

SEISCO Engineering and Inspection Services

Professional Member

International Conference of Building Officials

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Structural Engineering, Construction Management

David Benaroya Helfant, Ph.D., M.ASCE, ICBO

Environmental, Seismic and Drainage Design

Structural and Engineering Inspections

Michael S. Noell, M.Arch., A.I.A.

Architecture and Planning

Ilhami Karaca, PE, SE

Structural Engineering

November 23, 2000

TO: Mr. Lawrence Seto, Senior Hazmat Specialist, Environmental Protection Division, ACHCSA

**FROM: David Benaroya Helfant/Eric Cox consultants to
Mr. Mel Bolin, Owner
Mr. Virgil Bolin, Owner**

**RE: Removal of Contaminated Soils, former tank site #1
6335 San Pablo Avenue, Oakland, CA 94608, Stid 1685**

Dear Mr. Seto:

As per our meetings of September 6, 2000, and October 25, 2000, we have amended the work plan dated 9/26/00 to incorporate the changes you requested during your meeting with me in our office on October 25, 2000.

Mssrs. Virgil and Mel Bolin, owners at the above referenced property, wish to proceed to remove remaining contaminated soils at a former 500 gallon buried gas tank that received closure from the County in 1988, and to provide the additional testing you requested. The owners' understanding is that this will complete any requirements for final removal of contaminated soils related to these tanks. If this is not the case, please speak directly to Mssrs. Mel and Virgil Bolin.

All previously known County requirements was completed in 1988. New test requirements revealed a small residue of additional contamination [by a different test for other substances not formerly tested by the County in the 1980's]. All previous tests [including test results from County closure in 1988 and this firm's sampling in July 1999] indicates that only a small area around the previous site of the 500 gallon buried tank contains contaminated soils. See the attached laboratory analysis and site plan.

The groundwater sample from the sampling well showed a residue of these contaminants as well.

As the owners wish to proceed to complete this task within the next 30-days, they need to be assured that this will finally satisfy the County requirement for the removal of the contaminated soils. Please notify the undersigned if additional data is requested or-should you have reason to believe that this will not complete the removal of the contaminated soils, please call the owner, Mr. Virgil Bolin [510-547-8585].

Thank you for your cooperation in this matter.

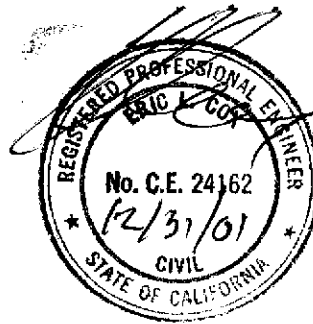
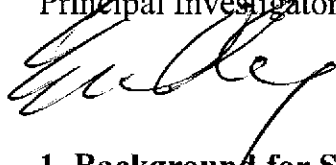
Sincerely,



David Benaroya Helfant, Ph.D., M.ASCE

Eric S. Cox, PE

Principal Investigators



1. Background for Statement of Scope of Work:

Two previously removed UST's (removed and closure secured in 1988) at 6335 San Pablo Avenue contained gasoline. One a 500 gallon tank, the other a 1000 gallon tank. Each were properly inerted, removed and the metal recycled. The soils originally collected at the former locations, were analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH-G). Additional analyses have been provided and will be duplicated during the coming procedure. These include benzene, toluene, ethyl benzene, xylene (BTEX), lead, and methyl-tert-butyl ether (MTBE).

Additionally, because >2,400 ppm TPH-G was found in hole #2 on April 11, 1988, a downgradient groundwater sample was collected from a permitted groundwater sampling well constructed in 1999, outside of the former hole but within 10-ft. and sent for analysis to a state certified laboratory [see attached results].

2. Site Location:

The site is the former repair shop formerly known as Bolin's Service Garage > Mr. Bolin was in the business of repairing vehicles. The former shop is located at the corner of San Pablo Avenue and 64th Street in North Oakland, near the Berkeley and Emeryville borders. The former business is accessed through 64th Street.

3. Background and Site History:

The owner operated a repair shop for 30-years, and the property has been in the family for at least this period of time. No other record of business activities is found, and the site is thought to have been largely vacant prior to the establishment of Mr. Bolin's business. The service garage had two UST's for gasoline, one a 550 gallon tank nearest the shop structure, and a second one located adjacent to a driveway. The owner had both tanks removed in 1988.

The sale of gasoline was not part of the business services offered at Bolin's garage and the tanks were lightly used. Upon removal and sampling >2,400 ppm TPH-G was found in the sample hole #2 below the 1,000 gallon tank adjacent of the driveway. All contaminated soils were removed and transported to an approved landfill under manifest. Site closure was granted.

4. Statement of Work:

Based on our discussions with you, the owners intend, in accordance with County guidelines, to:

1. Excavate the areas where the contamination was found until all such contaminated soils are removed to a clean line of soil. The term "clean line" will be determined in the field to judge by color, odor and soil characteristics the change in character produced by the contaminants attributed to underground fuel tanks. [See site plan.] A backhoe will be used to excavate soils and to set such excavated soils on a 6-mil ground sheet, that will be covered with 6 mil plastic upon completion of the excavation. Two samples per each 20-yards of material in the spoils pile will be collected and analyzed as per treatment center protocol.

.1 The contractor providing excavation services, Bay Area Structural, Inc. possesses the following licenses through the State of California: #44931- "A- General Engineering", "B-General Building", "C-21- Building Demolition and Structure Moving", "Hazardous Materials Removal and Remediation Action Certificate" [HAZ]. The employees possess the 40-hour HAZWOPER training and the 8-hour refresher class.

.2 Previous investigations did not reveal product pipeline at the site. The proposed work will excavate further to determine if the product pipeline is still buried or if it was removed during the 1988 closure work completed under County permit.

.3 Excavation will not take place under the neighboring building. No shoring of the building will be installed, as no need is anticipated. The County is noticed that this company is fully licensed to provide any additional engineering necessary as per the U.C., IBC, UCBC, or UMC. All documents to be stamped by one or more of the above noted Principals in conformance with the relevant sections of the Business and Profession Code.

2. The excavated soil will be stockpiled and then be sampled and profiled by a County approved state certified lab with two samples for 20- yards of stockpiled soil, as per the certified disposal site that contracts with the owner. A copy of all manifests will be included with the final analytical results.

3. The excavated area will also be sampled to determine that the "clean line" of remaining soil has been reached. We will sample two locations under the former tank, one under the former dispenser, and one every 20-feet beneath the former product line. Sampling will involve brass tube lab containers that are punched into undisturbed sections of the bank and the spoils pile. These will be capped, refrigerated and brought to the certified lab for analysis.

.1 Soil samples will be collected in thin-walled stainless or brass tubes at least 3-inches long and 1-inch in diameter. About 1-inch of soil will be removed from the

immediate surface area where the sample is to be taken and the tube then pointed in the soil using a wooden mallet. No headspace should be present in the tube once the sample is collected. When the sample is collected, each end of the tube will be covered with aluminum foil and then capped with polyethylene lid, taped, and labeled. The sample will be immediately be placed in an ice chest containing dry ice and kept cold 94 degrees C] for delivery to the laboratory. *should be 4°*

.2 A soil sample will be collected under the dispenser and pipeline of the former tank #2 once again as per County request. Samples under the product pipeline will be collected at the rate of one every 20-feet.

.3 The samples will be tested for the presence of THP 9gas0, BTEX, lead, and MTBE. If MTBE is detected, it will be confirmed using EPA method 8260. To access the soil for testing when it is covered by paving, the paving in the way will be removed.

4. The contaminated soils found will be trucked under manifest to an approved disposal/treatment plant and under manifest will be cleaned. A report from the treatment and disposal facility will be provided in the final report to illustrate approved disposal.

5. A groundwater sample will be taken at the existing groundwater sampling well. The groundwater samples will be collected by the certified laboratory in a manner that reduces or eliminates the possibility of loss of volatile constituents from the sample. A gas-actuated positive displacement pump or a submersible pump will be used. A decontaminated Teflon or stainless steel bailer for each groundwater sample will be used. After completion of the sampling and receipt of the findings, the well will be grouted and closed under permit to close the sampling well obtained from the Alameda County Public Works [contact person is James Yoo at 510-670-6633]. Groundwater sampling will proceed as follows:

.1 A grad water sample or purged sample will be collected from the groundwater sampling well. This procedure will enable the well to be emptied [contents stored in a sealed above ground container] to remove the latent water in the well. The existing groundwater monitoring well has been properly constructed and is under permit. But by sampling after purging, the groundwater sample may be more representative of the groundwater. A sample will be taken after the water level approaches 80% of its initial level. If the water recovery is slow, the sample will be collected after stabilization is achieved. *remove*

.2 The water sample will be tested for TPH [gas], BTEX [as per laboratory procedure ----], lead, and MTBE. The volatile water samples must be collected in VOA vials and sampled in such a manner to minimize headspace loss. The water sample for lead will be filtered onsite, and collected in a glass or polyethylene container with nitric acid as a preservative. The samples will be placed in an ice chest maintained at 4 degrees C with blue ice with care taken to prevent freezing of the water and bursting of the glass vial, if glass is used.

Previous soil samples were analyzed by a certified lab in 1988 and in 1999. For further information on that please request names and addresses.

preservative. The samples will be placed in an ice chest maintained at 4 degrees C with blue ice with care taken to prevent freezing of the water and bursting of the glass vial, if glass is used.

Previous soil samples were analyzed by a certified lab in 1988 and in 1999. For further information on that please request names and addresses.

Response

6. The entire procedure will be monitored for quality control and the results sent to you by the undersigned and registered professional engineer. Please see the attached dimensioned drawing of the site indicating the depths of the samples to be collected, the areas where excavation will take place [the limits of the overexcavation are only generally shown; the definitive limits will be determined in the field based on #1 above.

7. Upon completion of the removal of the contaminated soils, the excavated areas will be backfilled and compacted with clean imported fill and repaved as necessary.

Attachments:

Site and Sampling Plan
Analytical Laboratory Profile and State Licenses

ACCREDITATIONS

AIHA

American Industrial Hygiene Association
Asbestos, Metals, Silica and Organics

AIHA ELLAP

AIHA Environmental Lead Laboratory
Accreditation Program
Lead in Paint Chips, Wipes and Soil

NVLAP

National Voluntary Laboratory
Accreditation Program
Asbestos in Air and Bulk Samples

NY ELAP

New York State Environmental Laboratory
Accreditation Program
Asbestos and Heavy Metals

Other

California (ELAP), EPA Region 6, Pennsylvania,
Texas, Virginia, West Virginia, plus other accreditations and licenses.



NVLAP

About the company

With a staff of over 100 professionals at five nationwide locations, RJ Lee Group is a high technology corporation that provides contract research, analytical services and applications development in various fields of materials characterization. In addition to traditional materials studies, our capabilities include: environmental analyses, industrial hygiene applications, indoor air quality services and specialized contract research projects that utilize optical and electron microscopy, microprobe analysis, x-ray diffraction, and wet and instrumental chemical techniques.

Headquarters Laboratory

350 Hochberg Road
Monroeville, PA 15146
(Pittsburgh Area)
Tel: (724) 325-1776
Fax: (724) 713-1799

Virginia Laboratory

10503 Battleview Parkway
Manassas, VA 20109
(Washington, D.C. Area)
Tel: (703) 368-7880
Fax: (703) 368-7761

Texas Laboratory

14760 Memorial Drive
Houston, TX 77079
Tel: (281) 584-0584
Fax: (281) 584-0588

California Laboratory

530 McCormick St.
San Leandro, CA 94577
(San Francisco Area)
Tel: (510) 567-0480
Fax: (510) 567-0488

Washington Office

1779 Terminal Drive
Richland, WA 99352
Tel: (509) 946-5269
Fax: (509) 946-7182

RJ Lee Group, Inc.

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QUALITY SERVICE

RJ Lee Group is committed to providing services that not only meet, but exceed, regulatory requirements and client expectations for value, consistency and reliability.

ASBESTOS

We take great pride in our reputation for providing high quality asbestos analysis services at competitive prices. All routine analyses are performed by established methodologies in an efficient manner. Non-routine samples? No problem. Our competent staff of professionals welcomes the opportunity to assist with any of your materials characterization requirements.

Our network of laboratories has complete in-house asbestos analysis capabilities.

- Air Sample Analysis by PCM & TEM
- Bulk Analysis by PLM, TEM & XRD
- Dust Characterization by SEM & TEM
- Water Sample Analysis by TEM

DUST AND PARTICULATE MATTER

Dust and particulate can contain a wide variety of inorganic constituents. Our analytical laboratory offers dust and particulate analysis services ranging from gravimetric and x-ray diffraction to characterization of "unknowns" by electron microscopy.

- Total & Respirable Dust
- Respirable Crystalline Silica by XRD or FTIR
- Bulk Silica to 0.1 wt.%
- Characterization by SEM

HEAVY METALS

At RJ Lee Group, we recognize the importance of providing timely and accurate analysis services to occupational health and safety professionals. Our experienced chemists provide quality elemental analyses.

- Total Lead - Air, Paint Chips, Wipes, etc.
- Common Metals by AA or ICP
- Mercury by CVAA
- Welding Fume & Multiple Metal Profiles

ORGANIC SOLVENTS & VAPORS

Currently, our organic laboratory can readily analyze for over 50 different solvents in air samples. We continue to expand this list of analytes in response to the needs of our clients.

- Common Organics by GC-FID
- Oil Mist by FTIR
- Solvent Screening by GC-FID & GC-MS
- Coal Tar Pitch Volatiles

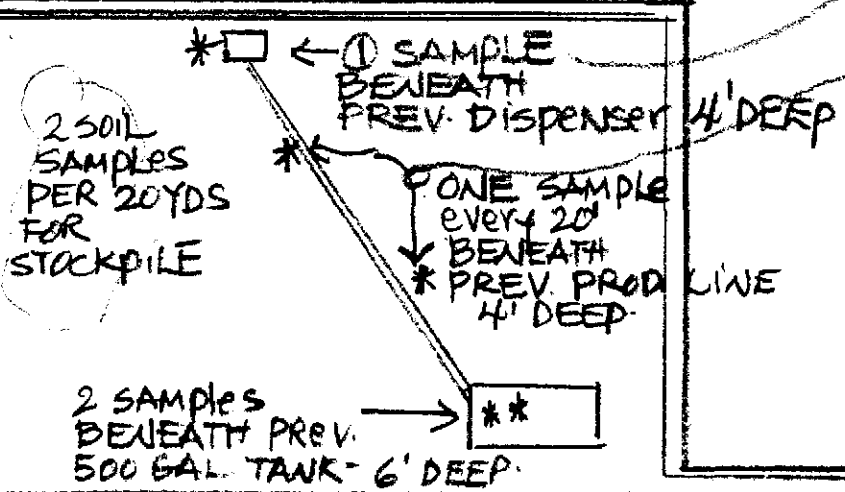
OTHER INDUSTRIAL HYGIENE RELATED CAPABILITIES

- Inorganic Acids by Ion Chromatography
- Particle Sizing by Computer Controlled Scanning Electron Microscopy (CCSEM)
- Mineral Phase Identification by XRD
- Indoor Air Quality Analyses
- Custom Research & Testing
- Investigative Studies
- Dust Tunnel Testing Facility

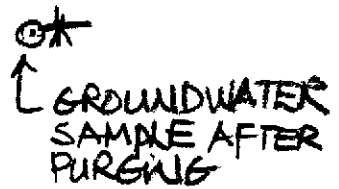
NEIGHBORING BUILDING

METAL BUILDING

6335 SAN PABLO AVENUE



NEIGHBORING DRIVEWAY



NEIGHBORING TENANT

OFFICE

SITE & SAMPLING PLAN - 6335 SAN PABLO AVENUE

SCALE: 1/16" = 1'