

January 16, 1990
SCI 272.011

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CONSTRUCTION DIVISION

Mr. James Abron
Construction Department
City of Oakland
7101 Edgewater Drive
Oakland, California 94621

**Scope of Services and Fee Estimate
Preliminary Petroleum Contaminated
Soil Assessment (Phase 2)
98th & Edes Avenues
Oakland, CA**

Dear Mr. Abron:

Subsurface Consultants, Inc. (SCI) is pleased to present this Scope of Services and Fee Estimate to provide a Preliminary Petroleum Contaminated Soil Assessment (Phase 2) of the subject site. We previously performed a Preliminary Contaminated Soil Assessment (Phase 1) of the site and presented the results in a report dated July 17, 1989.

The site was previously a service station containing underground gasoline and waste oil storage tanks that were removed in 1983. During our previous services, we encountered gasoline, diesel, and oil and grease contaminated soil. We understand that the contaminated soil is to be remediated by removal, and disposal at the appropriate facilities.

Our Scope of Services and Fee Estimate for environmental engineering services during soil remediation, groundwater assessment and monitoring, dated December 5, 1989 was based upon the assumption that the Alameda County Health Care Services Agency (ACHCSA) and San Francisco Bay Regional Water Quality Control Board (RWQCB) will accept a total petroleum hydrocarbon (TPH) clean up level of 500 parts per million (ppm). We understand that the current policy of the ACHCSA is to allow soil with TPH concentrations between 100 and 1000 ppm to remain in-place if "sufficient evidence is provided which indicates no adverse effects on groundwater will occur". However, the ACHCSA strongly recommends clean up levels of 100 ppm or less. During our meeting on December 15, 1989, Mr. Ariu Levi of the ACHCSA stated that in order to provide sufficient evidence of no adverse

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effects to groundwater, the following information would be necessary: (1) the depth, gradient, flow direction and TPH concentrations of the groundwater, and (2) the extent of soil with TPH concentrations greater than 100 ppm.

Our December 5, 1989 letter included a Proposed Scope of Services and Fee Estimate for installing monitoring wells at the site and determining the groundwater parameters stated above. At least 3 of the groundwater monitoring wells should be installed prior to remediation in order to provide the required information. In addition, this letter includes a Proposed Scope of Services and Fee Estimate for determining the extent of soil with TPH concentrations greater than 100 PPM.

Scope of Services

Our engineering services will be limited to the following:

1. Drilling and logging sixteen (16) test borings up to 15 feet deep (2 days drilling),
2. Obtaining undisturbed samples of soils encountered while drilling,
3. Grouting the bore holes upon completion,
4. Performing analytical tests on selected soil samples; the tests will include TVH (EPA 5030/8015), TEH (EPA 3550/8015 modified), BTXE (EPA 5030/8020) and TOG (EPA 3550/SMWW503E).

Based upon the assessment results, we will develop conclusions and/or recommendations regarding:

1. Subsurface conditions,
2. The presence and concentration of TVH, TEH, TOG and BTXE in the sampled locations,
3. The estimated extent of soil with TPH concentrations greater than 100 PPM at the site,
4. The significance of contaminate levels with respect to state and local regulatory criteria, and

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5. The scope of future investigations/monitoring, if necessary.

The results of our services will be summarized in a report including the boring logs, analytical test results and chain-of-custody records.

If the extent of soil with TPH concentrations greater than 100 PPM is larger than anticipated, additional investigation may be recommended in order to determine its extent. We will negotiate the scope and fees for these services if and when they are necessary.

Fee Estimate

We propose to perform the services described herein on a time-and-expense basis, in accordance with the attached General Conditions and Schedule of Charges.

On this basis, we estimate that our fee for these services will be as follows:

A.	Field Exploration	\$6,567
B.	Analytical Testing	9,605
C.	Analysis/Report	<u>3,190</u>
	Total	\$19,362

A breakdown of this fee estimate, and a listing of the major assumptions on which it is based, is attached. This fee includes costs for drill rig rental and analytical testing.

Our fee estimate is based upon a 1-day turnaround time for the TVH/BTXE tests performed in a mobile laboratory, and normal 10-day turnaround time for the TEH and TOG tests. More prompt turnaround time is possible by paying laboratory surcharges.

Depending upon the results of our services, additional investigation may be recommended in order to more fully determine the extent of contamination. The subsequent investigation may include obtaining soil samples from additional test borings, groundwater samples from monitoring wells, and performing analytical tests to check for chemical contamination. Quarterly monitoring of groundwater monitoring wells will also be required. We will negotiate the scope and fee for these services when and if they are necessary.

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We appreciate the opportunity to submit this Proposal, and would be pleased to meet with you and discuss it at your convenience. If you have questions, please call.

Yours very truly,

Subsurface Consultants, Inc.



William K. Wikander
Project Manager

R. William Rudolph
Vice President

WKW:RWR:ch

2 copies submitted

Attachments: Fee Estimate
 General Conditions
 Schedule of Charges

Fee Estimate

Preliminary Petroleum Contaminated Soil Assessment (Phase II) 98th & Edes Avenues

Assumptions:

1. Soil with TPH concentrations greater than 100 PPM does not extend beyond the boundaries of an imaginary 200-by 400-foot parallelogram centered over the former tank locations, with the short side bordering the south side of Edes Avenue and the long side bordering the west side of 98th Avenue.
2. The test borings will be up to 15 feet deep.
3. The borings can be drilled in appropriate locations of 98th or Edes Avenues without significantly disturbing traffic.
4. Subsurface utility locations are known.
5. The site is not contaminated with materials other than total petroleum hydrocarbons.
6. A total of 32 samples (2 from each test boring) will be analytical tested for TVH/BTXE.
7. A total of 16 samples will be analytically tested for TEH and TOG.
8. The mobile laboratory can analytically test 8 soil samples for TVH/BTXE per day.
9. The fee estimate is to include a twenty percent (20%) contingency on analytical laboratory costs.

A. Field Exploration

Drilling Rig	18 hours @ \$115/hr	\$ 2,070
Water Truck	2 days @ \$50/day	100
Grout	80 sacks @ \$ 7.19/sack	575
Mark Up	15%	412
OVM	2 days @ \$25/day	50
Generator	2 days @ \$25/day	50
Steam Cleaner	2 days @ \$75/day	150
Senior Engineer	8 hours @ \$90/hr	720
Engineer/Geologist	20 hours @ \$60/hr	1,200
Technician	24 hours @ \$45/hr	1,080
Truck	32 hours @ \$ 5/hr	\$ 160
	Subtotal	\$ 6,567

B. Analytical Testing

Mobile Laboratory (32 TVH/BTXE Tests)	4 days @ \$1200/day	\$ 4,800
TEH	16 tests @ \$ 85/test	1,360
TOG	16 tests @ \$ 50/test	800
Mark Up	15%	1,044
Contingency	20%	1,601
	Subtotal	\$ 9,605

C. Analysis/Report

Principal Engineer	4 hours @ \$100/hr	\$ 400
Senior Engineer	16 hours @ \$ 90/hr	1,440
Engineer/Geologist	16 hours @ \$ 60/hr	960
Drafting	6 hours @ \$ 35/hr	210
Clerical	6 hours @ \$ 30/hr	180
	Subtotal	\$ 3,190

Summary

A. Field Exploration	\$ 6,567
B. Analytical Testing	9,605
C. Analysis/Report	<u>3,190</u>
Total	\$19,362

GENERAL CONDITIONS

Invoices

Subsurface Consultants, Inc. (SCI) will submit invoices to Client at least as frequently as monthly and a final bill upon completion of services. Billings are payable upon receipt unless other arrangements, confirmed in writing by SCI, have been made. A finance charge of 1-1/2 percent per month will be payable on accounts not paid within 30 days. Any attorney's fees or other costs incurred collecting any delinquent amount shall be paid by the Client.

Samples

SCI will retain all soil and rock samples for 30 days after report submittal. Upon Client's authorization, samples will be delivered to Client or stored for an agreed charge. Client will be invoiced for the cost of sample liners if samples are stored for more than 4 months or if Client accepts delivery of samples.

Utilities

SCI will not be liable for damage or injury arising from damage to on-site subterranean structures (pipelines, underground cables, etc.) which are not called to our attention and correctly shown on the plans furnished in connection with the services performed by SCI. SCI will request responsible utilities to locate off-site utility lines, when necessary.

Standard of Care

Services performed by SCI will be conducted in a manner consistent with that level of care and skill ordinarily exercised by other members of the engineering profession currently practicing under similar conditions. No other warranty, expressed or implied, is made. Client recognizes that subsurface conditions may vary from those encountered at the location where test borings or other explorations are made by SCI and that SCI's interpretations and recommendations will be based on the results of investigative work. SCI will not be responsible for the interpretation or use by others of data developed by SCI.

Workers' Compensation Insurance

SCI is protected by Worker's Compensation Insurance as required by applicable State laws.

General Conditions (continued)

Professional Liability Insurance and Limitations

SCI's liability for damages due to professional negligence will be limited to an amount not to exceed \$50,000 or SCI's fee, whichever is greater.

General Liability Insurance and Limitation

SCI is covered by General Liability insurance for bodily injury and property damage arising directly from its negligent acts or omissions. Within the limits and conditions of such insurance, SCI agrees to indemnify and hold Client harmless from any loss, damage or liability arising directly from any negligent act or omission by SCI. SCI shall not be responsible for the loss, damage or liability arising from any act of omission by Client, its agents, employees, other consultants, independent contractors, third parties, or others working on the project over which SCI has no supervision or control.

Disputes

If a dispute arises relating to the performance of services covered by this agreement, and legal or other costs are incurred, it is agreed that the prevailing party shall be entitled to recover all reasonable costs incurred in defense of the claim, including employee related costs at current billing rates, attorney's fees and other claim related expenses.

SUBSURFACE CONSULTANTS, INC.

SCHEDULE OF CHARGES

Professional Services

Hourly Rates

Principal Engineers and Geologists	\$90 to 110
Associate Engineers and Geologists	\$80 to 100
Senior Engineers and Geologists	\$60 to 90
Project Engineers and Geologists	\$40 to 60
Expert Witness & Deposition Testimony	\$120

Technical Services

Field Technician	\$40 to 55
Drafting	\$35
Word Processor Operator	\$30
Clerical	\$25

Equipment

Outside Services & Equipment	Cost + 15%
Vehicle	\$5/hour
Geophysical Equipment	Upon request
Nuclear Density Testing Equipment	\$5/test
Photo Copying	\$0.15/page

Travel Time

Travel time will be charged at regular hourly rates, not to exceed 8 hours per day.

Outside Services

Outside services include all services and/or equipment not ordinarily provided by Subsurface Consultants, Inc., such as drilling equipment rental, laborers, special printing, subsistence and lodging, travel by common carrier, etc.

Terms

Billings are payable upon receipt unless other arrangements, confirmed in writing by Subsurface Consultants, Inc., have been made. A finance charge of 1-1/2 percent per month will be payable on accounts not paid within 30 days. Any attorney's fees or other costs incurred collecting any delinquent amount shall be paid by the Client.