April 24, 2008
Project SCA89991
SAP: 135244

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

Subject: **Well Destruction Proposal**
Shell-branded Service Station
8999 San Ramon Road
Dublin, California

DELTA

Dear Mr. Wickham,

Delta Consultants (DELTA) on behalf of Shell Oil Products US (SHELL) has prepared the following Well Destruction Proposal for the Shell-branded service station located at 8999 San Ramon Road in Dublin, California. The Site Map and Well Locations are presented in Figure 1.

BACKGROUND

The subject property is located on the southeast corner of the intersection of Alcosta Boulevard and San Ramon Road intersection in Dublin, California (Figure 1). The property is currently the site of an active Shell-branded service station. The Shell service station plans to demolish and then rebuild the existing station building and carwash.

Prior to commencing field activities DELTA will obtain the proper permits from Zone 7 Water Agency (Attachment A). The proposed destruction locations will be marked and Underground Services Alert contacted to notify subscribers of our proposed activities. DELTA will then direct a geophysical survey of the proposed well locations. Prior to destruction activities the proposed locations will be excavated by air-knife to a depth of at least five feet. These activities will be performed to avoid damage to subsurface utilities. All work will performed under the direction of a California Professional Geologist.

GROUNDWATER MONITORING WELL DESTRUCTION

DELTA prepares to perform well destruction activities on May 22 and 23, 2008 on monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, and MW-10 (Attachment B). The wells mentioned are located on the station property, which will be renovated. Gregg Drilling (GREGG), License C57-485165, will provide the field equipment and materials. A Delta geologist will oversee and manage the well destruction activities.

Permits for well destruction have been submitted to Zone 7 Water Agency who will determine the destruction method of either drilling out the well or pressure grouting. In the case of drilling out the monitoring well location will be overdrilled the entire depth of the well and the resulting borehole will be backfilled with grout to within one foot of the surface and a concrete cap will be placed to the adjacent grade. Drill cuttings and well materials will be placed in sealed, 55-gallon steel drums pending characterization and disposal.

In the case of pressure grouting, a tremie pipe with attached hose will be placed down each well and 15-sack neat cement grout will be pumped into the well-casing to approximately 0.5-foot below grade (bg). The tremie pipe and hose will then be pulled from the well and a steel fitting with hose connector will attach to the wellhead. The grout hose will connect to the fitting and grout will be pumped into the well under 50 pounds per square inch (psi) of pressure for approximately 15 minutes. The vault boxes will then be removed and the upper casing of each well will be drilled out to a depth of five feet bg. The remaining borehole will be grouted to within 1.5 feet of the ground surface, and capped with concrete to match the surrounding grade. Drill cuttings and well materials will be placed in sealed, 55-gallon steel drums pending characterization and disposal. DELTA will prepare a State of California Department of Water Resources (DWR) *Well Completion Reports* for the well and submit them to GREGG for signatures, prior to submittal to the appropriate agency.

After completion of station remodeling, DELTA will evaluate locations for replacement monitoring wells on the station property and install replacement wells.

REMARKS

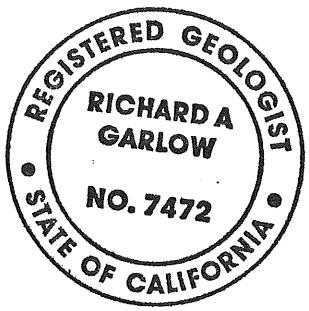
The information contained in this report represent DELTA's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between DELTA and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of DELTA's Client and anyone else specifically listed on this report. DELTA will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, DELTA makes no express or implied warranty as to the contents of this report.

If you have any questions, please call Richard Garlow (DELTA) at (408) 826-1880 or Denis Brown (SHELL) at (707) 865-0251.

Sincerely,
DELTA Consultants

Abhik Dutta
Staff Geologist

Richard A. Garlow, M.S., P.G.
Project Manager



ATTACHMENTS:

Figure 1 – Site Map with the Well Locations

Attachment A – Zone 7 Water Agency Permit Application
Attachment B – Boring Logs Well Construction Permits

Cc:
Denis Brown, Shell Oil Products US
Betty Graham, RWQCB – San Francisco Bay Region
Danielle Stefani, Livermore-Pleasanton Fire Department
Matthew Katen, Zone 7 Water Agency

FIGURES

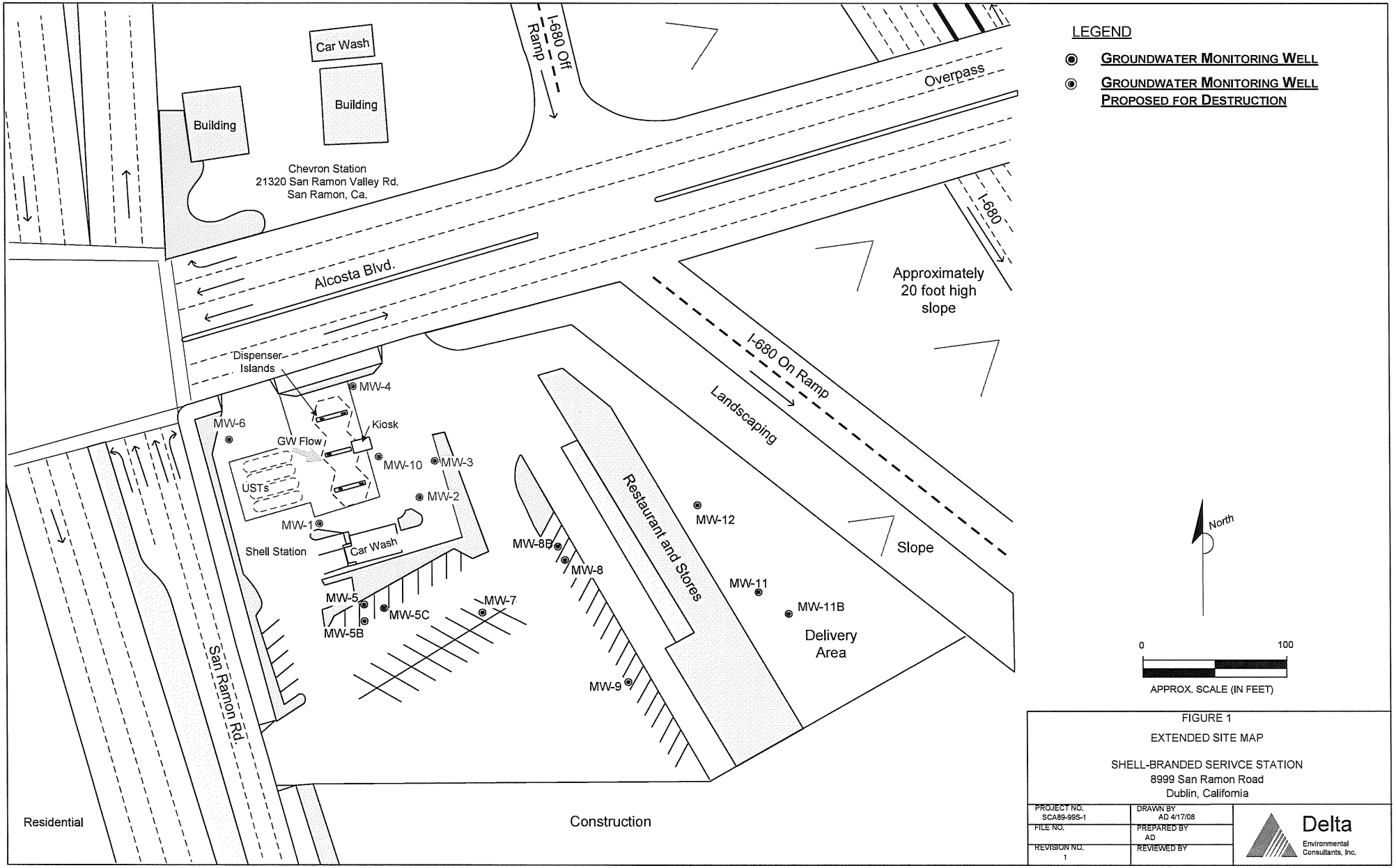


FIGURE 1

EXTENDED SITE MAP

SHELL-BRANDED SERIVCE STATION
8999 San Ramon Road
Dublin, California

PROJECT NO. SCA89-99S-1	DRAWN BY AD 4/17/08
FILE NO.	PREPARED BY AD
REVISION NO. 1	REVIEWED BY

Delta
Environmental Consultants, Inc.

ATTACHMENT A

Zone 7 Water Agency Permit Application

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 8999 San Ramon Rd.
Dublin, CA. 94568

California Coordinates Source _____ ft. Accuracy _____ ft.
CCN _____ ft. CCE _____ ft.
APN 941-164-1-7

CLIENT
Name Shell Oil Products U.S. – Denis Brown
Address 20945 S. Wilmington Ave. Phone 707-865-0251
City Carson, CA Zip 90810

APPLICANT
Name Delta Consultants – Abhik Dutta
Email adutta@deltaenv.com Fax 408-225-8506
Address 312 Piercy Rd. Phone 408-826-1869
City San Jose Zip 95138

TYPE OF PROJECT:

Well Construction	••	Geotechnical Investigation	••
Well Destruction	✓	Contamination Investigation	••
Cathodic Protection	••	Other _____	••

PROPOSED WELL USE:

Domestic	••	Irrigation	••
Municipal	••	Remediation	••
Industrial	••	Groundwater Monitoring	••
Dewatering	••	Other _____	••

DRILLING METHOD:

Mud Rotary	••	Air Rotary	••	Hollow Stem Auger	••
Cable Tool	••	Direct Push	••	Other _____	••

DRILLING COMPANY Gregg Drilling
DRILLER'S LICENSE NO. C57-485165

WELL SPECIFICATIONS:
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 26-27 ft.
Surface Seal Depth 20-21 ft. Number MW-1, 2, 3, 4

SOIL BORINGS:
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 5/21
ESTIMATED COMPLETION DATE 5/22

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S
SIGNATURE _____ Date _____

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER _____
WELL NUMBER _____
APN _____

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

A. GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results**.

Approved _____ Date
Wyman Hong

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 8999 San Ramon Rd.
Dublin, CA. 94568

California Coordinates Source_____ ft. Accuracy• •_____ ft.
CCN _____ ft. CCE_____ ft.
APN 941-164-1-7

CLIENT
Name Shell Oil Products U.S. – Denis Brown
Address 20945 S. Wilmington Ave Phone 707-865-0251
City Carson, CA Zip 90810

APPLICANT
Name Delta Consultants – Abhik Dutta
Email adutta@deltaenv.com Fax 408-225-8506
Address 312 Piercy Rd. Phone 408-826-1869
City San Jose Zip 95138

TYPE OF PROJECT:

Well Construction	• •	Geotechnical Investigation	• •
Well Destruction	✓ • •	Contamination Investigation	• •
Cathodic Protection	• •	Other _____	• •

PROPOSED WELL USE:

Domestic	• •	Irrigation	• •
Municipal	• •	Remediation	• •
Industrial	• •	Groundwater Monitoring	• •
Dewatering	• •	Other _____	• •

DRILLING METHOD:

Mud Rotary	• •	Air Rotary	• •	Hollow Stem Auger	• •
Cable Tool	• •	Direct Push	• •	Other _____	• •

DRILLING COMPANY Gregg Drilling

DRILLER'S LICENSE NO. C57-485165

WELL SPECIFICATIONS:
Drill Hole Diameter 10 in. Maximum
Casing Diameter 4 in. Depth 29-30 ft.
Surface Seal Depth 16-19 ft. Number MW-6, 10

SOIL BORINGS:
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE 5/21
ESTIMATED COMPLETION DATE 5/22

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S
SIGNATURE _____ Date_____

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER _____
WELL NUMBER _____
APN _____

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

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3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
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4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results**.

Approved _____ Date
Wyman Hong

ATTACHMENT B

Boring Logs

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-1
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/5/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	27 feet	
Gravel Pack:	#2/12	Casing Stickup:	NA	
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 / Interval	Soil Type	LITHOLOGY / DESCRIPTION
Grout							AF	Asphalt 6", Base rock 4"
					1		SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					2			
					3			
					4		CL	**Lean CLAY with Sand**: medium brown mottled with orange; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate to high plasticity; soft
		dry	11.3	air knifed & hand augered	5			
					6			
					7			
					8			
					9			
			335	12 13 19	10			
					11			
					12			
					13			
					14			
			328	12 26 25	15		CL	**Sandy Lean CLAY**: medium brown with very dark brown mottling; 70-80% fines; 20-30% fine grained sands; low to moderate plasticity; stiff
					16			
					17			
					18			
		moist			19			
			22.6	50 for 6"	20			
					21			
Bentonite		damp			22			

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-1	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/5/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
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					23			CL	**Sandy Lean CLAY**: continued
					24				
		damp	9.4		25			CL	**Lean CLAY with Sand**: same as above, stiff
					26				
					27				Boring terminated at 27 feet below ground surface
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-2
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/5/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	27 feet	
Gravel Pack:	#2/12	Casing Stickup:	NA	
Elevation		Northing		Easting

Location Map

Please see site map

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing								AF	Asphalt 6", Base rock 4"
					1–4			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
Grout		dry	11.3	air knifed & hand augered	5–9			CL	**Lean CLAY with Sand**: medium brown mottled with orange; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate to high plasticity; soft
			335	12 13 19	10–11				
			328	12 26 25	15–16				(Same as above, less orange mottling)
		moist	22.6	50 for 6"	20			CL	**Sandy Lean CLAY**: gray; 55 to 65% fines; 35 to 45% sand; low plasticity; soft
Bentonite	▼	damp			21–22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-2
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2
Driller:	Gregg	Date Drilled:	5/5/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	27 ft	
Gravel Pack:	#2/12	Casing Stickup:	NA	
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					23			CL	**Sandy Lean CLAY**: continued
					24				
		damp	9.4		25			CL	**Lean CLAY with Sand**: same as above, stiff
					26				
					27				Boring terminated at 27 feet below ground surface
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-3
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2
Driller:	Gregg	Date Drilled:	5/6/2005	
Drilling Method:	HSA	Hole Diameter:	10 inch	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	26 ft	
Casing Type:	PVC	Well Diameter:	4 inch	
Slot Size:	0.01	Well Depth:	26 feet	
Gravel Pack:	#2/12	Casing Stickup:	NA	
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
Grout		wet		air knifed & hand augered	1			AF	Asphalt 6", Base rock 4"
					2			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
					3				
		damp			4			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-80% fines; 20-30% fine grained sand in tan sand pockets; trace gravels up to 0.5" in diameter; moderate to high plasticity; soft
			1.8		5				
					6				
		dry			7				
					8				
					9				
		dry	0.5	8 10 16	10				
					11			CL	**Lean CLAY with Sand**: medium brown with orange mottling; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate plasticity; soft
					12				
					13				
					14				
				14	15				
		dry	0.6	24 36				CL	**Sandy Lean CLAY**: medium brown; 70-80% fines; 20-30% fine grained poorly graded sand in tan sand pockets; slight product odor; moderate to high plasticity; stiff
					16				
					17				
					18				
					19				
Bentonite	▼			15	20				
		dry	0.2	21 25				CL	**Lean CLAY with Sand**: same as above; medium brown with dark brown mottling; stiff
					21				
					22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-3	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	25 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	26 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
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					23			CL	**Lean CLAY with Sand**: continued
					24				
		dry	0.7	9 16 27	25			CL	**Sandy Lean CLAY**: grey; 60-70% fines; 30-40% sand; low to moderate plasticity; stiff
					26				Boring terminated at 26 feet below ground surface
					27				
					28				
					29				
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				
					41				
					42				
					43				
					44				

Delta

Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-4	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 1 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 feet		
Gravel Pack:	#2/12	Casing Stickup:	NA		
Elevation		Northing		Easting	

Well Completion	Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery	Sample Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill / Casing								AF	Asphalt 6", Base rock 4"
		wet			1			SM	**Silty SAND**: light brown; 20-30% silt; fine to coarse grained sand, well graded
				air knifed & hand augered	2				
					3			CL	**Sandy Lean CLAY**: medium brown mottled with orange; 70-80% fines; 20-30% fine grained sand in tan sand pockets; trace gravels up to 0.5" in diameter; moderate to high plasticity; soft
Grout		dry	3		4				
					5				
					6				
					7				
				8	8				
		dry	1.3	10	9				
				16	10			CL	**Lean CLAY with Sand**: medium brown with orange mottling; 85-90% fines; 10-15% fine grained sand in tan sand pockets; moderate plasticity; soft
					11				
					12				
					13				
					14				
				14	15			CL	**Sandy Lean CLAY**: grey mottled with medium brown; 75-80% fines; 25-30% fine grained poorly graded sand in tan sand pockets; moderate to high plasticity; stiff
		dry	0.7	24					
				36	16				
					17				
					18				
					19				
				15	20				(Same as above, trace gravels up to 0.5 cm in diameter)
		moist	0.7	21					
	▼			25	21				
Bentonite					22				

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Boring No: MW-4	
Logged By:	Heather Buckingham	Location:	8999 San Ramon Rd., Dublin	Page 2 of 2	
Driller:	Gregg	Date Drilled:	5/6/2005	Location Map	
Drilling Method:	HSA	Hole Diameter:	10 inch	Please see site map	
Sampling Method:	CA Mod. Split Shoe	Hole Depth:	27 ft		
Casing Type:	PVC	Well Diameter:	4 inch		
Slot Size:	0.01	Well Depth:	27 ft		
Gravel Pack:	#2/12	Casing Stickup:	NA		
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 dry	0.4	9 16 27	23 24 25 26 27			CL CL	**Sandy Lean CLAY**: continued **Lean CLAY with Sand**: medium brown with grey mottling; grey; 85-90% fines; 10-15% sand; moderate plasticity; stiff Boring terminated at 27 feet below ground surface
					28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44				

Delta

Environmental Consultants, Inc.

Project No:SJ89-99-1	Client: Shell Oil Products US	Well No: MW-6	
Logged By: Andy Persio	Location: 8999 San Ramon, Dublin,CA	Page 1 of 2	
Driller: Gregg	Date Drilled: 2/21/2006	Location Map	
Drilling Method: WK to 7'/HSA	Hole Diameter: 12" - 10"	Please see site map	
Sampling Method: HA/SS	Hole Depth: 7'/30'		
Casing Type: SCh 40 PVC	Well Diamete 4"		
Slot Size: 0.01	Well Depth: 30'		
Gravel Pack: 2/12/ sand	Casing Stickup: 0		
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
								AF	~6" asphalt and baserock
					1			CL	**sandy lean CLAY**: dark grey, 40-50% fine to med. grained sands, med.plasticity
		damp	32.5	air knifed & hand augered	2				
					3				dark brown, 35-45% fine to med. grained sands
		damp	18.5		4				
Grout					5				orangish brown, 40-50% fine to med. grained sands
		damp	50.6		6				
					7				
					8			CL	**lean CLAY w/sand:** dark brown, 10-20% fine grained sands, trace gravels up to 1" dia., trace caliche, med. Plasticity
					9				
		damp	86.1		10				
					11				
					12				
					13			CL	**lean CLAY**: dark brown, 5-15% fine grained sands, med. plasticity
					14				
		damp	11.8		15				
					16				
					17				
					18			SC	**clayey SAND**: greenish brown to grey (discoloration), 40-50% fines, med. to fine grained sands, low plasticity
					19				
Bentonite		damp	6.2		20				

Delta
Environmental Consultants, Inc.

Project No:SJ89-99-1
Logged By: Andy Persio
Driller: Gregg
Drilling Method: WK to 7'/HSA
Sampling Method: HA/SS
Casing Type: SCh 40 PVC
Slot Size: 0.01
Gravel Pack: 2/12/ sand

Client: Shell Oil Products US
Location: 8999 San Ramon, Dublin,CA
Date Drilled: 2/21/2006
Hole Diameter: 12" - 10"
Hole Depth: 7'/30'
Well Diamete 4"
Well Depth: 30'
Casing Stickup: 0

Well No: MW-6

Location Map
Please see site map

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					21			SC	**clayey SAND** (cont.)
					22				
					23			CL	**lean CLAY w/sand**: brown w/orange mottling, med. stiff, 15-25% fine grained sands, trace gravels up to 1/4" dia.
	24.6'	damp	11.3		24				
					25				
					26				
					27				
					28				
					29			SC	**clayey SAND w/gravel**: greyish brown w/orange mottling, med. Dense, 30-40% fines, 5-15% gravels up to 1/2" dia., no plasticity
		moist	1.9		30				Bottom of boring terminated at 30' bg
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				

Delta
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Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW-10	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 1 of 2	
Driller:	Gregg	Date Drilled:	7/25-26/06	Location Map	
Drilling Method:	HSA / AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	29'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	29'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
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
Grout				air knifed & hand augered			AF	~9" asphalt and ~3" baserock
					1		SC	**clayey SAND**: light grey, medium dense, 10-20% fines, fine to medium grained sands, no plasticity
					2			
					3			
					4			
		moist	3.6		5		CL	**sandy lean CLAY**: dark brown, stiff, 30-40% fine grained sands, trace gravels and cobbles up to 3" b-axis diameter, low plasticity
					6			
					7			
					8			
		moist	29.5	4 8 14	9 10		CL	lean CLAY w/sand: dark brown, 20-30% fine to medium grained sands, very stiff, trace gravels up to 2" b-axis diameter, low plasticity
					11			
					12			
					13			
		moist	5.1	7 8 10	14 15			10-20% fine to medium grained sands, trace gravels up to 1" b-axis diameter
Bentonite					16			
					17			
					18			
Sand		moist	3.5	5 1 16	19 20		CL	sandy lean CLAY: dark grwy w/greenish discoloration, hard, 30-40% fine to medium grained sands, low plasticity

Delta
Environmental Consultants, Inc.

Project No:	SJ89-99S-1	Client:	Shell Oil Products US	Well No: MW- 10	
Logged By:	Andy Persio	Location:	8999 San Ramon	Page 2 of 2	
Driller:	Gregg	Date Drilled:	7/25-26/06	Location Map	
Drilling Method:	HAS/ AK (7')	Hole Diameter:	12"/10"	Please see site map	
Sampling Method:	SS	Hole Depth:	29'		
Casing Type:	Sch 40 PVC	Well Diameter:	4"		
Slot Size:	0.01	Well Depth:	29'		
Gravel Pack:	#2/12 sand	Casing Stickup:	NA		
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	22.85' 4:00p				21			CL	sandy lean CLAY (cont.): dark brown, same as above, no discoloration
					22				
					23				
		moist	1.3	4 8 12	24			CL	lean CLAY w/sand: dark brown, very stiff, 15-25% fine grained sands, low plasticity
					25				
					26				
		moist	1.2	7 10 14	27				same as above
					28				
					29				29'bg = bottom of boring/well
					30				
					31				
					32				
					33				
					34				
					35				
					36				
					37				
					38				
					39				
					40				