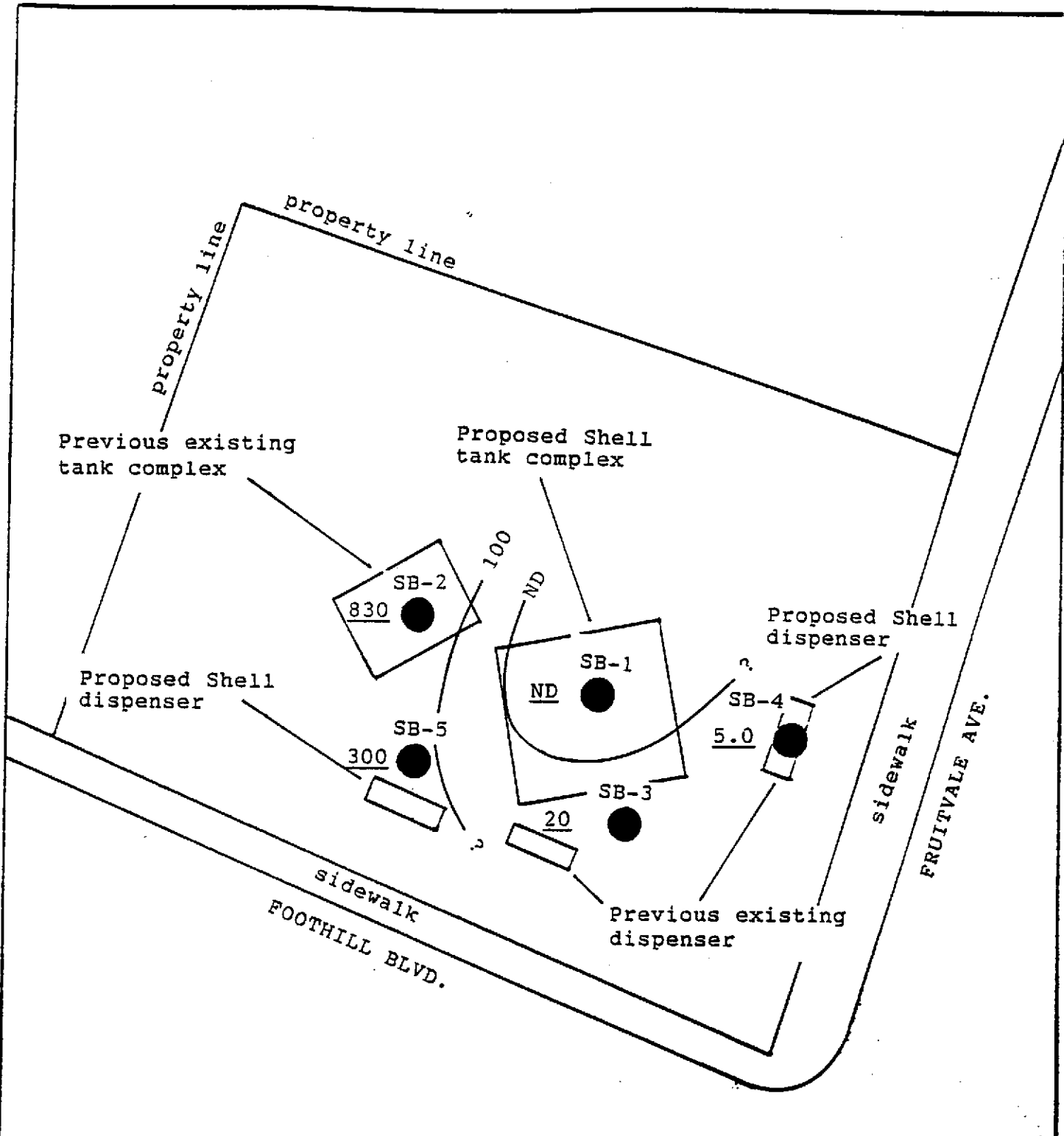
**ALLCAL** PROPERTY SERVICES

SITE PLAN

2001 FRUITVALE AVE.  
 OAKLAND, CA

TPHG CONCENTRATIONS  
 16.0-16.5 FEET

FIGURE 2



— ISOCONCENTRATION COUNTOUR

SB-1  
● Name and location of soil boring

ND Nondetectable

830 Concentration (ppm)

0 ————— 20

APPROXIMATE SCALE (ft)



**ALLCAL** PROPERTY SERVICES

SITE PLAN

2001 FRUITVALE AVE.  
OAKLAND, CA

TPHG CONCENTRATIONS  
21.0-21.5 FEET

FIGURE 3



# ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

VOICE (510) 484-2600  
FAX (510) 482-3914

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 2001 FRUITVALE AVE  
CAKLAND, CA

PERMIT NUMBER 95851  
LOCATION NUMBER \_\_\_\_\_

### CLIENT

Name FINEL CASILLAS  
Address 2004 HARRINGTON Voice 510-532-8855  
City OAKLAND, CA Zip 94601

### PERMIT CONDITIONS

Circled Permit Requirements Apply

### APPLICANT

Name ALLCAL PROPERTY SERVICES, INC.  
Address 23973 HIGH COUNTRY Voice 510 581 5356  
City HAYWARD, CA Zip 94542

### A. GENERAL

1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 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.

### TYPE OF PROJECT

Well Construction	Geotechnical investigation
Cathodic Protection _____	General _____
Water Supply _____	Contamination <u>X</u>
Monitoring _____	Well Destruction _____

### B. WATER WELLS, INCLUDING PIEZOMETERS

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. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

### PROPOSED WATER SUPPLY WELL USE

Domestic _____	Industrial _____	Other _____
Municipal _____	Irrigation _____	

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

### DRILLING METHOD:

Mud Rotary _____	Air Rotary _____	Auger <u>X</u>
Cable _____	Other _____	

4. **CATHODIC.** Fill hole above anode zone with concrete placed by tremie.
5. **WELL DESTRUCTION.** See attached.

DRILLER'S LICENSE NO. C57 265556

### WELL PROJECTS

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

### GEOTECHNICAL PROJECTS

Number of Springs <u>5</u>	Maximum _____
Hole Diameter <u>6</u> in.	Depth <u>30</u> ft.

ESTIMATED STARTING DATE 12/27/95  
ESTIMATED COMPLETION DATE 12/27/95

Approved Wyman Hong Date 8 Dec 95  
Wyman Hong

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 72-68.

APPLICANT'S SIGNATURE John V. Madanich Date 12/18/95



# LOG OF EXPLORATORY BORING

PROJECT NUMBER 103

BORING NO. SB-1

PROJECT NAME 2001 FRUITVALE AVE. OAKLAND, CA

PAGE

BY J.V.M.

DATE 1/3/96

SURFACE ELEV.

Recovery (ft/ft)	OVI (ppm)	Penetra- tion (blvs/ft)	GROUND WATER LEVELS	DEPTH IN FEET	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
						SP	AGGREGATE BASE, GRAVELLY SAND (SP), dark grey to black, medium to coarse-grained, damp, no odor.
1.5/ 1.5	28	18		5	SP	SP	SAND (SP), brown, medium to fine-grained, clayey, green staining, damp, gasoline odor.
1.5/ 1.5	26	26		10	CL	CL	CLAY (CL), red-brown, sandy, gravelly, dry, no odor.
1.5/ 1.5	16	28		15	GP	GP	GRAVEL (GP), grey, medium to coarse-grained, minor clay, dry, slight odor.
1.5/ 1.5	14	20		20	SC	SC	CLAYEY, GRAVELLY SAND (SC), red-brown, mottled with green stains at 20-21 feet, damp, no odor.
1.5/ 1.5	-	14		25	SP	SP	SAND (SP), brown, fine-grained, damp, no odor.
							Driller reports water @ 23 feet.
							SAND (SP), brown, medium to coarse-grained, gravelly, saturated, no odor.
							Collected "grab" groundwater sample.
							Boring terminated at 26.5 feet.

### REMARKS

Boring drilled with continuous-flight, hollow-stem, 7-inch O.D. augers. Samples collected in a 2-inch I.D. California sampler. Boring sealed to ground surface with neat cement.

## LOG OF EXPLORATORY BORING

PROJECT NUMBER 103

BORING NO. SB-2

PROJECT NAME 2001 FRUITVALE AVE. OAKLAND, CA

PAGE

BY J.V.M.

DATE 1/3/96

SURFACE ELEV.

Recovery (ft/ft)	OVA (ppm)	Penetra- tion (blvs/ft)	GROUND WATER LEVELS	DEPTH IN FEET	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
						GP	AGGREGATE BASE, GRAVEL (GP), red-brown, sandy, clayey, dry, no odor.
						SP	
1.5/ 1.5	5	8		5		SP	SAND (SP), dark red-brown, gravelly, minor clay, damp, no odor.
						SP	SAND (SP), dark red-brown to black, fine-grained, damp, no odor.
1.5/ 1.5	88	27		10		CL	CLAY (CL), red-brown, sandy, gravelly, damp, no odor.
							Driller reports gravel lens @ 13.5-14.0 feet.
1.5/ 1.5	140	20		15		CL	CLAY (CL), green, damp, gasoline odor.
							GRAVELLY SAND (SP), green, medium to coarse-grained, very damp, gasoline odor.
1.5/ 1.5	630	26		20		SP	SAND (SP), mottled brown and grey, clayey, fine-grained, saturated, gasoline odor.
1.5/ 1.5	-	44		25		SP	Collected "grab" groundwater sample.
							Boring terminated at 26.5 feet.

### REMARKS

Boring drilled with continuous-flight, hollow-stem, 7-inch O.D. augers. Samples collected in a 2-inch I.D. California sampler. Boring sealed to ground surface with neat cement.

## LOG OF EXPLORATORY BORING

PROJECT NUMBER 103

BORING NO. SB-3

PROJECT NAME 2001 FRUITVALE AVE. OAKLAND, CA

PAGE

BY J.V.M.

DATE 1/3/96

SURFACE ELEV.

Recovery (ft/ft)	OVA (ppm)	Penetra- tion (blvs/ft)	GROUND WATER LEVELS	DEPTH IN FEET	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
.75/ 1.5	-	24		5		SP	SAND (SP), brown, medium to fine-grained, concrete fragments, damp, slight gasoline odor.
						CL	GRAVELLY CLAY (CL), mottled red-brown and black, sandy, dry, no odor.
1.5/ 1.5	6	20		10		CL	CLAY (CL), red-brown, sandy, gravelly, damp, no odor.
						SC	CLAYEY SAND (SC), brown, gravelly, organics, damp, no odor.
1.5/ 1.5	19	21		15		SC	GRAVELLY SAND (SP), mottled brown and yellow, clayey, damp, no odor.
						SP	Strong gasoline odor in cuttings @ 18.5 feet.
1.5/ 1.5	98	49		20		SP	GRAVELLY SAND (SP), green, medium to coarse-grained, very damp, strong gasoline odor.
							Boring terminated at 21.5 feet.

### REMARKS

Boring drilled with continuous-flight, hollow-stem, 7-inch O.D. augers. Samples collected in a 2-inch I.D. California sampler. Boring sealed to ground surface with neat cement.

# LOG OF EXPLORATORY BORING

PROJECT NUMBER 103

BORING NO. SB-4

PROJECT NAME 2001 FRUITVALE AVE. OAKLAND, CA

PAGE

BY J.V.M.

DATE 1/3/96

SURFACE ELEV.

Recovery (ft/ft)	OVL (ppm)	Penetra- tion (blows/ft)	GROUND WATER LEVELS	DEPTH IN FEET	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
							AGGREGATE BASE, GRAVELLY SAND (SP), dark grey, damp, no odor.
1.5/ 1.5	13	31		5		SP CL	SAND (SP), brown, gravelly, clayey, damp, no odor.
							SANDY CLAY (CL), dark grey, damp, no odor.
1.5/ 1.5	12	25		10		CL	SANDY GRAVELLY CLAY (CL), dark olive-brown, damp, no odor.
							Dark red-brown @ 10.0 to 11.5 feet.
1.5/ 1.5	18	20		15			Yellow-brown @ 15.0 to 16.5 feet.
							SANDY GRAVEL (GW), mottled green, brown, and yellow, medium to coarse-grained, damp, no odor.
1.5/ 1.5	22	55		20		GW	
							Boring terminated at 19.5 feet due to difficult drilling in gravel.

### REMARKS

Boring drilled with continuous-flight, hollow-stem, 7-inch O.D. augers. Samples collected in a 2-inch I.D. California sampler. Boring sealed to ground surface with neat cement.

# LOG OF EXPLORATORY BORING

PROJECT NUMBER 103

BORING NO. SB-5

PROJECT NAME 2001 FRUITVALE AVE. OAKLAND, CA

PAGE

BY J.V.M.

DATE 1/3/96

SURFACE ELEV.

Recovery (ft/ft)	OVA (ppm)	Penetra- tion (blvs/ft)	GROUND WATER LEVELS	DEPTH IN FEET	SAMPLES	LITHO- GRAPHIC COLUMN	DESCRIPTION
							AGGREGATE BASE, GRAVELLY SAND (SP), dark brown, medium-grained, damp, no odor.
1.5/ 1.5	13	36		5			GRAVELLY CLAY (CL), dark red-brown, sandy, damp, no odor.
						CL	SANDY CLAY (CL), brown, damp, no odor.
1.5/ 1.5	13	24		10			Driller reports water @ 21.5 feet.
							GRAVELLY SAND (SP), green, large gravel fragments, sandy, wet, strong gasoline odor.
1.5/ 1.5	23	11		15		CL	Boring terminated at 21.5 feet.
1.5/ 1.5	400	20		20		SP	

**REMARKS**

Boring drilled with continuous-flight, hollow-stem, 7-inch O.D. augers. Samples collected in a 2-inch I.D. California sampler. Boring sealed to ground surface with neat cement.

## McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553

Tel: 510-798-1620 Fax: 510-798-1622

ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: # 1031396; 2001 Fruitvale Ave., Oakland	Date Sampled: 01/03/96
		Date Received: 01/04/96
	Client Contact: John Mrakovich	Date Extracted: 01/04-01/10/96
	Client P.O:	Date Analyzed: 01/04-01/10/96

## Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with BTEX\*

EPA methods 5030, modified 8015, and 8020 or 602; California RWOCB (SF Bay Region) method GC/FID (5030)

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
60073	SB-1-6.0-6.5	S	ND	ND	ND	ND	ND	107
60074	SB-1-11.0-11.5	S	ND	ND	ND	ND	ND	109
60075	SB-1-16.0-16.5	S	ND	ND	ND	ND	ND	110
60076	SB-1-21.0-21.5	S	ND	ND	ND	ND	ND	107
60077	WSB 1	W	1300,a,i	2.5	1.7	4.7	6.6	113
60078	SB-2-6.0-6.5	S	ND	ND	ND	ND	ND	111
60079	SB-2-11.0-11.5	S	ND	ND	ND	ND	0.009	107
60080	SB-2-16.0-16.5	S	170,e	ND < 0.04	ND < 0.04	ND < 0.04	0.19	110
60081	SB-2-21.0-21.5	S	830,e	ND < 0.02	0.11	0.47	4.9	102
60082	WSB 2	W	3400,a,i,h	9.6	3.9	ND	14	97
60083	SB-3-6.0-6.5	S	3.5,j	ND	ND	ND	0.010	104
60084	SB-3-11.0-11.5	S	ND	ND	ND	ND	ND	111
60085	SB-3-16.0-16.5	S	ND	ND	ND	ND	ND	111
60086	SB-3-21.0-21.5	S	20,j	ND	0.005	ND	0.057	94
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

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

# cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant (aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (Stoddard solvent?); 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.



McCAMPBELL ANALYTICAL INC.	110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622
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ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: # 1031396; 2001 Fruitvale Ave., Oakland	Date Sampled: 01/03/96
		Date Received: 01/04/96
	Client Contact: John Mrakovich	Date Extracted: 01/04-01/05/96
	Client P.O.:	Date Analyzed: 01/04-01/05/96

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***  
EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) <sup>†</sup>	% Recovery Surrogate
60079	SB-2-11.0-11.5	S	ND	97
60080	SB-2-16.0-16.5	S	62,e,g	100
60081	SB-2-21.0-21.5	S	410,e,g	114 <sup>#</sup>
60082	WSB 2	W	40,000,e,h,i	108
60088	SB-4-11.0-11.5	S	ND	98
60089	SB-4-16.0-16.5	S	ND	103
60090	SB-4-19.0-19.5	S	14,d,b	102
60092	SB-5-11.0-11.5	S	ND	102
60093	SB-5-16.0-16.5	S	ND	102
60094	SB-5-21.0-21.5	S	160,d,b	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

\* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/L.

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

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (Stoddard solvent?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553

Tele: 510-798-1620 Fax: 510-798-1622

ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: # 1031396; 2001 Fruitvale Ave., Oakland	Date Sampled: 01/03/96
	Client Contact: John Mrakovich	Date Received: 01/04/96
	Client P.O:	Date Extracted: 01/05/96
		Date Analyzed: 01/05/96

**Lead<sup>a</sup>**EPA analytical methods 6010/200.7, 239.2<sup>b</sup>

Lab ID	Client ID	Matrix	Extraction <sup>c</sup>	Lead <sup>a</sup>	% Recovery Surrogate
60076	SB-1-21.0-21.5	S	TTLC	8.7	96
60077	WSB 1	W	TTLC	0.20,i	NA
60081	SB-2-21.0-21.5	S	TTLC	7.9	97
60082	WSB 2	W	TTLC	0.19,i	NA
60086	SB-3-21.0-21.5	S	TTLC	3.0	102
60090	SB-4-19.0-19.5	S	TTLC	8.3	100
60094	SB-5-21.0-21.5	S	TTLC	3.2	97
Reporting Limit unless otherwise stated; ND means not detected above the re- porting limit	S	TTLC		3.0 mg/kg	
	W	TTLC		0.005 mg/L	
	--	STLC,TCLP		0.2 mg/L	

\* soil samples are reported in mg/kg, and water samples and all STLC &amp; TCLP extracts in mg/L


+ Lead is analysed using EPA method 6010 (ICP) for soils, STLC &amp; TCLP extracts and method 239.2 (AA Furnace) for water samples

c EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

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

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

DHS Certification No. 1644

 Edward Hamilton, Lab Director

<b>McCAMPBELL ANALYTICAL INC.</b>	<b>110 2nd Avenue South, #D7, Pacheco, CA 94553</b> <b>Tele: 510-798-1620 Fax: 510-798-1622</b>
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ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: # 1031396; 2001 Fruitvale Ave., Oakland	Date Sampled: 01/03/96
	Client Contact: John Myakovich	Date Received: 01/04/96
	Client P.O:	Date Extracted: 01/05/96
		Date Analyzed: 01/05/96

**Lead\***

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction <sup>o</sup>	Lead*	% Recovery Surrogate
60076	SB-1-21.0-21.5	S	TTLC	8.7	96
60077	WSB 1	W	TTLC	0.20,1	NA
60081	SB-2-21.0-21.5	S	TTLC	7.9	97
60082	WSB 2	W	TTLC	0.19,1	NA
60086	SB-3-21.0-21.5	S	TTLC	3.0	102
60090	SB-4-19.0-19.5	S	TTLC	8.3	100
60094	SB-5-21.0-21.5	S	TTLC	3.2	97
Reporting Limit unless otherwise stated; ND means not detected above the re- porting limit	S	TTLC	3.0 mg/kg		
	W	TTLC	0.005 mg/L		
	---	STLC,TCLP	0.2 mg/L		

\* soil samples are reported in mg/kg, and water samples and all STLC &amp; TCLP extracts in mg/L

+ Lead is analysed using EPA method 6010 (ICP) for soils, STLC &amp; TCLP extracts and method 239.2 (AA Furnace) for water samples

o EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

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

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

DHS Certification No. 1644

 Edward Hamilton, Lab Director

# ALICAL PROPERTY SERVICES

ENVIRONMENTAL INVESTIGATIONS • HOME INSPECTIONS  
 27973 HIGH COUNTRY DRIVE  
 HAYWARD, CA 94542-2530

5552 AACX3

LAB: MCCAMPBELL

TURNAROUND: 5 DAY

P.O. #: NA

## CHAIN OF CUSTODY

PAGE 1 OF 3

PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS	
1031396		2001 FLUNITYALE AVE. OAKLAND, CA					TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	PCB SCAM (SRI'S)	OTHER	LEAD		
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER												REMARKS			
J. MRAKOVICH															
ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION	(1) TYPE OF CONTAINER	TOTAL LIGHT HC	AROMATIC HC	TOTAL HEAVY HC	OIL & GREASE	PCB SCAM (SRI'S)	OTHER	LEAD	REMARKS	
SB-1- 6.0-6.5	4/3/96	8:30	X		SB-1	BRASS TUBE	X	X							60073
SB-1- 11.0-11.5		8:37	X												60074
SB-1- 16.0-16.5		8:55	X												60075
SB-1- 21.0-21.5		9:05	X												60076
WSB1		9:30		X		1-LTR 2-40ML BRASS TUBE									60077
SB-2- 6.0-6.5		9:50	X		SB-2	BRASS TUBE									60078
SB-2- 11.0-11.5		10:00	X												60079
SB-2- 16.0-16.5		10:16	X												60080
SB-2- 21.0-21.5		10:25	X												60081
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)					
<i>J. M. MRAKOVICH</i>		4/3/96 9:35		<i>Shirley Ruppel</i>											
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)					
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time		Remarks							

GOOD CONDITION  
 HEAD SPACE ABSENT  
 PRESERVATIVE APPROPRIATE  
 CONTAINERS

DATE: \_\_\_\_\_

01-11-1996 12:00PM FROM McCampbell Analytical Inc TO 5812320 P.01

# ALLCAL PROPERTY SERVICES

ENVIRONMENTAL INVESTIGATIONS • HOME INSPECTIONS  
 27973 HIGH COUNTRY DRIVE  
 HAYWARD, CA 94542-2530

5552 (cont.) MHCX3

LAB: MCCAMPBELL

TURNAROUND: 5 DAY

P.O. #: NA

## CHAIN OF CUSTODY

PAGE 2 OF 3

PROJECT NO.		SITE NAME & ADDRESS				(1) TYPE OF CONTAINER	ANALYTES REQUESTED							REMARKS
1031396		2001 FRONTVALE AVE OAKLAND, CA					TOTAL LIGHT BC	AROMATIC BC	TOTAL BC (BTZ)	OIL & GREASE	PAC SOLY (SPL-3)	OTHER	LEAD	
SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER												60082		
S. MRAKOVICH													60083	
ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION									
x5 WSB2	1/3/96	10:45		X	SB-2	1-LTR 2-40ML	X	X			X			60085
SB-3- 6.0-6.5		11:25	X		SB-3	BRASS TUBE								
SB-3- 11.0-11.5		11:37			↓									60087
SB-3- 16.0-16.5		11:45			↓									
SB-3- 21.0-21.5		11:58			↓					X				60089
SB-4- 6.0-6.5		12:55			SB-4									
SB-4- 11.0-11.5		1:05			↓			X						60090
SB-4- 16.0-16.5		1:15			↓									
SB-4- 19.0-19.5		1:25			↓					X				60090
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)				
<i>[Signature]</i>		1/3/96 9:35		<i>[Signature]</i>										
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)		Date / Time		Received by: (Signature)				
Relinquished by: (Signature)		Date / Time		Received in Laboratory by: (Signature)		Date / Time		Remarks						

ICEAT   
 GOOD CONDITION   
 HEAD SPACE ABSENT

PRESERVATIVE   
 APPROPRIATE CONTAINERS

VOAS  O&G  METALS  OTHER

DATE: \_\_\_\_\_

01-11-1996 12:01PM FROM McCampbell, Analytical Inc 10 5812580 P.02