

December 15, 1987  
SCI 209.005

Mr. Dan Christopolus  
C & H Development Company  
3744 Mt. Diablo Boulevard, #301  
Lafayette, California 94549

**Closure Report  
Contaminated Soil Removal  
150th Avenue & East 14th Street  
San Leandro, California**



Dear Mr. Christopolus:

This letter summarizes the results of services provided by Subsurface Consultants, Inc. (SCI) during remediation of soil contamination at a site near the northeastern corner of the intersection of East 14th Street and 150th Avenue in San Leandro. SCI previously conducted an environmental assessment in the area; the results were presented in reports dated October 26, 1987 and November 16, 1987. Excavation plans and specifications for the project were prepared by SCI.

Briefly, the project consisted of excavating contaminated soils and disposing of the materials at a Class 1 hazardous waste facility. The excavation was subsequently backfilled with imported fill materials. Our geologist was present during the project on a full time basis. The work commenced on December 1 and was completed on December 8, 1987. The contractor performing the work was Riedel Environmental Services, Inc. (RES), of Richmond, California (EPA ID# CAD 981389125); the waste transporters under subcontract to RES were Casmalia Resources (EPA ID# CAD 020748125); Hearn Trucking Company (EPA ID# CAD 082700949); and James R. Crooks (EPA ID# CAD 981404015). The disposal facility receiving the wastes was Casmalia Resources (EPA No. CAD 020748125).

The final excavation was approximately 29 feet long, and varied from 12 to 17 feet wide. The depth of the excavation varied between 5 and 10 feet below the existing curb grade. The limits of the excavation and typical cross sections are presented on Plate 1. In general, soil excavation proceeded until noticeable (smell/appearance) contamination was no longer observed. A mobile laboratory, provided by Anatec Laboratories of Santa Rosa, was retained on-site by SCI during soil excavation to assist in

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defining the vertical and lateral extent of soil removal. Soil samples from locations 1 through 6 (Plate 1) were submitted to the mobile lab for total petroleum hydrocarbons and volatile halocarbons (chlorinated organic solvents) analysis using EPA methods 8015 and 8010, respectively.

The soil samples were retained in 2.0-inch-diameter brass liners. The sample ends were covered with Teflon sheeting. Plastic caps were placed over the sheeting and sealed with plastic tape. The samples were placed in an ice chest following collection and remained under refrigeration until delivery to the analytical laboratory. Samples delivered to the laboratory were accompanied by chain of custody records.

Upon completion of excavation, soil samples were obtained and submitted to Curtis & Tompkins, Ltd., a DHS certified laboratory. Samples from locations 13 thru 17 and 19 thru 22 were analyzed for total petroleum hydrocarbons (TPH), and volatile halocarbons (chlorinated organic solvents), using EPA methods 3550/8015, and 8010/3050, respectively. Samples from locations 17 and 19 were additionally analyzed for oil and grease (EPA 3550/SMWW503A). The results of the chemical analyses are summarized in Table 1. Copies of the laboratory test reports are attached. In summary, the analyses did not indicate the presence of Petroleum hydrocarbons or chlorinated organic solvents at concentrations in excess of detection limits. *incorrect - up to 100ppm discovered*

Based upon the results of the laboratory analyses and our visual observations during excavation, we conclude that the soils contaminated with petroleum hydrocarbons and chlorinated organic solvents have been removed from the area of excavation to concentrations below detection limits. However, it was noted that an oily sheen existed on water seeping into the excavation from beneath the roadway along 150th Avenue. The source of the oily sheen appeared to be very localized, originating from near the soil/pavement section interface. No oily sheen nor odor was observed nor did the analytical tests indicate detectable concentrations below this interface. In addition, slight gasoline type odors were noted in the soils at the bottom of the deepest part of the excavation. This condition is consistent with those encountered during our previous studies.

Following soil removal, it was concluded that the problem was most likely caused by a series of oily waste discharges onto the ground surface. The area of highest concentration appeared to be centered near the PG&E excavation shown on Plate 1. Much of the contaminated area existed beneath the sidewalk. However,

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contaminated soils did extend about 5 feet beyond the sidewalk along the north side of the excavation.

Upon completion of the laboratory analyses, the excavation was backfilled with granular fill, consisting of a silty, sandy gravel. Field density tests were performed to check fill compaction. The maximum dry density of the backfill materials were determined in our laboratory in accordance with the ASTM 1557-D test procedure.

If you have any questions regarding our services or conclusions, please call.

Yours very truly,

Subsurface Consultants, Inc.



James P. Bowers  
Geotechnical Engineer 000157 (expires 3/31/91)

TGB:JPB:ch

Attachments: Table 1 - Summary of Chemical Analysis  
Plate 1 - Site Plan and Cross Sections  
Analytical Test Reports

4 copies submitted

cc: Mr. Larry Seto  
Alameda County Environmental Health Department  
  
Mr. Lester Feldman  
California Regional Water Quality Control Board

**Table 1. Summary of Chemical Analyses**

**Mobile Laboratory Results**

<u>Sample</u>	<u>Depth<sup>10</sup> (Feet)</u>	<u>Oil &amp; Grease<sup>9</sup> (mg/Kg)</u>	<u>Total Petroleum Hydrocarbons<sup>6</sup> (mg/Kg)<sup>1</sup></u>	<u>Volatile Halocarbons<sup>7</sup> (mg/Kg)</u>
1	1.0		NT <sup>2</sup>	<.025 <sup>3</sup>
2	15.0		30	<.025
3	2.5		<10	<.025
4	15.5		100	<.025
5	4.0		<100	<.025
6	5.5		NT	<.025

**DHS Certified Laboratory Results**

13	5.0		ND <sup>4</sup>	ND <sup>5</sup>
14	5.0		ND	ND
15	4.0		ND	ND
16	4.5		ND	ND
17	7.5	ND <sup>8</sup>	ND	ND
19	10.0	ND	ND	ND
20	7.0		ND	ND
21	5.0		ND	ND
22	6.5		ND	ND

1 mg/Kg = milligrams per kilogram (ppm)

2 NT = not tested, analysis was not performed

3 Detection limits for chlorinated organic solvents = .025 ppm

4 ND = not detected, detection limit total for petroleum hydrocarbons = 10 ppm

5 Detection limits for chlorinated organic solvents = 1 ug/kg (micrograms per kilogram)

6 ~~EPA 8010; Extraction Method EPA 5030~~

7 EPA 8010; Extraction Method EPA 5030

8 Detection limits = 50 mg/Kg for oil and grease

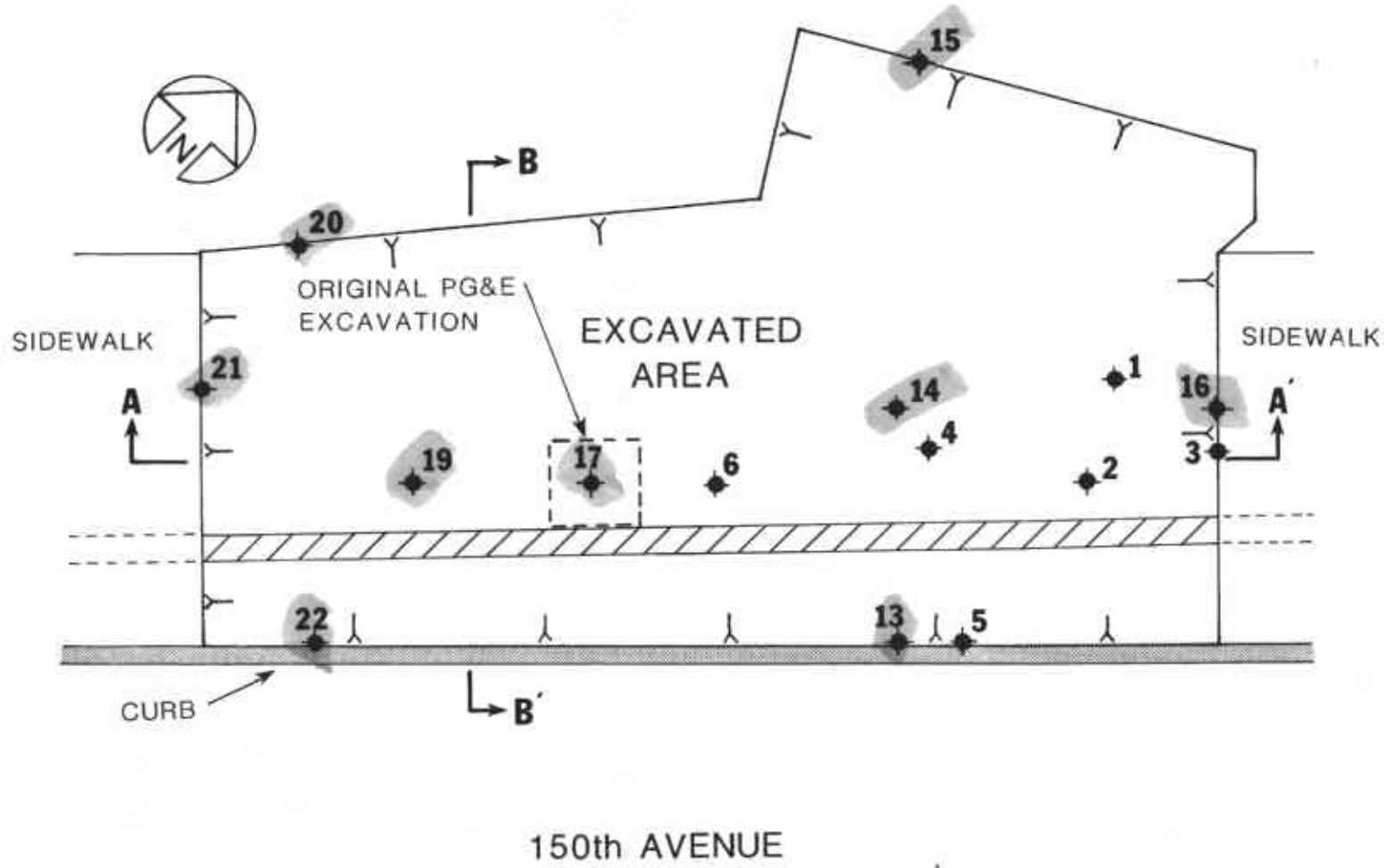
9 EPA 3550/SMWW 503A

10 Below curb elevation

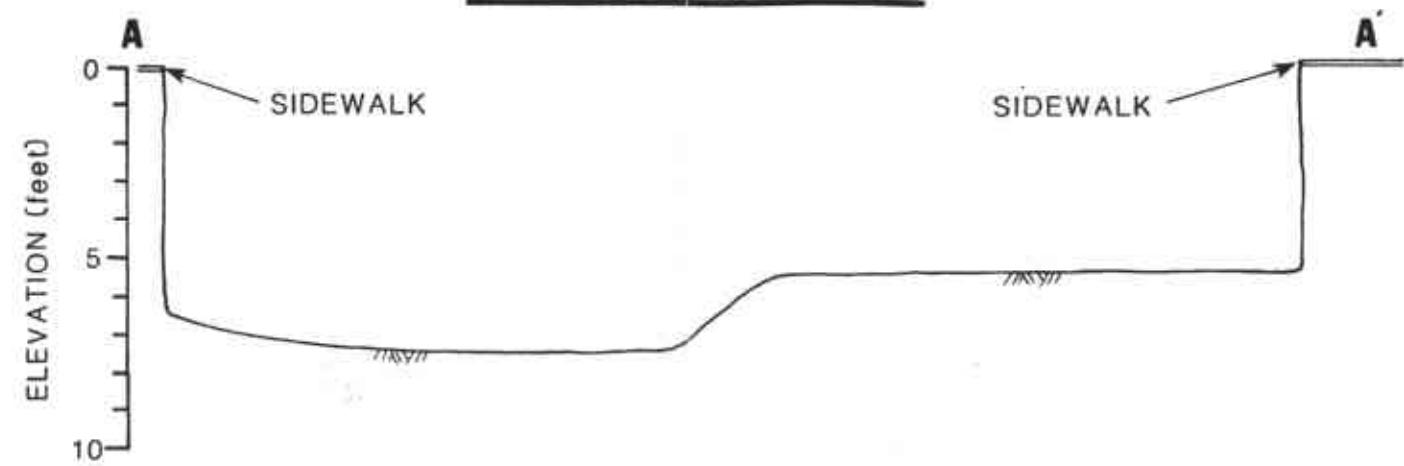
◆ SAMPLE LOCATION

THE LOCATION OF ONLY THOSE SAMPLES ANALYZED ARE SHOWN ON THE SITE PLAN

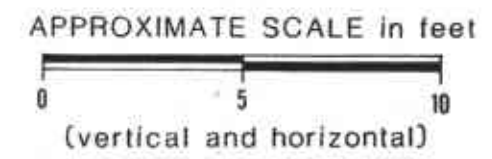
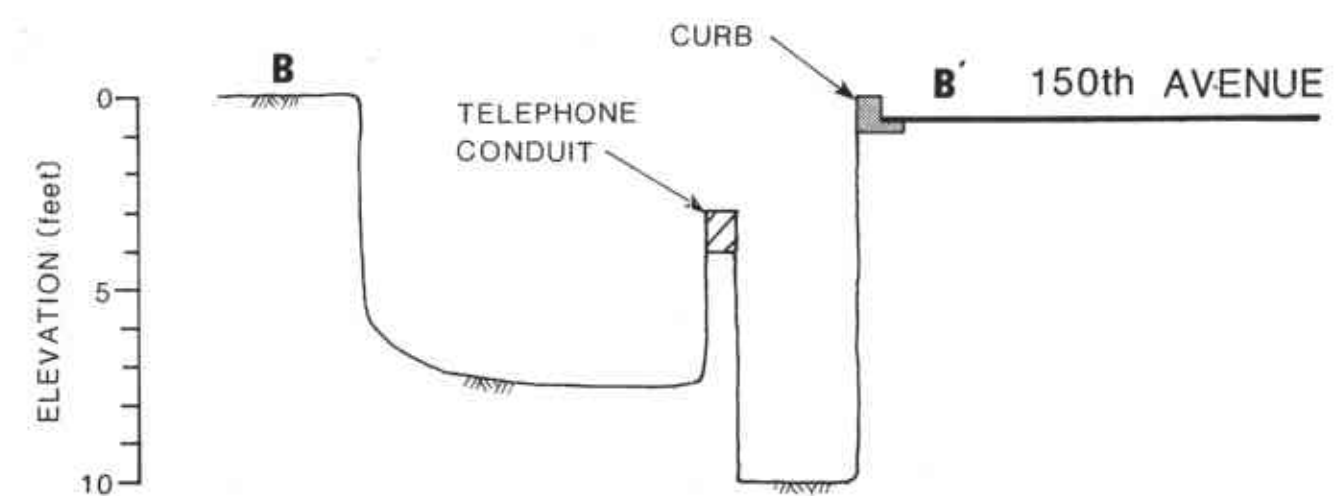
**SITE PLAN**



**CROSS SECTION A-A'**



**CROSS SECTION B-B'**



**SOIL EXCAVATION SITE PLAN AND CROSS SECTIONS**

Subsurface Consultants

150th AVE. & E.14th ST. SAN LEANDRO, CA			PLATE
JOB NUMBER	DATE	APPROVED	<b>1</b>
209.005	12/4/87	<i>VB</i>	