

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



7

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

April 21, 2006

Mr. Dale Klettke
Port of Oakland
530 Water St.
Oakland, CA 94621

Dear Mr. Klettke:

Subject: Fuel Leak Site Case Closure MOIA, Avis Rent-A-Car, 1 Neil Armstrong Way, Oakland, CA 94621; Case No. RO0001603

This letter confirms the completion of a site investigation and remedial action for the two underground storage tanks, 1-12,000 gallon gasoline and 1-550 gallon waste oil, formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

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

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code.

Please contact our office if you have any questions regarding this matter.

Sincerely,

William Pitcher
William Pitcher
Interim Director
Alameda County Environmental Health

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Oakland, CA 94621

Dear Mr. Klettke:

Subject: Fuel Leak Site Case Closure MOIA, Avis Rent-A-Car, 1 Neil Armstrong Way, Oakland, CA 94621; Case No. RO0001603

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

SITE INVESTIGATION AND CLEANUP SUMMARY

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

- Up to 3.2 ppm TPHg, 29 ppm TPHd, 46 ppm TEPH as motor oil and 0.68 ppm MTBE remain in soil at this site.
- Up to 510 ppb TPHg, 1000 ppb TPH as diesel, 1300 ppb TEPH as motor oil, 51 ppb acetone and 28, 75, 6.0, 72, 1100 ppb BTEX and MTBE, respectively, remain in groundwater at this site.

If you have any questions, please call Barney Chan at (510) 567-6765. Thank you.

Sincerely,

Donna L. Drogos, P.E.
LOP and Toxics Program Manager

Enclosures:

1. Remedial Action Completion Certificate
2. Case Closure Summary

cc:

Mr. Leroy Griffin
OFD
250 Frank H. Ogawa Plaza, Suite 3341
Oakland, CA 94612

Mr. Toru Okamoto (w/enc)
State Water Resources Control Board
UST Cleanup Fund
P.O. Box 944212
Sacramento, CA 94244-2120

Files (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)

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

I. AGENCY INFORMATION

Date: March 15, 2006

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6765
Responsible Staff Person: Barney Chan	Title: Hazardous Materials Specialist

II. CASE INFORMATION

Site Facility Name: MOIA Avis Rent-A-Car		
Site Facility Address: 1 Neil Armstrong Way, Oakland, CA 94621		
RB Case No.: 01-0143	Local Case No.: 1103	LOP Case No.: RO0001603
URF Filing Date: ---	SWEEPS No.: ---	APN: -----

Responsible Parties	Addresses	Phone Numbers
Avis Rent-A-Car, Ms. Rose Pelino	6 Sylvan Way, Parsippany, NJ 07054	----
Port of Oakland, Dale Klettke	530 Water St., Oakland, CA 94604-2064	510-627-1118

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
1	12,000	Gasoline	Removed	7/16/02
2	550	Waste oil	Removed	7/16/02
Piping			Removed	7/16/02

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and Type of Release: unknown		
Site characterization complete? Yes	Date Approved By Oversight Agency: -----	
Monitoring wells installed? No	Number: NA	Proper screened interval? NA
Highest GW Depth Below Ground Surface: *5.62 * DTW and gradient info from closed 1994 1 st generation UST investigation (RO0002906)	Lowest Depth: *7.28	Flow Direction: * east-southeast
Most Sensitive Current Use: Potential drinking water source, however, conductivity was reported at 30,000 umhos per centimeter, therefore, groundwater would not be considered potable.		

Summary of Production Wells in Vicinity: none identified within a ¼ mile radius	
Are drinking water wells affected? No	Aquifer Name: Oakland Sub basin, East Bay Plain
Is surface water affected? No	Nearest SW Name: seasonally wet retention basin located ~300' to the southeast & SF Bay located ~1200' to the southeast
Off-Site Beneficial Use Impacts (Addresses/Locations): none	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health and City of Oakland Fire Department

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Tank	1-12000 gallon 1-550 gallon	Disposed at ECI, Richmond, CA	7/16/02
Piping	60 feet	Disposed at ECI, Richmond, CA	7/16/02
Free Product	---	----	----
Soil	30 cy 205 cy	Disposed at Forward Landfill, Manteca, CA Sampled and re-used as backfill	10/25/02 9/13/02
Groundwater	900 gallons	Disposed at ECI, Richmond, CA	7/15/02

MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS BEFORE AND AFTER CLEANUP (Please see Attachments for additional information on contaminant locations and concentrations)				
Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	1300	3.2	510	510
TPH (Diesel)	140	29	1000	1000
TPH as hydraulic oil	3600	<5	---	---
TEPH as motor oil	48	46	1300	1300
Benzene	<4.2	<5.3	28	28
Toluene	28	<5.3	75	75
Ethyl benzene	22	<5.3	6.0	6.0
Xylenes	231	<5.3	72	72
Heavy Metals: Cd, Cr, Pb, Ni, Zn	1.2,25,4.9,40,37	1.2,25,4.9,40,37	<5, <10,<3,<20,<20	<5, <10,<3,<20,<20
MTBE	*6.8	0.68	**1100	1100
Other (8240/8270)	ND/ND	ND/ND	51 ppb acetone/ND	51 ppb acetone/ND

* 6.8 ppm MTBE, 0.0048 ppm TAME, <5.4 ppm ETBE, <5.4 ppm DIPE, 0.83 ppm TBA, NA EtOH , <0.2 ppm EDB, and <0.2 ppm EDC
** 1100 ppb MTBE,<0.5 ppb TAME,<0.5 ppb ETBE, <0.5 ppb DIPE, 30 ppb TBA, NA EtOH , <0.5 ppb EDB, and <0.5 ppb EDC

Site History and Description of Corrective Actions:

The site occupies approximately 2.1 acres on the southeast corner of Neil Armstrong Way and Airport Road, within the MOIA (Metropolitan Oakland International Airport). The property was leased by Avis from July 1970 to 2002 and used as a car rental facility. The facility consisted of an office building, service garage, car wash and a fueling system. See Attachment 1 for site map.

In 1989, the first generation of fuel USTs (2-10,000 gasoline tanks) were removed. A soil gas and groundwater investigation was performed and four monitoring wells installed. Over-excavation of impacted soil was performed along with confirmation groundwater monitoring. The site was granted closure on 8/18/94 by the County and the wells were decommissioned in May 1995. After the removal of these fuel tanks a 12,000 gallon gasoline tank and a 550 gallon waste oil tank were installed at the site. The gasoline tank was located approximately 40' south of the former fuel tanks and the waste oil tank approximately 80' to the northwest of the former fuel tanks. See Attachment 2 for the new UST locations and the rose diagram from the 1st generation investigation.

In October 2000, Avis conducted a Phase II investigation at the site prior to terminating their lease at the site. To investigate the two USTs, the hydraulic lift area, the 480 gallon above ground virgin oil tank and the fuel island, seven borings, B1 through B7, were drilled at the site. Soil samples from the borings were screened with a PID. Only B-5 (5-5.5'), located near the easternmost dispenser, exhibited PID readings and was therefore analyzed. This sample detected 3.2 ppm TPHg, 0.028 ppm xylenes, 0.13 ppm MTBE and low levels of TPHg components. In the grab groundwater samples, up to 1100 ppb MTBE was detected in sample B-6, located immediately down-gradient of the existing gasoline UST. B-7, located further down-gradient of B-6 detected 960 ppb MTBE. B4 located next to the above ground virgin oil tank detected 25 ppb vinyl chloride, 17 ppb tri-chlorofluoromethane, 10 ppb Freon and 1 ppb chloroform. From these results, it appeared that the new UST had experienced a release, however, it is noted MTBE was not run on samples from the 1st generation investigation so it is uncertain if MTBE came from the 1st generation USTs. On January 2002 the site was re-opened as a LOP site by the County. See Attachment 3 and Table 1.

On July 16, 2002, the 12,000 gallon gasoline tank and the 550 gallon waste oil tank were removed along with the rest of fueling system under the supervision of the City of Oakland Fire Department. The tanks were reported in good condition and no staining, sheen or other evidence of release was reported. At the same time, a 550 above ground virgin oil tank and the hydraulic lift and an oil water separator were removed from the car wash facility.

The gasoline UST pit was approximately 42'x 20'x13' deep. Approximately 900 gallons of water was removed from the gasoline tank pit prior to removing the UST. Soil samples were collected from the four sidewalls of the excavation at the water interface, ~11' depth. These samples were ND for TPHg, BTEX and ranged from 0.013-0.078 ppm MTBE. The grab groundwater sample from the tank pit detected 510 ppb TPHg, 28, 75, 6.0, 72, 130 and 30 ppb, BTEX, MTBE and TBA, respectively. The three dispensers located ~10, 20 and 30' west of the UST were sampled. The only significant detection of contamination reported in these samples was 6.8 ppm MTBE, 0.83 ppm TBA and 0.0048 ppm TAME in soil sample DP-3 @4' depth. This area was over-excavated to a depth of 8' and re-sampled on 9/23/02 and was ND for all oxygenates. The pipeline samples, PL-1 and PL-2 detected up to 1300 ppm TPHg, 28, 22, 231, 1.3, 0.48 ppm TEX, MTBE and TBA in these 3' depth samples. These areas were over-excavated to 7-8' depth and were ND for all analytes except MTBE detected at 0.039 ppm.

The waste oil tank pit was approximately 11'x10'x9' deep. One soil sample was collected at ~10' depth below the tank and one at ~8.5' from beneath the fill port sidewall. Up to 36 ppm TPHmo and 27 ppm diesel were reported in these samples. The grab groundwater samples detected 1300 ppb TPHmo and 1000 ppb TPHd. Though TPHg was not run on soil or water samples, the groundwater sample from boring B2 located next to the waste oil tank reported ND for TPHg. The hydraulic lift located within the former garage was removed and sampled on July 16, 2002. The initial soil sample collected beneath the lift detected 3600 ppm TPH as hydraulic oil. This area was then over-excavated and the re-sampled result was ND. The virgin oil tank area and the oil water separator area were not sampled. Stockpile soils were segregated from each excavation and analyzed. The piles from the dispenser and piping areas and that from the hydraulic lift were properly disposed, while the piles from the USTs were reused as backfill. See Attachment 4 for sample locations and Tables 2 & 3 for analytical results.

At the same time, seven borings (B-8 through B-14) were advanced in the storm sewer backfill and down-gradient of the UST system to determine the extent of the petroleum plume and assess the potential for preferential migration in utilities, particularly that of MTBE. Borings in the backfill were hand augered while the other borings were advanced to depths of approximately 12' bgs. Soil samples were screened with a PID instrument every 4 feet. Because none of the screened soil samples exhibited PID readings, no soil samples were analyzed. A groundwater sample was collected from a slotted PVC casing from each boring. The borings within the backfill did not encounter groundwater, so a groundwater sample was collected from beneath the backfill. Soils in the borings encountered sandy clay and clay mixtures from beneath the asphalt cap to the maximum depth explored. Depth to groundwater varied from 7-11.5' bgs. No TPHg or BTEX was detected in any of the groundwater samples. MTBE was detected at concentrations ranging from ND to 37 ppb.

See Attachment 5 for boring locations, Table 4 for analytical results and Attachment 6 for all boring logs.

The USTs and source areas have been removed or over-excavated. The utilities have been investigated and do not appear to be acting as preferential pathways. Grab groundwater samples taken down-gradient of the source areas indicate that the TPHg and MTBE plumes are localized and defined to the extent of the property.

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes No		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes No		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a risk to human health based upon current land use and conditions.		
Site Management Requirements: Site is included in the City of Oakland Permit Tracking System. Case closure for the fuel leak site is granted for industrial/commercial land use. If a change in land use to residential or other conservative scenario occurs at this property, Alameda County Environmental Health must be notified and the case needs to be re-evaluated.		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: NA
Monitoring Wells Decommissioned: NA	Number Decommissioned: NA	Number Retained: NA
List Enforcement Actions Taken: none		
List Enforcement Actions Rescinded: none		

V. ADDITIONAL COMMENTS, DATA, ETC.

Considerations and/or Variances:

- Original tank removal closure of the 1st generation tanks did not analyze for MTBE, oxygenates or lead scavengers. These compounds were analyzed in the 2nd generation tank investigation.
- No sampling was done beneath the oil/water separator after its removal. However, grab groundwater samples from borings down-gradient of this area do not indicate a release of petroleum or volatile organics.
- Grab groundwater sample from boring B4 detected 10 ppb Freon, 25 ppb vinyl chloride, 17 ppb Freon 11 and 1 ppb chloroform. However, volatile organic analysis of grab groundwater samples down-gradient of this area did not detect any of these HVOC compounds, therefore, the release is assumed localized.
- Although up to 1300 ppb TEPH as motor oil and 1000 ppb TPH as diesel was detected in the grab groundwater sample from the waste oil tank pit, no further groundwater investigation for these contaminants was performed. Soil results from the waste oil tank removal indicate low concentrations were in the stockpile soil above and in the soil beneath the UST. In the absence of significant source remaining, groundwater conditions are expected to stabilize or decrease. Groundwater is not potable beneath the site and the nearest surface water receptor is a seasonally wet retention basin approximately 300' down-gradient of the site. The groundwater concentrations would likely attenuate to below aquatic ESLs for TPHd and TPHmo, 640 ppb, before reaching this receptor.
- No monitoring wells were installed for this investigation, however, four monitoring wells were installed in the initial investigation of the site, which was closed in 1994. The same gradient was assumed while performing the subsequent soil and groundwater investigations.

Conclusion:

Alameda County Environmental Health staff believe that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment under the current commercial land uses based upon the information available in our files to date. Residual soil and groundwater contamination in vicinity of former UST and dispensers appears localized and attenuating. ACEH staff recommend closure for this site.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barney Chen	Title: Hazardous Materials Specialist
Signature: <i>Barney Chen</i>	Date: 03/17/06
Approved by: Donna L. Drogo, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogo</i>	Date: 03/17/06

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

VII. REGIONAL BOARD NOTIFICATION

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
RB Response: Concur, based solely upon information contained in this case closure summary.	Date Submitted to RB: 4/4/06
Signature: <i>Cherie McCaulou</i>	Date: 4/12/06

VIII. MONITORING WELL DECOMMISSIONING

Date Requested by ACEH: NA	Date of Well Decommissioning Report: NA	
All Monitoring Wells Decommissioned: NA	Number Decommissioned: NA	Number Retained: NA
Reason Wells Retained:		
Additional requirements for submittal of groundwater data from retained wells:		
ACEH Concurrence - Signature: <i>Barney Chen</i>	Date: 3/17/06	

Attachments:

1. Site Vicinity Map
2. Site Plan and Historical Rose Diagram
3. Site Plan with Sample Locations, Table 1- Groundwater Analytical Data
4. Site Plan of Excavation Areas and Confirmation Sampling
Tables 2 & 3- Soil and Groundwater Analytical Data
5. Site Plan and Boring Locations, Table 4- Groundwater Analytical Data
6. Boring Logs

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

VI. LOCAL AGENCY REPRESENTATIVE DATA

Prepared by: Barney Chan	Title: Hazardous Materials Specialist
Signature: <i>Barney Chan</i>	Date: 03/17/06
Approved by: Donna L. Drogos, P.E.	Title: Supervising Hazardous Materials Specialist
Signature: <i>Donna L. Drogos</i>	Date: 03/17/06

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

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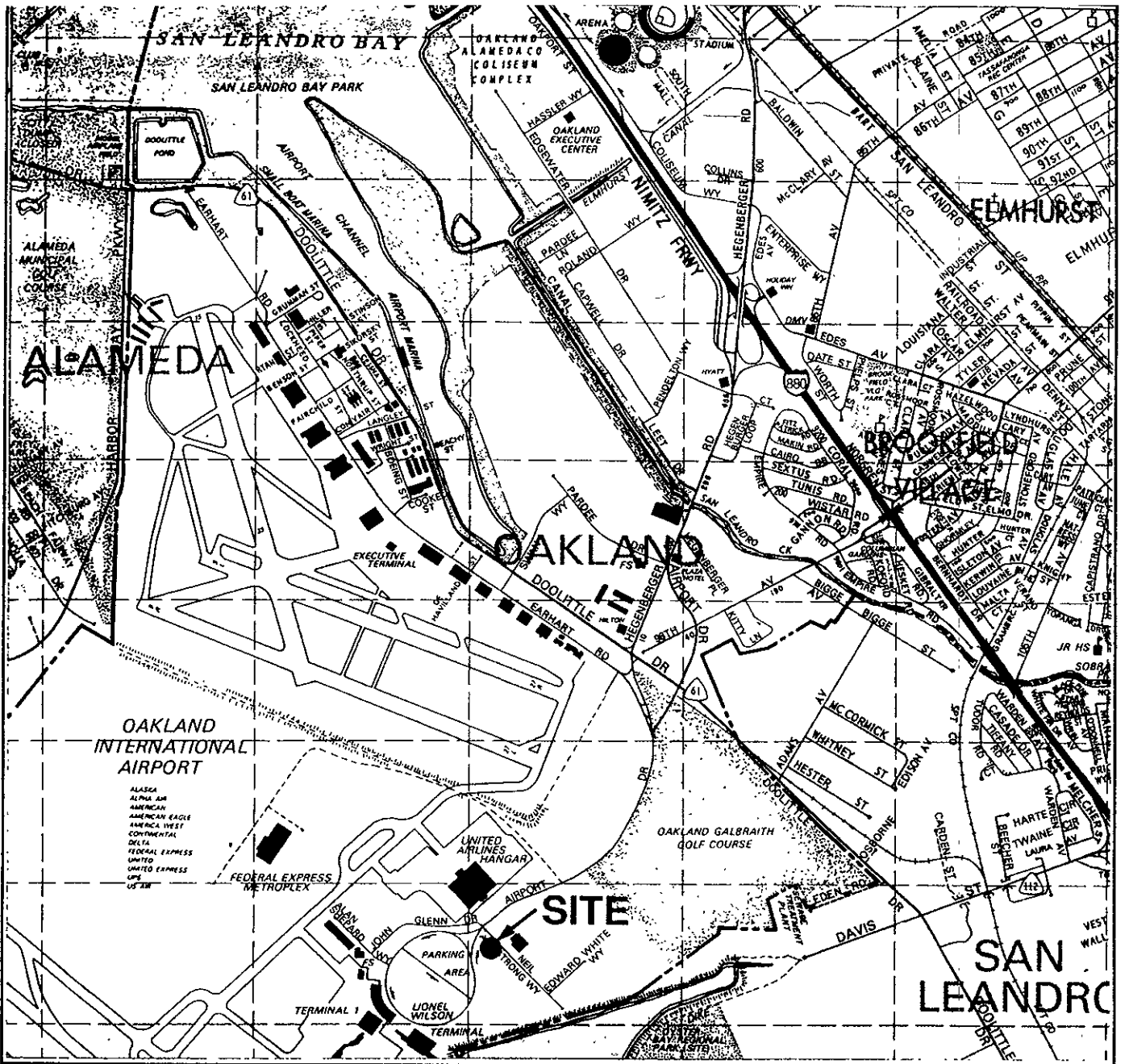
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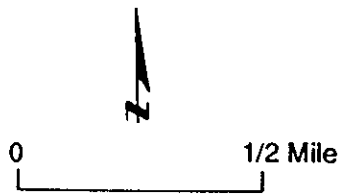
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Source: The Thomas Guide,
Alameda and Santa Clara Counties Street Guide and Directory,
1989 Edition



LOCATION MAP
Avis Rent A Car System, Inc. Facility
Oakland International Airport
Oakland, California

McCulley
& Gilma

ATTACHMENT 1

NEIL ARMSTRONG WAY

Entrance

Fence

Building

0 waste oil UST

Approximate location
of former tanks
1st generation

IA
IB

■ MW-1A
■ MW-1
(abandoned)

Approximate location
of new tank-gasoline

■ MW-2

■ MW-3

Property line

EXPLANATION

MW-2 ■ Location of monitoring well

Notes:

1. Well MW-1 abandoned on February 26, 1991.
2. Well MW-1A installed on April 1, 1991.

Source: Adapted from Blaine Tech Services, Inc.
Sampling Report 890825M1, dated August 25, 1989

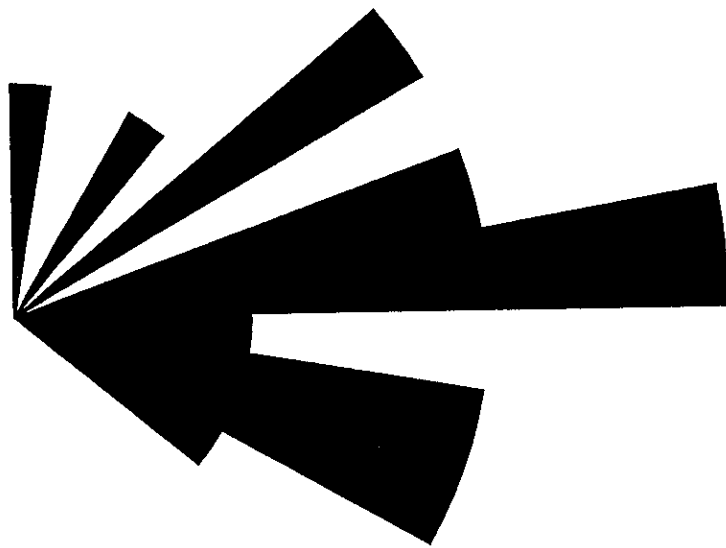
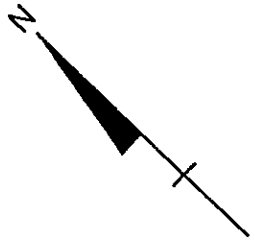


0 50 Feet

SITE PLAN
Avis Rent A Car System, Inc. Facility
Oakland International Airport
Oakland, California

McCul
& Giln

ATTACHMENT 2



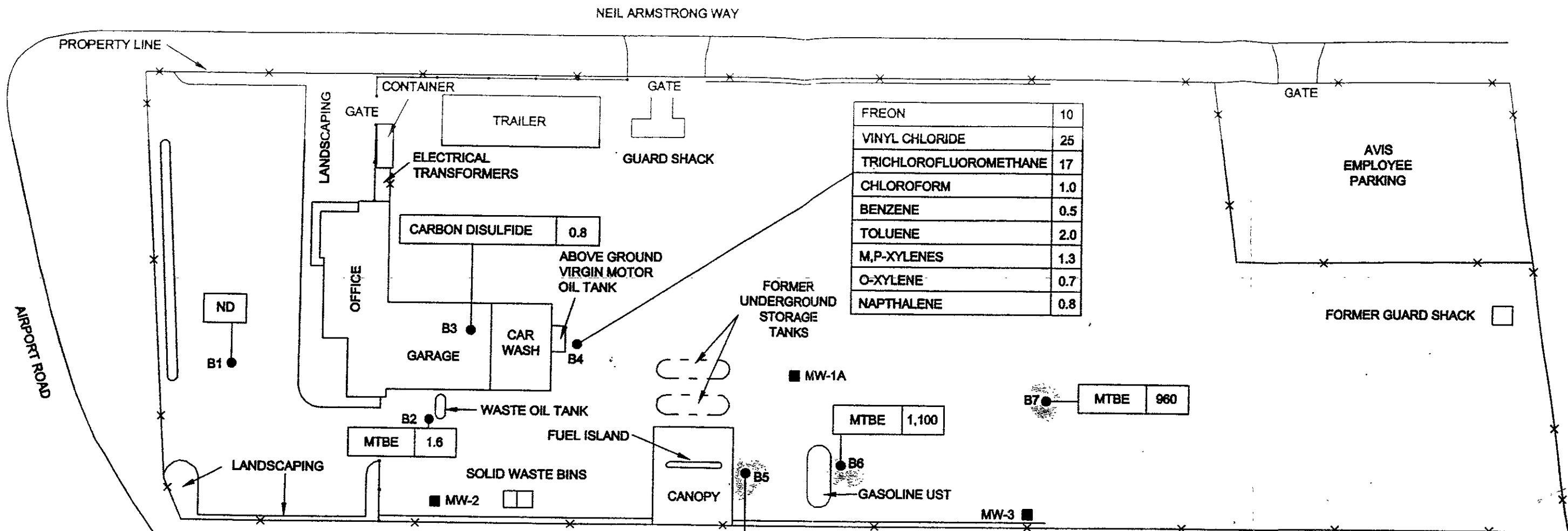
**ROSE DIAGRAM OF HISTORICAL
GROUNDWATER FLOW DIRECTIONS**

Former Avis Rent A Car Systems, Inc. Facility
Oakland International Airport
Oakland, California

Projec _____
Date: _____

ATTACHMENT 2

MFG, Inc.
consulting scientists and engineers



FREON	10
VINYL CHLORIDE	25
TRICHLOROFLUOROMETHANE	17
CHLOROFORM	1.0
BENZENE	0.5
TOLUENE	2.0
M,P-XYLENES	1.3
O-XYLENE	0.7
NAPHTHALENE	0.8

CARBON DISULFIDE	0.8
------------------	-----

MTBE	1.6
------	-----

MTBE	1,100
------	-------

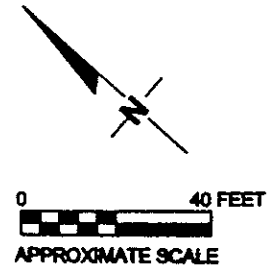
MTBE	960
------	-----

MTBE	410
M,P-XYLENES	12
O-XYLENE	4.6
1,3,5-TRIMETHYLBENZENE	3.4
1,2,4-TRIMETHYLBENZENE	11
NAPHTHALENE	4.1
TPHg	220

EXPLANATION

- x— FENCE
- BLOCK WALL
- B-1 ● WELL LOCATIONS
- MW-2 ■ FORMER WELL LOCATIONS
- MTBE METHYL TERTIARY-BUTYL ETHER

NOTE: BASE MAP ADAPTED FROM A CONSTRUCTION DRAWING PROVIDED BY AVIS RENT A CAR SYSTEM, INC.



SITE PLAN WITH SAMPLING LOCATIONS AND DETECTED VOC AND TPHg CONCENTRATIONS IN GROUNDWATER (ug/L)
 Avis Rent A Car System, Inc. Facility
 Oakland International Airport
 Oakland, California

Project No. 03001
 Date: 11/9/00

ATTACHMENT 3

MFG, Inc.
 consulting scientists and engineers

TABLE 4

CHEMICAL ANALYTICAL RESULTS OF GROUNDWATER SAMPLES

Avis Rent A Car
Oakland International Airport
Oakland, California

Boring ID	TPHg (ug/L)	Freon 12 (µg/L)	Vinyl Chloride (µg/L)	TCFM (Freon 11) (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Napthalene (µg/L)	Chloroform (µg/L)	1,2,4- TMB (µg/L)	1,3,5- TMB (µg/L)	m,p- Xylenes (µg/L)	o-Xylenes (µg/L)	OTHER VOCs
Reporting Limit:	50	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	[0.5 - 10]
B-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-2	ND	ND	ND	ND	1.6	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND [0.5 - 10]
B-4	ND	10	25	17	ND	0.5	2	0.8	1.0	ND	ND	1.3	0.7	ND [0.5 - 10]
B-5	220	ND (3.3)	ND [1.7]	ND [1.7]	410 [1.7]	ND [1.7]	ND [1.7]	4.1 [1.7]	ND [1.7]	11 [1.7]	3.4 [1.7]	12 [1.7]	4.6 [1.7]	ND [1.7 - 33]
B-6	ND	ND (10)	ND [5.0]	ND [5.0]	1,100 [1.7]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0]	ND [5.0 - 100]
B-7	ND	ND (7.1)	ND [3.6]	ND [3.6]	960 [1.7]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6]	ND [3.6 - 71]
RBSLs	500	NA	4.9 (782)	150	1,800	46	130	24	28	50	NA	13	13	NA

NOTES:

* = Oil and Grease not detected above analytical laboratory detection limit of 5.0 milligrams per liter

RBSLs = Risk-Based Screening Levels per Table B of RWQCB technical document, August, 2000

VOCs = Volatile Organic Compounds

TPHg = Total Petroleum Hydrocarbons as Gasoline

[] Indicates reporting limit if different than that listed at top of column

µg/L = micrograms per liter

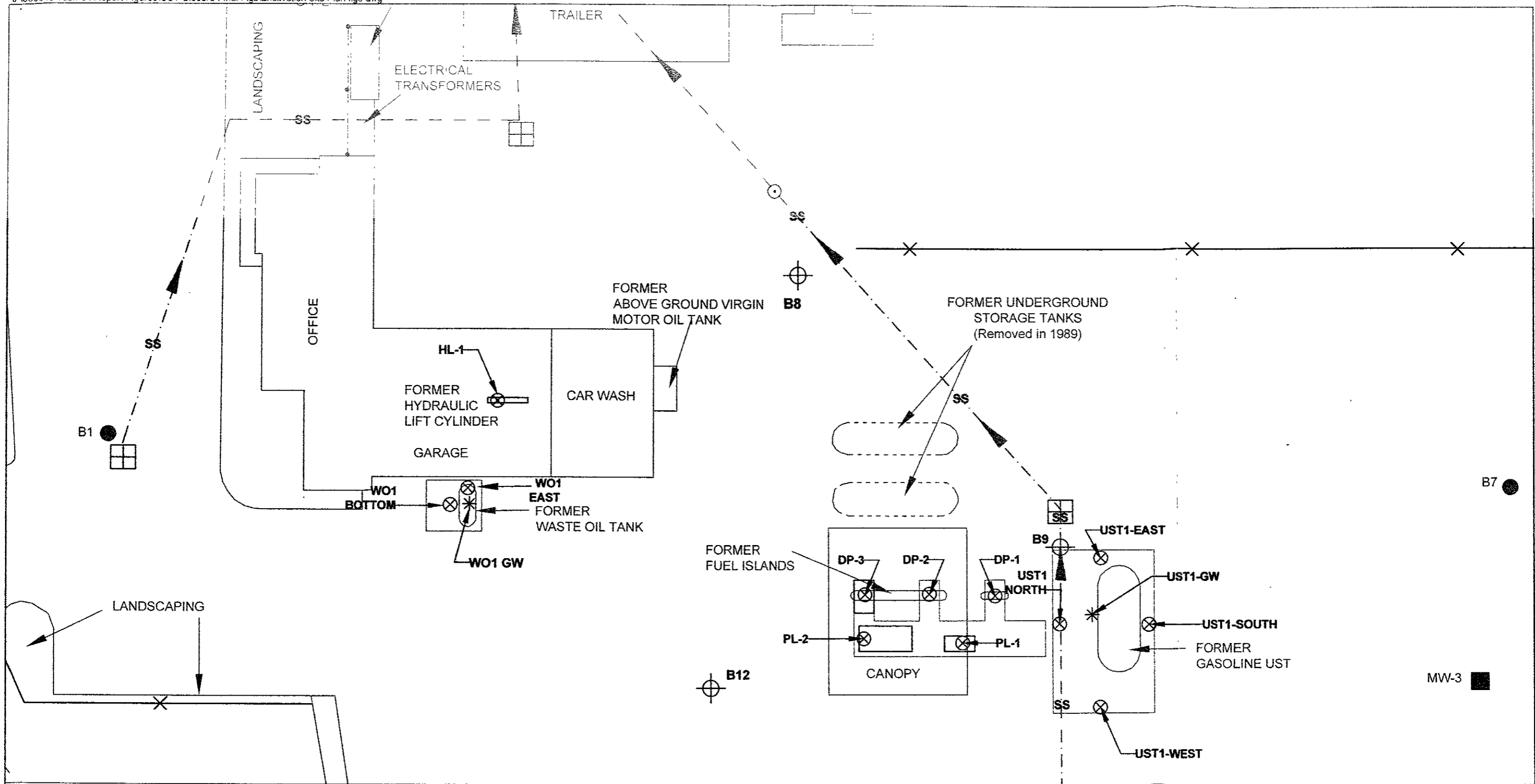
ND = Not detected above analytical laboratory reporting limit

NA = Not applicable

MTBE = Methyl tertiary-butyl ether

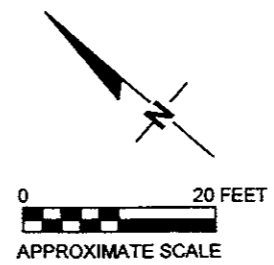
TCFM = Trichlorofluoromethane

TMB = Trimethylbenzene



EXPLANATION

- | | | | | | |
|--|--------------------------------------|--|---|--|--|
| | FENCE | | GROUNDWATER SAMPLE LOCATION (July 2002) | | CONFIRMATION GROUNDWATER SAMPLE LOCATION FOR UST CLOSURE |
| | BLOCK WALL | | CATCH BASIN | | CONFIRMATION SOIL SAMPLE FOR UST CLOSURE |
| | PREVIOUS GROUNDWATER SAMPLE LOCATION | | APPROXIMATE STORM SEWER ALIGNMENT | | EXCAVATED AREA (July 16 and 19, 2002) |
| | FORMER WELL LOCATION | | HAND AUGER LOCATION | | 1st OVEREXCAVATION (July 19, 2002) |
| | | | | | 2nd OVEREXCAVATION (September 23, 2002) |



SITE PLAN SHOWING EXCAVATION AREAS AND LOCATIONS OF CONFIRMATION SAMPLES
 Former Avis Rent A Car System, Inc. Facility
 Oakland International Airport
 Oakland, California

Project No. 0
 Date: 10/2/02

ATTACHMENT 4

MFG, Inc.
 consulting scientists and engineers

NOTE: BASE MAP ADAPTED FROM A CONSTRUCTION DRAWING PROVIDED BY AVIS RENT A CAR SYSTEM, INC.

TABLE 1
SUMMARY OF CHEMICAL ANALYSES OF CONFIRMATION SOIL SAMPLES FOR TPPH, TEPH, VOCs AND FUEL OXYGENATES AND PID FIELD READINGS

Former Avis Rent A Car System, Inc Facility
 Oakland International Airport
 Oakland, California

SAMPLE ID	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH (feet bgl)	TPPH AS GASOLINE (mg/kg)	TEPH AS DIESEL (mg/kg)	TEPH AS MOTOR OIL (mg/kg)	TEPH AS HYDRAULIC OIL (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	OTHER VOCs (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	OTHER FUEL OXYGENATES ¹ (mg/kg)	PID (ppmv)	
GASOLINE UST EXCAVATION																		
UST 1 - NORTH	16-Jul-02	North sidewall at groundwater interface	11	ND [0.25]	--	--	--	ND [0.0056]	ND [0.0056]	ND [0.0056]	ND [0.0056]	ND [0.0056-0.056]	0.021	ND [0.110]	ND [0.0056]	ND [0.0056]	0.0	
UST 1 - SOUTH	16-Jul-02	South sidewall at groundwater interface	11	ND [0.25]	--	--	--	ND [0.0060]	ND [0.0060]	ND [0.0060]	ND [0.0060]	ND [0.0060-0.060]	0.076	ND [0.120]	ND [0.0060]	ND [0.0060]	0.0	
UST 1 - EAST	16-Jul-02	East sidewall at groundwater interface	11	ND [0.19]	--	--	--	ND [0.0049]	ND [0.0049]	ND [0.0049]	ND [0.0049]	ND [0.0049-0.049]	0.078	ND [0.098]	ND [0.0049]	ND [0.0049]	0.0	
UST 1 - WEST	16-Jul-02	West sidewall at groundwater interface	11	ND [0.26]	--	--	--	ND [0.0060]	ND [0.0060]	ND [0.0060]	ND [0.0060]	ND [0.0060-0.060]	0.013	ND [0.120]	ND [0.0060]	ND [0.0060]	0.0	
GASOLINE UST DISPENSERS AND PIPING AREA																		
DP-1	19-Jul-02	Beneath southern dispenser	2.0	0.18	20 ^{2,3}	10 ⁴	--	ND [0.0050]	ND [0.0050]	ND [0.0050]	ND [0.0050]	ND [0.0050-0.050]	0.015	ND [0.10]	ND [0.0050]	ND [0.0050]	51	
DP-2	19-Jul-02	Beneath center dispenser	2.0	ND [0.17]	29 ^{2,3}	28 ⁴	--	ND [0.0041]	ND [0.0041]	ND [0.0041]	ND [0.0041]	ND [0.0041-0.016]	0.68	0.15	ND [0.0041]	ND [0.0041]	17	
DP-3	19-Jul-02	Beneath northern dispenser	4.0	3.0 ³	39 ^{2,3,4}	18 ⁴	--	ND [0.20]	ND [0.20]	ND [0.20]	ND [0.20]	ND [0.20-2.0]	6.8	0.83	0.0048	ND [0.0042]	53	
DP-3 (7.5-8.0)	23-Sep-02	Over-excavation beneath northern dispenser	8.0	ND [0.24]	--	--	--	--	--	--	--	--	ND [0.0054]	ND [0.11]	ND [0.0054]	ND [0.0054]	2	
PL-1	16-Jul-02	Beneath pipeline, 26 feet north of UST	3.0	430 ²	--	--	--	ND [0.20]	ND [0.20]	ND [0.20]	0.590	ND [0.20-2.0] ⁵	ND [0.20]	ND [4.0]	ND [0.20]	ND [0.20]	261	
PL-1 (3.5-4.0)	19-Jul-02	Piping Over-excavation, 26 feet north of UST	4.0	ND [0.17]	140 ^{2,3}	48 ⁴	--	ND [0.0045]	ND [0.0045]	ND [0.0045]	ND [0.0045]	ND [0.0045-0.018]	1.3	0.48	ND [0.0045]	ND [0.0045]	17	
PL-1 (6.5-7.0)	23-Sep-02	Piping Over-excavation, 26 feet north of UST	7.0	ND [0.23]	--	--	--	--	--	--	--	--	ND [0.0054]	ND [0.11]	ND [0.0054]	ND [0.0054]	0	
PL-2	16-Jul-02	Beneath pipeline, 46 feet north of UST	3.0	1,300 ²	--	--	--	ND [4.2]	28	22	231	ND [4.2-42] ⁶	ND [4.2]	ND [83]	ND [4.2]	ND [4.2]	728	
PL-2 (7.5-8.0)	19-Jul-02	Piping Over-excavation, 46 feet north of UST	8.0	ND [0.21]	20 ^{2,3}	46 ⁴	--	ND [5.3]	ND [5.3]	ND [5.3]	ND [5.3]	ND [0.0053-0.053]	0.039	ND [0.11]	ND [0.0050]	ND [0.0053]	5.0	
WASTE OIL UST EXCAVATION																		
WO 1 Bottom	16-Jul-02	Beneath UST	10	--	1.2 ³	ND [5.0]	--	ND [0.50]	ND [0.50]	ND [0.50]	ND [0.50]	ND [0.50-5.0]	ND [0.50]	--	--	--	0.0	
WO 1 East	16-Jul-02	East sidewall at groundwater interface	8.5	--	27 ^{2,3}	36 ⁴	--	ND [0.0046]	ND [0.0046]	ND [0.0046]	ND [0.0046]	ND [0.0046-0.046]	ND [0.0046]	--	--	--	0.0	
HYDRAULIC LIFT CYLINDER EXCAVATION																		
HL-1	19-Jul-02	Beneath hydraulic lift cylinder	8.5	--	2,500 ^{2,3}	--	3,600	--	--	--	--	--	--	--	--	--	1.8	
HL-1 (7.5-8.0)	23-Sep-02	Over-excavation beneath hydraulic lift	8.0	--	ND [0.99]	--	ND [5.0]	--	--	--	--	--	--	--	--	--	0.6	
RWQCB SCREENING LEVELS⁹				Surface Soil (<10 feet bgl):	400	500	500	500	0.39	8.4	24	1.0	NA	1.0	NA	NA	NA	NA
				Subsurface Soil (>10 feet bgl):	400	500	500	500	0.39	8.4	24	1.0	NA	1.0	NA	NA	NA	NA

TABLE 2
SUMMARY OF CHEMICAL ANALYSES OF CONFIRMATION SOIL SAMPLES FOR SVOCs, PCBs AND METALS

Former Avis Rent A Car System, Inc. Facility
 Oakland International Airport
 Oakland, California

SAMPLE ID	SAMPLE DATE	SAMPLE LOCATION	SAMPLE DEPTH (feet bgl)	SVOCs (mg/kg)	PCBs (mg/kg)	TOTAL LEAD (mg/kg)	TOTAL CADMIUM (mg/kg)	TOTAL CHROMIUM (mg/kg)	TOTAL NICKEL (mg/kg)	TOTAL ZINC (mg/kg)	
WASTE OIL UST EXCAVATION											
WO 1 Bottom	16-Jul-02	Beneath UST	10	ND [0.33-1.7]	ND [0.012-0.024]	0.79	0.25	14	15	8.7	
WO 1 East	16-Jul-02	East sidewall at groundwater interface	8.5	ND [0.33-1.7]	ND [0.012-0.024]	4.9	1.2	25	40	37	
RWQCB SCREENING LEVELS ¹				Surface Soil (<10 feet bgl):	NA	1.0	750	12	750	150	600
				Subsurface Soil (>10 feet bgl):	NA	5.6	750	33	5,000	1,000	5,000

SOIL STOCKPILES

SS-2 A,B,C,D (Composite)	17-Jul-02	Waste Oil UST Stockpile	NA	ND [0.33-1.7]	ND [0.012-0.024]	4.5	1.2	25	38	35
SS-3 A,B,C,D (Composite)	19-Jul-02	Piping Over-excavation Stockpile	NA	--	--	19	0.95	20	33	39

NOTES:

- SVOCs Semi-volatile organic compounds (SVOCs). Analyzed using EPA Method 8270C.
- PCBs Polychlorinated Biphenyls (PCBs). Analyzed using EPA Method 8082.
- UST Underground storage tank.
- bgl Below ground level.
- mg/kg Milligrams per kilogram.
- ND Not detected at or above the laboratory reporting limit.
- [] Indicates the laboratory reporting limit.
- NA Not applicable.
- Not analyzed.

¹ Reference: California Regional Water Quality Control Board (RWQCB), *Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater, Interim Final - December 2001*. Levels referenced are for surface soil (< 3 meters in depth) and subsurface soil (>3 meters in depth) where groundwater is not a current or potential source of drinking water and land use is industrial/commercial.

Metals were analyzed using EPA Method 6010B.

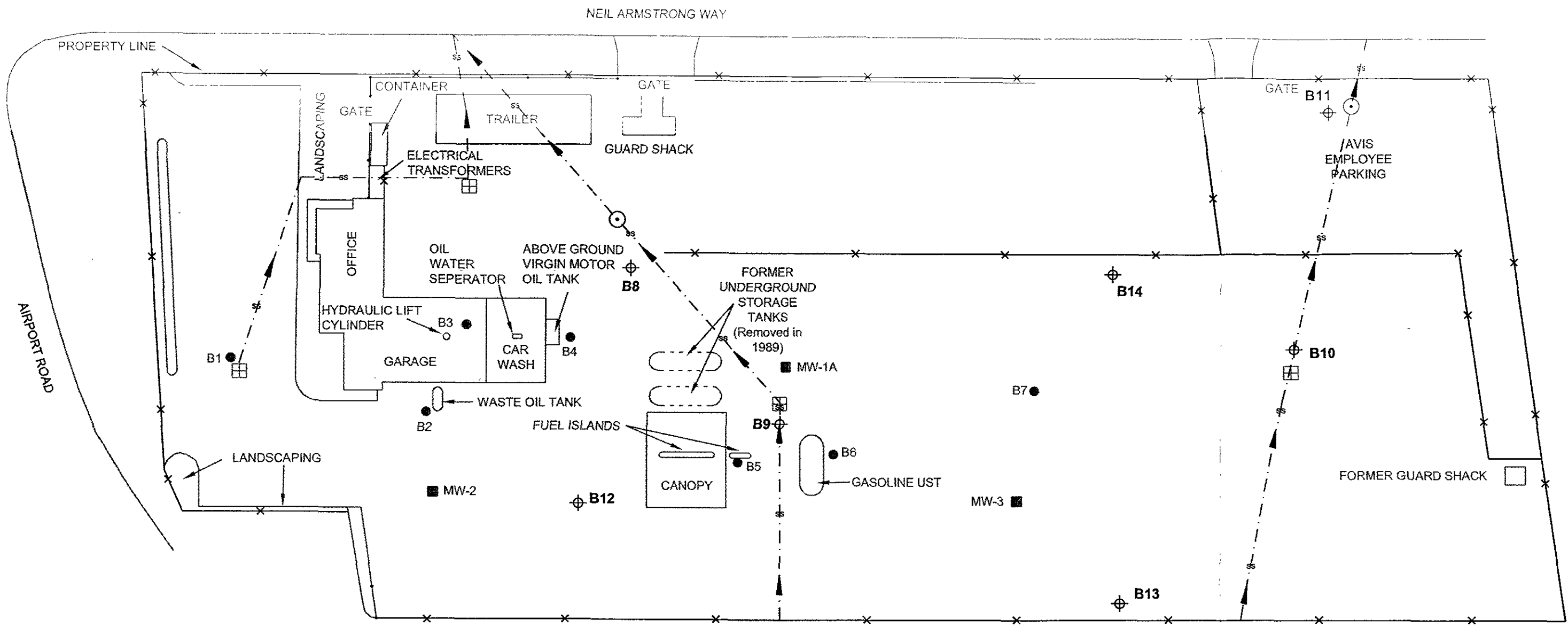
TABLE 3
SUMMARY OF CHEMICAL ANALYSES OF CONFIRMATION GROUNDWATER SAMPLES

Former Avis Rent A Car System, Inc. Facility
Oakland International Airport
Oakland, California

SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH (feet bgl)	TPPH AS GASOLINE (µg/L)	TEPH AS DIESEL (µg/L)	TEPH AS MOTOR OIL (µg/L)	OIL & GREASE (µg/L)	BENZENE (µg/L)	TOLUENE (µg/L)	ETHYL-BENZENE (µg/L)	TOTAL XYLENES (µg/L)	OTHER VOCs (µg/L)	MTBE (µg/L)	TBA (µg/L)	OTHER FUEL OXYGENATES ¹ (µg/L)	SVOCs (µg/L)	PCBs (µg/L)	TOTAL LEAD (µg/L)	TOTAL CADMIUM (µg/L)	TOTAL CHROMIUM (µg/L)	TOTAL NICKEL (µg/L)	TOTAL ZINC (µg/L)	
GASOLINE UST EXCAVATION																						
UST 1-GW	16-Jul-02	11.5	510	--	--	--	28	75	6.0	72	ND [0.5-10] ⁴	130	30	ND [0.5]	--	--	--	--	--	--	--	
WASTE OIL UST EXCAVATION																						
WO 1-GW	17-Jul-02	9.0	--	--	--	ND [8,300]	ND [2.5]	ND [2.5]	ND [2.5]	ND [2.5]	ND [2.5-50] ⁵	ND [2.5]	--	--	ND [9.9-50]	ND [0.49-0.98]	ND [3.0]	ND [5.0]	ND [10]	ND [20]	ND [20]	
WO 2-GW	07-Aug-02	9.0	--	1,000 ^{2,3}	1,300	--	--	--	--	--	--	--	--	--	--	ND [0.49-0.98]	--	--	--	--	--	
RWQCB SCREENING LEVELS⁶			(<10 feet bgl):	500	640	640	NA	46	130	290	13	NA	1,800	NA	NA	NA	0.014	3.2	1.1	180	8.2	23
			(>10 feet bgl):	500	640	640	NA	46	130	290	13	NA	1,800	NA	NA	NA	0.014	3.2	1.1	180	8.2	23

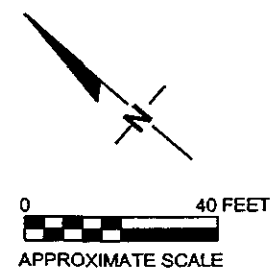
NOTES:

- TPPH Total purgeable petroleum hydrocarbons. Analyzed using modified EPA Method 8015 and quantified against a gasoline standard.
 - TEPH Total extractable petroleum hydrocarbons. Analyzed using modified EPA Method 8015 and quantified against diesel and motor oil standards.
 - VOCs Volatile organic compounds. Analyzed using EPA Method 8260B.
 - MTBE Methyl tertiary-butyl ether. Analyzed using EPA Method 8260B.
 - TBA Tertiary-butyl alcohol. Analyzed using EPA Method 8260B.
 - SVOCs Semi-volatile organic compounds (SVOCs). Analyzed using EPA Method 8270C.
 - PCBs Polychlorinated Biphenyls (PCBs). Analyzed using EPA Method 8082.
 - UST Underground storage tank.
 - bgl Below ground level.
 - µg/L Micrograms per liter.
 - Shaded entry indicates that groundwater from sampling location was subsequently purged.
 - ND Not detected at or above the laboratory reporting limit.
 - [] Indicates the laboratory reporting limit.
 - NA Not applicable.
 - Not analyzed.
 - 1 Other fuel oxygenates included tertiary-amyl methyl ether (TAME); di-isopropyl ether (DIPE) and ethyl tertiary-butyl ether (ETBE). Analyzed using EPA Method 8260B.
 - 2 Laboratory reported that lighter and heavier hydrocarbons contributed to the quantification.
 - 3 Laboratory reported that the sample exhibits fuel pattern which does not resemble standard.
 - 4 Other detections not listed above include: 1,3,5-trimethylbenzene at 7.1 µg/L; 1,2,4-trimethylbenzene at 16 µg/L; and naphthalene at 0.6 µg/L. The laboratory report provides all noted results.
 - 5 Other detection not listed above includes: acetone at 51 µg/L. The laboratory report provides all noted results.
 - 6 Reference: California Regional Water Quality Control Board (RWQCB), *Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater, Interim Final - December 2001*. Levels referenced are for groundwater (< 3 meters in depth and > 3 meters in depth) where groundwater is not a current or potential source of drinking water and land use is industrial/commercial.
- Oil & Grease was analyzed using EPA Method 1664A.
Metals were analyzed using EPA Method 6010B.



EXPLANATION

- FENCE
- BLOCK WALL
- B-1 ● PERVIOUS GROUNDWATER SAMPLE LOCATION
- MW-2 ■ FORMER WELL LOCATION
- B13 ⊕ GROUNDWATER SAMPLE LOCATION (July 2002)
- CATCH BASIN
- APPROXIMATE STORM SEWER ALIGNMENT
- HAND AUGER LOCATION



NOTE: BASE MAP ADAPTED FROM A CONSTRUCTION DRAWING PROVIDED BY AVIS RENT A CAR SYSTEM, INC.

SITE PLAN

Former Avis Rent A Car System, Inc. Facility
Oakland International Airport
Oakland, California

Project No. 030
Date: 10/04/02

ATTACHMENT 5

MFG, Inc.
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TABLE 4
SUMMARY OF CHEMICAL ANALYSES OF GROUNDWATER SAMPLES FROM SOIL BORINGS

Former Avis Rent A Car System, Inc. Facility
 Oakland International Airport
 Oakland, California

SAMPLE ID	SAMPLE DATE	TPPH AS GASOLINE µg/L	BENZENE µg/L	TOLUENE µg/L	ETHYL- BENZENE µg/L	TOTAL XYLENES µg/L	ACETONE µg/L	CARBON DISULFIDE µg/L	NAPH- THALENE µg/L	OTHER VOCs µg/L	MTBE µg/L	OTHER FUEL OXYGENATES ¹ µg/L
	Reporting Limit:	50	0.5	0.5	0.5	0.5	10	0.5	0.5	0.5 - 10	0.5	0.5 - 20
B8-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	0.8	ND	ND	14	ND
B9-GW	16-Jul-02	ND	ND	ND	ND	ND	15	3.7	ND	ND	37	ND
B10-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
B11-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	0.8	ND	ND	ND	ND
B12-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	ND
B13-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	4.6	ND	ND	0.9	ND
B14-GW	16-Jul-02	ND	ND	ND	ND	ND	ND	0.5	0.5	ND	ND	ND
RWQCB Screening Levels²		500	46	130	290	13	1,500	NA	24	NA	1,800	NA

NOTES:

- TPPH Total purgeable petroleum hydrocarbons. Analyzed using modified EPA Method 8015 and quantified against a gasoline standard.
- VOCs Volatile organic compounds. Analyzed using EPA Method 8260B.
- MTBE Methyl tertiary-butyl ether. Analyzed using EPA Method 8260B.
- µg/L Micrograms per liter.
- ND Not detected at or above the laboratory reporting limit shown at the top of the column.
- NA Not applicable.
- 1 Other fuel oxygenates included tertiary-butyl alcohol (TBA); tertiary-amyl methyl ether (TAME); di-isopropyl ether (DIPE) and ethyl tertiary-butyl ether (ETBE). Analyzed using EPA Method 8260B.
- 2 Reference: California Regional Water Quality Control Board (RWQCB), *Application of Risk-Based Screening Levels and Decision Making to Sites With Impacted Soil and Groundwater, Interim Final - December 2001*. Levels referenced are for groundwater (< 3 meters in depth and > 3 meters in depth) where groundwater is not a current or potential source of drinking water and land use is industrial/commercial.



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LOG OF BORING B-1

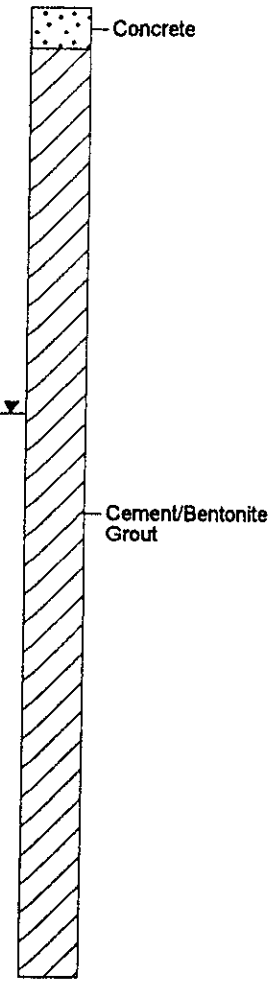
(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene. PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B1-4.5-5.0 (4.5 to 5.0 feet bgl). First observed saturated soil at 5.0 feet bgl. PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B1-10-10.5 (10 to 10.5 feet bgl). Bottom of boring completed at 12.0 feet bgl.
1	SANDY CLAY: strong brn (7.5YR 4/6); some F sand, moist.				
2			1	48	
3	- drk yel brn (10YR 3/6) mottling.	CL			
4	- gray (5Y 5/1) mottling, few crs gravel.				
5	SAND: olive grey (5YR 5/2); F sand, moist to wet.				
6	- drk yel brn (10YR 4/4).		2	48	
7					
8		SP			
9					
10			3	48	
11	CLAY: black (2.5Y 2.5/1); few silt, trace organic material, moist.	CL			
12	Bottom of boring completed at 12.0 feet bgl.				
13	NOTES:				
14	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.				
15	2. Collected grab groundwater sample B-1 on 11-Oct-00.				
16	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.				



01-22-2001 J:\030013\TASK-02\BORELOGS\B-1 BOR



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LOG OF BORING B-2

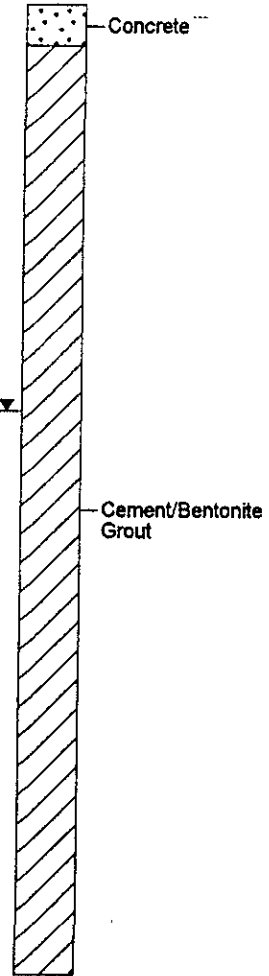
(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	CONCRETE.				PID calibrated using 100 ppmv as isobutylene.	Concrete
1	SAND: drk grey (5YR 4/1); F to crs sand, some subangular to angular gravel, moist.	SP				
2	SILTY CLAY: red brn (5YR 4/4) with grey (5Y 5/1) mottling ; some silt, little F sand, moist.		1	48		
3						
4						
5	- few med to crs gravel, moist to wet.	CL			PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B2-4.5-5.0 (4.5 to 5.0 feet bgl). First observed saturated soil at 5.0 feet bgl	
6			2	48		
7						
8	SAND: v drk grey (2.5Y 3/1); F sand, moist.					
9						
10		SP				
11	CLAY: black (2.5Y 2.5/1); moist.		3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B2-10-10.5 (10 to 10.5 feet bgl).	
12		CL				
Bottom of boring completed at 12.0 feet bgl.						
13	NOTES:					
14	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.					
15	2. Collected grab groundwater sample B-2 on 11-Oct-00.					
16	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					



01-22-2001 J:\030013\TASK 02\BORELOGS\B-2 BOR



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LOG OF BORING B-3

(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Date Started: 11-Oct-00
Date Finished: 11-Oct-00

Depth
in
Feet

DESCRIPTION

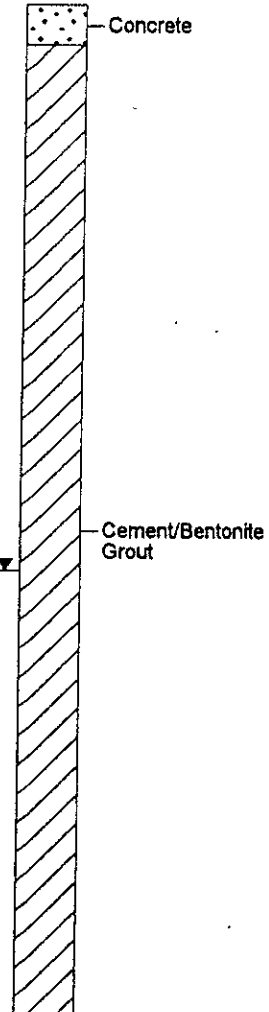
USCS

Sample Interval

Sample Recovery (inches)

REMARKS

0	CONCRETE.				PID calibrated using 100 ppmv as isobutylene. Hand augered to 5 feet bgl.
1	SAND: drk grey (5YR 4/1); F to crs sand, some subangular to angular gravel, moist.				
2					
3		SP			
4					
5	SANDY CLAY: drk yel brn (10YR 3/4) with grey (5Y 5/1) mottling; some F to crs sand, little gravel, moist.				PID = 0.00 ppmv (4.0 to 4.5 feet bgl). Collected soil sample B3-4.5-5.0 (4.5 to 5.0 feet bgl).
6					
7	- moist to wet.	CL	1	48	First observed saturated soil at 7.0 feet bgl
8	SAND: drk olive brn (2.5Y 3/3); F sand, little organic material, moist.				
9		SP			
10	CLAY: drk olive brn (2.5Y 3/3); moist.				
11		CL	2	48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B3-10-10.5 (10 to 10.5 feet bgl).
12	SAND: drk olive grey (5Y 3/2); F sand, moist.				
		SP			



13 Bottom of boring completed at 12.5 feet bgl.

NOTES:

1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.
2. Collected grab groundwater sample B-3 on 11-Oct-00.
3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.

01-22-2001 J:\030013\TASK-02\BORELOGS\B-3 BOR



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LOG OF BORING B-4

(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahien
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Date Started: 11-Oct-00
Date Finished: 11-Oct-00

Depth
in
Feet

DESCRIPTION

USCS

Sample
Interval

Sample
Recovery
(inches)

REMARKS

0
1
2
3
4
5
6
7
8

ASPHALT.

SAND: drk yel brn (10YR 4/6); F to crs sand,
few gravel, moist.

SP

1

48

PiD calibrated using 100 ppmv as
isobutylene.

First observed saturated soil at
2.0 feet bgl

CLAY: brn (10YR 4/3) with grey (5Y 5/1);
mottling; some silt, little sand, moist to wet.

CL

2

48

PiD = 0.00 ppmv (4.0 to 4.5 feet
bgl). Collected soil sample
B4-4.5-5.0 (4.5 to 5.0 feet bgl).

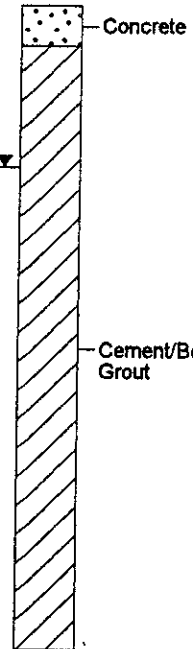
First observed saturated soil at
2.0 feet bgl

- little med gravel.

Bottom of boring completed at 8.0 feet bgl.

NOTES:

1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 8 feet bgl.
2. Collected grab groundwater sample B-4 on 11-Oct-00.
3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.





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LOG OF BORING B-5

(Page 1 of 1)

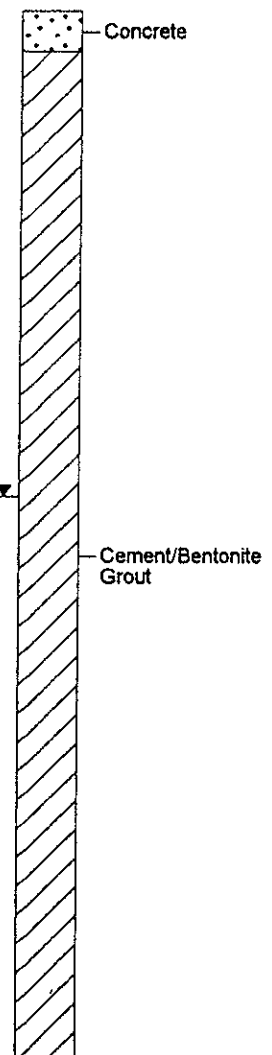
Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Date Started: 11-Oct-00
Date Finished: 11-Oct-00

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (Inches)	REMARKS
0	CONCRETE.				PID calibrated using 100 ppmv as isobutylene.
1	SAND CLAY: drk yel brn (10YR 4/6); some F sand, little med to crs sand, little F to med gravel, moist.				Hand augered to 5 feet bgl. Petroleum odor.
2					
3					
4	- v drk grey brn (2.5Y 3/2).				
5		CL			Breathing zone PID = 1.9 ppmv. Strong petroleum odor. PID = 2.1 ppmv (5.5 to 6.0 feet bgl). Collected soil sample B5-5.0-5.5 (5.0 to 5.5 feet bgl).
6	- drk yel brn (10YR 4/6); moist to wet.			48	First observed saturated soil at 6.0 feet bgl
7			1		
8					
9	SAND: drk olive grey (5YR 3/2); F sand, moist.				
10		SP		48	PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B5-10-10.5 (10 to 10.5 feet bgl).
11	CLAY: drk olive grey (5Y 3/2); moist.		2		
12		CL			



Bottom of boring completed at 13.0 feet bgl.

NOTES:

1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 13 feet bgl.
2. Collected grab groundwater sample B-5 on 11-Oct-00.
3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00

07-22-2001 J:\030013\TASK-02\BORELOGS\B-5 BOR



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LOG OF BORING B-6

(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Date Started: 11-Oct-00
Date Finished: 11-Oct-00

Depth
in
Feet

DESCRIPTION

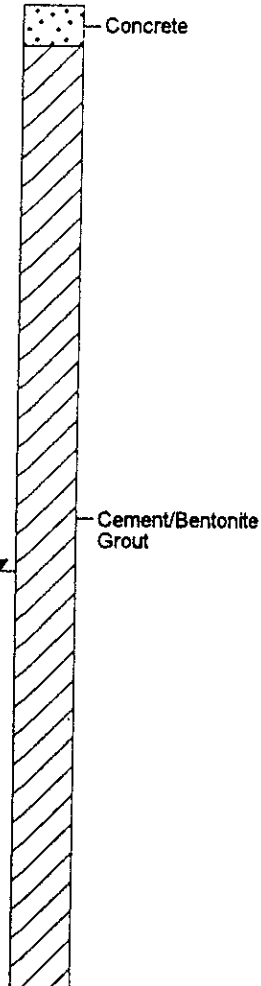
USCS

Sample Interval

Sample Recovery (inches)

REMARKS

0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.
1	SAND: yel brn (10YR 5/6); F to crs sand, little F to med gravel, moist.	SP			
2	SANDY CLAY: yel brn (10YR 5/6); some F sand, little med to crs sand, moist		1	48	
3					
4					
5	- red brn (5YR 4/3) mottling, some med to crs sand and gravel.				PID = 0.00 ppmv (5.0 to 5.5 feet bgl). Collected soil sample B6-4.5-5.0 (4.5 to 5.0 feet bgl).
6			2	48	
7	- moist to wet.	CL			First observed saturated soil at 7.0 feet bgl
8					
9					
10					
11	- drk olive grey (5YR 3/2)				
12	SAND: drk olive grey (5YR 3/2); F sand, moist.	SP			
	CLAY: drk olive grey (5Y 3/2); moist.	CL			
13	Bottom of boring completed at 12.2 feet bgl.				



NOTES:

1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.
2. Collected grab groundwater sample B-6 on 11-Oct-00.
3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.



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LOG OF BORING B-7

(Page 1 of 1)

Avis Rent A Car
1 Neil Armstrong Way
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jennifer Tancke
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Margaret Dahlen
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butylate Liners		

MFG Project No. 030013

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	ASPHALT.					<p>Concrete</p> <p>Cement/Bentonite Grout</p>
1	SANDY CLAY: yel brn (10YR 5/6); some F to crs sand, few F to crs gravel, moist.				PID calibrated using 100 ppmv as isobutylene.	
2			1	48		
3						
4						
5					PID = 0.00ppmv (5.0 to 5.5 feet bgl). Collected soil sample B7-4.5-5.0 (4.5 to 5.0 feet bgl).	
6	- grey (5Y 5/1) mottling.	CL	2	48		
7						
8						
9						
10	- drk olive grey (5YR 3/2), moist to wet.		3	48	First observed saturated soil at 10.0 feet bgl.	
11	SAND: drk olive grey (5YR 3/2); F sand, moist.	SP			PID = 0.00 ppmv (10.5 to 11 feet bgl). Collected soil sample B7-10-10.5 (10 to 10.5 feet bgl).	
12	CLAY: drk olive grey (5Y 3/2); moist.	CL				
Bottom of boring completed at 12.0 feet bgl.						
13	NOTES:					
14	1. Installed a temporary well constructed of 3/4-inch diameter Sch. 40 PVC screen with 0.010-inch slot size to a depth of 12 feet bgl.					
15	2. Collected grab groundwater sample B-7 on 11-Oct-00.					
16	3. Temporary well was removed and the boring sealed with cement/bentonite grout on 11-Oct-00.					

01-22-2001 J:\030013\TASK-07\BORELOGS\B-7 BOR



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LOG OF BORING B-8

(Page 1 of 1)

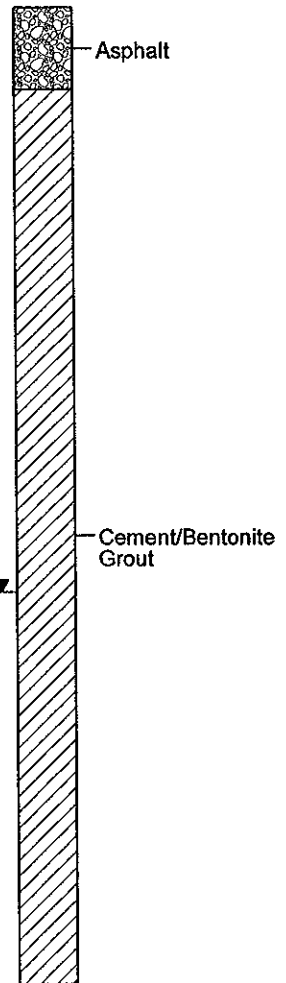
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene.
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	30	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand and gravel, moist to wet.	CL	2	30	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5					
6	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	36	PID = 0.00 ppmv (10.5 to 11 feet bgl).
7					
8	SANDY CLAY: bluish black (5PB 2.5/1); few organic debris (shell frags.), soft.	CL			
9					
10					
11					
12					



NOTES:

- Bottom of boring completed at 12.0 feet bgl.
- Installed one-inch diameter PVC temporary well for grab groundwater sampling.
- DTW = 7.2 feet bgl.
- PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

10-24-2002 J:\030013\Task-04\Borelogs\B-8 BOR



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LOG OF BORING B-9

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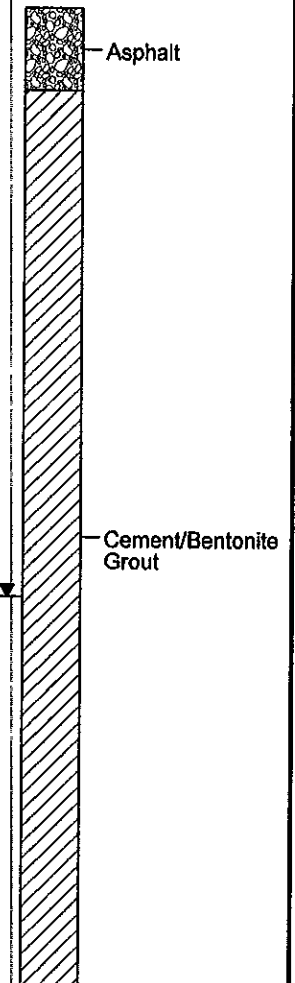
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-Inch long Drive Sampler		
Sampling Method	: 1.75-Inch O.D., Butyrate Liners		

MFG Project No. 030013

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.
1	SAND CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	42	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand and gravel, moist to wet.	CL	2	48	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	36	PID = 0.00 ppmv (10.5 to 11 feet bgl).
6					
7	SAND: dk bluish grey (5B 4/1); F to Med sand, moist.	SP			
8					
9	CLAY: bluish black (5PB 2.5/1); few organic debris (shell frags.), soft.	CL			
10					
11					
12					



NOTES:
 1. Bottom of boring completed at 12.0 feet bgl.
 2. Installed one-inch diameter PVC temporary well for grab groundwater sampling.
 3. DTW = 7.23 feet bgl.
 4. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

10-24-2002 J:\030013\Task-04\Borelogs\B-9.BOR



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LOG OF BORING B-9

(Page 1 of 1)

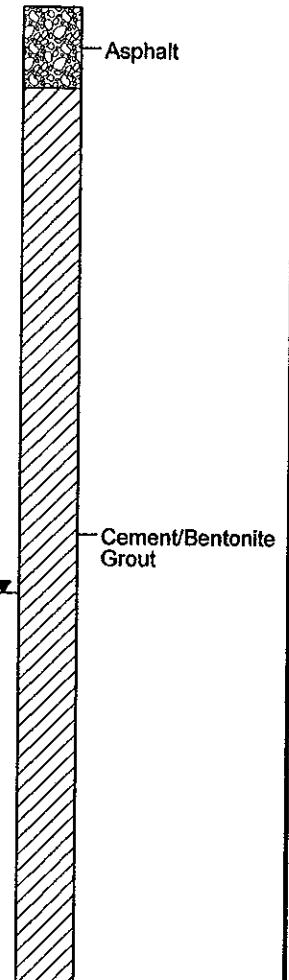
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

MFG Project No. 030013

Drilling Agency : Precision Sampling
Ground Elevation : Unknown
Drilling Method : Direct-push (hydraulic hammer) Logged By : Jason Triolo
Drill Bit Size : 2-inch O.D. Steel Casing Reviewed By : Chris Spill, R.G.
Sampler Type : 2-inch O.D., 48-inch long Drive Sampler
Sampling Method : 1.75-inch O.D., Butyrate Liners

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT.				PID calibrated using 100 ppmv as isobutylene.
1	SAND CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	42	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand and gravel, moist to wet.	CL	2	48	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
6					
7	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	36	PID = 0.00 ppmv (10.5 to 11 feet bgl).
9					
10	SAND: dk bluish grey (5B 4/1); F to Med sand, moist.	SP			
11	CLAY: bluish black (5PB 2.5/1); few organic debris (shell frags.), soft.	CL			



NOTES:

1. Bottom of boring completed at 12.0 feet bgl.
2. Installed one-inch diameter PVC temporary well for grab groundwater sampling.
3. DTW = 7.23 feet bgl.
4. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

10-24-2002 J:\030013\Task-04\Borelogs\B-9.BOR



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LOG OF BORING B-10

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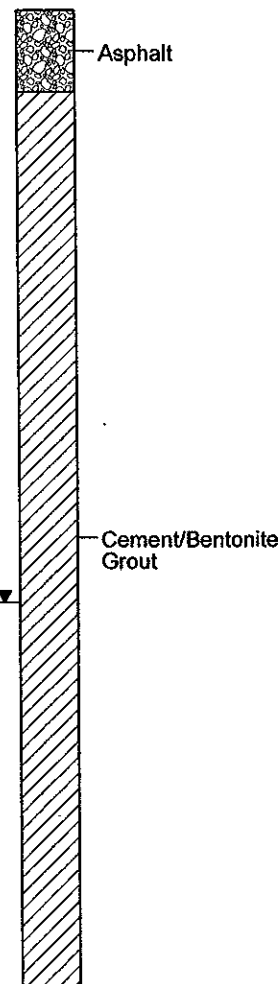
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

MFG Project No. 030013

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene.
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	42	PID = 0.00 ppmv (3.5 to 4.0 feet bgl)
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand, little subangular-angular gravel, moist.	CL	2	48	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5					
6	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
7					
8	SAND: bluish black (5PB 2.5/1); F to Med sand, few shell frags, wet.	SP	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
9					
10	CLAY: bluish black (5PB 2.5/1); little organic debris (shells), firm, moist.	CL	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
11					
12	NOTES: 1. Bottom of boring completed at 12.0 feet bgl. 2. Installed one-inch diameter PVC temporary well for grab groundwater sampling. 3. DTW = 7.3 feet bgl. 4. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.				
13					
14					
15					
16					

Date Started: 16-July-02
Date Finished: 16-July-02



10-24-2002 J:\030013\Task-04\Borelogs\B-10.BOR



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LOG OF BORING B-11

(Page 1 of 1)

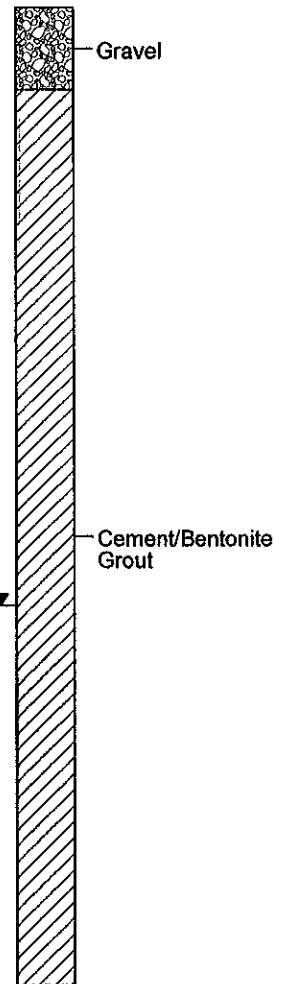
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

MFG Project No. 030013

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (Inches)	REMARKS
0	GRAVEL [FILL]				PID calibrated using 100 ppmv as isobutylene.
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	48	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3) mottling w/ yel brn (10YR 5/6); some Med to Crs sand and gravel, moist.	CL	2	48	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5					
6	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC			
7					
8	SAND: dk bluish grey (5B 4/1); F to Med sand, wet.	SP	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
9					
10	CLAY: black (2.5Y 2.5/1); little organic debris (shell frags.), moist.	CL			
11					



NOTES:

1. Bottom of boring completed at 12.0 feet bgl.
2. Installed one-inch diameter PVC temporary well for grab groundwater sampling.
3. DTW = 7.3 feet bgl.
4. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

10-24-2002 J:\030013\Task-04\Borelogs\B-11.BOR



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LOG OF BORING B-11

(Page 1 of 1)

Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	GRAVEL [FILL]				PID calibrated using 100 ppmv as isobutylene.	
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].		1	48		
2						
3						
4		CL			PID = 0.00 ppmv (3.5 to 4.0 feet bgl).	
5						
6	SANDY CLAY: red brn (5YR 4/3) mottling w/ yel brn (10YR 5/6); some Med to Crs sand and gravel, moist.		2	48		
7		CL				
8					PID = 0.00 ppmv (7.5 to 8.0 feet bgl).	
9	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.					
10	SAND: dk bluish grey (5B 4/1); F to Med sand, wet.		3	48		
11	CLAY: black (2.5Y 2.5/1); little organic debris (shell frags.), moist.				PID = 0.00 ppmv (10.5 to 11 feet bgl).	
12		SC				
13		SP				
14		CL				
15						
16						

NOTES:

- Bottom of boring completed at 12.0 feet bgl.
- Installed one-inch diameter PVC temporary well for grab groundwater sampling.
- DTW = 7.3 feet bgl.
- PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

10-24-2002 J:\030013\Task-04\Borelogs\B-11.BOR



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LOG OF BORING B-13

(Page 1 of 1)

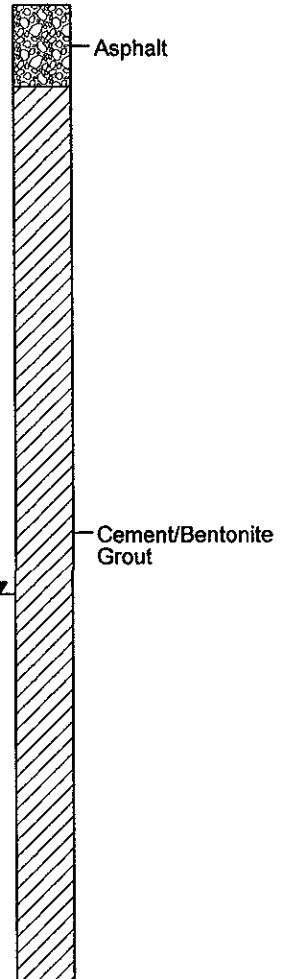
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

MFG Project No. 030013

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene.
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	36	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
6	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand, little subangular-angular gravel, moist.	CL	2	42	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
7					
9	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
10	SAND: bluish black (5PB 2.5/1); F to Med sand, few shell frags, wet.	SP			
11	CLAY: bluish black (5PB 2.5/1); little organic debris (shells), firm, moist.	CL			
12	<p>NOTES:</p> <ol style="list-style-type: none"> Bottom of boring completed at 12.0 feet bgl. Installed one-inch diameter PVC temporary well for grab groundwater sampling. DTW = 7.25 feet bgl. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02. 				



10-24-2002 J:\030013\Task-04B\encl\logB-13.BOR



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LOG OF BORING B-12

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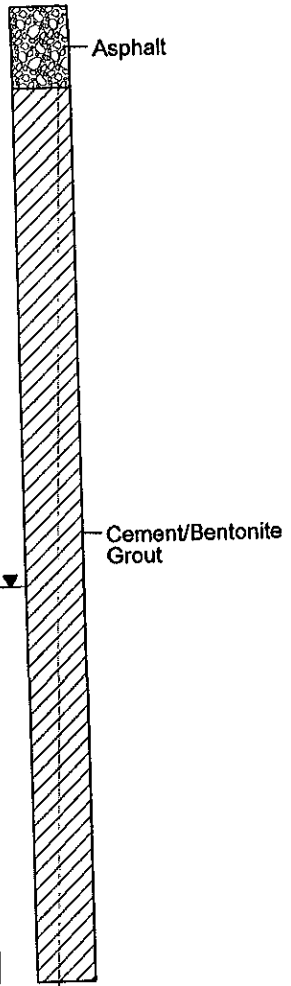
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

MFG Project No. 030013

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	42	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand, little subangular-angular gravel, moist.	CL	2	48	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5					
6	CLAYEY SAND: grey (10YR 5/1); F to Med Sand, few black organic debris (rootlets), wet.	SC	3	45	PID = 0.00 ppmv (10.5 to 11 feet bgl).
7					
8	SAND: dk bluish grey (5B 4/1); F to Med sand, wet.	SP			
9					
10	CLAY: bluish black (5PB 2.5/1); few organic debris, firm, moist.	CL			
11					



NOTES:

1. Bottom of boring completed at 12.0 feet bgl.
2. Installed one-inch diameter PVC temporary well for grab groundwater sampling.
3. DTW = 7.15 feet bgl.
4. PVC temporary well was removed and the boring was sealed with cement/bentonite grout on 16-July-02.

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LOG OF BORING B-13

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Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

MFG Project No. 030013

Drilling Agency : Precision Sampling
 Drilling Method : Direct-push (hydraulic hammer)
 Drill Bit Size : 2-inch O.D. Steel Casing
 Sampler Type : 2-inch O.D., 48-inch long Drive Sampler
 Sampling Method : 1.75-inch O.D., Butyrate Liners
 Ground Elevation : Unknown
 Logged By : Jason Triolo
 Reviewed By : Chris Spill, R.G.

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS	
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene.	<p>Asphalt</p> <p>Cement/Bentonite Grout</p>
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].		1	36		
2						
3						
4		CL			PID = 0.00 ppmv (3.5 to 4.0 feet bgl).	
5						
6	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand, little subangular-angular gravel, moist.		2	42		
7		CL			PID = 0.00 ppmv (7.5 to 8.0 feet bgl).	
8						
9	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.					
10	SAND: bluish black (5PB 2.5/1); F to Med sand, few shell frags, wet.	SC				
11	CLAY: bluish black (5PB 2.5/1); little organic debris (shells), firm, moist.	SP	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).	
12		CL				
13	NOTES: 1. Bottom of boring completed at 12.0 feet bgl. 2. Installed one-inch diameter PVC temporary well for grab groundwater sampling. 3. DTW = 7.25 feet bgl. 4. PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.					
14						
15						
16						

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LOG OF BORING B-14

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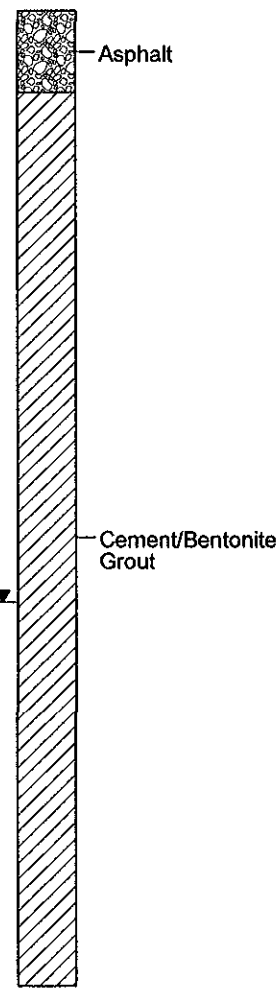
Former Avis Rent A Car System, Inc.
1 Neil Armstrong Way
Oakland International Airport
Oakland, California

Drilling Agency	: Precision Sampling	Ground Elevation	: Unknown
Drilling Method	: Direct-push (hydraulic hammer)	Logged By	: Jason Triolo
Drill Bit Size	: 2-inch O.D. Steel Casing	Reviewed By	: Chris Spill, R.G.
Sampler Type	: 2-inch O.D., 48-inch long Drive Sampler		
Sampling Method	: 1.75-inch O.D., Butyrate Liners		

MFG Project No. 030013

Date Started: 16-July-02
Date Finished: 16-July-02

Depth in Feet	DESCRIPTION	USCS	Sample Interval	Sample Recovery (inches)	REMARKS
0	ASPHALT				PID calibrated using 100 ppmv as isobutylene.
1	SANDY CLAY: yel brn (10YR 5/6); some F sand, little gravel, few Med to Crs sand, dry [Fill].	CL	1	36	PID = 0.00 ppmv (3.5 to 4.0 feet bgl).
2					
3	SANDY CLAY: red brn (5YR 4/3); some Med to Crs sand, little subangular-angular gravel, moist.	CL	2	42	PID = 0.00 ppmv (7.5 to 8.0 feet bgl).
4					
5	CLAYEY SAND: grey (10YR 5/1); F to Med sand, few black organic debris (rootlets), wet.	SC	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
6					
7	SAND: bluish black (5PB 2.5/1); F to Med sand, few shell frags, wet.	SP	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
8					
9	CLAY: bluish black (5PB 2.5/1) little organic debris (shells), firm, moist.	CL	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
10					
11	CLAY: bluish black (5PB 2.5/1) little organic debris (shells), firm, moist.	CL	3	48	PID = 0.00 ppmv (10.5 to 11 feet bgl).
12					



- NOTES:
- Bottom of boring completed at 12.0 feet bgl.
 - Installed one-inch diameter PVC temporary well for grab groundwater sampling.
 - DTW = 7.3 feet bgl.
 - PVC temporary well was removed and the boring sealed with cement/bentonite grout on 16-July-02.

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