

SUBMITTAL IN RESPONSE TO REQUEST FOR PROPOSAL (RFP)
FOR
SUPPLEMENTAL GROUNDWATER QUALITY INVESTIGATION
AT
4629 MARTIN LUTHER KING JR. WAY
OAKLAND, CALIFORNIA

Submitted to:
Ms. Lynn Nightingale
San Francisco, California

ENVIRONMENTAL
PROTECTION
97 APR -2 PM 2:21

March 28, 1997

ADVANCED ASSESSMENT AND REMEDIATION SERVICES



- ① add add'l boring in west portion of bldg
- ② suspect tank - investigate
- ③ at TW-4 - do soil parameters

3800 Vista Oaks Dr., Suite 201
Martinez, CA 94553
Phone: (510) 370-8295
Fax: (510) 370-2335
e-mail: aars@cnet.com



ADVANCED ASSESSMENT AND REMEDiation SERVICES (AARS)

3800 VISTA OAKS DRIVE, SUITE 201
MARTINEZ, CALIFORNIA 94553
TEL: (510) 370-8295 FAX: (510) 370-2335
e-mail: aars@ccnet.com

March 28, 1997

Ms. Lynn Nightingale
1390 Market Street
Suite 1204
San Francisco, California 94102-5306

**Subject: Proposal for Supplemental Groundwater Quality Investigation
at
4629 Martin Luther King, Jr. Way
Oakland, California**

Dear Ms. Nightingale:

Advanced Assessment and Remediation Services (AARS) is pleased to submit this proposal for supplemental groundwater quality investigation activities at 4629 Martin Luther King, Jr. Way, Oakland, California. This proposal is based on the recent site investigation and my telephone conversation with Ms. Eva Chu, Alameda County Environmental Health Department (ACEHD) on March 20, 1997. The proposed scope of work will be conducted in accordance with the guidelines and requirements of the ACEHD and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

As discussed with Ms. Chu, the scope of work is to collect and analyze groundwater samples at the site using two monitoring wells and two temporary wells. Also, collect and analyze a groundwater sample from monitoring well MW-1. The depth of groundwater was assumed approximately 23 feet below ground surface (bgs). The total number of soil samples to be analyzed is also minimized, one per boring.

The total estimated budget to conduct this groundwater quality investigation as proposed is approximately \$12,575. An estimated budget detailing each task is presented in Attachment A. The budget will not be exceeded without prior authorization by you. Actual billing will be on a time and material basis in accordance with AARS's current pricing schedule.

Enclosed for your review is a draft work plan. Please feel free to discuss the contents of the work plan with the ACEHD.

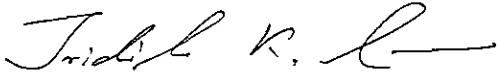
Also, enclosed is the certificate of insurance coverage for \$1,000,000 in commercial general liability and \$1,000,000 in professional liability.

Ms. L. Nightingale
March 28, 1997
Page 2

If this proposal is acceptable to you and you wish to authorize us to proceed with the scope of work, then we will proceed with the Standard Service Agreement. Please contact me if you have any questions or need additional information.

Sincerely,

Advanced Assessment and Remediation Services

A handwritten signature in cursive script, appearing to read "Tridib K. Guha".

Tridib K. Guha, R.G., R.E.A.
Principal

Enclosures

ATTACHMENT A

SUPPLEMENTALGROUNDWATER QUALITY INVESTIGATION

**PROPOSED SCOPE OF WORK
AND
COST ESTIMATE**

PROPOSAL FOR
SUPPLEMENTAL GROUNDWATER QUALITY INVESTIGATION
at
4629 Martin Luther King Jr. Way
Oakland, California

1.0 INTRODUCTION

This proposal presents the scope of work to conduct a supplemental groundwater quality investigation at 4629 Martin Luther King Jr. Way, California. The proposed scope of work is based on previous analytical results of soil and groundwater sampling conducted during tank removal and site investigation. Analytical results of the soil and groundwater samples at the site detected high concentrations of petroleum hydrocarbon constituents. The proposed investigative work is designed to evaluate the extent of the contaminant plume within the property.

2.0 PROJECT BACKGROUND

"In July 1992, five underground storage tanks (two tanks had stored gasoline and three had stored fuel oil) were excavated and removed by SEMCO Inc.. Soil samples were collected from the excavations. Analytical results indicated that petroleum hydrocarbons, quantified as diesel and oil & grease, were present in the soil below the fuel tanks. Additionally, toluene, ethylbenzene and xylenes were detected at low concentrations in the soil. Petroleum hydrocarbons and benzene, toluene, ethylbenzene and xylenes (BTEX) were not detected in samples obtained from the gasoline tank excavations at concentrations above the reporting limits" [Subsurface Consultants, Inc.(SCI) 1993].

In May 1993, SCI conducted a site investigation by drilling and sampling of nine soil borings and analyzing selected soil samples. SCI reported that oil and grease and diesel hydrocarbons were detected in the soil beneath and adjacent to the previous fuel oil tanks, at concentrations up to 760 and 1700 mg/kg, respectively.

In September 1995, Advanced Assessment and Remediation Services (AARS) conducted a groundwater quality investigation by drilling and installing two temporary wells (TW-1 and TW-2) and one monitoring well (MW-1). Soil and groundwater samples were collected. The results of groundwater sampling indicated that the concentrations of TRPH as TOG range between 3.7 and 9.9 ppm; TPHg range between 190 and 580 ppb; TPHd ranges between 1,600 to 20,000 ppb. Benzene was detected in groundwater sample from MW-1 at a concentration of 2.3 ppb. Higher lead concentrations in groundwater samples from TW-1 and TW-2 may be due to high sediment contents. Analytical results of soil samples from each boring detected TPHg ranging from 38 to 500 ppm; TPHd ranging from 33 to 200 ppm; TRPH as TOG ranging from 100 to 380 ppm. The highest concentrations of hydrocarbon constituents was detected in groundwater samples from MW-1 and the lowest concentrations in TW-2. From this it appears that the groundwater flow direction is to the southeast.

3.0 PROPOSED SCOPE OF WORK

The proposed site investigation will be conducted in accordance with the requirements and guidelines of Alameda County Environmental Health Department (ACEHD) and California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). As discussed with ACEHD, AARS proposes:

Installation of four soil borings to 30 feet bgs, downgradient to the former tank area. Convert these soil borings into two groundwater monitoring wells (MW-2 and MW-3) and two temporary wells (TW-3 and TW-4). The locations of these monitoring wells and temporary wells are presented in Figure 1. Collect soil samples during drilling at every 5 feet intervals or at lithologic changes. Analyze selected soil samples (one sample per boring) and groundwater samples from monitoring wells and temporary wells for total petroleum hydrocarbon as diesel and motor oil (TPHd-mo) as gasoline (TPHg) with BTEX/MTBE, chlorinated hydrocarbons and lead. The various tasks associated with this site investigation are discussed below.

Task 1: Project Preparation, Submit Work Plan and Acquire Necessary Permits

Information pertinent to the site will be reviewed and will include available literature, previous field work and other sources. A workplan will be prepared, including a health and safety plan, and will be submitted to the ACEHD, as well as to property owner. All required permits will be obtained and field activities will be coordinated with the ACEHD. Site will be marked and Underground Service Alert will be notified prior to drilling of soil borings.

Task 2: Drill Soil Borings; Install two Monitoring Wells and two Temporary Wells

Two soil borings (MW-2 and MW-3) will be drilled to 30 feet below ground surface (bgs) by using a limited access drilling rig with 8-inch-diameter, hollow-stem augers, following the standard procedures and requirements of the ACEHD. Two additional soil borings (TW-3 and TW-4) will be drilled to 25 feet bgs using small diameter (4.5-inch) solid flight augers. Soil samples will be obtained with a split-spoon sampler lined with clean sampling sleeves. Soil samples will be collected at every 5 feet or at any lithologic changes, starting at 5 feet bgs. Soil borings will be logged lithologically using the Unified Soil Classification System (USCS) and soil samples will be screened in the field using a portable combustible gas indicator. The samples recovered for chemical analysis will be sealed with teflon tape and plastic caps and placed immediately into a cooler with ice and transported to a certified laboratory under chain-of-custody. If groundwater is not encountered within the specified depth described above then the soil borings will be backfilled with neat cement or cement slurry.

Two soil borings (MW-2 and MW-3) will be converted to groundwater monitoring well. The groundwater monitoring wells will be constructed of clean, 2-inch diameter, flush threaded, schedule 40 PVC blank casing which will be extended from grade

level to a depth estimated at the highest anticipated water level, and 2-inch-diameter screened casing with 0.010-inch perforations, extending to a depth of at least 10 feet into the water table. The annular space surrounding the screened portion was backfilled with No. 2 Monterey sand (filter pack) to approximately 2 feet above the top of the screened section. A bentonite annular seal (approximately 1 foot thick) will be placed above the filter pack. The remaining annulus will be grouted with neat cement to the surface. A monument well box will be installed slightly above grade to minimize infiltration of surface waters. Locking watertight well caps will be installed to ensure the integrity of the well.

All drill cuttings will be stockpiled at the site for proper disposal.

Task 3: Sample two Temporary Wells

Two soil borings will be converted to temporary wells (TW-3 and TW-4). The soil borings will be advanced 3 to 5 feet beyond the top of the saturated zone (approximately 25 feet bgs). A 2-inch diameter, flush-threaded, Schedule 40 PVC 0.010-inch slot size screen casing covered with a polyester filter sock will be installed in the bore holes. The water will be allowed to stabilize and a small volume of water (approximately 3 to 5 gallons) will be purged. Following purging, a water sample will be collected and the casing will be removed. The borings will then be completely backfilled with neat cement or cement slurry to grade.

Task 4: Develop, Sample and Survey Monitoring Wells

Prior to sampling, the water level of the monitoring wells will be recorded, and the presence of free product or sheen will be observed. The wells will be properly developed prior to purging and sampling.

During purging, pH, temperature, and conductivity readings will be recorded. As these readings stabilize, indicating that the groundwater is representative of the water in the aquifer, the water samples will be collected in appropriate clean glassware. Also, Monitoring well MW-1 will be sampled. The samples will be placed in an iced cooler and transported to a California-certified laboratory.

To calculate the hydraulic gradient and groundwater flow direction of the shallow aquifer, the wells will be surveyed from a permanent reference mark at the top of the casing, to 0.01 foot accuracy in reference to mean sea level.

The removed water will be transferred to 55-gallon drums, labeled and stored at the site for proper disposal.

Task 5: Analyze Soil Samples

Soil samples will be transported to McCampbell Analytical in Pacheco, a California-certified laboratory for analysis following proper chain of custody procedures. A minimum of 1 soil sample (capillary zone) from each boring will be analyzed for TPHd-mo, TPHg with BTEX/MTBE, chlorinated halocarbons using the appropriate EPA methods. The detection limits for both TPHd-mo and TPHg is 1.0 milligram per kilogram (mg/kg) and the detection limits for BTEX/MTBE are 0.005 mg/kg. The detection limit for chlorinated halocarbons is 5.0 mg/kg.

Task 6: Analyze Groundwater samples

Groundwater samples collected from the monitoring wells and temporary wells will be analyzed for TPHd-mo, TPHg with BTEX/MTBE distinction, Chlorinated halocarbons and total lead, using the appropriate EPA methods. The detection limits for TPHd-mo and TPHg is 50 microgram per liter ($\mu\text{g/L}$) and the detection limits for BTEX/MTBE are 0.5 $\mu\text{g/L}$. The detection limit for chlorinated halocarbons is 0.5 mg/L and detection limit for lead is 0.005 mg/L.

Task 7: Analyze Data and Laboratory Results and Prepare Report

Upon completion of the sample analysis and background research, a detailed evaluation of results and available information will be conducted to assess the extent and nature of groundwater contamination. This will include:

- Interpretation of geologic and hydrogeologic information.
- Description of field and analytical procedures.
- Tabulation of soil and groundwater analytical results.
- A report presenting the findings of the investigation including conclusions and recommendations, will be prepared for submission to the ACEHD.

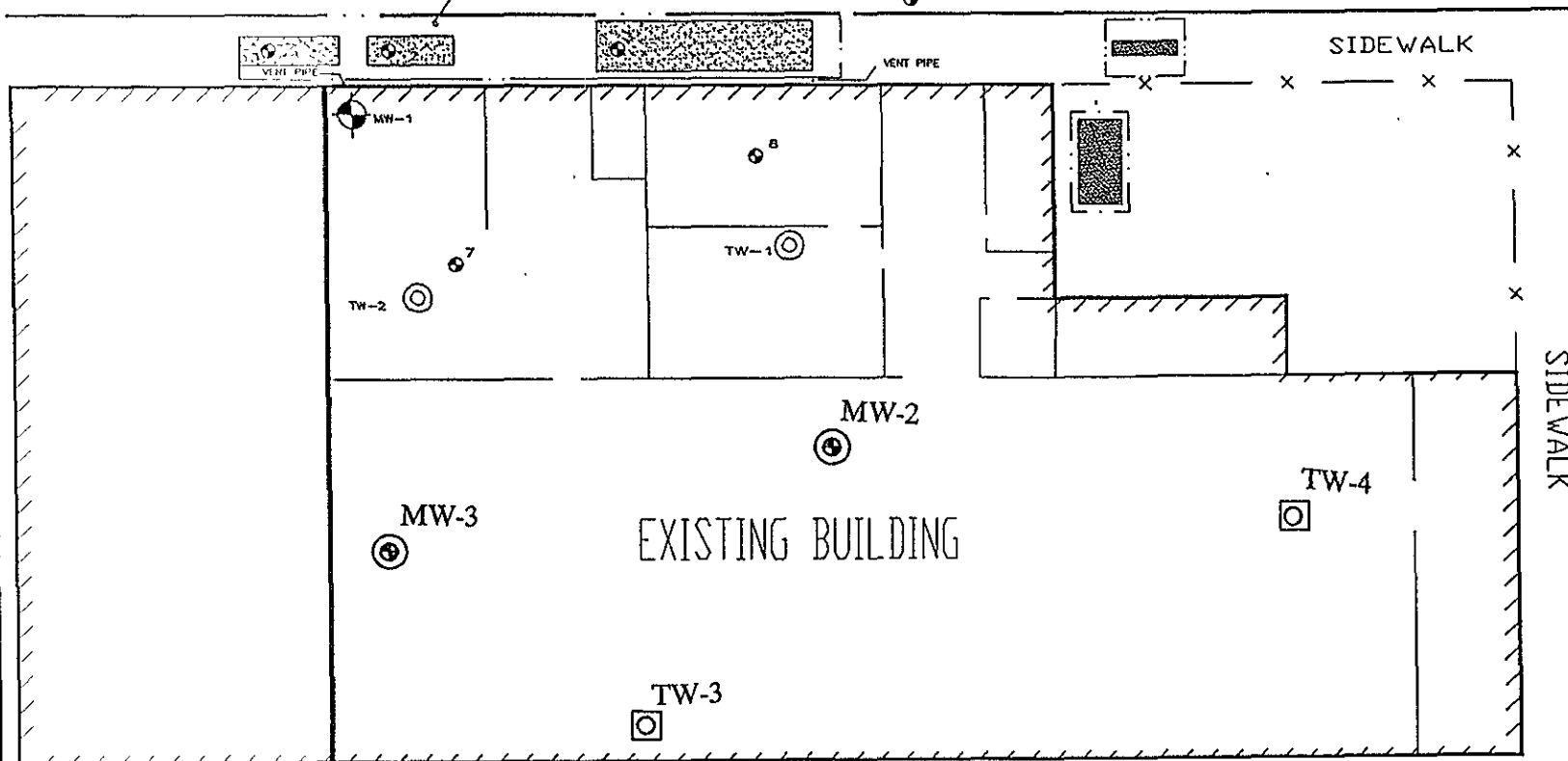
47th STREET

TELEPHON POLE

SIDEWALK

MARTIN LUTHER KING JR. WAY

SIDEWALK

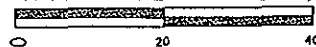


LEGEND

- TEST BORING BY SUBSURFACE CONSULTANT
- APPROXIMATE LOCATION OF PREVIOUS HEATING OIL FUEL TANKS
- APPROXIMATE LOCATION OF PREVIOUS GASOLINE TANK
- TW-2 TEMPORARY WELL
- TW-3 PROPOSED TEMP. WELL
- MW-1 MONITORING WELL
- MW-2 PROPOSED MONT. WELL
- EXTENT OF TANK EXCAVATION



APPROXIMATE SCALE (feet)



ADVANCED ASSESSMENT AND
 REMEDIATION SERVICES
 3800 Vista Oaks Dr.
 Martinez, CA 94553

FIGURE 2: SITE PLAN

4629 MARTIN LUTHER KING JR. WAY
 OAKLAND, CALIFORNIA

JOB NUMBER	DATE	APPROVED
85018	09/20-1995	

ATTACHMENT A

ESTIMATED BUDGET

SUPPLEMENTAL GROUNDWATER QUALITY INVESTIGATION

at

4629 Martin Luther King Jr. Way

Oakland, California

Tasks	Estimated Cost
1. Prepare Work Plan and health and safety plan; obtain permits; Site marking, Project Preparation	\$ 900
2. Drill 4 soil borings; install 2 monitoring wells (30 feet bgs); 2 temporary wells includes geologist time, all field equipments, subcontractor/supplies	\$ 5,400
3.4 4 Develop, sample and survey monitoring wells-includes geologist and surveyor's equipments	\$ 1,250
5A. Lab. Analysis 4 soil samples TPHd-mo, TPHg with BTEX/MTBE, chlorinated halocarbons	\$ 750
6B Lab Analysis 5 water samples TPHd-mo, TPHg with BTEX/MTBE, chlorinated halocarbons and total lead	\$1075
7.6 Review Data and Laboratory Results and Prepare Report, Drafting Project Administration	\$ 3,200
Total Estimated Cost	\$12,575

Note: Disposal of drill cuttings, soil materials and decon water not included in this estimate.
Costs for this disposal can be provided once analytical data is available.

CERTIFICATE OF INSURANCE

Producer:

E.E.I.S.
7011 SYLVAN ROAD
SUITE D
CITRUS HEIGHTS, CA 95610

Issue Date: June 25, 1996

This Certificate is issued as a matter of information only and confers no rights upon the Certificate Holder. This Certificate does not amend, extend or alter the coverage afforded by the policy below.

Insured:

ADVANCED ASSESSMENT & REMEDIATION SERVICES
3800 VISTA OAKS DRIVE, SUITE 201
MARTINEZ, CA 94553

COMPANY AFFORDING COVERAGE

AMERICAN SAFETY RISK RETENTION GROUP, INC.
1845 The Exchange, Suite 200
Atlanta, Georgia 30339

This is to certify that the policy of insurance listed below has been issued to the Insured named above for the policy period indicated. Notwithstanding any requirement, term of condition of any contract or other document with respect to which this Certificate may be issued or may pertain, the insurance afforded by the policy described herein is subject to all the terms, exclusions and conditions of such policy. Limits shown may have been reduced by paid claims.

TYPE OF INSURANCE	POLICY NUMBER	EFF. DATE	EXP. DATE	LIMITS	
Commercial General Liability - Claims Made	ASR100644-0	05/07/96	05/07/97	General Aggregate	\$ 1,000,000
				Products Comp/Op Aggregate	\$ 1,000,000
				Personal & Adv. Injury	\$ 1,000,000
				Each Occurrence	\$ 1,000,000
Professional Liability Form ASR011 10 92 Claims Made	Included			Fire Damage (any one fire) . . .	\$ 50,000
				Med. Expense (any one person)	\$ 5,000

Description of Operations/Locations/Special Items:
PROJECT:

This Certificate is not a policy, and is issued for information purposes only. This Certificate confers no rights on the Certificate Holder, and does not amend, extend or alter the terms, conditions or exclusions contained in the policy referenced above. The recipient of this Certificate has the obligation to verify coverages for the Named Insured and any Additional Insureds and the terms, conditions and exclusions in the policy referenced above.

Certificate Holder:

FOR BID PURPOSES ONLY

Cancellation:

Should the above described policy be canceled before the expiration date thereof, the issuing company will endeavor to mail 30 days written notice (10 days if canceled for non-payment of premium) to the Certificate Holder named to the left. But failure to mail such notice shall impose no obligation or liability of any kind upon the Company, its Agents or Representatives.

Signature: _____

Company's Representative

- CERTIFICATE HOLDER COPY INSURED COPY AGENT COPY FILE COPY COMPANY COPY