CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: November 1, 2011

REFERENCE NO.: 240548

PROJECT NAME: 11989 Dublin Boulevard, Dublin

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

RECEIVED
10:47 am, Nov 02, 2011
Alameda County
Environmental Health

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
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- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Well Destruction Work Plan

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Richard Hudson, Hudson Investment Properties, LLC, 1809 Spumonte Place, Pleasanton, CA 94566
Cheryl Dizon, Zone 7 Water Agency, 100 North Canyons Parkway, Livermore, CA 94551

Completed by: Peter Schaefer [Please Print] Signed: Peter Schaefer

Filing: **Correspondence File**

Denis L. Brown
Shell Oil Products US
HSE – Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

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

Re: Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California
SAP Code 135243
Incident No. 98995328
ACEH Case No. RO0000213

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.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Senior Program Manager

WELL DESTRUCTION WORK PLAN

SHELL-BRANDED SERVICE STATION
11989 DUBLIN BOULEVARD
DUBLIN, CALIFORNIA

SAP CODE 135243
INCIDENT NO. 98995328
AGENCY NO. RO0000213

NOVEMBER 1, 2011
REF. NO. 240548 (2)
This report is printed on recycled paper.

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

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LIST OF APPENDICES

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) October 27, 2011 letter.

The site is a Shell-branded service station located on the southwestern corner of Dublin Boulevard and San Ramon Road in Dublin, California (Figure 1). Currently, the site layout consists of a station building, three underground storage tanks, and two dispenser islands (Figure 2).

2.0 WORK TASKS

2.1 PERMITS

CRA will obtain an appropriate drilling permit from Zone 7 Water Agency and an encroachment permit from the City of Dublin.

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 proposed drilling locations, and the locations will be cleared through Underground Service Alert and a private line locator prior to drilling.

2.4 MONITORING WELL DESTRUCTION

CRA proposes to properly destroy seven monitoring wells (MW-1 through MW-7). The wells will be destroyed by backfilling with neat cement under pressure (pressure grouting). The well vaults will be removed, and the surface pavement 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.

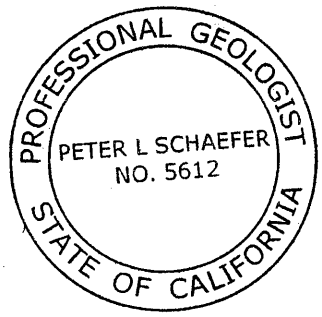
2.5 REPORT PREPARATION

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 approval of this work plan by ACEH and receipt of appropriate permits. The work is tentatively scheduled for November 2011.

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



Peter Schaefer, CEG, CHG

Eric Syrstad, PG

FIGURES

01/03/2011

FIGURE 1

0 1/8 1/4 1/2 1

SCALE (MILES)

I:\Shell\6-chars\0606-\060682-Alameda 2015 Grand St\060682-FIGURES\060682 VICINITY (F1).AI

Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

EXPLANATION

- MW-1 — Monitoring well location, proposed for destruction
- CPT-1 — CPT sampling location (11-12/2005)
- GP-3 — Geoprobe boring location (11/2005)
- B-1 — Soil boring location (7/2005)
- SB-1 — Soil boring location (4/2003)
- SB-1 — Soil boring location (8/1998)
- SB-1 — Soil boring location (11/1997)

Chevron Service Station
7007 San Ramon Rd.

Petsmart

DUBLIN BOULEVARD

SAN RAMON ROAD

Breuner's Furniture

Hooter's Restaurant

Office Building

Station Building

Planter

USTs

Dispenser Islands

Dispenser & Piping Trench

Canopy

Shell Station
11989 Dublin Blvd.

B-1, B-2, B-3, B-4, B-5

CPT-1, CPT-2, CPT-3, CPT-4, CPT-5, CPT-6

SB-1, SB-2, SB-3, SB-4

MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7

GP-3

N

0 20 50ft

Figure 2

Site Plan
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California

I:\Shell\6-chars\2405--\240548-Dublin 11989 Dublin Blvd\240548-FIGURES\240548 SITE PLAN.DWG (10/27/2011)

APPENDIX A

WELL LOGS

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

BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	**BORING/WELL NAME**	MW-1
JOB/SITE NAME	Dublin-11989	**DRILLING STARTED**	09-Jun-99
LOCATION	11989 Dublin Boulevard, Dublin CA	**DRILLING COMPLETED**	09-Jun-99
PROJECT NUMBER	240-0548	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	10"	**SCREENED INTERVAL**	5 to 20 ft bgs
LOGGED BY	J. Riggi	**DEPTH TO WATER (First Encountered)**	8.5 ft (09-Jun-99) ▽
REVIEWED BY	A. Le May, RG	**DEPTH TO WATER (Static)**	6.24ft (20-Jul-99) ▼
REMARKS	Hand augered to 5' bgs., well is 12' NW of dispenser island.		

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
					FILL.		
					Silty Clayey SAND; (SC); brown; loose; damp; 25% clay, 15% silt, 60% fine grained sand; low plasticity; low estimated permeability.	2.0	Portland Type I/II
<0.40	8 10 11	MW-1 -5.0	5				Bentonite Seal Monterey Sand #3
<0.40	10 11 12	MW-1 -10.0	10	SC	@ 10' - medium dense.		
<0.40	11 12 10	MW-1 -15.0	15		@ 15' - medium dense.		4"-diam., 0.010" Slotted Schedule 40 PVC
<0.40	9 11 10	MW-1 -20.0	20		@ 20' - loose.	20.5	Bottom of Boring @ 20.5 ft

WELL LOG (TPH-G) G:\DUBLIN-1\GINT\DUB11989.GPJ DEFAULT GDT 11/18/99

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

BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	**BORING/WELL NAME**	MW-2
JOB/SITE NAME	Dublin-11989	**DRILLING STARTED**	08-Jun-99
LOCATION	11989 Dublin Boulevard, Dublin CA	**DRILLING COMPLETED**	08-Jun-99
PROJECT NUMBER	240-0548	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	10"	**SCREENED INTERVAL**	13 to 33 ft bgs
LOGGED BY	J. Riggi	**DEPTH TO WATER (First Encountered)**	23.0 ft (08-Jun-99) ▽
REVIEWED BY	A. Le May, RG	**DEPTH TO WATER (Static)**	20.31ft (20-Jul-99) ▼

REMARKS Hand augered to 5' bgs., well is 35' East of existing Underground Storage Tank slab.

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	DEPTH (ft bgs)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)
			0		**FILL**; (FILL); brown; dry; 30% clay, 10% silt, 25% sand, 35% gravel; low plasticity; low estimated permeability.	2.0
			5		**Silty Clayey SAND**; (SC); brown; damp; 25% clay, 25% silt, 50% fine grained sand; low plasticity; low estimated permeability.	
<0.80	5 7 10	MW-2 -10.0	10	SC	@ 10' -loose; 25% clay, 20% silt, 55% fine grained sand.	
<0.80	6 7 12	MW-2 -15.0	15			17.5
<0.80	10 15 7	MW-2 -20.0	20	SC	**Clayey SAND**; brown to grey; damp to wet; medium dense; 25% clay, 15% silt, 40% fine to medium grained sand, 20% gravel; low plasticity; moderate estimated permeability. ▼	22.5
<0.80	8 11 15	MW-2 -25.5	25	SC	**Clayey SAND**; (SC); brown; medium dense; wet; 25% clay, 10% silt, 65% fine grained sand; low plasticity; low estimated permeability. ▽	
<0.80	10 11 14	MW-2 -30.0	30			33.0

WELL DIAGRAM: Portland Type I/II; 4" diam., Schedule 40 PVC; Bentonite Seal; Monterey Sand #3; 4"-diam., 0.010" Slotted Schedule 40 PVC; Bottom of Boring @ 33 ft

WELL LOG (TPH-G) G:\DUBLIN-1\GINT\DUB11989.GPJ DEFAULT.GDT 11/18/99

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

BORING/WELL LOG

CLIENT NAME	Equilon Enterprises LLC	**BORING/WELL NAME**	MW-3
JOB/SITE NAME	Dublin-11989	**DRILLING STARTED**	08-Jun-99
LOCATION	11989 Dublin Boulevard, Dublin CA	**DRILLING COMPLETED**	08-Jun-99
PROJECT NUMBER	240-0548	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	10"	**SCREENED INTERVAL**	13 to 33 ft bgs
LOGGED BY	J. Riggi	**DEPTH TO WATER (First Encountered)**	23.0 ft (08-Jun-99) ▽
REVIEWED BY	A. Le May, RG	**DEPTH TO WATER (Static)**	24.23ft (20-Jul-99) ▼

REMARKS Hand augered to 5' bgs. Well is located in SE corner of station

TPHg (mg/kg)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
				0			**FILL.**		
							Clayey SAND; (SC); brown; damp; 25% clay, 10% silt, 65% fine to medium grained sand; low plasticity; low estimated permeability.	2.0	Portland Type I/II
				5					4" diam., Schedule 40 PVC
<0.80	7 11 11	MW-3 -10.0		10			@ 10' -medium dense.		Bentonite Seal
									Monterey Sand #3
<0.80	6 8 10	MW-3 -15.0		15			@ 15' -loose.		
					SC				
<0.80	7 13 20	MW-3 -20.0		20			@ 20' -medium dense.		
								▽	4"-diam., 0.010" Slotted Schedule 40 PVC
								▼	
4.1	10 12 15	MW-3 -25.0		25			@ 25' -wet.		
1.39	9 8 12	MW-3 -30.0		30				33.0	Bottom of Boring @ 33 ft

WELL LOG (TPH-G) G:\DUBLIN-1\GINT\DUB11989.GPJ DEFAULT.GDT 11/18/99

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

BORING/WELL LOG

CLIENT NAME	Equiva Services LLC	**BORING/WELL NAME**	MW-4
JOB/SITE NAME	Shell-branded service station	**DRILLING STARTED**	26-Jul-01
LOCATION	11989 Dublin Boulevard, Dublin CA	**DRILLING COMPLETED**	26-Jul-01
PROJECT NUMBER	243-0548	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	Gregg Drilling	**GROUND SURFACE ELEVATION**	364.24 ft above msl (rim)
DRILLING METHOD	Hollow-stem auger	**TOP OF CASING ELEVATION**	364.01 ft above msl
BORING DIAMETER	8"	**SCREENED INTERVAL**	20 to 34.9 ft bgs
LOGGED BY	S. Couch	**DEPTH TO WATER (First Encountered)**	24.0 ft (26-Jul-01) ▽
REVIEWED BY	S. Bork, RG# 5620	**DEPTH TO WATER (Static)**	26.32 ft (17-Aug-01) ▼

REMARKS Hand augered to 5' bgs; located on east side of San Ramon Rd approximately 80' south of San Ramon/Dublin intersection.

TPHg (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (ft bgs)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (ft bgs)	WELL DIAGRAM
							ASPHALT	0.3	
							FILL; grayish brown; 5% silt, 80% fine to medium sand, 15% medium subangular to subrounded gravel; no plasticity; dry.		
								4.5	
				5			**Clayey SILT**; brown; 30% clay, 50% silt, 20% fine to medium sand; medium plasticity; dry.		Portland Type I/II
				10	ML		@10 ft bgs - 35% clay, 50% silt, 10% fine sand, 5% fine subrounded gravel.		
				15			@ 15 ft bgs - 45% clay, 50% silt, 5% sand.		
								17.5	Bentonite Seal
				20			**Silty CLAY**; brown; 50% clay, 45% silt, 5% fine sand; medium plasticity; moist.		Monterey Sand #2/12
		MW-4-25.5		25	CL				4"-diam., 0.010" Slotted Schedule 40 PVC
				30			@ 35 ft bgs - 65% clay, 30% silt, 5% fine sand; medium to high plasticity; wet.		
				35				35.0	Bottom of Boring @ 35 ft

WELL LOG (SHELL) G:\DUBLIN-1\GINT\DUB11989.GPJ DEFAULT.GDT 9/25/01

Delta

Environmental Consultants, Inc.

Project No:	SJ11-989-1	Client:	Shell Oil Products US	Well No: MW-5
Logged By:	Rebecca Wolff	Location:	11989 Dublin Blvd, Dublin	Page 1 of 2
Driller:	Gregg Drilling	Date Drilled:	12/19/2005	Location Map
Drilling Method:	HSA	Hole Diameter:	8"	Please see site map
Sampling Method:	Split Spoon	Hole Depth:	32'	
Casing Type:	Sch 40 PVC	Well Diameter:	2"	
Slot Size:	0.01	Well Depth:	32'	
Gravel Pack:	2/12 Sand	Casing Stickup:	N/A	
Elevation		Northing		Easting

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Cement					1			AF	< 6" of asphalt
		dry moist	0.1	Air Knife & Hand Auger	2			CL	**Lean CLAY**; dark brown, 5-15% sand, slight plasticity, presence of small roots
					3				
					4			CL	(air knife had trouble penetrating soil as the clay grew more dense; water knife was also used) (sweet smelling odors detected ~4.5')
		dry	0.1		5			SC	**Clayey SAND**; medium brown, 20-30% clay, fine to very fine grained sand, no plasticity, presence of larger roots
					6				
					7				
				6	8				
		dry damp	0.1	12 14	9			CL	**Lean CLAY with sand**; brown, 15-25% fine grained sand, trace small gravels and roots, silty
					10				
					11				
					12				
					13				
				6	14				
		dry	0.1	12 21	15				(same as above, abundant root holes) (increase in siltyness)
					16				
					17				
					18				
				7	19				
Bentonite		dry	0.1	13 18	20			ML	**Sandy SILT**; brown, 35-45% fine sand, trace clay, trace gravels roots and root holes; 1/4" root holes and voids
					21				
Sand					22				

Delta

Environmental Consultants, Inc.

Project No:	SJ11-989-1	Client:	Shell Oil Products US	Well No: MW-5
Logged By:	Rebecca Wolff	Location:	11989 Dublin Blvd, Dublin	Page 2 of 2
Driller:	Gregg Drilling	Date Drilled:	12/19/2005	
Drilling Method:	HSA	Hole Diameter:	8"	
Sampling Method:	Split Spoon	Hole Depth:	32'	
Casing Type:	Sch 40 PVC	Well Diameter:	2"	
Slot Size:	0.01	Well Depth:	32'	
Gravel Pack:	2/12 Sand	Casing Stickup:	N/A	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand	▼	dry	0.1	4 8 13	23 24 25			CL	**Lean CLAY**; dark brown, 5-15% fine to medium grained sand, trace small gravels, root holes
	▽				26 27 28				
		moist wet		4 7 10	29 30			CL	**Lean CLAY**; grey, high plasticity, trace sand, trace caliche, root holes
					31 32				Bottom of boring @ 32 feet
					33 34 35 36 37 38 39 40 41 42 43 44 45				

Delta
Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-6	
Logged By: Heather Buckingham	Location: 7950 Dublin Blvd., Dublin, CA	Page 1 of 2	
Driller: Gregg Drilling and Testing	Date Drilled: 06/30/06	Location Map	
Drilling Method: HAS	Hole Diameter: 8"	**See Site Map**	
Sampling Method: Splitspoon	Hole Depth: 30'		
Casing Type: Sch 40 PVC	Well Diameter: 2"		
Slot Size: 0.010	Well Depth: 30'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill									**Asphalt.**
		damp	0.1	Air Knife	2			CL	**Sandy Lean CLAY**; dark brown to black; 30-40% medium to fine sand; medium to high plasticity; less than 10% silt.
					4				As above; brown; medium plasticity.
		damp	0.1		6				
		damp		4 7 7	9				As above; trace coarse sand.
		damp		7 12 12	14				As above; no trace coarse grained sand.
		damp		6 6 16	19			CL	**Lean CLAY with Sand**; medium brown; 10-20% fine sand; medium plasticity.
Sand					22				

Delta

Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-6	
Logged By: Heather Buckingham	Location: 7950 Dublin Blvd., Dublin, CA	Page 2 of 2	
Driller: Gregg Drilling and Testing	Date Drilled: 06/30/06	Location Map	
Drilling Method: HAS	Hole Diameter: 8"	**See Site Map**	
Sampling Method: Splitspoon	Hole Depth: 30'		
Casing Type: Sch 40 PVC	Well Diameter: 2"		
Slot Size: 0.010	Well Depth: 30'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery / Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand		moist		5 6 7	23 24 25		CL	**Lean CLAY**; medium brown; medium to high plasticity; trace coarse grained sand.
					26 27 28			
		wet		10 11 11	29 30		SC CL	**Clayey Sand**; gray; 25-35% clay; 65-75% fine poorly graded sand. **Lean CLAY**; medium brown; medium to high plasticity; trace coarse grained sand.
					31			**Bottom of boring at 30 feet.**

Delta
Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-7	
Logged By: Rebecca Wolff	Location: 7944 Dublin Blvd., Dublin, CA	Page 1 of 4	
Driller: Gregg Drilling and Testing	Date Drilled: 07/03/06	Location Map	
Drilling Method: HAS	Hole Diameter: 10"	See Site Map	
Sampling Method: Splitspoon	Hole Depth: 70'		
Casing Type: Sch 40 PVC	Well Diameter: 4"		
Slot Size: 0.010	Well Depth: 70'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					1				**Asphalt.**
					2			CL	**Sandy Lean CLAY**; dark brown to black; 30-40% medium to fine sand.
				Air Knife	3				
					4				As above; brown; medium plasticity.
					5				
					6				
					7				
					8				
		damp	0.1	10	9			SM	**Silty SAND**; brown; fine and very fine sand; 35-45% silt; abundant root holes; medium dilatancy; medium dense.
				10	10				
				10	11				
					12				
	12.7				13				
		damp	0.1	10	14			SM	As above; 10-20% clay; trace fine gravel.
				11	15				
				15	16				
					17				
					18				
		damp	0.2	7	19			CL	**Lean CLAY**; dark brown; 5-15% fine to medium sand; trace gravel; medium dilantancy; root holes; hard.
				10	20				
				15	21				
					22				

Delta
Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-7	
Logged By: Rebecca Wolff	Location: 7944 Dublin Blvd., Dublin, CA	Page 2 of 4	
Driller: Gregg Drilling and Testing	Date Drilled: 07/03/06	Location Map	
Drilling Method: HAS	Hole Diameter: 10"	**See Site Map**	
Sampling Method: Splitspoon	Hole Depth: 70'		
Casing Type: Sch 40 PVC	Well Diameter: 4"		
Slot Size: 0.010	Well Depth: 70'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
					23			CL	
		damp	0.1	4 5 6	24 25				As above; stiff; trace silt.
					26 27 28				
		damp/ moist	477	7 7 8	29 30			CL	**Sandy Lean CLAY**; brown with gray mottling; 30-40% medium sand; trace gravel; some root holes.
					31 32				
					33			GC	**Clayey GRAVEL with SAND**; brown with gray fine gravel; 15-25% coarse sand; 20-30% clay.
		wet/ moist	5.5	5 7 8	34 35			CL	**Lean CLAY**; tan with gray mottling; 30-40% medium sand; trace gravel; some root holes.
					36 37 38				
		damp	0.7	5 5 8	39 40			CL	As above; 0-10% medium sand; caliche;no mottling.
					41 42 43				
		damp	0.2	9 9	44			CL	As above; dark brown; 0-10% medium sand; trace gravels; no caliche; some root holes; stiff; medium

Delta
Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-7	
Logged By: Rebecca Wolff	Location: 7944 Dublin Blvd., Dublin, CA	Page 3 of 4	
Driller: Gregg Drilling and Testing	Date Drilled: 07/03/06	Location Map	
Drilling Method: HAS	Hole Diameter: 10"	**See Site Map**	
Sampling Method: Splitspoon	Hole Depth: 70'		
Casing Type: Sch 40 PVC	Well Diameter: 4"		
Slot Size: 0.010	Well Depth: 70'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
				9	45				plasticity.
					46				
					47				
					48				
				6	49			CL	As above; tan with brown mottling; 5-15% medium and fine sand.
		damp	0.1	6					
				6	50				
					51				
					52				
					53				
				8	54			CL	As above; gray with brown mottling; 0-10% fine sand; silty.
		damp	0.1	8					
				8	55				
					56				
					57				
					58				
				7	59			CL	
		wet	0.3	8					
				9	60			SC	**Clayey SAND with Gravel**; brown; 15-25% fine gravel; 20-30% clay; medium sand.
					61				
					62				
					63				
				4	64			SW	**Well Graded SAND with Gravel**; medium to very coarse sand; medium to very coarse gravels at the bottom; less than 10% fines.
		wet		4					
				4	65				
					66				

Sand

Delta

Environmental Consultants, Inc.

Project No: SJ11-989-1	Client: Shell	MW-7	
Logged By: Rebecca Wolff	Location: 7944 Dublin Blvd., Dublin, CA	Page 4 of 4	
Driller: Gregg Drilling and Testing	Date Drilled: 07/03/06	Location Map	
Drilling Method: HAS	Hole Diameter: 10"	**See Site Map**	
Sampling Method: Splitspoon	Hole Depth: 70'		
Casing Type: Sch 40 PVC	Well Diameter: 4"		
Slot Size: 0.010	Well Depth: 70'		
Gravel Pack: 2/12 sand	Casing Stickup:		
Elevation	Northing	Easting	

Well Completion (Backfill / Casing)	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Sand		wet		12 18 21	67–70			SW	As above.
					70				**Bottom of Boring at 70 feet**
					71–88				