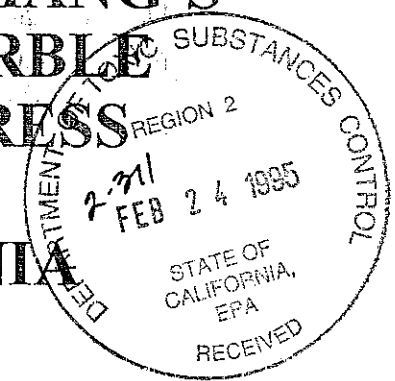


Final

**REPORT OF FINDINGS
SECOND SITE GROUP: CHANG'S
AUTOMOTIVE AND MARBLE
TECHNICS WEST, CYPRESS
RECONSTRUCTION,
OAKLAND, CALIFORNIA**



Prepared For:

**STATE DEPARTMENT OF TRANSPORTATION
ENVIRONMENTAL ENGINEERING BRANCH**

District 4

111 Grand Avenue, 14th Floor
Oakland, California 94623-0660

*Contract Number 53U495
Task Order Number 04-192211-05*

Submitted By:

ENVIRONMENTAL SOLUTIONS, INC.
1201 North McDowell Boulevard
Petaluma, California 94954

February 21, 1995
Project Number 94-911

Prepared By:

Cydney M. Miller
Cydney M. Miller
Senior Hydrogeologist

Catherine A. Henrich
Catherine A. Henrich, C.E.G. 1586
Principal Hydrogeologist



TABLE OF CONTENTS
REPORT OF FINDINGS
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1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION	2
2.1 SITE HISTORY AND PREVIOUS WORK	2
3.0 FIELD INVESTIGATION	4
3.1 DRILLING AND SOIL SAMPLING PROCEDURES	4
3.2 ANALYTICAL TESTING PROGRAM	5
3.3 QUALITY ASSURANCE/QUALITY CONTROL	6
4.0 RESULTS	7
4.1 GEOLOGIC CONDITIONS AND THE OCCURRENCE OF GROUND WATER	7
4.2 ANALYTICAL RESULTS	7
5.0 SUMMARY	10

List of Tables

Table 1	Soil Sample Depths and Analyses
Table 2	Analytical Results
Table 3	Location of Contaminated Materials

List of Figures

Figure 1	Site Vicinity Map
Figure 2	Boring Location Map

Appendix A	Boring Logs
Appendix B	Chain of Custody and Analytical Data Sheets

Distribution

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February 21, 1995

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The contents of this report reflect the views of the author who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California Department of Transportation or the Federal Highway administration. This report does not constitute a standard, specification, or regulation.

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1.0 INTRODUCTION

1. Environmental Solutions, Inc. has prepared this Report of Findings document for the Second Site Group: Chang's Automotive and Marble Technics West, Oakland California (Figure 1), as part of Task Order 04-192211-05 of Contract Number 53U495. The area investigated under this Task Order is located at 1009 and 1035 7th Street in Oakland, California and is associated with a portion of the proposed Interstate 880 (I-880) realignment, known as the Cypress Reconstruction project, being performed by the California Department of Transportation (Caltrans).
2. This site investigation, part of a larger study being performed by Caltrans for the reconstruction of the Cypress Structure, involves 27 sites identified as containing potentially hazardous materials. Many of these sites will require a Preliminary Site Assessment (PEA), however, since Caltrans will own only aerial easement for the second site group, a PEA is not required.
3. The work performed under this Task Order consisted of conducting a field study to assess the presence of hazardous constituents in the subsurface soil at 6 proposed footing (bent) locations. These proposed footings will be part of the support structure for an elevated portion of the I-880 realignment. The analytical data obtained from this investigation will be used to provide recommendations for health and safety concerns as well as disposal options for soil excavated during the construction of the footings.
4. This report presents the results of the second site group investigation including site geology and analytical results of soil samples collected during the field program.

2.0 SITE DESCRIPTION

1. The second site group is comprised of two sites, located near each other, which are known as Chang's Automotive, 1009 7th Street, and Marble Technics West, 1035 7th Street, Oakland, California (Figure 2). The location of the proposed footings is actually in back of the properties in a strip of land located next to an abandoned onramp of Interstate 880. There is a line of eucalyptus trees running along the back fence of the properties, making access to this area difficult.
2. A site history for Chang's Automotive and Marble Technics West was presented in the workplan¹ for the site investigation prepared by Environmental Solutions, Inc. A summary of the site histories is presented below.

2.1 SITE HISTORY AND PREVIOUS WORK

1. **Chang's Automotive.** Chang's Automotive is currently owned by James and Joyce Patterson and is reported to have been an auto service facility since 1967. There is no Underground Storage Tank (UST) on this facility. On June 24, 1991, Geo/Resource², consultants under contract to Caltrans, drilled one soil boring to a depth of 20 feet on this property, near a proposed footing location. Three soil samples and one Hydropunch groundwater sample were collected for analysis of total recoverable petroleum hydrocarbons (TRPH) by EPA Test Method 418.1 and heavy metals by EPA Test Method 6010. TRPH was detected at depths of 2, 8, and 10 feet at concentrations of 43, 10, and 13 milligrams per kilogram (mg/kg), respectively. Relatively low concentrations of metals were detected in the soil samples. The Hydropunch groundwater sample did not reveal TRPH concentrations at or above reported detection limits. Elevated concentrations of several heavy metals were detected including arsenic, barium, cadmium, mercury, and lead. However, the water sample was not filtered prior to analyzing and hence, is not representative of dissolved metal concentrations in ground water.

¹Environmental Solutions, Inc. Site Investigation Workplan, Second Site Group: Chang's Automotive and Marble Technics West. Cypress Reconstruction, Oakland, California. October 28, 1994.

²Geo/Resource Consultants, Inc. 1992. Site Investigation Report-Area 3. Department of Transportation T.O. Number 04-192201-01 Highway 880, Cypress Reconstruction, Oakland, California. August.

2. A review of regulatory agency databases did not show this property listed and the site ownership/title search did not show any environmental concerns. The aerial photograph review did not show any surface staining on the property and the Sanborn fire insurance maps also did not show any environmental concerns.
3. **Marble Technics West.** This site is currently owned by Robert and Rusty Moody and is a warehouse facility. In 1988 a leaking 10,000-gallon gasoline UST was removed. There is no reason to suspect that anything other than gasoline was stored in the UST. Some contamination of the soil and groundwater was detected at this time and a monitoring well was installed at the property.
4. On June 22, Geo/Resource³ drilled one boring to a depth of 15 feet at the site. Three unsaturated soil samples were collected and analyzed for total petroleum hydrocarbons as gas (TPH-g) and aromatic volatile organic compounds according to EPA Test Method 8020. None of the soil samples showed the presence of any constituents at or above reported detection limits. The groundwater sample collected from the existing monitoring well did not detect the presence of any chemical compounds at or above the reported detection limits.
5. The review of regulatory agency databases did not show this property listed. The property was formerly known as Vend Mart and is listed on the Leaking Underground Storage Tank (LUST) list for Alameda County. The site ownership/title search and the Sanborn fire insurance maps did not show any environmental concerns.

³Geo/Resource Consultants, Inc., 1992 Site Investigation Report-Area 3, Department of Transportation, T.O. Number 04-199201-01, Highway 880, Cypress Reconstruction, Oakland, California. August.

3.0 FIELD INVESTIGATION

1. The field investigation for the second site group was performed on October 31 and November 1 and 8, 1994. A total of 6 borings were drilled at proposed footing locations (Figure 2) to depths ranging from 6.5 to 11 feet below ground surface (bgs). Because of sample refusal, borings B4 and B5 could not be advanced to their desired depth. As explained in the following section, these borings could not be drilled using a hand-held auger, so a drill rig was necessary to complete the borings

3.1 DRILLING AND SOIL SAMPLING PROCEDURES

1. A drilling permit was issued by the Alameda County Health Department before starting the field investigation. Prior to the start of subsurface work, each boring location was cleared of utilities by Underground Service Alert (USA). All drilling tools were decontaminated by either a high-pressure hot water wash, oralconox wash with deionized water rinse, before and between each use. Decontamination and soil cuttings generated during drilling were contained in labeled DOI 17-H, 55-gallon drums and stored on-site in a fenced-in area pending disposal.
2. Because of limited access, a hand-held auger was initially used to drill borings B1, B2, and B3. Because of the difficulty in advancing these borings to their desired depth, they and borings B4, B5, and B6 were drilled using a portable hydraulically-driven continuous coring device. An organic vapor meter (OVM) was used to take readings on selected soil samples, and from the borehole to monitor conditions during drilling. The soil samples were logged for lithologic classification using the Unified Soil Classification System (USCS; Appendix A) and Munsell color standards. The lithologic information and OVM readings were recorded on the boring log sheets (Appendix A). Soil samples were collected using a 36-inch long modified split spoon sampler lined with stainless steel liners. Upon retrieval, the appropriate 6-inch section of liner was removed from the rest of the sampler and the ends were capped with non-adhesive teflon tape, and covered by an inert plastic cap. No adhesive tape was used on the sample containers. The samples were identified by the boring number followed by the sample depth in feet below ground surface

(i.e., B1-4). The sample containers were labeled (sample number, date and time sampled, job number and description, collector's initials, and analysis requested) and placed in a cooler with blue ice to temperature of approximately 4°C and transported under chain-of-custody documentation to the analytical laboratory for analysis. A standard 2-week turn-around time was requested. The borings were grouted to the surface upon completion. The grout consisted of portland cement with up to 5% bentonite added.

3.2 ANALYTICAL TESTING PROGRAM

1. The soil analytical program is presented on Table 1. The soil samples collected during this site investigation were sent to Chromalab, a California state-certified hazardous materials testing laboratory, for analysis. The analytical program for the soil samples included the following:

- EPA Method 418.1, IRPH
- EPA Modified Method 8015, Total Petroleum Hydrocarbons as diesel and gasoline (TPH-d, -g)
- EPA Method 8240, Volatile Organic Compounds (VOCs)
- EPA Method 8270, Semivolatile Organic Compounds
- EPA Method 6010, for Title 22 Heavy Metal Scan
- EPA Method 7196-Hexavalent Chromium
- EPA Method 150.2/9045-pH
- 22 CCR 667000 Waste Extraction Test (WET)
- EPA Method 1311 Toxicity Characteristic Leaching Procedure (TCLP)

3. If a metal concentration was less than the Total Threshold Limit Concentration (TILC) value but was at or above ten times the Soluble Threshold Limit Concentration (STLC) value, a Waste Extraction Test was performed on selected samples at the request of Caltrans. At the request of Caltrans, a TCLP test was performed on selected samples in which concentrations were at or above 20 times the STLC value.

3.3 QUALITY ASSURANCE/QUALITY CONTROL

1. Quality Assurance/Quality Control (QA/QC) was performed by the analytical laboratory for each method of analysis with specificity for every appropriate analyte requested and/or representative analytes listed in the test method's QA/QC. QA/QC data are reported in summary form for all samples submitted. QA/QC procedures specified by each test method included the following:
 - One method blank for every ten samples, batch of samples or type of matrix, whichever is more frequent;
 - One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever is more frequent;
 - One spiked sample for every ten samples, batch of samples or type of matrix, whichever is more frequent, with spike made at ten times the detection limit or at the analyte level and;
 - One quality control sample analyzed with every ten samples, batch of samples or type of matrix, whichever is more frequent.
2. Laboratory blanks, spiked samples, and duplicate sample analyses are reported on either the laboratory testing report or the QA/QC summary report. Spiked samples are reported as percent spike recovery.

4.0 RESULTS

1. A description of the site geology and results of the analytical program is presented in the following sections.

4.1 GEOLOGIC CONDITIONS AND THE OCCURRENCE OF GROUND WATER

1. The surface of the site, to a depth of approximately 4 inches, is covered by leaves in various states of decomposition. Underlying this layer of leaves, the subsurface geology is generally composed of interbedded layers of poorly graded sands and gravelly sands to a depth of approximately 11 feet. In Boring B1, a 1-foot silty sand layer was observed, in Boring B5 a 1-foot sandy gravel was observed, and in Boring B6 a 2-foot clayey sand was observed within the poorly graded sands. Occasionally encountered within the sands are roots and a trace of ceramic fragments. No groundwater was encountered during drilling of the borings.

4.2 ANALYTICAL RESULTS

1. The analytical results for the soil samples are presented in Table 2 and the certified laboratory reports and chain of custody forms are presented in Appendix B. A summary table listing type and depth of contaminants found in each boring is presented on Table 3. For the purposes of evaluating disposal options, a soil was classified as contaminated if IRPH concentrations exceeded 100 mg/kg, metals were present at concentrations at or exceeding ten times their respective STLC values, and/or VOCs or semivolatile organic compounds were detected in the soil. A soil was classified as hazardous according to CCR Title 22 if a soluble metal concentration (detected by WET analysis) was detected at concentrations at or exceeding the STLC value or the total metal concentration exceeded the TTLC value. A discussion of the analytical results for soil samples collected during this investigation is presented below.
2. **Total Recoverable Petroleum Hydrocarbons.** Each soil sample collected was analyzed for Total Recoverable Petroleum Hydrocarbons according to EPA Test Method 418.1. Soils collected from each boring show the presence of TRPH.

TRPH concentrations exceeding 100 mg/kg were detected in the following soil samples (an asterisk indicates concentrations exceeding 1000 mg/kg): B3-S, B3-4*, B4-S*, B5-S, and B6-1.

3. **Total Petroleum Hydrocarbons as Diesel.** Selected soil samples were analyzed for TPH-d according to modified EPA Test Method 8015 (Table 1). TPH-d was not detected in the samples analyzed at or above reported detection limits. However, unknown compounds in the diesel and motor oil range were detected in several soil samples (Table 2).
4. **Total Petroleum Hydrocarbons as Gasoline.** Selected soil samples were analyzed for TPH-g according to modified EPA Test Method 8015 (Table 1). TPH-g was not detected in any of the soil samples analyzed at or above reported detection limits.
5. **Volatile Organic Compounds** Selected soil samples from each boring were analyzed for volatile organic compounds according to EPA Test Method 8240. Tetrachloroethene was detected in soil samples collected from borings B1, B2, and B3 at concentrations ranging from 7.1 to 92 micrograms per kilogram (ug/kg). This compound was found in soils collected from these borings at depths ranging from 4 to 10 feet bgs. Trichloroethene was detected at a concentration of 7.1 ug/kg in the 10-foot sample collected from Boring B1.
6. **Semivolatile Organic Compounds.** Selected soil samples were analyzed for semivolatile organic compounds according to EPA Test Method 8270. No semivolatile organic compounds were detected at or above reported detection limits except Di-N-Butyl Phthalate. This compound was detected in soil samples collected from borings B1 and B6 at concentrations ranging from 0.34 to 1.2 ug/kg. Because this compound was also detected in the laboratory's method blanks, its presence in the soils is most likely due to laboratory contamination.
8. **Metals.** Selected soil samples from each footing location were analyzed for either CAM 17 metals or six selected metals, (arsenic, chromium, copper, lead, nickel, and zinc), according to EPA Test Method 6010. Only lead was found in soil samples

collected from each boring at concentrations at or exceeding 10 times its SILC value of 5 mg/l. Lead concentrations exceeding its TTLC value of 1000 mg/kg were found in soil samples B4-S and B5-S. Therefore, these samples are considered a hazardous waste according to CCR Title 22.

9. **WET and TCLP Data.** A WET or TCLP test was performed on selected soil samples whose lead concentrations exceeded ten times its SILC value. The results are presented on Tables 2 and 3 and are presented below.

Sample Number	Total Lead Concentration (mg/kg)	Soluble Lead Concentration (mg/l)
B1-S	68	WET-18
B2-S	200	TCLP-ND
B2-1	150	WET-9.6
B2-4	62	WET-1.7
B3-S	71	WET-3.9
B4-1	210	TCLP-ND
B4-5	73	WET-8.3
B5-1	110	WET-9
B6-S	180	TCLP-ND
B6-1	78	WET-0.8

10. These results indicate that samples B1-S, B2-1, B4-5, and B5-1 have soluble lead values at or exceeding 5 mg/l and hence, are considered a hazardous waste according to CCR Title 22.
11. **Hexavalent Chromium.** Hexavalent chromium was analyzed on selected soil samples according to EPA Test Method 7196. No hexavalent chromium was detected in the soil samples analyzed at or above reported detection limits.
12. **pH.** The pH was measured in two soil samples. A pH value of 7.3 and 6.4 was measured in samples B1-7 and B5-1, respectively.

5.0 SUMMARY

1. On October 31 and November 1 and 8, 1994, 6 borings located at the second site group areas were drilled to depths ranging between 6.5 to 11 feet bgs. A brief description of the site geology and analytical results from soil samples collected during this field investigation is presented below.
2. On the basis of the borings drilled during this investigation, the subsurface geology consists of interbedded layers of poorly graded sands and gravelly sands to a depth of approximately 11 feet. Occasionally encountered within the sands are roots and a trace of ceramic fragments. No groundwater was encountered during drilling of the borings.
3. On the basis of the soil samples collected and analyzed during this field investigation, petroleum hydrocarbons, VOCs, and hazardous levels of lead were detected in several soil samples.
4. TRPH concentrations exceeding 100 mg/kg were detected in soil samples collected from 4 borings. TPH-d was not detected but unknown compounds in the diesel and motor oil range were detected in several soil samples.
5. VOCs were detected in soil samples collected at depths ranging from 4 to 10 feet bgs. Tetrachloroethene was detected in soil samples collected from 3 borings at concentrations ranging from 7.1 to 92 ug/kg and trichloroethene was detected in one soil sample at a concentration of 7.1 ug/kg.
6. Lead concentrations exceeding ten times its STLC value were detected in soil samples collected from each boring. WEI results show that soluble lead is present above 5 mg/l in 4 soil samples, which classifies these soils as hazardous waste according to CCR Title 22. Two soil samples have total lead values exceeding the ITLC value of 1000 mg/kg which also classifies these soils as a hazardous waste according to CCR Title 22.

TABLES

TABLE 1. SOIL SAMPLE DEPTHS AND ANALYSES

BORING NUMBER*	TRPH 418.1	TPH-G 8015-M	TPH-D 8015-M	CAM 17 6010	CAM 6 6010***	VOCS 8240	SEMI VOCS 8270	CR VI 7196
B-1**	S, 1, 4, 7, 10	1, 4, 7, 10	S, 1, 4, 7, 10	S, 1, 4, 7, 10	NA	4, 7, 10	S, 1, 4, 7, 10	S, 1, 4, 7, 10
B-2	S, 1, 4, 7, 10	1, 4, 7, 10	S, 1, 4, 7, 10	NA	S, 1, 4, 7, 10	4, 7, 10	NA	NA
B-3	S, 1, 4, 7, 10	1, 4, 7, 10	S, 1, 4, 7, 10	NA	S, 1, 4, 7, 10	4, 7, 10	NA	NA
B-4	S, 1, 5	1, 5	S, 1, 5	S, 1, 5	NA	5	S, 1, 5	S, 1, 5
B-5**	S, 1, 4, 6	1, 4, 6	S, 1, 4, 6	NA	S, 1, 4, 6	4, 6	6	6
B-6	S, 1, 4, 7, 10	1, 4, 7, 10	S, 1, 4, 7, 10	S, 1, 4, 7, 10	NA	4, 7, 10	S, 1, 4, 7, 10	S, 1, 4, 7, 10

*In general soil samples were collected at the following depths from each boring: ground surface (S), 1, 4, 7, and 10 feet bgs (except as noted). Samples were analyzed for the following: Total Recoverable Petroleum Hydrocarbons (TRPH) according to EPA Test Method 418.1; Total Petroleum Hydrocarbons as gas and diesel (TPH-G, -D) according to modified EPA Test Method 8015; Heavy Metals according to EPA Test Method 6010; Volatile Organic Compounds (VOCs) according to EPA Test Method 8240; Semivolatile Organic Compounds (SEMIVOCs) according to EPA Test Method 8270; Hexavalent Chromium (CR VI) according to EPA Test Method 7196; and Soil pH according to EPA Test Method 9045.

**The soil pH was measured on the 1 foot soil samples collected from borings B1 and B5.

***CAM 6=Lead, Nickel, Chromium, Copper, Zinc, and Arsenic.

NA=Not Analyzed

Table 2: Analytical Results - Chang's Automotive

Sample No.	Depth (ft., bgs)	Hydrocarbons			6010 Metals (mg/kg)															Sol. Metals							
		Hydrocarbons	8015m-Diesel (mg/kg)	8015m-Gasoline (mg/kg)	418 1 TRPH (mg/kg)	6010 Metals (mg/kg)	TTL	500	500	10000	75	100	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000	Soluble Metals (mg/L)	TCLP Lead	WET Lead
							10XSTLC	150	50	1000	8	10	5600	800	250	50	2	3500	200	10	50	70	240	2500			
B1-S	SFC	ND	--	33.0		ND	ND	63.0	0.22	0.60	1.6	5.6	24.0	68.0	0.11	ND	7.3	ND	ND	ND	16.0	140.0	--	--	18.0		
B1-1	1.0	ND ^{a,f}	ND	33.0		ND	ND	120.0	0.28	0.39	3.7	5.9	20.0	44.0	0.15	ND	6.3	ND	ND	ND	18.0	55.0	--	--	--		
B1-4	4.0	ND	ND	ND		ND	1.9	19.0	0.23	0.25	6.9	6.5	4.0	4.2	ND	ND	20.0	ND	ND	ND	13.0	21.0	--	--	--		
B1-7	7.0	ND ^d	ND	ND		ND	ND	40.0	0.27	0.17	13.0	5.6	13.0	37.0	0.12	ND	11.0	ND	ND	ND	17.0	51.0	--	--	--		
B1-10	10.0	ND	ND	ND		ND	ND	42.0	0.23	0.12	16.0	3.1	6.8	16.0	0.07	ND	13.0	ND	ND	ND	17.0	34.0	--	--	--		
B2-S	SFC	ND ^b	--	ND		--	ND	--	--	--	7.7	--	45.0	200.0	--	--	10.0	--	--	--	--	82.0	ND	--	--		
B2-1	1.0	ND ^{c,e,f}	ND	51.0		--	ND	--	--	--	6.8	--	28.0	150.0	--	--	12.0	--	--	--	--	78.0	--	--	9.6		
B2-4	4.0	ND	ND	12.0		--	ND	--	--	--	9.3	--	8.7	62.0	--	--	7.4	--	--	--	--	32.0	--	--	1.7		
B2-7	7.0	ND	ND	30.0		--	ND	--	--	--	16.0	--	6.1	15.0	--	--	13.0	--	--	--	--	26.0	--	--	--		
B2-10	10.0	ND	ND	ND		--	1.7	--	--	--	4.5	--	3.2	2.2	--	--	20.0	--	--	--	--	15.0	--	--	--		
B3-S	SFC	ND	--	150.0		--	ND	--	--	--	ND	--	26.0	71.0	--	--	1.5	--	--	--	--	94.0	--	--	3.9		
B3-1	1.0	ND ^{d,e,f}	ND	71.0		--	ND	--	--	--	2.6	--	12.0	37.0	--	--	1.9	--	--	--	--	68.0	--	--	--		
B3-4	4.0	ND ^{m,f}	ND	1700.0		--	3.3	--	--	--	17.0	--	6.1	25.0	--	--	11.0	--	--	--	--	14.0	--	--	--		
B3-7	7.0	ND ^t	ND	ND		--	5.5	--	--	--	11.0	--	3.8	18.0	--	--	5.9	--	--	--	--	28.0	--	--	--		
B3-10	10.0	ND	ND	ND		--	2.7	--	--	--	12.0	--	8.3	16.0	--	--	8.4	--	--	--	--	17.0	--	--	--		
B4-S	SFC	ND ^{h,i,f}	--	20000.0		ND	ND	150.0	0.39	4.9	12.0	2.1	95.0	1000.0	0.57	3.7	13.0	ND	ND	ND	16.0	490.0	--	--	--		
B4-1	1.0	ND	ND	23.0		ND	ND	270.0	0.43	0.50	5.0	2.2	110.0	210.0	0.31	ND	5.3	ND	ND	ND	14.0	180.0	ND	--	--		
B4-5	5.0	ND	ND	ND		ND	ND	100.0	0.22	0.68	8.5	1.8	14.0	73.0	0.15	ND	6.6	ND	ND	ND	12.0	63.0	--	--	8.3		
B4-7	7.0	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
B4-10	10.0	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		

ND = Not Detected
 -- = Not Tested

Table 2: Analytical Results - Chang's Automotive

Sample No	Depth (ft , bgs)	7196 CHROM VI	8240 VOCs (ug/kg)
B1-S	SFC	ND	ND
B1-1	1.0	ND	ND
B1-4	4.0	ND	ND
B1-7	7.0	ND	ND
B1-10	10.0	ND	ND
B2-S	SFC	--	--
B2-1	1.0	--	--
B2-4	4.0	--	--
B2-7	7.0	--	--
B2-10	10.0	--	--
B3-S	SFC	--	--
B3-1	1.0	--	--
B3-4	4.0	--	--
B3-7	7.0	--	--
B3-10	10.0	--	--
B4-S	SFC	ND	ND
B4-1	1.0	ND	ND
B4-5	5.0	ND	ND
B4-7	7.0	ND	ND
B4-10	10.0	ND	ND

		8240 VOCs (ug/kg)
Acetone	--	--
Benzene	--	--
Bromodichloromethane	--	--
Bromoform	--	--
Bromomethane	--	--
Methyl Ethyl Ketone	--	--
Carbon Tetrachloride	--	--
Chlorobenzene	--	--
Chloroethane	--	--
2-Chloroethylvinyl ether	--	--
Chloroform	--	--
Chloromethane	--	--
Dibromochloromethane	--	--
1,1-Dichloroethane	--	--
1,2-Dichloroethane	--	--
1,1-Dichloroethene	--	--
Cis-1,2-Dichloroethene	--	--
Trans-1,2-Dichloroethene	--	--
1,2-Dichloropropane	--	--
Cis-1,3-Dichloropropene	--	--
Trans-1,3-Dichloropropene	--	--
Ethylbenzene	--	--
2-Hexanone	--	--
Methylene Chloride	--	--
Methyl Isobutyl Ketone	--	--
Styrene	--	--
1,1,2,2-Tetrachloroethane	--	--
Tetrachloroethene	38.0	69.0
Toluene	92.0	7.1
1,1,1-Trichloroethane	--	--
1,1,2-Trichloroethane	--	--
Trichloroethene	--	--
Trichlorofluoromethane	--	--
Vinyl Acetate	--	--
Vinyl Chloride	--	--
Xylenes	--	--

ND = Not Detected
 -- = Not Tested

Table 2: Analytical Results - Chang's Automotive

Sample No.	Depth (ft., bgs)	Hydrocarbons			6010 Metals (mg/kg)															Sol. Metals							
		Hydrocarbons	8015m-Diesel (mg/kg)	8015m-Gasoline (mg/kg)	418 1 TRPH (mg/kg)	6010 Metals (mg/kg)	TTL	500	500	10000	75	100	2500	8000	2500	1000	20	3500	2000	100	500	700	2400	5000	Soluble Metals (mg/L)	TCLP Lead	WET Lead
							10XSTLC	150	50	1000	8	10	5600	800	250	50	2	3500	200	10	50	70	240	2500			
B5-S	SFC	ND ^{l,f}	--	170.0		--	ND	--	--	--	24.0	--	140.0	2600.0	--	--	17.0	--	--	--	--	--	--	410.0	--	--	--
B5-1	1.0	ND	ND	ND		--	ND	--	--	--	8.2	--	36.0	110.0	--	--	2.7	--	--	--	--	--	--	66.0	--	9.0	--
B5-4	4.0	ND	ND	ND		--	ND	--	--	--	9.3	--	3.1	2.6	--	--	5.7	--	--	--	--	--	--	4.4	--	--	--
B5-6	6.0	ND	ND	ND		ND	ND	44.0	0.28	0.40	15.0	3.7	4.0	1.8	ND	ND	13.0	ND	ND	ND	ND	18.0	7.7	--	--	--	
B5-10	10.0	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B6-S	SFC	ND ^k	--	44.0		ND	2.8	50.0	0.18	0.50	12.0	3.2	14.0	180.0	0.15	ND	9.3	ND	0.46	ND	9.3	53.0	ND	ND	--	--	--
B6-1	1.0	ND ^{g,f}	ND	400.0		ND	7.1	160.0	0.27	1.9	12.0	14.0	35.0	78.0	0.11	ND	20.0	ND	ND	ND	16.0	120.0	ND	ND	--	0.8	--
B6-4	4.0	ND	ND	ND		ND	2.5	30.0	0.13	0.34	9.9	0.6	1.8	ND	ND	ND	6.0	ND	ND	ND	7.0	5.0	ND	ND	--	--	--
B6-7	7.0	ND	ND	ND		ND	5.0	41.0	0.21	0.67	16.0	4.1	3.2	8.5	ND	ND	17.0	ND	ND	ND	12.0	12.0	ND	ND	--	--	--
B6-10	10.0	ND	ND	ND		ND	3.2	38.0	0.16	0.68	12.0	3.0	2.5	3.4	ND	ND	12.0	ND	ND	ND	10.0	9.8	ND	ND	--	--	--

ND = Not Detected
 -- = Not Tested

Table 2: Analytical Results - Chang's Automotive

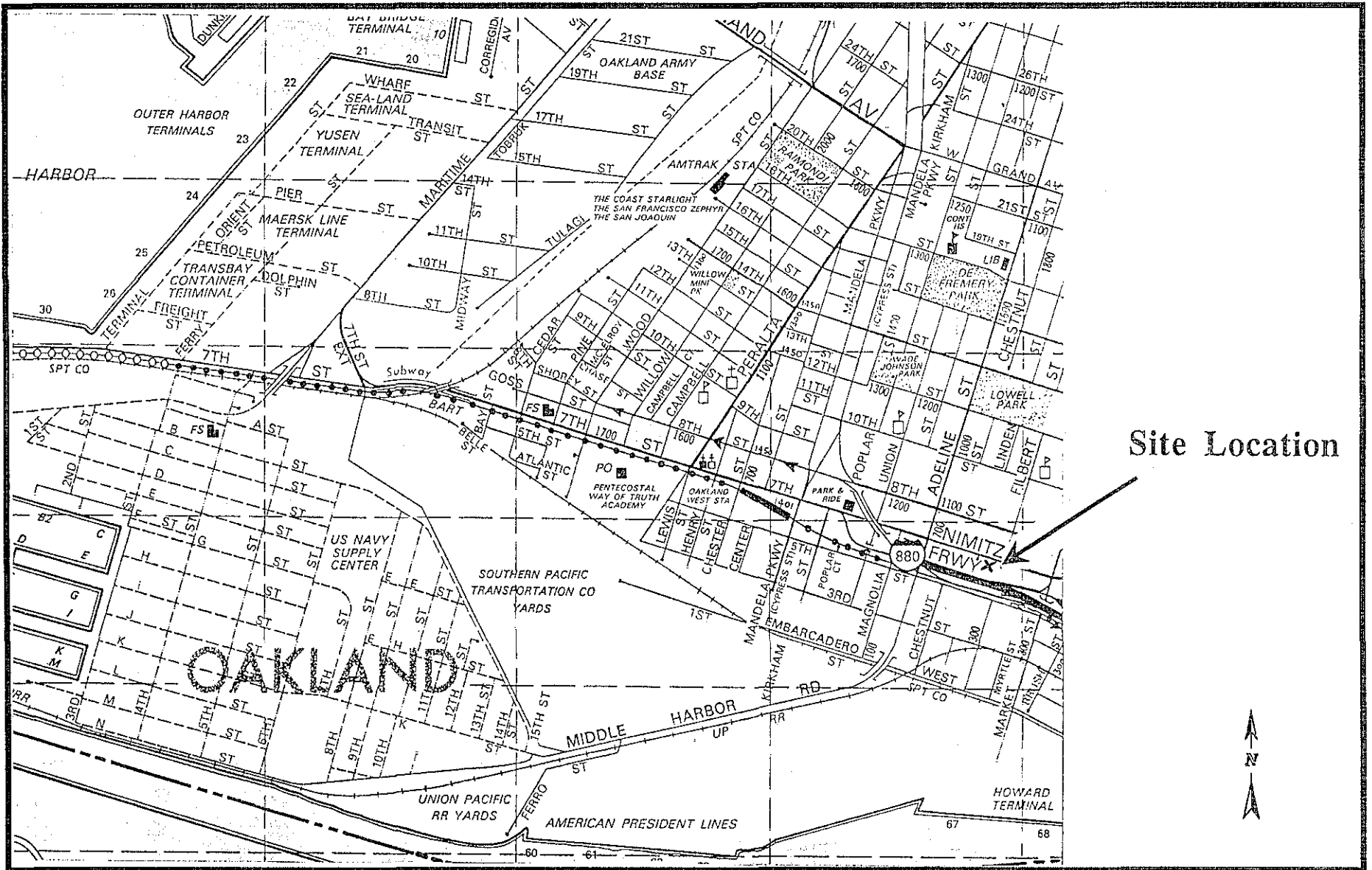
Sample No	Depth (ft, bgs)	7196 CHROM VI	8240 VOCs (ug/kg)
B5-S	SFC	ND	
B5-1	1.0	--	
B5-4	4.0	--	
B5-6	6.0	ND	
B5-10	10.0	--	
B6-S	SFC	ND	
B6-1	1.0	ND	
B6-4	4.0	ND	
B6-7	7.0	ND	
B6-10	10.0	ND	
			8240 VOCs (ug/kg)
			Acetone
			Benzene
			Bromodichloromethane
			Bromoform
			Bromomethane
			Methyl Ethyl Ketone
			Carbon Tetrachloride
			Chlorobenzene
			Chloroethane
			2-Chloroethylvinyl ether
			Chloroform
			Chloromethane
			Dibromochloromethane
			1,1-Dichloroethane
			1,2-Dichloroethane
			1,1-Dichloroethene
			Cis-1,2-Dichloroethene
			Trans-1,2-Dichloroethene
			1,2-Dichloropropane
			Cis-1,3-Dichloropropene
			Trans-1,3-Dichloropropene
			Ethylbenzene
			2-Hexanone
			Methylene Chloride
			Methyl Isobutyl Ketone
			Styrene
			1,1,2,2-Tetrachloroethane
			Tetrachloroethene
			Toluene
			1,1,1-Trichloroethane
			1,1,2-Trichloroethane
			Trichloroethene
			Trichlorofluoromethane
			Vinyl Acetate
			Vinyl Chloride
			Xylenes

ND = Not Detected
 -- = Not Tested

TABLE 3. LOCATION OF CONTAMINATED MATERIALS-CHANG'S AUTOMOTIVE AND MARBLE TECHNICS WEST


BORING NUMBER	DEPTH OF BORING (FEET, BGS)	CONTAMINATED*	HAZARDOUS**
B1	10.5	VOCs (92)	Pb (68)<18>
B2	10.5	Pb (200) TCLP<ND> Pb (62)<1.7>; VOCs (64)	Pb (150)<9.6>
B3	11	Hc (1700); Pb (71) <3.9> VOCs (15)	-----
B4	6.5	Hc (20,000) Pb (210) TCLP<ND>	Pb (1000)=TTLC Pb (73)<8.3>
B5	7	Hc (170)	Pb (2600)>TTLC Pb (110)<9>
B6	10	Pb (180) TCLP <ND>; Hc (400)	Pb (180)>STLC
EXPLANATION: Values represent highest concentration found in samples collected from a boring.			
Hc=Highest reported concentration of Total Recoverable Petroleum Hydrocarbons (EPA 418.1) > 100 mg/kg			
Metals (EPA 6010) exceeding 10xSTLC: Pb=lead			
VOCs=Highest reported volatile organic compound concentration (EPA 8240) in ug/kg.			
*Soils classified as contaminated if TRPH concentrations are at or exceed 100 mg/kg, metal concentrations exceed ten times its STLC value, or VOCs were detected. Because the only semivolatle organic compound detected was Di-N-Butyl Phthalate which is most likely a laboratory contaminant, it is not listed on this table.			
**Hazardous-Based on WET/TCLP results (mg/l) or concentrations at or exceeding TTLC Values.			
Pb <5>=WET result; Pb >STLC=Soluble levels expected to exceed STLC values based on WET/TCLP results on other soil samples. Pb>TTLC=Contaminant concentration exceeds TTLC value.			

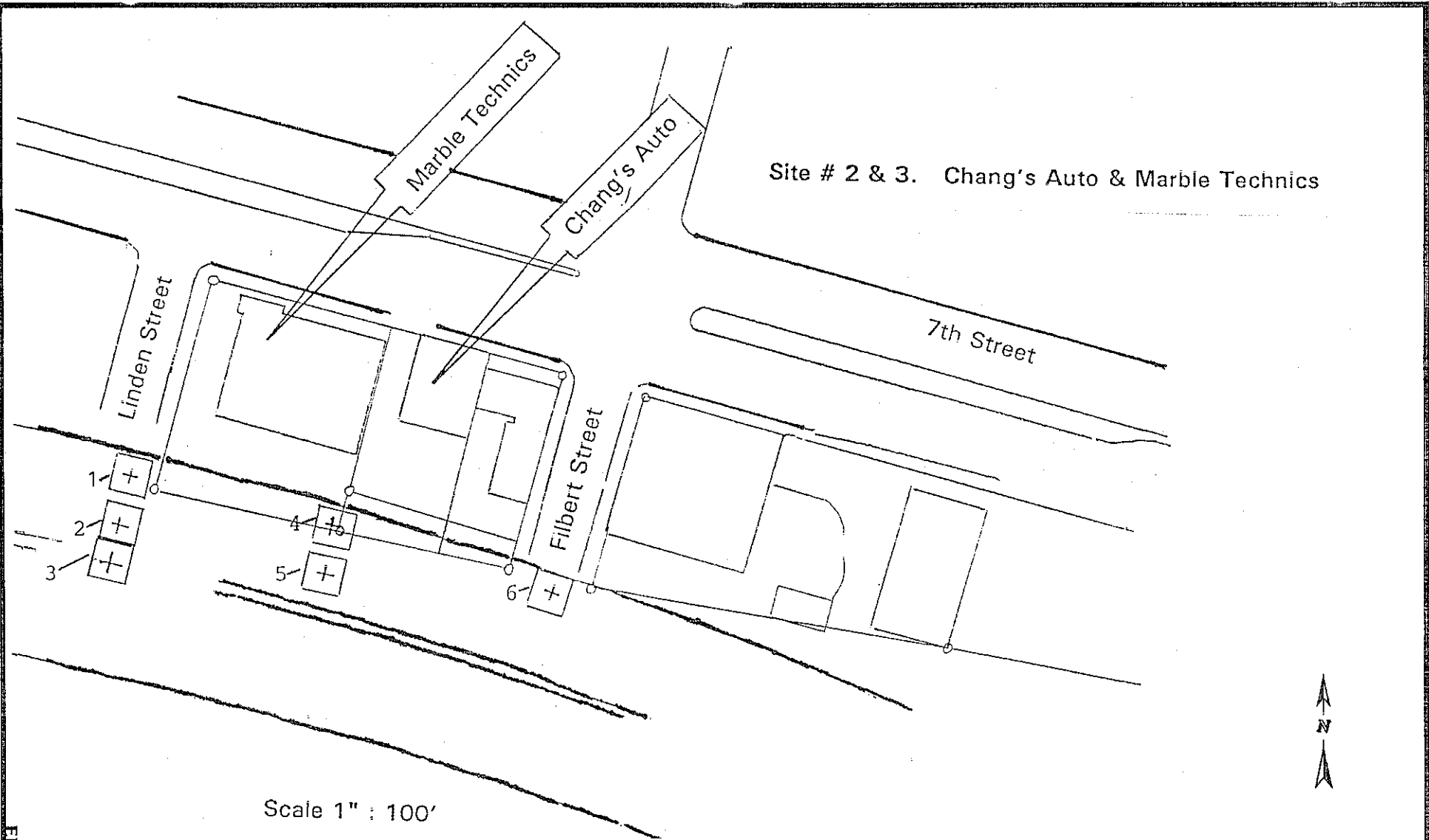
FIGURES



Site Location



ENVIRONMENTAL SOLUTIONS

	<p>The Thomas Guide 1993 Edition Alameda County</p> <p>0 1/6 Statute Miles</p> <p>Date: 09/28/1994 Drafting: JWA Approval: CMM</p>	<p>SITE VICINITY MAP</p> <p>Report of Findings Second Site Group: Chang's Automotive and Marble Technics West Cypress Reconstruction Oakland, CA.</p> <p>94-911 Figure 1</p>
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Scale 1" : 100'

Explanation

-  Proposed Footing Location
-  Proposed Boring Location

BORING LOCATION MAP

Report of Findings
 Second Site Group:
 Chang's Automotive and Marble Technics West
 Cypress Reconstruction
 Oakland, CA

94-911

Figure 2

Date: 9/28/1994 Drafting: JWA Approval: CMM

ENVIRONMENTAL SOLUTIONS

**APPENDIX A
BORING LOGS**

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 10/31/1994	Boring Number: B1					
Project No: 94-911	Borehole Depth: 10.5 feet	Surface Completion: Neat Cement						
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A						
Drilling Equip: Hand Auger /DA-1	Water Elev.: N/A	Logged By: JWA						
Sampler Type: Hand Sampler/ Enviro Core	Casing Elevation: N/A	Checked By: CMM						
Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Very dark brown (10YR 2/2) poorly graded Sand (SP), fine to medium grained sand, (0% Clay, 5% Silt, 90% Sand, 5% Gravel), loose, moist, (decomposed leaves), (fill).	[Pattern]	1	B1- Surface				0	Constituent percentages are visual field estimates only.
Dark yellowish brown (10YR 4/6) gravelly Sand (SW), fine to coarse grained sand, fine to coarse gravel, (0, 5, 75, 20), loose, dry to moist, (fill).	[Pattern]	2	B1-1				0	
		3						
Olive (5Y 4/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry to moist, trace roots, (fill).	[Pattern]	4	B1-4				0	Boring hand augered to 5.5' on 10/31/1994.
		5						
		6						
At 6.5 feet, color change to dark yellowish brown (10YR 4/4), dry, trace gravel.		7						
		8	B1-7				0	
Dark yellowish brown (10YR 4/4) silty Sand (SM), fine grained sand, (0, 30, 70, 0), medium dense, dry.	[Pattern]	9						
Dark yellowish brown (10YR 3/4) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), medium dense, moist.	[Pattern]	10	B1-10				0	Boring completed to 10.5' on 11/1/1994 using DA-1.
Boring Terminated at 10.5 Feet.		11						
		12						
		13						
		14						
		15						

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 10/31/1994		Boring Number: B2				
Project No: 94-911	Borehole Depth: 10.5 feet	Surface Completion: Neat Cement						
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A						
Drilling Equip: Hand Auger /DA-1	Water Elev.: N/A	Logged By: JWA						
Sampler Type: Hand Sampler /Enviro Core	Casing Elevation: N/A	Checked By: CMM						
Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Very dark grayish brown (10YR 2/2) poorly graded Sand (SP), fine to medium grained sand, (5% Clay, 5% Silt, 85% Sand, 5% Gravel), loose, moist, (decomposed leaves), (fill).		1	B2- Surface				0	Constituent percentages are visual field estimates only.
			B2-1				0	
Dark yellowish brown (10YR 4/6) gravelly Sand (SW), fine to coarse grained sand, fine to coarse gravel, (0, 5, 75, 25), loose, moist, (fill).		2						Boring hand augered to 3.5' on 10/31/1994.
		3						
Olive (5Y 4/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry, (fill).		4						
Dark yellowish brown (10YR 4/4), gravelly Sand (SW), fine to medium grained sand, fine to medium gravel, (5, 5, 60, 30), medium dense, dry to moist		5	B2-4				0	Boring completed to 10.5' on 11/1/1994.
		6						
Very dark grayish brown (10YR 3/2) poorly graded Sand (SP), fine to medium grained sand, fine to medium gravel, (0, 5, 70, 5), medium dense, dry.		7	B2-7				0	
		8						Boring completed to 10.5' on 11/1/1994.
		9						
Olive brown (2.5YR 4/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry, trace roots.		10	B2-10				0	
Boring Terminated at 10.5 Feet.		11						
		12						
		13						
		14						
		15						

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 10/31/1994		Boring Number: B3				
Project No: 94-911	Borehole Depth: 11.0 feet	Surface Completion: Neat Cement.						
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A						
Drilling Equip: Hand Auger /XD-2	Water Elev.: N/A	Logged By: JWA						
Sampler Type: Hand Sampler/Enviro Core	Casing Elevation: N/A	Checked By: CMM						
Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Dark yellowish brown (10YR 4/3) gravelly Sand (SW), fine to coarse grained sand, fine to coarse gravel, (0% Clay, 5% Silt, 60% Sand, 35% Gravel), loose, dry, (fill).		1	B3- Surface				0	Constituent percentages are visual field estimates only.
		2	B3-1				0	
Olive (5Y 4/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry, (fill).		3						Boring hand augered to 2' 0" on 10/31/1994.
Dark yellowish brown (10YR 4/3) gravelly Sand (SW), fine to coarse grained sand, fine to coarse gravel, (0, 5, 60, 35), loose, dry, (fill).		4						
Dark olive brown (2.5Y 3/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry, (fill).		5	B3-4					
		6						
Dark yellowish brown (10YR 3/4) gravelly Sand (SW), fine to medium grained sand, fine to coarse gravel, (5, 5, 70, 20), medium dense, moist.		7						Boring completed to 11.0' on 11/8/1994.
		8	B3-7					
		9						
		10						
		11	B3-10					
Boring terminated at 11.0 feet.		12						
		13						
		14						
		15						

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 11/1/1994	Boring Number: B4
Project No: 94-911	Borehole Depth: 6.5 feet	Surface Completion: Neat Cement	
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A	
Drilling Equip: DA-1	Water Elev.: N/A	Logged By: JWA	
Sampler Type: Split Barrel/ Enviro Core	Casing Elevation: N/A	Checked By: CMM	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Black (10YR 2/1) poorly graded Sand (SP), fine to medium grained sand, (0% Clay, 10% Silt, 90% Sand, 0% Gravel), loose, moist, (decomposed leaves), (fill).		1	B4- Surface				0	Constituent percentages are visual field estimates only.
Dark yellowish brown (10YR 4/6) gravelly Sand (SW), fine to coarse grained sand, fine to coarse gravel, (10, 5, 50, 35), medium dense, moist to dry, (fill).		2	B4-1				0	
Dark olive brown (2.5 Y 3/3) poorly graded Sand (SP), fine to medium grained sand, (0, 5, 95, 0), loose, dry, trace ceramic fragments, (fill).		3						
		4						
At 4.2 feet, color change to dark yellowish brown (10YR 4/4), (0, 0, 100, 0).		5	B4-5				0	
At 5.0 feet, color change to dark yellowish brown (10YR 4/6).		6						
Boring Terminated at 6.5 Feet.		7						Refusal at 6.5 feet.
		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 11/1/1994	Boring Number: B5
Project No: 94-911	Borehole Depth: 7.0 feet	Surface Completion: Neat Cement	
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A	
Drilling Equip: DA-1	Water Elev.: N/A	Logged By: JWA	
Sampler Type: Split Barrel/ Enviro Core	Casing Elevation: N/A	Checked By: CMM	

Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Very dark brown (10YR 2/2) poorly graded Sand (SP), fine to medium grained sand, (0% Clay, 10% Silt, 90% Sand, 0% Gravel), loose, moist, (decomposed leaves), (fill).		1	B5- Surface				0	Constituent percentages are visual field estimates only.
Dark yellowish brown (10YR 4/6) sandy Gravel (GW), fine to coarse gravel, fine to coarse grained sand, (5, 5, 35, 55), medium dense, dry, angular gravel, (fill).		2	B5-1				0	
Dark brown (10YR 3/3) poorly graded Sand (SP), fine to medium grained sand, (0, 0, 100, 0), loose, dry, (fill).		3						
At 3.5 feet, color change to dark yellowish brown (10YR 4/4), fine sand.		4	B5-4				0	
		5						
		6	B5-6				0	
		7						Refusal at 7.0 feet.
Boring Terminated at 7.0 Feet.		8						
		9						
		10						
		11						
		12						
		13						
		14						
		15						

Project Name: Caltrans- Chang's Automotive and Marble Technics West		Date: 11/1/1994	Boring Number: B6					
Project No: 94-911	Borehole Depth: 10.0 feet	Surface Completion: Neat Cement						
Drilling Co: Precision Sampling, Inc.	Well Depth: N/A	Surface Elevation: N/A						
Drilling Equip: DA-1/XD-2	Water Elev.: N/A	Logged By: JWA						
Sampler Type: Split Barrel/ Enviro Core	Casing Elevation: N/A	Checked By: CMM						
Description	Lithology	Depth (feet)	Sample Number	Casing	Annular Seal	Blows/6"	OVM (ppm)	Remarks
Very dark brown (10YR 2/2) poorly graded Sand (SP), fine to medium grained sand, (0% Clay, 10% Silt, 90% Sand, 0% Gravel), loose, moist, (decomposed leaves), (fill).		0	B6- Surface				0	Constituent percentages are visual field estimates only.
Dark yellowish brown (10YR 4/4) poorly graded Sand (SP), fine to medium grained sand, (0, 5, 95, 0), loose, dry, (fill).		1	B6- 1					Refusal at 0.5' on first attempt.
At 3.0 feet, color change to dark brown (10YR 3/3), (0, 0, 100, 0).		2						Refusal at 1.0' on second attempt.
At 4.0 feet, color change to dark yellowish brown (10YR 3/3).		3						
		4						
Dark yellowish brown (10YR 4/6) mottled with brown (10YR 5/3) and minor, very dark gray (10YR 3/1) clayey Sand (SC), fine to medium grained sand, (20, 5, 75, 0), medium dense, moist, (very dark gray veins are 100% clay).		5	B6- 4					
		6						
Dark yellowish brown (10YR 4/6) poorly graded Sand (SP), fine to medium grained sand, (5, 5, 90, 0), medium dense, moist.		7						
		8	B6- 7					
		9						
Boring terminated at 10.0 feet.		10	B6- 10					Boring completed to 10.0' on 11/8/1994
		11						
		12						
		13						
		14						
		15						

APPENDIX B
CHAIN OF CUSTODY AND ANALYTICAL DATA SHEETS

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

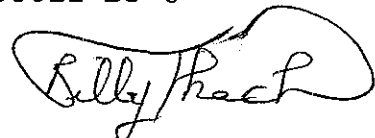
Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: 10 samples for Gasoline analysis.

Matrix: SOIL
Sampled: November 1, 1994 Run#: 4519 Analyzed: November 9, 1994
Method: EPA 5030/8015M

Spl #	CLIENT SMPL ID	GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
68600	B1-7	N.D.	1.0	N.D.	88
68601	B1-10	N.D.	1.0	N.D.	88
68602	B2-4	N.D.	1.0	N.D.	88
68603	B2-7	N.D.	1.0	N.D.	88
68604	B2-10	N.D.	1.0	N.D.	88
68606	B4-1	N.D.	1.0	N.D.	88
68607	B4-5	N.D.	1.0	N.D.	88
68609	B5-1	N.D.	1.0	N.D.	88
68610	B5-4	N.D.	1.0	N.D.	88
68611	B5-6	N.D.	1.0	N.D.	88



Billy Thach
Chemist



Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: November 1, 1994
Extracted: November 7, 1994

Submitted: November 1, 1994
Analyzed: November 8, 1994

Project: CALTRANS CHANG's
Project #: 94-911
Client Sample ID: B5-6

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: None

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.05	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.05	-----
2-CHLOROPHENOL	N.D.	0.05	67%
1,3-DICHLOROBENZENE	N.D.	0.05	-----
1,4-DICHLOROBENZENE	N.D.	0.05	76%
BENZYL ALCOHOL	N.D.	0.10	-----
1,2-DICHLOROBENZENE	N.D.	0.05	-----
2-METHYLPHENOL	N.D.	0.05	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.05	-----
4-METHYLPHENOL	N.D.	0.05	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.05	-----
HEXACHLOROETHANE	N.D.	0.05	-----
NITROBENZENE	N.D.	0.05	-----
ISOPHORONE	N.D.	0.05	-----
2-NITROPHENOL	N.D.	0.05	-----
2,4-DIMETHYLPHENOL	N.D.	0.05	-----
BENZOIC ACID	N.D.	0.25	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.05	-----
2,4-DICHLOROPHENOL	N.D.	0.05	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.05	69%
NAPHTHALENE	N.D.	0.05	-----
4-CHLOROANILINE	N.D.	0.10	-----
HEXACHLOROBUTADIENE	N.D.	0.05	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	-----
2-METHYLNAPHTHALENE	N.D.	0.05	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.05	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.05	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.05	-----
2-CHLORONAPHTHALENE	N.D.	0.05	-----
2-NITROANILINE	N.D.	0.25	-----
DIMETHYL PHTHALATE	N.D.	0.05	-----
ACENAPHTHYLENE	N.D.	0.05	-----
3-NITROANILINE	N.D.	0.25	-----
ACENAPHTHENE	N.D.	0.05	73%
2,4-DINITROPHENOL	N.D.	0.25	-----
4-NITROPHENOL	N.D.	0.25	-----
DIBENZOFURAN	N.D.	0.05	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2


Submission #: 9411013


Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B5-6
Method: EPA 3550/8270

Matrix: SOIL
Reporting

COMPOUND NAME	Sample mg/kg	Limit mg/kg	Blank Spike Recovery
2,4-DINITROTOLUENE	N.D.	0.05	-----
2,6-DINITROTOLUENE	N.D.	0.05	-----
DIETHYL PHTHALATE	N.D.	0.05	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.05	-----
FLUORENE	N.D.	0.05	-----
4-NITROANILINE	N.D.	0.25	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	0.25	-----
N-NITROSODIPHENYLAMINE	N.D.	0.05	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.05	-----
HEXACHLOROBENZENE	N.D.	0.05	-----
PENTACHLOROPHENOL	N.D.	0.25	-----
PHENANTHRENE	N.D.	0.05	-----
ANTHRACENE	N.D.	0.05	-----
DI-N-BUTYL PHTHALATE	N.D.	0.05	-----
FLUORANTHENE	N.D.	0.05	-----
PYRENE	N.D.	0.05	82%
BUTYLBENZYLPHTHALATE	N.D.	0.05	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.10	-----
BENZO (A) ANTHRACENE	N.D.	0.05	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.05	-----
CHRYSENE	N.D.	0.05	-----
DI-N-OCTYLPHTHALATE	N.D.	0.05	-----
BENZO (B) FLUORANTHENE	N.D.	0.05	-----
BENZO (K) FLUORANTHENE	N.D.	0.05	-----
BENZO (A) PYRENE	N.D.	0.05	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.05	-----
DIBENZO (A, H) ANTHRACENE	N.D.	0.05	-----
BENZO (G, H, I) PERYLENE	N.D.	0.05	-----

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Khafrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: November 1, 1994
Extracted: November 7, 1994

Submitted: November 1, 1994
Analyzed: November 8, 1994

Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B4-5

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: None

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.05	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.05	-----
2-CHLOROPHENOL	N.D.	0.05	67%
1,3-DICHLOROBENZENE	N.D.	0.05	-----
1,4-DICHLOROBENZENE	N.D.	0.05	76%
BENZYL ALCOHOL	N.D.	0.10	-----
1,2-DICHLOROBENZENE	N.D.	0.05	-----
2-METHYLPHENOL	N.D.	0.05	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.05	-----
4-METHYLPHENOL	N.D.	0.05	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.05	-----
HEXACHLOROETHANE	N.D.	0.05	-----
NITROBENZENE	N.D.	0.05	-----
ISOPHORONE	N.D.	0.05	-----
2-NITROPHENOL	N.D.	0.05	-----
2,4-DIMETHYLPHENOL	N.D.	0.05	-----
BENZOIC ACID	N.D.	0.25	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.05	-----
2,4-DICHLOROPHENOL	N.D.	0.05	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.05	69%
NAPHTHALENE	N.D.	0.05	-----
4-CHLOROANILINE	N.D.	0.10	-----
HEXACHLOROBUTADIENE	N.D.	0.05	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	-----
2-METHYLNAPHTHALENE	N.D.	0.05	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.05	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.05	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.05	-----
2-CHLORONAPHTHALENE	N.D.	0.05	-----
2-NITROANILINE	N.D.	0.25	-----
DIMETHYL PHTHALATE	N.D.	0.05	-----
ACENAPHTHYLENE	N.D.	0.05	-----
3-NITROANILINE	N.D.	0.25	-----
ACENAPHTHENE	N.D.	0.05	73%
2,4-DINITROPHENOL	N.D.	0.25	-----
4-NITROPHENOL	N.D.	0.25	-----
DIBENZOFURAN	N.D.	0.05	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2


Submission #: 9411013


Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B4-5
Method: EPA 3550/8270

Matrix: SOIL
Reporting

COMPOUND NAME	Sample mg/kg	Limit mg/kg	Blank Spike Recovery
2,4-DINITROTOLUENE	N.D.	0.05	-----
2,6-DINITROTOLUENE	N.D.	0.05	-----
DIETHYL PHTHALATE	N.D.	0.05	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.05	-----
FLUORENE	N.D.	0.05	-----
4-NITROANILINE	N.D.	0.25	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	0.25	-----
N-NITROSODIPHENYLAMINE	N.D.	0.05	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.05	-----
HEXACHLOROBENZENE	N.D.	0.05	-----
PENTACHLOROPHENOL	N.D.	0.25	-----
PHENANTHRENE	N.D.	0.05	-----
ANTHRACENE	N.D.	0.05	-----
DI-N-BUTYL PHTHALATE	N.D.	0.05	-----
FLUORANTHENE	N.D.	0.05	-----
PYRENE	N.D.	0.05	82%
BUTYLBENZYLPHTHALATE	N.D.	0.05	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.10	-----
BENZO (A) ANTHRACENE	N.D.	0.05	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.05	-----
CHRYSENE	N.D.	0.05	-----
DI-N-OCTYLPHTHALATE	N.D.	0.05	-----
BENZO (B) FLUORANTHENE	N.D.	0.05	-----
BENZO (K) FLUORANTHENE	N.D.	0.05	-----
BENZO (A) PYRENE	N.D.	0.05	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.05	-----
DIBENZO (A, H) ANTHRACENE	N.D.	0.05	-----
BENZO (G, H, I) PERYLENE	N.D.	0.05	-----

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: November 1, 1994
Extracted: November 7, 1994

Submitted: November 1, 1994
Analyzed: November 9, 1994

Project: CALTRANS CHANG's
Project #: 94-911
Client Sample ID: B1-10

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: None

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.05	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.05	-----
2-CHLOROPHENOL	N.D.	0.05	67%
1,3-DICHLOROBENZENE	N.D.	0.05	-----
1,4-DICHLOROBENZENE	N.D.	0.05	76%
BENZYL ALCOHOL	N.D.	0.10	-----
1,2-DICHLOROBENZENE	N.D.	0.05	-----
2-METHYLPHENOL	N.D.	0.05	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.05	-----
4-METHYLPHENOL	N.D.	0.05	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.05	-----
HEXACHLOROETHANE	N.D.	0.05	-----
NITROBENZENE	N.D.	0.05	-----
ISOPHORONE	N.D.	0.05	-----
2-NITROPHENOL	N.D.	0.05	-----
2,4-DIMETHYLPHENOL	N.D.	0.05	-----
BENZOIC ACID	N.D.	0.25	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.05	-----
2,4-DICHLOROPHENOL	N.D.	0.05	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.05	69%
NAPHTHALENE	N.D.	0.05	-----
4-CHLOROANILINE	N.D.	0.10	-----
HEXACHLOROBUTADIENE	N.D.	0.05	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	-----
2-METHYLNAPHTHALENE	N.D.	0.05	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.05	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.05	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.05	-----
2-CHLORONAPHTHALENE	N.D.	0.05	-----
2-NITROANILINE	N.D.	0.25	-----
DIMETHYL PHTHALATE	N.D.	0.05	-----
ACENAPHTHYLENE	N.D.	0.05	-----
3-NITROANILINE	N.D.	0.25	-----
ACENAPHTHENE	N.D.	0.05	73%
2,4-DINITROPHENOL	N.D.	0.25	-----
4-NITROPHENOL	N.D.	0.25	-----
DIBENZOFURAN	N.D.	0.05	-----

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CHROMALAB, INC.

Environmental Services (SDB)

Page 2


Submission #: 9411013


Project: CALTRANS CHANG's
Project #: 94-911
Client Sample ID: B1-10
Method: EPA 3550/8270

Matrix: SOIL

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
2,4-DINITROTOLUENE	N.D.	0.05	-----
2,6-DINITROTOLUENE	N.D.	0.05	-----
DIETHYL PHTHALATE	N.D.	0.05	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.05	-----
FLUORENE	N.D.	0.05	-----
4-NITROANILINE	N.D.	0.25	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	0.25	-----
N-NITROSODIPHENYLAMINE	N.D.	0.05	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.05	-----
HEXACHLOROBENZENE	N.D.	0.05	-----
PENTACHLOROPHENOL	N.D.	0.25	-----
PHENANTHRENE	N.D.	0.05	-----
ANTHRACENE	N.D.	0.05	-----
DI-N-BUTYL PHTHALATE	N.D.	0.05	-----
FLUORANTHENE	N.D.	0.05	-----
PYRENE	N.D.	0.05	82%
BUTYLBENZYLPHTHALATE	N.D.	0.05	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.10	-----
BENZO (A) ANTHRACENE	N.D.	0.05	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.05	-----
CHRYSENE	N.D.	0.05	-----
DI-N-OCTYLPHTHALATE	N.D.	0.05	-----
BENZO (B) FLUORANTHENE	N.D.	0.05	-----
BENZO (K) FLUORANTHENE	N.D.	0.05	-----
BENZO (A) PYRENE	N.D.	0.05	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.05	-----
DIBENZO (A,H) ANTHRACENE	N.D.	0.05	-----
BENZO (G,H,I) PERYLENE	N.D.	0.05	-----

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: November 1, 1994
Extracted: November 7, 1994

Submitted: November 1, 1994
Analyzed: November 8, 1994

Project: CALTRANS CHANG's
Project #: 94-911
Client Sample ID: B1-7

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: 1:5

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.25	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.25	-----
2-CHLOROPHENOL	N.D.	0.25	67%
1,3-DICHLOROBENZENE	N.D.	0.25	-----
1,4-DICHLOROBENZENE	N.D.	0.25	76%
BENZYL ALCOHOL	N.D.	0.50	-----
1,2-DICHLOROBENZENE	N.D.	0.25	-----
2-METHYLPHENOL	N.D.	0.25	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.25	-----
4-METHYLPHENOL	N.D.	0.25	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.25	-----
HEXACHLOROETHANE	N.D.	0.25	-----
NITROBENZENE	N.D.	0.25	-----
ISOPHORONE	N.D.	0.25	-----
2-NITROPHENOL	N.D.	0.25	-----
2,4-DIMETHYLPHENOL	N.D.	0.25	-----
BENZOIC ACID	N.D.	1.2	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.25	-----
2,4-DICHLOROPHENOL	N.D.	0.25	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.25	69%
NAPHTHALENE	N.D.	0.25	-----
4-CHLOROANILINE	N.D.	0.50	-----
HEXACHLOROBUTADIENE	N.D.	0.25	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.50	-----
2-METHYLNAPHTHALENE	N.D.	0.25	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.25	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.25	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.25	-----
2-CHLORONAPHTHALENE	N.D.	0.25	-----
2-NITROANILINE	N.D.	1.2	-----
DIMETHYL PHTHALATE	N.D.	0.25	-----
ACENAPHTHYLENE	N.D.	0.25	-----
3-NITROANILINE	N.D.	1.2	-----
ACENAPHTHENE	N.D.	0.25	73%
2,4-DINITROPHENOL	N.D.	1.2	-----
4-NITROPHENOL	N.D.	1.2	-----
DIBENZOFURAN	N.D.	0.25	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2

Submission #: 9411013

Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B1-7
Method: EPA 3550/8270

Matrix: SOIL
Reporting

COMPOUND NAME	Sample mg/kg	Limit mg/kg	Blank Spike Recovery
2,4-DINITROTOLUENE	N.D.	0.25	-----
2,6-DINITROTOLUENE	N.D.	0.25	-----
DIETHYL PHTHALATE	N.D.	0.25	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.25	-----
FLUORENE	N.D.	0.25	-----
4-NITROANILINE	N.D.	1.2	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	1.2	-----
N-NITROSODIPHENYLAMINE	N.D.	0.25	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.25	-----
HEXACHLOROBENZENE	N.D.	0.25	-----
PENTACHLOROPHENOL	N.D.	1.2	-----
PHENANTHRENE	N.D.	0.25	-----
ANTHRACENE	N.D.	0.25	-----
DI-N-BUTYL PHTHALATE	N.D.	0.25	-----
FLUORANTHENE	N.D.	0.25	-----
PYRENE	N.D.	0.25	82%
BUTYLBENZYLPHTHALATE	N.D.	0.25	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.50	-----
BENZO (A) ANTHRACENE	N.D.	0.25	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.25	-----
CHRYSENE	N.D.	0.25	-----
DI-N-OCTYLPHTHALATE	N.D.	0.25	-----
BENZO (B) FLUORANTHENE	N.D.	0.25	-----
BENZO (K) FLUORANTHENE	N.D.	0.25	-----
BENZO (A) PYRENE	N.D.	0.25	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.25	-----
DIBENZO (A,H) ANTHRACENE	N.D.	0.25	-----
BENZO (G,H,I) PERYLENE	N.D.	0.25	-----

ChromaLab, Inc.



Alex Tam
Analytical Chemist



Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: November 1, 1994
Extracted: November 7, 1994

Submitted: November 1, 1994
Analyzed: November 9, 1994

Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B4-SURFACE

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: 1:200

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	10	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	10	-----
2-CHLOROPHENOL	N.D.	10	67%
1,3-DICHLOROBENZENE	N.D.	10	-----
1,4-DICHLOROBENZENE	N.D.	10	76%
BENZYL ALCOHOL	N.D.	20	-----
1,2-DICHLOROBENZENE	N.D.	10	-----
2-METHYLPHENOL	N.D.	10	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	10	-----
4-METHYLPHENOL	N.D.	10	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	10	-----
HEXACHLOROETHANE	N.D.	10	-----
NITROBENZENE	N.D.	10	-----
ISOPHORONE	N.D.	10	-----
2-NITROPHENOL	N.D.	10	-----
2,4-DIMETHYLPHENOL	N.D.	10	-----
BENZOIC ACID	N.D.	50	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	10	-----
2,4-DICHLOROPHENOL	N.D.	10	-----
1,2,4-TRICHLOROBENZENE	N.D.	10	69%
NAPHTHALENE	N.D.	10	-----
4-CHLOROANILINE	N.D.	20	-----
HEXACHLOROBUTADIENE	N.D.	10	-----
4-CHLORO-3-METHYLPHENOL	N.D.	20	-----
2-METHYLNAPHTHALENE	N.D.	10	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	10	-----
2,4,6-TRICHLOROPHENOL	N.D.	10	-----
2,4,5-TRICHLOROPHENOL	N.D.	10	-----
2-CHLORONAPHTHALENE	N.D.	10	-----
2-NITROANILINE	N.D.	50	-----
DIMETHYL PHTHALATE	N.D.	10	-----
ACENAPHTHYLENE	N.D.	10	-----
3-NITROANILINE	N.D.	50	-----
ACENAPHTHENE	N.D.	10	73%
2,4-DINITROPHENOL	N.D.	50	-----
4-NITROPHENOL	N.D.	50	-----
DIBENZOFURAN	N.D.	10	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2

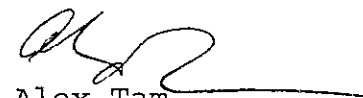
Submission #: 9411013


Project: CALTRANS CHANG'S
Project #: 94-911
Client Sample ID: B4-SURFACE
Method: EPA 3550/8270

Matrix: SOIL

COMPOUND NAME	Sample mg/kg	Reporting	Blank Spike Recovery
		Limit mg/kg	
2,4-DINITROTOLUENE	N.D.	10	-----
2,6-DINITROTOLUENE	N.D.	10	-----
DIETHYL PHTHALATE	N.D.	10	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	10	-----
FLUORENE	N.D.	10	-----
4-NITROANILINE	N.D.	50	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	50	-----
N-NITROSODIPHENYLAMINE	N.D.	10	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	10	-----
HEXACHLOROBENZENE	N.D.	10	-----
PENTACHLOROPHENOL	N.D.	50	-----
PHENANTHRENE	N.D.	10	-----
ANTHRACENE	N.D.	10	-----
DI-N-BUTYL PHTHALATE	N.D.	10	-----
FLUORANTHENE	N.D.	10	-----
PYRENE	N.D.	10	82%
BUTYLBENZYLPHTHALATE	N.D.	10	-----
3,3'-DICHLOROBENZIDINE	N.D.	20	-----
BENZO (A) ANTHRACENE	N.D.	10	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	10	-----
CHRYSENE	N.D.	10	-----
DI-N-OCTYLPHTHALATE	N.D.	10	-----
BENZO (B) FLUORANTHENE	N.D.	10	-----
BENZO (K) FLUORANTHENE	N.D.	10	-----
BENZO (A) PYRENE	N.D.	10	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	10	-----
DIBENZO (A,H) ANTHRACENE	N.D.	10	-----
BENZO (G,H,I) PERYLENE	N.D.	10	-----

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 11, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller


Project: CALTRANS/CHANG's
Received: November 1, 1994


Project#: 94-911

re: 2 samples for pH analysis.

Sampled: November 1, 1994 Matrix: SOIL Extracted: November 11, 1994
Method: 9040/9045 Run#: 4541 Analyzed: November 11, 1994

Spl #	CLIENT SMPL ID	PH (UNITS)	REPORTING LIMIT (UNITS)	BLANK RESULT (UNITS)	BLANK SPIKE RESULT (%)
68600	B1-7	7.3	0.1	N.D.	--
68609	B5-1	6.4	0.1	N.D.	--


Carolyn House
Extractions Supervisor


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 11, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller


Project: CALTRANS/CHANG's
Received: November 1, 1994

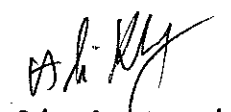
Project#: 94-911

re: 12 samples for Total Recoverable Petroleum Hydrocarbons analysis.

Matrix: SOIL Extracted: November 10, 1994
Sampled: November 1, 1994 Run#: 4542 Analyzed: November 10, 1994
Method: EPA 418.1

Spl #	CLIENT SMPL ID	TRPH (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
68600	B1-7	N.D.	10	N.D.	84
68601	B1-10	N.D.	10	N.D.	84
68602	B2-4	12	10	N.D.	84
68603	B2-7	30	10	N.D.	84
68604	B2-10	N.D.	10	N.D.	84
68605	B4-SURFACE	20000	10	N.D.	84
68606	B4-1	23	10	N.D.	84
68607	B4-5	N.D.	10	N.D.	84
68608	B5-SURFACE	170	10	N.D.	84
68609	B5-1	N.D.	10	N.D.	84
68610	B5-4	N.D.	10	N.D.	84
68611	B5-6	N.D.	10	N.D.	84


Carolyn House
Extractions Supervisor


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

ENV. SOLUTIONS - PETALUMA

Submission #: 9411013

Atten: Cyd Miller

Project: CALTRANS CHANG'S

Project#: 94-911

REPORTING INFORMATION

Sample(s) were received cold and in good condition on **November 1, 1994**. They were refrigerated on receipt, and analyzed on the date shown on the attached report. ChromaLab followed EPA or equivalent methods for all analyses reported.

Hydrocarbons in the Motor Oil range were also observed in the following samples:

B4-SURFACE
B5-SURFACE



Jill Thomas
Quality Assurance Officer



Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS CHANG's

Project#: 94-911

Received: November 1, 1994

re: Twelve samples for Diesel analysis

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994

Analyzed: November 5-8, 1994

Method: EPA 3550/8015

Sample #	Client Sample ID	Diesel (mg/Kg)
68600	B1-7	N.D. (a)
68601	B1-10	N.D.
68602	B2-4	N.D.
68603	B2-7	N.D.
68604	B2-10	N.D.
68605	B4-SURFACE	N.D. (b,d)
68606	B4-1	N.D.
68607	B4-5	N.D.
68608	B5-SURFACE	N.D. (c,d)
68609	B5-1	N.D.
68610	B5-4	N.D.
68611	B5-6	N.D.
Blank		N.D.
Spike Recovery		107%
Dup Spike Recovery		111%
Reporting Limit		1.0

(a) Unknown compounds were found in the Diesel range in the estimated amount of 2.6 mg/Kg compared with the Diesel Standard.

(b) Unknown compounds were found in the Diesel range in the estimated amount of 470 mg/Kg compared with the Diesel Standard.

(c) Unknown compounds were found in the Diesel range in the estimated amount of 850 mg/Kg compared with the Diesel Standard.

(d) Detection limit raised by 50 mg/Kg due to dilution.

ChromaLab, Inc.

Sirirat Chullakorn

Sirirat Chullakorn
Analytical Chemist

Ali Khayr

Ali Khayr
Organic Manager

cc

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

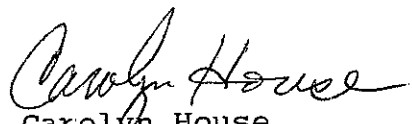
Project: CALTRANS/CHANG's
Received: November 1, 1994


Project#: 94-911

re: 2 samples for pH analysis.

Sampled: November 1, 1994 Matrix: SOIL Extracted: November 11, 1994
Method: 9040/9045 Run#: 4541 Analyzed: November 11, 1994

<u>Spl #</u>	<u>CLIENT SMPL ID</u>	<u>PH</u> <u>(UNITS)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(UNITS)</u>	<u>BLANK</u> <u>RESULT</u> <u>(UNITS)</u>	<u>BLANK SPIKE</u> <u>RESULT</u> <u>(%)</u>
68600	B1-7	7.3	0.1	N.D.	--
68609	B5-1	6.4	0.1	N.D.	--


Carolyn House
Extractions Supervisor


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B1-7

Spl#: 68600

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	69	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B1-10

Spl#: 68601

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(ug/Kg)	LIMIT (ug/Kg)	RESULT (ug/Kg)	RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLORO BENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYL VINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	92	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	7.1	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B2-4

Spl#: 68602

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	64	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B2-7

Spl#: 68603

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(ug/Kg)	LIMIT (ug/Kg)	RESULT (ug/Kg)	RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	39	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov
Chemist

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B2-10

Spl#: 68604

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(ug/Kg)	LIMIT (ug/Kg)	RESULT (ug/Kg)	RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	10	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--



Oleg Nemtsov
Chemist



Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B4-5

Spl#: 68607

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	N.D.	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B5-4

Spl#: 68610

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	N.D.	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S

Project#: 94-911

Received: November 1, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B5-6

Spl#: 68611

Matrix: SOIL

Sampled: November 1, 1994

Run#: 4546

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	REPORTING	BLANK	BLANK SPIKE	
	RESULT	RESULT	RESULT	
	(ug/Kg)	(ug/Kg)	(%)	
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	N.D.	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov
Oleg Nemtsov
Chemist

Ali Kharrazi
Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B5-6

Spl#: 68611

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994


Run#: 4465


Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	44	0.25	N.D.	103
BERYLLIUM	0.28	0.05	N.D.	101
CADMIUM	0.40	0.05	N.D.	102
CHROMIUM	15	0.5	N.D.	93
COBALT	3.7	0.5	N.D.	102
COPPER	4.0	0.25	N.D.	100
LEAD	1.8	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	13	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	18	0.5	N.D.	103
ZINC	7.7	0.25	N.D.	104
MERCURY	N.D.	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B2-10

Spl#: 68604

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994

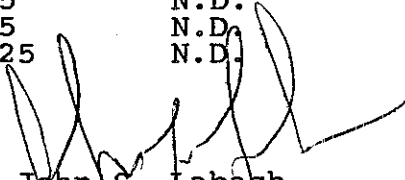
Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ARSENIC	1.7	0.25	N.D.	100
CHROMIUM	4.5	0.5	N.D.	93
COPPER	3.2	0.25	N.D.	100
LEAD	2.2	0.5	N.D.	101
NICKEL	20	0.5	N.D.	103
ZINC	15	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B5-4

Spl#: 68610

Matrix: SOIL

Extracted: November 7, 1994


Sampled: November 1, 1994

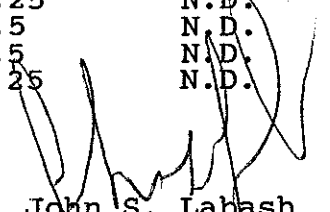
Run#: 4474

Analyzed: November 7, 1994

Method: EPA 3050/6010

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ARSENIC	N.D.	0.25	N.D.	94
CHROMIUM	9.3	0.5	N.D.	88
COPPER	3.1	0.25	N.D.	99
LEAD	2.6	0.5	N.D.	101
NICKEL	5.7	0.5	N.D.	97
ZINC	4.4	0.25	N.D.	100


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B5-1

Spl#: 68609

Matrix: SOIL

Extracted: November 7, 1994


Sampled: November 1, 1994


Run#: 4474

Analyzed: November 7, 1994

Method: EPA 3050/6010

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK SPIKE</u> <u>RESULT</u> <u>(%)</u>
ARSENIC	N.D.	0.25	N.D.	94
CHROMIUM	8.2	0.5	N.D.	88
COPPER	36	0.25	N.D.	99
LEAD	110	0.5	N.D.	101
NICKEL	2.7	0.5	N.D.	97
ZINC	66	0.25	N.D.	100


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 9, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B5-SURFACE

Spl#: 68608

Matrix: SOIL

Extracted: November 7, 1994

Sampled: November 1, 1994

Run#: 4474

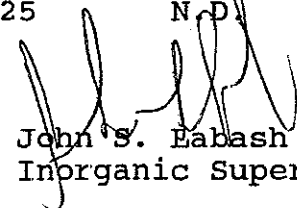
Analyzed: November 7, 1994

Method: EPA 3050/6010

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ARSENIC	N.D.	0.25	N.D.	94
CHROMIUM	24	0.5	N.D.	88
COPPER	140	0.25	N.D.	99
LEAD	2600	0.5	N.D.	101
NICKEL	17	0.5	N.D.	97
ZINC	410	0.25	N.D.	100



Doina Danet
Chemist



John S. Eabash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911


re: One sample for CAM 17 Metals analysis.

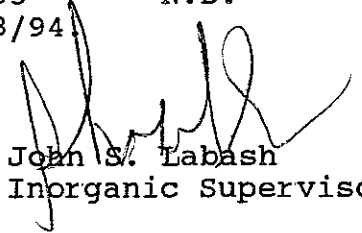
Sample ID: B1-7

Spl#: 68600 Matrix: SOIL Extracted: November 4, 1994
Sampled: November 1, 1994 Run#: 4465 Analyzed: November 4, 1994
Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	40	0.25	N.D.	103
BERYLLIUM	0.27	0.05	N.D.	101
CADMIUM	0.17	0.05	N.D.	102
CHROMIUM	13	0.5	N.D.	93
COBALT	5.6	0.5	N.D.	102
COPPER	13	0.25	N.D.	100
LEAD	37	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	11	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	17	0.5	N.D.	103
ZINC	51	0.25	N.D.	104
MERCURY	0.12	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B1-10

Spl#: 68601

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994


Run#: 4465

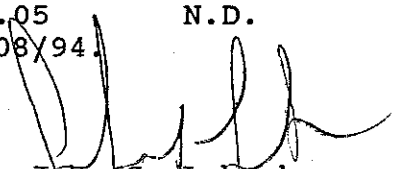
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	42	0.25	N.D.	103
BERYLLIUM	0.23	0.05	N.D.	101
CADMIUM	0.12	0.05	N.D.	102
CHROMIUM	16	0.5	N.D.	93
COBALT	3.1	0.5	N.D.	102
COPPER	6.8	0.25	N.D.	100
LEAD	16	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	13	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	17	0.5	N.D.	103
ZINC	34	0.25	N.D.	104
MERCURY	0.07	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B4-SURFACE

Spl#: 68605

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994


Run#: 4465

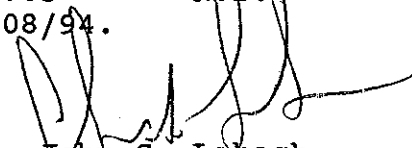
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	150	0.25	N.D.	103
BERYLLIUM	0.39	0.05	N.D.	101
CADMIUM	4.9	0.05	N.D.	102
CHROMIUM	12	0.5	N.D.	93
COBALT	2.1	0.5	N.D.	102
COPPER	95	0.25	N.D.	100
LEAD	1000	0.5	N.D.	101
MOLYBDENUM	3.7	0.25	N.D.	99
NICKEL	13	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	16	0.5	N.D.	103
ZINC	490	0.25	N.D.	104
MERCURY	0.57	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B4-1

Spl#: 68606

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994


Run#: 4465

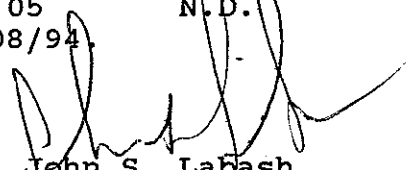
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	270	0.25	N.D.	103
BERYLLIUM	0.43	0.05	N.D.	101
CADMIUM	0.50	0.05	N.D.	102
CHROMIUM	5.0	0.5	N.D.	93
COBALT	2.2	0.5	N.D.	102
COPPER	110	0.25	N.D.	100
LEAD	210	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	5.3	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	14	0.5	N.D.	103
ZINC	180	0.25	N.D.	104
MERCURY	0.31	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. LaBash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B4-5

Spl#: 68607

Matrix: SOIL

Extracted: November 4, 1994

Sampled: November 1, 1994


Run#: 4465

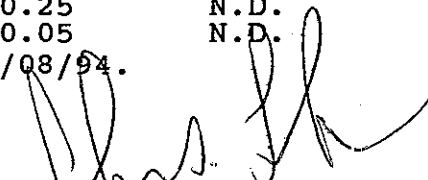
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	100	0.25	N.D.	103
BERYLLIUM	0.22	0.05	N.D.	101
CADMIUM	0.68	0.05	N.D.	102
CHROMIUM	8.5	0.5	N.D.	93
COBALT	1.8	0.5	N.D.	102
COPPER	14	0.25	N.D.	100
LEAD	73	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	6.6	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	12	0.5	N.D.	103
ZINC	63	0.25	N.D.	104
MERCURY	0.15	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 11, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

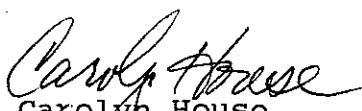
Project: CALTRANS/CHANG'S
Received: October 31, 1994


Project#: 94-911

re: 7 samples for Total Recoverable Petroleum Hydrocarbons analysis.

Sampled: October 31, 1994 Matrix: SOIL Extracted: November 10, 1994
Method: EPA 418.1 Run#: 4542 Analyzed: November 10, 1994

Spl #	CLIENT SMPL ID	TRPH (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
68479	B1-SURFACE	33	10	N.D.	84
68480	B1-1	33	10	N.D.	84
68481	B1-4	N.D.	10	N.D.	84
68482	B2-SURFACE	N.D.	10	N.D.	84
68483	B2-1	51	10	N.D.	84
68484	B3-SURFACE	150	10	N.D.	84
68485	B3-1	71	10	N.D.	84


Carolyn House
Extractions Supervisor


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B2-SURFACE

Spl#: 68482

Matrix: SOIL

Extracted: November 4, 1994


Sampled: October 31, 1994

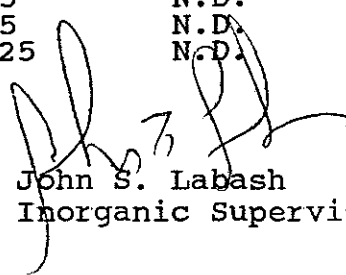
Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT	RESULT	RESULT
	(mg/Kg)	(mg/Kg)	(mg/Kg)	(%)
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	7.7	0.5	N.D.	93
COPPER	45	0.25	N.D.	100
LEAD	200	0.5	N.D.	101
NICKEL	10	0.5	N.D.	103
ZINC	82	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B2-1

Spl#: 68483

Matrix: SOIL

Extracted: November 4, 1994


Sampled: October 31, 1994

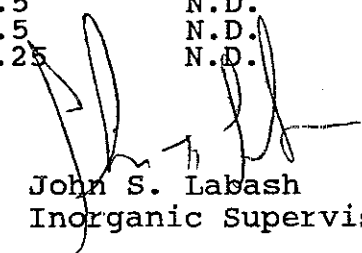
Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	6.8	0.5	N.D.	93
COPPER	28	0.25	N.D.	100
LEAD	150	0.5	N.D.	101
NICKEL	12	0.5	N.D.	103
ZINC	78	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B3-SURFACE

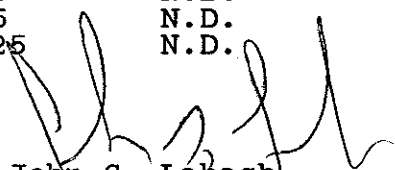
Spl#: 68484
Sampled: October 31, 1994
Method: EPA 3050/6010

Matrix: SOIL
Run#: 4465

Extracted: November 4, 1994
Analyzed: November 4, 1994

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK SPIKE</u> <u>RESULT</u> <u>(%)</u>
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	N.D.	0.5	N.D.	93
COPPER	26	0.25	N.D.	100
LEAD	71	0.5	N.D.	101
NICKEL	1.5	0.5	N.D.	103
ZINC	94	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B3-1

Spl#: 68485

Matrix: SOIL

Extracted: November 4, 1994


Sampled: October 31, 1994

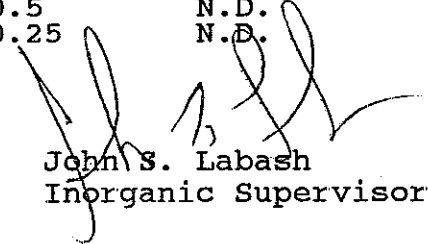
Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK SPIKE</u> <u>RESULT</u> <u>(%)</u>
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	2.6	0.5	N.D.	93
COPPER	12	0.25	N.D.	100
LEAD	37	0.5	N.D.	101
NICKEL	1.9	0.5	N.D.	103
ZINC	68	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B1-SURFACE

Spl#: 68479

Matrix: SOIL

Extracted: November 4, 1994

Sampled: October 31, 1994

Run#: 4465

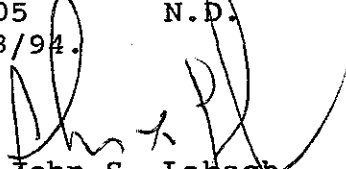
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIIUM	63	0.25	N.D.	103
BERYLLIUM	0.22	0.05	N.D.	101
CADMIUM	0.60	0.05	N.D.	102
CHROMIUM	1.6	0.5	N.D.	93
COBALT	5.6	0.5	N.D.	102
COPPER	24	0.25	N.D.	100
LEAD	68	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	7.3	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	16	0.5	N.D.	103
ZINC	140	0.25	N.D.	104
MERCURY	0.11	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B1-1

Spl#: 68480

Matrix: SOIL

Extracted: November 4, 1994

Sampled: October 31, 1994


Run#: 4465

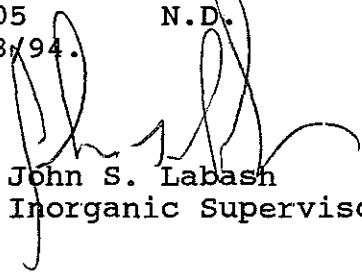
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	N.D.	0.25	N.D.	100
BARIUM	120	0.25	N.D.	103
BERYLLIUM	0.28	0.05	N.D.	101
CADMIUM	0.39	0.05	N.D.	102
CHROMIUM	3.7	0.5	N.D.	93
COBALT	5.9	0.5	N.D.	102
COPPER	20	0.25	N.D.	100
LEAD	44	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	6.3	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	18	0.5	N.D.	103
ZINC	55	0.25	N.D.	104
MERCURY	0.15	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: One sample for CAM 17 Metals analysis.

Sample ID: B1-4

Spl#: 68481

Matrix: SOIL

Extracted: November 4, 1994

Sampled: October 31, 1994


Run#: 4465

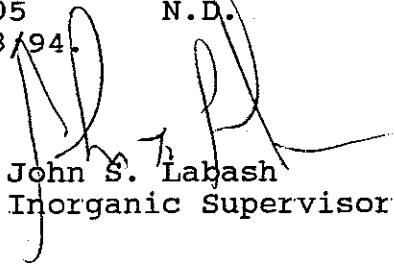
Analyzed: November 4, 1994

Method: EPA 3050/6010/7471

ANALYTE	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
ANTIMONY	N.D.	1.0	N.D.	106
ARSENIC	1.9	0.25	N.D.	100
BARIUM	19	0.25	N.D.	103
BERYLLIUM	0.23	0.05	N.D.	101
CADMIUM	0.25	0.05	N.D.	102
CHROMIUM	6.9	0.5	N.D.	93
COBALT	6.5	0.5	N.D.	102
COPPER	4.0	0.25	N.D.	100
LEAD	4.2	0.5	N.D.	101
MOLYBDENUM	N.D.	0.25	N.D.	99
NICKEL	20	0.5	N.D.	103
SELENIUM	N.D.	0.5	N.D.	86
SILVER	N.D.	0.25	N.D.	100
THALLIUM	N.D.	2.0	N.D.	88
VANADIUM	13	0.5	N.D.	103
ZINC	21	0.25	N.D.	104
MERCURY	N.D.	0.05	N.D.	87

Note: MERCURY WAS PREPED AND RUN ON 11/08/94.


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller


Project: CALTRANS/CHANG'S
Received: October 31, 1994

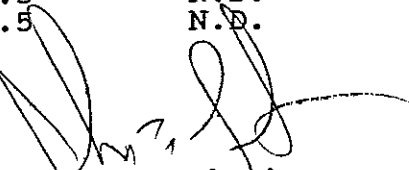
Project#: 94-911

re: 3 samples for Hexavalent Chromium analysis.

Sampled: October 31, 1994 Matrix: SOIL Extracted: November 2, 1994
Method: EPA 7196 Run#: 4441 Analyzed: November 2, 1994

Spl #	CLIENT	SMPL ID	HEXAVALENT CHROMIUM (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
68476	B1-SURFACE		N.D.	0.5	N.D.	105
68477	B1-1		N.D.	0.5	N.D.	105
68478	B1-4		N.D.	0.5	N.D.	105


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

ENV. SOLUTIONS - PETALUMA

Submission #: 9410378

Atten: Cyd Miller

Project: CALTRANS/CHANG'S

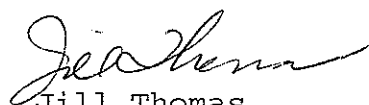
Project#: 94-911

REPORTING INFORMATION

Sample(s) were received cold and in good condition on **October 31, 1994**. They were refrigerated on receipt, and analyzed on the date shown on the attached report. ChromaLab followed EPA or equivalent methods for all analyses reported.

Hydrocarbons in the Motor Oil range were also observed in the following samples:

B1-1
B2-1
B3-1



Jill Thomas
Quality Assurance Officer



Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S
Received: October 31, 1994

Project#: 94-911

re: Seven samples for Diesel analysis

Matrix: SOIL
Sampled: October 31, 1994
Method: EPA 3550/8015

Extracted: November 4, 1994
Analyzed: November 5-13, 1994

Sample #	Client Sample ID	Diesel (mg/Kg)
68479	B1-SURFACE	N.D.
68480	B1-1	N.D. ^a
68481	B1-4	N.D.
68482	B2-SURFACE	N.D. ^b
68483	B2-1	N.D. ^{c,e}
68484	B3-SURFACE	N.D.
68485	B3-1	N.D. ^{d,e}
Blank		N.D.
Spike Recovery		107%
Dup Spike Recovery		111%
Reporting Limit		1.0

- a - Unknown compounds were found in the Diesel range in the estimated amount of 6.2 mg/kg compared with Diesel standard.
- b - Unknown compounds were found in the Diesel range in the estimated amount of 1.5 mg/kg compared with Diesel standard.
- c - Unknown compounds were found in the Diesel range in the estimated amount of 63 mg/kg compared with Diesel standard.
- d - Unknown compounds were found in the Diesel range in the estimated amount of 2.6 mg/kg compared with Diesel standard.
- e - Detection limit raised by 2 mg/Kg due to dilution.

ChromaLab, Inc.

Sirirat Chullakorn

Sirirat Chullakorn
Analytical Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

kv

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: October 31, 1994
Extracted: November 2, 1994

Submitted: October 31, 1994
Analyzed: November 5, 1994

Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-4

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: None

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.05	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.05	-----
2-CHLOROPHENOL	N.D.	0.05	72%
1,3-DICHLOROBENZENE	N.D.	0.05	-----
1,4-DICHLOROBENZENE	N.D.	0.05	69%
BENZYL ALCOHOL	N.D.	0.10	-----
1,2-DICHLOROBENZENE	N.D.	0.05	-----
2-METHYLPHENOL	N.D.	0.05	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.05	-----
4-METHYLPHENOL	N.D.	0.05	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.05	-----
HEXACHLOROETHANE	N.D.	0.05	-----
NITROBENZENE	N.D.	0.05	-----
ISOPHORONE	N.D.	0.05	-----
2-NITROPHENOL	N.D.	0.05	-----
2,4-DIMETHYLPHENOL	N.D.	0.05	-----
BENZOIC ACID	N.D.	0.25	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.05	-----
2,4-DICHLOROPHENOL	N.D.	0.05	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.05	73%
NAPHTHALENE	N.D.	0.05	-----
4-CHLOROANILINE	N.D.	0.10	-----
HEXACHLOROBUTADIENE	N.D.	0.05	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.10	-----
2-METHYLNAPHTHALENE	N.D.	0.05	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.05	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.05	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.05	-----
2-CHLORONAPHTHALENE	N.D.	0.05	-----
2-NITROANILINE	N.D.	0.25	-----
DIMETHYL PHTHALATE	N.D.	0.05	-----
ACENAPHTHYLENE	N.D.	0.05	-----
3-NITROANILINE	N.D.	0.25	-----
ACENAPHTHENE	N.D.	0.05	76%
2,4-DINITROPHENOL	N.D.	0.25	-----
4-NITROPHENOL	N.D.	0.25	-----
DIBENZOFURAN	N.D.	0.05	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2

Submission #: 9410378

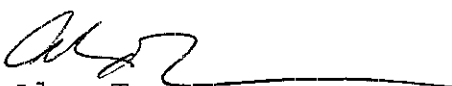
Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-4
Method: EPA 3550/8270


Matrix: SOIL

COMPOUND NAME	Sample mg/kg	Reporting	Blank Spike Recovery
		Limit mg/kg	
2,4-DINITROTOLUENE	N.D.	0.05	-----
2,6-DINITROTOLUENE	N.D.	0.05	-----
DIETHYL PHTHALATE	N.D.	0.05	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.05	-----
FLUORENE	N.D.	0.05	-----
4-NITROANILINE	N.D.	0.25	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	0.25	-----
N-NITROSODIPHENYLAMINE	N.D.	0.05	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.05	-----
HEXACHLOROBENZENE	N.D.	0.05	-----
PENTACHLOROPHENOL	N.D.	0.25	-----
PHENANTHRENE	N.D.	0.05	-----
ANTHRACENE	N.D.	0.05	-----
DI-N-BUTYL PHTHALATE	0.80 ^a	0.05	-----
FLUORANTHENE	N.D.	0.05	-----
PYRENE	N.D.	0.05	82%
BUTYLBENZYLPHTHALATE	N.D.	0.05	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.10	-----
BENZO (A) ANTHRACENE	N.D.	0.05	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.05	-----
CHRYSENE	N.D.	0.05	-----
DI-N-OCTYLPHTHALATE	N.D.	0.05	-----
BENZO (B) FLUORANTHENE	N.D.	0.05	-----
BENZO (K) FLUORANTHENE	N.D.	0.05	-----
BENZO (A) PYRENE	N.D.	0.05	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.05	-----
DIBENZO (A,H) ANTHRACENE	N.D.	0.05	-----
BENZO (G,H,I) PERYLENE	N.D.	0.05	-----

a - This analyte was present in the method blank at 1.5 mg/Kg.

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: October 31, 1994
Extracted: November 2, 1994

Submitted: October 31, 1994
Analyzed: November 5, 1994

Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-1

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: 1:5

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	0.25	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	0.25	-----
2-CHLOROPHENOL	N.D.	0.25	72%
1,3-DICHLOROBENZENE	N.D.	0.25	-----
1,4-DICHLOROBENZENE	N.D.	0.25	69%
BENZYL ALCOHOL	N.D.	0.50	-----
1,2-DICHLOROBENZENE	N.D.	0.25	-----
2-METHYLPHENOL	N.D.	0.25	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	0.25	-----
4-METHYLPHENOL	N.D.	0.25	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.25	-----
HEXACHLOROETHANE	N.D.	0.25	-----
NITROBENZENE	N.D.	0.25	-----
ISOPHORONE	N.D.	0.25	-----
2-NITROPHENOL	N.D.	0.25	-----
2,4-DIMETHYLPHENOL	N.D.	0.25	-----
BENZOIC ACID	N.D.	1.2	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	0.25	-----
2,4-DICHLOROPHENOL	N.D.	0.25	-----
1,2,4-TRICHLOROBENZENE	N.D.	0.25	73%
NAPHTHALENE	N.D.	0.25	-----
4-CHLOROANILINE	N.D.	0.50	-----
HEXACHLOROBUTADIENE	N.D.	0.25	-----
4-CHLORO-3-METHYLPHENOL	N.D.	0.50	-----
2-METHYLNAPHTHALENE	N.D.	0.25	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	0.25	-----
2,4,6-TRICHLOROPHENOL	N.D.	0.25	-----
2,4,5-TRICHLOROPHENOL	N.D.	0.25	-----
2-CHLORONAPHTHALENE	N.D.	0.25	-----
2-NITROANILINE	N.D.	1.2	-----
DIMETHYL PHTHALATE	N.D.	0.25	-----
ACENAPHTHYLENE	N.D.	0.25	-----
3-NITROANILINE	N.D.	1.2	-----
ACENAPHTHENE	N.D.	0.25	76%
2,4-DINITROPHENOL	N.D.	1.2	-----
4-NITROPHENOL	N.D.	1.2	-----
DIBENZOFURAN	N.D.	0.25	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2

Submission #: 9410378

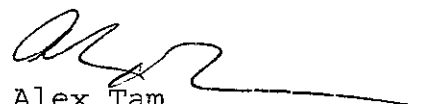
Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-1
Method: EPA 3550/8270


Matrix: SOIL

COMPOUND NAME	Sample mg/kg	Reporting	Blank Spike Recovery
		Limit mg/kg	
2,4-DINITROTOLUENE	N.D.	0.25	-----
2,6-DINITROTOLUENE	N.D.	0.25	-----
DIETHYL PHTHALATE	N.D.	0.25	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	0.25	-----
FLUORENE	N.D.	0.25	-----
4-NITROANILINE	N.D.	1.2	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	1.2	-----
N-NITROSODIPHENYLAMINE	N.D.	0.25	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	0.25	-----
HEXACHLOROBENZENE	N.D.	0.25	-----
PENTACHLOROPHENOL	N.D.	1.2	-----
PHENANTHRENE	N.D.	0.25	-----
ANTHRACENE	N.D.	0.25	-----
DI-N-BUTYL PHTHALATE	1.1 ^a	0.25	-----
FLUORANTHENE	N.D.	0.25	-----
PYRENE	N.D.	0.25	82%
BUTYLBENZYLPHTHALATE	N.D.	0.25	-----
3,3'-DICHLOROBENZIDINE	N.D.	0.50	-----
BENZO (A) ANTHRACENE	N.D.	0.25	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	0.25	-----
CHRYSENE	N.D.	0.25	-----
DI-N-OCTYLPHTHALATE	N.D.	0.25	-----
BENZO (B) FLUORANTHENE	N.D.	0.25	-----
BENZO (K) FLUORANTHENE	N.D.	0.25	-----
BENZO (A) PYRENE	N.D.	0.25	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	0.25	-----
DIBENZO (A,H) ANTHRACENE	N.D.	0.25	-----
BENZO (G,H,I) PERYLENE	N.D.	0.25	-----

a - This analyte was present in the method blank at 1.5 mg/Kg.

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 14, 1994

ChromaLab File No.: 9410378

ENV. SOLUTIONS - PETALUMA

Attn: Cyd Miller

RE: Four soil samples for Gasoline analysis

Project Name: CALTRANS/CHANG'S

Project Number: 94-911

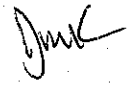
Date Sampled: October 31, 1994 Date Submitted: October 31, 1994

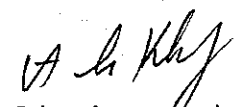
Date Analyzed: November 9, 1994

RESULTS:

Sample #	Client Sample I.D.	Gasoline (mg/kg)
68480	B1-1	N.D.
68481	B1-4	N.D.
68483	B2-1	N.D.
68485	B3-4	N.D.
BLANK		N.D.
SPIKE RECOVERY		90%
DETECTION LIMIT		1.0
METHOD OF ANALYSIS		5030/8015

ChromaLab, Inc.


Jack Kelly
Analytical Chemist


Ali Kharrazi
Organic Manager

cc

CHROMALAB, INC.

Environmental Services (SDB)

November 16, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA
Atten: Cyd Miller

Sampled: October 31, 1994
Extracted: November 2, 1994

Submitted: October 31, 1994
Analyzed: November 10, 1994

Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-SURFACE

Method: EPA 3550/8270
Matrix: SOIL
Dilution Factor: 1:100

COMPOUND NAME	Reporting		Blank Spike Recovery
	Sample mg/kg	Limit mg/kg	
PHENOL	N.D.	5	-----
BIS(2-CHLOROETHYL) ETHER	N.D.	5	-----
2-CHLOROPHENOL	N.D.	5	72%
1,3-DICHLOROBENZENE	N.D.	5	-----
1,4-DICHLOROBENZENE	N.D.	5	69%
BENZYL ALCOHOL	N.D.	10	-----
1,2-DICHLOROBENZENE	N.D.	5	-----
2-METHYLPHENOL	N.D.	5	-----
BIS(2-CHLOROISOPROPYL) ETHER	N.D.	5	-----
4-METHYLPHENOL	N.D.	5	-----
N-NITROSO-DI-N-PROPYLAMINE	N.D.	5	-----
HEXACHLOROETHANE	N.D.	5	-----
NITROBENZENE	N.D.	5	-----
ISOPHORONE	N.D.	5	-----
2-NITROPHENOL	N.D.	5	-----
2,4-DIMETHYLPHENOL	N.D.	5	-----
BENZOIC ACID	N.D.	25	-----
BIS(2-CHLOROETHOXY) METHANE	N.D.	5	-----
2,4-DICHLOROPHENOL	N.D.	5	-----
1,2,4-TRICHLOROBENZENE	N.D.	5	73%
NAPHTHALENE	N.D.	5	-----
4-CHLOROANILINE	N.D.	10	-----
HEXACHLOROBUTADIENE	N.D.	5	-----
4-CHLORO-3-METHYLPHENOL	N.D.	10	-----
2-METHYLNAPHTHALENE	N.D.	5	-----
HEXACHLOROCYCLOPENTADIENE	N.D.	5	-----
2,4,6-TRICHLOROPHENOL	N.D.	5	-----
2,4,5-TRICHLOROPHENOL	N.D.	5	-----
2-CHLORONAPHTHALENE	N.D.	5	-----
2-NITROANILINE	N.D.	25	-----
DIMETHYL PHTHALATE	N.D.	5	-----
ACENAPHTHYLENE	N.D.	5	-----
3-NITROANILINE	N.D.	25	-----
ACENAPHTHENE	N.D.	5	76%
2,4-DINITROPHENOL	N.D.	25	-----
4-NITROPHENOL	N.D.	25	-----
DIBENZOFURAN	N.D.	5	-----

(continued on next page)

CHROMALAB, INC.

Environmental Services (SDB)

Page 2


Submission #: 9410378

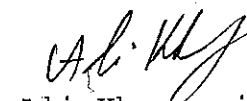
Project: CALTRANS/CHANG'S
Project #: 94-911
Client Sample ID: B1-SURFACE
Method: EPA 3550/8270

Matrix: SOIL

COMPOUND NAME	Sample mg/kg	Reporting	Blank Spike Recovery
		Limit mg/kg	
2,4-DINITROTOLUENE	N.D.	5	-----
2,6-DINITROTOLUENE	N.D.	5	-----
DIETHYL PHTHALATE	N.D.	5	-----
4-CHLORO-PHENYL PHENYL ETHER	N.D.	5	-----
FLUORENE	N.D.	5	-----
4-NITROANILINE	N.D.	25	-----
4,6-DINITRO-2-METHYL PHENOL	N.D.	25	-----
N-NITROSODIPHENYLAMINE	N.D.	5	-----
4-BROMOPHENYL PHENYL ETHER	N.D.	5	-----
HEXACHLOROBENZENE	N.D.	5	-----
PENTACHLOROPHENOL	N.D.	25	-----
PHENANTHRENE	N.D.	5	-----
ANTHRACENE	N.D.	5	-----
DI-N-BUTYL PHTHALATE	N.D.	5	-----
FLUORANTHENE	N.D.	5	-----
PYRENE	N.D.	5	82%
BUTYLBENZYLPHTHALATE	N.D.	5	-----
3,3'-DICHLOROBENZIDINE	N.D.	10	-----
BENZO (A) ANTHRACENE	N.D.	5	-----
BIS (2-ETHYLHEXYL) PHTHALATE	N.D.	5	-----
CHRYSENE	N.D.	5	-----
DI-N-OCTYLPHTHALATE	N.D.	5	-----
BENZO (B) FLUORANTHENE	N.D.	5	-----
BENZO (K) FLUORANTHENE	N.D.	5	-----
BENZO (A) PYRENE	N.D.	5	-----
INDENO (1,2,3 C,D) PYRENE	N.D.	5	-----
DIBENZO (A,H) ANTHRACENE	N.D.	5	-----
BENZO (G,H,I) PERYLENE	N.D.	5	-----

ChromaLab, Inc.


Alex Tam
Analytical Chemist


Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 11, 1994

Submission #: 9410378

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG'S

Project#: 94-911

Received: October 31, 1994

re: One sample for Volatile Organic Compounds analysis.

Sample ID: B1-4

Spl#: 68481

Matrix: SOIL

Sampled: October 31, 1994

Run#: 4545

Analyzed: November 3, 1994

Method: EPA 8240/8260

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE RESULT (%)
ACETONE	N.D.	25	N.D.	--
BENZENE	N.D.	5.0	N.D.	103
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--
BROMOFORM	N.D.	5.0	N.D.	--
BROMOMETHANE	N.D.	5.0	N.D.	--
2-BUTANONE	N.D.	5.0	N.D.	--
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--
CHLOROBENZENE	N.D.	5.0	N.D.	100
CHLOROETHANE	N.D.	5.0	N.D.	--
2-CHLOROETHYLVINYLEETHER	N.D.	5.0	N.D.	--
CHLOROFORM	N.D.	5.0	N.D.	--
CHLOROMETHANE	N.D.	5.0	N.D.	--
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	97
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (CIS)	N.D.	5.0	N.D.	--
1,3-DICHLOROPROPENE (TRANS)	N.D.	5.0	N.D.	--
ETHYL BENZENE	N.D.	5.0	N.D.	--
2-HEXANONE	N.D.	5.0	N.D.	--
METHYLENE CHLORIDE	N.D.	25	N.D.	--
4-METHYL-2-PENTANONE	N.D.	5.0	N.D.	--
STYRENE	N.D.	5.0	N.D.	--
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--
TETRACHLOROETHENE	38	5.0	N.D.	--
TOLUENE	N.D.	5.0	N.D.	97
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--
TRICHLOROETHENE	N.D.	5.0	N.D.	97
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--
VINYL ACETATE	N.D.	5.0	N.D.	--
VINYL CHLORIDE	N.D.	5.0	N.D.	--
TOTAL XYLENES	N.D.	5.0	N.D.	--

Oleg Nemtsov

Oleg Nemtsov
Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994


Project#: 94-911

re: 6 samples for 7196 HEXAVALENT CHROMIUM - CR+6 SOIL analysis.

Matrix: SOIL Extracted: November 4, 1994
Run#: 4458 Analyzed: November 4, 1994
Sampled: November 1, 1994
Method: EPA 7196

Spl #	CLIENT SMPL ID	HEXAVALENT CHROMIUM (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
68600	B1-7	N.D.	0.5	N.D.	100
68601	B1-10	N.D.	0.5	N.D.	100
68605	B4-SURFACE	N.D.	0.5	N.D.	100
68606	B4-1	N.D.	0.5	N.D.	100
68607	B4-5	N.D.	0.5	N.D.	100
68611	B5-6	N.D.	0.5	N.D.	100


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B2-4

Spl#: 68602

Matrix: SOIL

Extracted: November 4, 1994


Sampled: November 1, 1994


Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK SPIKE</u> <u>RESULT</u> <u>(%)</u>
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	9.3	0.5	N.D.	93
COPPER	8.7	0.25	N.D.	100
LEAD	62	0.5	N.D.	101
NICKEL	7.4	0.5	N.D.	103
ZINC	32	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

November 8, 1994

Submission #: 9411013

ENV. SOLUTIONS - PETALUMA

Atten: Cyd Miller

Project: CALTRANS/CHANG's
Received: November 1, 1994

Project#: 94-911

re: One sample for Metals analysis.

Sample ID: B2-7

Spl#: 68603

Matrix: SOIL

Extracted: November 4, 1994


Sampled: November 1, 1994

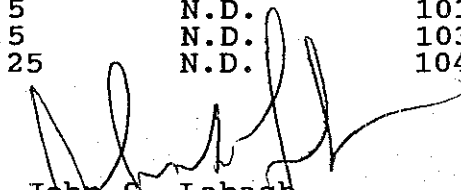
Run#: 4465

Analyzed: November 4, 1994

Method: EPA 3050/6010

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
ARSENIC	N.D.	0.25	N.D.	100
CHROMIUM	16	0.5	N.D.	93
COPPER	6.1	0.25	N.D.	100
LEAD	15	0.5	N.D.	101
NICKEL	13	0.5	N.D.	103
ZINC	26	0.25	N.D.	104


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

December 8, 1994

Submission #: 9412023

ENV. SOLUTIONS - PETALUMA

Atten: CYD MILLER

Project: CHANG/MARBLE TECH
Received: October 13, 1994

Project#: 94-911

re: 7 samples for STLC/7420 LEAD - PB AA analysis.

Matrix: SOIL Extracted: December 8, 1994
Run#: 4779 Analyzed: December 8, 1994
Sampled: October 31, 1994
Method: CA WET/EPA 3010/7420

Spl #	CLIENT SMPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE RESULT (%)
71230	B1-S	18	0.1	N.D.	102
71231	B2-1	9.6	0.1	N.D.	102
71232	B3-S	3.9	0.1	N.D.	102


Matrix: SOIL Extracted: December 8, 1994
Run#: 4779 Analyzed: December 8, 1994
Sampled: November 1, 1994
Method: CA WET/EPA 3010/7420

Spl #	CLIENT SMPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE RESULT (%)
71234	B2-4	1.7	0.1	N.D.	102
71235	B4-5	8.3	0.1	N.D.	102
71236	B5-1	9.0	0.1	N.D.	102

Matrix: SOIL Extracted: December 8, 1994
Run#: 4779 Analyzed: December 8, 1994
Sampled: November 8, 1994
Method: CA WET/EPA 3010/7420

Spl #	CLIENT SMPL ID	LEAD (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE RESULT (%)
71238	B6-1	0.8	0.1	N.D.	102


Doina Danet
Chemist


John S. Labash
Inorganic Supervisor

CHAIN OF CUSTODY RECORD

Ship To: CHROMALAB INC.
 Attn: RUDO
 Page 1 of 2
 Project Name CALTRANS CHANGES
 Project No. 94-911
 Site Location 7th & LINCOLN STS (OAKLAND)
 Date _____

*** NOTE CHROMET6 SAMPLES**

Analysis

TRPH	418.1	TRPH-GASOLINE	8015 M	CAM 17	8015 M	VOCs	8240	SVOCs	8270	PH	7196*
------	-------	---------------	--------	--------	--------	------	------	-------	------	----	-------

Sample ID	Depth	Date	Time	Sample Type			Comp	Grab	Sample Containers				REMARKS									
				Water	Solid	Other			Vol.	No.	Type	Pres.										
B1-7	7'	11 NOV 1994	0915		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B1-10	10'		0935		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B2-4	4'		1025		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	TWO WEEK
B2-7	7'		1100		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	TURN AROUND
B2-10	10'		1115		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B4-SURFACE	0'		1250		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B4-1	1'		1320		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B4-5	5'		1345		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B5-SURFACE	0'		1425		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B5-1	1'		1450		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
B5-4	4'		1515		X				1	SS	NO	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Total Number of Samples Shipped: _____ Sampler's Signature: [Signature]

Signature	Company	Date	Time
<u>[Signature]</u>	ENVIRONMENTAL SOLUTIONS	15 NOV 1994	1616
<u>[Signature]</u>	Chromalab	1 NOV 1994	1116
Relinquished by			
Received by			
Relinquished by			
Received by			
Relinquished by			
Received by			

Special Instructions / Shipment / Handling / Storage Requirements:

ENVIRONMENTAL SOLUTIONS
 1201 N. McDOWELL BLVD.
 PETALUMA, CA. 94954

Please send signed copy with results to the ATTENTION OF: CYD MILLER
 at the address to the right indicated by an

ENVIRONMENTAL SOLUTIONS, INC.
 21 Technology Drive
 Irvine, CA 92718
 (714) 727-9336 FAX (714) 727-7399

ENVIRONMENTAL SOLUTIONS, INC.
 2815 Mitchell Drive, Suite 103
 Walnut Creek, CA 94598
 (510) 935-3294 FAX (510) 935-5412

ENVIRONMENTAL SOLUTIONS

CHAIN OF CUSTODY RECORD

Ship To: CHROMALAB INC.
 Attn: RUDO
 Page 1 of 1
 Project Name CALTRANS CHANG'S
 Project No. 94-911
 Site Location 7TH & LINDEN STS/CARLAND
 Date 31 OCT 1994

*** NOTE: CHROME Lp SAMPLES**

Analysis
 TPH 418.1
 TPH-GASOLINE BVA-A
 TPH-DIESEL BVA-A
 CAM 17
 BVA-A
 BVA-M
 VOC's
 SVOC's
 Cr+L
 7194

Sample ID	Depth	Date	Time	Sample Type			Comp	Grab	Sample Containers				REMARKS
				Water	Solid	Other			Vol.	No.	Type	Pres.	
B1-SURFACE	0'	31 Oct 1994	0950	X					1	SS	NO	✓	TWO WEEK TURN AROUND
B1-1	1'		1025	X					1	SS	NO	✓	
B1-4	4'		1200	X					1	SS	NO	✓	
B2-SURFACE	0'		1005	X					1	SS	NO	✓	
B2-1	1'		1010	X					1	SS	NO	✓	
B3-SURFACE	0'		1111	X					1	SS	NO	✓	
B3-1	1'		1140	X					1	SS	NO	✓	

Total Number of Samples Shipped: 7 Sampler's Signature: [Signature]

Signature	Company	Date	Time
<u>[Signature]</u>	<u>ENVIRONMENTAL SOLUTIONS</u>	<u>31 Oct 1994</u>	<u>1555</u>
<u>[Signature]</u>	<u>Chromalab</u>	<u>31 Oct 1994</u>	<u>1959</u>

Special Instructions / Shipment / Handling / Storage Requirements:
 ENVIRONMENTAL SOLUTIONS INC.
 1201 N. McDOWELL BLVD.
 PETALUMA, CA. 94954
 Please send signed copy with results to the ATTENTION OF: CYD MILLER
 at the address to the right indicated by an

ENVIRONMENTAL SOLUTIONS, INC.
 21 Technology Drive
 Irvine, CA 92718
 (714) 727-9336 FAX (714) 727-7399
 ENVIRONMENTAL SOLUTIONS, INC.
 2815 Mitchell Drive, Suite 103
 Walnut Creek, CA 94598
 (510) 935-3294 FAX (510) 935-5412

ENVIRONMENTAL SOLUTIONS

CHAIN OF CUSTODY RECORD

Ship To: <u>CHROMA LAB</u>	Page <u>1</u> of <u>1</u>	Analysis TPH 418.1 TPH-GASOLINE 8015-M TPH-DIESEL 8015-M CAM 17 CAM 6 (B&N) 6010 VOCs SVOCs 6270 CR VII 8270 7196
Attn:	Project Name <u>CALTRANS CHANG'S</u>	
	Project No. <u>94-911</u>	
	Site Location <u>FILBERT ST/OAKLAND</u> Date <u>8 Nov 1994</u>	

Sample ID	Depth	Date	Time	Sample Type			Comp	Grab	Sample Containers				REMARKS
				Water	Solid	Other			Vol.	No.	Type	Pres.	
B6-SURFACE	0'	8 NOV 1994	1200		X				1	SS	No		
B6-1	1'		0950		X				1	SS	No		
B6-4	4'		1010		X				1	SS	No		
B6-7	7'		1025		X				1	SS	No		
B6-10	10'		1030		X				1	SS	No		
B3-4	4'		1125		X				1	SS	No		
B3-7	7'		1130		X				1	SS	No		
B3-10	10'		1140		X				1	SS	No		

Total Number of Samples Shipped: _____ Sampler's Signature: [Signature]

Signature	Company	Date	Time
<u>[Signature]</u>	ENVIRONMENTAL SOLUTIONS INC.	8 Nov 1994	12:15
<u>[Signature]</u>	<u>Chromalab</u>	11/8/94	12:15
Relinquished by			
Received by			
Relinquished by			
Received by			
Relinquished by			
Received by			

Special Instructions / Shipment / Handling / Storage Requirements:

ENVIRONMENTAL SOLUTIONS
 1201 N. Mc. DONNELL BLVD.
 PETALUMA, CA. 94954

Please send signed copy with results to the ATTENTION OF: CYD MILLER
 at the address to the right indicated by an

ENVIRONMENTAL SOLUTIONS, INC.
 21 Technology Drive
 Irvine, CA 92718
 (714) 727-9336 FAX (714) 727-7399

ENVIRONMENTAL SOLUTIONS, INC.
 2815 Mitchell Drive, Suite 103
 Walnut Creek, CA 94598
 (510) 935-3294 FAX (510) 935-5412

ENVIRONMENTAL SOLUTIONS

DISTRIBUTION
REPORT OF FINDINGS
SECOND SITE GROUP: CHANG'S AUTOMOTIVE AND
MARBLE TECHNICS WEST, CYPRESS RECONSTRUCTION,
OAKLAND, CALIFORNIA

Caltrans Contract Number: 53U495
Task Order Number: 04-192211-05

Environmental Solutions Inc.'s Project Number: 94-911

February 21, 1995

Copies

5 California Department of Transportation
Environmental Engineering Branch
111 Grand Avenue, 14th Floor
Oakland, California 94623-0660

Attention: Mr. Joel Howie

1 Department of Toxic Substances Control
700 Heinz Avenue, Suite 200
Berkeley, California 94710-2737

Attention: Ms. Lynn Nakashima

3 Environmental Solutions, Inc.
1201 North McDowell Boulevard
Petaluma, California 94954

94911rof.chg
February 21, 1995

Caltrans Contract Number: 53U495
Task Order Number: 04-192211-05