

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

REMEDIAL ACTION COMPLETION CERTIFICATION

**RO-2437 - 6006 International Blvd, Oakland, CA
(1-1000 gallon tank removed on June 20, 2001)**

July 11, 2002

Ms. Karen Streich
Chevron Products
P.O. Box 6004
San Ramon, CA 94583

Mr. James Coles
Stanley Ave Affordable Housing
2131 University Ave #224
Berkeley, CA 94707


Dear Ms. Streich and Mr. Coles:

This letter confirms the completion of site investigation and corrective action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,


Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB
Dave Deaner, SWRCB
Leroy Griffin, OFD
files-ec (chevron21-0208-4)

ALAMEDA COUNTY
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RO0002437

July 11, 2002

Ms. Karen Streich
Chevron Products
P.O. Box 6004
San Ramon, CA 94583

Mr. James Coles
Stanley Ave Affordable Housing
2131 University Ave #224
Berkeley, CA 94707

Re: Fuel Leak Site Case Closure for 6006 International Blvd, Oakland, CA

Dear Ms. Streich and Mr. Coles:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 1,300ppm TPH as gasoline, 310ppm TPHd, and 0.19ppm as benzene exists in soil beneath the site at 9.5 feet bgs;
- up to 1,800ppb TPHg, 1,900ppb TPHd, and 4.1ppb benzene exists in groundwater beneath the site; and,
- a risk management plan for the site was prepared in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.

If you have any questions, please contact me at (510) 567-6762.

eva chu
Hazardous Materials Specialist

enclosures: 1. Case Closure Letter 2. Case Closure Summary

c: Mark Gomez, City of Oakland, Public Works, 250 Frank H Ogawa Plaza, Suite 5301
Oakland, CA 94612 (w/o)
files (chevron21-0208-5)

**CASE CLOSURE SUMMARY
UNDERGROUND FUEL STORAGE TANK LOCAL OVERSIGHT PROGRAM**

I. AGENCY INFORMATION

Date: July 11, 2002

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502	Phone: (510) 567-6700
Responsible Staff Person: Eva Chu	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: Former Chevron No. 21-0208		
Site Facility Address: 6006 International Blvd., Oakland, CA 94601		
RB LUSTIS Case No.: ---	Local Case No.: ---	LOP Case No.: RO0002437
URF Filing Date: 7/02/01	SWEEPS No.: ---	APN: ---
Responsible Parties	Addresses	Phone Number
Karen Streich Chevron Products Company	P.O. Box 6004 San Ramon, CA 94583	(925) 842-1589
James Coles Stanley Ave Affordable Housing	2131 University Ave #224 Berkeley, CA 94707	(510) 841-4410 x 29

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	1000	Gasoline	Removed	6/20/01
Piping			Assumed removed with USTs	6/20/01

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: Unknown, tank appeared in good condition, without any through-holes. However, odor and soil discoloration was noted in soil beneath the former dispensers		
Site characterization complete? Yes	Date Approved By Oversight Agency: ----	
Monitoring wells installed? Yes	Number: 3	Proper screened interval? Yes , 5 to 20 feet bgs
Highest GW Depth Below Ground Surface: 5.9	Lowest Depth: 7.56'	Flow Direction: West, Southwest at .002 ft/ft
Most Sensitive Current Use: Residential		

Summary of Production Wells in Vicinity:

The following industrial wells were identified downgradient of the site and do not appear to be receptors due to their distance and the levels of residual pollution remaining at the site:

- Well at 1034 66th Avenue (approximately 2000 feet south of the site) is constructed to a depth of 71 feet (unknown well diameter)
- Well at 6235 Tevis Street (approximately 1700 feet south-southwest of the site) is constructed with an 8 inch casing to a depth of 300 feet
- Well at 1175 57th Avenue (approximately 2000 feet southwest of the site) is constructed with an 18 inch casing to a depth of 1025 feet.

These wells do not appear to be receptors due to their distance from the site.

Are drinking water wells affected? No	Aquifer Name: South Bay Basin
Is surface water affected? No	Nearest Surface Water Name: SF Bay approximately 6,000 feet west of site
Off-Site Beneficial Use Impacts (Addresses/Locations): None Identified	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL

Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1000-gallon gasoline UST	Disposed by ECI in Richmond, CA	06/20/01
Piping	Not Reported	Assumed disposed with USTs	06/20/01
Free Product	None Reported	----	----
Soil	174 tons	Disposed at Forward LF, in Manteca, CA	Aug 2001
Groundwater	2300 gallons	Disposed at Romic, in Redwood City, CA	June 2001

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP
(Please see Attachments 3 - 11 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)		Contaminant	Soil (ppm)		Water (ppb)	
	Before ¹	After ²	Before ³	After ⁴		Before ¹	After ²	Before ³	After ⁴
TPH (Gas)	1,300	1,300	13,000	1,800	Benzene	0.19	0.19	100	4.1
TPH (Diesel)	310	310	8,400	1,900	Toluene	<.25	<.25	1.8	8
Oil & Grease	---	---	---	---	Ethyl Benzene	2.6	2.6	180	13
Heavy Metals (Lead)	93	93	2,000	<75	Xylene	3.8	0.99	57	5.5
Other (8240/8270)	---	---	---	---	MTBE	0.43	0.43	140	7.0

Notes:

¹ Soil sample from piping trenches at 2.5 feet bgs (6/01) or from borings B-4 and B-5 (1/01). MtBE from geoprobes advanced

in vicinity of product piping and/or pump island, 7/01, using EPA Method 8020. Lead and TPHd concentrations from borings advanced in 1/01.

² Soil samples collected from soil borings located outside of tank excavation at 2.5 to 5.5 feet bgs, 1/01 or 7/01. The fuel dispenser area was overexcavated to approximately 5.0 feet bgs, but confirmation soil samples were not collected.

³ Maximum grab groundwater concentration detected from borings advanced at site. Pb from grab groundwater sample from tank pit, 6/01. MtBE analyzed using Method 8020, not confirmed w/ Method 8260.

⁴ Most recent sampling event, 3/02. Dissolved lead was not detected in grab groundwater collected in 7/01.

NA Not Analyzed

Site History and Description of Corrective Actions:

The site is currently a vacant lot. Redevelopment of the site for high-density housing is proposed for the site. The site was most recently utilized as a bus storage and repair facility. A Chevron service station operated at the site no later than the early 1960's.

A geotechnical investigation was conducted at the site in January 2001. Three magnetic anomalies were identified that appeared to be related to the former service station. A UST was discovered beneath the sidewalk, immediately south of the former pump island. The geotechnical investigation also included the advancement of five soil borings (B-1 through B-5) at the site. Two of the borings, B-4 and B-5, were drilled in the immediate vicinity of the former station facilities. Soil and grab groundwater samples were collected from B-4 and B-5 at 0.5 to 1.0 feet and 9.5 to 10.5 feet bgs. Soil at 10 feet bgs contained up to 1,300ppm TPHg, 310ppm TPHd, 93ppm lead, and 0.19, <0.2, 2.6, and 2.6ppm BTEX, respectively. Groundwater contained up to 3,600ppb TPHd, 4,200ppb TPHg, and 22, 1.8, 49, and 5.4ppb BTEX, respectively. The grab groundwater samples were not analyzed for total lead.

In June 2001, the 1,000-gallon gasoline UST (located beneath the sidewalk of 61st Street) and associated piping were removed. Soil samples CX-1-9 and CX-2-9 were collected from the base of the UST excavation at 9 feet bgs and CT-1-2.5 and CT-2-2.5 were collected from the piping trenches at 2.5 feet bgs. A grab groundwater sample, CH-1, was also collected after approximately 1,300 gallons of groundwater was pumped from the tank pit. Soil and groundwater samples were analyzed for TPHg, BTEX, MTBE and lead. Up to 860ppm TPHg, 2.4ppm ethylbenzene, 3.8ppm xylenes and 6.8ppm lead were detected in soil from the piping trenches. The grab groundwater sample contained 830ppb TPHg and 0.94ppb benzene. Lead was detected in groundwater at a concentration of 2,000 ppb.

In July 2001, 17 geoprobe borings (GP-1 through GP-17) were advanced to further delineate the extent of soil and groundwater contamination. Borings GP1 through GP10 were advanced to a depth of 6 feet bgs, and borings GP11 through GP17 were advanced to depths of 14 to 20 feet bgs, depending on where groundwater was encountered. Based on soil analytical results, the majority of residual hydrocarbons is in the unsaturated (5 feet bgs) and saturated (9 to 12 feet bgs) zones near the former dispensers. The extent of groundwater contamination (up to 13,000 ppb TPHg) was not defined. Dissolved lead was not detected in groundwater above the detection limit of 75ppb. MTBE was detected at 140 ppb, using Method 8020. MTBE was not confirmed with Method 8260.

In August 2001, approximately 150 cubic yards of impacted soil was excavated to approximately 7.0 feet bgs at the former product line and dispenser island areas. In February 2002, three direct-push geoprobe borings were advanced and completed as temporary groundwater monitoring wells TC-1 through TC-3. The wells were installed to compare concentrations with those from grab groundwater samples collected in the July 2001 subsurface investigation. Groundwater was sampled on February 27 and March 27, 2002. In general, the petroleum hydrocarbon concentrations in the temporary well samples were lower in concentration than the water samples from the geoprobe borings of July 2001. Groundwater from TC-3, which is located within the suspected source area, had higher petroleum hydrocarbon concentrations than groundwater from the two downgradient wells, TC-1 and TC-2. It appears that natural attenuation is occurring at the site.

A Tier 2 RBCA evaluation of TPHg and BTEX in groundwater beneath the site was prepared in September-October 2001 and amended in July 2002. Exposure pathways evaluated include: subsurface soil and groundwater volatilization to outdoor and indoor air inhalation (at a residential scenario); and, ingestion and dermal contact from groundwater (for construction workers and commercial scenario for industrial well located approximately 1,700 feet southwest of the site).

The calculated Hazard Index for each exposure pathway was less than one. Also, site specific target levels (SSTLs) were determined not to exceed Tier 2 SSTLs. The maximum detected concentration of 140ppb MTBE (using EPA Method 8020) in groundwater is below the RWQCB's RBSLs.

Sediments at the site include fine-grained soils consisting of clay to a depth of approximately 20 feet bgs. In varying locations this clay is interrupted by a narrow lens of sand and gravel (less than 6 inches thick) at a depth of approximately 5 feet bgs. Groundwater was first encountered at depths ranging from approximately 12 to 15 feet bgs. Groundwater stabilized at approximately 6 to 8 feet bgs.

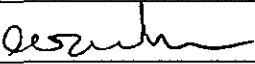

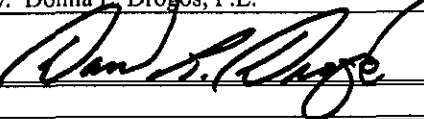
IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information presented to date including the RBCA analysis it does not appear that the release would pose a significant threat to public health.		
Site Management Requirements: A risk management plan was prepared for the protection of construction workers in the event excavation/trenching is proposed in the vicinity of residual soil and groundwater contamination.		
Should corrective action be reviewed if land use changes? No		
Monitoring Wells Decommissioned: No	Number Decommissioned: 0	Number Retained: 3
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: None		

V. ADDITIONAL COMMENTS, DATA, ETC.

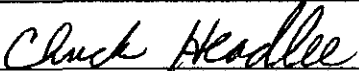
<p>Consideration and/or Variances:</p> <ul style="list-style-type: none"> • The property owners requested an expedited site closure to facilitate redevelopment of the site into residential units. Alameda County Environmental Health approved the installation of three temporary wells in 2002. The wells were sampled over two consecutive months, rather than on a quarterly basis for a minimum of one year. Groundwater contaminant concentrations did not exceed levels from previous grab groundwater samples collected from soil borings advanced in 2001. Depth to groundwater at nearby sites ranged from approximately 6 to 12 feet bgs at a gradient of 0.02ft/ft. Flow direction was southwest and west to northwest. • Residual soil contamination and groundwater contamination is present at the site. • Confirmation soil samples were not collected at 7 feet bgs after completion of overexcavation activities conducted at the former dispenser area. <p>Conclusion:</p> <p>Residual soil and groundwater contamination remains in place in the vicinity of the source area of the site. Residual groundwater contamination appears to be attenuating. Based upon the information available in our files to date, including the results presented in RBCA analysis, the site does not appear to pose a significant threat to public health and safety, the environment, or water resources.</p>

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Eva Chu	Title: Hazardous Materials Specialist
Signature: 	Date: 7/11/02
Reviewed by: Barney Chan	Title: Hazardous Materials Specialist
Signature: 	Date: 7/11/02
Approved by: Donna J. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: 	Date: 07/11/02

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

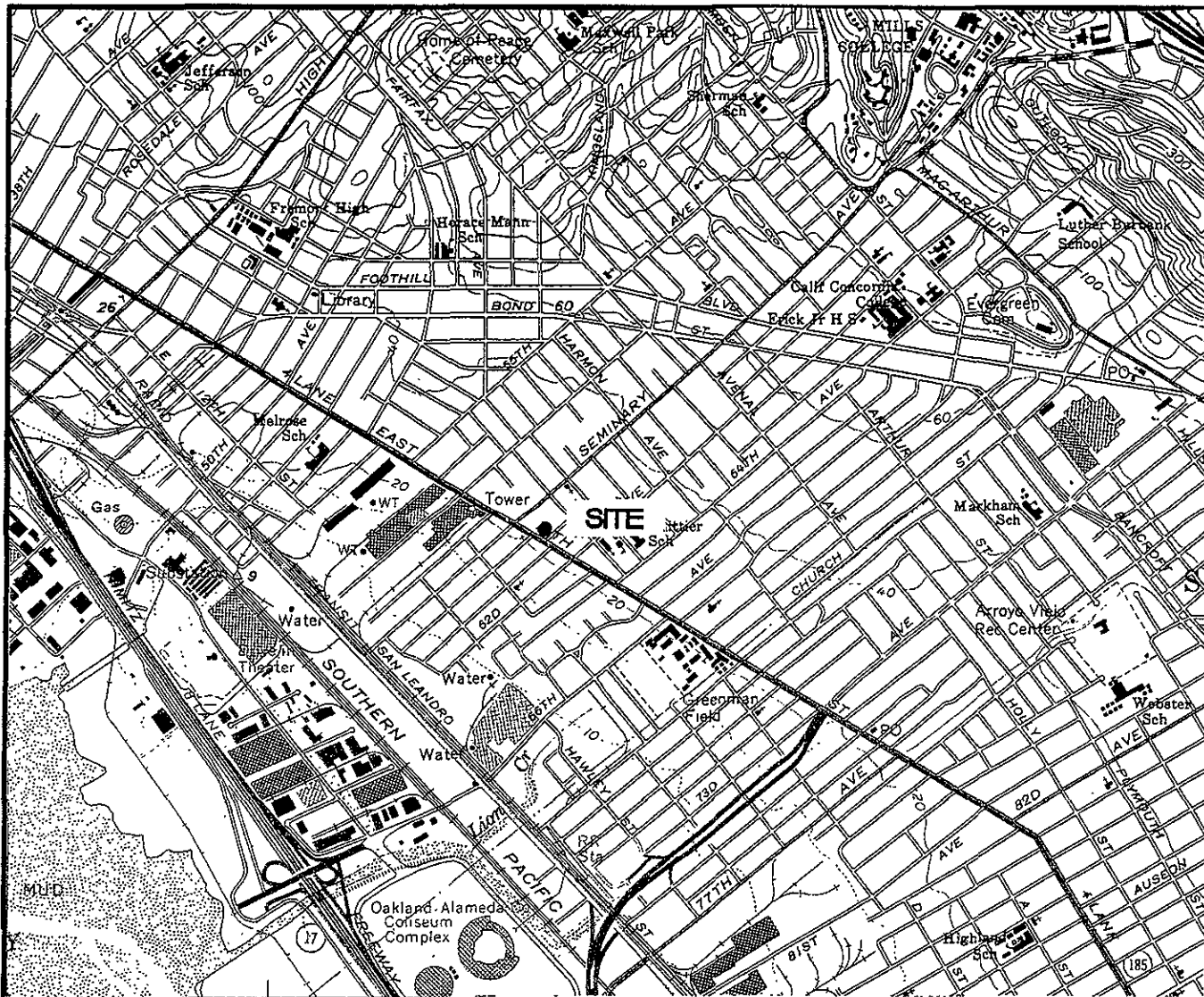
VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Chuck Headlee	Title: Senior Engineering Geologist (acting)
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 7/11/02
Signature: 	Date: 7/11/02

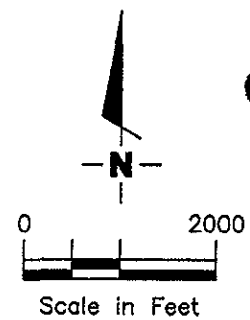
Attachments:

1. Site Vicinity Map
2. Site Plan
3. UST Removal & Soil Boring - Soil Sample Location Map
- 4-6. UST Removal & Soil Boring- Soil and Groundwater Analytical Results
7. Geoprobe Location Map
8. Geoprobe Soil Analytical Results (2 pp)
9. Geoprobe Groundwater Analytical Results
10. Monitoring Well Location and Gradient Map
11. Groundwater Analytical Data
12. Cross Section Site Plan
13. Cross Section
14. Boring Logs and Monitoring Well Completion Logs (8 pp)
15. RBCA Analysis Results (3 pp)

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official site file.



Source: USGS Quad Map



Attachment 1



Gettler - Ryan Inc.

1364 North McDowell Boulevard Suite B2
 Petaluma, CA 94954 (707) 789-3255

VICINITY MAP

Former Chevron Service Station #21-0208
 6006 International Blvd.
 Oakland, California

FIGURE

1

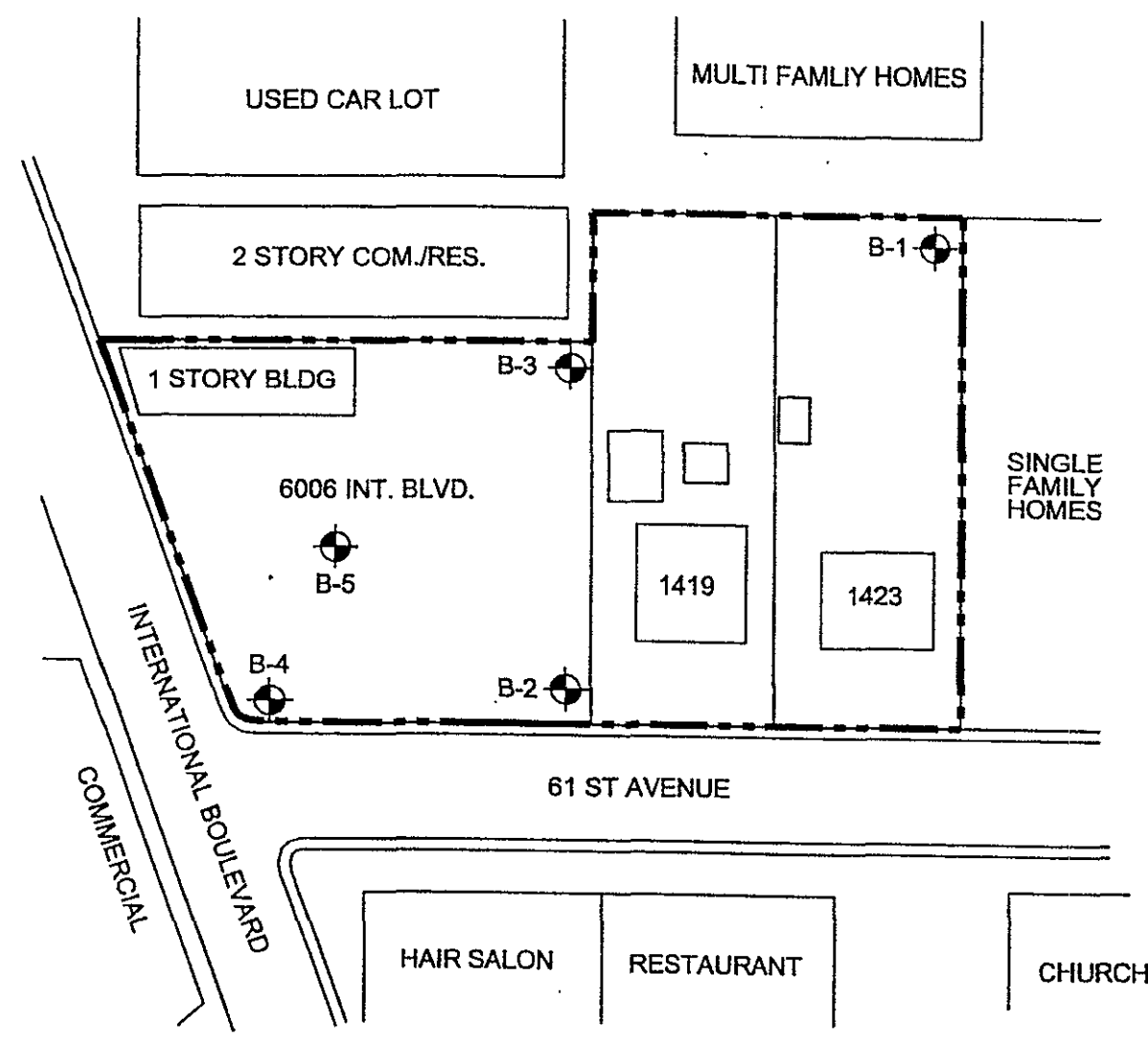
JOB NUMBER
 DG20208C.4C01

REVIEWED BY

DATE
 6/01

REVISED DATE

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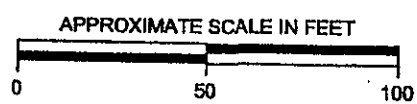


LEGEND:

 B-1 APPROXIMATE LOCATION OF TEST BORING

NOTE:

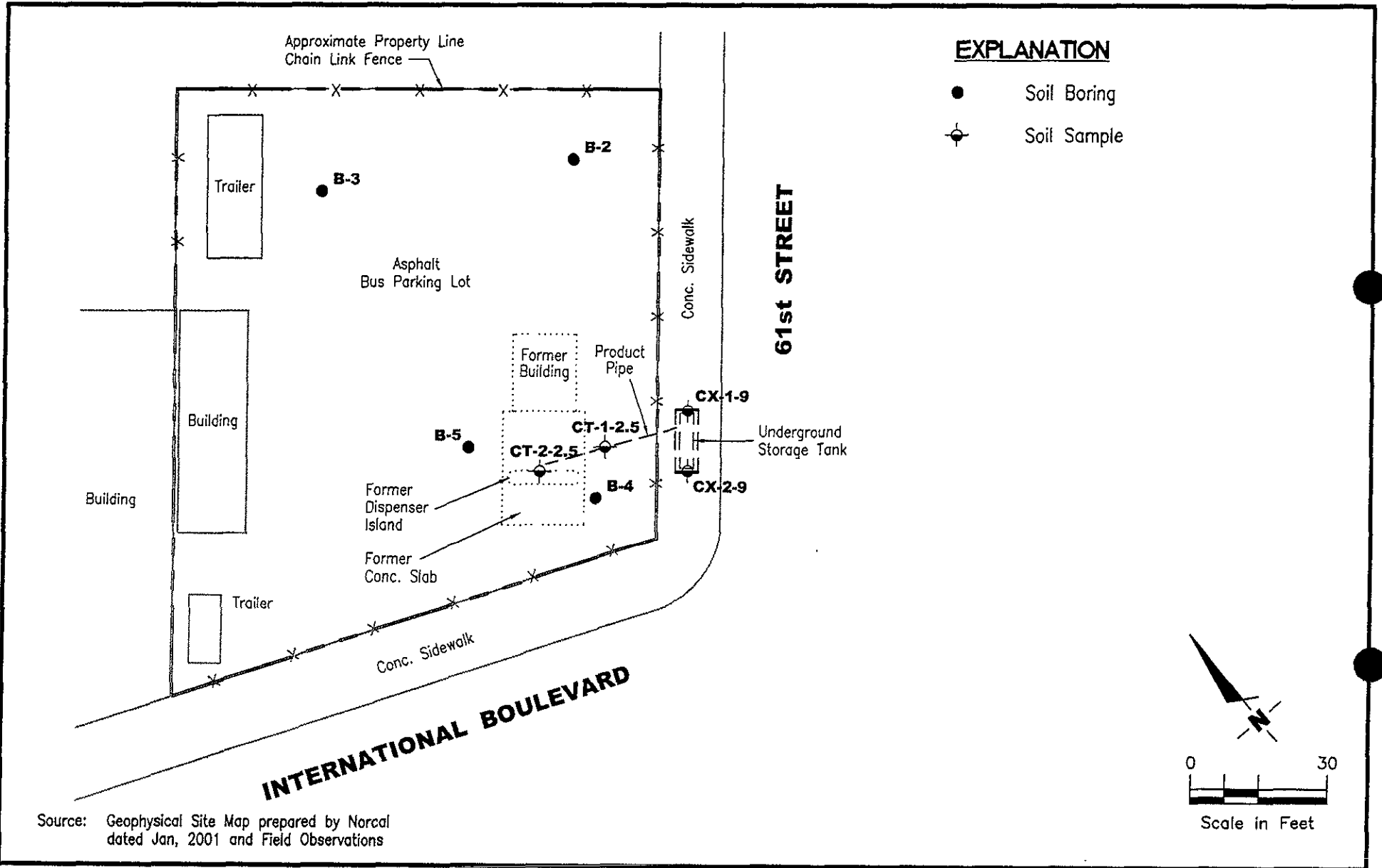
THIS SITE MAP IS ADAPTED FROM A DRAWING TITLED "SITE AND ADJOINING PROPERTY MAP, 6006 INT. BLVD./ 1419 AND 1423 61ST AVE." BY CLAYTON GROUP SERVICES, DRAWING NO. 70-01319.00, DATED 8/4/00.



SITE MAP		
INTERNATIONAL BOULEVARD FAMILY HOUSING PROJECT OAKLAND, CALIFORNIA		
DRAWN BY: CFY	DATE 2/2/01	PLATE 2
JOB NUMBER 790.008	FILE NUMBER:	



Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers



Gettler - Ryan Inc.

1364 North McDowell Boulevard Suite B2
Petaluma, CA 94954 (707) 789-3255

SITE PLAN/SAMPLE LOCATION MAP
Former Chevron Service Station #21-0208
6006 International Blvd.
Oakland, California

FIGURE

2

JOB NUMBER
JG20208C.4C01

REVIEWED BY

DATE
6/01

REVISED DATE

**Table 1: Results of Analyses
International Boulevard Family Housing
Oakland, California**

Soil Samples	Units	TPHd *	TPHo *	TPHg	Benzene	Toluene	Ethyl benzene	Xylenes	Lead
B4@0.5'	mg/kg	--	--	--	--	--	--	--	93
B4@9.5'	mg/kg	110	14	340	0.19	<0.1	1.3	0.45	--
B5@1.0'	mg/kg	--	--	--	--	--	--	--	3.2
B5@10.5'	mg/kg	310	6	1,300	<0.2	<0.2	2.6	2.6	--

Grab Groundwater Samples	Units	TPHd *	TPHo *	TPHg	Benzene	Toluene	Ethyl benzene	Xylenes	Lead
B-4	ug/l	3,600	<250	3,600	22	1.8	49	2.9	--
B-5	ug/l	1,300	260	4,200	5.7	1.7	7	5.4	--

Notes:

Soil samples collected on January 25, 2001

Detected concentrations shown in bold

TPHd: Total Petroleum Hydrocarbons as diesel

TPHo: Total Petroleum Hydrocarbons as motor oil

TPHg: Total Petroleum Hydrocarbons as gasoline

*: Using silica gel cleanup

mg/kg: milligrams per kilogram

ug/l: micrograms per liter

--: Sample not analyzed

<: Not detected at or above the laboratory reporting limit

TABLE 1. SOIL ANALYTICAL DATA

Former Chevron Station #21-0208
6006 International Boulevard
Oakland, California

Sample ID	Sample Depth (feet)	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Lead (ppm)
UST Pit									
CX-1-9	9	6/20/01	<1.000	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.5
CX-2-9	9	6/20/01	<1.000	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.5
Piping Trenches									
CT-1-2.5	2.5	6/20/01	560 ¹	<0.250	<0.250	2.4	1.4	<2.500	6.8
CT-2-2.5	2.5	6/20/01	860 ¹	<0.250	<0.250	1.1	3.8	<2.500	<6.8
Stockpile									
CS-1		6/20/01	1.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	170

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, xylenes
MTBE = Methyl tert-butyl ether
ppm = parts per million
---- = not applicable

Analytical Methods

TPHg = EPA Method 8015M
BTEX, MTBE = EPA Method 8020M
Lead = EPA Method 6010B

Analytical Laboratory

Sequoia Analytical (ELAP 2374)

¹ Laboratory notes a hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel.

TABLE 2. GROUNDWATER ANALYTICAL DATA

Former Chevron Station #21-0208
6006 International Boulevard
Oakland, California

Sample ID	Sample Depth (feet)	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	MTBE (ppb)	Lead (ppb)
UST Pit									
CH-1	8.5	6/22/01	830	0.94	<0.50	1.5	3.5	<2.5	2,000

Explanation:

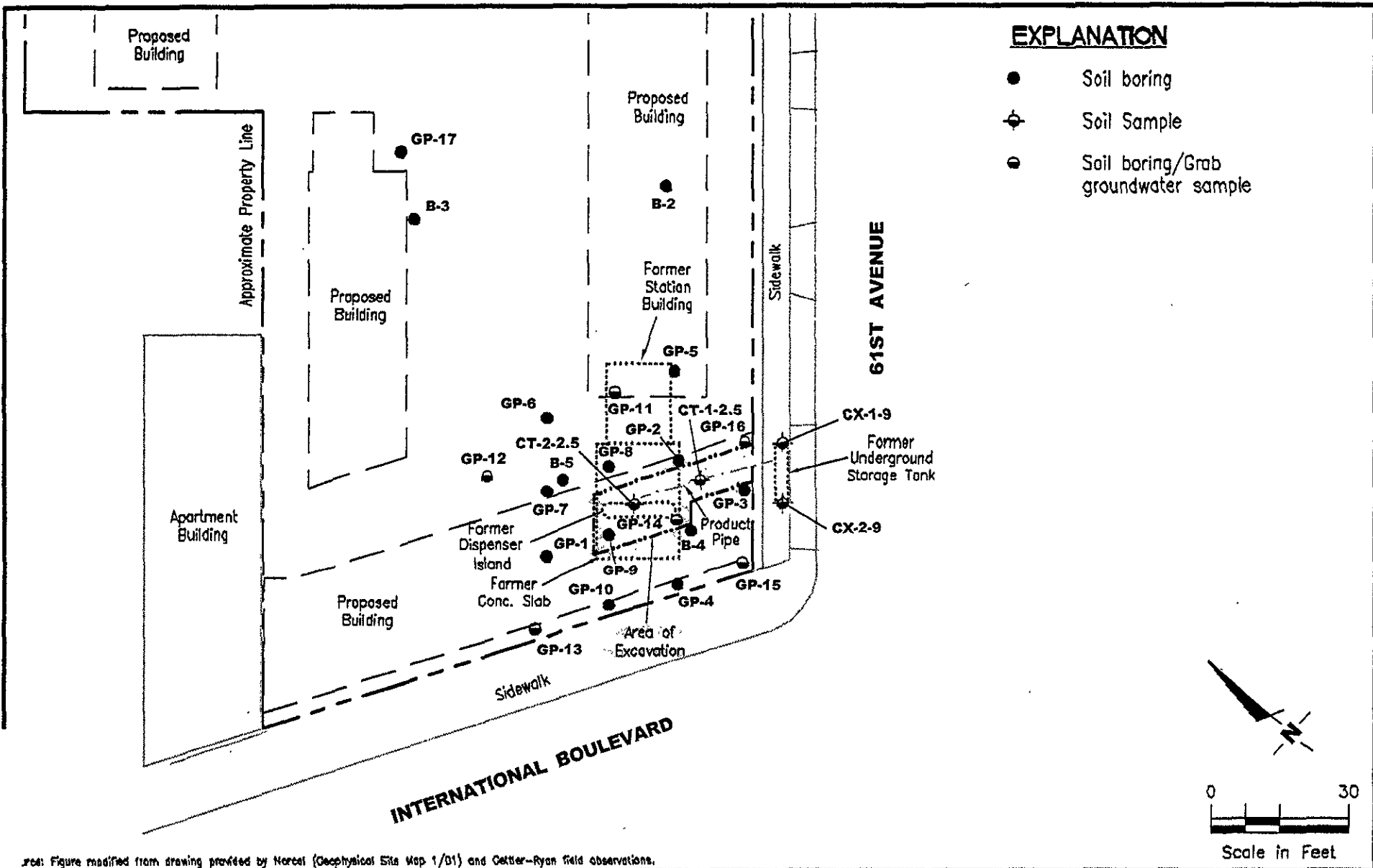
TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = Benzene, toluene, ethylbenzene, xylenes
MTBE = Methyl tert-butyl ether
ppb = parts per billion

Analytical Methods

TPHg = EPA Method 8015M
BTEX, MTBE = EPA Method 8020M
Lead = EPA Method 6010B

Analytical Laboratory

Sequoia Analytical (ELAP 2374)



Source: Figure modified from drawing provided by Norcal (Geophysical Site Map 1/01) and Gettler-Ryan field observations.

GETTLER - RYAN INC.
 8747 Sierra Ct., Suite J
 Dublin, CA 94568 (925) 551-7555

SOIL BORING LOCATION MAP
 Former Chevron Service Station No. 21-0208
 6006 International Boulevard
 Oakland, California

FIGURE

2

PROJECT NUMBER
DG20208G.4C01

REVIEWED BY

DATE
8/01

REVISED DATE

TABLE 1. SOIL ANALYTICAL DATA

Former Chevron Station #21-0208

6006 International Boulevard

Oakland, California

Sample ID	Date	Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Lead (ppm)
GeoProbe Borings									
GP1-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.1
GP1-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.2
GP2-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.43	<5.4
GP2-5.5	7/17/01	5.5	110	<0.25	<0.25	<0.25	0.40	<2.5	7.6
GP3-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	5.4
GP3-5.5	7/17/01	5.5	1.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.7
GP4-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.5
GP4-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.1
GP5-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.5
GP5-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.8
GP6-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	18
GP6-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.7
GP7-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.2
GP7-5.5	7/17/01	5.5	3.4	<0.0050	<0.0050	<0.0050	0.0073	<0.050	<6.4
GP8-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.6
GP8-5.5	7/17/01	5.5	1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.8
GP9-2.5	7/17/01	2.5	23	<0.025	<0.025	0.11	0.056	<0.25	11
GP9-5.5	7/17/01	5.5	150	<0.25	<0.25	<0.25	0.53	<2.5	<6.0
GP10-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	7.5
GP10-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.7
GP11-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.8
GP11-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.9
GP12-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.6
GP12-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	7.6
GP13-2.5	7/17/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.7
GP13-5.5	7/17/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<5.7
GP14-2.5	7/18/01	2.5	130	<0.25	<0.25	0.99	0.66	<2.5	<6.6
GP14-5.5	7/18/01	5.5	150	<0.25	<0.25	<0.25	0.48	<2.5	<6.5
GP15-2.5	7/18/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	0.13	<6.4
GP15-5.5	7/18/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.2

TABLE 1. SOIL ANALYTICAL DATA

Former Chevron Station #21-0208
6006 International Boulevard
Oakland, California

Sample ID	Date	Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Lead (ppm)
GP16-2.5	7/18/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.6
GP-16-5.5	7/18/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<6.5
GP17-2.5	7/18/01	2.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.4
GP17-5.5	7/18/01	5.5	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<7.1
Composite Samples									
EH0-3	7/18/01	----	2.5	<0.0050	<0.0050	0.015	0.013	<0.050	<6.9
EH3-6	7/18/01	----	2.4	<0.0050	<0.0050	0.0054	0.0072	<0.050	<6.4
WH0-3	7/17/01	----	5.0	<0.025	<0.025	<0.025	<0.025	<0.25	<6.7
WH3-6	7/17/01	----	4.0	<0.0050	<0.0050	0.0093	0.011	<0.050	<7.2

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline
BTEX = benzene, toluene, ethylbenzene and xylenes
MTBE = methyl tert-butyl ether
ppm = parts per million
---- = not applicable

Analytical Methods:

TPHG/BTEX/MTBE: EPA Methods/8020M
Lead: EPA Method 6010

Analytical Laboratory:

Sequoia Analytical (ELAP #2374)

TABLE 2. GRAB GROUNDWATER ANALYTICAL DATA

Former Chevron Station #21-0208

6006 International Boulevard

Oakland, California

Sample ID	Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	MTBE (ppb)	Dissolved Lead (ppb)
GP11-W	7/17/01	13,000	28	<10	110	57	<50	<75
GP12-W	7/17/01	64	<0.50	<0.50	<0.50	<0.50	<0.50	<75
GP13-W	7/18/01	57	<0.50	<0.50	<0.50	<0.50	<0.50	<75
GP14-W	7/18/01	8,100	100	<2.5	180	24	140	<75
GP15-W	7/18/01	11,000	<25	<25	43	48	<120	<75
GP16-W	7/18/01	970	<0.50	<0.50	4.7	6.0	<2.5	<75
GP17-W	7/18/01	<50	<0.50	<0.50	<0.50	<0.50	<2.5	<75

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline

BTEX = benzene, toluene, ethylbenzene and xylenes

MTBE = methyl tert-butyl ether

ppb = parts per billion

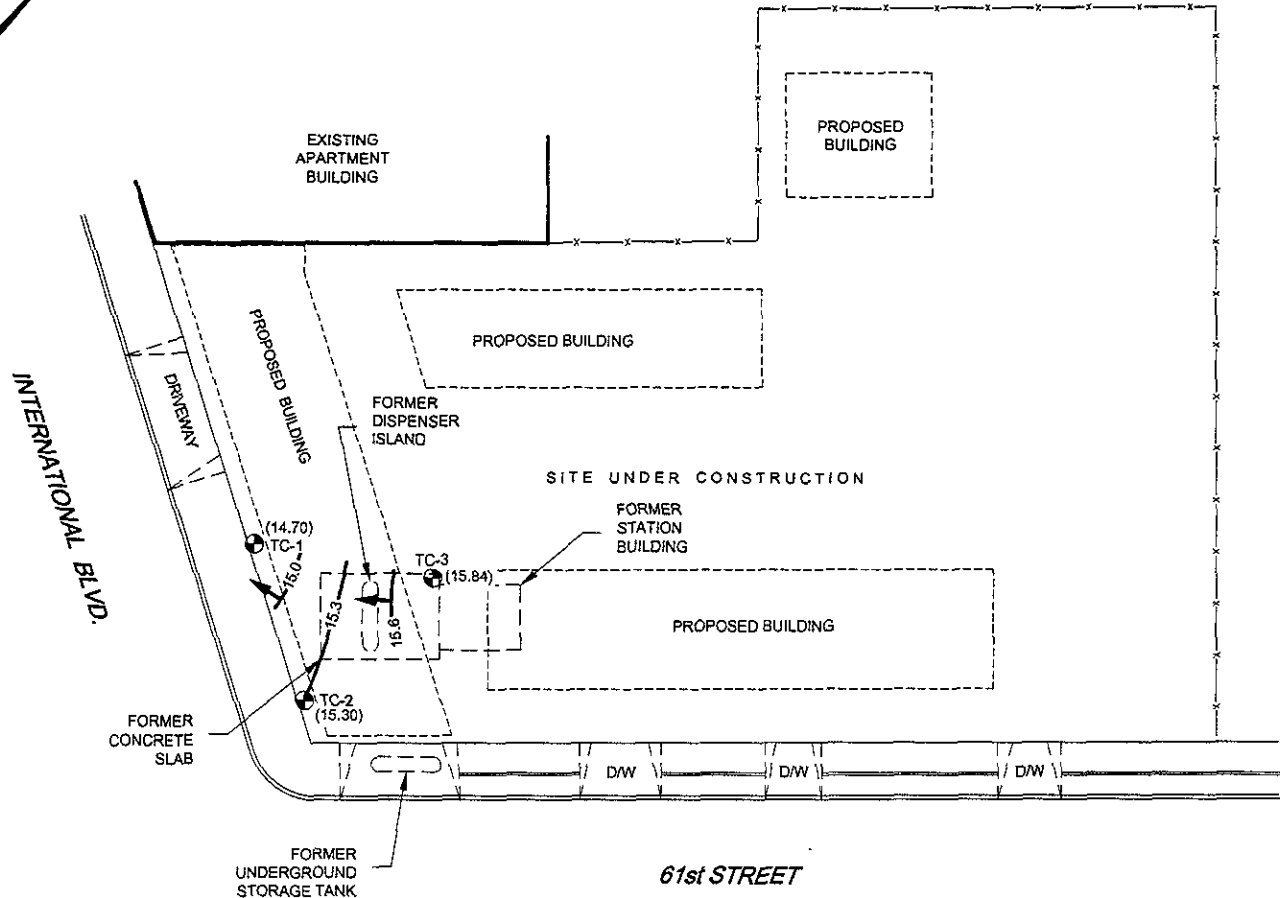
Analytical Methods:

TPHG/BTEX/MTBE: EPA Methods 8015m/8020M

Lead: EPA Method 6010

Analytical Laboratory:

Sequoia Analytical (ELAP #2374)



LEGEND:





-  TC-1 MONITORING WELL LOCATION
 (14.70) GROUNDWATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
 -  15.3 INFERRED WATER TABLE CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
 -  INFERRED GROUNDWATER FLOW DIRECTION
- HYDRAULIC GRADIENT= 0.0024 FT/FT MEASURED BETWEEN TC-1 AND TC-3

FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
 2/27/02

FORMER CHEVRON SERVICE STATION NO. 21-0208
 6006 INTERNATIONAL BOULEVARD
 OAKLAND, CALIFORNIA

PROJECT NO. DG20-208	DRAWN BY M.L. 4/11/02
FILE NO. DG21208B	PREPARED BY BAB
REVISION NO. 1	REVIEWED BY



Delta
Environmental
Consultants, Inc.

TABLE 1
GROUNDWATER SAMPLE ANALYTICAL RESULTS

Former Chevron Station No. 210208
6006 International Boulevard
Oakland, California

Sample ID	Date	Top of Casing Elevation (ft amsl)	Depth to Groundwater (ft btc)	Groundwater Elevation (ft amsl)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPHg (µg/L)	TPHd (µg/L)	MTBE (µg/L)
TC-1	02/27/02	22.26	7.56	14.70	<0.50	<0.50	<0.50	<1.5	<50	330	<2.5
	03/27/02		6.89	15.37	<0.50	<0.50	1.2	<1.5	210	1,300	7.0
TC-2	02/27/02	21.77	6.47	15.30	<2.5	8.0	<2.5	<7.5	480	8,400	<13
	03/27/02		6.45	15.32	4.1	<0.50	3.6	5.5	800	1,600	<2.5
TC-3	02/27/02	21.74	5.90	15.84	<10	6.8	13	<15	3,100	1,200	<25
	03/27/02		6.06	15.68	1.8	<0.50	8.0	<10	1,800	1,900	<2.5

amsl = above mean sea level

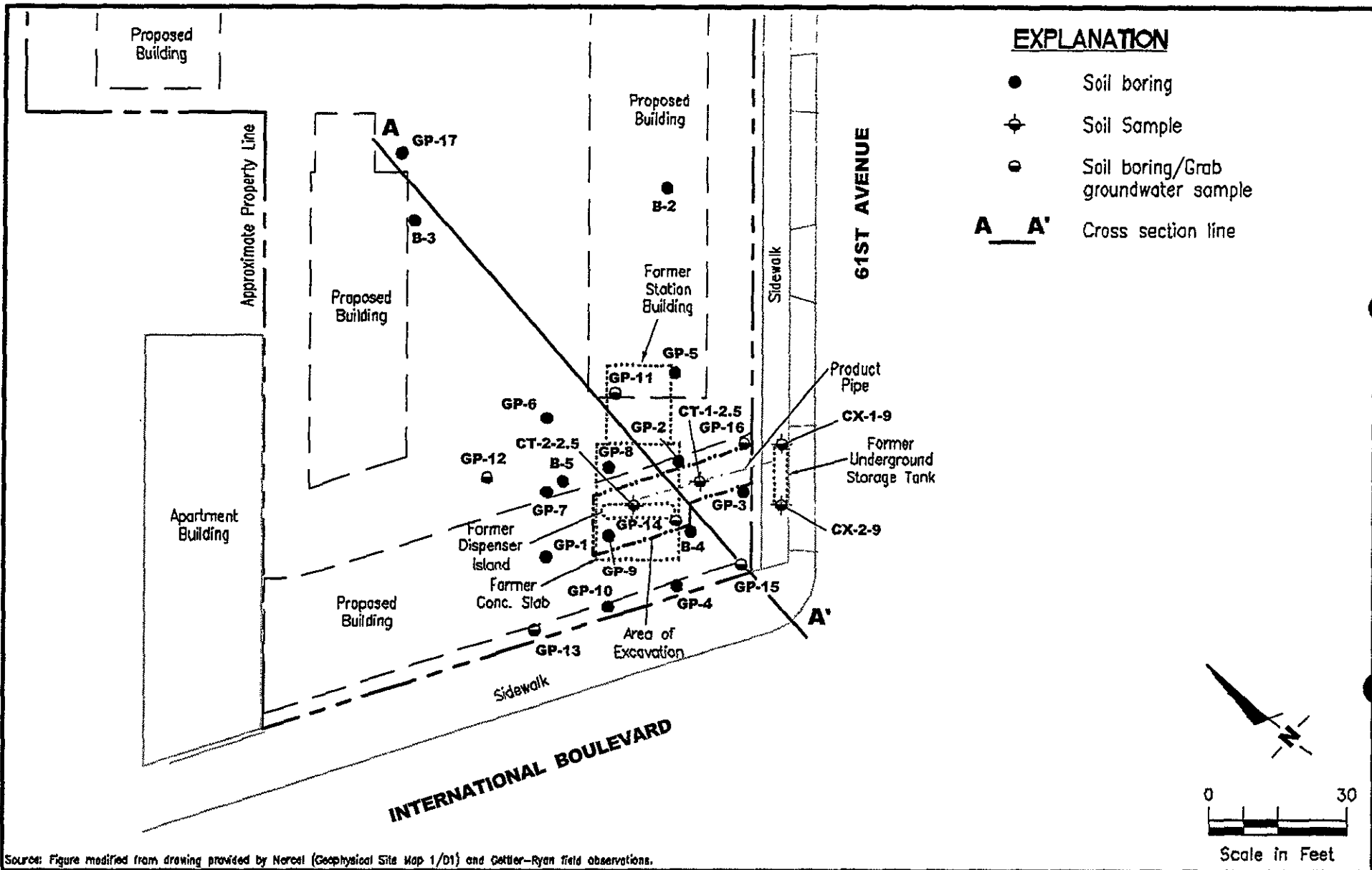
btc = below top of casing

TPHg = Total petroleum hydrocarbons in the gasoline range organics (C5-C9).

TPHd = Total petroleum hydrocarbons in the diesel range organics (C10-C28) with silica gel cleanup

MTBE = Methyl tertiary butyl ether.

µg/L = micrograms per liter



Source: Figure modified from drawing provided by Nercel (Geophysical Site Map 1/D1) and Gettler-Ryan field observations.

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 Dublin, CA 94568 (925) 551-7555

SOIL BORING LOCATION MAP
 Former Chevron Service Station No. 21-0208
 6006 International Boulevard
 Oakland, California

FIGURE

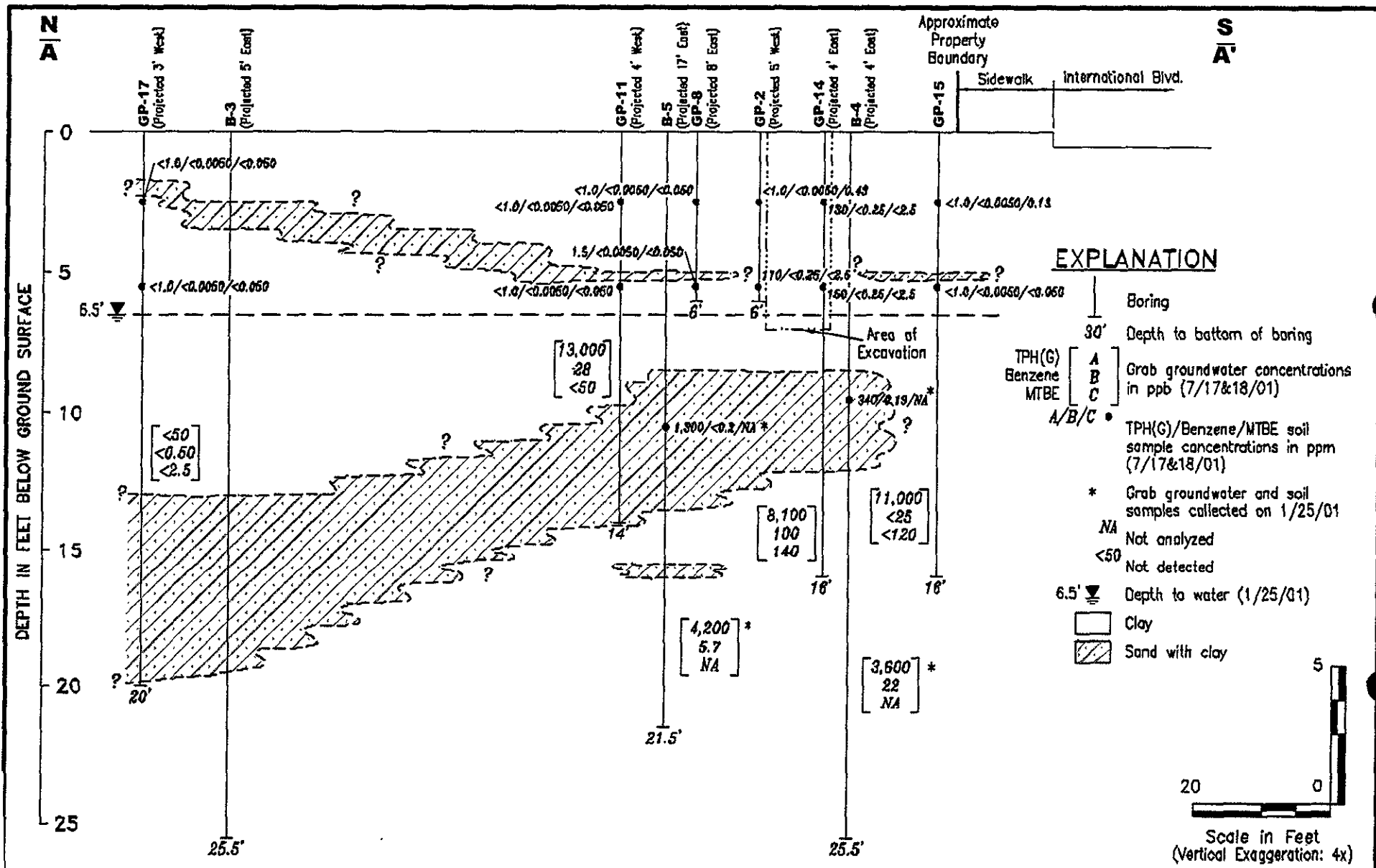
2

PROJECT NUMBER
 JG20208G.3C01

REVIEWED BY

DATE
 9/01

REVISED DATE



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 Dublin, CA 94568 (925) 551-7555

CROSS SECTION A-A'
 Former Chevron Service Station No. 21-0208
 6006 International Boulevard
 Oakland, California


FIGURE
3

PROJECT NUMBER DG20208G.3C01	REVIEWED BY	DATE 9/01	REVISED DATE
---------------------------------	-------------	--------------	--------------

Project Name & Location: International Boulevard Family Housing Project Oakland, California		Ground Surface Elevation: 0 feet	
		Elevation Datum: Ground Surface	
Drilling Coordinates: not surveyed		Start: Date 1/25/01	Time 15:00
Drilling Company & Driller: BAE, Scott Fitch		Finish: Date 1/25/01	Time 16:00
Rig Type & Drilling Method: CM 75 / Hollow Stem Augers		Drilling Fluid: Hole Diameter: 7"	
Sampler A) Modified California (3" O.D., 2.5" I.D.) Type(s): B) SPT (2" O.D., 1.4" I.D.)		Logged By: JW	
Sampling A) 140 lb automatically tripped hammer w/30" drop Method(s): B) 140 lb automatically tripped hammer w/30" drop		Backfill Method: Cement Grout	
		Date: 1/25/01	

Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	Sample Interval	Graphic Log	SOIL DESCRIPTIONS		LABORATORY DATA		
						GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)	Moisture Content (%)	Dry Density (pcf)	Other	
0	A	5				SANDY CLAY WITH GRAVEL (CL) Brown, stiff, moist	13.1	104	UC = 2600 psf	
10	A	11	21				13.7	117		
5	A	6	15				15	116		
15	A	18	38							
10	A	5	15	28		POORLY GRADED SAND WITH CLAY (SP-SC) Brown, medium dense, wet				
15	A	5	11	15		SANDY LEAN CLAY (CL) Yellowish brown, stiff, moist				
15	A	11	26			CLAYEY SAND WITH GRAVEL (SC) Dark yellowish-brown, medium dense, wet	14.6	116		
20	A	10	15	19		LEAN CLAY (CL) Light brown, very stiff, moist	14.8	117		

LOG OF BORING 790-008.GPJ GEO-ENV.GDT 2/14/01

 Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	International Boulevard Family Housing Project Oakland, California		BORING B-1
	JOB NUMBER 790.008	DATE 2/01	

Project Name & Location: International Boulevard Family Housing Project Oakland, California		Ground Surface Elevation: 0 feet	
Drilling Coordinates: not surveyed		Elevation Datum: Ground Surface	
Drilling Company & Driller: BAE, Scott Fitch		Start: Date 1/25/01	Time 09:00
Rig Type & Drilling Method: CM 75 / Hollow Stem Augers		Finish: Date 1/25/01	Time 10:00
Sampler A) Modified California (3" O.D., 2.5" I.D.) Type(s): B) SPT (2" O.D., 1.4" I.D.)		Drilling Fluid:	Hole Diameter: 7"
Sampling Method(s): A) 140 lb automatically tripped hammer w/30" drop B) 140 lb automatically tripped hammer w/30" drop		Logged By: JW	NE GWL During Drilling NW GWL at Completion
		Backfill Method: Cement Grout	Date: 1/25/01

Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	Sample Interval	Graphic Log	SOIL DESCRIPTIONS		LABORATORY DATA		
						GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)	Moisture Content (%)	Dry Density (pcf)	Other	
0	A	6 6 10	16			CLAYEY GRAVEL (GC) Dark yellowish-brown, medium dense, moist (fill)	20.3	105	LL = 42 PI = 18	
	A	2 6 8	14			LEAN CLAY (CL) Dark grayish-brown to brown, stiff, moist				
5	A	3 8 10	18			LEAN CLAY WITH SAND (CL) Dark yellowish-brown, stiff, moist	25	104		
10	A	6 9 16	25			SANDY LEAN CLAY (CL) Light yellowish-brown, stiff, moist	19.5	106		
15	A	6 8 8	16			CLAYEY SAND (SC) Yellowish-brown, medium dense, wet	18.5	110	-200 = 30.4 %	
20	A	6 9 15	24			LEAN CLAY (CL) Light yellowish-brown, stiff, moist	20.6	108		


LOG OF BORING 780-008 GPJ GEO-ENV GDT 2/14/01

Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	International Boulevard Family Housing Project Oakland, California		BORING B-2
	JOB NUMBER 790.008	DATE 2/01	

Project Name & Location: International Boulevard Family Housing Project Oakland, California		Ground Surface Elevation: 0 feet	
		Elevation Datum: Ground Surface	
Drilling Coordinates: not surveyed		Start Date 1/25/01	Time 12:00
Drilling Company & Driller: BAE, Scott Fitch		Finish: Date 1/25/01	Time 13:00
Rig Type & Drilling Method: CM 75 / Hollow Stem Augers		Drilling Fluid:	Hole Diameter: 7"
Sampler A) Modified California (3" O.D., 2.5" I.D.) Type(s): B) SPT (2" O.D., 1.4" I.D.)		Logged By: JW	☒ GWL During Drilling ☒ GWL at Completion
Sampling Method(s): A) 140 lb automatically tripped hammer w/30" drop B) 140 lb automatically tripped hammer w/30" drop		Backfill Method: Cement Grout	Date: 1/25/01

Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	Sample Interval	Graphic Log	SOIL DESCRIPTIONS		LABORATORY DATA		
						GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)	Moisture Content (%)	Dry Density (pcf)	Other	
0	A	10 13 14	27		[Diagonal Hatching]	CLAYEY GRAVEL (GC) Yellowish-brown, medium dense, moist (fill) LEAN CLAY WITH SAND (CL) Dark gray, stiff, moist				
	A	3 7 23	30			CLAYEY GRAVEL (GC) Yellowish brown, medium dense, moist SANDY LEAN CLAY (CL) Light yellowish-brown, stiff, moist	19.6	107		
5	A	3 9 11	20		[Diagonal Hatching]					
	A	3 7 10	17				19.6	109		
10	A	10 12 16	28		[Dotted Pattern]	CLAYEY SAND WITH GRAVEL (SC) Yellowish brown, medium dense, wet	16	116		
15	A	10 10 12	22			LEAN CLAY (CL) Yellowish-brown, medium stiff, moist	20.2	108		
20	A	2 4 7	11		[Diagonal Hatching]		35.5	95		
25										
30										


LOG OF BORING 790-008.GPJ GEO-ENV.GDT 2/14/01

 Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	International Boulevard Family Housing Project Oakland, California		BORING B-3
	JOB NUMBER 790.008	DATE 2/01	

Project Name & Location: International Boulevard Family Housing Project Oakland, California		Ground Surface Elevation: 0 feet	
		Elevation Datum: Ground Surface	
Drilling Coordinates: not surveyed		Start: Date 1/25/01	Time 10:00
Drilling Company & Driller: BAE, Scott Fitch		Finish: Date 1/25/01	Time 11:00
Rig Type & Drilling Method: CM 75 / Hollow Stem Augers		Drilling Fluid:	Hole Diameter: 7"
Sampler A) Modified California (3" O.D., 2.5" I.D.) Type(s): B) SPT (2" O.D., 1.4" I.D.)		Logged By: JW	<input type="checkbox"/> GWL During Drilling <input checked="" type="checkbox"/> GWL at Completion
Sampling Method(s): A) 140 lb automatically tripped hammer w/30" drop B) 140 lb automatically tripped hammer w/30" drop		Backfill Method: Cement Grout	Date: 1/25/01

Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	Sample Interval	Graphic Log	SOIL DESCRIPTIONS GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)	LABORATORY DATA		
							Moisture Content (%)	Dry Density (pcf)	Other
0						ASPHALTIC CONCRETE 3 - INCHES THICK CLAYEY SAND WITH GRAVEL (SC) Yellowish-brown to dark olive, medium dense, moist (fill) LEAN CLAY (CL) Dark grayish-brown, medium stiff to stiff, moist			OVM = 243 ppm OVM = 120 ppm
5	A	13 9 11 3 5 8	20			LEAN CLAY WITH SAND (CL) Olive-brown to yellowish-brown, stiff, moist	19.9	107	OVM = 200 ppm UC = 2500 psf
10	A	6 11 13	24			CLAYEY SAND (SC) Olive-gray, medium dense, wet			OVM > 3000 ppm
15	A	4 7 13	20			SANDY LEAN CLAY (CL) Yellowish-brown, medium stiff to stiff, moist	21	107	OVM = 13 ppm
20	A	5 7 12	19				23.3	103	
25	A	5 8 13	21				25.3	98.2	
30									


LOG OF BORING 790-008 GPJ GEO-ENV GDT 2/14/01

 Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	International Boulevard Family Housing Project Oakland, California		BORING B-4
	JOB NUMBER 790.008	DATE 2/01	

Project Name & Location: International Boulevard Family Housing Project Oakland, California		Ground Surface Elevation: 0 feet	
		Elevation Datum: Ground Surface	
Drilling Coordinates: not surveyed		Start: Date 1/25/01	Time 11:00
Drilling Company & Driller: BAE, Scott Fitch		Finish: Date 1/25/01	Time 12:00
Rig Type & Drilling Method: CM 75 / Hollow Stem Augers		Drilling Fluid:	Hole Diameter: 7"
Sampler A) Modified California (3" O.D., 2.5" I.D.) Type(s): B) SPT (2" O.D., 1.4" I.D.)		Logged By: JW	☐ GWL During Drilling ☑ GWL at Completion
Sampling Method(s): A) 140 lb automatically tripped hammer w/30" drop B) 140 lb automatically tripped hammer w/30" drop		Backfill Method: Cement Grout	Date: 1/25/01

Depth (feet)	Sampler Type	Blows/6 inches of Pressure	Blows/12 inches	Sample Interval	Graphic Log	SOIL DESCRIPTIONS		LABORATORY DATA		
						GROUP NAME (GROUP SYMBOL) color, consistency/density, moisture condition, other descriptions (Local Name or Material Type)	Moisture Content (%)	Dry Density (pcf)	Other	
0	A	10				ASPHALTIC CONCRETE 3 - INCHES THICK			OVM = 91 ppm	
	A	8	17			CLAYEY SAND WITH GRAVEL (SC)			OVM = 71 ppm	
	A	9				Yellowish brown, medium dense, moist (fill)	21.4	99	UC = 1250 psf	
	A	2	13			LEAN CLAY (CL)			OVM = 219 ppm	
	A	5				Mottled olive-gray and dark yellowish-brown, stiff, moist				
	A	3	21							
	A	9								
	A	12								
	A	7	18			CLAYEY SAND WITH GRAVEL (SC)			OVM > 3000 ppm	
	A	7				Dark olive-gray, medium dense, wet				
	A	11								
	A	5	37			LEAN CLAY WITH SAND (CL)	17.6	112	OVM = 5 ppm	
	A	14				Yellowish-brown, stiff, moist			- 200 = 36.4%	
	A	23				CLAYEY SAND (SC)				
	A	3	17			Yellowish-brown, medium dense, wet, trace of gravel				
	A	7				LEAN CLAY (CL)	23.8	103		
	A	10				Yellowish-brown, stiff, moist, trace of sand				

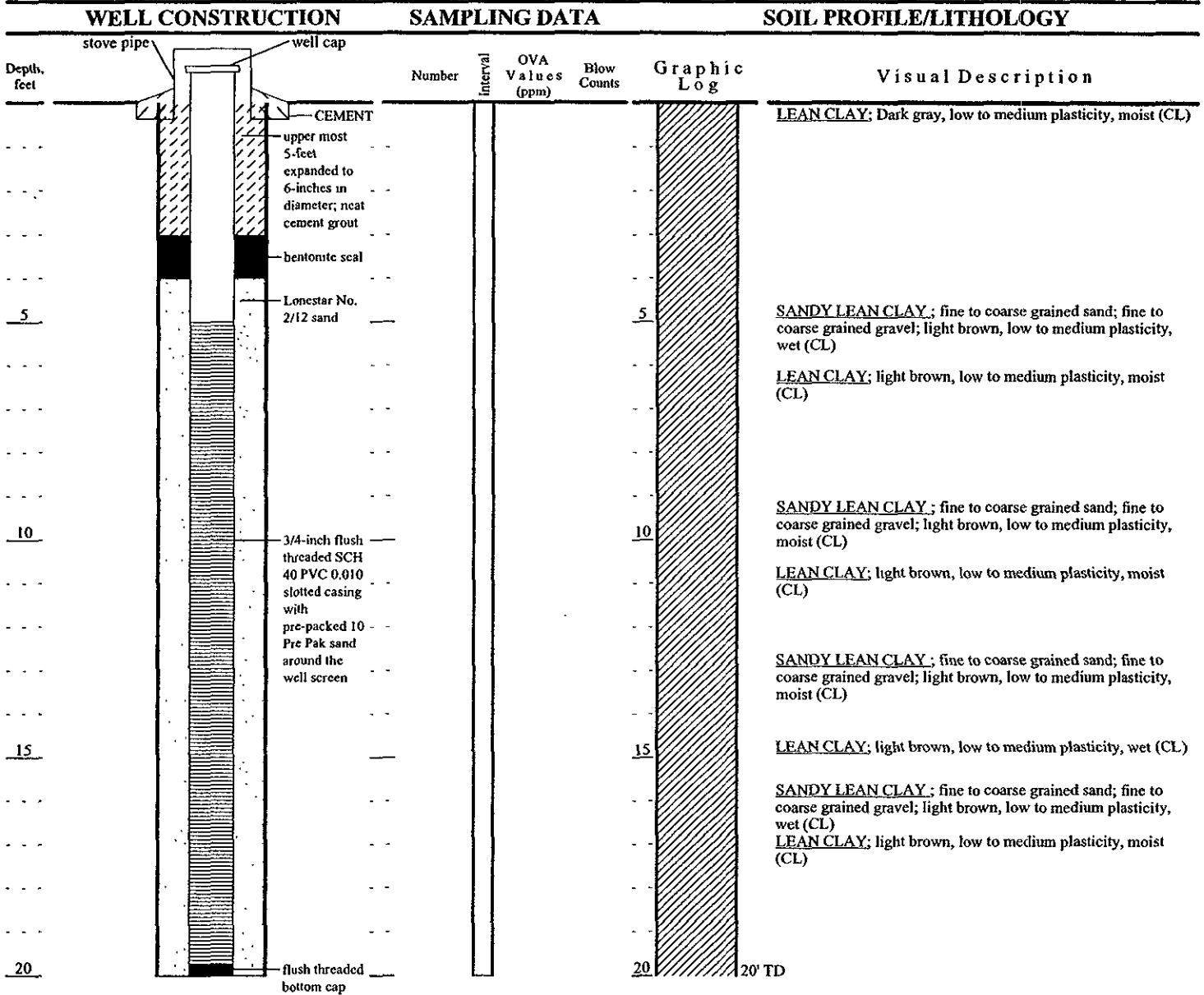
LOG OF BORING 790-008.GPJ GEO-ENV.GDT 2/14/01

 Subsurface Consultants, Inc. Geotechnical & Environmental Engineers	International Boulevard Family Housing Project Oakland, California		BORING B-5
	JOB NUMBER 790.008	DATE 2/01	



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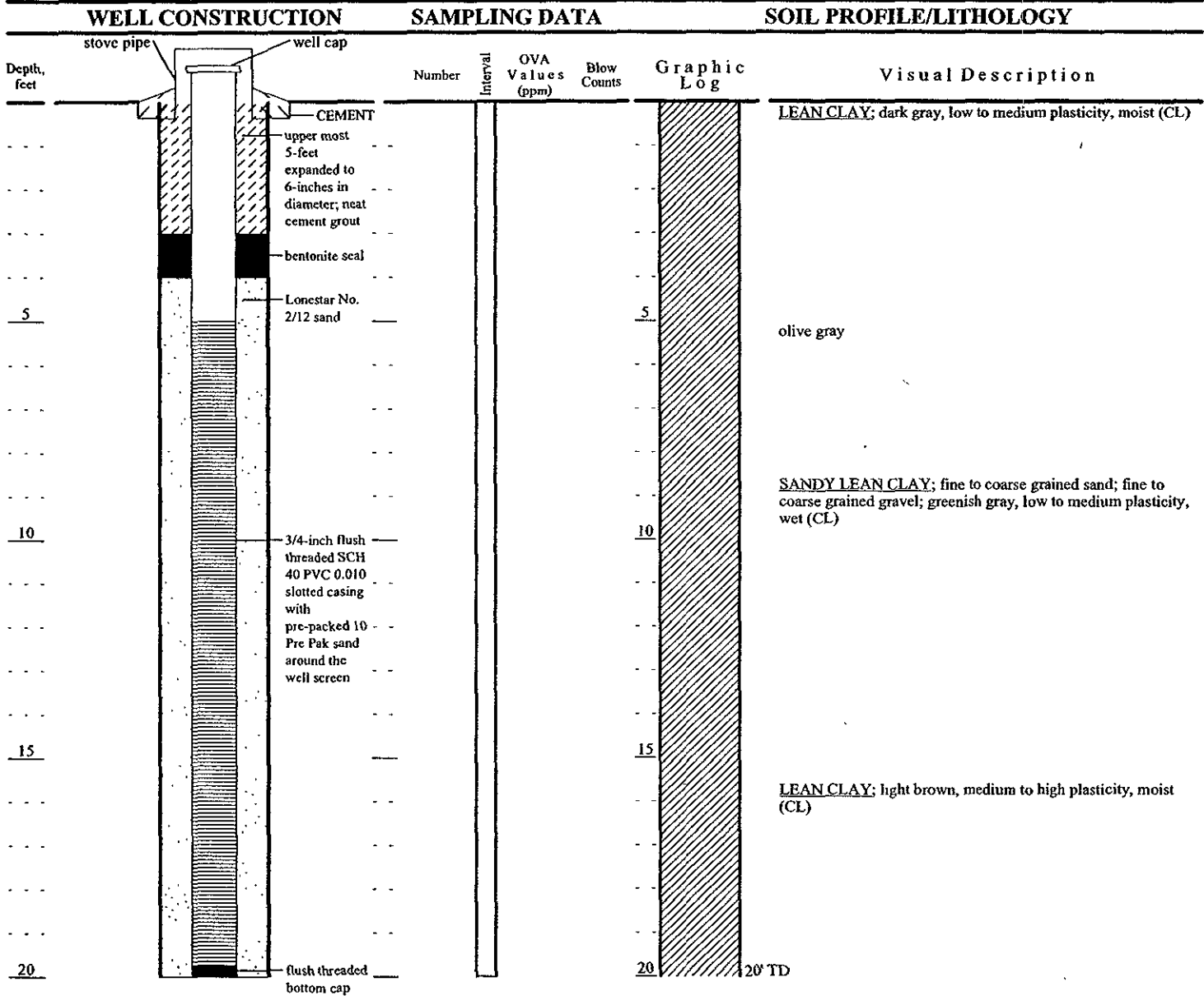
Street Address 6006 International Boulevard		Project ID Chevron Station No. 21-0208	
City & State Oakland, California		Surface Elev. 18.60'	Well / Boring ID TC-1
Delta Project # DG20-208		Casing Elev. 22.26'	Total Depth 20'



Dates and Times	Logger Brett A. Bardsley	Sampling Method & Diameter Continuous Core	Permitting Agency Alameda County Public Works Agency
Start 2/23/02 0915	Drilling Company & Driller Vironex, Mike Martin	Bore Hole Diameter 3.25-inches	Permit # W02-0210
Total Depth 2/23/02 0940	Drillers C-57# 705927	Diameter, Type & Slot Size of Casing 3/4-inch SCH 40 PVC/0.010 slot	
Completion or backfill 2/23/02 1000	Drilling Equipment and method Geoprobe Model 6600 DT, direct push		



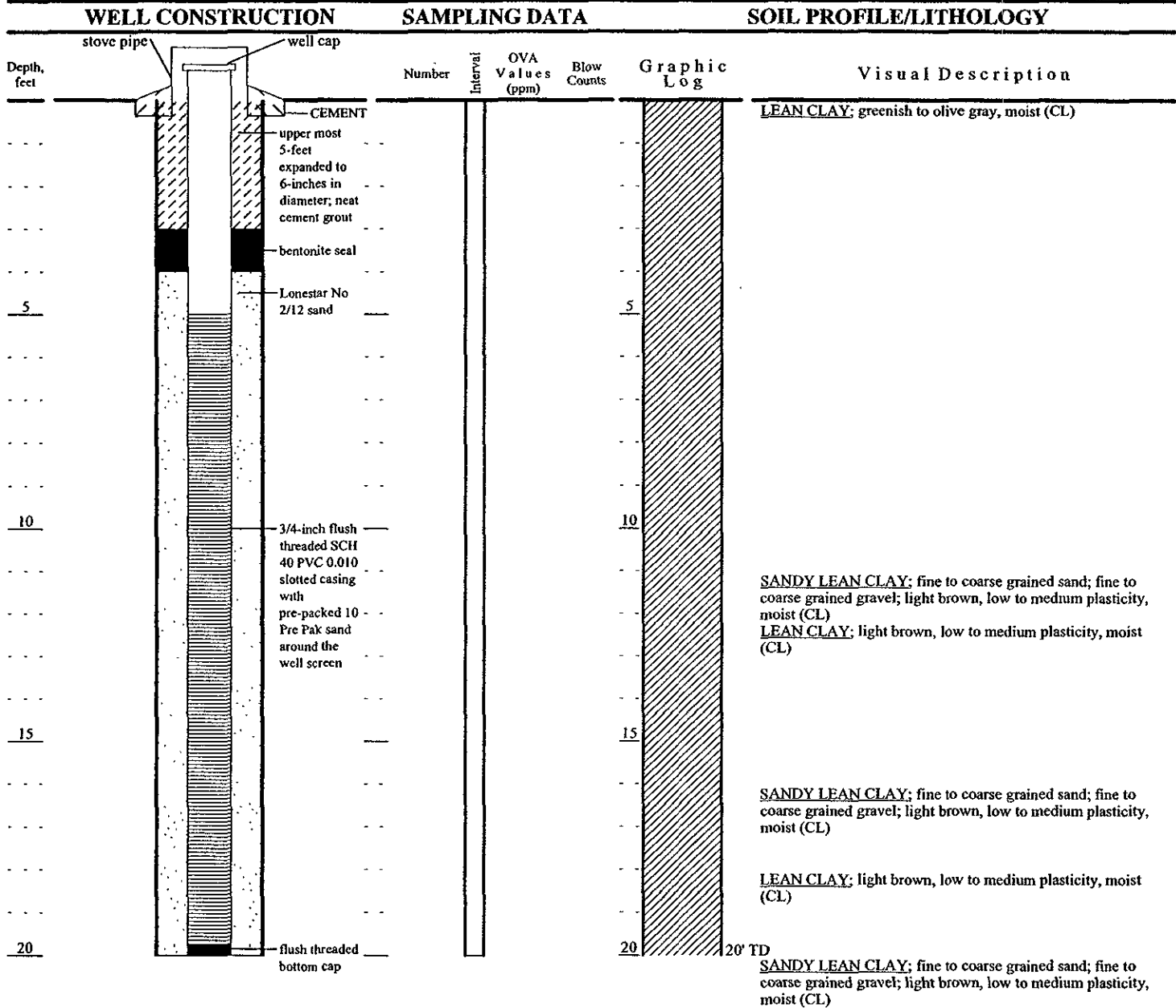
Street Address 6006 International Boulevard	Project ID Chevron Station No. 21-0208	
City & State Oakland, California	Surface Elev. 18.40'	Well / Boring ID TC-2
Delta Project # DG20-208	Casing Elev. 21.77'	Total Depth 20'



Dates and Times	Logger Brett A. Bardsley	Sampling Method & Diameter Continuous Core	Permitting Agency Alameda County Public Works Agency
Start 2/23/02 0815	Drilling Company & Driller Vironex, Mike Martin	Bore Hole Diameter 3.25-inches	Permit # W02-0211
Total Depth 2/23/02 0850	Drillers C-57# 705927	Diameter, Type & Slot Size of Casing 3/4-inch SCH 40 PVC/0.010 slot	
Completion or backfill 2/23/02 0915	Drilling Equipment and method Geoprobe Model 6600 DT, direct push		



Street Address 6006 International Boulevard		Project ID Chevron Station No. 21-0208	
City & State Oakland, California		Surface Elev. 19.30'	Well / Boring ID TC-3
Delta Project # DG20-208		Casing Elev. 21.74'	Total Depth 20'



Dates and Times	Logger Brett A. Bardsley	Sampling Method & Diameter Continuous Core	Permitting Agency Alameda County Public Works Agency
Start 2/23/02 1000	Drilling Company & Driller Vironex, Mike Martin	Bore Hole Diameter 3.25-inches	Permit # W02-0212
Total Depth 2/23/02 1025	Drillers C-57# 705927	Diameter, Type & Slot Size of Casing 3/4-inch SCH 40 PVC/0.010 slot	
Completion or backfill 2/23/02 1100	Drilling Equipment and method Geoprobe Model 6600 DT, direct push		

RBCA SITE ASSESSMENT

Site Name: Former Chevron Service Station No. 21-0208
 Site Location: 6005 International Blvd., Oakland, CA

Completed By: J. Douglas
 Date Completed: 8-Jul-02

Job ID: DG20208HJ001

1 OF 1

SOIL (0 - 10 ft) SSTL VALUES

Target Risk (Class A & B) 1.0E-6
 Target Risk (Class C) 1.0E-5
 Target Hazard Quotient >0E+0

Groundwater DAF Option: Dominant - First Order
 (One-directional vert. dispersion)

SSTL Results For Complete Exposure Pathways ("X" = Complete)

CONSTITUENTS OF CONCERN	Representative Concentration (mg/kg)	Soil Leaching to Groundwater Ingestion / Discharge to Surface Water					X	Soil Vol. to Indoor Air	K	Soil Volatilization to Outdoor Air				Surface Soil Inhalation, Ingestion, Dermal Contact		Applicable SSTL (mg/kg)	SSTL Exceeded? <input type="checkbox"/>	Required CRF Only if Yes* <input type="checkbox"/>
		On-site (a)	Off-site 1 (b)	Off-site 2 (c)	On-site (d)	On-site (e)				Off-site 1 (f)	Off-site 2 (g)	On-site (h)	None	Construction Worker				
		CAS No.	Name	None	None	None	Residential	Residential	Construction Worker	None	None	None	Construction Worker	None	Construction Worker			
71-43-2	Benzene*	1.9E-1	NA	NA	NA	3.0E-1	7.9E+1	NA	NA	NA	NA	NA	NA	3.0E-1	<input type="checkbox"/>	<1		
108-88-3	Toluene	5.0E-2	NA	NA	NA	5.4E+2	>7.9E+2	NA	NA	NA	NA	NA	NA	5.4E+2	<input type="checkbox"/>	<1		
100-41-4	Ethylbenzene	1.3E+0	NA	NA	NA	>6.5E+2	>6.5E+2	NA	NA	NA	NA	NA	NA	>6.5E+2	<input type="checkbox"/>	NA		
1330-20-7	Xylene (mixed isomers)	4.5E-1	NA	NA	NA	>6.1E+2	>5.1E+2	NA	NA	NA	NA	NA	NA	>5.1E+2	<input type="checkbox"/>	NA		
1634-04-4	Methyl t-Butyl ether	4.3E-1	NA	NA	NA	5.3E+3	>1.5E+4	NA	NA	NA	NA	NA	NA	5.3E+3	<input type="checkbox"/>	<1		
0-00-0	TPH - Arom >C08-C10	3.4E+2	NA	NA	NA	>1.0E+3	>1.0E+3	NA	NA	NA	NA	NA	NA	>1.0E+3	<input type="checkbox"/>	NA		
0-00-0	TPH - Aliph >C12-C16	2.2E+1	NA	NA	NA	>3.8E+1	>3.8E+1	NA	NA	NA	NA	NA	NA	>3.8E+1	<input type="checkbox"/>	NA		
0-00-0	TPH - Aliph >C16-C21	6.1E+1	NA	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	<input type="checkbox"/>	NA		
0-00-0	TPH - Arom >C16-C21	1.7E+1	NA	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	<input type="checkbox"/>	NA		
0-00-0	TPH - Arom >C21-C35	1.1E+1	NA	NA	NA	NC	NC	NA	NA	NA	NA	NA	NA	NC	<input type="checkbox"/>	NA		

* = Chemical with user-specified data

* = Indicates risk-based target concentration greater than constituent residual saturation value. NA = Not applicable. NC = Not calculated.

RBCA SITE ASSESSMENT

Site Name: Former Chevron Service Station No. 21-0208

Completed By: J. Douglas

Job ID: DG20208H.3C01

Site Location: 6006 International Blvd., Oakland, CA

Date Completed: 8-Jul-02

1 OF 1

GROUNDWATER SSTL VALUES

Target Risk (Class A & B) 1.0E-6
 Target Risk (Class C) 1.0E-5
 Target Hazard Quotient 1.0E+0

Groundwater DAF Option: Domenico - First Order
 (One-directional vert. dispersion)

SSTL Results For Complete Exposure Pathways ("X" If Complete)

CONSTITUENTS OF CONCERN		Representative Concentration (mg/L)	Groundwater Ingestion			GW Vol. to Indoor Air	Groundwater Volatilization to Outdoor Air			Applicable SSTL (mg/L)	SSTL Exceeded? "X" if yes	Required CRF Only if "yes" left	
			X	On-site (0 ft)	Off-site 1 (700 ft)	Off-site 2 (0 ft)	X	On-site (0 ft)	On-site (0 ft)				Off-site 2 (0 ft)
			None	Commercial	None	Residential	Residential	None	None				
71-43-2	Benzene*	1.0E-1	NA	>1.8E+3	NA	2.4E+0	4.0E+1	NA	NA	2.4E+0	<input type="checkbox"/>	<1	
108-88-3	Toluene	1.3E-2	NA	>5.2E+2	NA	>5.2E+2	>5.2E+2	NA	NA	>5.2E+2	<input type="checkbox"/>	NA	
100-41-4	Ethylbenzene	1.8E-1	NA	>1.7E+2	NA	>1.7E+2	>1.7E+2	NA	NA	>1.7E+2	<input type="checkbox"/>	NA	
1330-20-7	Xylene (mixed isomers)	5.7E-2	NA	>2.0E+2	NA	>2.0E+2	>2.0E+2	NA	NA	>2.0E+2	<input type="checkbox"/>	NA	
1634-04-4	Methyl t-Butyl ether	1.4E-1	NA	>4.8E+4	NA	4.0E+4	>4.8E+4	NA	NA	4.0E+4	<input type="checkbox"/>	<1	
0-00-0	TPH - Arom >C08-C10	1.3E+1	NA	>6.5E+1	NA	>6.5E+1	>6.5E+1	NA	NA	>6.5E+1	<input type="checkbox"/>	NA	
0-00-0	TPH - Aliph >C12-C16	1.7E+0	NA	>7.6E-4	NA	>7.6E-4	>7.6E-4	NA	NA	>7.6E-4	<input type="checkbox"/>	NA	
0-00-0	TPH - Aliph >C16-C21	4.6E+0	NA	>2.5E-6	NA	NC	NC	NA	NA	>2.5E-6	<input type="checkbox"/>	NA	
0-00-0	TPH - Arom >C16-C21	1.3E+0	NA	>6.5E-1	NA	NC	NC	NA	NA	>6.5E-1	<input type="checkbox"/>	NA	
0-00-0	TPH - Arom >C21-C35	8.4E-1	NA	>6.6E-3	NA	NC	NC	NA	NA	>6.6E-3	<input type="checkbox"/>	NA	

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RBCA SITE ASSESSMENT

TPH Criteria SSTL Worksheet

Site Name: Former Chevron Service Station No. 21-0208
 Site Location: 6006 International Blvd., Oakland, CA

Completed By: J. Douglas
 Date Completed: 8-Jul-02

Job ID: DG20208H.3C01

1 OF 1

CALCULATION OF SSTL VALUES FOR TPH

CONSTITUENTS OF CONCERN		Mass Fractions		Representative Concentrations		Calculated Concentration Limits		Applicable SSTL Values	
		Soil (-)	Groundwater (-)	Soil (mg/kg)	Groundwater (mg/L)	Residual Soil Concentration (mg/kg)	Solubility (mg/L)	Soils (0 - 10 ft) (mg/kg)	Groundwater (mg/L)
0-00-0	TPH - Arom >C08-C10	1.0E+0	5.3E-1	3.4E+2	1.3E+1	1.0E+3	6.5E+1	>1.0E+3	>6.5E+1
0-00-0	TPH - Aliph >C12-C16	9.0E-4	9.5E-2	2.2E+1	1.7E+0	3.8E+1	7.6E-4	>3.8E+1	>7.6E-4
0-00-0	TPH - Aliph >C16-C21	2.5E-3	2.6E-1	6.1E+1	4.6E+0	1.6E+1	2.5E-6	NC	>2.5E-6
0-00-0	TPH - Arom >C16-C21	6.8E-4	7.1E-2	1.7E+1	1.3E+0	1.0E+2	6.5E-1	NC	>6.5E-1
0-00-0	TPH - Arom >C21-C35	4.5E-4	4.7E-2	1.1E+1	8.4E-1	8.9E+0	6.6E-3	NC	>6.6E-3
Total		1.0E+0	1.0E+0	4.5E+2	2.1E+1	Total TPH SSTL value		>Res	>Sol

* = Chemical with user-specified data

">" indicates risk-based target concentration greater than constituent residual saturation value. NC = Not calculated.