

**SCI**

Subsurface Consultants, Inc.

August 21, 2001 (revised)  
SCI 272.056

Mr. Odili Ojukwu  
City of Oakland Public Works Agency  
Environmental Services Department  
250 Frank H. Ogawa Plaza, Suite 5301  
Oakland, California 94612

**Soil and Groundwater Sampling  
City Center Parcel T-5/6  
Oakland, California**

(all T-6 data)  
no T-5

Dear Mr. Ojukwu:

Subsurface Consultants, Inc. (SCI) has prepared this letter to document soil and groundwater sampling performed to characterize shallow soil and groundwater conditions prior to the proposed development at the City Center Parcel T-6 portion of the above-referenced property (Site). The activities and scope of work were completed in accordance with SCI's proposal to the City of Oakland (City) dated October 31, 2000.

**BACKGROUND**

The Site currently comprises two landscaped areas bordered by 11<sup>th</sup>, 12<sup>th</sup>, and Clay Streets, as well as paved driveways providing access to the City Center garage structure (Plates 1 and 2). SCI understands that Parcel T-6, along with Parcel T-5, located adjacent to and east of the Site, will be developed as a multi-story office building with underground parking.

Previous reports indicated that shallow fill at parcel T6 contained elevated lead concentrations. Elevated oil and grease concentrations were also detected in soil samples collected from the northern landscaped area, as were slightly elevated mercury concentrations in a composite soil sample from the southern landscaped area. Results of analyses detected elevated xylene concentrations in groundwater samples collected from monitoring well W-3, located at the northwest corner of the southern landscaped area.

## FIELD ACTIVITIES

Fieldwork was performed using standard industry practices regarding worker safety, equipment decontamination, and sample handling. On [REDACTED] according to [REDACTED] and auger Boring (H-3) and Probe and boring locations are shown on Plate 2. Soil samples were retained in clear butyrate liners, capped with Teflon sheeting and plastic or rubber end caps, and placed in an ice-chilled cooler. SCI's field engineer screened soil samples in the field using an organic vapor meter (OVM), and logged samples in accordance with the Unified Soil Classification System (USCS). Logs of the probes and the hand-auger boring, including OVM readings, are attached.

Prior to collecting groundwater samples from well W-3, SCI purged at least three well casing volumes from the well using a clean, disposable bailer. A copy of the well sampling form is attached. Purged water was stored in a drum located onsite pending disposal. Groundwater samples were decanted into pre-cleaned sample bottles provided by the chemical testing laboratory, and stored in an ice-chilled cooler.

The ground surface was covered with grass. In general, roots extended to about 3 inches bgs, and fill was encountered to depths ranging from 3 to 4.5 feet bgs. Fill comprised dark brown, medium dense, moist silty sand. Brick fragments were observed in the fill. The fill was generally underlain with yellow brown, medium dense, poorly graded sand to the maximum depth explored.

## ANALYTICAL TESTING PROGRAM

Soil samples were submitted under chain-of-custody protocol to Chromalab Inc., a State-certified chemical testing laboratory. SCI instructed the laboratory to create two 3-part composite samples from the samples collected from H-3 and GP-4 (one composite for each probe), and a 4-part composite sample from the samples collected from GP-1 and GP-2. Soil and groundwater samples were analyzed for the following:

- Total extractable hydrocarbons as diesel and motor oil (TEHd and TEHo) using silica gel cleanup, USEPA Method 8015m (3 composite soil samples),
- Total lead and mercury, <sup>Source?</sup> USEPA Method 6010/7000 series (3 composite soil samples),
- Soluble lead and mercury, USEPA Methods 1311/CalWET<sup>1</sup> and 6010/7000 series (3 composite soil samples),

---

<sup>1</sup> California Waste Extraction Test

- Total volatile hydrocarbons as gasoline (TVHg), USEPA Method 8015m (1 groundwater sample), and
- Volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, total xylene (BTEX) and methyl tertiary butyl ether (MTBE), USEPA Method 8260 (1 groundwater sample).

## ANALYTICAL RESULTS

The results of chemical testing on the composite soil and groundwater samples are summarized in Tables 1 and 2, respectively. Analytical reports and chain of custody documents are attached.

Analyses detected 2.0 and 4.7 milligrams per kilogram (mg/kg) of TEHo in soil samples A and C, respectively. Analyses detected no TEHo concentrations in the three soil samples tested. Analyses also detected total lead ranging from 41 to 84 mg/kg, and total mercury ranging from 0.14 to 0.25 mg/kg, in the three soil samples; these concentrations are well below the Total Threshold Limit Concentration (TTLC) hazardous waste criteria for lead and mercury of 1,000 and 20 mg/kg, respectively. Using CalWET methods, analyses also detected soluble lead concentrations in the three soil samples ranging from 17 to 44 mg/L ( $\mu\text{g/L}$ ) below the Soluble Threshold Limit Concentration (STLC) California hazardous waste criterion for lead of 5 mg/L. Analyses detected no soluble mercury concentrations in the three soil samples tested.

In groundwater sample W-3, analyses detected 200 micrograms per liter ( $\mu\text{g/L}$ ) of TVHg, 20  $\mu\text{g/L}$  of m-xylylene, 3.7  $\mu\text{g/L}$  of naphthalene, 51  $\mu\text{g/L}$  of total benzene, 1.43  $\mu\text{g/L}$  of isopropylbenzene. Analyses detected no VOCs. Detected TVHg and VOC concentrations are below respective City of Oakland Urban Land Redevelopment (ULR) Tier 1 drinking water screening levels and/or East Bay Municipal Utility District (EBMUD) wastewater discharge limits, for compounds with established limits.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the results presented above, SCI concludes that soil in the fill interval across the Site contains only slightly elevated lead and mercury concentrations. Analyses suggest that soil excavated from the Site will not likely exceed TTLC and STLC hazardous waste criteria, and therefore can be disposed as non-hazardous waste. SCI recommends using data collected during this and previous investigations to evaluate soil handling and disposal options. Copies of this report should be provided to the developer and their contractor to assist with planning, construction, and disposal issues.

If proposed construction activities involve dewatering at the Site, it is SCI's opinion that groundwater will likely be impacted with petroleum hydrocarbons resulting from previous gasoline station activities. We recommend that (1) the developer be made aware of the impacted

Mr. Odili Ojukwu  
City of Oakland Public Works Agency  
August 21, 2001 (revised)  
SCI 272.056  
Page 4

Subsurface Consultants, Inc.

groundwater conditions, and (2) if dewatering activities involve discharge to the storm drain or sanitary sewer, dewatering activities should be conducted in accordance with the applicable permits [e.g. EBMUD or National Pollution Discharge Elimination System (NPDES) permit].

### CLOSING STATEMENT

We trust that this provides the information required at this time. If you have any questions, please call.

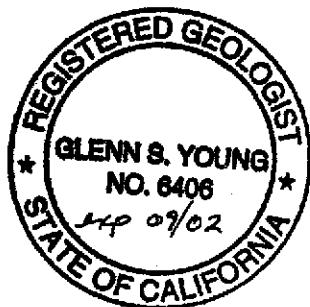
Yours very truly,

Subsurface Consultants, Inc.

  
Glenn S. Young, RG  
Associate Geologist

GSY: ae 272.056\T6 Report.doc

4 copies submitted



Attachments: Table 1 – Summary of Soil Analytical Data  
Plate 1 – Vicinity Map  
Plate 2 – Site Plan  
Logs of Probes and USCS  
Analytical Reports with Chain-of-Custody Documents

**TABLE 1**  
**SUMMARY OF SOIL ANALYTICAL DATA**  
**CITY CENTER PARCEL T6**

Analyte	Units	Sample Location and Depth Interval			<i>TTLC</i>	<i>STLC</i>
		GP-1 & GP-2 1'-4' & 1'-2'	H-3 0.5'-3.5'	GP-4 0.5'-3'		
TEHd	mg/kg	<1	2.8	4.7	--	--
TEHo	mg/kg	<50	<50	<50	--	--
Lead	mg/kg	<b>41</b>	<b>67</b>	<b>84</b>	<b>1,000</b>	<b>5</b>
Mercury	mg/kg	<b>0.15</b>	<b>0.25</b>	<b>0.14</b>	<b>20</b>	<b>0.2</b>
CalWET Lead	mg/L	<b>1.4</b>	<b>4.4</b>	<b>3.1</b>	<b>1,000</b>	<b>5</b>
CalWET Mercury	mg/L	<0.02	<0.02	<0.02	<b>20</b>	<b>0.2</b>

**Notes:**

Detected concentrations are shown in bold.

TEHd = total extractable hydrocarbons as diesel

TEHo = total extractable hydrocarbons as motor oil

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

-- = not established

&lt;2 = not detected at or above indicated analytical reporting limit

CalWET = California Waste Extraction Test

TTLC = Total Threshold Limit Concentration

STLC = Soluble Threshold Limit Concentration

**TABLE 2**  
**SUMMARY OF GROUNDWATER ANALYTICAL DATA**  
**CITY CENTER PARCEL T6**

Analyte	Units	W-3	ULR	<i>EBMUD Discharge Limit</i>
TVHg	ug/L	330	--	100,000
VOCs	ug/L	<b>ND</b>	--	500*
Ethylbenzene	ug/L	<b>29</b>	700	--
Naphthalene	ug/L	<b>3.4</b>	20	--
Total Xylenes	ug/L	<b>51</b>	1,800	--
Isopropylbenzene	ug/L	<b>4.3</b>	--	--

**Notes:**

Detected concentrations are shown in bold.

TVHg = total volatile hydrocarbons as gasoline

ug/L = micrograms per liter

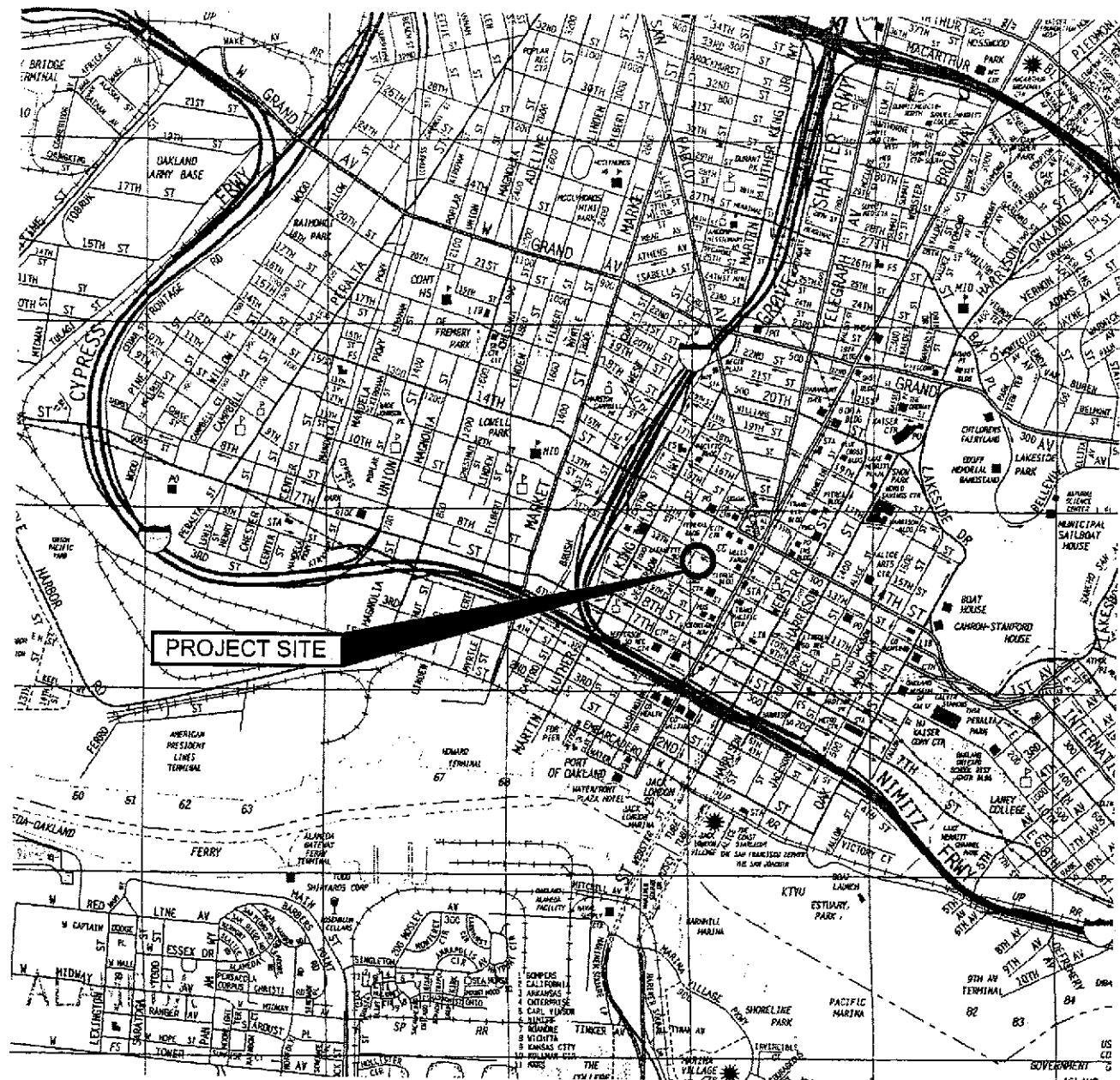
-- = not established

VOCs = volatile organic compounds analyzed by EPA Method 8260

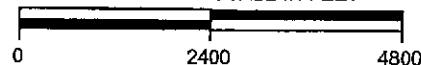
ND = not detected except for compounds listed below

\* = discharge limit for chlorinated hydrocarbons (total identifiable)

ULR = Urban Land Redevelopment Program Tier 1 drinking water screening level established by the City of Oakland



APPROXIMATE SCALE IN FEET



NOTE:

THIS VICINITY MAP IS BASED ON A THOMAS GUIDE MAP FOR SAN FRANCISCO, ALAMEDA AND CONTRA COSTA COUNTIES, CALIFORNIA, MAP 649, YEAR 2000

VICINITY MAP

CITY CENTER PARCELS T5/6  
OAKLAND, CALIFORNIA



Subsurface Consultants, Inc.  
Geotechnical & Environmental Engineers

DRAWN BY:

.CFY

DATE  
5/29/01

JOB NUMBER

272.056

PLATE

1

FILE NUMBER:  
A272.056.01



APPROXIMATE SCALE IN FEET



CLAY STREET

12TH STREET

Sidewalk

CITY CENTER PARKING GARAGE

GP-4



H-3

T6

W-3

Driveway

GP-2



GP-1

Sidewalk

Driveway

T5

Sidewalk

*Broadway*

11TH STREET

LEGEND:

- Approximate Geoprobe Hand Auger Location
- Approximate Hand-Auger Boring Location
- Approximate Monitoring Well Location
- Approximate Site Boundary



Subsurface Consultants, Inc.  
Geotechnical & Environmental Engineers

**SITE PLAN**

CITY CENTER PARCEL T6  
OAKLAND, CALIFORNIA

DRAWN BY:  
CFY

DATE  
5/25/01

JOB NUMBER  
272.056

FILE NUMBER:  
A272.056.01

**2**

# UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D2487-93)

MAJOR DIVISIONS			GROUP NAMES		
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve	GRAVELS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	Clean gravels less than 5% fines	GW		Well-graded gravel, Well-graded gravel with sand
		Gravels with more than 12% fines	GP		Poorly graded gravel, Poorly graded gravel with sand
	SANDS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	Clean sand less than 5% fines	GM		Silty gravel, Silty gravel with sand
		Sands with more than 12% fines	GC		Clayey gravel, Clayey gravel with sand
	SILTS AND CLAYS Liquid Limit Less than 50%	Clean sand less than 5% fines	SW		Well-graded sand, Well-graded sand with gravel
		Sands with more than 12% fines	SP		Poorly graded sand, Poorly graded sand with gravel
		Silts and clays	SM		Silty sand, Silty sand with gravel
		Silts and clays	SC		Clayey sand, Clayey sand with gravel
FINE-GRAINED SOILS 50% or more passes the No. 200 sieve	SILTS AND CLAYS Liquid Limit Less than 50%		ML		Silt, Silt with sand or gravel, Sandy or gravelly silt, Sandy or gravelly silt with gravel or sand
	SILTS AND CLAYS Liquid Limit Greater than 50%		CL		Lean clay, Lean clay with sand or gravel, Sandy or gravelly lean clay, Sandy or gravelly lean clay with gravel or sand
	SILTS AND CLAYS Liquid Limit Greater than 50%		OL		Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand
	HIGHLY ORGANIC SOILS		MH		Elastic silt, Elastic silt with sand or gravel, Sandy or gravelly elastic silt, Sandy or gravelly elastic silt with gravel or sand
	HIGHLY ORGANIC SOILS		CH		Fat clay, Fat clay with sand or gravel, Sandy or gravelly fat clay, Sandy or gravelly fat clay with gravel or sand
	HIGHLY ORGANIC SOILS		OH		Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand
	HIGHLY ORGANIC SOILS		PT		Peat

For definition of dual and borderline symbols, see ASTM D2487-93.

## KEY TO TEST DATA AND SYMBOLS

Perm	- Permeability	Shear Strength	Confining Pressure
Consol	- Consolidation	(psf)	(psf)
LL	- Liquid Limit	TxUU	3200 (2600)
PI	- Plasticity Index	TxCU	3200 (2600)
Gs	- Specific Gravity	TxCD	3200 (2600)
MA	- Particle Size Analysis	SSCU	3200 (2600)
-200	- Percent Passing No. 200 Sieve	SSCD	3200 (2600)
ND	- Not Detected	DSCD	2700 (2000)
<input checked="" type="checkbox"/>	- Tube Sample	UC	470
<input type="checkbox"/>	- Bag or Bulk Sample	LVS	700
<input type="checkbox"/>	- Lost Sample	FV	300
<input type="checkbox"/>	- First Groundwater	TV	800
<input type="checkbox"/>	- Stabilized Groundwater	PP	400
			Torvane Shear
			Pocket Penetrometer
			(actual reading divided by 2)



Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates:						Start: Date	Time	Finish: Date	Time	
						11/9/00	08:20	11/9/00	08:55	
Drilling Company & Driller: Precision Sampling, Juan						Drilling Fluid:	Hole Diameter:			
Rig Type & Drilling Method: Geoprobe / Direct Push						None	2"			
Sampler A) Clear Butyrate Tubes Type(s):						Logged By:				
						WKP				
Sampling A) Direct Push Method(s):						Backfill Method:	Date:			
						Neat Cement	11/9/00			
Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS			
							GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A						<b>SILT (ML)</b> Dark brown, roots to 0.25 feet <b>SILTY SAND (SM)</b> Dark brown, medium dense, moist, fine sand			
5	A						<b>POORLY GRADED SAND (SP)</b> Yellow brown, medium dense, moist, fine sand			
10							Bottom of boring at 8 feet below ground surface. <u>Notes</u> Groundwater not encountered during drilling			
 <b>Subsurface Consultants, Inc.</b> Geotechnical & Environmental Engineers							City Center Parcel T6 Oakland, California		BORING	
							JOB NUMBER	DATE	GP-1	
							272.056	8/01		

Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates:						Start: Date	Time	Finish: Date	Time	
						11/9/00	09:00	11/9/00	09:20	
Drilling Company & Driller: Precision Sampling, Juan						Drilling Fluid:		Hole Diameter:		
Rig Type & Drilling Method: Geoprobe / Direct Push						None		2"		
Sampler A) Clear Butyrate Tubes Type(s):						Logged By: WKP		WKP		
Sampling Method(s): A) Direct Push						Backfill Method: Neat Cement		Date: 11/9/00		
Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic	SOIL DESCRIPTIONS			
							GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A						<b>SILT (ML)</b> Dark brown, roots to .25 feet <b>POORLY GRADED SILTY SAND (SM)</b> Dark brown, medium dense, moist  Color change to brown at 2.0 feet			
2	A									
4	A									
5	A						<b>POORLY GRADED SAND (SP)</b> Yellow brown, medium dense, moist, fine sand			
8							Bottom of boring at 8 feet below ground surface. <u>Notes</u> Groundwater not encountered during drilling			
10										
 <b>Subsurface Consultants, Inc.</b> Geotechnical & Environmental Engineers						City Center Parcel T6 Oakland, California			BORING	
						JOB NUMBER	DATE	GP-2		
						272.056	8/01			

Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates:						Start: Date	Time	Finish: Date	Time	
						11/9/00	10:37	11/9/00	10:45	
Drilling Company & Driller: Precision Sampling, Juan						Drilling Fluid:		Hole Diameter:		
Rig Type & Drilling Method: Geoprobe / Direct Push						None		2"		
Sampler A) Clear Butyrate Tubes Type(s):						Logged By: WKP		14 ft		
Sampling A) Direct Push Method(s):						Backfill Method: Neat Cement		Date: 11/9/00		
Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS			
							GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A				0		<b>SILT (ML)</b> Dark brown, roots to .25 feet <b>SILTY SAND (SM)</b> Dark brown, medium dense, moist (fill) Color change to yellow brown at .75 feet Brick fragments at 1.0 feet			
5	A				0		<b>POORLY GRADED SAND (SP)</b> Yellow brown, medium dense, moist, fine sand			
8							Bottom of boring at 8 feet below ground surface. <u>Notes</u> Groundwater not encountered during drilling			
10										

LOG OF BORING 272-056 GPJ GEO-ENV.GDT 8/21/01



**Subsurface Consultants, Inc.**  
Geotechnical & Environmental Engineers

City Center Parcel T6  
Oakland, California

JOB NUMBER	DATE
272.056	8/01

**BORING**  
**GP-4**

Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates:						Start: Date	Time	Finish: Date	Time	
						11/9/00	00:00	11/9/00	00:00	
Drilling Company & Driller: Precision Sampling, Juan						Drilling Fluid:		Hole Diameter:		
Rig Type & Drilling Method: / Hand Auger						None		2"		
Sampler A) Hand Auger						Logged By:				
Type(s): WKP										
Sampling Method(s):						Backfill Method:		Date:		
						Neat Cement		11/9/00		
Depth (feet)	Sampler Type	Blows/6 inches or Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS			
							GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A			0			<b>SILT (ML)</b> Dark brown, roots to .25 feet <b>SILTY SAND (SM)</b> Dark brown, loose, moist, with brick fragments (fill)  Color change to brown, concrete fragments at 1.25 feet			
	A			0			<b>POORLY GRADED SAND (SP)</b> Yellow brown, medium dense, moist, fine sand			
	A			0						
	A			0						
5	A			0						
	A			0			Increasing clay at 5.5 feet			
							Bottom of boring at 6 feet below ground surface. <b>Notes</b> Groundwater not encountered during drilling			
10										
 <b>Subsurface Consultants, Inc.</b> Geotechnical & Environmental Engineers						City Center Parcel T6 Oakland, California			BORING	
						JOB NUMBER	DATE	H-3		
						272.056	8/01			

# UNIFIED SOIL CLASSIFICATION SYSTEM (ASTM D-37-93)

MAJOR DIVISIONS			GROUP NAMES		
COARSE-GRAINED SOILS More than 50% retained on the No. 200 sieve	GRAVELS  More than 50% of coarse fraction retained on No. 4 sieve	Clean gravels less than 5% fines	GW	Well-graded gravel, Well-graded gravel with sand	
			GP	Poorly graded gravel, Poorly graded gravel with sand	
		Gravels with more than 12% fines	GM	Silty gravel, Silty gravel with sand	
			GC	Clayey gravel, Clayey gravel with sand	
	SANDS  50% or more of coarse fraction passes No. 4 sieve	Clean sand less than 5% fines	SW	Well-graded sand, Well-graded sand with gravel	
			SP	Poorly graded sand, Poorly graded sand with gravel	
		Sands with more than 12% fines	SM	Silty sand, Silty sand with gravel	
			SC	Clayey sand, Clayey sand with gravel	
	SILTS AND CLAYS  Liquid Limit Less than 50%		ML	Silt, Silt with sand or gravel, Sandy or gravelly silt, Sandy or gravelly silt with gravel or sand	
	SILTS AND CLAYS  Liquid Limit Greater than 50%		CL	Lean clay, Lean clay with sand or gravel, Sandy or gravelly lean clay, Sandy or gravelly lean clay with gravel or sand	
	SILTS AND CLAYS  Liquid Limit Greater than 50%		OL	Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand	
	HIGHLY ORGANIC SOILS		MH	Elastic silt, Elastic silt with sand or gravel, Sandy or gravelly elastic silt, Sandy or gravelly elastic silt with gravel or sand	
	HIGHLY ORGANIC SOILS		CH	Fat clay, Fat clay with sand or gravel, Sandy or gravelly fat clay, Sandy or gravelly fat clay with gravel or sand	
	HIGHLY ORGANIC SOILS		OH	Organic silt or clay, Organic silt or clay with sand or gravel, Sandy or gravelly organic silt or clay, Sandy or gravelly organic silt or clay with gravel or sand	
	HIGHLY ORGANIC SOILS		Pt	Peat	

For definition of dual and borderline symbols, see ASTM D2487-93.

## KEY TO TEST DATA AND SYMBOLS

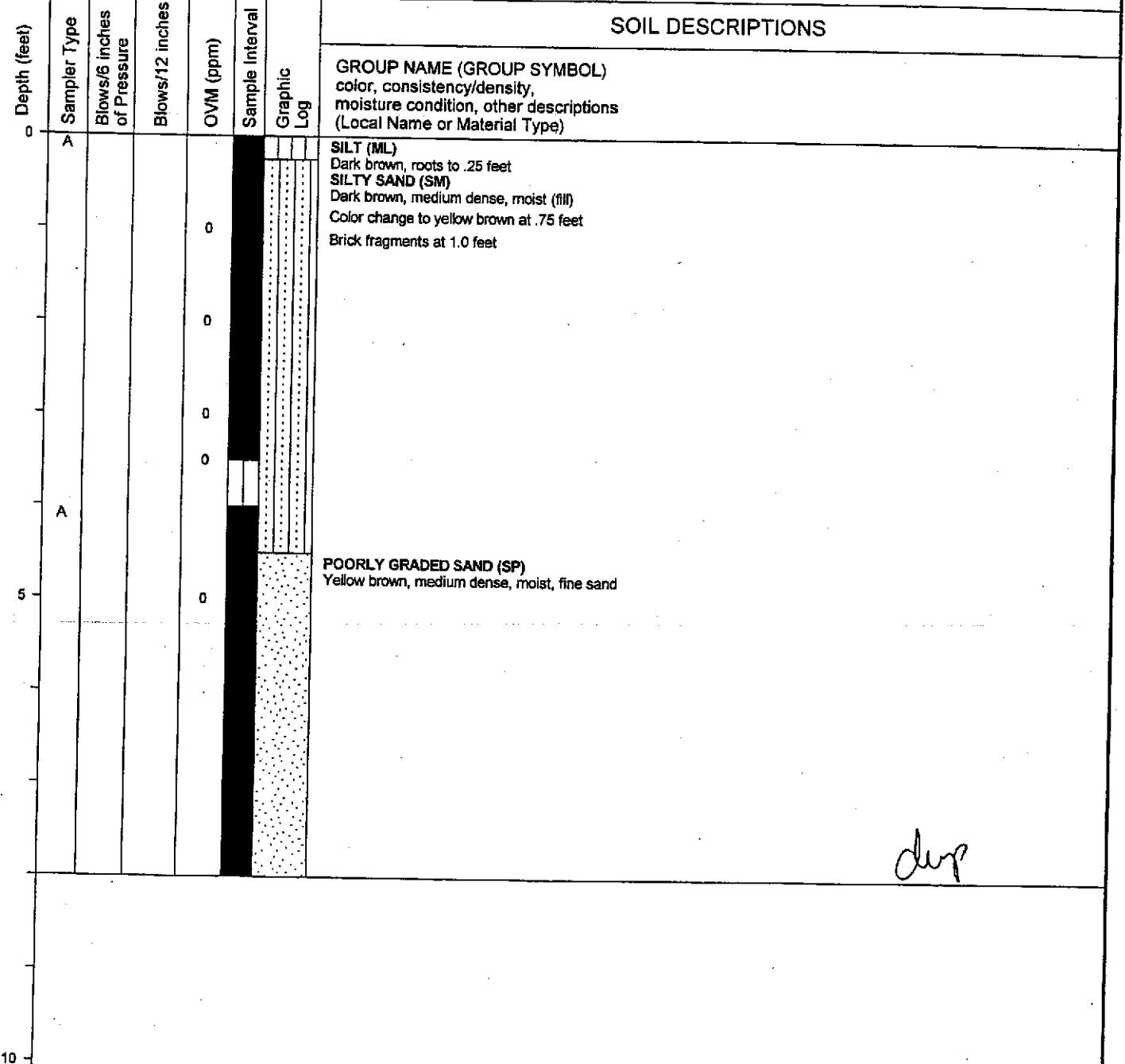
Perm	- Permeability <th>Shear Strength (psf)</th> <th>Confining Pressure (psf)</th> <th></th>	Shear Strength (psf)	Confining Pressure (psf)	
Consol	- Consolidation	TxUU	3200 (2600)	Unconsolidated-Undrained Triaxial Shear
LL	- Liquid Limit	TxCU	3200 (2600)	Consolidated-Undrained Triaxial Shear
PI	- Plasticity Index	TxCD	3200 (2600)	Consolidated-Drained Triaxial Shear
Gs	- Specific Gravity	SSCU	3200 (2600)	Consolidated-Undrained Simple Shear
MA	- Particle Size Analysis	SSCD	3200 (2600)	Consolidated-Drained Simple Shear
-200	- Percent Passing No. 200 Sieve	DSCD	2700 (2000)	Consolidated-Drained Direct Shear
ND	- Not Detected	UC	470	Unconfined Compression
■	- Tube Sample	LVS	700	Laboratory Vane Shear
☒	- Bag or Bulk Sample	FV	300	Field Vane Shear
▼	- Lost Sample	RFV		
☒	- First Groundwater	TV	800	Torvane Shear
☒	- Stabilized Groundwater	PP	400	Pocket Penetrometer (actual reading divided by 2)



**Subsurface Consultants, Inc.**  
Geotechnical & Environmental Engineers

JOB NUMBER	DATE	APPROVED
272.056	12/00	

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:
		Elevation Datum:
Drilling Coordinates: not surveyed	Start: Date 11/9/00	Time 10:37
Drilling Company & Driller: Precision Sampling, Juan	Finish: Date 11/9/00	Time 10:45
Rig Type & Drilling Method: Geoprobe / Direct Push	Drilling Fluid: None	Hole Diameter: 2"
Sampler A) Clear Butyrate Tubes Type(s):	Logged By: WKP	HR
Sampling A) Direct Push Method(s):	Backfill Method: Neat Cement	Date: 11/9/00



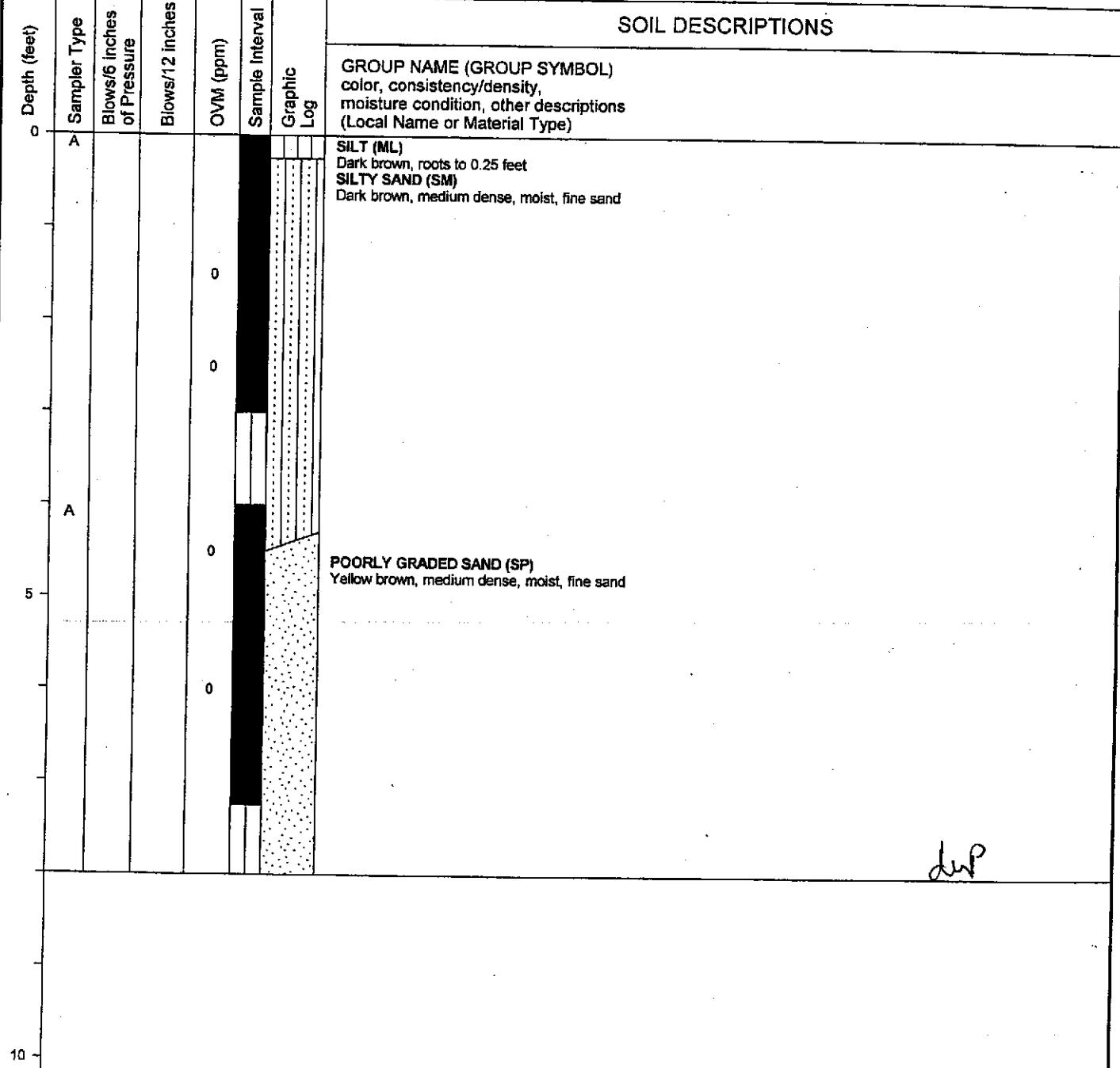
Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates: not surveyed						Start: Date	Time	Finish: Date	Time	
Drilling Company & Driller: Precision Sampling, Juan						11/9/00	00:00	11/9/00	00:00	
Rig Type & Drilling Method: / Hand Auger						Drilling Fluid:	Hole Diameter:			
Sampler A) Hand Auger Type(s):						None	2"			
Sampling Method(s):						Logged By: WKP				
						Backfill Method: Neat Cement	Date: 11/9/00			
Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 Inches	OVM (ppm)	Sample Interval	Graphic Log	SOIL DESCRIPTIONS			
							GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A			0			SILT (ML) Dark brown, roots to .25 feet SILTY SAND (SM) Dark brown, loose, moist, with brick fragments (fill)			
	A			0			Color change to brown, concrete fragments at 1.25 feet			
	A			0						
	A			0						
	A			0						
5	A			0			POORLY GRADED SAND (SP) Yellow brown, medium dense, moist, fine sand			
	A			0			Increasing clay at 5.5 feet			
10										

dwp

Project Name & Location: City Center Parcel T6 Oakland, California						Ground Surface Elevation:				
						Elevation Datum:				
Drilling Coordinates: not surveyed						Start: Date	Time	Finish: Date	Time	
Drilling Company & Driller: Precision Sampling, Juan						11/9/00	09:00	11/9/00	09:20	
Rig Type & Drilling Method: Geoprobe / Direct Push						Drilling Fluid:	Hole Diameter:			
Sampler A) Clear Butyrate Tubes Type(s):						None	2"			
Sampling A) Direct Push Method(s):						Logged By:				
						WKP				
						Backfill Method:	Date:			
						Neat Cement	11/9/00			
Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	OVM (ppm)	Sample Interval	SOIL DESCRIPTIONS				
						Graphic Log	GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)			
0	A					SILT (ML) Dark brown, roots to .25 feet POORLY GRADED SILTY SAND (SM) Dark brown, medium dense, moist				
						Color change to brown at 2.0 feet				
5	A					POORLY GRADED SAND (SP) Yellow brown, medium dense, moist, fine sand				
10										

dug

Project Name & Location: City Center Parcel T6 Oakland, California		Ground Surface Elevation:	
		Elevation Datum:	
Drilling Coordinates: not surveyed		Start: Date	Time
Drilling Company & Driller: Precision Sampling, Juan		11/9/00	08:20
Rig Type & Drilling Method: Geoprobe / Direct Push		Finish: Date	Time
Sampler Type(s): A) Clear Butyrate Tubes		Drilling Fluid:	Hole Diameter:
Sampling Method(s): A) Direct Push		None	2"
Logged By: WKP			
Backfill Method: Neat Cement		Date:	
		11/9/00	



# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

Date: November 20, 2000

**Subsurface Consultants, Inc.**

3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Attn.: Mr. Glenn Young

Project: 272.056  
City Center Parcels T5 and T6

Dear Glenn

Attached is our report for your samples received on Friday November 10, 2000. This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after December 25, 2000 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919. You can also contact me via email. My email address is: gcook@chromalab.com

Sincerely,



Gary Cook

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096  
CA DHS ELAP#1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

## Volatile Organic Compounds by 8260A

**Subsurface Consultants, Inc.**

Attn: Glenn Young

Project #: 272.056

✉ 3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Phone: (925) 299-7960 Fax: (925) 299-7970

Project: City Center Parcels T5 and T6

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
W-3	Water	11/10/2000 13:00	4

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Attn.: Glenn Young

Test Method: 8260A

Prep Method: 5030

Volatile Organic Compounds by 8260A

Sample ID:	W-3	Lab Sample ID:	2000-11-0237-004
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 13:00	Extracted:	11/16/2000 19:50
Matrix:	Water	QC-Batch:	2000/11/16-01.39

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Acetone	ND	50	ug/L	1.00	11/16/2000 19:50	
Benzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Bromodichloromethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Bromoform	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Bromomethane	ND	1.0	ug/L	1.00	11/16/2000 19:50	
Carbon tetrachloride	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Chlorobenzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Chloroethane	ND	1.0	ug/L	1.00	11/16/2000 19:50	
2-Butanone(MEK)	ND	50	ug/L	1.00	11/16/2000 19:50	
2-Chloroethylvinyl ether	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Chloroform	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Chloromethane	ND	1.0	ug/L	1.00	11/16/2000 19:50	
Dibromochloromethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,2-Dichlorobenzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,3-Dichlorobenzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,4-Dichlorobenzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	1.00	11/16/2000 19:50	
1,2-Dibromoethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Dibromomethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Dichlorodifluoromethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1-Dichloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,2-Dichloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1-Dichloroethene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
cis-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
trans-1,2-Dichloroethene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,2-Dichloropropane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
cis-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
trans-1,3-Dichloropropene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Ethylbenzene	29	0.50	ug/L	1.00	11/16/2000 19:50	
2-Hexanone	ND	50	ug/L	1.00	11/16/2000 19:50	
Methylene chloride	ND	5.0	ug/L	1.00	11/16/2000 19:50	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	1.00	11/16/2000 19:50	
Naphthalene	3.4	1.0	ug/L	1.00	11/16/2000 19:50	
Styrene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Tetrachloroethene	ND	0.50	ug/L	1.00	11/16/2000 19:50	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn.: Glenn Young

Test Method: 8260A  
Prep Method: 5030

## Volatile Organic Compounds by 8260A

Sample ID:	W-3	Lab Sample ID:	2000-11-0237-004
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 13:00	Extracted:	11/16/2000 19:50
Matrix:	Water	QC-Batch:	2000/11/16-01.39

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Toluene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1,1-Trichloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1,2-Trichloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Trichloroethylene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Vinyl acetate	ND	5.0	ug/L	1.00	11/16/2000 19:50	
Vinyl chloride	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Total xylenes	51	1.0	ug/L	1.00	11/16/2000 19:50	
Trichlorotrifluoroethane	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Carbon disulfide	ND	1.0	ug/L	1.00	11/16/2000 19:50	
Isopropylbenzene	4.3	0.50	ug/L	1.00	11/16/2000 19:50	
Bromobenzene	ND	0.50	ug/L	1.00	11/16/2000 19:50	
Bromoform	ND	1.0	ug/L	1.00	11/16/2000 19:50	
Trichlorofluoromethane	ND	2.0	ug/L	1.00	11/16/2000 19:50	
MTBE	ND	5.0	ug/L	1.00	11/16/2000 19:50	
<b>Surrogate(s)</b>						
4-Bromofluorobenzene	84.0	86-115	%	1.00	11/16/2000 19:50	sl
1,2-Dichloroethane-d4	95.2	76-114	%	1.00	11/16/2000 19:50	
Toluene-d8	102.6	88-110	%	1.00	11/16/2000 19:50	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn.: Glenn Young

Test Method: 8260A  
Prep Method: 5030

## Batch QC Report

Volatile Organic Compounds by 8260A

Method Blank	Water	QC Batch # 2000/11/16-01.39
MB: 2000/11/16-01.39-005		Date Extracted: 11/16/2000 14:26

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Acetone	ND	50	ug/L	11/16/2000 14:26	
Benzene	ND	0.5	ug/L	11/16/2000 14:26	
Bromodichloromethane	ND	0.5	ug/L	11/16/2000 14:26	
Bromoform	ND	0.5	ug/L	11/16/2000 14:26	
Bromomethane	ND	1.0	ug/L	11/16/2000 14:26	
Carbon tetrachloride	ND	0.5	ug/L	11/16/2000 14:26	
Chlorobenzene	ND	0.5	ug/L	11/16/2000 14:26	
Chloroethane	ND	1.0	ug/L	11/16/2000 14:26	
2-Butanone(MEK)	ND	50	ug/L	11/16/2000 14:26	
2-Chloroethylvinyl ether	ND	0.5	ug/L	11/16/2000 14:26	
Chloroform	ND	0.5	ug/L	11/16/2000 14:26	
Chloromethane	ND	1.0	ug/L	11/16/2000 14:26	
Dibromochloromethane	ND	0.5	ug/L	11/16/2000 14:26	
1,2-Dichlorobenzene	ND	0.5	ug/L	11/16/2000 14:26	
1,3-Dichlorobenzene	ND	0.5	ug/L	11/16/2000 14:26	
1,4-Dichlorobenzene	ND	0.5	ug/L	11/16/2000 14:26	
1,2-Dibromo-3-chloropropane	ND	5.0	ug/L	11/16/2000 14:26	
1,2-Dibromoethane	ND	0.5	ug/L	11/16/2000 14:26	
Dibromomethane	ND	0.5	ug/L	11/16/2000 14:26	
Dichlorodifluoromethane	ND	0.5	ug/L	11/16/2000 14:26	
1,1-Dichloroethane	ND	0.5	ug/L	11/16/2000 14:26	
1,2-Dichloroethane	ND	0.5	ug/L	11/16/2000 14:26	
1,1-Dichloroethene	ND	0.5	ug/L	11/16/2000 14:26	
cis-1,2-Dichloroethene	ND	0.5	ug/L	11/16/2000 14:26	
trans-1,2-Dichloroethene	ND	0.5	ug/L	11/16/2000 14:26	
1,2-Dichloropropane	ND	0.5	ug/L	11/16/2000 14:26	
cis-1,3-Dichloropropene	ND	0.5	ug/L	11/16/2000 14:26	
trans-1,3-Dichloropropene	ND	0.5	ug/L	11/16/2000 14:26	
Ethylbenzene	ND	0.5	ug/L	11/16/2000 14:26	
2-Hexanone	ND	50	ug/L	11/16/2000 14:26	
Methylene chloride	ND	5.0	ug/L	11/16/2000 14:26	
4-Methyl-2-pentanone (MIBK)	ND	50	ug/L	11/16/2000 14:26	
Naphthalene	ND	1.0	ug/L	11/16/2000 14:26	
Styrene	ND	0.5	ug/L	11/16/2000 14:26	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	11/16/2000 14:26	
Tetrachloroethene	ND	0.5	ug/L	11/16/2000 14:26	
Toluene	ND	0.5	ug/L	11/16/2000 14:26	
1,1,1-Trichloroethane	ND	0.5	ug/L	11/16/2000 14:26	
1,1,2-Trichloroethane	ND	0.5	ug/L	11/16/2000 14:26	
Trichloroethene	ND	0.5	ug/L	11/16/2000 14:26	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	11/16/2000 14:26	
Vinyl acetate	ND	5.0	ug/L	11/16/2000 14:26	
Vinyl chloride	ND	0.5	ug/L	11/16/2000 14:26	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn.: Glenn Young

Test Method: 8260A  
Prep Method: 5030

**Batch QC Report**  
Volatile Organic Compounds by 8260A

Method Blank	Water	QC Batch # 2000/11/16-01.39
MB: 2000/11/16-01.39-005		Date Extracted: 11/16/2000 14:26

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Total xylenes	ND	1.0	ug/L	11/16/2000 14:26	
Trichlorotrifluoroethane	ND	0.5	ug/L	11/16/2000 14:26	
Carbon disulfide	ND	1.0	ug/L	11/16/2000 14:26	
Isopropylbenzene	ND	0.5	ug/L	11/16/2000 14:26	
Bromobenzene	ND	0.5	ug/L	11/16/2000 14:26	
Bromoform	ND	1.0	ug/L	11/16/2000 14:26	
Trichlorofluoromethane	ND	2.0	ug/L	11/16/2000 14:26	
MTBE	ND	5.0	ug/L	11/16/2000 14:26	
<b>Surrogate(s)</b>					
4-Bromofluorobenzene	103.9	86-115	ug/L	11/16/2000 14:26	
1,2-Dichloroethane-d4	97.7	76-114	ug/L	11/16/2000 14:26	
Toluene-d8	96.5	88-110	ug/L	11/16/2000 14:26	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8260A

Attn: Glenn Young

Prep Method: 5030

## Batch QC Report

### Volatile Organic Compounds by 8260A

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/11/16-01.39			
LCS:	2000/11/16-01.39-003	Extracted:	11/16/2000 13:31	Analyzed	11/16/2000 13:31		
LCSD:	2000/11/16-01.39-004	Extracted:	11/16/2000 14:03	Analyzed	11/16/2000 14:03		

Compound	Conc. [ ug/Kg ]		Exp.Conc. [ ug/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Benzene	98.1	47.2	100.0	50.0	98.1	94.4	3.8	69-129	20		
Chlorobenzene	104	50.9	100.0	50.0	104.0	101.8	2.1	61-121	20		
1,1-Dichloroethene	83.7	39.8	100.0	50.0	83.7	79.6	5.0	65-125	20		
Toluene	97.2	47.3	100.0	50.0	97.2	94.6	2.7	70-130	20		
Trichloroethene	97.8	48.0	100.0	50.0	97.8	96.0	1.9	74-134	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene	522	475	500	500	104.4	95.0		74-121			
1,2-Dichloroethane-d4	468	448	500	500	93.6	89.6		70-121			
Toluene-d8	507	485	500	500	101.4	97.0		81-117			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn: Glenn Young

Test Method: 8260A  
Prep Method: 5030

## Legend & Notes

Volatile Organic Compounds by 8260A

### Analyte Flags

sl

Surrogate recoveries were lower than QC limit due to matrix interference, confirmed by reanalysis.

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

Gas/BTEX Compounds by 8015M/8020

**Subsurface Consultants, Inc.**

Attn: Glenn Young  
Project #: 272.056

✉ 3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Phone: (925) 299-7960 Fax: (925) 299-7970  
Project: City Center Parcels T5 and T6

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
W-3	Water	11/10/2000 13:00	4

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8020  
8015M

Attn.: Glenn Young

Prep Method: 5030

Gas/BTEX Compounds by 8015M/8020

Sample ID:	W-3	Lab Sample ID:	2000-11-0237-004
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 13:00	Extracted:	11/14/2000 22:47
Matrix:	Water	QC-Batch:	2000/11/14-01.05

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	330	50	ug/L	1.00	11/14/2000 22:47	
<b>Surrogate(s)</b> 4-Bromofluorobenzene-FID	97.7	50-150	%	1.00	11/14/2000 22:47	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: **Subsurface Consultants, Inc.**

Test Method: 8015M  
8020

Attn.: Glenn Young

Prep Method: 5030

## Batch QC Report

Gas/BTEX Compounds by 8015M/8020

Method Blank	Water	QC Batch # 2000/11/14-01.05
MB: 2000/11/14-01.05-001		Date Extracted: 11/14/2000 08:56

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	11/14/2000 08:56	
<b>Surrogate(s)</b> 4-Bromofluorobenzene-FID	75.8	50-150	%	11/14/2000 08:56	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8015M

8020

Attn: Glenn Young

Prep Method: 5030

## Batch QC Report

Gas/BTEX Compounds by 8015M/8020

Laboratory Control Spike (LCS/LCSD)		Water				QC Batch # 2000/11/14-01.05			
LCS: 2000/11/14-01.05-002		Extracted: 11/14/2000 12:20				Analyzed 11/14/2000 12:20			
LCSD: 2000/11/14-01.05-003		Extracted: 11/14/2000 13:24				Analyzed 11/14/2000 13:24			

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	423	434	500	500	84.6	86.8	2.6	75-125	20		
<b>Surrogate(s)</b>											
4-Bromofluorobenzene-Fl	354	367	500	500	70.8	73.4		50-150			

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8015M

8020

Attn.: Glenn Young

Prep Method: 5030

## Batch QC Report

Gas/BTEX Compounds by 8015M/8020

### Matrix Spike ( MS / MSD )

Water

QC Batch # 2000/11/14-01.05

Sample ID: W-3

Lab Sample ID: 2000-11-0237-004

MS: 2000/11/14-01.05-004 Extracted: 11/14/2000 23:19 Analyzed: 11/14/2000 23:19 Dilution: 1.0

MSD: 2000/11/14-01.05-005 Extracted: 11/14/2000 23:51 Analyzed: 11/14/2000 23:51 Dilution: 1.0

Compound	Conc. [ ug/L ]			Exp.Conc. [ ug/L ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Gasoline	781	761	332	500	500	89.8	85.8	4.6	65-135	20		
<b>Surrogate(s)</b>												
4-Bromofluorobenzene-F	489	474		500	500	97.8	94.8		50-150			

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

## Metals

**Subsurface Consultants, Inc.**

Attn: Glenn Young

Project #: 272.056

✉ 3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Phone: (925) 299-7960 Fax: (925) 299-7970

Project: City Center Parcels T5 and T6

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GP-1@1'-4', 2@ 1'-2' COMP	Soil	11/10/2000 08:45	1
HP-3@0.5'-3.5' COMP	Soil	11/10/2000 10:00	2
GP-4@0.5'-3.0' COMP	Soil	11/10/2000 10:37	3

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: **Subsurface Consultants, Inc.**

Test Method: 6010B  
7471A

Attn.: Glenn Young

Prep Method: 3050B  
7471A

## Metals

Sample ID:	GP-1@1`-4` , 2@ 1`-2` COMP	Lab Sample ID:	2000-11-0237-001
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 08:45	Extracted:	11/14/2000 15:50
Matrix:	Soil	QC-Batch:	2000/11/14-05.15 2000/11/15-02.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	41	1.0	mg/Kg	1.00	11/14/2000 21:24	
Mercury	0.15	0.050	mg/Kg	1.00	11/15/2000 10:00	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7471A

Attn.: Glenn Young

Prep Method: 3050B  
7471A

## Metals

Sample ID:	HP-3@0.5'-3.5' COMP	Lab Sample ID:	2000-11-0237-002
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:00	Extracted:	11/14/2000 15:50
Matrix:	Soil	QC-Batch:	2000/11/14-05.15 2000/11/15-02.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	67	1.0	mg/Kg	1.00	11/14/2000 21:28	
Mercury	0.25	0.050	mg/Kg	1.00	11/15/2000 10:01	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7471A

Attn.: Glenn Young

Prep Method: 3050B  
7471A

## Metals

Sample ID:	GP-4@0.5'-3.0' COMP	Lab Sample ID:	2000-11-0237-003
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:37	Extracted:	11/14/2000 15:50
Matrix:	Soil	QC-Batch:	2000/11/14-05.15 2000/11/15-02.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	84	1.0	mg/Kg	1.00	11/14/2000 21:32	
Mercury	0.14	0.050	mg/Kg	1.00	11/15/2000 10:03	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7471A  
Prep Method: 3050B  
7471A

Attn.: Glenn Young

**Batch QC Report**  
**Metals**

Method Blank	Soil	QC Batch # 2000/11/14-05.15
MB: 2000/11/14-05.15-034		Date Extracted: 11/14/2000 15:50

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Lead	ND	1.0	mg/Kg	11/14/2000 19:21	

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B

7471A

Attn.: Glenn Young

Prep Method: 3050B

7471A

## Batch QC Report

Metals

Method Blank	Soil	QC Batch # 2000/11/15-02.16
MB: 2000/11/15-02.16-021		Date Extracted: 11/15/2000 08:39

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.050	mg/Kg	11/15/2000 09:30	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B

7471A

Attn: Glenn Young

Prep Method: 3050B

7471A

## Batch QC Report

### Metals

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/11/14-05.15			
LCS:	2000/11/14-05.15-035	Extracted: 11/14/2000 15:50				Analyzed 11/14/2000 19:26			
LCSD:	2000/11/14-05.15-036	Extracted: 11/14/2000 15:50				Analyzed 11/14/2000 19:30			

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		[%]	Recovery	RPD	LCS
Lead	96.9	97.1	100.0	100.0	96.9	97.1	0.2	80-120	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7471A

Attn: Glenn Young

Prep Method: 3050B  
7471A

## Batch QC Report

### Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/11/15-02.16					
LCS: 2000/11/15-02.16-022		Extracted: 11/15/2000 08:39			Analyzed 11/15/2000 09:31				
LCSD: 2000/11/15-02.16-023		Extracted: 11/15/2000 08:39			Analyzed 11/15/2000 09:32				

Compound	Conc. [ mg/Kg ]		Exp.Conc. [ mg/Kg ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Mercury	0.451	0.453	0.500	0.500	90.2	90.6	0.4	85-115	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

## CAM W.E.T. (STLC) Metals

**Subsurface Consultants, Inc.**

Attn: Glenn Young

Project #: 272.056

✉ 3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Phone: (925) 299-7960 Fax: (925) 299-7970

Project: City Center Parcels T5 and T6

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GP-1@1'-4', 2@ 1'-2' COMP	Soil	11/10/2000 08:45	1
HP-3@0.5'-3.5' COMP	Soil	11/10/2000 10:00	2
GP-4@0.5'-3.0' COMP	Soil	11/10/2000 10:37	3

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: **Subsurface Consultants, Inc.**

Test Method: 7470A  
6010B

Attn.: Glenn Young

Prep Method: 3005A  
7470A

CAM W.E.T. (STLC) Metals

Sample ID:	GP-1@1'-4', 2@ 1'-2` COMP	Lab Sample ID:	2000-11-0237-001
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 08:45	Extracted:	11/15/2000 06:58
Matrix:	Soil	QC-Batch:	2000/11/15-02.15 2000/11/20-01.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	1.4	0.50	mg/L	1.00	11/15/2000 17:42	
Mercury	ND	0.020	mg/L	1.00	11/20/2000 11:30	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 7470A  
6010B

Attn.: Glenn Young

Prep Method: 3005A  
7470A

## CAM W.E.T. (STLC) Metals

Sample ID:	HP-3@0.5`-3.5` COMP	Lab Sample ID:	2000-11-0237-002
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:00	Extracted:	11/15/2000 06:58
Matrix:	Soil	QC-Batch:	2000/11/15-02.15 2000/11/20-01.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	4.4	0.50	mg/L	1.00	11/15/2000 17:47	
Mercury	ND	0.020	mg/L	1.00	11/20/2000 11:31	

1220 Quarry Lane \* Pleasanton, CA 94565-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 7470A  
6010B

Attn.: Glenn Young

Prep Method: 3005A  
7470A

CAM W.E.T. (STLC) Metals

Sample ID:	GP-4@0.5'-3.0' COMP	Lab Sample ID:	2000-11-0237-003
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:37	Extracted:	11/15/2000 06:58
Matrix:	Soil	QC-Batch:	2000/11/15-02.15 2000/11/20-01.16

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Lead	3.1	0.50	mg/L	1.00	11/15/2000 17:51	
Mercury	ND	0.020	mg/L	1.00	11/20/2000 11:34	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B

7470A

Attn.: Glenn Young

Prep Method: 3005A

7470A

**Batch QC Report**  
CAM W.E.T. (STLC) Metals

Method Blank	Soil	QC Batch # 2000/11/15-02.15
MB: 2000/11/15-02.15-043		Date Extracted: 11/15/2000 06:58

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Lead	ND	0.50	mg/L	11/15/2000 11:27	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B

7470A

Attn.: Glenn Young

Prep Method: 3005A

7470A

**Batch QC Report**  
CAM W.E.T. (STLC) Metals

Method Blank	Soil	QC Batch # 2000/11/20-01.16
MB: 2000/11/20-01.16-035		Date Extracted: 11/20/2000 09:21

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Mercury	ND	0.010	mg/L	11/20/2000 11:20	

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7470A

Attn: Glenn Young

Prep Method: 3005A  
7470A

## Batch QC Report

CAM W.E.T. (STLC) Metals

Laboratory Control Spike (LCS/LCSD)		Soil				QC Batch # 2000/11/15-02.15			
LCS: 2000/11/15-02.15-044		Extracted: 11/15/2000 06:58				Analyzed 11/15/2000 11:32			
LCSD: 2000/11/15-02.15-047		Extracted: 11/15/2000 06:58				Analyzed 11/15/2000 11:51			

Compound	Conc. [ mg/L ]		Exp.Conc. [ mg/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Lead	4.26	4.40	5.00	5.00	85.2	88.0	3.2	80-120	20		

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 6010B  
7470A

Attn: Glenn Young

Prep Method: 3005A  
7470A

## Batch QC Report

CAM W.E.T. (STLC) Metals

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/11/20-01.16			
LCS:	2000/11/20-01.16-036	Extracted:	11/20/2000 09:21	Analyzed	11/20/2000 11:21		
LCSD:	2000/11/20-01.16-037	Extracted:	11/20/2000 09:21	Analyzed	11/20/2000 11:22		

Compound	Conc. [ mg/L ]		Exp.Conc. [ mg/L ]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Mercury	0.108	0.109	0.1000	0.1000	108.0	109.0	0.9	85-115	20		

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

TEPH w/ Silica Gel Clean-up

**Subsurface Consultants, Inc.**

Attn: Glenn Young

Project #: 272.056

✉ 3736 Mt. Diablo Blvd., Suite 200  
Lafayette, CA 94549

Phone: (925) 299-7960 Fax: (925) 299-7970

Project: City Center Parcels T5 and T6

**Samples Reported**

Sample ID	Matrix	Date Sampled	Lab #
GP-1@1`-4` , 2@ 1`-2` COMP	Soil	11/10/2000 08:45	1
HP-3@0.5`-3.5` COMP	Soil	11/10/2000 10:00	2
GP-4@0.5`-3.0` COMP	Soil	11/10/2000 10:37	3

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Attn.: Glenn Young

Test Method: 8015M

Prep Method: 3550/8015M

TEPH w/ Silica Gel Clean-up

Sample ID:	GP-1@1'-4', 2@ 1'-2` COMP	Lab Sample ID:	2000-11-0237-001
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 08:45	Extracted:	11/14/2000 10:30
Matrix:	Soil	QC-Batch:	2000/11/14-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	11/17/2000 08:58	
Motor Oil	ND	50	mg/Kg	1.00	11/17/2000 08:58	
<b>Surrogate(s)</b> o-Terphenyl	83.4	60-130	%	1.00	11/17/2000 08:58	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn.: Glenn Young

Test Method: 8015M  
Prep Method: 3550/8015M

TEPH w/ Silica Gel Clean-up

Sample ID:	HP-3@0.5'-3.5' COMP	Lab Sample ID:	2000-11-0237-002
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:00	Extracted:	11/14/2000 10:30
Matrix:	Soil	QC-Batch:	2000/11/14-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	2.8	1.0	mg/Kg	1.00	11/17/2000 02:04	ndp
Motor Oil	ND	50	mg/Kg	1.00	11/17/2000 02:04	
<b>Surrogate(s)</b>						
o-Terphenyl	110.6	60-130	%	1.00	11/17/2000 02:04	

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8015M

Attn.: Glenn Young

Prep Method: 3550/8015M

TEPH w/ Silica Gel Clean-up

Sample ID:	GP-4@0.5'-3.0' COMP	Lab Sample ID:	2000-11-0237-003
Project:	272.056 City Center Parcels T5 and T6	Received:	11/10/2000 16:43
Sampled:	11/10/2000 10:37	Extracted:	11/14/2000 10:30
Matrix:	Soil	QC-Batch:	2000/11/14-02.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	4.7	1.0	mg/Kg	1.00	11/17/2000 02:38	ndp
Motor Oil	ND	50	mg/Kg	1.00	11/17/2000 02:38	
<b>Surrogate(s)</b> o-Terphenyl	99.0	60-130	%	1.00	11/17/2000 02:38	

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn.: Glenn Young

Test Method: 8015M  
Prep Method: 3550/8015M

**Batch QC Report**  
TEPH w/ Silica Gel Clean-up

Method Blank	Soil	QC Batch # 2000/11/14-02.10
MB: 2000/11/14-02.10-001		Date Extracted: 11/14/2000 10:30

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	11/16/2000 22:35	
Motor Oil	ND	50	mg/Kg	11/16/2000 22:35	
<b>Surrogate(s)</b>					
o-Terphenyl	77.0	60-130	%	11/16/2000 22:35	

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.

Test Method: 8015M

Attn: Glenn Young

Prep Method: 3550/8015M

## Batch QC Report

TEPH w/ Silica Gel Clean-up

Laboratory Control Spike (LCS/LCSD)		Soil		QC Batch # 2000/11/14-02.10			
LCS:	2000/11/14-02.10-002	Extracted:	11/14/2000 10:30	Analyzed	11/16/2000 23:23		
LCSD:	2000/11/14-02.10-003	Extracted:	11/14/2000 10:30	Analyzed	11/17/2000 00:10		

Compound	Conc. [ mg/Kg ]		Exp. Conc. [ mg/Kg ]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	38.1	37.6	41.7	41.7	91.4	90.2	1.3	60-130	25		
<b>Surrogate(s)</b>								60-130			
<i>o-Terphenyl</i>	21.2	25.9	20.0	20.0	106.0	129.5					

1220 Quarry Lane \* Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

# CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-11-0237

To: Subsurface Consultants, Inc.  
Attn: Glenn Young

Test Method: 8015M  
Prep Method: 3550/8015M

## Legend & Notes

TEPH w/ Silica Gel Clean-up

### Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

---

1220 Quarry Lane \* Pleasanton, CA 94566-4756  
Telephone: (925) 484-1919 \* Facsimile: (925) 484-1096

## CHAIN OF CUSTODY FORM

2000-11-0237

PAGE 1 OF 1

PROJECT NAME: City Center Parcels T5 and T6  
 JOB NUMBER: 272-056  
 PROJECT CONTACT: Glenn Young  
 SAMPLED BY: Wm Park  
 LAB: Chromalab  
 TURNAROUND: 5-day Standard  
 REQUESTED BY:

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX			CONTAINERS			METHOD PRESERVED			SAMPLING DATE				NOTES				
		WATER	SOIL	WASTE	AIR	VOC	LITER	PINT	TUBE	HCl	HgSO <sub>4</sub>	HNO <sub>3</sub>	ICE	NONE	MONTH	DAY	YEAR	TIME	
GP-1e 1'		X							1			X			11	09	00	0845	★
GP-1e 4'			1												11	09	00	1845	
GP-2e 1'															11	09	00	0910	
GP-2e 2'															11	09	00	0910	
GP-3e 0.5'															11	09	00	1000	
GP-3e 2'															11	09	00	1000	★
GP-3e 3.5'															11	09	00	1000	
GP-4e 0.5'															11	09	00	1000	↓
GP-4e 1.5'															11	09	00	1337	★
GP-4e 3.0'															11	09	00	1337	↓
W-3		X				6						X	X		11	09	00	1337	↓
																			XX

## CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	COMMENTS & NOTES:
	11/10/00 1020		11/10/00 1020	★ Create composite Samples
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	
	11/10/00 1647	Denise Harrington	11/10/00 1643	4.2 °C
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME	



Subsurface Consultants, Inc.

171 - 12th Street, Suite 202, Oakland, CA 94607  
 (510) 268-0461 - FAX: (510) 268-0137  
 3738 Mt. Diablo Blvd., Ste. 200, Lafayette, CA 94549  
 (925) 288-7960 - (925) 299-7970