#### **RECEIVED**

10:23 am, Jun 13, 2008

Alameda County
Environmental Health

June 9, 2008 Project SCA8999S1

SAP: 135244

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

Subject:

**Monitoring Well Destruction Report** 

Former Shell Service Station

8999 San Ramon Rd Dublin, California



Dear Mr. Wickham:

Delta Consultants, Inc. (DELTA), on behalf of Shell Oil Products US (SHELL), has prepared this letter documenting the destruction of six monitoring wells (MW-1, MW-2, MW-3, MW-4, MW-6, MW-10) associated with the above referenced site. Locations of the destroyed wells are shown on the site map, Figure 1.

### WELL DESTRUCTIONS

The Alameda County Health Care Services Agency (ACHCSA) has directed SHELL to destroy monitoring wells MW-1, MW-2, MW-3, MW-4, MW-6, and MW-10. The station plans to demolish the existing buildings and remodel the station; future activities include re-grading the property surface. In order to destroy wells, DELTA obtained well destruction permits from the Zone 7 Water Agency (ZONE 7). Copies of the permits are provided as Attachment A. The monitoring wells were destroyed on May 21 and 22, 2008, utilizing methods authorized by ZONE 7. Gregg Drilling (GREGG), License C57-485165, provided the field equipment and materials. A Delta geologist oversaw and directed the well destruction activities.

A tremie pipe with attached hose was placed down each well and 15-sack neat cement grout was pumped into the well-casing to approximately 0.5-foot below grade (bg). The tremie pipe and hose was then pulled from the well and an airtight steel fitting with hose connector was attached to the wellhead. The grout hose was connected to the fitting and grout was pumped into the well under 50 pounds per square inch (psi) of pressure for approximately 15 minutes. The vault boxes were removed and the upper casing of each well was then drilled out to a depth of five feet bg. The remaining borehole was then grouted to within 1.5 feet of the ground surface, and capped with concrete to match the surrounding grade. Delta prepared State of California Department of Water Resources (DWR) *Well Completion Reports* for



312 PIERCY ROAD SAN JOSE, CALIFORNIA 95138 USA
PHONE +1 408.224.4724 / USA TOLL FREE 800.477.7411
FAX +1 408.225.8506 www.deltaenv.com

the well and submitted them to GREGG for signatures, prior to submittal to the appropriate agency. Copies of these forms are included as Attachment B.

#### 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.

Please call Richard Garlow (DELTA) at (408) 826-1880 or Denis Brown (SHELL)at (707) 865-0251 if you have any questions regarding the contents of this letter.

Sincerely,

Delta Consultants, Inc.

Abhik Dutta Staff Geologist

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

Project Manager

RICHARD A GARLOW
NO. 7472
P.P. OF CALIFORNIA

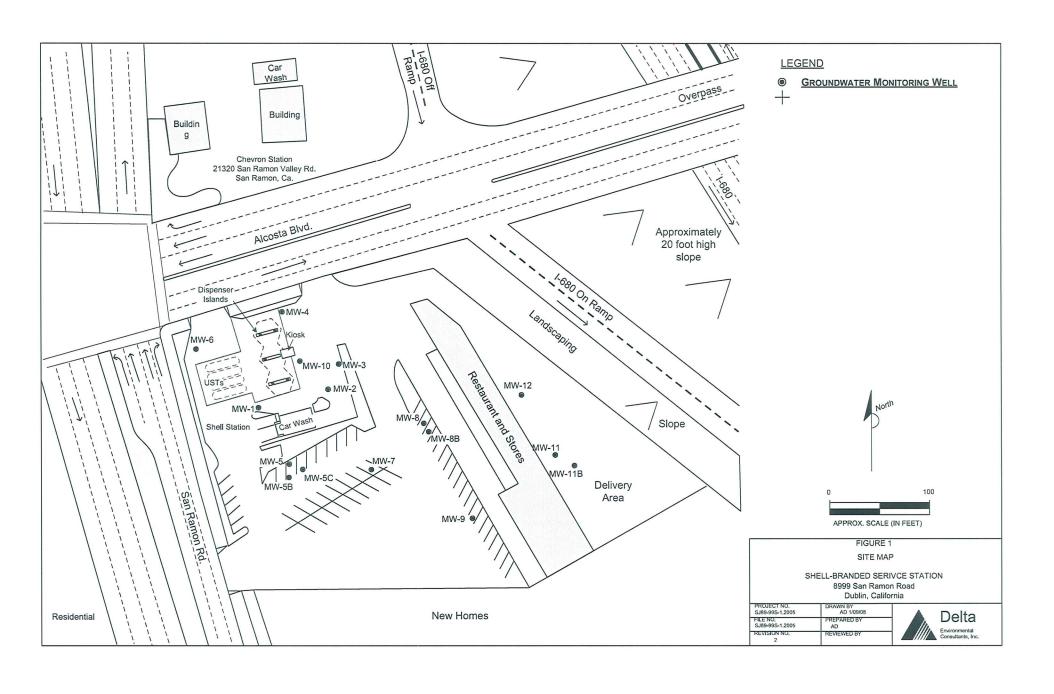
#### **Attachments:**

Figure 1 – Site Location Map

Attachment A – Zone 7 Water Agency, Drilling Permit Application

Attachment B - Department of Water Resources form 188, Well Completion Reports

cc: Denis Brown, Shell Oil Products US, Carson Carl Cox, C and J Cox Corporation, Pleasanton Colleen Winey, Zone 7 Water Agency, Livermore



### ATTACHMENT A

**Zone 7 Water Agency** 

**Drilling Permit Application** 

# MADON PORTON OF THE PROPERTY O

### **ZONE 7 WATER AGENCY**

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

### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE
LCCATION OF PROJECT 8999 San Ramon Rd.  Dublin, CA. 94568	PERMIT NUMBER 28063  WELL NUMBER 2S/1W-35C5 to 35C9 & 35C10  APN 941-0164-001-07 (MW-1 to MW-4, MW-6)
California Coordinates Source ft. Accuracy ft. CCN ft. CCE ft. APN 941-164-1-7  CLIENT Shell Oil Products U.S. – Denis Brown Address 20945 S. Wilmington Ave. Phone 707-865-0251  City Carson, CA. Zip90810  APPLICANT Name Delta Consultants – Abhik Dutta Email adutta@deltaenv.com Fax408-225-8506  Address 312 Piercy Rd. Phone 408-826-1869  City San Jose Zip95138  TYPE OF PROJECT:  Well Construction Geotechnical Investigation Well Destruction Cathodic Protection Cother Contamination Investigation Cathodic Protection Fragation Femediation Femediation Femediation Femediation Cathodic Protection Cother Contamination Investigation Cathodic Protection Femediation Femediation Femediation Femediation Cathodic Protection Cother Cothe	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 your 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 (DWR Form 188), signed by the driller.  3. Permit is void if project not begun within 90 days of approva 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
DRILLING METHOD: Mud Rotary Air Rotary Other  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 Surface Seal Depth 20-21 ft. Number MW-1, 2, 3, 4  SOIL BORINGS: Number of Borings Hole Diameter in. Depth ft.  ESTIMATED STARTING DATE 5/21  ESTIMATED COMPLETION DATE 5/22  Thereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.	<ul> <li>Wellhead.</li> <li>GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS</li> <li>Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.</li> <li>Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.</li> <li>Grout placed by tremie.</li> <li>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.</li> <li>CATHODIC. Fill hole above anode zone with concrete placed by tremie.</li> <li>WELL DESTRUCTION. See attached.</li> <li>G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report</li> </ul>
APPLICANT'S SIGNATURE Date 5/22/08 ATTACH SITE PLAN OR SKETCH	Approved Walman Horral Date 5/20/08

Wyman Hong

### **ATTACHMENT B**

**Department of Water Resources Form 188** 

**Well Completion Reports** 

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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			Project N		SJ89-99			Client		Shell Oil Products U		Well No: MW-4
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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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<b>****</b>	-		1110101	22.6	50	-						
<b>****</b>	-			22.0	for	20 —			CL.	Sandy Lean CLAY; g	ray: 55 to	65% fines: 35 to 45%
<b>****</b>					6"		-			sand; low plasticity; so	oft	
Bentonite		1942	damp		"	21				bully, low plustiolity, st		
ent (	-		damp			-	+-	$\vdash$				
m 4						22-	+		ŀ			Production from a control of the
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		Project N		SJ89-99			Clien		Shell Oil Products		Boring No: MW-2
		Logged I	ву:		Buckingh	am	Local		8999 San Ramon R		Page 2 of 2
Del	10	Driller:		Gregg				Drilled:	5/5/2005	Location Map	
	la	Drilling N		HSA				Diameter		Disassa	aa alta man
			g Method:		. Split Sho	e		Depth:	27 ft	Please s	ee site map
Environme		Casing 7		PVC				Diameter			
Consultant	s, inc.	Slot Size		0.01				Depth:	27 ft p: NA		
		Gravel P	Elevation	#2/12	1	Norti		ng Sticku	Easting	1	
			Lievation			NOIL	illig		Lasting		
Well Completion	01.11	0 44	ğ	8 C	et)	Sai	mple	φ			
<b>≅</b> Ø	Static Water	Moisture Content	kead pm)	trati ws/6	h (fe		1.00	TyT	LIT	HOLOGY	/ DESCRIPTION
Backfill	Level	S S	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery	Interval	Soil Type			
<u> </u>			<u>.</u>		17	N.		CL	Sandy Lean CLAY:	continued	
						+		OL	Salidy Leali CLAT.	Johanaea	
					23						
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					24						
Sand					25						
ις E		damp	9.4		25 —			CL	Lean CLAY with Sar	nd: same a	as above, stiff
					26						
	÷				_						
					27	-			Boring terminated at 2	27 feet bel	ow ground surface
_				-6	-	-					
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					43 —	$\vdash$		-	200 - 20 - 200 - 1		
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			180		44		$\neg \neg$	-			

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

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	Project N		SJ89-99			ient:		Shell Oil Products U		Well No: MW-3
	Logged B	Ву:	Heather	Buckingha		cation:		8999 San Ramon R		Page 1 of 2
Dalta	Driller:		Gregg		Di	ate Dril	led:		Location Map	
Delta	Drilling N	/lethod:	HSA		H	ole Dia	mete	r: 10 inch		
	Sampling	g Method:	CA Mod	. Split Sho	e H	ole Dep	oth:	26 ft	Please se	ee site map
<b>Environmental</b>	Casing T	Гуре:	PVC		W	ell Dia	metei	r: 4 inch		
Consultants, Inc.	Slot Size	):	0.01		W	ell Dep	oth:	26 feet		
,	Gravel P		#2/12		Ci	asing S	Sticku	p: NA		
		Elevation			Northin			Easting		
Well Completion Static	ø ±	PID Reading (ppm)	Penetration (blows/6")	set)	Samp	le	e			
	Moisture Content	teac pm)	trat vs/6	Depth (feet)	ery -	rg   1	Soil Type	LIT	HOLOGY	/ DESCRIPTION
Casing Mater Level	So M	무급	ene blov	epti	Recovery	Interval	Soil	2-00 S (		
8 8		<u>or</u>	ا م		R.	=				0.0000000000000000000000000000000000000
			<b>↑</b>	_			۱F	Asphalt 6", Base rock	4"	
<b>                                      </b>	wet			1				Silty SAND: light brow	MD: 50-300	% silt; fine to coarse grained
<b>****</b>				-		ا ا	IVI	sand, well graded	WII, ZU-3U	70 Sit, file to coarse graffied
<b>                                      </b>		_	1	2	$\vdash$	$\dashv$		sanu, wen graded		
<b>                                      </b>			, X	-						
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<b>****</b>   _			air knifed & hand augered	_		_	.	0 1 1 01 11		and a state of with
<b>****</b>			2 B	4		(	CL	Sandy Lean CLAY: n		
<b>****</b>   _	damp		air							fine grained sand in tan
<b>****</b>			اما	5				sand pockets; trace g		
Grout		1.8		_				moderate to high plas	ticity; soft	
October   Coron				6						
				6						
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<b>****</b>   —	dry		*	/						
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<b>****</b>     -				-		***				
<b>    </b>	al-s-i	0.5	8	10						
<b>****</b>   _	dry	0.5	10	_				Lean CLAY with San	مار سمطاریه	m brown with arongo
<b>XXX</b>			16	11		- C				
<b>****</b>   _						_				fine grained sand in tan
‱ I <i>_</i> _I				12		_		sand pockets; modera	ite piastici	ty; son
<b>                                     </b>				_						
	1			13			$\overline{}$	- arrer		et <sub>k</sub>
						$\bot$				
<b>***</b>   <sup></sup>				14						
<b>***</b>   ¬¬				14						
<b>****</b>   ¬	,		14	15						
<b>****</b>   —	dry	0.6	24	15		C	CL	Sandy Lean CLAY: n	nedium br	own; 70-80% fines; 20-30%
₩	٠		36	-				fine grained poorly are	aded sand	in tan sand pockets; slight
<b>                                      </b>			"	16		ana a		product odor; moderat		
₩   -				-				In the second second		
<b>⋙</b>   ──				17						
<b>                                      </b>				_	-	-				
<b>****</b>				18		؍ ا				
<b>****</b>   _				-		+				The state of the s
推 🕅 📗				19		$\dashv$				
Bentonite				_						
8 3			15	20 —			.			
	dry	0.2	21			C				as above; medium brown
			25	21				with dark brown mottli	ng; stiff	
				41				- ADDRI ANDSHOTT		James III
				22 —						
				~~						

	Project N		SJ89-99			Clien		Shell Oil Products U		Boring No: MW-3
	Logged E	Зу:		Buckingh	am	Local		8999 San Ramon R		Page 2 of 2
Delta	Driller:		Gregg				Drilled:		Location Map	
Della	Drilling M		HSA	a			Diameter		Dioces a	oo sito man
	1	g Method:		. Split Sho	96		Depth:	25 ft	riease s	ee site map
Environmental	Casing T		PVC				Diameter			
Consultants, Inc.	Slot Size		0.01				Depth:	26 ft		
	Gravel P		#2/12	T			ng Sticku		-	
		Elevation			Nort	ning		Easting		
Well Completion		D)	<u> </u>	Ð	Sa	mple	41			
Static	ture	n)	ratio s/6"	( <u>a</u>			lype	1.17	HOLOGY	/ DESCRIPTION
Backfill Casing	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Recovery	interval	Soil Type	LII	HOLOGI	I DECOMIL HOM
Can	20	714	9 T	ŭ	Rec	İ				
				_			CL	Lean CLAY with Sar	nd: continu	ıed
				23		_				
Sand			2	-	+					
				24	+-					
			9	-					···	
	dry	0.7	16	25 —			CL	Sandy Lean CLAY: g	grey; 60-70	0% fines; 30-40% sand;
	,	verne E	27	26				low to moderate plast	icity; stiff	
		*		26 —				Boring terminated at 2	26 feet bel	low ground surface
				27						
								1		4.4 4444-4
				28 —	+-	-				
. –				_	-	-				AND 411
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				41 —						
				-	-			AND THE PARTY		
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				44						
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STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

								Ollera		Shell Oil Products	LIS	Well No: MW-6
			,	lo:SJ89-99- By: Andy Pe				Client Locat		8999 San Ramon, Dublin,CA	55	Page 1 of 2
			Driller: G		31310					2/21/2006	Location Map	
	el <sup>.</sup>	12		lethod: WK	to 71/HS	A				er: 12" - 10"		
		La		Method: F				Hole	Depth:	7'/30'	Please se	ee site map
Fnvi	ronme	ental		ype: SCh 4					Diamete			
	ultant		Slot Size					Well I	Depth:	30'		
00110		.,	Gravel P	ack: 2/12/ s	sand			-	g Stick			
				Elevation			North	ing		Easting		
We	311				Ι		1					
Comp	10404	Static	은 Έ	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)		nple	/pe			
	9	Water	Moisture Content	Rea	etra ows/	5	very	val	Soil Type	Lin	THOLOGY	/ DESCRIPTION
Backfill		Level	ĕ ö	9	Pen (bid	De l	Recovery	Interval	S			
ш С	1				A		1 12		AF	~6" asphalt and baseroo	k	
	-				ΙT		1		/ 11			
						1			CL	sandy lean CLAY: dark	grey, 40-5	0% fine to med. grained
	-		damp	32.5		2-		•		sands, med.plasticity		
					77							
					air knifed & hand augered	3						
	_				air knifed & and augere	-	1000-1000	_		dorle brown 35	15% fine	to med. grained sands
			damp	18.5	주 6	4		•		dark brown, 30	7-40 70 11116	to med. grained bands
	_				a ig	-	-	_				
1						5	+					
Grout	-		damp	50.6		-				orangish brow	n, 40-50%	fine to med. grained sands
О			damp	00.0		6	,600 Date	_				
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		ĺ				8			***			
	_					-		_	ω,`	lean CLAV wleand: do	k brown 1	0-20% fine grained sands,
					1	9		$\vdash$	CL	trace gravels up to 1" di	a trace ca	liche, med. Plasticity
			damn	86.1		-	-			trace gravers up to 1 ur	u., naob ou	
			damp	00.1		10		-				
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						11-						
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						13-			100			
	_					-	520°		,,	lean CLAY: dark brown	5-15% fir	e grained sands, med.
						14-		H	CL	plasticity	, 5-1070 111	le granica danas, moa.
	_		dame	11.8		-		+		pidolicity		
			damp	11.0		15	577 P. J.					
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						18-			,	-I-very GAMD, supportable	brown to	grey (discoloration), 40-50%
O.						-	Sec. Sec.	A	sc	fines, med. to fine grain	ol cande	low plasticity
Bentonite						19 —		H	-	illes, med. to line grain	ou sailus,	iow pidotiony
Sent			dame	6.2	1	20 -	1					
ш 🧸			damp	0.2		20	BP.A.			L		

Well No: MW-6 Shell Oil Products US Project No:SJ89-99-1 Client: Page 2 of 2 Location: 8999 San Ramon, Dublin, CA Logged By: Andy Persio Location Map Date Drilled: 2/21/2006 Driller: Gregg Hole Diameter: 12" - 10" Drilling Method: WK to 71/HSA Please see site map Hole Depth: 71/301 Sampling Method: HA/SS Well Diamete 4" Casing Type: SCh 40 PVC Environmental Well Depth: 30' Slot Size: 0.01 Consultants, Inc. Gravel Pack: 2/12/ sand Casing Stickup: 0 Easting Elevation Northing Well PID Reading (ppm) Penetration (blows/6") Sample Depth (feet) Soil Type Completion Moisture Content Static LITHOLOGY / DESCRIPTION Interval Recovery Water Level clayey SAND (cont.) 21 22 lean CLAY w/sand: brown w/orange mottling, med. stiff, Sand CL 23 15-25% fine grained sands, trace gravels up to 1/4" dia. 24.6' 24 damp 11.3 25 26 27 28 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 Bottom of boring terminated at 30' bg 31. 32 33 35. 36 37 38 39 40

STATE OF CALIFORNIA DWR WELL COMPLETION REPORT (WELL LOGS)

				0.100.00	0.1		Ollan	4.	Shell Oil Products	IIS	Well No: MW-10		
		Project N		SJ89-99 Andy Pe			Clien		8999 San Ramon	00	Page 1 of 2		
	11.4	Logged f Driller:	Jy.	Gregg	11010			Drilled:	7/25-26/06	Location Map			
	elta	Drilling N	lethod:	HSA / A	K (7')			Diamete	er: 12"/10"				
	<b>5110</b>	Sampling	g Method:	SS				Depth:	29'	Please se	ee site map		
Fnvire	onmental	Casing 7		Sch 40 I	PVC			Diamete	r: 4"				
	Itants, Inc			0.01			Well	Depth:	29'				
oonoa.	italito, iii	Gravel P	ack:	#2/12 sa	and		Casi	ng Stickı		_			
			Elevation			Nort	ning		Easting				
Well				Т							And the same of th		
Complet		c e t	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)		mple	Soil Type					
E B	Wate	1 6 6	Rea	etra	#	Very	Zal	II T	LIT	THOLOGY	/ DESCRIPTION		
Backfill Casing	Leve	1   § 0	ال (ا	Pen (blc	Geb	Recovery	Interval	SS					
						nc.	_	AF	~9" asphalt and ~3" k	paserock			
	-			1 T	-	_	<del>                                     </del>	711					
					1			SC	clayey SAND: light g	rey, mediu	m dense, 10-20% fines,		
	_								fine to medium graine	ed sands, r	no plasticity		
				73	2								
				air knifed & hand augered	3-								
				ifec		_							
				돌 a	4	-	ļ	3					
	-		noist 3.6	aj Baj	-		<b>A</b>	``	candy loan CLAV: d	AY: dark brown, stiff, 30-40% fine graine			
		moist	3.6	3.6	5	5 <b>Q</b> CL		CL	sands trace gravels	and cobble	es up to 3" b-axis diameter,		
Grout	_				-	+			low plasticity				
Ö					6								
	-				, -								
				1	/-								
					8-								
					" _	10.0		```					
				4	9			,,,	Is an CLAY wisond: o	lark brown	20-30% fine to medium		
	_	moist	29.5	8	-			CL	grained sands very	stiff trace of	gravels up to 2" b-axis		
				14	10				diameter, low plastic		gravoio ap to 2 is sino		
	-	•			-	-			diameter, low places				
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					" -			ļ	15.000/ 5				
				7	14	_			up to 1" b-axis	meaium g	rained sands, trace gravels		
	_	moist	5.1	8	-				up to 1" b-axis	dameter			
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Bentonite	-				17—			]					
m	-		1		18—			```.					
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Sand				5	19			CL	sandy lean CLAY: da	ark grwy w/	greenish discoloration, rained sands, low plasticity		
lő 📗		moist	3.5	1	_			-	nard, 30-40% fine to	medium gr	amed salids, low plasticity		
			]	16	20		<b>V</b>			-			

	Project N	lo:	SJ89-99	S-1		Clien	t:		Shell Oil Products	US	Well No: MW- 10
	Logged F	Зу:	Andy Pe	rsio		Locat	ion:		8999 San Ramon		Page 2 of 2
D-14-	Driller:		Gregg			Date	Drilled:		7/25-26/06	Location Map	
Delta	Drilling M	lethod:	HAS/ AK	(7')		Hole	Diamete	er:	12"/10"		
DOILG	Sampling	Method:	SS				Depth:		29'	Please se	ee site map
Environmental	Casing T		Sch 40 F	PVC			Diamete	er:	4"		
Consultants, Inc.	Slot Size	:	0.01				Depth:		29'		
	Gravel P		#2/12 sa	ınd			ng Sticku	up:	NA	4	
		Elevation			Nortl	ning			Easting		
Well			Ι		1			-			
Completion Static	9 ±	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)		nple	90				
Otatio	stu	gea bm)	etral ws/	h (f	ery	/al	Soil Type		Lľ	THOLOGY	/ DESCRIPTION
Casing Casing Water Level	Moisture Content	Ö Ö	en (b)	ept	Recovery	Interval	Soi				
8 0	a	Ω.	ш	Ш	~	_=			01 477 (24		
				-	_		CL	sand	y lean CLAY (co	me as abo	ve, no discoloration
				21	-				uair biowii, Si	allic as abo	vo, no dioodoration
				22—							
				-				-		*****	
22.85'	1			23			300				
4:00p	"		4 8	24—		1		lean	CLAY w/sand: o	ark brown,	very stiff, 15-25% fine
o	moist	1.3	8	24-		$\sqcup$	CL	grain	ed sands, low p	lasticity	
			12	25		*					
				26—							
			7	27—		1			same as abov	'e	
	moist	1.2	10	-							
			14	28—		*		-			
				29							
				-	-				29'bg = bottor	n of boring/	well
_				30							
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