



**CONESTOGA-ROVERS
& ASSOCIATES**

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TRANSMITTAL

DATE: August 19, 2013

REFERENCE NO.: 240594

PROJECT NAME: 610 Market Street, Oakland

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED

By Alameda County Environmental Health at 3:14 pm, Aug 22, 2013

Please find enclosed: Draft Final
 Originals Other
 Prints

Sent via: Mail Same Day Courier
 Overnight Courier Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Well Destruction Work Plan

As Requested For Review and Comment
 For Your Use

COMMENTS:

If you have any questions regarding the contents of this document, please call the CRA project manager Peter Schaefer at (510) 420-3319 or the Shell program manager Marvin Katz at (310) 550-5846.

Copy to: Marvin Katz, Shell Oil Products US (electronic copy)
Roger Schmidt (adjacent property owner), 1224 Contra Costa Drive, El Cerrito, CA 94530
Virginia R. Rawson, Trust (property owner), 1860 Tice Creek Drive #1353, Walnut Creek, CA 94952
Robert A. Oyster, DARCCCK Pearl Investments, LLC (property owner), 610 Market Street, Oakland, CA 94607

Completed by: Peter Schaefer

Signed: *Peter Schaefer*

Filing: **Correspondence File**



Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Shell Oil Products US
Soil and Groundwater Focus Delivery Group
20945 S. Wilmington Avenue
Carson, CA 90810
Tel (310) 550 5846
Fax (281) 582 4172
Email marvin.katz@shell.com
Internet <http://www.shell.com>

Re: 610 Market Street
Oakland, California
SAP Code 135692
Incident No. 98995750
ACEH Case No. RO0000493

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (310) 550-5846 with any questions or concerns.

Sincerely,
Shell Oil Products US

A handwritten signature in cursive script that reads "Marvin Katz".

Marvin Katz
Senior Program Manager



WELL DESTRUCTION WORK PLAN

**SHELL-BRANDED SERVICE STATION
610 MARKET STREET
OAKLAND, CALIFORNIA**

**SAP CODE 135692
INCIDENT NO. 98995750
AGENCY NO. RO0000493**

**AUGUST 19, 2013
REF. NO. 240594 (14)**

This report is printed on recycled paper.

**Prepared by:
Conestoga-Rovers
& Associates**

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U.S.A. 94608

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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this work plan on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). The proposed well destructions are required for final case closure per Alameda County Environmental Health's (ACEH's) August 7, 2013 letter.

The site is an active Shell-branded service station located on the east side of Market Street between 6th and 7th Streets in a mixed commercial and residential area of Oakland, California (Figure 1). The site layout includes a station kiosk, three gasoline underground storage tanks, two dispenser islands, and a car wash (Figure 2).

2.0 WORK TASKS

2.1 PERMITS

CRA will obtain an appropriate well destruction permit from Alameda County Public Works Agency and an encroachment permit from City of Oakland.

2.2 HEALTH AND SITE SAFETY PLAN (HASP)

CRA will prepare a HASP to protect site workers. The plan will be kept on site during field activities and will be reviewed and signed by each site worker.

2.3 UTILITY CLEARANCE

CRA will mark the well locations, and the locations will be cleared through Underground Service Alert and a private line locator prior to removing the well boxes.

2.4 MONITORING WELL DESTRUCTION

CRA proposes to properly destroy eight groundwater monitoring wells (MW-1 through MW-8) by backfilling with neat cement under pressure (pressure grouting). The well vaults will be removed, and the surface pavement will be patched with concrete to match the surrounding grade. CRA includes the well logs in Appendix A. The

proposed scope of work will be performed under the supervision of a professional geologist or engineer.

2.5 REPORT PREPARATION


Following completion of the well destructions, CRA will submit a brief report documenting the activities.

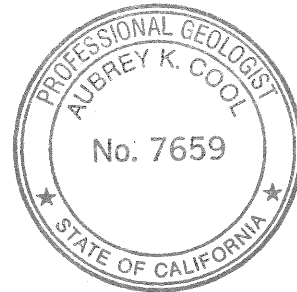
3.0 SCHEDULE

CRA will implement the well destructions upon receipt of the appropriate permits.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES


Peter Schaefer, CEG, CHG


Aubrey K. Cool, PG



FIGURES



I:\Shell\6-chars\2405--1240594 - Oakland 610 Market\240594-FIGURES\240594 VICINITY.A1




















Shell-branded Service Station
 610 Market Street
 Oakland, California



CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

EXPLANATION

- MW-1  Monitoring well; proposed for destruction
- MW-2  Monitoring well formerly used for groundwater extraction; proposed for destruction
- MW-9  Monitoring well; transferred to former Francis Plating property
- T1  Tank observation well
- SB-D  Soil boring location (2002)
- SB-A  Geoprobe boring location (1998)
- D-1  Soil sample location (1995)
- D-4  Confirmation soil sample location (1995)
-  Electrical line (E)
-  Telecommunication line (T)
-  Gas line (G)
-  Storm drain line (STM)
-  Sanitary sewer line (SAN)
-  Water line (W)
-  Manhole
-  Flow direction
- FL = 2.8  Flow line elevation, in feet above mean sea level (ft MSL)
-  Groundwater extraction system piping
- INF  GWE system sampling location

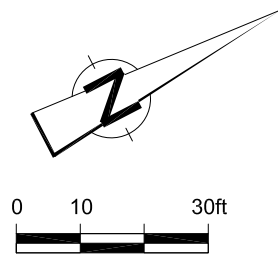
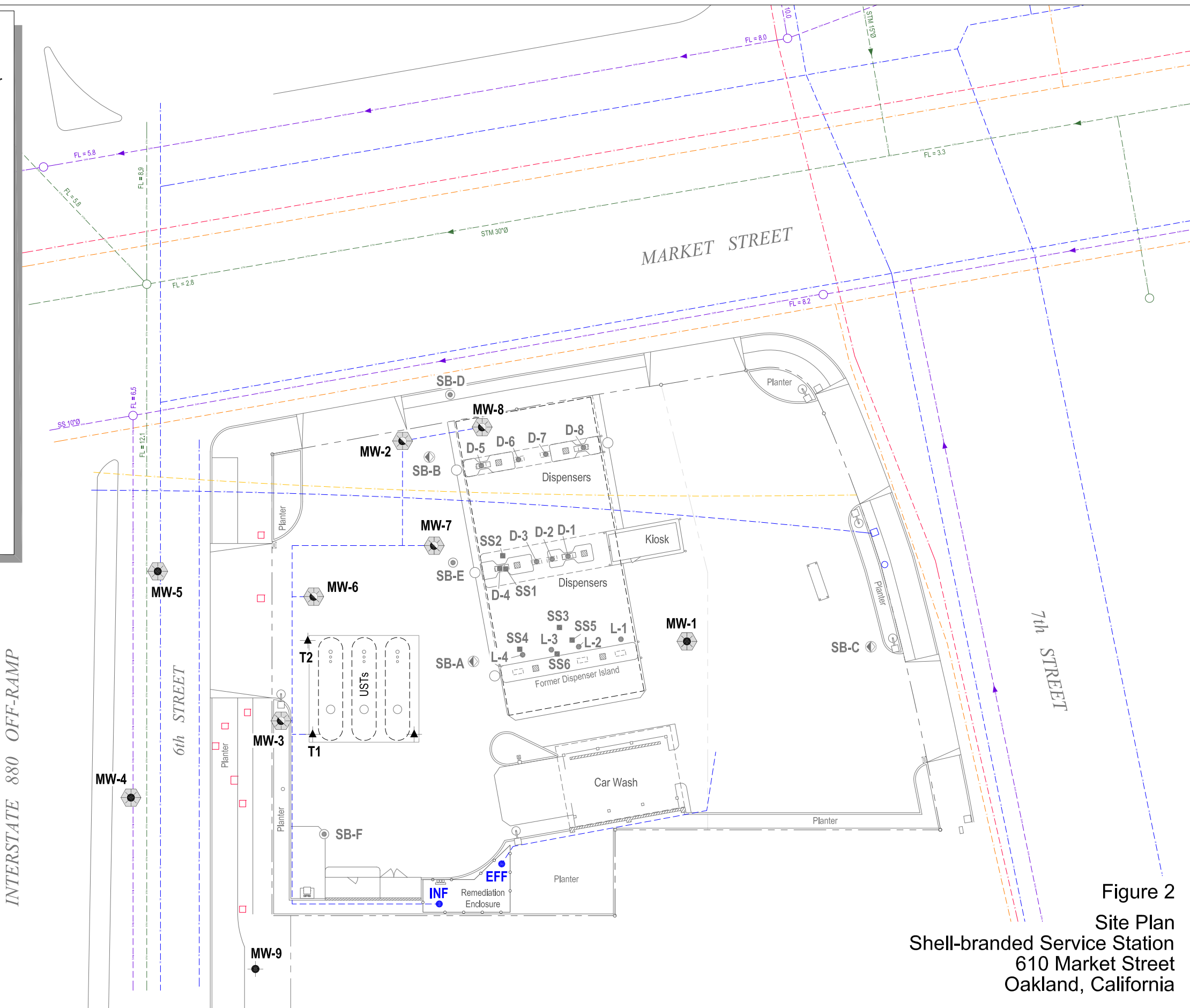


Figure 2
 Site Plan
 Shell-branded Service Station
 610 Market Street
 Oakland, California

APPENDIX A

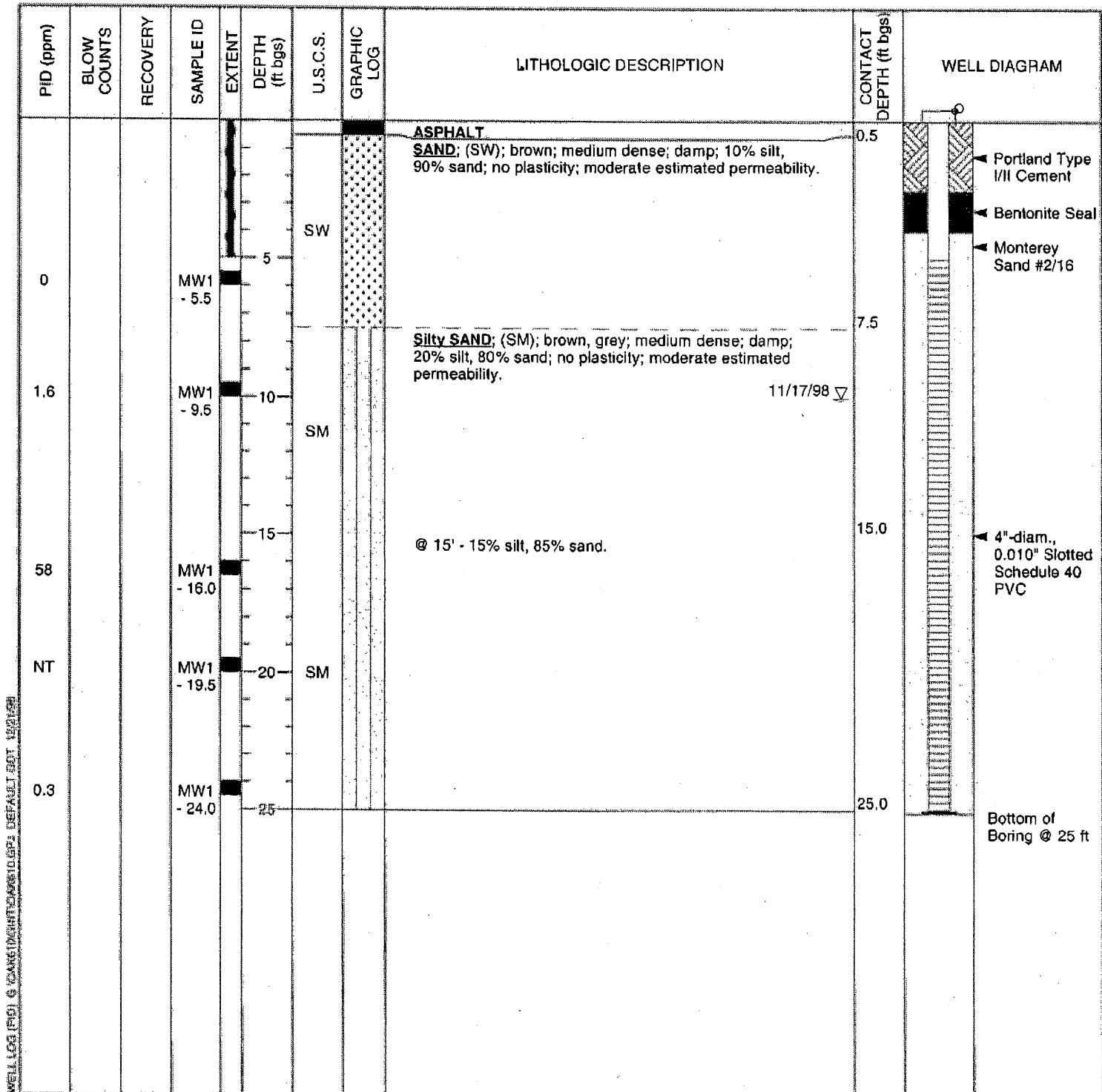
WELL LOGS



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BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	BORING/WELL NAME	MW-1
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	17-Nov-98
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	17-Nov-98
PROJECT NUMBER	240-0584	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	21.70 ft
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10.25"	SCREENED INTERVAL	5 to 25 ft bgs
LOGGED BY	B. Busch	DEPTH TO WATER (First Encountered)	10.0 ft (17-Nov-98)
REVIEWED BY		DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs.		



WELL LOG (PID) & BLOW COUNTS (BGS) DEPART 12/12/98



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BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	BORING/WELL NAME	MW-2
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	17-Nov-98
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	17-Nov-98
PROJECT NUMBER	240-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	19.61 ft
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10.25"	SCREENED INTERVAL	5 to 20.5 ft bgs
LOGGED BY	B. Busch	DEPTH TO WATER (First Encountered)	10.0 ft (17-Nov-98)
REVIEWED BY		DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					0.5			ASPHALT	0.5	<p>Portland Type I/II Cement Bentonite Seal Monterey Sand #2/16 4"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 20.5 ft</p>
			MW2 - 5.5		5	SW		SAND; (SW); brown to grey; loose; damp; 5% silt, 95% sand; no plasticity; high estimated permeability.		
1.0					7.5			Silty SAND; (SM); grey; loose; moist; 15% silt, 85% fine grained sand; no plasticity; moderate estimated permeability.	7.5	
			MW2 - 10.5		10	SM			11/17/98 ▽	
			MW2 - 15.5		15	SM		@ 15' - 15% silt, 85% fine to medium grained sand.	15.0	
3.0					17.5				17.5	
			MW2 - 19.5		20	SW		SAND; (SW); brown; loose; wet; 10% silt, 90% sand; no plasticity; high estimated permeability.	20.5	
1.0					20.5				20.5	

WELL LOG FROM G. WARE/ENVIRONMENTAL GROUP/ DECEMBER 15, 1998



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BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	BORING/WELL NAME	MW-3
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	17-Nov-98
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	17-Nov-98
PROJECT NUMBER	240-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	19.05 ft
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10.25"	SCREENED INTERVAL	5 to 20.5 ft bgs
LOGGED BY	B. Busch	DEPTH TO WATER (First Encountered)	10.0 ft (17-Nov-98)
REVIEWED BY		DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	BLOW COUNTS	RECOVERY	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
								TOPSOIL Silty SAND; (SM); grey; loose; damp; 15% silt, 85% sand; no plasticity; moderate estimated permeability.	1.0	<p>Portland Type I/II Cement Bentonite Seal Monterey Sand #2/16 4"-diam., 0.010" Slotted Schedule 40 PVC Bottom of Boring @ 20.5 ft</p>
12.0			MW3 - 5.5		5	SM				
204			MW3 - 10.5		10			11/17/98 ▽		
15.0			MW3 - 15.5		15	SM	@ 15' - wet.			
17.0			MW3 - 19.5		20				20.0	

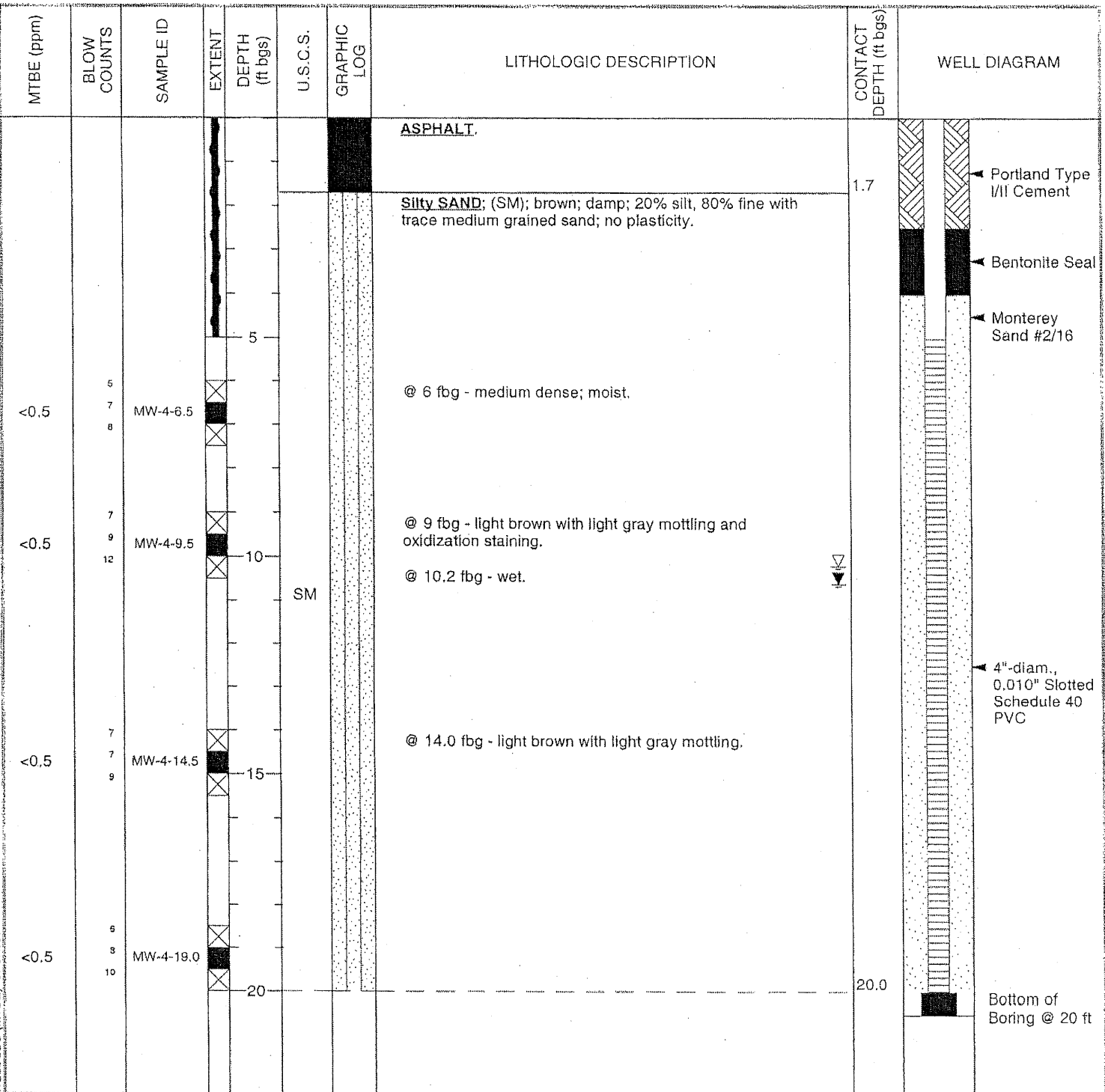
WELL LOG (REV) C:\CAMBRIA\INTEGR\10\001\DEFAULT.DOT 12/21/98



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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	MW-4
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	17-Apr-02
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	17-Apr-02
PROJECT NUMBER	244-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 20 ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	10.2 ft (17-Apr-02)
REVIEWED BY	D. Lundquist, PE	DEPTH TO WATER (Static)	10.61 ft (20-May-02)
REMARKS	Hand augered to 5' bgs. Located within 6th Street, approximately 43 feet SW of the site and 103 feet SE of Market St.		



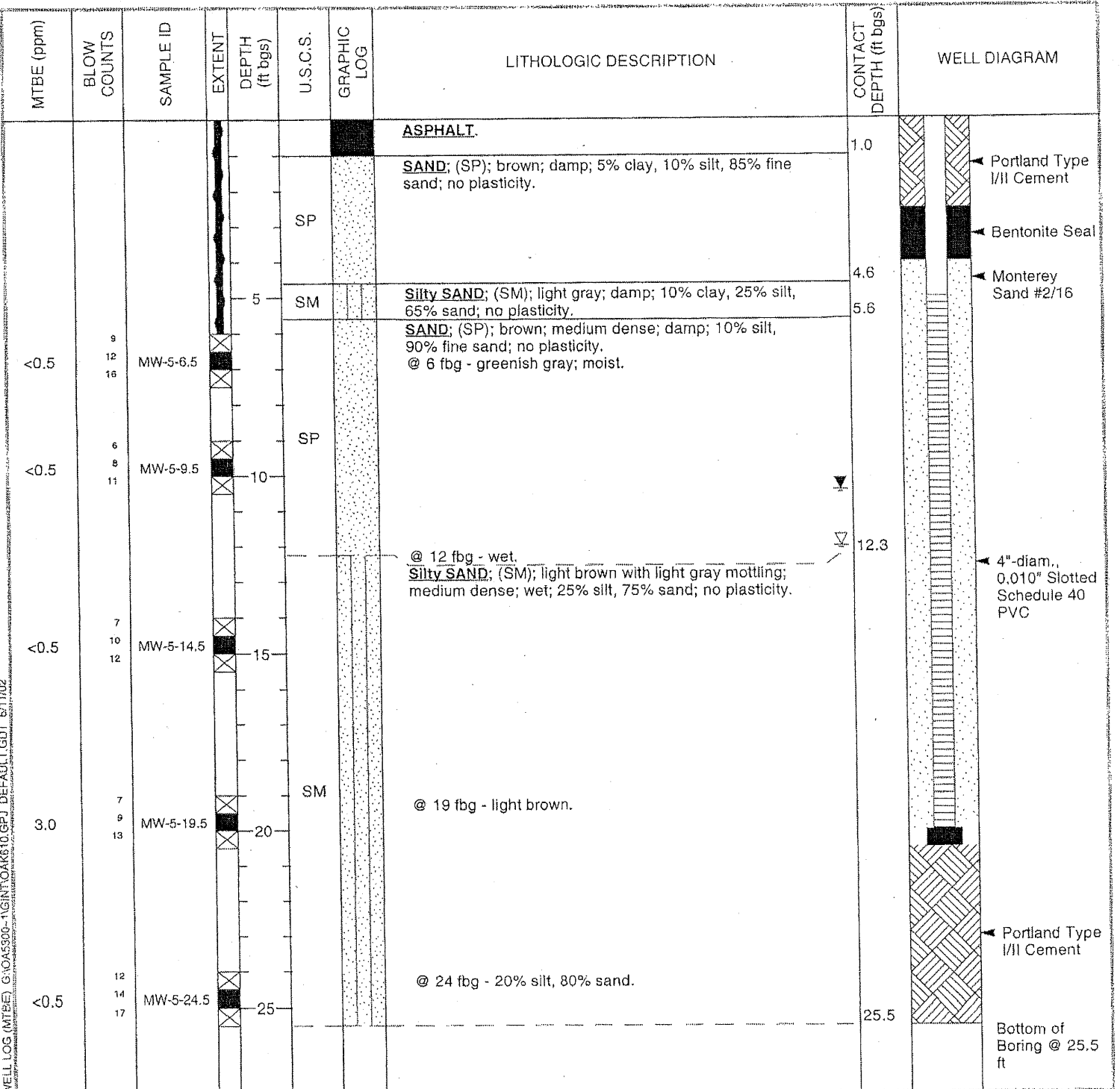
WELL LOG (MTBE): G:\OAS590-1\GINT\OAK\610.GPJ_DEFAULT.GDT 6/1/02



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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	MW-5
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	17-Apr-02
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	17-Apr-02
PROJECT NUMBER	244-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 20 ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	12.0 ft (17-Apr-02)
REVIEWED BY	D. Lundquist, PE	DEPTH TO WATER (Static)	10.41 ft (20-May-02)
REMARKS	Hand augered to 6' bgs. Located within 6th Street, approximately 35 feet SW of the site and 38 feet SE of Market St.		



WELL LOG (MTBE) G:\OAS500-1\GINT\OAKS10.GPJ DEFAL1.GDT 6/11/02



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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	MW-6
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	15-Nov-02
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	15-Nov-02
PROJECT NUMBER	244-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 20.01 ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	15.0 ft (15-Nov-02)
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
			0.7			CONCRETE SAND; (SP); Brown; 5% Silt, 95% Sand.	0.7	<p>Portland Type I/II Cement Bentonite Seal Monterey Sand #2/16 4"-diam., 0.010" Slotted Schedule 40 PVC</p> <p>Bottom of Boring @ 20 ft</p>
		MW-6-5.5	5	SP				
		MW-6-10.5	10			Brown with gray mottling.		
		MW-6-15.5	15	SM		Silty SAND; (SM); Gray; 20% Silt, 80% Sand.	15.0	
		MW-6-19.0	20	SP		SAND; (SP); 5% Silt, 95% Sand.	17.5	
			20.0				20.0	

WELL LOG (PID) G:\OAKLAND 610 MARKET\GINTOAK610.GPJ DEFAULT.GDT 3/12/03



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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	MW-7
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Nov-02
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	15-Nov-02
PROJECT NUMBER	244-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 20.01 ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	15.0 ft (14-Nov-02)
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 8' bgs.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ftg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ftg)	WELL DIAGRAM
			0.6			Asphalt	0.6	
			5			Silty SAND ; (SM); Grayish brown to brown with gray; damp; 5% Clay, 15% Silt, 80% Sand; low plasticity.		
			5	SM		Silty SAND; (SM); Brown; damp; 5% Clay, 15% Silt, 80% Sand.		
		MW-7-9.0	9.0			Silty SAND; (SM); Brown with gray streaking; moist.		
		MW-7-10.5	10.5					
			15			Poorly Graded SAND ; (SP); Gray; wet; 5% Silt, 95% Sand.	16.0	
		MW-7-15.5	15.5	SP				
			20			Brown.	20.0	
		MW-7-19.0	19.0					
			20.0					Bottom of Boring @ 20 ft

WELL LOG (PID) C:\OAKLAND\510 MARKET\GINT\OAK#10.GPJ DEFAULT.GDT 3/12/03



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BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	MW-8
JOB/SITE NAME	Shell-Branded Service Station	DRILLING STARTED	14-Nov-02
LOCATION	610 Market, Oakland CA	DRILLING COMPLETED	14-Nov-02
PROJECT NUMBER	244-0594	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	Not Surveyed
DRILLING METHOD	Hollow-stem auger	TOP OF CASING ELEVATION	NA
BORING DIAMETER	10"	SCREENED INTERVAL	5 to 20.01 ft bgs
LOGGED BY	J. Gerke	DEPTH TO WATER (First Encountered)	10.0 ft (14-Nov-02)
REVIEWED BY	M. Derby, PE# 55475	DEPTH TO WATER (Static)	NA
REMARKS	Hand augered to 5' bgs.		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT DEPTH (ftg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ftg)	WELL DIAGRAM
			0.6			Asphalt	0.6	<p>Portland Type I/II Cement</p> <p>Bentonite Seal</p> <p>Monterey Sand #2/16 4"-diam., 0.010" Slotted Schedule 40 PVC</p> <p>Bottom of Boring @ 20 ft</p>
		MW-8-6	5			Silty SAND; (SM); Grayish brown to gray; damp; 15% Silt, 85% Sand.		
		MW-8-11	10	SM		Silty SAND; (SM); gray; moist to wet; 20% Silt, 80% Sand.		
		MW-8-16	15			Silty SAND; (SM); gray; wet; 15% Silt, 85% Sand.		
		MW-8-19.5	20	SP		Poorly Graded SAND; (SP); Grayish brown; wet; 10% Silt, 90% Sand.	19.0 20.0	

WELL LOG (PID) C:\OAKLAND\610 MARKET\GINT\OAK610.GPJ DEFAULT GDT 3/12/03