October 24, 2003

Mr. Don Hwang Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re:

Site Assessment Report

**Douglas Parking Company** 1721 Webster Street Oakland, California

StID 4070

Cambria Project No. 580-0197

Alameda County

OCT 3 O 2003

Environmental Health



Dear Mr. Hwang:

On behalf of Douglas Parking Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this Site Assessment Report for the above referenced site. This report details the monitoring well installation activities discussed in Cambria's Subsurface Investigation Workplan dated March 28, 2002.

If you have any questions regarding this report, please call me at (510) 420-3307.

Sincerely,

Cambria Environmental Technology, Inc.

Mary C. Holland-Ford, R.G.

Project Geologist

Attachment: Site Assessment Report

cc: Mr. Leland Douglas, Douglas Parking Company, 1721 Webster Street, Oakland, California 94612

Cambria **Environmental** Technology, Inc.

5900 Hollis Street Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

RO 129

### CAMBRIA

### SITE ASSESSMENT REPORT

Douglas Parking Company 1721 Webster Street Oakland, California StID 4070/RO0000129 Cambria Project #580-0197

October 24, 2003

Prepared For:

Mr. Leland Douglas
Douglas Parking Company
1721 Webster Street
Oakland, California 94612

Alameda County

Environmental Health

Mary C. Holland-Ford, R.G.

Project Geologist

Prepared By:

Cambria Environmental Technology, Inc.

5900 Hollis Street, Suite A Emeryville, California 94608

Written by:

Cambria Environmental

Technology, Inc.

5900 Hollis Street

for Matthew A. Meyers

Senior Staff Geologist

Suite A Emeryville, CA 94608 Tel (510) 420-0700 Fax (510) 420-9170

### SITE ASSESSMENT REPORT

Douglas Parking Company 1721 Webster Street Oakland, California StID 4070/RO0000129 Cambria Project #580-0197

October 24, 2003



#### INTRODUCTION

On behalf of Douglas Parking Company, Cambria Environmental Technology, Inc. (Cambria) is submitting this *Site Assessment Report* for the above referenced site. This report details the monitoring well installation activities proposed in Cambria's *Subsurface Investigation Workplan* dated March 28, 2002. The Workplan was approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated April 29, 2002 (see Appendix A). The site background, previous work, well installation activities, investigation results, and conclusions are presented below.

### SITE BACKGROUND

Site Description: The site is located at 1721 Webster Street between 17th and 19th Streets in downtown Oakland, California (Figure 1). The site is located approximately five miles east of the San Francisco Bay and one half-mile west of Lake Merritt. The site is currently being utilized as a parking garage (see Figure 2).

Nearby *LUST* Sites: Prentiss Properties is northeast of the site located at 1750 Webster Street, and presently has three onsite monitoring wells (Figure 2). Groundwater samples collected by ATC Associates, Inc. (ATC) on February 8, 1998 detected MTBE concentrations up to 2,900 micrograms per liter (µg/L). Eleven of the twelve groundwater samples collected during ATC's investigation contained detectable MTBE concentrations.

A former Chevron Service station is located approximately 400 feet southwest of the site, on the corner of 17<sup>th</sup> Street and Harrison Street. The groundwater has been impacted by hydrocarbons in the vicinity of the Chevron station.

#### **PREVIOUS WORK**

1992 Tank Removal: On August 3 and 6, 1992, Parker Environmental Services removed one 1,000-gallon and two 500-gallon gasoline underground storage tanks (USTs). Up to 1,500 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg) and up to 12 mg/kg benzene were detected in the soil samples collected from the UST excavation (Table 1).



1994 Subsurface Investigation: On July 8 and September 8, 1994, Gen Tech/Piers Environmental, Inc. (Gen Tech) of San Jose, California drilled six exploratory borings (EB-1 through EB-6) and installed three groundwater monitoring wells (MW-1 through MW-3). TPHg and benzene concentrations of 650 mg/kg and 0.2 mg/kg, respectively, were detected in the soil samples collected at 20 feet (ft) below ground surface (bgs) near the former USTs. Maximum TPHg and benzene concentrations of 350,000 µg/L and 10,000 µg/L were detected in groundwater samples collected from well MW-2, immediately downgradient of the former USTs (Table 1).

1996 Subsurface Investigation: In February and May 1996, Cambria advanced seven geoprobe soil borings (SB-A through SB-G) and installed two groundwater monitoring wells (MW-4 and MW-5). A TPHg concentration of 660 mg/kg was detected at 20.5 ft bgs in a soil sample collected from boring SB-D, located downgradient from the former USTs. No benzene was detected in any of the soil samples (Table 1). Maximum TPHg and benzene concentrations of 63,000 μg/L and 7,400 μg/L were detected in groundwater samples collected from well MW-2 located downgradient of the former USTs (Table 2).

Oxygen Releasing Compound (ORC): To enhance the natural attenuation of dissolved-phase hydrocarbons, Cambria installed ORC socks in well MW-2 on January 8, 1998. Dissolved oxygen (DO) concentrations increased in well MW-2 as compared to other site wells, however the result was temporary.

**Hydrogen Peroxide Injections:** In February and March 1999, Cambria added a total of 120 gallons of 7.5% hydrogen peroxide solution into monitoring wells MW-2 and MW-3 to increase DO levels and enhance the biodegradation of dissolved-phase hydrocarbons. The hydrogen peroxide temporarily increased groundwater DO levels, however hydrocarbon concentrations remained at elevated levels following the hydrogen peroxide activities.

**Remediation Well Installation:** On March 4, 2003, Cambria supervised the installation of a co-axial airsparging/soil vapor extraction well (SV-1/AS-1) and two angled airsparging wells (AS-2 and AS-3) to approximately 30 ft bgs.

Groundwater Monitoring: Since 1994, groundwater depths have ranged from approximately 18 ft to 21 ft bgs (Table 2). The well casing elevations were recently resurveyed in July 2003 and

### CAMBRIA

groundwater elevations currently range between 10 and 12 ft above mean sea level (Table 2). Groundwater flows consistently towards the northeast based on nine years of monitoring data.

### **WELL INSTALLATION ACTIVITIES**

Cambria installed two monitoring wells upgradient and crossgradient of the former UST locations to further delineate the extent of the hydrocarbon plume (see Figure 2). Cambria's *Standard Field Procedures for Soil Borings and Monitoring Wells* is included in Appendix B.



Personnel Present: Rowan Fennell directed field activities, which were overseen by Mary

Holland-Ford, a California Registered Geologist.

Number of Wells: Two wells (MW-6 and MW-7) were installed.

Well Locations: Well MW-6 is located crossgradient of the former UST location, on the east

side of Webster Street, approximately 100 ft northeast of 17<sup>th</sup> Street. Well MW-7 is located upgradient of the former UST location, near the

northwestern corner of Webster Street and 17<sup>th</sup> Street (see Figure 2).

Permits: Alameda County Public Works Agency issued permits for the installation of

two wells. The City of Oakland issued encroachment, excavation and

obstruction permits. The permits are included in Appendix C.

Drilling Company: Woodward Drilling Company of Rio Vista, California (C-57 License

Number 710079) performed the well installations.

Drilling Date: Wells MW-6 and MW-7 were installed on June 27, 2003.

Drilling Method: A hollow stem auger rig with eight-inch diameter augers was used to install

the two-inch diameter wells.

Sampling Method: Soil samples were collected at approximately 5 foot intervals using an 18-inch

long California-modified split spoon sampler.

Boring Depths: Borings for wells MW-6 and MW-7 were drilled to 30 ft bgs.

### CAMBRIA

Groundwater Depths: During drilling, groundwater was first encountered at 25 and 21 ft bgs in borings MW-6 and MW-7, respectively. On June 30, 2003, the static depth to water was measured at 19.60 and 21.40 ft below top of casing in wells MW-6 and MW-7, respectively.

Soil Types

Encountered:

The soils encountered during drilling consist of silty sand to approximately 25 to 29 ft bgs, underlain by sandy clay and silty clay to a total explored depth of 30 ft bgs. Soil boring logs are included in Appendix C.



Well Construction:

Wells MW-6 and MW-7 were constructed of 2-inch diameter, schedule 40, polyvinyl chloride (PVC) well casing. The wells were screened from 15 to 30 ft bgs with 0.010-inch slotted casing with a threaded bottom cap. The wells were completed with Monterey #2/12 sand from the bottom of the well to approximately 2 ft above the top of the screened casing. A well seal consisting of approximately 2 ft of hydrated bentonite chips, and approximately 11 ft of Portland Cement Type I/II was placed above the sand pack. A locking well cap and traffic-rated well box were installed on the wells. Well Construction Details and DWR Well Completion Reports are included in Appendix C.

Well Elevation

Survey:

On July 31, 2003, Virgil Chavez Land Surveying of Vallejo, California surveyed the latitude, longitude, and elevation of the top of all monitoring wells (MW-1 through MW-7). The survey was performed relative to a City of Oakland benchmark with an elevation of 135.028 ft (NGVD 29). The well survey is presented in Appendix G. The well survey results have been submitted to the Geotracker database. See Appendix F for the electronic delivery confirmations.

Well Development:

On June 30, 2003, Cambria developed wells MW-6 and MW-7 by surging and purging multiple well casing volumes of groundwater until the turbidity was significantly reduced. Well development protocol is included in Cambria's Standard Field Procedures for Soil Borings and Monitoring

Wells in Appendix B.

### CAMBRIA

Soil Analyses:

One soil sample was collected from boring MW-6 at approximately 20 ft bgs. The sample was analyzed for TPHg and total petroleum hydrocarbons as diesel (TPHd) by modified EPA Method 8015C; and BTEX and MTBE by modified EPA Method 8021B by McCampbell Analytical of Pacheco, California. Soil analytical results are summarized in Table 1 and the soil sampling laboratory analytical report is presented as Appendix D. The analytical results have been submitted to the Geotracker database. See Appendix F for the electronic delivery confirmations.



Groundwater Analyses:

Groundwater samples were collected from wells MW-6 and MW-7 after well development. Samples were analyzed for TPHg by modified EPA Method 8015C; and BTEX and MTBE by modified EPA Method 8021B by McCampbell Analytical of Pacheco, California. Groundwater analytical results are shown in Table 2 and summarized on Figure 2. The laboratory analytical report is presented in Appendix E. The analytical results have been submitted to the Geotracker database. See Appendix F for the electronic delivery confirmations.

Disposal:

Soil stockpile and water samples were analyzed for TPHg by modified EPA Method 8015C; BTEX, MTBE by modified EPA Method 8021B; and lead by EPA Method 6010 for disposal purposes. Soil cuttings, rinsate, and groundwater generated during drilling activities were transported by Dillard Environmental to Clean Harbors, a licensed disposal facility. A copy of the waste manifest is included in Appendix H. Stockpile sampling protocol is included in Cambria's *Standard Field Procedures for Stockpile Sampling* in Appendix B.

### **INVESTIGATION RESULTS**

Soil Analytical Results: During hydrocarbon field screening, elevated PID readings were measured only in boring MW-6 at 20 and 25 ft bgs (see boring log in Appendix C). TPHg and TPHd concentrations were detected at 220 mg/kg and 150 mg/kg, respectively in a soil sample collected at 20 ft bgs from well MW-6. No MTBE, benzene, or ethylbenzene concentrations were detected in the soil sample. No elevated PID readings were detected in boring MW-7

### CAMBRIA

Groundwater Analytical Results: Elevated hydrocarbon concentrations in groundwater were detected in well MW-6. No hydrocarbon concentrations in groundwater were detected in upgradient well MW-7. During the third quarter sampling event performed on July 21, 2003, TPHg and benzene concentrations were detected in three of the six wells that were sampled. The maximum TPHg concentration was detected in well MW-6 at 120,000 μg/L. The maximum benzene concentration was detected in well MW-2 at 360 μg/L. MTBE was only detected in well MW-3 however confirmation analysis using EPA Method 8260 indicated that this was a false positive result and that no MTBE was present in the well (see Figure 2 and Table 2).



Historical Property Review: Since anomalously high hydrocarbon concentrations were detected in MW-6, Cambria reviewed additional historical information including available data for the nearby LUST sites and Sanborn maps between 1889 and 1964 from Environmental Data Resources, Inc. (EDR). The property located next to MW-6 at 1700 Webster Street was identified as likely having gasoline and oil USTs up until at least 1964. Sanborn maps dated 1950 through 1964 were labeled "Oil and Gas", and "Auto Parking" on the southwest corner of the property (see Figure 3). The location of the USTs was not shown on any of the maps. The EDR report with the available Sanborn maps for the site and surrounding area are included in Appendix I.

#### CONCLUSIONS

- No hydrocarbon concentrations were detected in shallow soil above the groundwater table. The
  elevated hydrocarbon concentrations detected in soil samples from boring MW-6 at 20 to 25 ft
  bgs are related to the hydrocarbon-impacted groundwater.
- Except for in the direction of well MW-6, hydrocarbon concentrations in groundwater are fully characterized in all directions.
- The high TPHg and low benzene concentrations in MW-6 indicate that the gasoline-range hydrocarbons are very weathered and likely source from an old release. The hydrocarbons detected in crossgradient well MW-6 are approximately two orders of magnitude higher than those detected in well MW-2 which is located directly downgradient of the former USTs. This suggests that the dissolved-phase hydrocarbons detected in MW-6 did not migrate from the former USTs at the site. It also appears that the dissolved-phase hydrocarbons in MW-6 did not migrate from the nearby Prentiss Property which is located hydraulically downgradient of the well.
- The weathered gasoline-range hydrocarbons present in MW-6 are most likely related to gasoline USTs previously located at 1700 Webster Street as indicated on the Sanborn maps.

Site Assessment Report Douglas Parking Company 1721 Webster Street, Oakland October 24, 2003

#### **ATTACHMENTS**

Figure 1 – Vicinity Map

Figure 2 - Groundwater Elevation Contours and Hydrocarbon Concentration Map

Figure 3 – Sanborn Map copyright 1964

Table 1 - Soil Analytical Data

Table 2 - Groundwater Elevation and Analytical Data

Appendix A – Agency Correspondence

Appendix B – Standard Field Procedures

Appendix C - Boring Logs and Well Construction Details, Permits, and DWR Well Completion Reports

Appendix D - Laboratory Analytical Report - Soil

Appendix E - Laboratory Analytical Report - Groundwater

Appendix F - Geotracker Electronic Delivery Confirmations

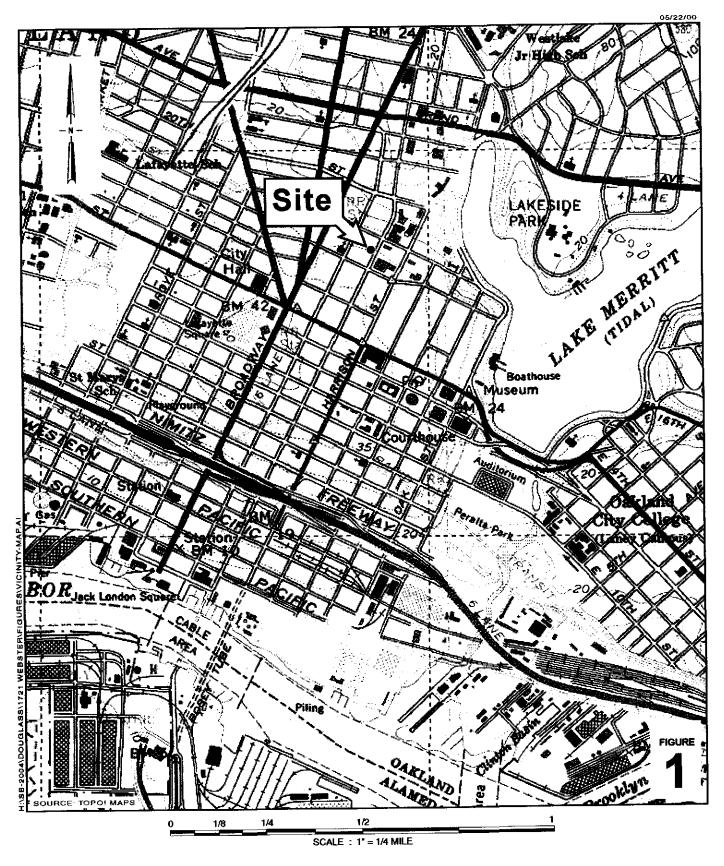
Appendix G – Well Survey

Appendix H - Waste Manifest

Appendix I – Background Information

\\lookde\in\Sb-2004 (UST Fund)\Douglas Parking\1721 Webster\Well Install\Well Install 2003\Site Assessment Report 2003.doc





**Douglas Parking Facility** 

1721 Webster Street Oakland, California



**Vicinity Map** 

### **Douglas Parking Facility**

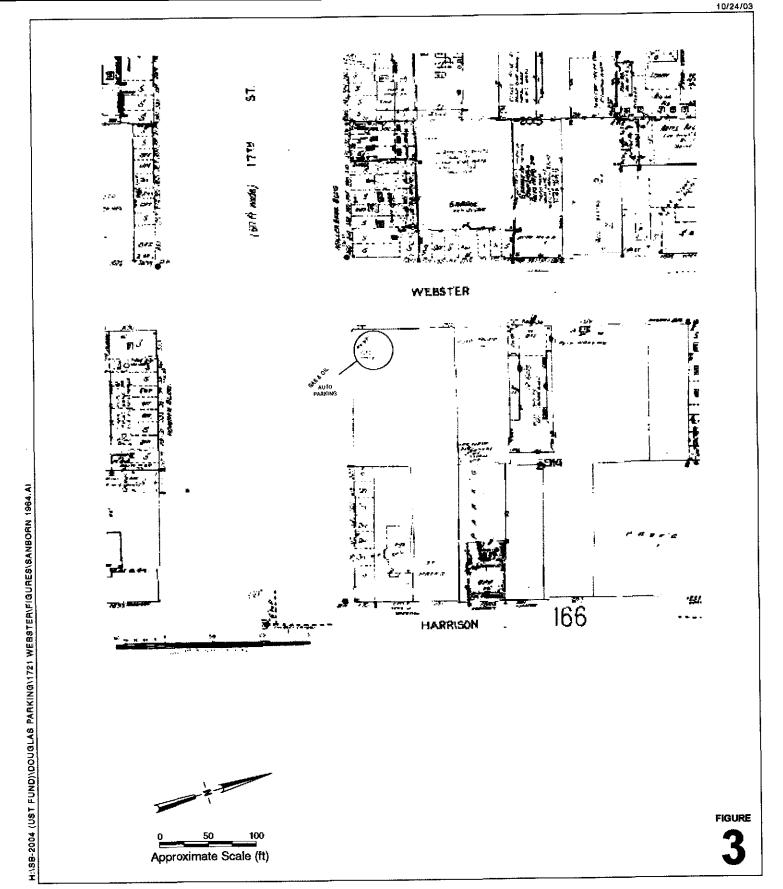
1721 Webster Street Oakland, California



Groundwater Elevation Contours and Hydrocarbon Concentration Map

July 21, 2003

10/24/03



# **Douglas Parking**

1721 Webster Street Oakland, California



Sanborn Map

copyright 1964

Table 1. Soil Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, California

Boring/	Date	Sample	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes
Well ID		Depth (ft bgs)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
arker Environmen	ıtal						
T-1	8/3/1992	9	150	2.2	2.9	1.8	13
T-2	8/3/1992	9	120	0.62	0.56	0.87	2.2
T-3	8/3/1992	8	580	1.7	5.9	5.6	43
T-4	8/3/1992	8	1,500	11	140	48	280
T-5	8/3/1992	8	410	6.7	22	6.2	35
T-6	8/3/1992	12	1,400	12	70	29	150
T-7	8/3/1992	14	2.3	0.11	0.19	0.050	0.31
SW1	8/3/1992	91/2	280	2.9	5.8	3.2	15
SW2	8/3/1992	7	1,500	5.7	40	18	150
SW3	8/3/1992	8	400	2.7	5.8	4.0	21
SW4	8/3/1992	9	2.3	0.42	0.028	0.077	0.18
Gen Tech							
EB-1	7/8/1994	10	ND	<u></u>	_		
EB-1	7/8/1994	15	ND	<del></del>			_
EB-1	7/8/1994	20	trace			<del></del>	
EB-1	7/8/1994	25	trace				
EB-1	7/8/1994	30	ND			<b></b>	
EB-2	7/8/1994	10	trace				
EB-2	7/8/1994	15	600				
EB-2	7/8/1994	20	500			-	
EB-2	7/8/1994	25	1,000			-	
EB-2	7/8/1994	30	ND			_	
EB-3	7/8/1994	2	ND				
EB-3	7/8/1994	5	trace	all right	-see		
EB-3	7/8/1994	10	100	<del></del>			
EB-3	7/8/1994	15	trace				
EB-3	7/8/1994	20	100				
EB-3	7/8/1994	30	ND				-+
EB-4	7/8/1994	10	ND			_	
EB-4	7/8/1994	15	trace				
EB-4	7/8/19 <del>94</del> 7/8/1994	20	trace				
EB-4	7/8/1994	30	ND		<b></b> 		
1.11-4	710(1774	υ	1112	<del></del>	_	. <del></del>	
EB-5	7/8/1994	2	100				
EB-5	7/8/1994	5	1,000		-		
EB-5	7/8/1994	10	800				
EB-5	7/8/1994	15	1,000		-		-
EB-5	7/8/1994	20	500	V-ram			

Table 1. Soil Analytical Data - Douglas Parking Company, 1721 Webster Street, Oakland, California

Boring/ Well ID	Date	Sample Depth (ft bgs)	TPHg (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
EB-5	7/8/1994	30	ND				
EB-6	7/8/1994	10	ND				
EB-6	7/8/1994	15					
EB-6			trace				-
	7/8/1994	20	1,000			<del></del>	-
EB-6	7/8/1994	30	ND			_	-
Cambria Environm	ental Technology, i	Inc.					
SB-A	2/22/1996	19.5	<1.0	< 0.005	0.007	< 0.005	< 0.005
SB-B	2/22/1996	20.5	580	<0.3	1.3	1.8	4.2
SB-C	2/22/1996	19.5	1.4	<0.005	0.013	0.027	0.12
SB-D	2/22/1996	20.5	660	<0.2	2.3	<0.2	5.2
SB-E	2/23/1996	20.5	<1.0	<0.005	0.009	<0.005	< 0.005
SB-F	2/23/1996	20.0	<1.0	<0.005	0.006	< 0.005	< 0.005
SB-G	2/23/1996	20.0	<1.0	<0.005	0.009	<0.005	< 0.005
SB-H	5/3/1996	20.5	1.2	< 0.005	0.006	0.025	0.038
(MW-4)	5/3/1996	31.0	<1.0	< 0.005	< 0.005	<0.005	< 0.005
SB-I	5/3/1996	15.5	<1.0	<0.005	< 0.005	<0.005	< 0.005
(MW-5)	5/3/1996	26.0	<1.0	<0.005	< 0.005	< 0.005	< 0.005
MW-6	6/27/2003	20.0	220	<0.10	0.14	<0.10	0.35

### Notes and Abbreviations

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8021B

TPHg = Total petroleum hydrocarbons as gasoline per Modified EPA Method 8015

-- = Not analyzed or not available

ft bgs = feet below ground surface

mg/kg = miligrams per kilograms

**Table 2. Groundwater Elevation and Analytical Data**Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
TOC)		Water (ft)	Elevation (ft)	(µg/L)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(µg/L)
							•		
en Tech									
EB-1	7/8/1994	-	-	62,000	-	-	=	~	-
ED 4									
EB-2	7/8/1994	-	-	160,000	-	-	**	-	-
EB-3	7/8/1994			87,000					
ED-3	770/1994	-	-	67,000	-	-	· <del>-</del>	•	-
EB-4	7/8/1994	_	_	350,000	_	_	_	-	_
	170,135			334,000					
EB-5	7/8/1994	-	-	120,000	-	_	-	-	-
				·					
EB-6	7/8/1994	-	-	230,000	-	-	-	-	-
MW-1	12/2/1994	19.42	9.83	nd	nd	nd	nd	nd	-
9.25	3/6/1995	20.69	9.04	nd	nd	nd	nd	nd	-
9.73	7/11/1995	20.65	9.16	nd	nd	nd	nd	nd	-
9.81	5/10/1996	20.80	9.01	nd	nd	nd	nd	nd	•
	10/2/1996	21.35	8.46	_	-	_	-	-	-
	2/28/1997	20.57	9.24	_	-	_	_	_	-
	9/16/1997	21.50	8.31	_	_	_	_	_	_
	2/5/1998	20.91	8.90						
				-	-	-	-	-	•
	8/11/1998	20.50	9.31	-	-	-	-	-	-
	2/8/1999	21.42	8.39	-	-	-	-	-	-
	2/24/1999	22.99	6.82	-	-	-	-	-	-
	3/3/1999	20.84	8.97	=	=	-	<del>-</del>	<del>-</del>	-
	3/10/1999	20.89	8.92	-	-	-	-	-	-
	3/17/1999	20.84	8.97	-	-	-	-	-	-
	5/4/1999	20.80	9.01	_	-	-	-	-	-
	7/20/1999	21.25	8.56	_	-	-	-	-	•
	10/5/1999	21.37	8.44	<u>-</u> .	_	_	~	_	
	1/7/2000	21.65	8.16	_	_	_	-	-	-
	4/6/2000	21.05	8.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/31/2000	21.13	8.68	-	-	-	-	40.5	~5.0
	10/3/2000			-	-	-	-	-	_
		21.69	8.12	-	~	-	-	-	-
	1/12/2001	22.00	7.81	<u> </u>	-	-	-	-	=
	4/11/2001	22.16	7.65	••	-	-	-	-	-
	7/6/2001	22.57	7.24	•	-	-	-	-	-
	10/25/2001	22.71	7.10	-	-	-	-	-	-
	3/4/2002	22.53	7.28	-	-	-	-	-	•
	4/18/2002	22.81	7.00	-	-	-	-	-	•
	7/9/2002	22.95	6.86	-	-	-	-	-	•
	10/4/2002	23.13	6.68	_	-	_	-	-	-
	1/12/2003	22.05	7.76	_	_	_	-	<del>-</del>	_
	4/21/2003	21.17	8.64	_	_	-	<del>-</del>	_	-
2.75	7/21/2003	21.39	11.36	-	_		-	_	
#. / L/	174474000	=1.07	1100		-	-	-		-
MW-2	12/2/1994	19.50	7.60	61,300	3,000	3,900	160	4,500	-
7.10	3/6/1995	18.49	8.61	98,000	8,400	16,000	2,000	2,600	_
7.40	7/11/1995	18.45	8.95	38,000	3,100	7,500	940	3,700	_
	5/10/1996	18.56	8.84	63,000	7,400	16,000	1,500	6,000	
	10/2/1996	19.15	8.25		2,200		430	1,600	-
				21,000		3,400			
	2/28/1997	18.43	8.97	39,000	4,700	9,600	950	4,200	nd .coo
	9/16/1997	19.26	8.14	29,000	3,300	5,800	690	2,900	<620

**Table 2. Groundwater Elevation and Analytical Data**Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
(TOC)		Water (ft)	Elevation (ft)	(µg/L)	(µg/L)	$(\mu g/L)$	(µg/L)	(μg/L)	(µg/L)
MW-2	2/5/1998	18.66	8.74	10,000	1,000	2,000	170	860	<330
(cont'd)	8/11/1998	18.41	8.99	12,000	1,200	2,300	260	1,400	300
	2/8/1999	19.84	7.56	5,500	740	1,200	150	780	60
	2/17/1999	18.94	8.46	-	-	-	-	-	-
	2/24/1999	20.76	6.64	-	-	-	-	-	-
	3/3/1999	18.55	8.85	-	-	-	*	-	-
	3/10/1999	20.74	6.66	-	-	-	-	-	-
	3/17/1999	18.57	8.83	-	-	-	-		-
	5/4/1999	18.55	8.85	90,000	9,200	21,000	1,600	10,000	560
	7/20/1999	18.98	8.42	28,000	2,100	3,700	900	4,200	<860
	10/5/1999	19.10	8.30	11,000	870	180	30	1,400	<110
	1/7/2000	19.41	7.99	15,000	1,300	2,100	440	1,800	<14
	4/6/2000	18.80	8.60	17,000	1,800	3,100	500	2,200	<50
	7/31/2000	18.87	8.53	17,000	1,500	2,700	430	2,100	<200
	10/3/2000	19.45	7.95	27,000	2,500	4,000	660	2,900	<50
	1/12/2001	19.80	7.60	25,000	2,700	4,100	670	3,000	<200
	4/11/2001	20.03	7.37	97,000	9,500	21,000	2,200	7,900	<200
	7/6/2001	20.19	7.21	3,500	500	150	11	420	<5.0
	10/25/2001	20.35	7.05	3,800	620	230	70	400	<50
	3/4/2002	20.37	7.03	46,000	7,300	12,000	870	3,200	<500
	4/18/2002	20.15	7.25	68,000	5,100	8,900	1,100	4,000	<1,000
	7/9/2002	21.09	6.31	1,000	200	8.9	0.67	82	<10
	10/4/2002	21.28	6.12	270	100	3.4	0.53	10	<5.0
	1/12/2003	20.59	6.81	67,000	7,600	13,000	1,400	5,600	<500
	4/21/2003	19.98	7.42	78,000	7.700	12,000	1,900	6,900	<500
30.40	7/21/2003	20.08	10.32	1,800	360	16	<5.0	190	<50
MW-3	12/2/1994	22.15	7.35	394,000	1,200	nd	1,800	4,000	-
29.50	3/6/1995	20.09	9.16	21,000	400	150	24	62	
29.25	7/11/1995	19.99	9.57	12,000	nd	10	16	99	_
29.56	5/10/1996	20.24	9.32	8,600	nd	7.6	16	84	_
	10/2/1996	20.90	8.66	11,000	nd	7.4	19	92	_
	2/28/1997	20.12	9.44	6,000	nd	4.4	17	88	50
	9/16/1997	20.97	8.59	6,500	<0.5	1	1	7	<5.0
	2/5/1998	20.39	9.17	5,400	<0.5	6.3	15	86	<63
	8/11/1998	19.95	9.61	2,700	<0.5	3.5	3.2	12	<10
	2/8/1999	20.58	8.98	6,100	<0.5	8.1	18	80	<140
	2/17/1999	20.53	9.03	-	-		-	-	-
	2/24/1999	22.53	7.03	_	_	_	-	_	_
	3/3/1999	20.28	9.28	_	_	_	_	_	_
	3/10/1999	22.45	7.11	_	_	-	_	_	_
	3/17/1999	20.26	9.30	_	_		_	-	_
	5/4/1999	20.24	9.32	11,000	<2	<2	9.8	140	<10
	7/20/1999	20.68	8.88	11,000	<0.5	3.1	13	88	<80
	10/5/1999	20.81	8.75	31,000	62	<0.5	21	170	<90
	1/7/2000	21.09	8.47	13,000	<0.5	<2	21	140	<80
	4/6/2000	20.48	9.08	5,300	1.5	1.4	9.8	60	<30
	7/31/2000	20.48	9.08 8.94	7,100	3.5	1.0	12	66	<5.0
	10/3/2000	21.13	8.43	8,000	<0.5	3.3	11	70	<40
	1/12/2001	21.13	8.11	11,000	4.3	6.7	11	73	<70
	4/11/2001	21.43	8.11 7.87	10,000	4. <i>3</i> <0.5	<0.5	11	65	<10
						1.6	11	58	<10 <5.0
	7/6/2001 10/25/2001	21.60 21.70	7.96 7.86	13,000 11,000	5.3 <0.5	3.0	15	38 70	<10
		2.1.70	7.8D	LT.UUU	<u.j< td=""><td>3.0</td><td>ŢĴ</td><td>70</td><td>&lt;10</td></u.j<>	3.0	ŢĴ	70	<10

Table 2. Groundwater Elevation and Analytical Data
Douglas Parking Company, 1721 Webster Street, Oakland, CA

Well ID	Date	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
(TOC)		Water (ft)	Elevation (ft)	(μg/L)	(µg/L)	(µg/L)	(μ <b>g/L</b> )	(µg/L)	(μg/L)
MW-3	4/18/2002	21.77	7.79	1,500	1.0	0.97	1.3	5.8	<5
(cont'd)	7/9/2002	22.03	7.53	13,000	6.8	5.7	13	59	<90
	10/4/2002	22.15	7.41	8,400	<10	<10	<10	42	<100
	1/12/2003	21.13	8.43	9,000	9.5	5.1	8.5	46	<90
	4/21/2003	20.63	8.93	10,000	< 5.0	<5.0	8.5	32	<50
32.56	7/21/2003	20.68	11.88	9,600	<2.5	<2.5	7.4	39	48, (<1.0)
MW-4	5/10/1996	16.98	8.31	14,000	nd	1,200	720	3,100	-
25.29	10/2/1996	17.65	7.64	12,000	nd	650	580	2,200	-
	2/28/1997	16.80	8.49	13,000	nd	1,100	750	2,700	110
	9/17/1997	17.93	7.36	13,000	<2.5	820	750	2,900	<190
	2/5/1998	16.78	8.51	13,000	<1.0	690	690	2,900	<170
	8/11/1998	16.59	8.70	15,000	<5	360	520	1,900	280
	2/8/1999	17.10	8.19	9,800	<5	680	770	2,200	300
	2/24/1999	18.95	6.34	-	-	_	-	· <u>-</u>	-
	3/3/1999	16.80	8.49		-	_	-	_	_
	3/10/1999	16.86	8.43	-	-	-	-	_	-
	3/17/1999	16.82	8.47	-	_	_	-	_	_
	5/4/1999	16.86	8.43	11,000	46	600	620	1,900	<100
	7/20/1999	17.30	7.99	13,000	<0.5	470	7.0	2,000	<150
	10/5/1999	17.43	7.86	18,000	4.4	720	800	2,100	<120
	1/7/2000	17.43	7.51			930	990		<30
	4/6/2000			18,000	<2	390		2,700	<10
		17.17	8.12	8,000	31	170	530 460	1,300 850	
	7/31/2000	17.21	8.08	6,200	13				<10
	10/3/2000	18.00	7.29	14,000	42	820	730	2,000	<50
	1/12/2001	18.20	7.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	4/11/2001	18.31	6.98	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/6/2001	18.35	6.94	470	2.3	1.6	0.81	43	<5.0
	10/25/2001	18.47	6.82	110	0.70	<0.5	<0.5	3.3	<5.0
	3/4/2002	18.43	6.86	<50	< 0.5	<0.5	< 0.5	<0.5	<5.0
	4/18/2002	18.61	6.68	<50	< 0.5	<0.5	<0.5	<0.5	<5.0
	7/9/2002	19.50	5.79	<50	< 0.5	<0.5	<0.5	<0.5	<5.0
	10/4/2002	19.83	5.46	310	2.0	2.9	13	16	<0.5
	1/12/2003	19.07	6.22	<50	< 0.5	<0.5	<0.5	< 0.5	<5.0
	4/21/2003	18.71	6.58	<50	< 0.5	<0.5	<0.5	< 0.5	<5.0
28.29	7/21/2003	18.81	9.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-5	5/10/1996	14.60	7.37	nd	nd	nd	nd	nd	•
21.97	10/2/1996	15.25	6.72	nd	nd	nd	nd	nd	-
	2/28/1997	14.31	7.66	nd	nd	nd	nd	nd	nd
	9/17/1997	15.18	6.79	< 0.5	<0.5	<0.5	<0.5	<0.5	<5.0
	2/5/1998	13.64	8.33	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/11/1998	13.92	8.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/8/1999	14.19	7.78	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/24/1999	16.18	5.79	-	-	-	-	-	
	3/3/1999	14.23	7.74	-	-	_	•	-	<u>-</u>
	3/10/1999	14.23	7.74 7.65	-	•	-	-	-	-
				•	-	-	•	-	-
	3/17/1999	14.25	7.72	-50	-0.5	-n =	- - م	-A E	.e.n
	5/4/1999	14.41	7.56	<50	< 0.5	<0.5	<0.5	<0.5	<5.0
	7/20/1999	14.44	7.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	10/5/1999	14.79	7.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	1/7/2000*	15.23	6.74	-	-	-	-		
	4/6/2000	14.74	7.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/31/2000	14.52	7.45	<50	<0.5	< 0.5	<0.5	< 0.5	<5.0

Table 2. Groundwater Elevation and Analytical Data
Douglas Parking Company, 1721 Webster Street, Oakland, CA

	,								
Well ID	Date	Depth to	Groundwater	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
(TOC)		Water (ft)	Elevation (ft)	(μg/L)	(µg/L)	(µg/L)	(µg/L)	(μg/L)	(μg/L)
MW-5	10/3/2000	15.37	6.60	<50	<0.5	<0.5	<0.5	<0.5	<5.0
(cont'd)	1/12/2001	15.70	6.27	6,400	13	290	450	1,100	<40
	4/11/2001	15.78	6.19	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0
	7/6/2001	15.97	6.00	<50	< 0.5	< 0.5	< 0.5	< 0.5	<5.0
	10/25/2001	16.05	5.92	<50	< 0.5	< 0.5	< 0.5	<0.5	<5.0
	3/4/2002	16.21	5.76	<50	< 0.5	< 0.5	< 0.5	<0.5	<5.0
	4/18/2002	16.59	5.38	<50	<0.5	< 0.5	< 0.5	<0.5	<5.0
	7/9/2002	16.94	5.03	170	1.0	0.65	2.1	4.0	<15
	10/4/2002	17.14	4.83	<50	< 0.5	< 0.5	< 0.5	<0.5	<5.0
	1/12/2003	16.58	5.39	<50	< 0.5	< 0.5	< 0.5	<0.5	<5.0
	4/21/2003	15.90	6.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0
24.99	7/21/2003	16.03	8.96	<50	<0.5	< 0.5	<0.5	<0.5	<5.0
MW-6	6/30/2003	19.60	11.39	68,000	950	6,000	2,400	10,000	<1,000
30.99	7/21/2003	19.67	11.32	120,000	170	1,400	1,100	10,000	<1,000
MW-7	6/30/2003	21.40	11.71	170	<0.5	2.1	2.0	8.7	<5.0
33.11	7/21/2003	21.44	11.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0
Tain Dlank	1/12/2001			.EO	<0.5	<0.5	<0.5	<0.5	<5.0
Trip Blank	1/12/2001	•	-	<50 -50				<0.5	<5.0
	4/11/2001	-	-	<50 -50	<0.5	<0.5	<0.5		
	7/6/2001	=	=	<50	<0.5	<0.5	<0.5	< 0.5	<5.0 .s.o
	3/4/2002	-	-	<50	<0.5	<0.5	<0.5	< 0.5	<5.0

### Notes and Abbreviations:

\* = Well inaccessible

<nd = Below detection limit

TOC = top of casing elevations in feet above mean sea level

TOC - top of casing elevations in feet above mean sea level

 $TPHg = Total \ petroleum \ hydrocarbons \ as \ gasoline \ by \ modified \ EPA \ Method \ 8015$ 

Benzene, Toluene, Ethylbenzene, and Xylenes by EPA Method 8020

MTBE = methyl tertiary butyl ether by EPA Method 8021B, and by EPA Method 8260 in parenthesis

Data prior to 7/11/95 from Gen Tech and Piers Environmental Quarterly Groundwater Monitoring Reports dated December 2, 1994 and March 6, 1995, respectively.

 $\mu$ g/L = micrograms per liter

-- = Not analyzed or not available

ft-msl = feet above mean sea level

Sampling no longer required in well MW-1 per September 17, 1996, ACDEH letter to Douglas Parking.

On July 31, 2003, Virgil Chavez Land Surveying of Vallejo, California surveyed monitoring wells using a benchmark in the top of the curb near the SW return of the NW corner of 34th and Broadway

## **APPENDIX A**

Agency Correspondence

# LAMEDA COUNTY IEALTH CARE SERVICES

**AGENCY** 



DAVID J. KEARS, Agency Director

May 23, 2002

Mr. Charles Sumner II Prentiss Properties 2485 Natomas Park Drive, Suite 350 Sacramento, CA 95833

Re: 1721 and 1750 Webster St., Oakland, CA 94607

Dear Mr. Sumner:

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

This letter responds to your inquiry regarding the status of the subsurface investigation at 1721 Webster St., Oakland CA 94607 aka the Douglas Parking site. A work plan for the installation of two up-gradient monitoring wells has been submitted and approved in my April 29, 2002 letter, copy enclosed. The wells are to be installed "as soon as possible". You will also notice that our office is requesting information about and the performance of the previously proposed soil vapor extraction/air sparge test at this site. Hopefully, this will prove to be an appropriate remediation approach for the site.

I noticed in your letter that you have commenced development feasibility reevaluation for the 1750 Webster St. property. You are reminded that groundwater contamination at this site was deemed not to pose a risk to the development of a non-enclosed parking lot ie little to no indoor air exposure. If your future plans include indoor air exposures, a revised risk assessment will be required. It would also be advisable to resample the wells on your property to obtain current data to evaluate risk. Lastly, be advised that I am your new caseworker.

You may contact me at (510) 567-6765 with questions.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

Enclosure (Mr. Sumner)

C: B. Chan, files

Mr. Lee Douglas, 1721 Webster St., Oakland, CA 94607

Mr. B. Clark-Riddell, Cambria Environmental, 1144 65th St., Suite B, Oakland CA 94608

Stat1721&1750WebsterSt

# ALAMEDA COUNTY HEALTH CARE SERVICES

**AGENCY** 





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

April 29, 2002 StID 4070/RO0000129

Mr. Lee Douglas Douglas Parking 1721 Webster St.

Re: Subsurface Investigation Workplan, 1721 Webster St., Oakland, CA 94607

Dear Mr. Douglas:

Our office has received and reviewed the March 28, 2002 Subsurface Investigation Workplan for the referenced site prepared by Cambria Environmental, your consultant. The work plan proposes the installation of two monitoring wells (MW-6 and MW-7) to further characterize the hydrocarbon contaminant plume. This work plan is approved and the wells should be installed as soon as possible. Please include the analysis of the following oxygenates and lead scavengers, TAME, ETBE, DIPE, TBA, EDB and EDC in addition to MTBE in the two highest impacted wells.

Our office would also like additional information regarding the proposed soil vapor extraction/air sparge tests, which we have previously approved. Please provide a cross-sectional diagram of the existing remediation wells and describe how each of the tests will be performed and evaluated. We understand that based upon the results of the tests, a recommendation for the most appropriate remediation will be made. These results may also affect our prior recommendation to not proceed with a three month biosparge test.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

Barrey M Che

C: B. Chan, files

√Mr. B. Clark-Riddell, Cambria Environmental, 1144 65<sup>th</sup> St., Suite B, Oakland CA 94608

Mr. H. Patel, SWRCB, 1001 I St., 17<sup>th</sup> Floor, Sacramento, CA 95814-2828

Wpap1721WebsterSt

# **APPENDIX B**

Standard Field Procedures

#### STANDARD FIELD PROCEDURES FOR SOIL BORINGS AND MONITORING WELLS

This document presents standard field methods for drilling and sampling soil borings and installing, developing and sampling groundwater monitoring wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

#### **SOIL BORINGS**

### **Objectives**

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Registered Geologist (RG).

### Soil Boring and Sampling

Soil borings are typically drilled using hollow-stem augers or direct-push technologies such as the Geoprobe<sup>®</sup>. Soil samples are collected at least every five ft to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

### Sample Analysis

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4° C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

### Field Screening

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable volatile vapor analyzer measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. Volatile vapor analyzer measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

### Water Sampling

Water samples, if they are collected from the boring, are either collected using a driven Hydropunch<sup>®</sup> type sampler or are collected from the open borehole using bailers. The groundwater samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

#### Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

### MONITORING WELL INSTALLATION, DEVELOPMENT AND SAMPLING

### Well Construction and Surveying

Groundwater monitoring wells are installed to monitor groundwater quality and determine the groundwater elevation, flow direction and gradient. Well depths and screen lengths are based on groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines. Well screens typically extend 10 to 15 ft below and 5 ft above the static water level at the time of drilling. However, the well screen will generally not extend into or through a clay layer that is at least three ft thick.

Well casing and screen are flush-threaded, Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two ft above the well screen. A two ft thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement.

Well-heads are secured by locking well-caps inside traffic-rated vaults finished flush with the ground surface. A stovepipe may be installed between the well-head and the vault cap for additional security.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

### Well Development

Wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

### **Groundwater Sampling**

Depending on local regulatory guidelines, three to four well-casing volumes of groundwater are purged prior to sampling. Purging continues until groundwater pH, conductivity, and temperature have stabilized. Groundwater samples are collected using bailers or pumps and are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4°C, and transported under chain-of-custody to the laboratory. Laboratory-supplied trip blanks accompany the samples and are analyzed to check for cross-contamination. An equipment blank may be analyzed if non-dedicated sampling equipment is used.

F:\TEMPLATE\SOPS\WELLS-BORINGS-GW.DOC

#### SOIL STOCKPILE SAMPLING PROCEDURES

Soil excavation is often completed to remove contaminant-bearing soils. The removed soils are typically stockpiled onsite and sampled. Cambria has developed standard sampling procedures to characterize stockpiled soils for onsite or offsite treatment, reuse or disposal. The procedures ensure that the samples are collected, handled, and documented in compliance with Federal, State and local regulatory agency guidelines.

Cambria's stockpile sampling procedures are consistent with EPA SW-846 methods and are designed to ensure representative sampling as required by disposal facilities, when used. Procedures conform with Bay Area Air Quality Management District<sup>1</sup>, San Joaquin Valley Unified Air Pollution Control District<sup>2</sup>, and other oversight agency regulations. Sampling plans are determined on a site-specific basis and, typically, one composite soil sample is collected for every 50 cubic yards of excavated soil. Each composite sample consists of four discreet soil samples collected from the stockpile which are combined in the laboratory. The samples are collected by dividing each 50 cubic yard volume into 4 sectors. One discreet soil sample is collected from each sector.

The samples are collected by digging away approximately 2 ft of the surface soils. A clean brass tube is then driven into the exposed soils. The ends of the tube are trimmed flush, capped with Teflon tape and plastic end caps, labeled, refrigerated and transported under chain of custody to a State certified laboratory.

San Francisco Bay Area Air Quality Management District, 1989, Regulation 8, Organic Compounds, Rule 40, Aeration of Contaminated Soil and Removal of Underground Storage Tanks, February 15, 1989 7 pp.

San Joaquin Valley Unified Air Pollution Control District, 1992, Rule 4651, Volatile Organic Compound Emissions from Decontamination of Soil, December 17, 1992

### **APPENDIX C**

Boring Logs and Well Construction Details, Permits, and DWR Well Completion Reports





Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

CLIENT NAME	Douglas Parking Company	BORING/WELL NAME MW-6
JOB/SITE NAME	Webster	DRILLING STARTED 27-Jun-03
LOCATION	1721 Webster Street, Oakland, CA.	DRILLING COMPLETED 27-Jun-03
PROJECT NUMBER _	580-0197	WELL DEVELOPMENT DATE (YIELD) 30-Jun-03 (6 gallons)
DRILLER	Woodward Drilling	GROUND SURFACE ELEVATION 31 ft above msl
DRILLING METHOD _	Hollow-stem auger	TOP OF CASING ELEVATION 30.99 ft above msl
BORING DIAMETER	8"	SCREENED INTERVAL 15 to 30 ft bgs
LOGGED BY	R. Fennell	DEPTH TO WATER (First Encountered) 25.0 ft (27-Jun-03)
REVIEWED BY	Mary C. Holland-Ford R.G. #7551	DEPTH TO WATER (Static) 21.40 ft (30-Jun-03)

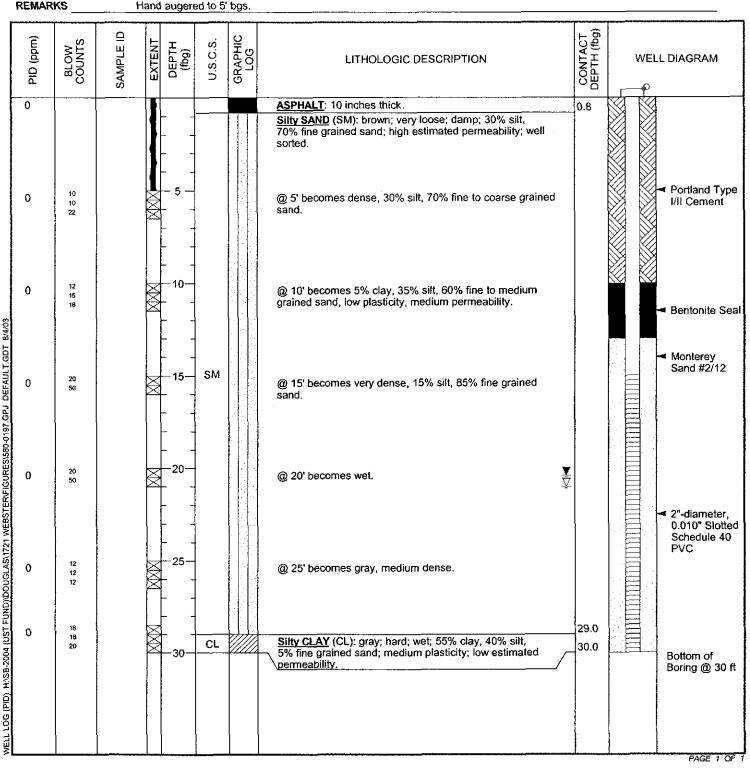
REMARKS Hand augered to 5' bgs. CONTACT DEPTH (fbg) SAMPLE ID GRAPHIC LOG BLOW PID (ppm) DEPTH (fbg) U.S.C.S. EXTENT WELL DIAGRAM LITHOLOGIC DESCRIPTION ASPHALT: 10 inches thick. 8.0 <u>Silty SAND</u> (SM): brown; very loose; damp; 30% silt, 70% fine to medium grained sand; high estimated SM permeability; well sorted. 3.0 <u>Clavey SAND</u> (SC): gray brown; very loose; damp; 20% clay, 20% silt, 60% fine to coarse grained sand; medium estimated permeability. SC 5.0 Portland Type 9 Silty SAND (SM): brown; medium dense; damp; 30% 0 I/II Cement silt, 70% fine grained sand; high estimated permeability. WELL LOG (PID) HASB-2004 (UST FUND))DOUGLAS PARKINGA1721 WEBSTERFIGURESISB0-0197.GPJ\_DEFAULT.GDT\_9/22/03 6 12 @ 10' 20% silt, 80% fine to medium grained sand. 0 Bentonite Seal Monterey Sand #2/12 SM @ 15' gray brown; very dense; 25% silt, 75% fine to 0 medium grained sand. 25 @ 20' gray; very dense; moist; 10% silt, 90% fine to MW-6@ 88 20' medium grained sand. Ţ ■ 2"-diameter, 0.010" Slotted Schedule 40 PVC ▽ 25.0 12 12 12 Sandy CLAY (CL): gray; very stiff; wet; 60% clay, 10% 549 silt, 30% fine grained sand; medium plasticity; medium estimated permeability. CL 29.0 12 Silty CLAY (CL): gray; hard; wet; 50% clay, 40% silt, 10% fine to coarse grained sand; medium plasticity; low 22 35 CL 30.0 30 Bottom of estimated permeability. Boring @ 30 ft PAGE 1 OF

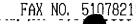




Cambria Environmental Technology, Inc. 5900 Hollis Street, Suite A Emeryville, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

CLIENT NAME	Douglas Parking Company	BORING/WELL NAME MW-7
JOB/SITE NAME _	Webster	DRILLING STARTED 27-Jun-03
LOCATION _	1721 Webster Street, Oakland, CA.	DRILLING COMPLETED 27-Jun-03
PROJECT NUMBER _	580-0197	WELL DEVELOPMENT DATE (YIELD) 30-Jun-03 (10 gallons)
DRILLER _	Woodward Drilling	GROUND SURFACE ELEVATION Not Surveyed
DRILLING METHOD _	Hollow-stem auger	TOP OF CASING ELEVATION NA
BORING DIAMETER _	8"	SCREENED INTERVAL 15 to 30 ft bgs
LOGGED BY	R. Fenneil	DEPTH TO WATER (First Encountered) 21.0 ft (27-Jun-03)
REVIEWED BY	Mary C. Holland-Ford R.G. #7551	DEPTH TO WATER (Static) 20.40 ft (27-Jun-03)







### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 399 ELMHURST ST. HAYWARD CA. 94544-1395 PHONE (510) 670-6633 Jaimes You FAX (510)782-1939 APPLICANTS: PLEASE ATTACH A SITE MAP FOR ALL DRILLING PERMIT APPLICATIONS DESTRUCTION OF WELLS OVER 45 FEET REQUIRES A SEFARATE PERMIT APPLICATION

DRILLING PERMIT	FAPPLICATION
FOR APPLICANT TO COMPLETE	FOR OFFICE USE  PERMIT NUMBER W03-0537
DICATION OF PROJECT 1721 WEBSTER ST	WELL NUMBER
TRUCK OF 17th I WERSTER	PERMIT CONDITIONS  Circled Permit Requirements Apply
PPLICANT  Some CAMBRIA FRANCES  POWER FOR 100 100 100 100 100 100 100 100 100 10	A. GENERAL  1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.  2. Submit to ACPWA within 60 days after completion of permitted original Department of Waler Resources.  Well Completion Report.  3. Permit is void if project not begun within 90 days of approval date.  3. WATER SUPPLY WELLS
TPR OF PROJECT  Well Construction Geotechnical Investigation Cuthodio Protection :1 General :  Water Supply II Contamination :  Monitoring Well Destruction :  PROPOSED WATER SUPPLY WELL USE	1. Minimum surface seal thickness is two inches of coment grout placed by tremic.  2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a based depth is specially approved.  C. CROUNDWATER MONITORING WELLS INCLUDING PLEZOMETERS  1. Minimum surface seal thickness is two inches of
New Domestic 11 Replacement Domestic  Municipal 11 brigation 12  Industrial 14 Other 11	ections grout placed by tremie.  2. Minimum seal depth for manifering wells is the maximum depth practicable or 20 feet.  D. GEOTECHNICAL  Backfill bore hole by fromic with centent grout or centent.
ORILLING METHOD:  Mul Rolary 1. Alt Rotary 1. Auger X  Cable 11 Other 11  ORILLER'S NAME (Dood was A-R-D) DR-114-163-54	grand anixing. Upper two-three feet replaced in kind or with compacted entlings.  E. CATHODIC  Fill hale anode zone with concrete placed by tremie.  P. WELL DESTRUCTION
DRILLER'S LICENSPINO. <u>C-57 * 770079</u>	Send a map of work site. A reparate permit is required  for wells deeper than 45 feet.  G. SPECIAL CONDITIONS  G. A.
Drill Hole Dinneter Sin. Maximum Depth Dep	NOTE: One application must be submitted for each well or well destruction. Multiple busings on one application are acceptable for geotechnical and contamination investigations.
Number of Borings he wastimm  Hole Mainter he Depth n-	L. M. C. S. S.
ESTIMATED STARTING DATE JUNE 27, 2003  ESTIMATED COMPLETION DATE TUDE 27, 2003	APPROVED WATE 5-75-75
Applicant's Signaturn	
$\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$ $\sim$	3-04-02



PLEASIEPIGNT NAME ROWAN

### ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION 399 ELMHURST ST. MAYWARD CA. 94544-1395 PHONE (\$10) 670-6633 James Yoo FAX (\$10)782-1939

Applicants: Please attach a site map for all drilling fermit applications desiruction of wells over 45 feet requires a separate permit application

DRILLING PERMI	T APPLICATION
FOR APPLICANT TO COMPLETE  OCATION OF PROJECT 1721 WERSTER ST	FOR OFFICE USE  PERMIT NUMBER W3-0538
OCATION OF PROJECT 1721 WESSTER ST. GAGIZ	WELL NUMBER
COSTANTE STEE . 17+5 + WEBSTER.	PERMIT CONDITIONS  Circled Formit Requirements Apply
Nonw LE E DONATE Phone Phone 2017 2461 2	A. GENERAL  1. A permit application should be submitted so as to strive at the ACPWA office five days prior to payposed starting date.
APPLICANT  Name (AT ARTATE ETS) FOR TIO 420-9170  Address 2900   1616 AT HAP those 510-420-5519  City Exact 1916 A. A. A. Min. 9460 & Min.	2. Submit to ACPWA within 60 days after completion of permitted original Dupantment of Water Resources. Well Completion Report.  3. Permit is void if project not begun within 90 days of approved date  D. WATER SUPPLY WELLS  1. Minimum surface seal thickness is two inches of
TYPR OF PROJECT  Well Constitution Geolechnical Investigation  Cythodia Protection : General :  Water Supply !! Contamination !!  Monitoring Well Destruction i	cement grout placed by womic.  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.  C. CROUNDWATER MONITORING WELLS LECTURING PLEZOMETERS
PROPOSED WATER SUPPLY WELL USE  New Domestic 11 Replacement Disnostic  Municipal 14 Infigation 14  Industrial 11 Other 14	1. Minimum surface seal thickness is two inches of coment grout placed by tremie.  2. Minimum seal depth for monitaring wells is the maximum depth practicable or 20 feet.  D. CROTECHNICAL
MRILLANG METHOD: Mud Rothly 1: Air Rhtary 1: Augor X Cuble (r Other 1)	Backfill bore hale by tremic with tement grout or rement grouts and mixture. Upper two-three fact replaced in kind or with composed cuttings.  E. CATHODIC
DRILLER'S HAMIL WOOD WOOD DELLA VO	Fill hade anode zone with concrete placed by tremic.  P. WELL DESTRUCTION  Send a map of work site. A separate permit is required for wells deeper than 45 feet.
WELL PROJECTS  Drill Hole Diameter 5 in. Maximum Depth 30 ft.  Surface Scal Depth 5 ft. Owner's Well Number MW-7	G. SPECIAL CONDITIONS  G. SPECIAL CONDITIONS  H. J. Attacker.  KOTE: One application must be submitted for each well or well destruction. Multiple harings on one application are acceptable for geolechnical and contamination investigations.
REOTECHNICAL PROJECTS  Number of Boilings Maximum  Hole Diameter in the Depth a.	A. Law
ESTIMATED STARTING DATE 7/27/03 ESTIMATED COMPLETION DATE 7/27/03	APPROVED DATES-292
I harehy ngres to comply with all requirements of this securit and Alameda County Ordi	Inance No. 73-68.

Rcv,3-04-02



# **EXCAVATION PERMIT**

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL **ENGINEERING** 

PAGE 2 of 2

		Permit valid for 90 days from date of issuance.
PERMIT NUMBER X 0	300576	SITE ADDRESS/LOCATION  1721 WEBSTER ST /OAKLAND CA
APPROX. START DATE	APPROX, END DATE	24-HOUR EMERGENCY PHONE NUMBER
6/27/03	6/27/03	(Permit not valid without 24-Hour number) 510
CONTRACTOR'S LICENSE # AN	TD CLASS	CITY BUSINESS TAX #
710079	C-57	444677
ATTENTION:		
1 - State law requires secured an inquiry	that the contractor/owner call Underground S identification number issued by USA. The U	Service Alen (USA) two working days before excavating. This permit is not valid unless applicant has SA telephone number is 1-800-642-2444. Underground Service Alen (USA) # 0 27740 3
2- 48 hours pri	ior to starting work, you MUS	ST CALL (510) 238-3651 to schedule an inspection.
3- 48 hours pri	or to re-paving, a compaction	certificate is required (waived for approved slurry backfill).
OWNER/BUILDER		
burden of proving that he did not bu  I, as owner of the property, am e be performed prior to sale, (3) I have structures more than once during any  I, as owner of the property, am e does not apply to an owner of proper	itid or improve for the purpose of sale). we may be the sale requirements of the abete residence for the 12 months of three-year period. (Sec. 7044 Business an accusively contracting with licensed contracting with licensed contracting.	etors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law
□ I hereby affirm that I have a certi-	ficate of consent to self-insure, or a certific	ate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).
Policy #	Company Name	CAMBRIA ENVIRONMENTAL TECHNOLOGY, IN
I certify that in the performance of	of the work for which this permit is issued, valued at one hundred dollars (\$100) or les	I shall not employ any necron in any manner on as to become option to the 110-dead. Comment of
granted upon the express condition the perform the obligations with respect t and employees, from and against any sustained or arising in the construction	at the permittee shall be responsible for all o street maintenance. The permittee shall, and all suits, claims, or actions brought by n of the work performed under the permit	should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith lit is issued pursuant to all provisions of Title 12 Chapter 12.12 of the Oakland Municipal Code. It is claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This y the Director of the Office of Planning and Building.
I hereby affirm that I am licensed and this permit and agree to its requirement of the second of the	er profisjons of Chapter 9 of Division 3 of the additional the above information is true a Agent for G Contractor G Owner	6-24-3
DATE STREET LAST	Common and a second	Date HOLIDAY RESTRICTION? LIMITED OPERATION AREA?
RESURFACED	REQUIRED? GYES (MA)	(NOV 1 JAN 1) NE'YES ONO (7AM-9AM & 4PM-6PM) SEYES ONO
ISSUED BY		DATE ISSUED

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

**REMOVED** 

# CONFIDENTIAL

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

**REMOVED** 

# **APPENDIX D**

Laboratory Analytical Report - Soil

	110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
McCampbell Analytical Inc.	Telephone: 925-798-1620 Fax: 925-798-1622
	http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #580-0197-055;	Date Sampled: 06/27/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Reported: 07/09/03
	Client P.O.:	Date Completed: 07/09/03

WorkOrder: 0307051

July 09, 2003

Dear Mary:

### Enclosed are:

- 1). the results of 1 analyzed sample from your #580-0197-055; Douglas Parking project,
- 2). a QC report for the above sample
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Angela Rydelius, Lab Manager

McCampbell	Analytical	Inc.
	McCampbell	McCampbell Analytical

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #580-0197-055;	Date Sampled: 06/27/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Extracted: 07/02/03
Emeryvine, CA 94008	Client P.O.:	Date Analyzed: 07/04/03

#### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

	•	=		
Extraction method: SW5030B		Analytical methods:	SW8021B/8015Cm	Work Order: 0307051

Extraction	method. Sweets			Allalytical	metrious: SW 80211	work Order: 0307031					
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	
001A	MW-6@20'	s	220,ь,т	ND<1.0	ND<0.10	0.14	ND<0.10	0.35	20	#	
 		:								_	
	<del></del> .	:		<u> </u>							
		<u> </u>				·			<u> </u>		
		<u> </u>			1		<u>.</u>		-		
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·								
		<u></u> .							:		
_								<u>-</u> .		ļ	
	<del></del>									<u>:</u>	
										<u> </u>	
:											
		!									
Reporting	Limit for DF =1; not detected at or	W	NA	NA NA	ŇA	NA	NA	NA	1	ug/L	
above th	ne reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/Kg	

<sup>\*</sup> water and vapor samples and all TCLP & SPLP extracts are reported in μg/L, soil/sludge/solid samples in μg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples in mg/L.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

	McCampbell	Analytical	Inc.
--	------------	------------	------

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #580-0197-055;	Date Sampled: 06/27/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Extracted: 07/02/03
Emeryvine, err 54000	Client P.O.:	Date Analyzed: 07/03/03

traction method: SW3550C Analytical methods: SW80150  Lab ID Client ID Matrix  307051-001A MW-6@20' S	TPH(d) 150,d	Work Order:  DF  1	% S
307051-001A MW-6@20' S	150,d		107
Reporting Limit for DF =1; W  ND means not detected at or		N	ΙA

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; k) kerosene/kerosene range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.



## QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0307051

EPA Method:	SW8021B/8015C	m l	Extraction:	SW5030B	,	BatchID:	7662	s	piked Sampl	e ID: 03070	050-001A
	s	ample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)
	n	ng/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex)£		ND	0.60	113	114	1.24	112	113	1.35	70	130
MTBE		ND	0.10	112	101	11.0	109	107	1.76	70	130
Benzene		ND	0.10	108	104	4.00	107	110	2.80	70	130
Toluene		ND	0.10	92.8	90	3.11	91	94	3.25	70	130
Ethylbenzene		ND	0.10	109	105	3.17	99.7	109	8.57	70	130
Xylenes		ND	0.30	100	99.7	0.334	100	100	0	70	130
%\$S:		86.4	100	93.7	88.4	5.82	89.1	89.1	0	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / (MS + MSD) \* 2.

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

 $<sup>\</sup>mathcal{E}$  TPH(btex) = sum of BTEX areas from the FID.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560

Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com/E-mail: main@mccampbell.com/

### QC SUMMARY REPORT FOR SW8015C

Matrix: S

WorkOrder: 0307051

EPA Method: SW8015C	Extraction: SW3550C				BatchID:	7663	s	piked Sampl	e ID: 03063	395-020A
	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(d)	2.771	150	93.2	91.5	1.86	93.7	93	0.786	70	130
%SS:	98.5	100	109	107	1.90	104	103	0.747	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / (MS + MSD) \* 2.

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

030705 CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL INC. TURN AROUND TIME: 110 2<sup>nd</sup> AVENUE SOUTH, #D7 RUSH 24 HOUR 48 HOUR 5 DAY PACHECO, CA 94553-5560 EDF Required? Yes  $\square_{No}$ Fax: (925) 798-1622 Telephone: (925) 798-1620 Report To: Mary C. Holland-Ford Analysis Request Bill To:Same Other Comments Company: Cambria Environmental Technology, Inc. EPA 625 / 8270 PAH's / PNA's by EPA 625 / 8270 / 8310 Lead (7240/7421/239.2/6010) 5900 Hollis Street Suite A EPA 608 / 8080 PCB's GNL 7 EPA 624 / 8240 / 8260 Emeryville, CA 94608 E-mail: mhollford@cambria-env.com Fax: 510-420-9170 Tele: 510-420-3307 Project #: 580-0197-055 Project Name: Douglas Parking CAM-17 Metals LUFT 5 Metals Project Location: 1721 Webster Street/ Oakland, CA Sampler Signature:\ SAMPLING MATRIX PRESERVED Type Containers Containers SAMPLE ID LOCATION (Field Point Name) Sludge Other Date Time Water Soil Air HNO, Ice HCI MW-6 @ 20' 6/27/03 9:20a XX Oakland If MTBE detected. confirm by 8260 Received By: Time: Remarks: O&G | METALS | OTHER Time: PRESERVATION 10:30 APPROPRIATE Date: Time:

## McCampbell Analytical Inc.



Page 1 of 1

A

110 Second Avenue South, #D7 Pacheco, CA 94553-5560 (925) 798-1620

WorkOrder: 0307051

Client:

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 TEL:

(510) 420-0700

FAX:

(510) 420-3394

ProjectNo:

#580-0197-055; Douglas Parking

PO:

Date Received:

7/2/03

Date Printed:

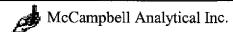
7/2/03

							Req	uested Tests	
Sample ID	ClientSampID	Matrix	Collection Date	Hold	<b>\$</b>	SW8015C	V8021B/8015C		
0307051-001	MW-6@20'	Soil	6/27/03 9:20:00 AM		А	A	A		

Prepared by: Michelle Miller

#### Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.



110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone: 925-798-1620 Fax: 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #510-420-3307;	Date Sampled: 06/30/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Reported: 07/09/03
Emeryvine, CA 94000	Client P.O.:	Date Completed: 07/09/03

WorkOrder: 0307050

July 09, 2003

Dear Mary:

#### Enclosed are:

- 1). the results of 1 analyzed sample from your #510-420-3307; Douglas Parking project,
- 2). a QC report for the above sample
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Angela Rydelius, Lab Manager

## McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #510-420-3307;	Date Sampled: 06/30/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Extracted: 07/02/03
Linelyvine, CA 94008	Client P.O.:	Date Analyzed: 07/03/03-07/04/03

#### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	SP-1,2,3,4	s	ND	ND	ND	ND	ND	ND	1	86.4
		:								
1										
	-								<u> </u>	
									<u> </u>	:
									<u>:</u>	
									Ī	
			· · · · · ·							
					<u></u>				<u>:</u>	
					·		:			
Reporting	Limit for DF =1; not detected at or	W	NA	NA	NA	NA	NA	NA	1	ug/I
	e reporting limit	S	1.0	0.05	0.005	0.005	0.005	0.005	1	mg/K

<sup>\*</sup> water and vapor samples and all TCLP & SPLP extracts are reported in μg/L, soil/sludge/solid samples in μg/kg, wipe samples in μg/wipe, product/oil/non-aqueous liquid samples in mg/L.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

## McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccanipbell.com E-mail: main@mccanipbell.com

Cambria Env. Technology	Client Project ID: #510-420-3307;	Date Sampled: 06/30/03
5900 Hollis St, Suite A	Douglas Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Extracted: 07/02/03
Dinery rate, erry root	Client P.O.:	Date Analyzed: 07/03/03

#### Lead by ICP\*

Extraction method: SW	/3050B		Analytical m	ethods: 6010C	Work Order:	030705
Lab ID	Client ID	Matrix	Extraction	Lead	DF	% S
0307050-001A	SP-1,2,3,4	S	TTLC	3.3	1	99.5
					ı	
				···		
-						
	····					<del></del>
			-	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	

Reporting Limit for DF =1;  ND means not detected at or	W	TTLC	NA	mg/L
above the reporting limit	S	TTLC	3.0	mg/Kg

<sup>\*</sup>water/product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate recovery outside of acceptance range due to matrix interference; & means low or no surrogate due to matrix interference; ND means not detected above the reporting limit; N/A means not applicable to this sample or instrument.

Analytical Methods: EPA 6010C/200.7 for all elements except: 200.9 (water/liquid- Sb, As, Pb, Se, Tl); 245.1 (Hg); 7010 (sludge/soil/solid/oil/product/wipe/filter - As, Se, Tl); 7471B (Hg).

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations; j) reporting limit raised due to insufficient sample amount; k) results are reported by dry weight; y) estimated values due to low surrogate recovery; z) reporting limit raised due to matrix interference.



## QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: S

WorkOrder: 0307050

EPA Method: SW80	021B/8015Cm E	Extraction:	SW5030E	3	BatchID:	7662	Spiked Sample ID: 0307050-001A				
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)	
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	Hìgh	
TPH(btex)£	ND	0.60	113	114	1.24	112	113	1.35	70	130	
MTBE	ND	0.10	112	101	11.0	109	107	1.76	70	130	
Benzene	ND	0.10	108	104	4.00	107	110	2.80	70	130	
Toluene	ND	0.10	92.8	90	3.11	91	94	3.25	70	130	
Ethylbenzene	ND	0.10	109	105	3.17	99.7	109	8.57	70	130	
Xylenes	ND	0.30	100	99.7	0.334	100	100	0	70	130	
%SS:	86.4	100	93.7	88.4	5.82	89.1	89.1	0	70	130	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / (MS + MSD) \* 2.

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

<sup>£</sup> TPH(btex) = sum of BTEX areas from the FID.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

NONE

### QC SUMMARY REPORT FOR 6010C

Matrix: S

WorkOrder: 0307050

EPA Method: 6010C	E	xtraction:	SW3050E	BatchID: 7667			Spiked Sample ID: N/A			
	Sample	Spiked	MS*	M\$D*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance	e Criteria (%)
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Lead	N/A	500	N/A	N/A	N/A	99.5	98.9	0.551	70	130
%SS:	N/A	100	N/A	N/A	N/A	107	104	2.84	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS – MSD) / (MS + MSD) \* 2.

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

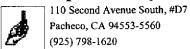
N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or

CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL INC.  $\mathbf{Q}$ TURN AROUND TIME: RUSH 24 HOUR 48 HOUR 5 DAY 110 2<sup>nd</sup> AVENUE SOUTH, #D7 PACHECO, CA 94553-5560 EDF Required? YYes  $\square_{No}$ Fax: (925) 798-1622 Telephone: (925) 798-1620 Report To: Mary C. Holland-Ford Bill To:Same Analysis Request Other Comments Company: Cambria Environmental Technology, Inc. EPA 625 / 8270 PAH's / PNA's by EPA 625 7 8270 / 8310 CAM-17 Metals Lead (7240/7421/239.2/6010) 5900 Hollis Street Suite A BTEX ONLY (EPA 602 / 8020) EPA 608 / 8080 EPA 608 / 8080 PCB's EPA 624 / 8240 / 8260 E-mail: mbollford@cambria-env.com Emeryville, CA 94608 Fax: 510-420-9170 Tele: 510-420-3307 Project #: 580-0197 -55 Project Name: Douglas Parking LUFT 5 Metals Project Location: 1721 Webster Street, Oakland, CA Sampler Signature: 8 METHOD SAMPLING MATRIX PRESERVED Type Containers Containers SAMPLE ID LOCATION (Field Point Name) Air Sludge Time Date Water Soil Other HNO3 HCI SP-1 Oakland X 8:55 X X X SP-2 Jube Dakland 6-30/03 8:55 X SP-3 ockland 6/20/03 8:55 tube X  $\overline{\mathbf{X}}$ SP-4 Oakland 6/30/03 8:55 tube Received By: Relinquished By: Time: Remarks: Lab Composite 4 soil tubes into 1 sample. 7-1-03 8:30 Time: Relinquished By If MTBE detected, confirm by 8260 Date: Time: Received B 7.2.03

HEAD PACE AREAT CONTAINING	ICEN	PRESERVATION VOAS	O&G	METALS	OTHER
DECHLORINATED IN LAB PRESERVED IN LAB	HEAD SPACE ARREST	APPROPRIATE CONTAINERS			

## McCampbell Analytical Inc.



# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 0307050

Client:

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 TEL:

(510) 420-0700

FAX:

(510) 420-3394

ProjectNo:

#510-420-3307; Douglas Parking

PO:

Date Received:

7/2/03

Date Printed:

7/2/03

					Requested Tests							
Sample ID	ClientSampID	Matrix	Collection Date	Hold	<>	6	010C	N8021B/8015	d			
0307050-001	SP-1,2,3,4	Soil	6/30/03 8:55:00 AM		Α		Α	; A				

Prepared by: Michelle Miller

#### Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

# APPENDIX E

Laboratory Analytical Report - Groundwater

	1100 14 G A 1177 Palas GA 04550 5560
	110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
McCampbell Analytical Inc.	Telephone: 925-798-1620 Fax: 925-798-1622
<i>E</i>	http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #580-0197-56; Douglas	Date Sampled: 06/30/03
5900 Hollis St, Suite A	Parking	Date Received: 07/02/03
Emagnitle CA 04609	Client Contact: Mary C. Holland-Ford	Date Reported: 07/09/03
Emeryville, CA 94608	Client P.O.:	Date Completed: 07/09/03

WorkOrder: 0307049

July 09, 2003

#### Dear Mary:

#### Enclosed are:

- 1). the results of 2 analyzed samples from your #580-0197-56; Douglas Parking project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Angela Rydelius, Lab Manager

# McCampbell Analytical Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

Cambria Env. Technology	Client Project ID: #580-0197-56; Douglas	Date Sampled: 06/30/03
5900 Hollis St, Suite A	Parking	Date Received: 07/02/03
Emeryville, CA 94608	Client Contact: Mary C. Holland-Ford	Date Extracted: 07/07/03
Emeryano, C21 94000	Client P.O.:	Date Analyzed: 07/07/03

#### Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE\*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0307049

Extraction	illeniori: 2 M 2020F	٠		Analytical i	nethods: SW80211		Work Order: 030/049			
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-6	w	68,000,a,h	ND<1000	950	6000	2400	10,000	200	102
002A	MW-7	w	170,a,i	ND	ND	2.1	2.0	8.7	ı	107
					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					
			,							
<del> -</del>		-								
			<u> </u>							
<u>.</u>										ļ
i										
						<del></del> .				
					:		·			
									· •	
ND means	Limit for DF =1; not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	1	μg/L
above th	e reporting limit	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

<sup>\*</sup> water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

<sup>+</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; ke TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

## QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W

WorkOrder: 0307049

EPA Method: SW802	21B/8015Cm E	xtraction:	SW5030B	}	BatchID:	7670	s	piked Sampl	le ID: 03070	53-003A
	Sample	Spiked	MS*	MSD*	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance	Criteria (%)
	μg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(btex) <sup>£</sup>	. ND	60	112	112	0	107	110	2.87	70	130
МТВЕ	ND	10	103	105	1.68	103	105	2.00	70	130
Benzene	ND	10	107	106	0.944	97.9	101	3.10	70	130
Toluene	ND	10	99.1	101	2.10	93.8	96.5	2.79	70	130
Ethylbenzene	ND	10	106	108	1.53	103	107	3.52	70	130
Xylenes	ND	30	100	100	0	96	100	4.08	70	130
%SS:	99.0	100	99.1	101	1.49	100	99.3	1.01	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent

<sup>%</sup> Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / (MS + MSD) \* 2.

<sup>\*</sup> MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

<sup>£</sup> TPH(btex) = sum of BTEX areas from the FID.

<sup>#</sup> cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

## McCampbell Analytical Inc.

# **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1



110 Second Avenue South, #D7 Pacheco, CA 94553-5560 (925) 798-1620

WorkOrder: 0307049

Client:

Cambria Env. Technology 5900 Hollis St, Suite A Emeryville, CA 94608 TEL:

(510) 420-0700

FAX:

(510) 420-3394

ProjectNo:

#580-0197-56; Douglas Parking

PO:

Date Received:

7/2/03

Date Printed:

7/2/03

<u> </u>							Requeste	ed Tests		
Sample ID	ClientSampID	Matrix	Collection Date	Hold	<>	V8021B/8015C				
0307049-001	MW-6	Water	6/30/03 8:05:00 AM		Α	Α		:	2120.72	
0307049-002	MW-7	Water	6/30/03 8:40:00 AM			Α		: 		

Prepared by: Michelle Miller

#### Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

C														П		-		$\overline{C}$	HA	IN	ΙO	F	$\overline{CU}$	Si	O	DY	R	EC	$\overline{\mathbf{OI}}$	RD	"	į.
		McCAN					_ IN	IC.						1	T	UR	N.	AR	OUI	ND	TIN	4Ε:			3			]			,	Z) (Z
			110 2 <sup>nd</sup> A	.VENUE S CO, CA 94	SOUTE 1553-5	I,#D7 560								İ	•				7	4.				RU	JSH	2	4 H	OUR	. 48	НО	JR 31	DAY
	Telepho	ne: (925) 798		00,011.	1999.9		ax: (	(925	79 (	8-16	22			E	DF :	Req	juii	red?		ŀΥ	es		No	)								
	Report To: Mary (	C. Holland-Fo	ord	,	Bill T	o:Sam	e											P	Analy	sis :	Requ	iest					T	C	ther		Comm	ents
	Company: Cambr		ntal Tecl	mology,	Inc.									ч	n n								٠.			<u> </u>	寸	$\neg$	$\top$			
	5900 Hollis Street													8020	Grease							,	679	ļ		2010	ļ					
	Emeryville, CA 9			E-mail:				amb	ria-e	env.c	om	1	<del></del>	905	(S) (S)		$\Rightarrow$	209		S S	09;		Y.A	-	l	9.2/	İ			]		
:	Tele: 510-420-33			Fax: 5					<u> </u>					Gas	108	Œ	418	EPA		) P	/ 82		r fa	اي		1/23	ļ	ĺ				
	Project #: 580-01: Project Location:			Project			igla	s Pai	rkın <u>ı</u>	<u>g</u>				H as	se lu	(B&	) Suc		8080	808	824(	8270	\$ \$	leta	etals	/742	- 1					
	Sampler Signature		r Street,	Oakiano	a, CA										TPH as Diesel (8015) Total Petroleum Oil & C		carbo	5 0	8020) EPA 608 / 8080	/ 80	EPA 624 / 8240 / 8260	EPA 625 / 8270	FAE S / FNA S BY EFA 623 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	1					
	Sampler Signature		A	T T3 1/3	г—	T					_	MET	HOD	$\stackrel{\sim}{\mathrm{A}}$	H	529 1820	/dro/	₹ Ħ	20 7 8	Ø. Å. 6	** •** •**	A 6.	2 2	ž	FT	gg (	<u> </u>					
	•		SAMF	LING		S 13		MA	IRE.	X	P	RESE	RVED	<u>면</u> 8		9	丘	ii m	8 =	回	( <u>)</u>	茵	82	ें 	ĭ	್ಷ	Ž			1		
	SAMPLE ID	1.0001.0000	•		Containers	Type Containers					ĺ																					
	(Field Point Name)	LOCATION	Date	Tim	ıtai	5				ر ا	ł		m .	l		-	- 1		j	ļ												
			]	е	Ö	уре	Water	Soil	Aur	Other Other	به	HCI	HNO, Other				-		-									.				
_					#	Ĺ		Š.	≰ ଅ	7 O	1		HO																			
十二	MW-6	Oakland	<b>530</b> 03	8:05	4	V02	X				)	X		X																		
Ne	MW-7	Oakland	<b>030</b> 03	8:40	4	VOD	X	-			-	XX		$\frac{1}{X}$							-	├—	-						+			· · ·
1 7				8-70	┝╧	VOL	_	$\vdash \vdash$			ľ	1	$\vdash$	<u> </u>			-		_		-	<u> </u>	-							$\bot$		·
					<u></u>						╀			ļ						<u> </u>	<u> </u>	ļ.,								<u> </u>		
			ļ		ļ	ļ					1	-		<b> </b>				_			ļ	ļ										
														<u> </u>																		
					L									<u>L</u>																		
																													$\top$			
	Relinquished By		Date:	Time:	Rece	ived By:							<del></del>	Re	marl	(S:				<u> </u>		<u> </u>	<u></u>		<u> </u>							
Jr.	V . 400		7-1-03	8:30	٤	ecus	<u>e  </u>	OCA	ti	01									•													
	Relinquished By:	<u> </u>	Date: 1-2	Time: 10 30	Rece	ived By:				,				ĭ£.	МТВ	10 A.	a <b>t</b> a a	tod	aanf	i	1 0	360										
	Ajones		/			7.	7							111	ivi 1 13	us de	CLOU	ıcu,	COIII	11111	uy ō	40U										
	Relinquished By:		Date:	Time:	Rece	ived By:			•	7-2	-(	23																				
	al.		·	<u> </u>		<u> </u>	Qγ	<u>م</u>						L							-							<u></u>				

ICEA VOAS O&G METALS OTHER
GOOD CONDITION APPROPRIATE
HEAD SPACE ABSENT CONTAINERS
DECHLORINATED IN LAR PRESERVED IN LAB

# **APPENDIX F**

GeoTracker Electronic Delivery Confirmations

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 6043362438

Date/Time of Submittal: 8/12/2003 12:42:59 PM

Facility Global ID: T0600100140

Facility Name: DOUGLAS PARKING COMPANY

Submittal Title: Douglas Well Installation

Submittal Type: Soil & Water Investigation Report

Logged in as CAMBRIA-EM (AUTH\_RP)

CONTACT SITE ADMINISTRATOR.

Mc phat WA 0307050

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 1194068014

Date/Time of Submittal: 8/12/2003 11:43:11 AM

Facility Global ID: T0600100140

Facility Name: DOUGLAS PARKING COMPANY

Submittal Title: Well Installation June 2003

Submittal Type: Soil & Water Investigation Report

Logged in as CAMBRIA-EM (AUTH\_RP)

CONTACT SITE ADMINISTRATOR.

Mc Cofibili WU# 0307049

Main Menu | View/Add Facilities | Upload EDD | Check EDD

### **UPLOADING A GEO\_XY FILE**

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Title: Douglas Well Installation
Submittal Date/Time: 8/12/2003 11:36:26 AM

Confirmation Number: 3449859440

**Back to Main Menu** 

Logged in as CAMBRIA-EM (AUTH\_RP)

Main Menu | View/Add Facilities | Upload EDD | Check EDD

### UPLOADING A GEO\_Z FILE

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Title:

**Douglas Well Installation** 

Submittal Date/Time:

8/12/2003 11:34:53 AM

**Confirmation Number:** 

4522968888

**Back to Main Menu** 

Logged in as CAMBRIA-EM (AUTH\_RP)

Main Menu | View/Add Facilities | Upload EDD | Check EDD

## UPLOADING A GEO\_WELL FILE

Processing is complete. No errors were found! Your file has been successfully submitted!

Submittal Title:

Douglas Well Installation

geo\_well

Submittal Date/Time: 8/12/2003 11:29:41 AM

Confirmation

Number:

6636875748

**Back to Main Menu** 

Logged in as CAMBRIA-EM (AUTH\_RP)

Main Menu | View/Add Facilities | Upload EDD | Check EDD

Your EDF file has been successfully uploaded!

Confirmation Number: 7916301786

Date/Time of Submittal: 8/12/2003 1:08:57 PM

Facility Global ID: T0600100140

Facility Name: DOUGLAS PARKING COMPANY

Submittal Title: Douglas Well Installation

Submittal Type: Soil & Water Investigation Report

Logged in as CAMBRIA-EM (AUTH\_RP)

CONTACT SITE ADMINISTRATOR.

Mcapbell, WO# 030705)

Main Menu | View/Add Facilities | Upload EDD | Check EDD

## UPLOADING A GEO\_MAP FILE

### YOUR IMAGE UPLOAD WAS SUCCESSFUL!

Facility Name:

**DOUGLAS PARKING** 

**COMPANY** 

Global ID:

T0600100140

Submittal Type:

GEO\_MAP

Submittal Date/Time: 8/13/2003 9:25:16 AM

Confirmation

4094619572

Number:

Click here to view the image.

Back to Main Menu

Logged in as CAMBRIA-EM (AUTH\_RP)

# **APPENDIX G**

Well Survey

### Virgil Chavez Land Surveying

312 Georgia Street, Suite 225 Vallejo, California 94590-5907 (707) 553-2476 • Fax (707) 553-8698

August 6, 2003 Project No.: 2216-20

Mary Holland-Ford Cambria Environmental 5900 Hollis Street, Suite A Emeryville, CA 94608

Subject:

Monitoring Well Survey Douglas Parking Facility 1721 Webster Street Oakland, CA

### Dear Mary:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was completed on July 31, 2003. The benchmark for this survey was a cut "X" in the top of curb near the southwest return of the northwest corner of 34<sup>th</sup> and Broadway. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83).

Benchmark Elevation = 60.40 feet (NGVD 29).

<u>Latitude</u>	<b>Longitude</b>	<u>Northing</u>	Easting	Elev.	Desc.
				33.05	RIM MW-1
37.8061963	-122.2673331	2120837.19	6051114.42	32.75	TOC MW-1
				30.69	RIM MW-2
37.8062282	-122.2671334	2120847.71	6051172.31	30.40	TOC MW-2
				32.89	RIM MW-3
37.8059870	-122.2672754	2120760.65	6051129.63	32.56	TOC MW-3
				28.64	RIM MW-4
37.8063276	-122.2668660	2120882.42	6051250.23	28.29	TOC MW-4
				25.23	RIM MW-5
37.8067201	-122.2667981	2121024.97	6051272.54	24.99	TOC MW-5
				31.37	RIM MW-6
37.8060253	-122.2670352	2120773.30	6051199.28	30.99	TOC MW-6
				33.82	RIM MW-7
37.8058274	-122.2673310	2120702.86	6051112.48	33.11	TOC MW-7

No. 6323
Em [K-3]-6

Sincerely,

Virgil D. Chavez, PLS 6323

# **APPENDIX H**

Waste Manifest

# NON-HAZARDOUS WASTE MANIFEST

6 prims

F:	ase print of type (Form designed for use on ente (1	12 pitch) typewater)						
	NON-HAZARDOUS	1. Generator's US I	EPA ID No.		1 44	Manifest Document No	).	2. Page 1
<b>三次</b>	WASTE MANIFEST	<u> </u>			201	]	7 6 2 3 3	of ş
	3. Generator's Name and Mailing Address	初發其工	CAMEBIA	The state acceptability of the	. 5 155-2			
	TITT WEBSTER STREET			dias strett, si Lit. UB 94600	13 A.E. CA			
0	1 11655 AMB 118 AMB 15	<b>经基础</b> :	MATT WE					
	4. Generator's Phone (	i.						_
* 1	5. Transporter 1 Company Name		6.	US EPA ID Number		A. State Tran	sporter's ID	
	1967年高年於 的复数的复数的复数形式 196	101 <u> </u>	<b>€</b> .h	賽 种 铁 至 为 艾	5 8 1	B. Transporte	r1 Phone (1975)2	237 WEST
260	7. Transporter 2 Company Name		8.	US EPA ID Number		C. State Tran	sporter's ID	
<b>S</b>	9. Designated Facility Name and Site Address	<u>-1/ 1/2001</u>	1 1 1 1 1 1	, , , , , , , , , , , , , , , , , , ,		D. Transporte	r 2 Phone	
1200	Designated Facility Name and Site Address		10.	US EPA ID Number		E. State Facil	ity's ID	
	Chara Carlenson Kuminamen 1977 Saar versan Lund	£.24.2						
	Jan dere, Ch Bill					F. Facility's P	none	
			10 4 19	H:5 H & D 4	1 1 0	(400)	LTI-THU	
ेर	11. WASTE DESCRIPTION	-	1	· · · · · · · ·		ontainers	* <u>1</u> 3.	14.
					No.	Туре	Total Quantity	Unit Wt./Vol.
-2.6	a. 阅读 演点 (特殊), 《新老十年(論法)	k (6/97)					4	
	*	•		•	5		g 500	
					٠ سر	4 6	スカッツ	έş.
G E N	b. Will has engge warrn, to	i Charet	)					1
ᇤ					1		50	
Ë					'	Ø №	)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
E	C.	•.						
A					ļ			
o				/				
O R	d.		1					
			V	•				
	<u> </u>							
· 3	G. Additional Descriptions for Materials Listed Above					H. Handling Co	odes for Wastes Listed Above	<u></u>
	ila. Torkanisa							*
457	(異称 - 12発力多学アフ						Į.	en - 44.
120							$\triangle$	
	9.3e.es	•			İ		$A = A \cdot A \cdot A$	
1		•						~
2.1 2.1	15. Special Handling Instructions and Additional Inform	nation					<u> </u>	<del>295</del>
	The Grant Contract (975)	1634 翻 36	90000000000000000000000000000000000000				JVV	2 2 2
. 14	and delines my no-re-	<b>第</b> 年刊				/	200 11	
			14 - 21		DZ	639	387	, ,
12.7						,	•	
20								
Take.	16. GENERATOR'S CERTIFICATION: I hereby certify in proper condition for transport. The materials des	that the contents of	this shipment are	fully and accurately describe	d and are in a	all respects		
di di	in proper condition for transport. The materials des	coded on this manife	st are not subject	to federal hazardous waste r	egulations.	·	27 to	
4.5	×			•			r <del>'</del>	Date
49 m	Printed/Typed Name	11/1/60	/ //]   Sigr	nature	الم		Month	Day Year
		, , <b></b> ,,	<b>'</b> " ] '	( ) - ( ) -	, ,,,,	The state of the s	Day 5	1 / 1
Ţ	17. Transporter 1 Acknowledgement of Receipt of Mate	erials					<del></del>	Date
31	Printed/Typed Name		Siar	nature / -	<u> </u>		Month	V Day V Year
S	KOY TURNE	R	1	LIM .		W(N)	.4 21	13763
TRANSPORTER	18. Transporter 2 Acknowledgement of Receipt of Mate			<u> </u>		4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4	1	Bate
Ŧ	Printed/Typed Name		Sign	ature			Mohitr	<del>-2</del>
睛			ľ				Monary A	Day Year
	19. Discrepancy Indication Space					<u>·</u>	• •	
F	•							- 1
A				•				-
1 [	20. Facility Owner or Operator; Certification of receipt of	of the waste materials	covered by this n	sanifest except as noted in it	em 10			
<u> </u>	,		- 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2		17.		Γ	D.t.
╁┟	Printed/Typed Name .	<u></u>	Sign	ature /		<u> </u>		Date
ÝΪ	DUNCTH ( LINE	6/157	J. J.	Souta	, (-	WILL	ONCH Month	Day Year
	14 © 2002 LABELMASTER ® (800) 621-5808 www	ulabatus s		4001000	<u> </u>	Jarre	7- 5001	
1 1		V 10 D 6 Lee + - +						

# APPENDIX I

Background Information



August 12, 1992

Project 128-6

Mr. Jim Brinker Burnabe & Brinker 1281 30th Street Oakland, CA 94608

10 hose to.

Subject:

Underground Tank Removal Soil Sampling and Analysis Report

Dear Mr. Brinker:

This letter is a report concerning the soil sampling and analysis associated with the underground tank removals from Douglas Parking, 1721 Webster Street, Oakland, California on August 3rd and August 6th, 1992.

One 1,000 gallon gasoline steel tank was removed from the property on August 3, 1992. No holes were observed on the tank. Two soil samples were collected from the beneath the former tank location, and six soil samples were collected from beneath the gas lines and pump area. For the samples from underneath the tanks, a backhoe was used to dig approximately one foot into the native soil for a total depth of 9 feet below ground surface. Digging was difficult due to sumping sidewalls, and water in the excavation bottom. The water in the excavation was from a broken sewer line and broken water line.

The native soil was brought to the surface in the backhoe bucket, where a 2 inch diameter 6 inch long brass sample tube was hammered into the undisturbed soil. Aluminum foil was placed over the tube ends, then plastic caps. Each sample was labeled and placed in a zip lock bag on ice in a portable cooler for transport to a State certified hazardous materials analysis laboratory, McCampbell Analytical, Pacheco, CA. Sample locations are shown in the attached site drawing. Sample information was entered on a chain of custody form (attached) as each sample was completed.

The samples from beneath the gas pumps were two feet from the surface, and the product line samples were 1.5 to 2.0 feet beneath the surface. These samples were obtained by hand augering to the appropriate depth, and then using a slide hammer to drive the sample tube into the soil. Each tube was wrapped, labeled and transported as described above.

Mr. Jim Brinker August 12, 1992 Page 2

Due to unstable excavation walls by the 1,000 gallon tank, the hole was backfilled after the tank samples were obtained. No over-excavation of contaminated soil was accomplished.

The two 500 gallon tanks were removed on August 6, 1992. Three samples were taken from beneath the tanks (T-3, T-4, T-5), two from the excavation bottom after over-excavation (T-6, T-7), and four from the excavation side walls (SW-1 through SW4). One composite sample was taken from the soil stockpile.

None of the tanks had visible holes other than holes punched through the steel by the backhoe during removal.

The samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-g) and the gasoline constituents of benzene, toluene, ethylbenzene and xylenes (BTEX) using EPA methods 5030, 8015 and 8020, and California RWQCB (SF Bay Region) method GCFID (5030). Analysis results show all samples collected from the tank excavation had detectable of gasoline and its constituents, with the highest amounts from beneath the middle tank. Samples from the gas lines and pumps had minimal or non-detectable amounts of gasoline.

We are forwarding a copy of this report and attachments to Alameda County, Oakland City Fire Department and Mr. Lee Douglas as you requested.

Sincerely,

PARKER ENVIRONMENTAL SERVICES

James D. Parker

ame Ofarke

President

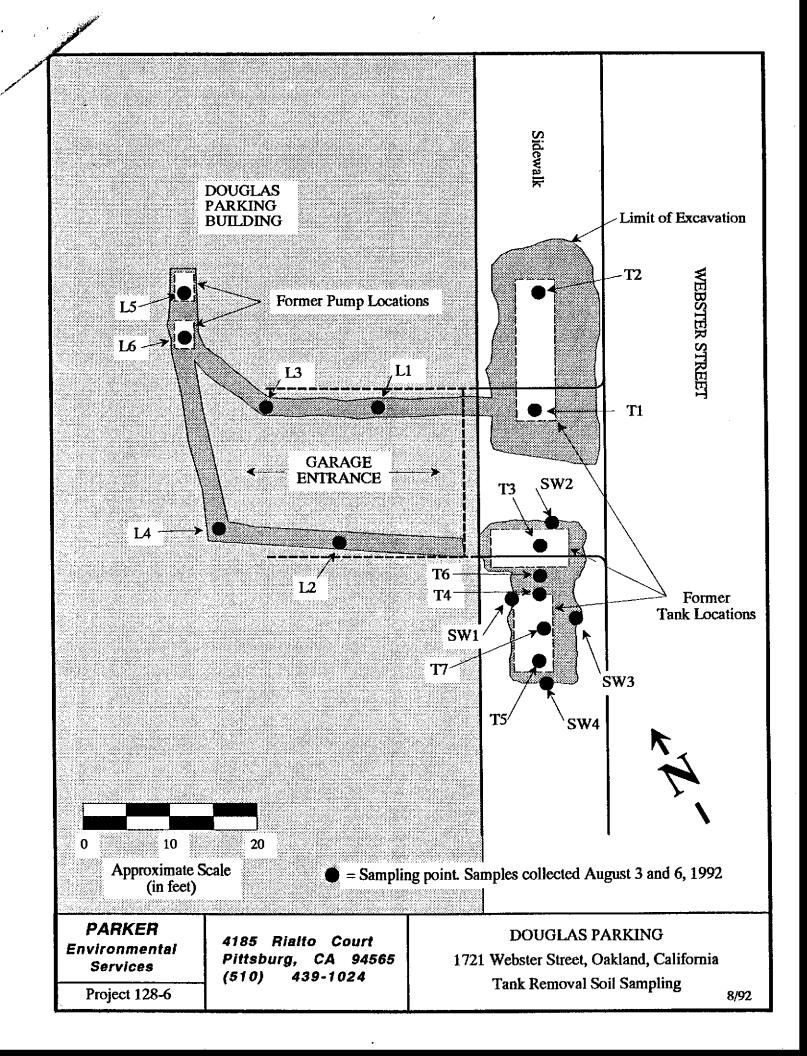
Attachments

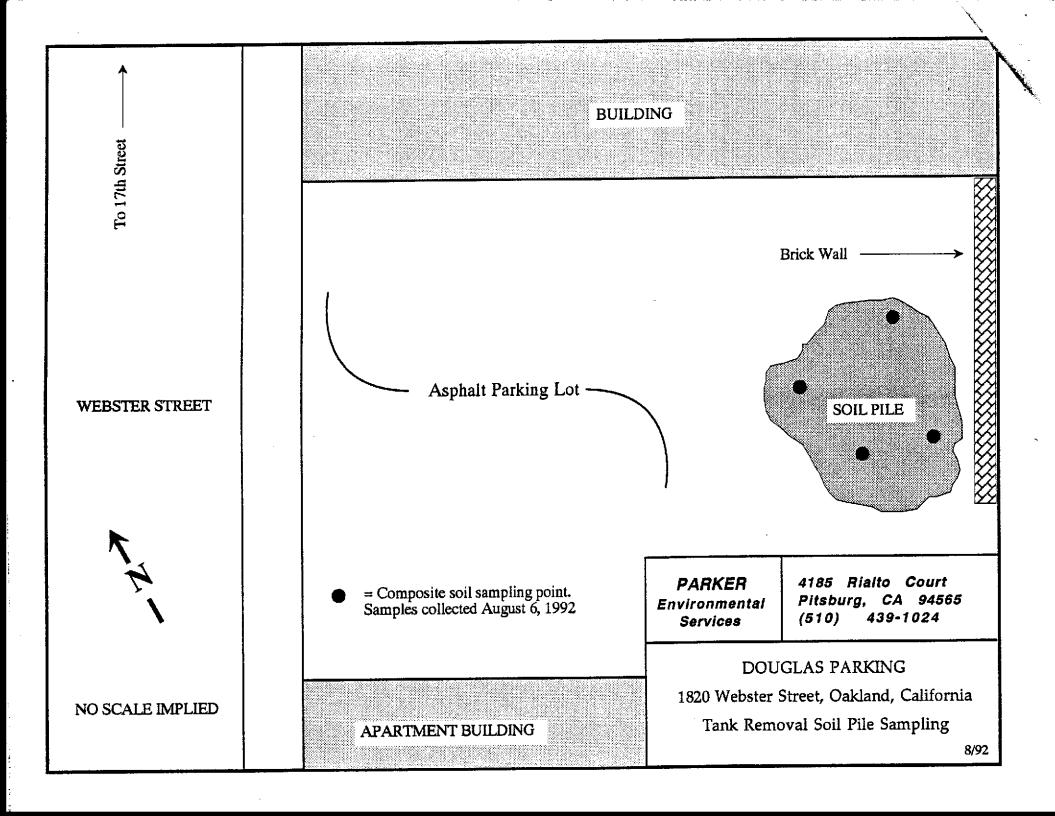
cc: Alameda County Health Services, Environmental Health Division City of Oakland Fire Department Mr. Lee Douglas, Douglas Parking

Douglas Parking 1721 Webster Street, Oakland, California Soil Sample Analysis Results\* Samples Collected on August3 and 6, 1992

Sample Number	Depth	ТРН-g	Benzene	Toluene	Ethylbenzene	Xylenes
Samples ]	From Bene	ath the Tar	ıks			
T-1 T-2 T-3 T-4 T-5 T-6 T-7	9' 9' 8' 8' 8' 12' 14' 'om the son	150 120 580 1,500 410 1,400 2.3	2.2 0.62 1.7 11 6.7 12 0.11	2.9 0.56 5.9 140 22 71 0.19	1.8 0.87 5.6 48 6.2 29 0.050	13 2.2 43 280 35 150 0.31
SW1 SW2 SW3 SW4 Composited	9,5′ 7′ 8′ 9′	280 1,500 400 2.3	2.9 5.7 2.7 0.42	5.8 40 5.8 0.028	3.2 18 4.0 0.077	15 150 21 0.18
C 1 Samples fro	1.5′	560	ND<0.1	5.0	3.1	24
L-1 L-2 L-3 L-4 5 6	1.5' 1.5' 1.5' 1.5' 2.0' 2.0'	2.6 ND ND ND ND 8.2 ND	ND ND ND ND 0.010 ND	0.010 ND ND ND 0.020 0.007	ND ND ND ND 0.012 ND	0.030 ND ND ND ND 0.092 0.034

<sup>\*</sup> TPH (as gasoline) and BTEX are in parts per million. ND = Not Detected





110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622

Bernabe &	Brinker	C	ient Project	ID: Douglas	Parking, 17	21 Date Samp	led: 08/03/9/	2
1281 30th S	treet	W	ebster Street	, Cakland		Date Rece	ived: 08/03/9	2
Oakland, C	A 94608	CI	ient Contact	: Jim Brinker	Ernie Berna	be Date Extra	cted: 08/04/9	)2
•	,	C	ient P.O:	_		Date Anal	yzęd: 08/04-0	8/05/92
	. \$020 modified	Low Bo	olling Point	(C6-C12) TP	H <sup>o</sup> as Gasoli	ne and BTEX <sup>4</sup> 1) method OCITE	>/4010>	
Lab ID	Client 1D		TPH(G) <sup>+</sup>	Benzene	Toluene	Ethyl Bon- zene	Xylenes	% Rec. Sur- rogale
105846	, L-1	S	2.6,b,g	ND	0.010	ND	0.030	99
105847	L-2	S	ND	ND	ND	ND	ND	103
105848	L-3	s	ND	ND	ND	ND	ND	102
105849	T-1	S	150,a,b	2.2	2.9	1.8	13	100
105850	L-4	s	ND	ND	ND	ND	ND	103
105851	T-2	S	120,c	0.62	0.56	0.87	2.2	94
105852	L-5	S	8.2,b	0.010	0.020	0.012	0.092	98
105853	L-6	s	ND,b	ND	0.007	ND	0.034	99
			, , , , , , , , , , , , , , , , , , ,		34			,
1 10000 270000								
<u> </u>							<del></del>	
		1			<u> </u>		·	
	<u> </u>	<del> </del>		p. 11.				†
							·	
	Limit unless	w	50 ug/L	0.5	0.5	0.5	0.5	
means N	stated; ND of Defected	S	1.0 mg/kg	0.005	0.005	0.005	0.005	
		1	l	l	1	1		1

<sup>\*</sup>water samples are reported in ug/L and soils in mg/kg

cluttered chromatogram; sample peak co-clutes with surrogate peak

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; I) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.

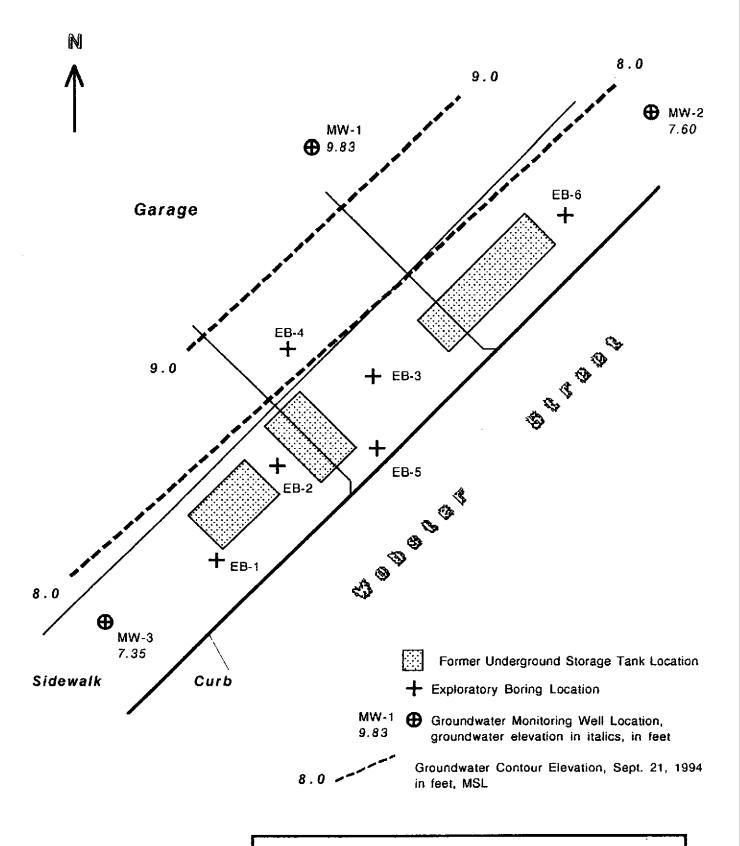
110 2nd Avenue South, #D7, Pacheco, CA 94553 Tele: 510-798-1620 Fax: 510-798-1622

Bernabe &	Brinker				Parking; 17	21 Date Samp	ied: 08/06/9:	2
1281 30th S	treet	W	ebster Street	i, Oakland		Date Rece	ived: 08/06/9	2
Oakland, C	CA 94608	C	lient Contact	: Jim Brinker	Ernie Berna	be Date Extra	cted: 08/06/	92
		C	lient P.O:			Date Analy	/zed: 08/07-0	08/08/92
F169 A	. First alfred					ne and BTEX <sup>4</sup> 3) method OCPID		
Lab ID	Client ID	T	TPH(G) +	Benzene	Toluene	Ethyl Ben- zene	Xylenes	% Rec. Sur
105868	T-3	S	580,b	1.7	5.9	5.6	43	101
105869	T-4	s	1500,a	11	140	, <b>48</b>	280	99
105870	Т5	s	410,a	6.7	22	6.2	35	105
105871	Т6	S	1400,a	12	71	29	150	96
105872	<b>T</b> 7	s	2.3,a	0.11	0.19	0.050	0.31	100
105873	SW1	S	280,a	2.9	5.8	3.2	15	100
105874	SW2	s	1500,a	5.7	40	18	150	98
105875	SW3	S	400,a	2,7	5.8	4.0	21	103
105876	SW4	S	2.3,a	0,42	0.028	0.077	0.18	99
105877	C1	S	560,b	ND < 0.1	5.0	3.1	24	111
			makanan sa makan 1975 da u				1	
	Limit unless	w	50 ug/L	0.5	0.5	0.5	0.5	
means No	stated; ND of Detected	S	1.0 mg/kg	0.005	0.005	0,005	0.005	
		J	1	J	l	1		

<sup>\*</sup>water samples are reported in ug/L and soils in mg/kg

cluttered chromatogram; sample peak co-clutes with surrogate peak

<sup>&</sup>lt;sup>†</sup>The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gasoline compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) gasoline range compounds predominate; no recognizable pattern; i) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds predominate.



GEN TECH ENVIRONMENTAL, INC. SAN JOSE, CA Site Plan and Groundwater Contour Map Douglas Parking 1721 Webster Street Oakland, CA

Project No. 9432 Scale: 1" = 100' Date: Dec., 1994

FIGURE 1



# STANDARD SYMBOLS

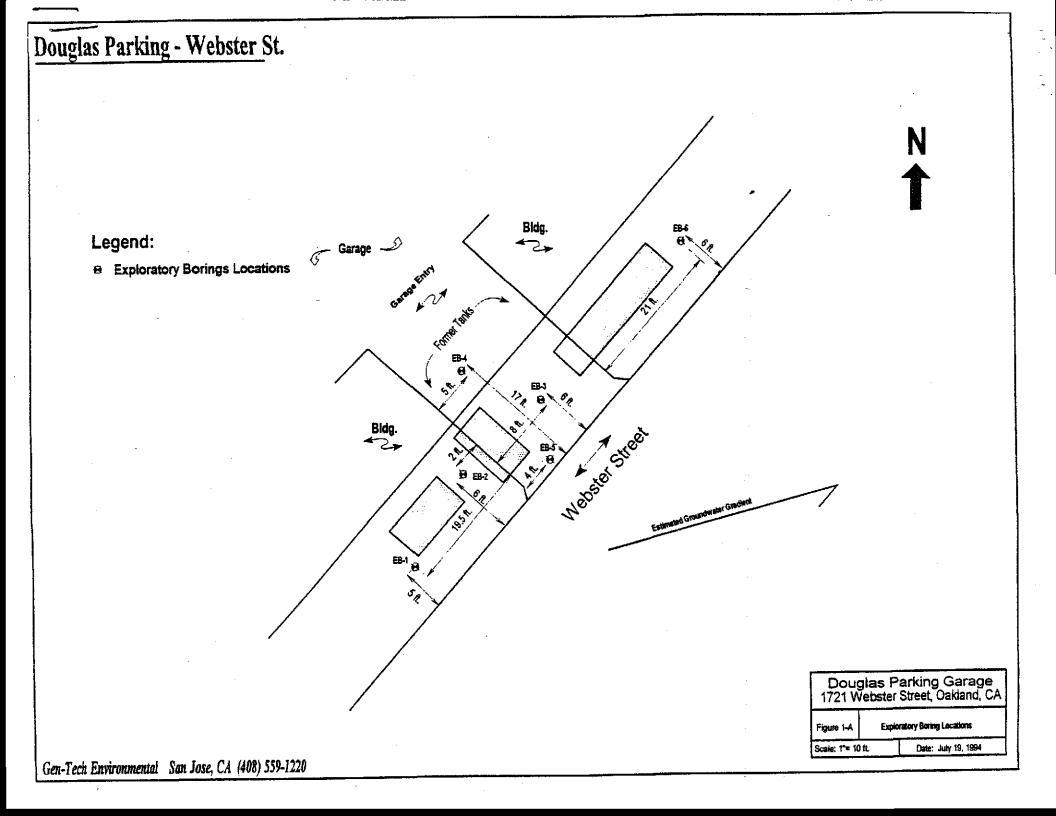
Legend		Penetration
	Soil sample location	Sample drive hammer weight - 140 pounds falling 30 inches.  Blows required to drive sampler 1 foot are indicated on the logs
	Soil sample collected for laboratory analysis	Well Construction
$\square$	No soil recovery	Annular seal
$\nabla$	First encountered groundwater level	Bentonite seal
<b>Y</b>	Potentiometric groundwater level	Sand pack
	Disturbed or bag soil sample	Well riser section
2.5 YR 6/2	Soil color according to Munsell Soil Color Charts (1975 Edition)	Well screen section

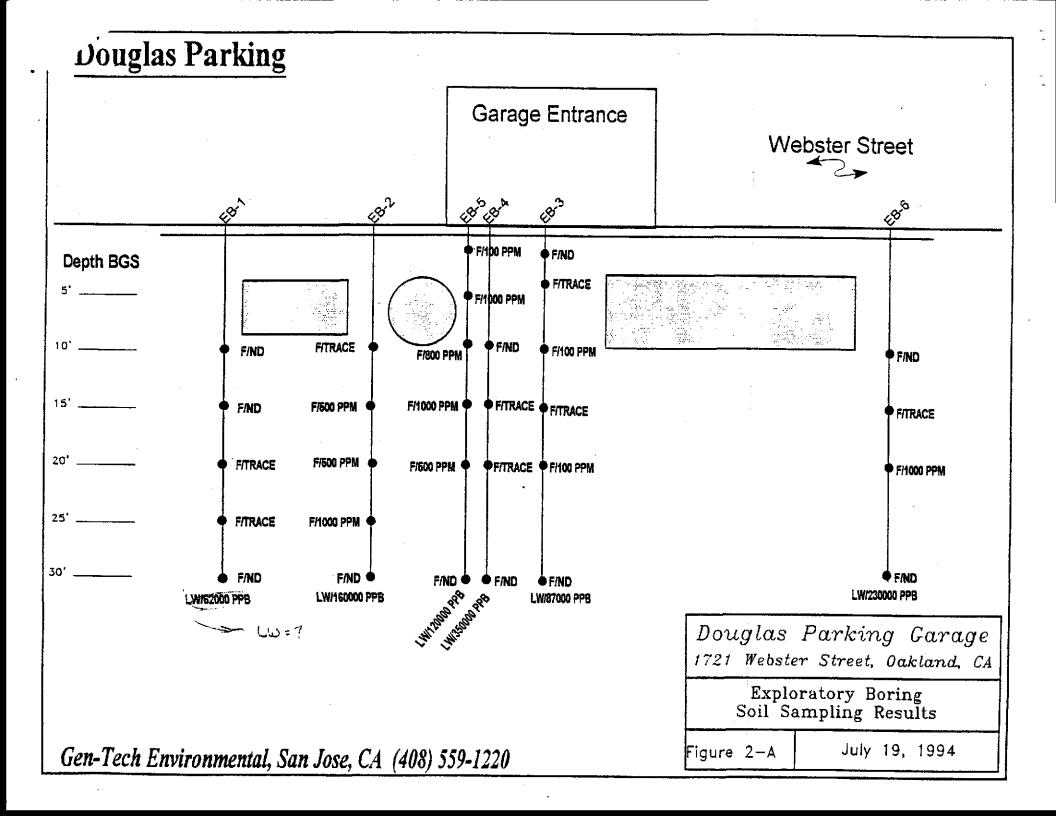
#### UNIFIED SOIL CLASSIFICATION SYSTEM

	MAJOR DIVISIONS		GROUP SYMBOLS	TYPICAL NAMES
		an rels	GW	Well-graded gravels, gravel-sand mixtures, little or no fines
INED SOILS of material is 200 sieve size	GRAVELS More than half of coarse fraction is larger than No. 4 sieve size	Clean Gravels	GP	Poorly graded gravels, gravel-sand mixture, little or no fines
D SC ateri sieve	JRAVEL ore than h of coarse stion is lan n No. 4 si	iravels with Fines	GM	Silry gravels, gravel-sand-silt mixtures
of m	G Mo fract than	Gravels with Fines	GC	Clayey gravels, gravel-sand-clay mixtures
SRA No.	9,	Clean Sands	sw	Well-graded sands, gravelly sand, little or no fines
COARSE-GRAINED SOILS More than half of material is larger than No. 200 sieve size	SANDS More than half of coarse fraction is smaller than No. 4 sieve size	25 %	SP	Poorly graded sands, gravelly sands, little or no fines
OAR fore 'ger 1	SANDS ore than h of coarse fraction is liler than sieve siz	Sands with Fines	SM	Silty sands, sand-silt mixtures
Ö ≥ Ä	Mo Smama	San Yei	SC	Clayey sands, sand-clay mixtures
. 9		.2	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands, or clayey silts, with slight plasticity
ED SOILS of material is 200 sieve size	χ×	Low Liquid Limit	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
ED SC of mat 200 si	CLA	_ جُ	OL	Organic silts and organic silty clays of low plasticity
FINE-GRAINED SOILS More than half of material is smaller than No. 200 sieve size	SILTS AND CLAYS	bii	MH	Inorganic silts, micaceous or distomaceous fine sandy or sil soils, elastic silts
NE-G re thu ter thu	SILT	High Liquid Limit	CH	Inorganic clays of high plasticity, fat clays
FI Mo Smail		Hig	OH	Organic clays of medium to high plasticity, organic silts
	<u> </u>	<u></u>	Pt	Pear and other highly organic soils

## NOTES:

- 1. Boundary Classification: Soils possessing characteristics of two groups are designated by combinations of group symbols. Fer example, GW-GC, well-graded gravel-sand mixture with clay binder.
- 2. All sieve sizes on this chart are U.S. standard.
- 3. The terms "silt" and "clay" are used respectively to distinguish materials exhibiting lower plasticity from those with higher
- 4. For a complete description of the Unified Soil Classification System, see "Technical Memorandum No. 3-357," prepared for Office, Chief of Engineers, by Waterways Equipment Station, Vicksburg, Mississippi, March 1953.





Project No. 9432 Boring/Well No. EB-1

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstern Permit: Zone 7 borings

Water Levels: 1st Enc: 24' Static: 21.5'

**Borehole Completion** 

Well Installed: No Total Depth: 30.5 feet Grout Seal: 30' to surface

Blow Count Sample Well Detail/ Depth Lithology Log No. OV Backfill Concrete and subgrade SM - Silty SAND, very dark grayish brown 10YR(3/2), up to 5% fine gravel to coarse sand, drills dense, damp. EB-1 grab color change to dark yellowish brown 10YR4/6, 15% clay, 20% silt, drills dense, damp. driller calls change at 8 feet. CL - Sandy CLAY, dark yellowish brown 10YR(4/6), 15% 50 @ 10 for 6" 10 silt 25% sand, low-med. plasticity, rare burrows, oxidation mottling, hard, damp. @ 15 82 15 SP - SAND, light olive brown 2.5Y(5/4), very fine to med. grained, very dense, damp to moist. 50 **⊕** 50° color change to dark greenish gray discoloration 2.5Y(5/4), for 6" 20 slight petroleum odor, very dense, moist. driller calls water at 24 feet. EB-1 60 same as above, sheen on water, very dense, saturated. @ 55 25 EB-1 24/50 same as above, flowing conditions. @ 30 30 for 6" CL - Silty CLAY, light olive brown 2.5Y(5/4), 15% silt, 20% fine to med grained sand, low-med, plasticity, contaminants not observed, hard, damp. Bottom of Boring = 30.5 feet, sand flows into lower 0.5 feet. COUP CEGIZE Z

Project No. 9432 Boring/Well No. EB-2

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstem Permit: Zone 7 borings

Water Levels: 1st Enc: 24' Static: 22'

#### **Exploratory Boring Log**

**Borehole Completion** 

Well Installed: No Total Depth: 30'

Cement Grout Seal: 27' to surface

Sample Blow Sample Well Detail/ Depth Lithology Log Backfill Concrete and subgrade GW - Artificial FILL, base material. E0.2 grab EB-2 83 artificial fill, dense, damp. 10 Ø 10° SP - SAND, light olive brown 2.5Y(5/4), rare burrows EB-2 500 22/50 **@** 15' 15 or root holes, petroleum odor, very dense, damp. ppm EB-2 17/50 @ 20" 500+ same as above, very dense, moist. 20 for 3" EB-2 1000 same as above, color change to dark greenish gray 5GY(4/1), 59 25 @ 25 ppm strong petroleum odor, dense, saturated. flowing conditions, clay on drill bit when withdrawn from EB-2 63 borehole. @ 30 30 Bottom of Boring = 30 feet, flowing sand fills lower 3 feet Han- hanby Field Analytical Chemical colormetric Test for petroleum hydrocarbons in parts per million. CHUP CEGIZEL

Project No. 9432 Boring/Well No. EB-3

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL Drilling Method: Hollowstem Permit: Zone 7 borings

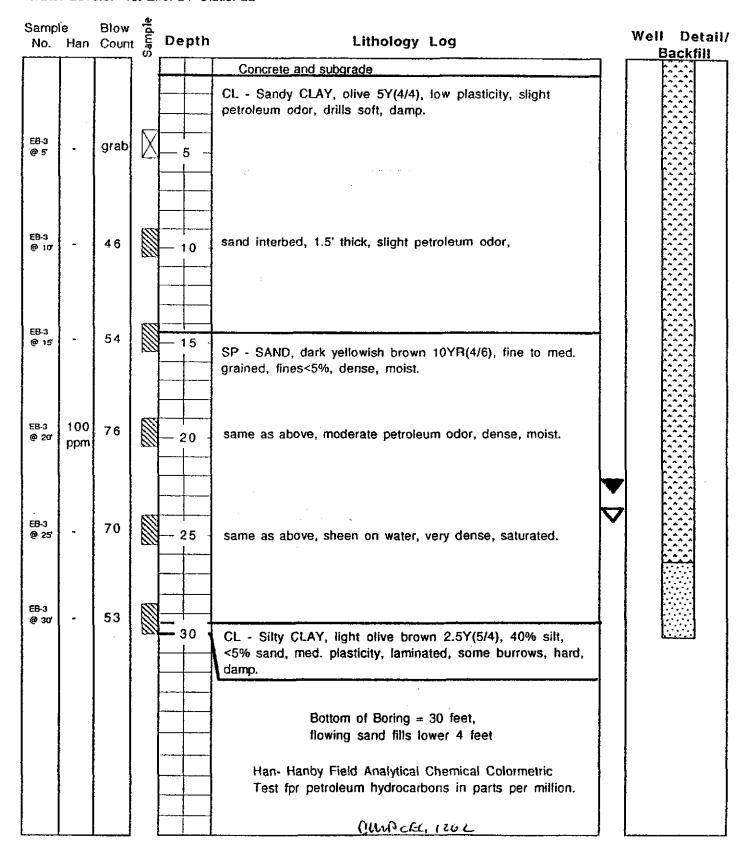
Water Levels: 1st Enc. 24' Static: 22'

#### **Exploratory Boring Log**

**Borehole Completion** 

Well Installed: No Total Depth: 30'

Cement Grout Seal: 26' to surface



Project No. 9432 Boring/Well No. EB-4

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstem Permit: Zone 7 borings

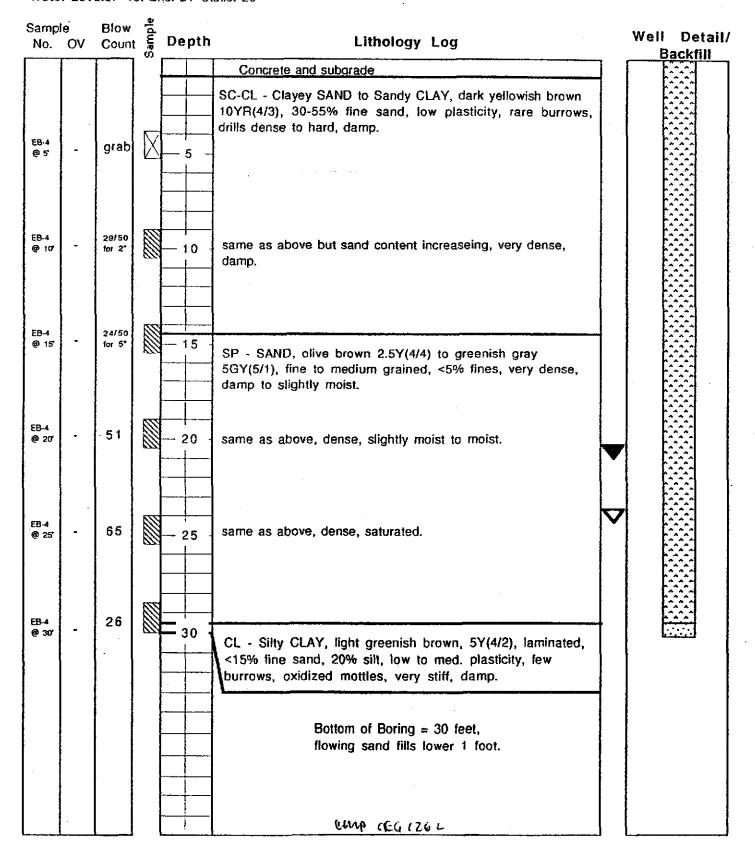
Water Levels: 1st Enc: 24' Static: 20'

# **Exploratory Boring Log**

**Borehole Completion** 

Well Installed: No Total Depth: 30'

Cement Grout Seal: 29' to surface



Project No. 9432 Boring/Well No. EB-5

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL Drilling Method: Hollowstem Permit: Zone 7 borings

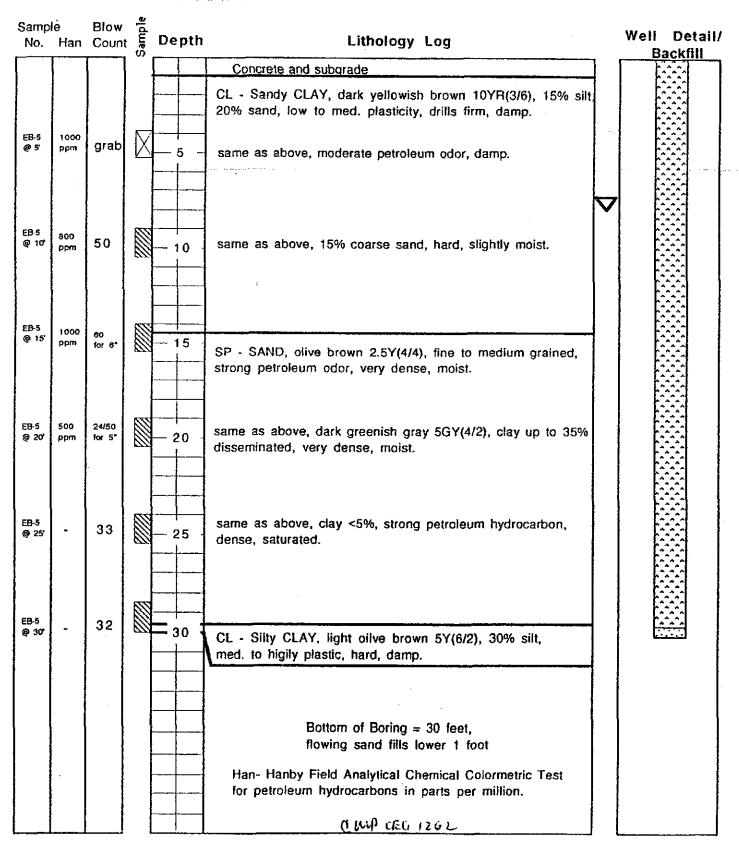
Water Levels: 1st Enc: 24' Static: 18'

## **Exploratory Boring Log**

**Borehole Completion** 

Well Installed: No Total Depth: 30'

Cement Grout Seal: 29' to surface



Project No. 9432 Boring/Well No. EB-6

Client: Douglas Parking Date Drilled: July 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL Drilling Method: Hollowstem Permit: Zone 7 borings

Water Levels: 1st Enc. 24' Static: 21.50'

# **Exploratory Boring Log**

**Borehole Completion** 

Well Installed: No Total Depth: 30'

Cement Grout Seal: 28' to surface

Samp No.	le Han	Blow Count	Sample	Depth	Lithology Log	Well Detail/ Backfill
			•		Concrete and subgrade  CL - Sandy CLAY, dark yellowish brown 10YR(4/4), 35% sand, med. plasticity, drills firm, damp.	
EB-8 @ 5	•	grab	$\boxtimes$	5 -		
@ 10°	-	42/50 for 3*		10	same às above, color darkens to dark olive gray, slight petroleum odor, hard, damp.	
EB-6 @ 15	-	50		— 15 —	SP - SAND, olive 5Y(4/3), fine to med. grained, slight petroleum odor, dense to very dense, damp.	
@ 20'	1000 ppm	57/50 for 5*		20	same as above, stained dark bluish gray, strong petroleum odor, very dense, moist.	
EB-8 @ 25	-	48		— 25 —	same as above, strong petroleum odor, dense, saturated, flowing conditions.	<b>~</b>
EB-6 @ 30*	-	51		30	CL - Silty CLAY, pale olive, 5Y(6/3), laminated, 15% silt, highly plastic, hard, damp.	
					Bottom of Boring = 30 feet, flowing sand fills lower 2 feet	
					Han-Hanby Field Analytical Chemical Colometric Test for petroleum hydrocarbons in parts per million.	
					Cup icu 1262	

Project No. 9432 Boring/Well No. MW-1

Client: Douglas Parking Date Drilled: Sept. 8, 1994

Location:1721 Webster St., Oakland, CA Logged by: EL Drilling Method: Hollowstern Permit: Zone 7 #94501

Water Levels: 1st Enc:23' Static: 21.7

# Exploratory Boring Log

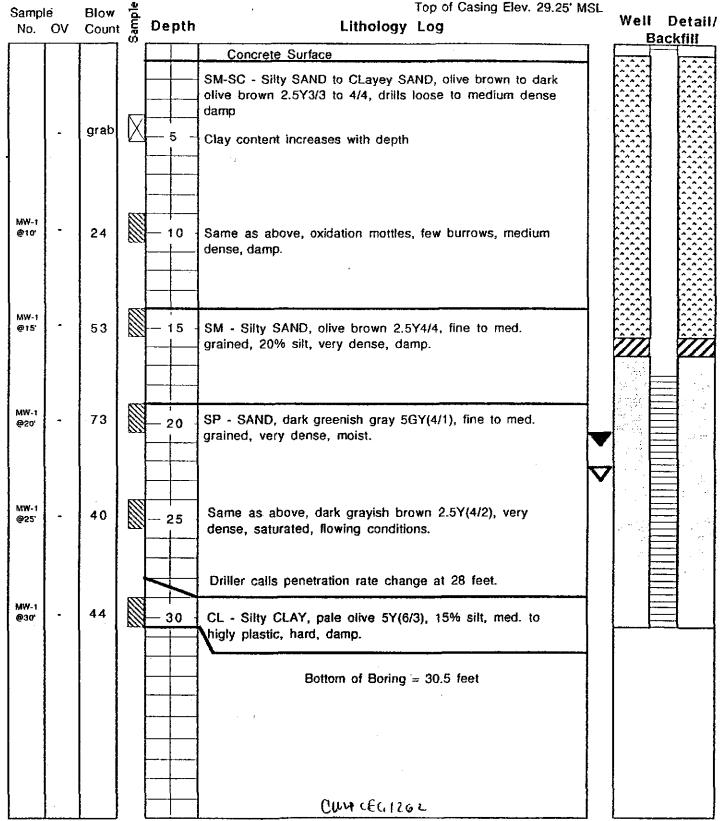
**Borehole Completion** 

Well Installed: 2"dia. Sch 40 PVC

Total Depth: 30.5' Casing Depth: 30.5' Screen Length: 10' 0.020" Blank Length: 20.5'

Top Sand Pack: 16.5' Top Bentonite: 15.5

Grout Seal:15.5" to 0.5' vault box



Project No. 9432 Boring/Well No. MW-2

Client: Douglas Parking Date Drilled: Sept. 8, 1994 Location:1721 Webster St., Oakland, CA Logged by: EL

Drilling Method: Hollowstem Permit: Zone 7 #94501

Water Levels: 1st Enc. 24' Static: 20.1'

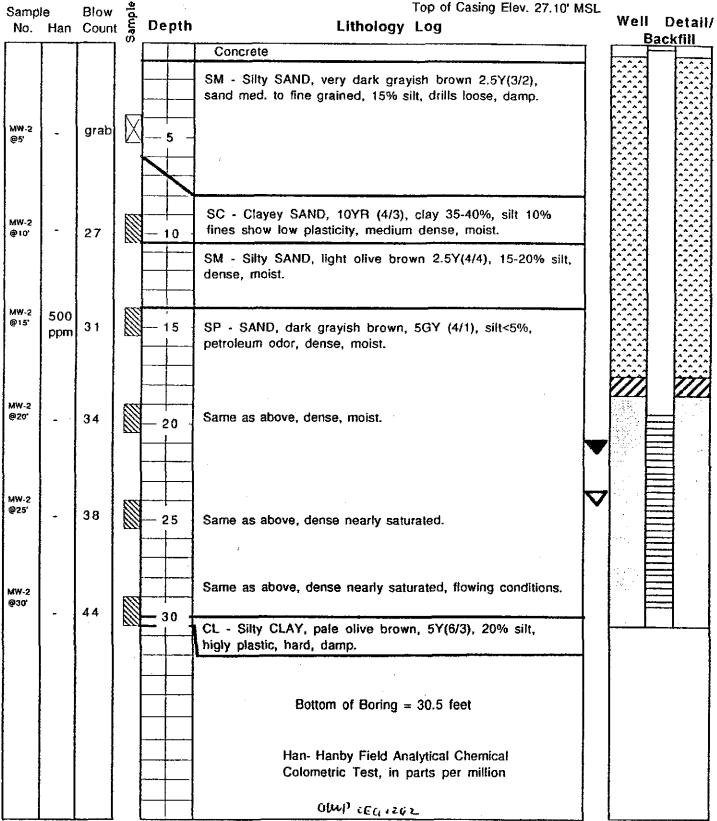
#### **Exploratory Boring Log**

Borehole Completion

Well Installed: 2"dia. Sch 40 PVC Total Depth:30.5 Casing Depth: 29.5

Screen Length: 10' 0.020" Blank Length: 19.5 Top Sand Pack: 18.5' Top Bentonite: 17.5'

Grout Seal:17.5' to 0.5' vault box



Project No. 9432 Boring/Well No. MW-3

Client: Douglas Parking Date Drilled: Sept. 8, 1994

Location:1721 Webster St., Oakland, CA Logged by: EL Drilling Method: Hollowstem Permit: Zone 7 #94501

Water Levels: 1st Enc. 28.20' Static: 21.60'

#### Exploratory Boring Log

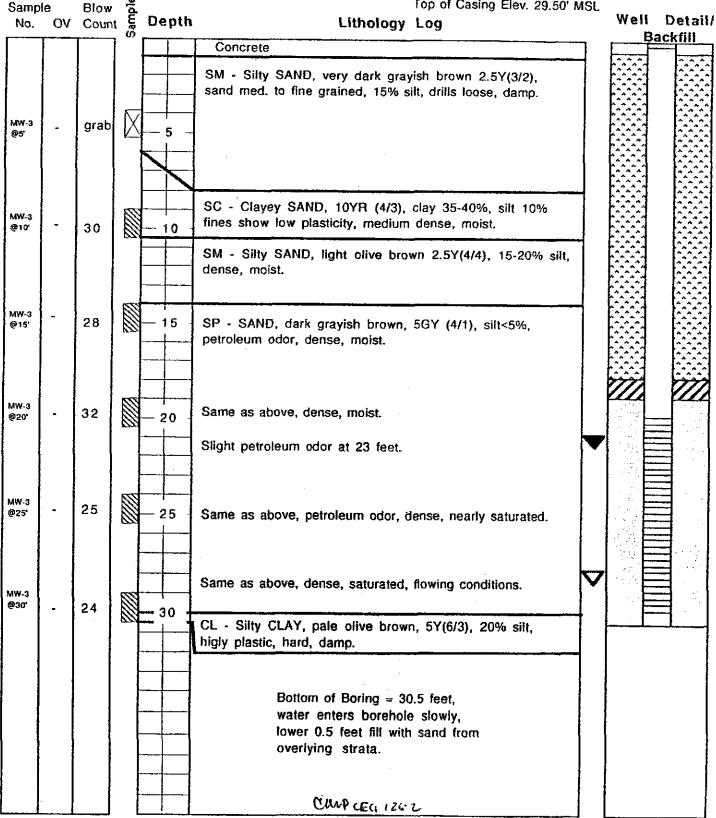
Borehole Completion

Well Installed: 2"dia. Sch 40 PVC Total Depth:30.5' Casing Depth: 30'

Screen Length: 10' 0.020" Blank Length: 20'

Top Sand Pack: 19' Top Bentonite: 18' Grout Seal:18' to 0.5' vault box

Top of Casing Elev. 29.50' MSL



			ORING LOG		Boring ID SB-A										
1	nt: Douglas ect No: 58-19		rking C				^^				Vebster Str	eet			
		$\overline{}$	_	Phase		ask	02	Surfa	ce Elev.	j	t,	1	Page	1 of	1
Depth Feet	Blow	le le	Interval		Lithologic			TPHg (ppm)	Graphic Log	_	Boring	Depth Feet	Α.,	P	_
94	Count	Sar	late Tate		Description			무호	Gra	~	ompletion Graphics		Con	ditional nment	i S
								<del></del>		<del> </del> -		<u> </u>	1		
	2		1				,								
0 -	Ground Surfac	* 		ASPHALT	•••••••	•			11, 14, 14, 15, 15		//\$\\/	0	 	·	
-										7 🛭		F			
-				City CAND.	IONAL TOTAL							[			
-		l		damp to moi	(SM); grey to bi ist; 30% silt, 70 ned sand; mode irmeability	rown; )% fin	e to					[ .	,		
5	·			estimated pe	rmeability	agre									
,												5	·		
-				1	•							ļ i			
-												<u> -</u>			
-												<u>}</u>			
10												10			
_												- 10			
								!							
-												-			
-	· <del>-</del> ·· · · · · · · · · · · · · · · · · ·														
15				SAND; (SP); 10% silt, 90°	grey to brown; % medium grain ed permeability	moist; ed sa	; nd;					15			
-				mgn estimate	ed permeability		ı					-			
-					•							-			
}												-			
1															
20	<del></del> -							nd				_20			
=												-			
+	··							-	<u> </u>	12/2	22///22/23	-	Bottom of	boring	
}					•					·		-			
25	,						Ī					25			
-											Ī				
1												-			
4			•				Ī					_			
1							ı				-	-			
30											-  -	30			
Orill	· · ·				Drilling Started				_				treet in	#4 lan	<u>e</u>
Logged By JME Drilling Completed 2/22/96								-	<u>near site e</u>	ntranc	e				
Water-Bearing Zones NA Grout Type Portland Typ								Type	<u>/                                     </u>	_					

1	:	_		BORING LOG			Boring ID SB-B					
ł	nt: Douglas		rking				Location 1721 Webster Street					
Proje	ect No: 58-19	7	<del></del>	Phase	Task	02	Surfac	ce Elev.	VA ft,		Page <b>1</b> of <b>1</b>	
Depth Feet	Blow Count	Sample	Interval		Lithologic Description		TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments	
0	Ground Surfac	æ		ASPHALT						0		
5				Silty SAND; silt, 70% fin sand; moder permeability	(SM); brown; damp; e to medium grained ate estimated	; 30% i				5		
10				moist		***				10		
15				SAND; (SP); 90% medium estimated pe	brown; damp; 10% n grained sand; high rmeability	silt,				15		
20				grey; wet			580.00			20	Bottom of boring	
25										25		
30										30		
Dril	ler Vironex				Drilling Started 2	/22/9	6		Notes: We	bster :	Street in #2 lane	
	ged By JME		NA_		Drilling Completed Grout Type Po	2/2	2/96	1/11	near site e		1	

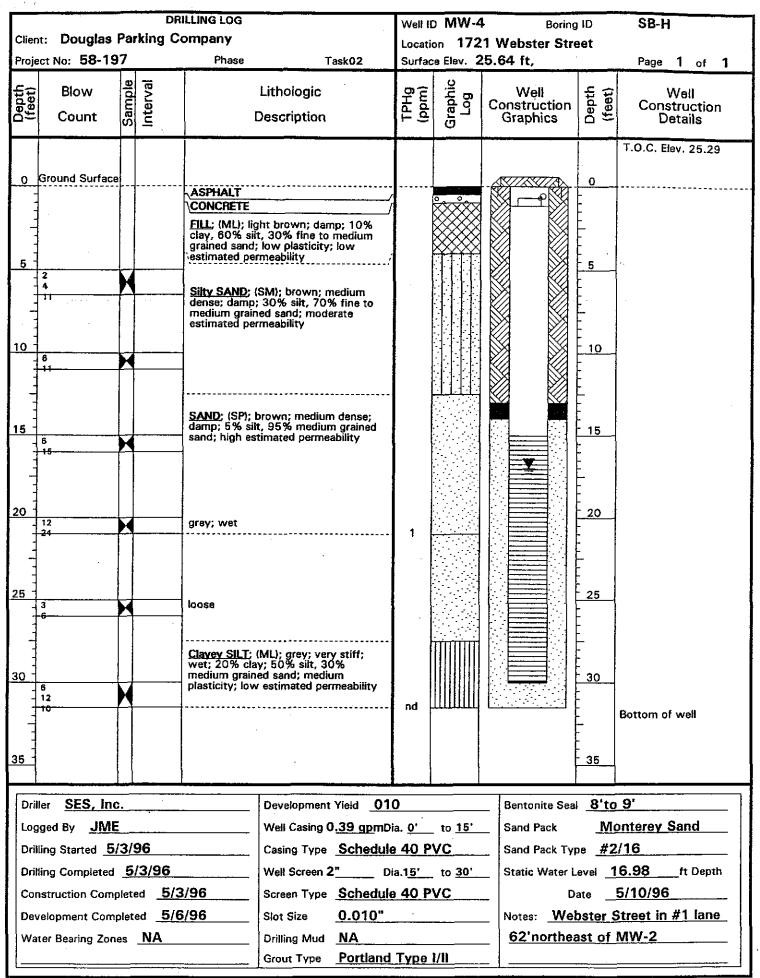
			RING LOG		Boring ID SB-C										
	: Douglas I		rking Co		_		^^	Location 1721 Webster Street Surface Elev. NA ft, Page 1 of 1							
Depth Feet	Blow Count	Sample	Interval		Lithologic Description	ask (	U2	TPHg (mdd)	Graphic Res	Bor Comp Grap	ing letion hics	Depth Feet		1 of 1 ditional nments	
0	Ground Surfac			ASPHALT								0			
5				Sitty SAND; (Sailt, 70% fine sand; moderate permeability	SM); brown; m to medium gra te estimated	oist; ( ained	30%					5	<b>.</b>		
				,								-			
10	<u></u>			wet	••••							10			
15				SAND: (SP); b 90% medium estimated pen	rown; moist; grained sand; meability	10% s high	silt,					15 - - -			
20				grey; wet			:	1.40				20	Bottom o	f boring	
25												25			
30	·					·						30			
Drill	er <u>Vironex</u>	_			Drilling Starte	d <u>2/</u>	22/9	6		_ Note	s: <u>We</u>	bster (	Street in	#4 lane,	7
İ	ged By JME er-Bearing Zone		NA		Drilling Comp					_   34'	northe	ast of	MW-2		

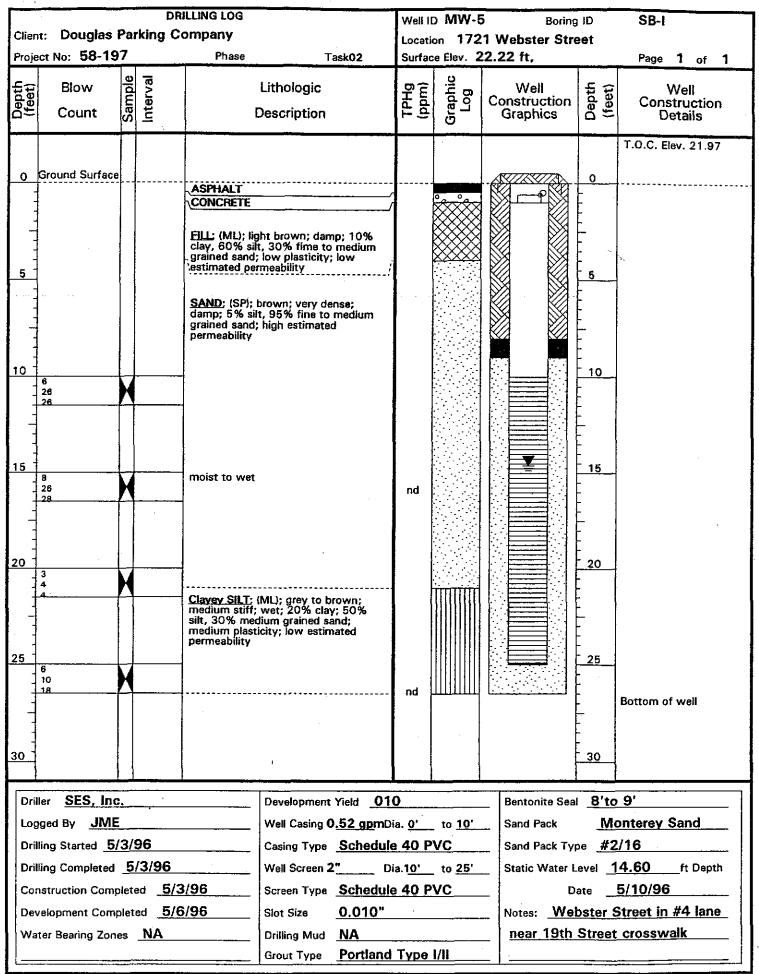
			ВС	RING LOG		**	Boring ID SB-D						
Client: Doug	las P	ar	king Co	mpany			Location 1721 Webster Street						
Project No: 58	-197	7		Phase	T	ask <b>02</b>		e Elev. N			Page	1 of	1
Depth Feet Con Bio/	nt	Sample	Interval		Lithologic Description		TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Addi Com	tional ments	
O Ground S	urface	-		ASPHALT						0			•
5				Silty SAND; (5 silt, 70% fine sand; modera permeability	SM); brown; di to medium gra te estimated	amp; 30% ained				5			
10										10			
15				SAND; (SP); t 90% medium estimated per	orown; damp; i grained sand; meability	10% silt, high				15			
20	-			grey; wet			860.00		<b>Y</b>	20			
25			,							25	Battom af	boring	
30										30			
Driller Viro	nex				Drilling Starte	ed 2/22/9	6		Notes: We	bster :	Street in 1	#4 lan	<u>e,</u>
Logged By	J <u>ME</u>				Drilling Completed 2/22/96 62' northeast of MW-2					<del></del>	_		
Water-Bearing	Zone	5	NA		Grout Type	Portland	Туре	1/11	_			<u>-</u> -	

	<u>,</u>		ВС	RING LOG		Boring ID SB-E					
	t: Douglas		rking C	ompany		Locati	Location 1721 Webster Street				
Proje	ct No: 58-19	7	,	Phase	Task 02	Surfac	e Eiev. N	A ft,	,	Page 1 of 1	
Depth Feet	Blow Count	Sample	Interval		Lithologic Description	TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments	
0	Ground Surface	æ .		ASPHALT		1			0		
5				Silty SAND; (5 silt, 70% fine sand; moderal permeability	SM); brown; damp; 30% to medium grained te estimated						
10					······································				10		
15				SAND: (SP); b 90% medium estimated per	orown; damp; 10% silt, grained sand; high meability				- - - - - -		
20				grey; wet		nd			20		
25			, *						25	Bottom of boring	
	ller <u>Vironex</u>				Drilling Started 2/23/					Street in #4 lane,	
Log	gged By <u>JME</u>	<u> </u>			Drilling Completed 2/2	23/96	<del></del>	<u>62' northe</u>	east of	MW-2	
Wa	ster-Bearing Zon	es	<u>NA</u>		Grout Type Portland	d Type	1/11				

					RING LOG			Boring ID SB-F					
Clier	· ·		rki	ing Co	mpany			Location 1721 Webster Street					
Proje	ect No: 58-19	7			Phase	T	ask 02	Surfac	e Elev. N	A ft,		Page 1 of 1	
Depth Feet	Blow Count	Sample	Interval		•	Lithologic Description		TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments	
0	Ground Surfac	æ			ASPHALT						0		
5					Silty SAND; (silt, 70% fine sand; modera permeability	SM); brown; n to medium gr te estimated	noist; 30% ained				5	· ·	
10					SAND; (SP); t 90% medium estimated per	prown; moist; grained sand; meability	10% silt, high				10		
20			-		wet			nd		***************************************	20		
25											25	Bottom of boring	
30			٠				·		·		30		
Dril	ler Vironex					Drilling Starte	ed 2/23/9	6		Notes: We	bster :	Street in #2 lane	
Log	gged By JME					Drilling Comp	oleted <u>2/2</u>	3/96				crosswalk	
Wa	ter-Bearing Zon	es	N	<u>IA</u>		Grout Type	<u>Portland</u>	Type	<u> </u>	_			

				RING LOG			Boring ID SB-G					
Clier	nt: Douglas	Pai	rking Co	mpany			Location 1721 Webster Street					
Proje	ect No: <b>58-19</b>	<u>7</u>		Phase	Task	02	Surfac	e Elev. N	A ft,		Page 1 of 1	
Depth Feet	Blow Count	Sample	Interval		Lithologic Description		TPHg (ppm)	Graphic Log	Boring Completion Graphics	Depth Feet	Additional Comments	
0	Ground Surfac	e		ASPHALT						0		
5				Sitty SAND; (5 silt, 80% fine sand; moderat permeability	SM); brown; damp to medium graine te to high estimate	; 20% d ed				5		
-				,	<b></b>							
10				SAND; (SP); b 90% medium estimated peri	orown; moist; 10% grained sand; high meability	siit,				10		
15				wet						15		
20				wet	•••••		nd			20	Bottom of boring	
25		VI. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.								- - - - - - - - - - - - - - - - - - -		
30	·									30		
Dri	iller Vironex		<u>-</u>		Drilling Started	2/23/9	6		Notes: We	bster	Street in #4 lane	
Lo	gged By JMI	<u>:</u>	NA		Drilling Complete		3/96	1/11			crosswalk	



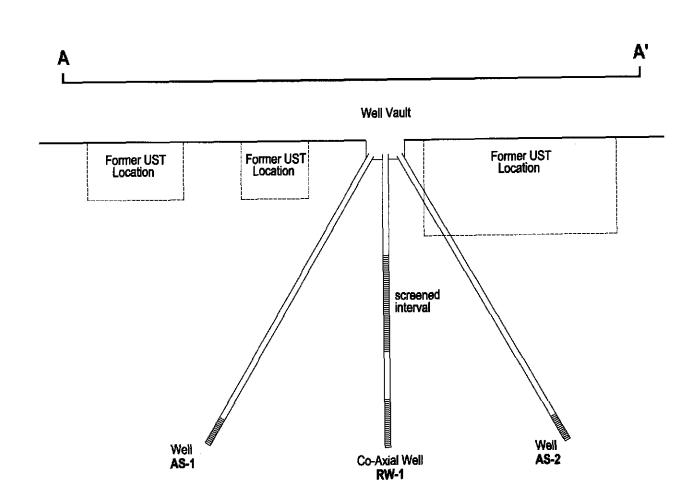


**Douglas Parking Facility** 

1721 Webster Street Oakland, California



**Remediation Well Locations** 



0 5 10 Scale (ft)

FIGURE 2

**Douglas Parking Facility** 

1721 Webster Street Oakland, California



Cross Section A - A'

# **BORING/WELL LOG**



Cambria Environmental Technology, Inc. 1144 - 65th St. Oakland, CA 94608 Telephone: (510) 420-0700

Fax: (510) 420-9170

CLIENT NAME	Douglas Parking Company	BORING/WELL NAME RW-1		
JOB/SITE NAME	Webster	DRILLING STARTED 04-Mar-00		
LOCATION	1721 Webster Street, Oakland, CA.	DRILLING COMPLETED 04-Mar-00		
PROJECT NUMBER _	580-0197	WELL DEVELOPMENT DATE (YIELD)	NA	
DRILLER _	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed	
DRILLING METHOD	Hollow-stem auger Limited Access Rhino	TOP OF CASING ELEVATION NA		
BORING DIAMETER	8"	SCREENED INTERVAL NA		
LOGGED BY	J. Riggi	DEPTH TO WATER (First Encountered)	20.0 ft (04-Mar-00)	$\bar{\underline{\nabla}}$
REVIEWED BY	R. Clark-Riddell, PE# 49629	DEPTH TO WATER (Static)	NA	<u>_</u> _
DEMADVS	Hand Augorod to E' has having located in Woh	star street sidewalk in garage entrance. Well	ie a co-avial SVE/AS wall	I

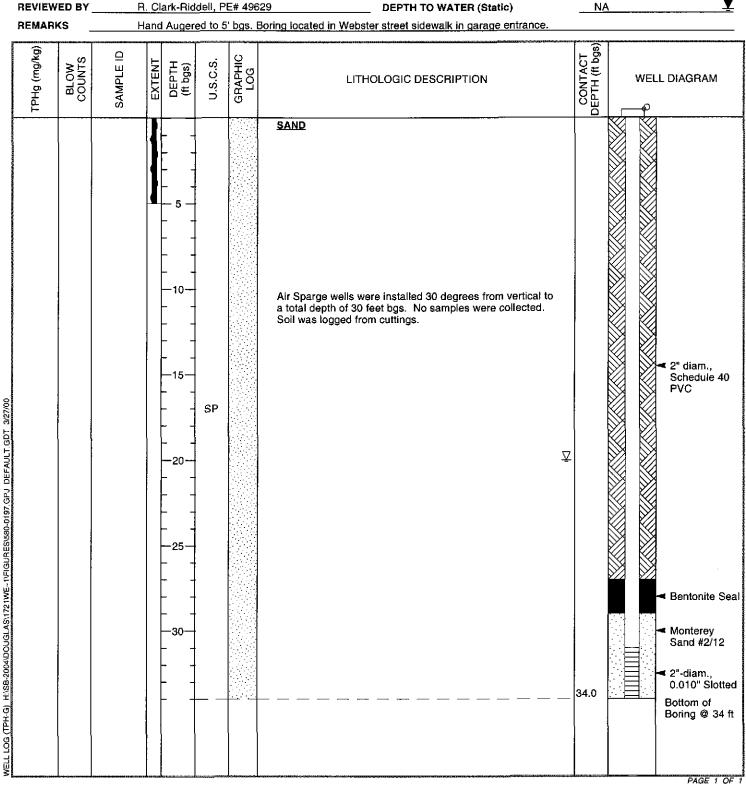
Hand Augered to 5' bgs., boring located in Webster street sidewalk in garage entrance. Well is a co-axial SVE/AS well. REMARKS CONTACT DEPTH (# bgs) TPHg (mg/kg) SAMPLE ID GRAPHIC LOG BLOW COUNTS U.S.C.S. EXTENT DEPTH (ft bgs) LITHOLOGIC DESCRIPTION **WELL DIAGRAM** CONCRETE
SAND: (SP); brown; damp; 5% clay, 10%silt, 80% fine grained sand, 5% gravel; very high estimated permeability. 0.5 SP 3" upper casing 5.0 SAND; (SP); brown; damp to wet; 5% clay, 5% silt, 90% fine to medium grained sand; very high estimated RW-1@ 5' permeability. Bentonite Seal RW-1@ 10' RW-1@ 15' WELL LOG (TPH-G) H:\SB-2004\DOUGLAS\1721\WE~1\F\GURES\580-0197.GP\ DEFAULT.GDT 3/27/00 SP  $\nabla$ RW-1@ 20' @20'- wet. ■ Bentonite Seal Monterey Sand #2/12 25 1" Lower RW-1@ 25' casing 29.5 SM III 30.0 RW-1@ Silty SAND with Clay; (SM); brown; wet; 15% clay, 30% 30 Bottom of 29.51 silt, 55% medium grained sand; very high estimated Boring @ 30 ft PAGE 1 OF

# **BORING/WELL LOG**



Cambria Environmental Technology, Inc. 1144 - 65th St. Oakland, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

CLIENT NAME _	Douglas Parking Company	BORING/WELL NAME AS-1
JOB/SITE NAME	Webster	DRILLING STARTED 04-Mar-00
LOCATION _	1721 Webster Street, Oakland, CA.	DRILLING COMPLETED 04-Mar-00
PROJECT NUMBER _	580-0197	WELL DEVELOPMENT DATE (YIELD) NA
DRILLER _	Gregg Drilling	GROUND SURFACE ELEVATION Not Surveyed
DRILLING METHOD	Hollow-stem auger Limited Access Rhino	TOP OF CASING ELEVATION NA
BORING DIAMETER	8"	SCREENED INTERVAL 31 to 34 ft bgs
LOGGED BY	J. Riggi	DEPTH TO WATER (First Encountered) 20.0 ft (04-Mar-00)
REVIEWED BY	R. Clark-Riddell, PE# 49629	DEPTH TO WATER (Static) NA
DEMADIZE	Hand Augusted to 5' has Baring located in Wal	otor street sidewalk in gazage entrance



# **BORING/WELL LOG**



Cambria Environmental Technology, Inc. 1144 - 65th St. Oakland, CA 94608 Telephone: (510) 420-0700 Fax: (510) 420-9170

CLIENT NAME	Douglas Parking Company	BORING/WELL NAME AS-2	
JOB/SITE NAME _	Webster	DRILLING STARTED 04-Mar-00	
LOCATION	1721 Webster Street, Oakland, CA.	DRILLING COMPLETED04-Mar-00	
PROJECT NUMBER _	580-0197	WELL DEVELOPMENT DATE (YIELD) NA	
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION Not Surveyed	
DRILLING METHOD	Hollow-stem auger Limited Access Rhino	TOP OF CASING ELEVATION NA	
BORING DIAMETER	8"	SCREENED INTERVAL 31 to 34 ft bgs	
LOGGED BY	J. Riggi	DEPTH TO WATER (First Encountered)20.0 ft (04-Mar-00)	$\nabla$
REVIEWED BY	B Clark-Biddell PE# 49629	DEPTH TO WATER (Static) NA	V

REMARKS Hand Augered to 5' bgs. Boring located in Webster street sidewalk in garage entrance. CONTACT DEPTH (# bgs) TPHg (mg/kg) SAMPLE ID GRAPHIC LOG BLOW EXTENT U.S.C.S. DEPTH (# bgs) LITHOLOGIC DESCRIPTION WELL DIAGRAM <u>\$AND</u> Air Sparge wells were installed 30 degrees from vertical to a total depth of 30 feet bgs. No samples were collected. Soil was logged from cuttings. 2" diam., Schedule 40 PVC WELL LOG (TPH-G) H:\SB-2004\DQUGLAS\1721WE-1\FIGURES\580-0197.GPJ DEFAULT.GDT 3/27/00 SP  $\underline{\nabla}$ Bentonite Seal Monterey Sand #2/12 2"-diam., 0.010" Slotted 34.0 Bottom of Boring @ 34 ft PAGE 1 OF



"Linking Technology with Tradition"

# Sanborn® Map Report

Ship to: Mary Holland-Ford

Order Date: 9/26/2003

Completion Date: 9/29/2003 2:27:

Cambria Environmental-Oakland

**Inquiry #:** 1055060.1S

5900 Hollis Street

P.O. #: NA

Emeryville, CA 94608

Site Name: Douglas Parking

Address: 1721 Webster St

Customer Project:580-0197

City/State: Oakland, CA 94612

1014562SHA

510-420-0700

**Cross Streets:** 

Based on client-supplied information, fire insurance maps for the following years were identified

1889 - 2 Maps	1960 - 1 Map
1903 - 1 Map	1964 - 1 Map
1911 - 1 Map	1965 - 1 Map
1950 - 1 Map	1967 - 1 Map
1952 - 1 Map	1969 - 1 Ma <del>p</del>
1953 - 1 Map	
1957 - 1 Map	
1959 - 1 Map	

Total Maps: 13

## **Limited Permission to Photocopy**

Cambria Environmental-Oakland (the client) is permitted to make up to THREE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

All maps provided pursuant to a Sanborn® Map Report are currently reproducible of fire insurance maps owned or licensed by Environmental Data Resources, Inc. NO WARRANTY, EXPRESSED OR IMPLIED IS MADE WHATSOEVER. ENVIRONMENTAL DATA RESOURCES, INC. SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO ACCURACY, VALIDITY, COMPLETENESS, SUITABILITY, CONDITION, QUALITY, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR USE OR PURPOSE WITH RESPECT TO THE REPORT, THE MAPS, THE INFORMATION CONTAINED THEREIN, OR THE RESULTS OF A SEARCH OR OTHERWISE. ALL RISK IS ASSUMED BY THE USER. Environmental Data Resources, Inc. assumes no liability to any party for any loss or damage whether arising out of errors or omissions, negligence, accident or any other cause. In no event shall Environmental Data Resources, Inc., its affiliates or agents, be liable to anyone for special, incidental, consequential or exemplary damages.

# Electronic Sanborn Map Images USER'S GUIDE

Thank you for your interest in electronic Sanborn Map images. The following are guidelines for accessing the images and for transferring them to your system. If you have any questions about the use of electronic Sanborn Map images, contact your EDR Account Executive at 1-800-352-0050.

#### Organization of Electronic Sanborn Image File

First Page Sanborn Map Report, listing years of coverage

Second Page Electronic Sanborn Map Images USER'S GUIDE

Third Page Oldest Sanborn Map Image
 Last Page Most recent Sanborn Map Image

#### Navigating the Electronic Sanborn Image File

- · Open file on screen.
- Identify TP (Target Property) on the most recent map.
- Find TP on older printed images.
- Using Acrobat, zoom to 250% in order to view more clearly.
  - 200-250% is the approximate equivalent scale of hardcopy Sanborn Maps.
- Zooming in on an image:
  - · On the menu bar, click "View" and then zoom.
  - Use the magnifying tool and drag a box around the TP area.

#### Printing a Sanborn Map from the Electronic File

- EDR recommends printing all images at 300 dpi (300 dpi prints faster than 600 dpi).
- To print only the TP area, cut and paste the area from Adobe Acrobat to your word processor.

#### Acrobat Version 4

- Go to the Menu bar
- Press and hold the "T" button
- Choose the Graphics Select Tool
- Draw a box around the area selected
- Go to "Menu"
- Highlight "Edit"
- Highlight "Copy"
- Go to a word processor such as Microsoft Word, paste and print.

#### Acrobat Version 5

- Go to the Menu Bar.
- Click the "Graphics Select Tool"
- Draw a box around the area selected
- Go to "Menu"
- Highlight "Edit"
- Highlight "Copy"
- Go to a word processor such as Microsoft Word, paste and print.

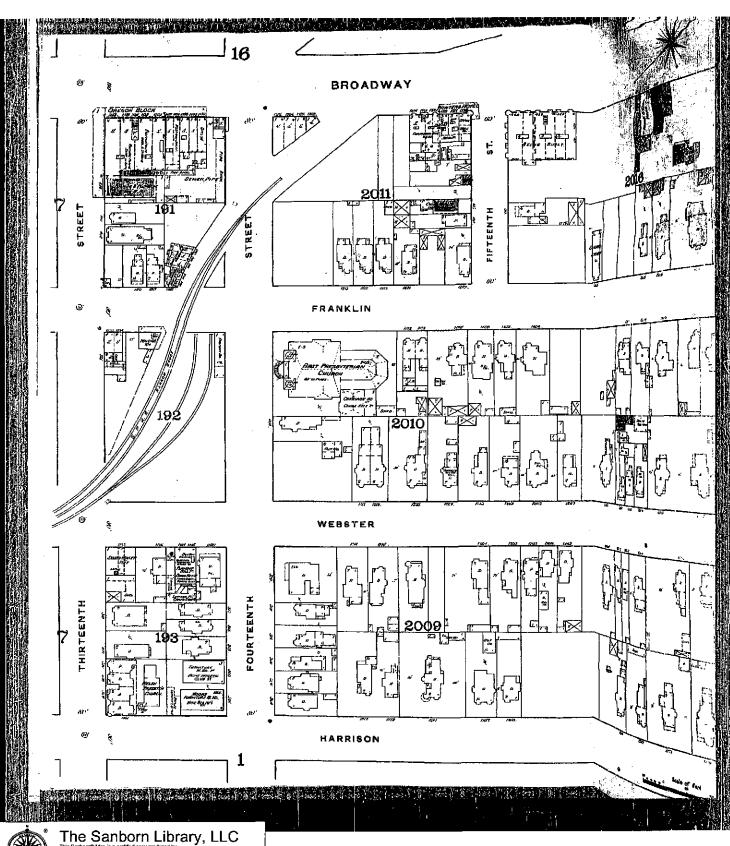
# The lates of the l

Graphics Salact Tool (G)

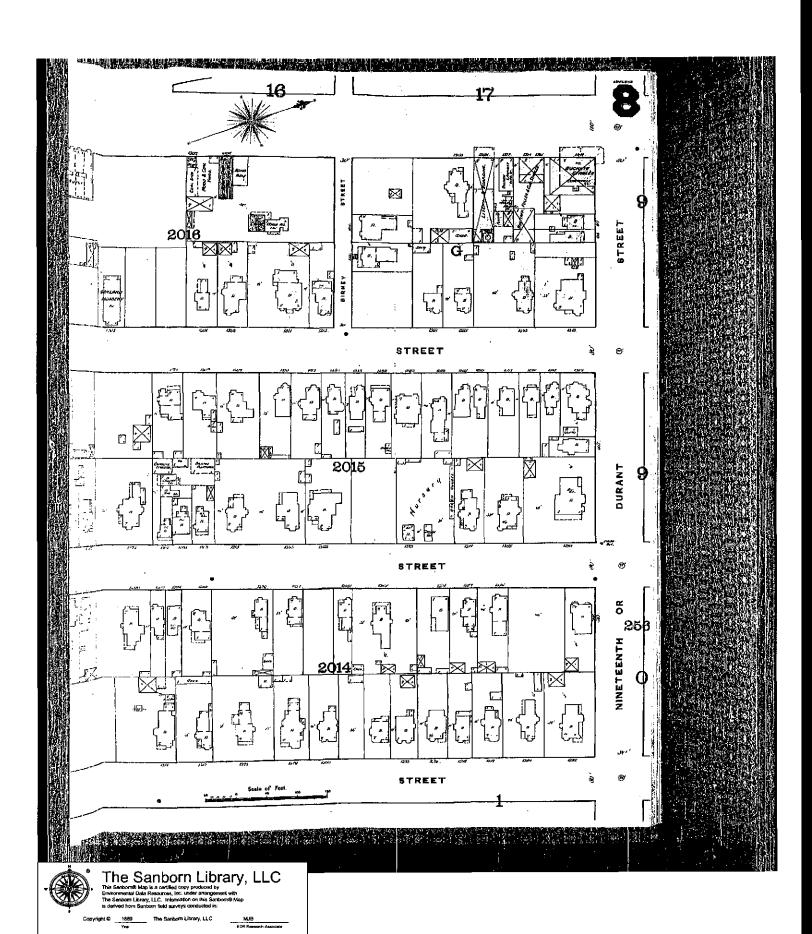
Graphics Salect Tool (V)

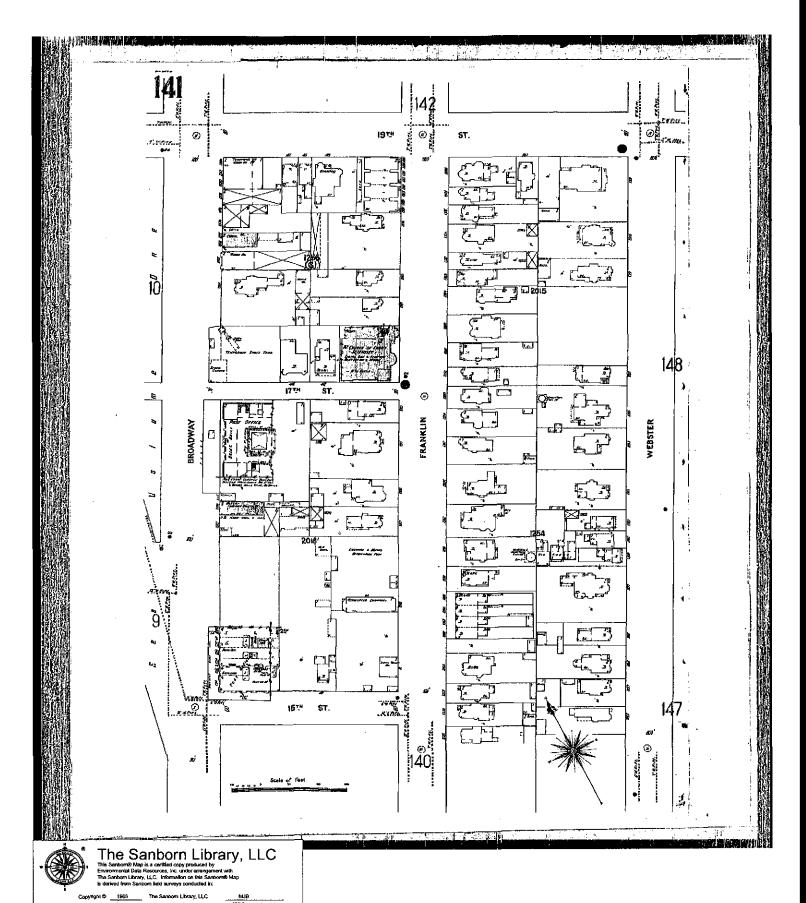
#### Important Information about Email Delivery of Electronic Sanborn Map Images

- Images are grouped into one file, up to 2MB.
- In cases where in excess of 6-7 map years are available, the file size typically
  exceeds 2MB. In these cases, you will receive multiple files, labeled as 1 of 3, 2
  of 3, etc. including all available map years.
- Due to file size limitations, certain ISPs, including AOL, may occasionally delay or decline to deliver files. Please contact your ISP to identify their specific file size limitations.





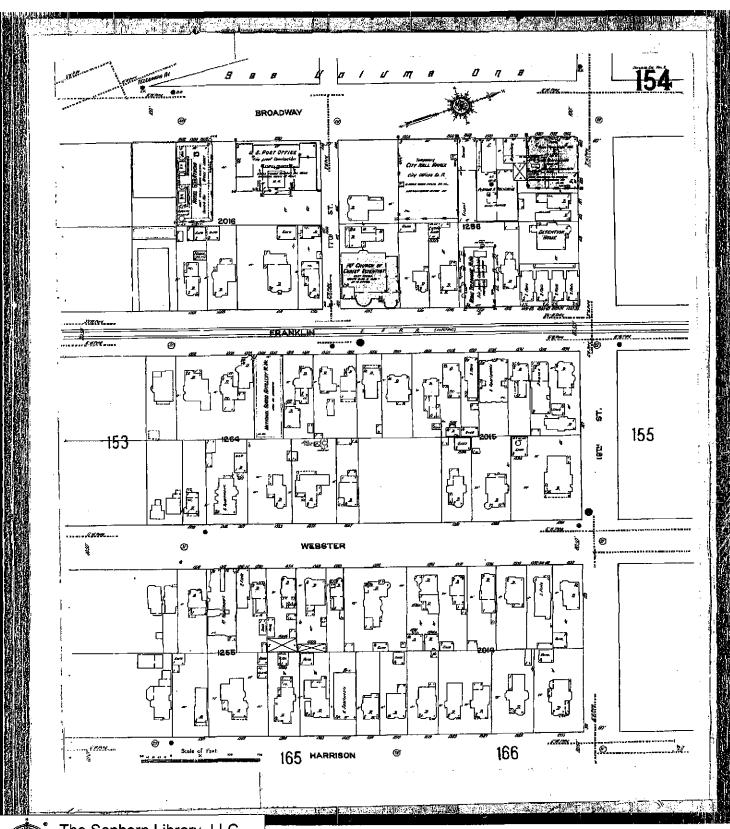


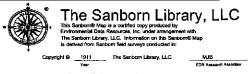


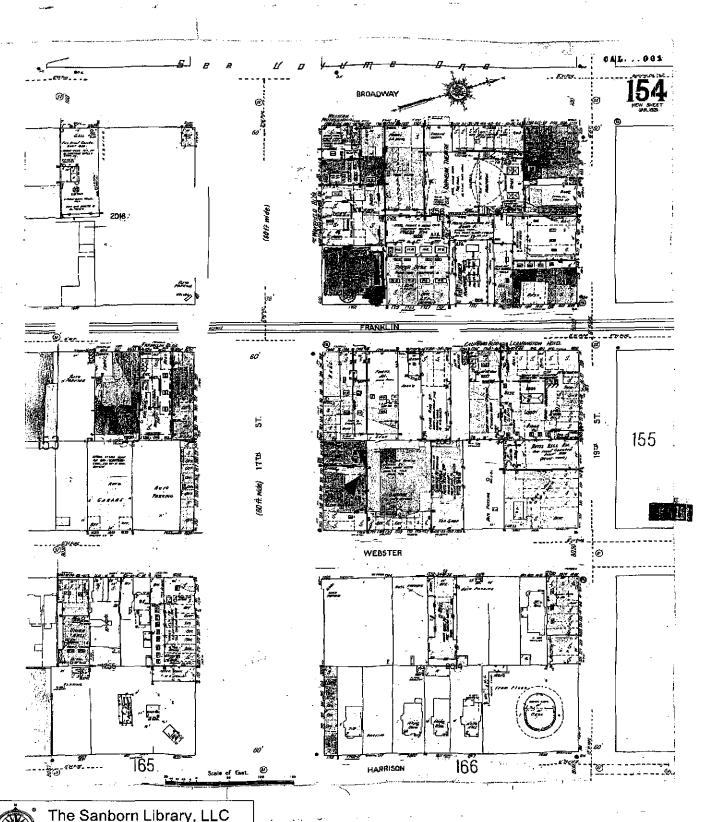
Year

Year

Reproduction in whole of in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.



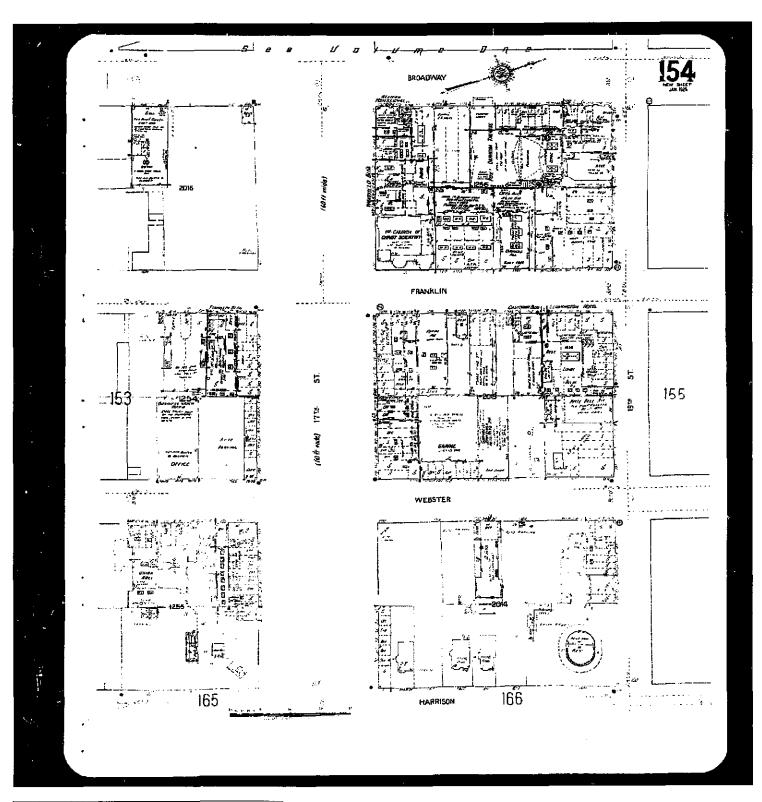


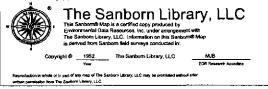


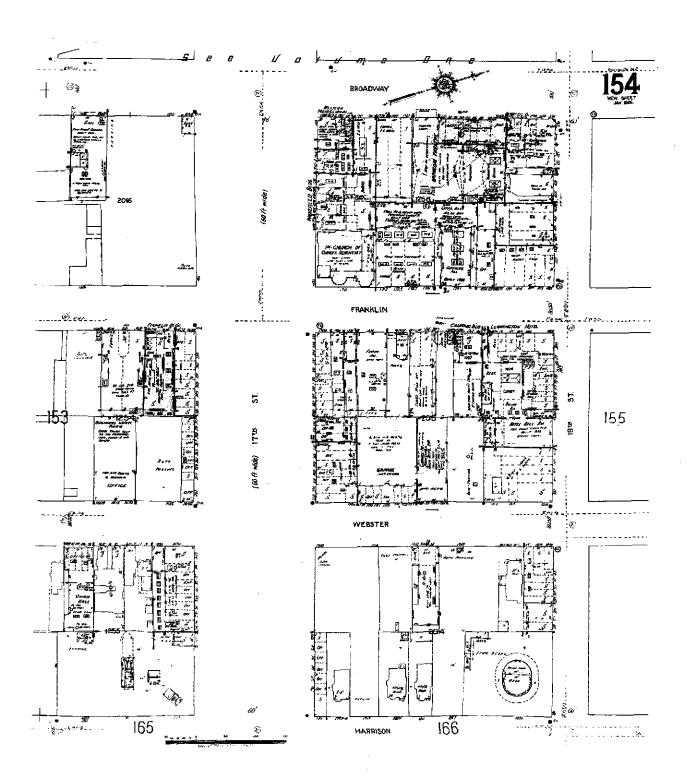
The Sanborn Library, LLC
This Sanborn Library, LLC
This Sanborn's Map is a cartifled copy produced by
Environmental Data Resources, Inc. under arrangement with
The Sanborn Library, LLC information on this Sanborn's Map
is derived from Senborn leid surveys conducted in:

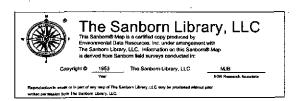
Copyright © 1980 The Sanborn Library, LLC

Wer Epiperdisation in whate or is part of my of the Senborn Library, LLC may be prohibited without plans
written permission from The Sanborn Library, LLC may be prohibited without plans
written permission from The Sanborn Library, LLC

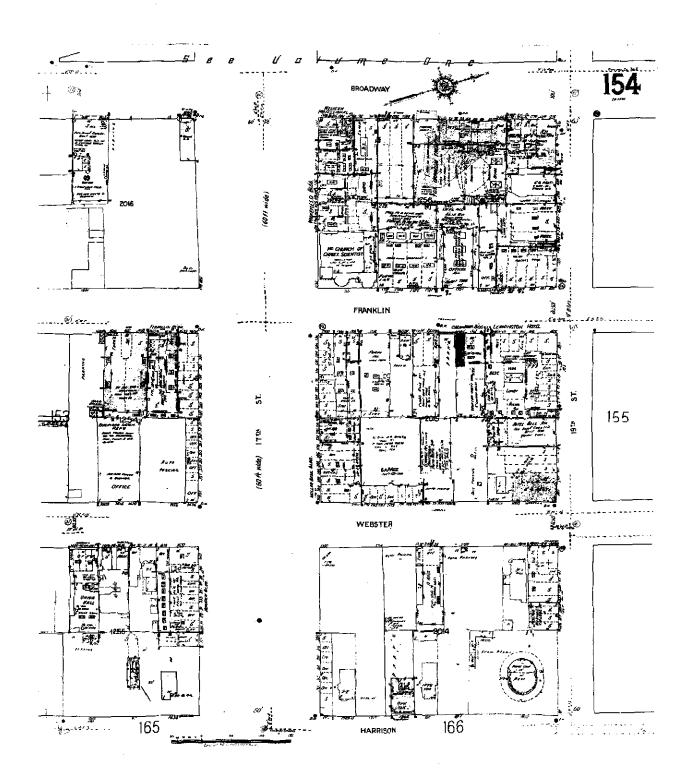


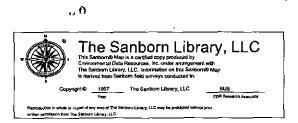


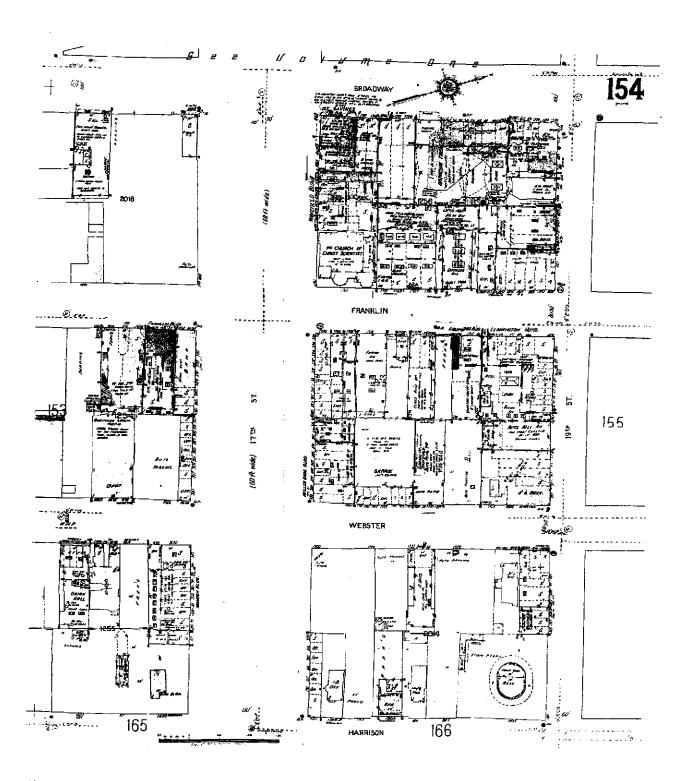


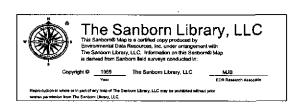


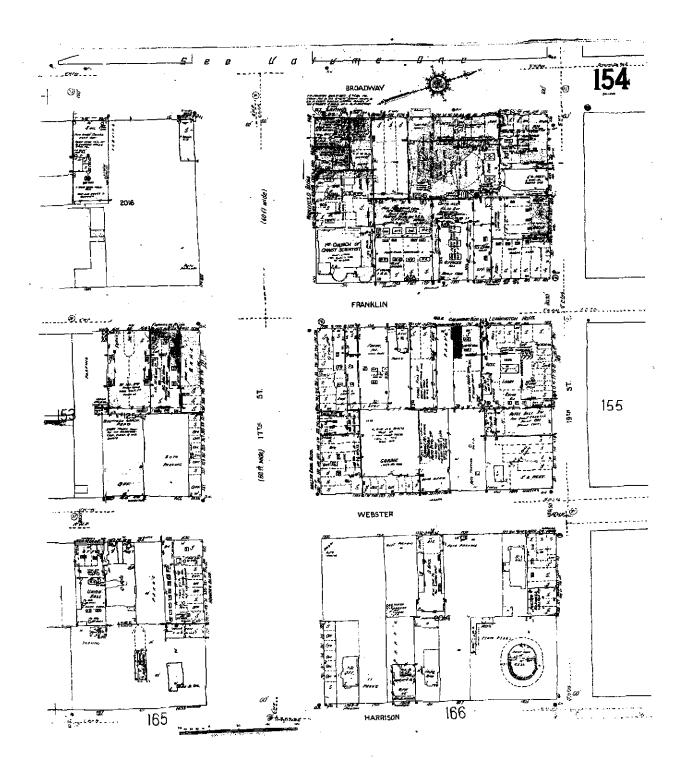
ö **7** 

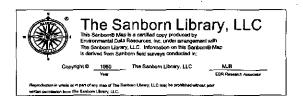












7 B

