9/	ARCA	DIS Designation of the built	n & Consultancy atural and assets		Well Const	ruction Log		Sheet: 1 of 18
Date S		03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: M	N-75-267d, MW-75-337
	-	10/16/2019	l		_Shallow Well Elevation:	` <u> </u>		<u> </u>
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&I	
_		Sonic Drilling	ıg		_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1
Driller N		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&</u> I	E Topock, Needles, California
Drilling		T. Alymer/			_Borehole Diameter:	6-12 inches		
Logger	:	C. Bonessi		rane	_Static Water Level:	See Log for Depths	Project Numbe	r: <u>RC000753.0051</u>
Editor: Total D	epth:	Sean McGr 357 ft bgs	ane		_Development End Date _Well Completion:		 To Be Completed	in Well Vault
			(0 =	(0.12	_ tvoii completion.		To Bo Completed	Material Volumes Installed
Depth (ft)	Groundwat Sample ID		USCS	USCS Class	Well C	Construction	Calculated Material Volumes	Note: percentages are the actual volume vs the calculated volume
0 _ 1 _ 					(+0.5 - 2.0') Surface Completion (0.5 - 317.0')	(1.5 - 247,0')	30	(+0.5 - 2.0') 17 bags Note: 30" diameter concrete pad with 18" diameter lockable vault, Quickcrete concrete mixed with buff colored concrete dye.
2 3 4					2" PVC Sch 80 Casing	Decommissioned Well Casing		Note: Decommissioned well casing capped with a PVC slip cap glued to the top of casing. Cap and casing covered with concrete inside the well vault during the installation of the surface completion.
5 6 7 8 9		Topock - I	Fill SM		(1.7 - 14.0') Portland Cement 5% Bentonite Type I, II and V with Hydrogel	(0.0 - 10.0°) 12" Borehole	(1.7 - 14.0') 68.5 gallons	(1.7 - 14.0') 135 gallons (197%) Note: Grout seal. Used >20% of the calculated volume due to potential voids that formed during drilling.
10 11 12			<			(1.6 - 16.5') Portland Cement 5% Bentonite Type I, II and V with Hydrogel	(1.6 - 16.5') 2.69 gallons	(1.6 - 16.5') 2.5 gallons (93%) Note: Grout decommissioning seal installed on 9/9/19.
 13 14		Topock Alluvium Deposits	GM					
15		Topock Fluvial Deposits	GM		(14.0 - 20.0') Bentonite seal chips	(10.0 - 341.0') 10" Borehole	(14.0 - 20.0') 4.18 bags	(14.0 - 20.0') 17 bags (407%) Note: Installed to fill void and minimize grout migration. Used >20% of the calculated volume to fill void.
17		Topock Fluvial Deposits	GM S		Enviroplug medium chips	(16.5 - 135.0') 100% Portland Cement Type I, II and V	(16.5 - 135.0') 19.33 Gallons	(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft. bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.

Abbreviations: USCS = Unified Soil Classification System, ft = feet, bgs = below ground surface, amsl = above mean sea level, GW = groundwater, ppb = parts per billion, U = not detected above the laboratory reporting limit, J - estimated value, NR = no recovery; Notes: solid blue water table marks represent depth to water (ft. bgs.) measured post development, MW-75-267d was decommissioned due to high solids grout migrating in to marks represent depth to water (ft. bgs.) measured post development, MW-75-267d was decommissioned due to high solids grout migrating in to

ਵ੍ਹੋ the well screen; installed in MW-75d

9/	ARCA	DIS Design & for natura built asset	Consultancy I and ts		Well Const	ruction Log	S	Sheet: 2 of 18	
Date S	started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337	
Date C	completed:	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl			
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E		
_		Sonic Drilling			_Northing (NAD83):	2103701.45	-	Project: Final GW Remedy Phase 1	
Driller I		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California	
Drilling	Asst:	T. Alymer/ J.			_Borehole Diameter:	6-12 inches			
Logger		C. Bonessi / S		rane	_Static Water Level:	See Log for Depths	Project Number	: RC000753.0051	
Editor:		Sean McGrar	ie		_Development End Date:				
Total D	Depth:	357 ft bgs	1		_Well Completion:		To Be Completed	in Well Vault	
Depth (ft)	Groundwat Sample ID		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
20 		Topock - Fluvial Deposits	GM		(0.5 - 317.0') — 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing			
 22 		Topock - Fluvial Deposits	SC						
23 24		Topock - Fluvial Deposits	СН						
25 26 26 27		Topock - Alluvium Deposits	SM						
28	MW-B-VAS- 27-32 (7.7 J ppb) 1/6/2019 12:50	Topock - Alluvium Deposits	SM			(16.5 - 135.0') 100% Portland Cement Type I, II and V	(16.5 - 135.0') 19.33 Gallons	(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft. bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.	
32		Topock -				(10.0 - 341.0') 10" Borehole			
 33		Alluvium Deposits	SC						
34									
35 36 37 38		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	
39									

9/	ARCA	DIS Design & for nature built asset	Consultancy al and ets		Well Const	ruction Log	S	Sheet: 3 of 18	
	Started:	03/05/2019			Surface Elevation: 473.30 ft amsl		Well ID: MW-75-267d, MW-75-337		
	•	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl			
Drilling		Cascade			_ Deep Well Elevation:	473.79 ft amsl	Client: PG&E		
_	Method: Name:	Sonic Drilling E. Ramos			_Northing (NAD83): _Easting (NAD83):	2103701.45 7615559.26	•	GW Remedy Phase 1 Topock, Needles, California	
Drilling		T. Alymer/ J.	Candel	aria	Easting (NAD63). Borehole Diameter:	6-12 inches	Location. <u>PG&E</u>	Topock, Needles, Calliomia	
Logge		C. Bonessi / S			_Static Water Level:	See Log for Depths	— Project Number	:: RC000753.0051	
Editor:				uno	Development End Date:	•		. 110000100.0001	
	Depth:	357 ft bgs			 _Well Completion:		To Be Completed	in Well Vault	
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
4041424344		Topock - Alluvium Deposits	SM		(0.5 - 317.0') ————————————————————————————————————	(1.5 - 247.0') Decommissioned Well Casing			
46 46 47 48 49 50	MW-B-VAS 47-52 (<0.17 U ppt 1/9/2019 10:15		SM		(47.5 - 48.5') Centralizer	(16.5 - 135.0') 100% Portland Cement Type I, II and V (10.0 - 341.0') 10" Borehole	(16.5 - 135.0') 19.33 Gallons	(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft. bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.	
5253		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	

9/	ARCA	DIS Design for nate built as	& Consultancy ural and ssets		Well Const	ruction Log	S	Sheet: 4 of 18
	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
	•	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		
Drilling		Cascade			_ Deep Well Elevation:	473.79 ft amsl	Client: PG&E	
_	Method:	Sonic Drilling]		_Northing (NAD83):	2103701.45	-	GW Remedy Phase 1
Driller Drilling		E. Ramos T. Alymer/ J.	Candal	orio	_Easting (NAD83): _Borehole Diameter:	7615559.26 6-12 inches	Location: PG&E	Topock, Needles, California
Logge		-			Boreriole Diameter. Static Water Level:	See Log for Depths	— Project Number	:: RC000753.0051
Editor:				idilo	Development End Date:		1 10,000 110111001	. 110000100.0001
Total D		357 ft bgs			Well Completion:		To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
60 61 62		Topock - Alluvium Deposits	SM		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') Decommissioned Well Casing	20	
63 64		Topock - Alluvium Deposits	ML					
65		Topock - Alluvium	GM					(40.5, 40.5, 01), 00.0, 11, (4.550/)
 66		Deposits		00		(16.5 - 135.0') 100% Portland	(16.5 - 135.0')	(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft.
6768697071	MW-B-VAS 67-72 (<0.17 U ppt 1/9/2019 14:55	Doposito	SM			Cement Type I, II and V (10.0 - 341.0') 10" Borehole	19.33 Gallons	bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.
72		Topock - Alluvium Deposits	GM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s
78 79		Topock - Alluvium Deposits	SM					

ARC	DIS Design & for natura built asse	Consultancy Il and ts		Well Const	ruction Log	S	Sheet: 5 of 18
Date Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
Date Completed				_Shallow Well Elevation:		_	·
Drilling Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	_ Client: <u>PG&E</u>	
Drilling Method:	Sonic Drilling			_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1
Driller Name:	E. Ramos			_Easting (NAD83):	7615559.26	_ Location: <u>PG&E</u>	Topock, Needles, California
Drilling Asst:	T. Alymer/ J. 0			_Borehole Diameter:	6-12 inches		
Logger:	C. Bonessi / S		rane	_Static Water Level:	See Log for Depths	_ Project Number	:: RC000753.0051
Editor: Total Depth:				_Development End Date: _Well Completion:	Stick-up	— Fo Po Completed	in Mall Vault
Total Deptil.	357 ft bgs	I		_ Well Completion.		TO BE Completed	iii vveii vauit
Groundwa Sample I		USCS	USCS	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
80818283838485868788899091	Topock - Alluvium Deposits Topock - Alluvium Deposits	SM		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing (16.5 - 135.0') 100% Portland Cement Type I, II and V		(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft. bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.
9293	Topock - Alluvium Deposits Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s

9/	ARCA	DIS Design 8 for natur built ass	Consultancy ral and ets		Well Const	ruction Log	S	Sheet: 6 of 18
	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
	-	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		·
Drilling		Cascade			_ Deep Well Elevation:	473.79 ft amsl	Client: PG&E	
_	Method: Name:	Sonic Drilling			_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1
Drilling		E. Ramos T. Alymer/ J.	Candal	orio	_Easting (NAD83): _Borehole Diameter:	7615559.26 6-12 inches	Location: PG&E	Topock, Needles, California
Logge		C. Bonessi / S			Static Water Level:	See Log for Depths	— Project Number	:: RC000753.0051
Editor:				<u>uno</u>	Development End Date:			. 110000100.0001
Total [357 ft bgs			Well Completion:		To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
100 101 		Topock - Alluvium Deposits	ML		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing	0	
103	MW-B-VAS 102-107 (<0.17 U ppt 1/10/2019 13:00	Topock -	SM			(16.5 - 135.0') 100% Portland Cement Type I, II and V		(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft. bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.
108 109 110 111 111					(107.5 - 108.5') Centralizer	(10.0 - 341.0') 10" Borehole		
112		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s
	·				, <u>N</u> Y	<u> </u>		

ARCADIS Design & Consultancy for natural and built assets					Well Consti	ruction Log	5	Sheet: 7 of 18	
Date S		03/05/2019			_Surface Elevation: 473.30 ft amsl		Well ID: MW-75-267d, MW-75-337		
	-	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		· · · · · · · · · · · · · · · · · · ·	
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E		
_		Sonic Drilling			_Northing (NAD83):	2103701.45	-	GW Remedy Phase 1	
Driller I		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California	
Drilling		T. Alymer/ J.			_Borehole Diameter:	6-12 inches			
Logger		C. Bonessi / S		ane	_Static Water Level:	See Log for Depths	Project Number	:: RC000753.0051	
Editor:		Sean McGrar	<u>1e</u>		_ Development End Date:			: \^/-11 \ /14	
Total D	epin:	357 ft bgs			_Well Completion:	区 Flush	To Be Completed	ın vveli vaulı	
Depth (ft)	Groundwat Sample II		USCS	USCS Class		onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
120 121 122 		Topock - Alluvium Deposits	SM		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing	20		
123 124 125 126		Topock - Alluvium Deposits	GM			(16.5 - 135.0') 100% Portland		(16.5 - 135.0') 30 Gallons (155%) Note: Decommissioning grout seal installed with tremie pipe to ~1 foot bgs on 9/4/19 and settled to 16.5 ft.	
127 128 		Topock - Alluvium Deposits	SM			Cement Type I, II and V		bgs by 9/9/19. Used >20% of the calculated volume due to grout settling.	
130 131 132 133		Topock - Alluvium Deposits	GM		(20.0 - 235.1')	(10.0 - 341.0') 10" Borehole		(00.0, 005.41) 050 and and (44.00)	
134 135					High Solids Bentonite Grout Aqua Guard		(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	
136 137 138 139		Topock - Alluvium Deposits	SM			(135.0 - 235.0') — 100% Portland Cement Type I, II and V	(135.0 - 235.0') 16.31 Gallons	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19. Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing.	
Λ h h	intions: 11	000 - U-:	l Cail Ci	<u> </u>	tion Custom # = ft !	- balaw graved surface	nol = ob =:/s :	pag lavel CM = =================================	
Abbrev	/ıatıons: U	SUS = Unified	i Soli Cl	assitica	tion System, ft = feet, bgs	 below ground surface, an 	nsı = above mean :	sea level, GW = groundwater,	

9/	ARCA	DIS Design & for natura built asset	Consultancy Il and ts		Well Const	ruction Log	Sheet: 8 of 18			
Date S	tarted:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	Well ID: MW-75-267d, MW-75-337		
	•	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl				
Drilling	Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	_ Client: PG&E			
Drilling	Method:	Sonic Drilling			_Northing (NAD83):	2103701.45	_ Project: Final 0	GW Remedy Phase 1		
Driller N	Name:	E. Ramos			_Easting (NAD83):	7615559.26	_ Location: <u>PG&E</u>	Topock, Needles, California		
Drilling	Asst:	T. Alymer/ J.	Candela	aria	_Borehole Diameter:	6-12 inches	_			
Logger				rane	_Static Water Level:	See Log for Depths	_ Project Number	:: RC000753.0051		
Editor:		Sean McGrane			_Development End Date:	9/7/2019	_			
Total D	epth:	357 ft bgs			_Well Completion:	⊠ Flush	Γο Be Completed	in Well Vault		
Depth (ft)	Groundwate Sample ID		Code	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume		
140		Topock - Alluvium Deposits	SM		(0.5 - 317.0') ————————————————————————————————————	(1.5 - 247.0') Decommissioned Well Casing (135.0 - 235.0') 100% Portland	(135.0 - 235.0')	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19.		
144 145 146 147	MW-B-VAS- 142-147 (<0.17 U ppb 1/15/2019 14:25		SM			Cement Type I, II and V	16.31 Gallons	Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing.		
148 149 150 151 152		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard	(10.0 - 341.0') 10" Borehole	(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s		
153 154		Topock - Alluvium Deposits	GM							
155 156 157		Topock - Alluvium Deposits	SM							
158		Topock - Alluvium Deposits	GM							

9/	ARCA	DIS Design & for natura built asset	Consultancy I and ts		Well Const	ruction Log	S	Sheet: 9 of 18	
Date S		03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337	
	-	10/16/2019			_Shallow Well Elevation:			·	
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E		
Drilling	Method:	Sonic Drilling			_Northing (NAD83):	2103701.45	-	GW Remedy Phase 1	
Driller I		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California	
Drilling		T. Alymer/ J. 0			_Borehole Diameter:	6-12 inches			
Logge		C. Bonessi / S		rane	_Static Water Level:	See Log for Depths	Project Numbe	r: RC000753.0051	
Editor:		Sean McGran	ie		_Development End Date:		 T- D- Ol-tl	: \A/-II \ / I4	
Total D	Deptn:	357 ft bgs			_Well Completion:	✓ Flush Stick-up	To Be Completed	in well vault	
Depth (ft)	Groundwat Sample ID		USCS	USCS Class		onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
160			GM		(0.5 - 317.0') ————————————————————————————————————	(1.5 - 247.0')			
160		Topock - Alluvium Deposits Topock - Alluvium Deposits	SM		2" PVC Sch 80 Casing (167.5 - 168.5') Centralizer (20.0 - 235.1') High Solids Bentonite Grout Aqua Guard	Decommissioned Well Casing (135.0 - 235.0') 100% Portland Cement Type I, II and V (10.0 - 341.0') 10" Borehole	(135.0 - 235.0') 16.31 Gallons (20.0 - 235.1') 806.6 gallons	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19. Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing. (20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	
171		Topock - Alluvium Deposits Topock - Alluvium Deposits	ML					(175.0- 253.0') Note: Casing perforated by making 1 to 2 foot cuts on both side of the casing every 5 feet.	

ARCADIS Design & Consultancy for natural and built assets					Well Consti	ruction Log	5	Sheet: 10 of 18	
Date S	started:	03/05/2019			_Surface Elevation:	Surface Elevation: 473.30 ft amsl		Well ID: MW-75-267d, MW-75-337	
		10/16/2019			_Shallow Well Elevation:	473.01 ft amsl			
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	_ Client: <u>PG&E</u>		
_		Sonic Drilling			_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1	
Driller I		E. Ramos			_Easting (NAD83):	7615559.26	_ Location: <u>PG&E</u>	Topock, Needles, California	
Drilling		T. Alymer/ J.			_Borehole Diameter:	6-12 inches			
Logger		C. Bonessi / S		ane	_Static Water Level:	See Log for Depths	_ Project Numbei	:: <u>RC000753.0051</u>	
Editor:		Sean McGrar	ne		_Development End Date:				
Total D	Depth:	357 ft bgs	1		_Well Completion:		o Be Completed	in Well Vault	
Depth (ft)	Groundwate Sample ID		USCS	USCS Class		onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
180 181 182		Topock - Alluvium Deposits	SM		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing			
183 184 185 186 187	MW-B-VAS- 182-187 (<0.17 U ppb 2/13/2019 10:30		SM			(135.0 - 235.0') 100% Portland Cement Type I, II and V	(135.0 - 235.0') 16.31 Gallons	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19. Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing.	
188 189 190 191 191 192		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard	(10.0 - 341.0') 10" Borehole	(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	
193 194 		Topock - Alluvium Deposits	SM						
196 		Topock - Alluvium Deposits	SM					(175.0- 253.0')	
198 199		Topock - Alluvium Deposits	SM					Note: Casing perforated by making 1 to 2 foot cuts on both side of the casing every 5 feet.	

9/	ARCA	DIS Design & for natura built asse	Consultancy all and ts		Well Const	ruction Log	Sheet: 11 of 18		
Date S		03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337	
	=	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		·	
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: <u>PG&E</u>		
_		Sonic Drilling			_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1	
Driller N		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California	
Drilling		T. Alymer/ J. 0			_Borehole Diameter:	6-12 inches		D0000750 0054	
Logger		C. Bonessi / S		ane	_Static Water Level:	See Log for Depths	Project Number	r: RC000753.0051	
Editor: Total D	itor: Sean McGrane tal Depth: 357 ft bgs				_Development End Date: _Well Completion:		— To Be Completed	in Well Vault	
Depth (ft)	Groundwate Sample ID		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
200 		Topock - Alluvium Deposits	SM		(0.5 - 317.0') 2" PVC Sch 80 Casing	(1.5 - 247.0') — Decommissioned Well Casing	20		
203 204 205 206			NR			(135,0 - 235.0') 100% Portland Cement Type I, II and V	(135.0 - 235.0') 16.31 Gallons	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19. Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing.	
	MW-B-VAS- 207-212 (<0.17 U ppb 2/14/2019 10:55		SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard	(10.0 - 341.0') 10" Borehole	(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s	
213 214 215 216 217		Topock - Alluvium	SM					(175.0- 253.0') Note: Casing perforated by making	
218 		Deposits						1 to 2 foot cuts on both side of the casing every 5 feet.	

9/	ARCA	DIS Design & for natura built asse	Consultancy al and its		Well Const	ruction Log	(Sheet: 12 of 18
Date S		03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
	•	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		·
Drilling		Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E	
_		Sonic Drilling			_Northing (NAD83):	2103701.45	•	GW Remedy Phase 1
Driller I		E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California
Drilling		T. Alymer/ J.			_Borehole Diameter:	6-12 inches		
Logge		C. Bonessi / S		rane	_Static Water Level:	See Log for Depths	Project Numbe	r: RC000753.0051
Editor: Total D		Sean McGrar 357 ft bgs	ne		_Development End Date: _Well Completion:		 To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample ID		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
000			SM		(0.5 - 317.0')	(1.5 - 247.0')		
		Topock - Alluvium Deposits	SM		2" PVC Sch 80 Casing	(1.5 - 247.0') Decommissioned Well Casing (135.0 - 235.0') 100% Portland Cement Type I, II and V	(135.0 - 235.0') 16.31 Gallons	(135.0 - 235.0') 45 Gallons (276%) Note: Decommissioning grout seal installed with tremie pipe on 8/29/19. Used >20% of calculated volume due to grout migrating into pea gravel and through perforated sections of the well casing.
229 230 231 232 233 234 235		Topock - Alluvium Deposits	SM		(20.0 - 235.1') High Solids Bentonite Grout Aqua Guard	(10.0 - 341.0') 10" Borehole	(20.0 - 235.1') 806.6 gallons	(20.0 - 235.1') 950 gallons (118%) Note: Annular seal across the screen intervals of the well in MW-77s (175.0- 253.0') Note: Casing perforated by making 1 to 2 foot cuts on both side of the casing every 5 feet.
236 237 238 239		Topock - Alluvium Deposits	ML		(235.0 - 245.0') Bentonite seal pellets Pel-Plug (TR30) 3/8" (237.5 - 238.5') Centralizer	(235.0 - 269.0') Well screen decommissioned with a combination of Cal-Silica 3/8"x1/4" pea gravel, 100% Portland Type I, II and V and High Solids Bentonite Grout Aqua Guard	(235.0 - 245.0') 8.02 buckets (235.0 - 269.0') 0.7 bags	(235.0-245.0') 10 buckets (125%) Note: Seal between filter pack and high solids bentonite grout. Used >20% due to potential voids that formed during drilling. (235.0 - 269.0') 0.5 bags (71%) Note: High solids bentonite grout observed in well casing at ~235 ft. bgs. removed to a depth of ~258 ft. by flushing with water before adding Pea Gravel, used <20% of the calculated volume due to high solids grout in the well casing.
Abbrev	<i>r</i> iations: Ū	SCS = Unified	Soil C	assifica	tion System, ft = feet, bgs		nsl = above mean	sea level, GW = groundwater,

9/	ARCA	DIS Design & for natura built asset	Consultancy al and ets		Well Const	ruction Log	;	Sheet: 13 of 18
Date S	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: M\	N-75-267d, MW-75-337
Date C	Completed:	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		
Drilling	g Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&I	<u> </u>
Drilling	g Method:	Sonic Drilling			_Northing (NAD83):	2103701.45	Project: Final	GW Remedy Phase 1
Driller	Name:	E. Ramos			_Easting (NAD83):	7615559.26	Location: PG&I	E Topock, Needles, California
Drilling	g Asst:	T. Alymer/ J.	Candel	aria	_Borehole Diameter:	6-12 inches		
Logge	er:	C. Bonessi / S	S. McGı	rane	_Static Water Level:	See Log for Depths	Project Numbe	r: <u>RC000753.0051</u>
Editor:	:	Sean McGrar	ne		_Development End Date	9/7/2019		
Total [Depth:	357 ft bgs			_Well Completion:		To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
_240		Topock - Alluvium Deposits	ML		(0.5 - 317.0') — 2" PVC Sch 80 Casing (235.0 - 245.0') Bentonite seal pellets Pel-Plug (TR30) 3/8"	(1.5 - 247.0') —Decommissioned Well Casing	(235.0 - 245.0') 8.02 buckets	(235.0-245.0') 10 buckets (125%) Note: Seal between filter pack and high solids bentonite grout. Used >20% due to potential voids that formed during drilling.
245	- MW-B-VAS 247-252 (<0.83 U ppt 2/17/2019 11:25		ML			(1.5 - 247.0') Decommissioned Well Screen (235.0 - 269.0') Well screen decommissioned with a combination of Cal-Silica 3/8"x1/4" pea gravel 100% Portland Type I, II and V and High Solids Bentonite Grout Aqua Guard	(235.0 - 269.0°) . 0.7 bags	(235.0 - 269.0') 0.5 bags (71%) Note: High solids bentonite grout observed in well casing at ~235 ft. bgs. removed to a depth of ~258 ft. by flushing with water before adding Pea Gravel, used <20% of the calculated volume due to high solids grout in the well casing.
		Topock - Alluvium Deposits	МН		(246.9 - 271.0') Cemex #3 MESH — (8x10) Lapis Lustre Sand	10" Borehole	(235.1 - 269.0') 0.7 bags	(246.9 - 271.0') 34 bags (133%) Note: Filter Pack. Used >20% due to potential voids that formed during drilling.

9/	ARCA	DIS Design 8 for natural built ass	Consultancy ral and ets		Well Const	ruction Log	;	Sheet: 14 of 18	
Date S	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	N-75-267d, MW-75-337	
	=	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		<u>_</u>	
Drilling	-	Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E		
_	Method:	Sonic Drilling			Northing (NAD83):	2103701.45	•	GW Remedy Phase 1	
	Name:	E. Ramos	<u> </u>		_Easting (NAD83):	7615559.26	Location: <u>PG&</u> E	Topock, Needles, California	
Drilling	-	T. Alymer/ J.			_Borehole Diameter:	6-12 inches	— — — — — — — — — — — — — — — — — — —	D0000750 0054	
Logge Editor:		C. Bonessi / Sean McGra		ane	_Static Water Level: _Development End Date:	See Log for Depths	Project Number: RC000753.0051		
	Depth:	357 ft bgs	le		Development End Date. Well Completion:		To Be Completed	in Well Vault	
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume	
260	- MW-B-VAS 264-269 (<0.33 U ppt 2/18/2019 14:00	Topock - Alluvium Deposits	МН		(246.9 - 271.0') Cemex #3 MESH (8x10) Lapis Lustre Sand (267.5 - 268.5') Centralizer	(235.0 - 269.0') Well Screen (235.0 - 269.0') Well screen decommissioned with a combination of Cal-Silica 3/8"x1/4" pea gravel, 100% Portland Type I, Il and V and High Solids Bentonite Grout Aqua Guard (267.0 - 269.3') Decommissioned Sump and PVC End	(235.0 - 269.0') 0.7 bags (235.1 - 269.0') 0.7 bags	(235.0 - 269.0') 0.5 bags (71%) Note: High solids bentonite grout observed in well casing at ~235 ft. bgs. removed to a depth of ~258 ft. by flushing with water before adding Pea Gravel, used <20% of the calculated volume due to high solids grout in the well casing. (246.9 - 271.0') 34 bags (133%) Note: Filter Pack. Used >20% due to potential voids that formed during drilling.	
		Topock - Alluvium Deposits	ML			(10.0 - 341.0')			
		Topock - Alluvium Deposits	ML		(271.0 - 314.9') Bentonite seal pellets Pel-Plug (TR30) 3/8"	10" Borehole	(271.0 - 314.9') 36.8 buckets	(271.0 - 314.9') 42 buckets (114%) Note: Intermediate seal	

9/	ARCA	DIS Design & for natura built asse	Consultancy al and ets		Well Const	ruction Log	8	Sheet: 15 of 18
Date C Drilling Drilling	ate Started: 03/05/2019 ate Completed: 10/16/2019 rilling Co.: Cascade rilling Method: Sonic Drilling riller Name: E. Ramos rilling Asst: T. Alymer/ J. Candelaria ogger: C. Bonessi / S. McGrane ditor: Sean McGrane otal Depth: 357 ft bgs				_Surface Elevation: _Shallow Well Elevation: _Deep Well Elevation: _Northing (NAD83): _Easting (NAD83):	473.30 ft amsl 473.01 ft amsl 473.79 ft amsl 2103701.45 7615559.26	Client: <u>PG&E</u> Project: <u>Final</u>	N-75-267d, MW-75-337 GW Remedy Phase 1 Topock, Needles, California
Logge Editor:					_ Borehole Diameter: _ Static Water Level: _ Development End Date: _ Well Completion:	6-12 inches See Log for Depths 9/7/2019 Stick-up		r: <u>RC000753.0051</u> in Well Vault
Depth (ft)	Groundwat Sample ID		USCS	USCS	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
_280 281 282		Topock - Alluvium Deposits	ML		(0.5 - 317.0') — 2" PVC Sch 80 Casing		89	
283		Topock - Alluvium Deposits	ML					
289	- MW-B-VAS- 287-292 (<0.17 U ppt 2/20/2019 12:15		ML		(271.0 - 314.9') Bentonite seal pellets Pel-Plug (TR30) 3/8"	(10.0 - 341.0') 10" Borehole	(271.0 - 314.9') 36.8 buckets	(271.0 - 314.9') 42 buckets (114%) Note: Intermediate seal
294 		Topock - Alluvium Deposits	GM					
296 297 		Topock - Alluvium Deposits	ML					
	1	Topock - Alluvium Deposits	SM					

9/	ARCA	DIS Design for na built	gn & Consultancy atural and assets		Well Const	ruction Log	S	Sheet: 16 of 18
Date S	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
Date C	Completed:	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		·
Drilling	Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E	
Drilling	Method:	Sonic Drillin	ıg		_Northing (NAD83):	2103701.45	Project: Final 0	GW Remedy Phase 1
Driller	Name:	E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California
Drilling	Asst:	T. Alymer/			_Borehole Diameter:	6-12 inches		
Logge		C. Bonessi		rane	_Static Water Level:	See Log for Depths	Project Number	: RC000753.0051
Editor:		Sean McGr	ane		_Development End Date:			
Total [Depth:	357 ft bgs			_Well Completion:		To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample II		USCS	USCS Class		onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
300 301 302		Topock Alluvium Deposits	n GM		(0.5 - 317.0') — 2" PVC Sch 80 Casing	* G	30	
303 304 305 306								
307		Topock Alluvium Deposits	n MH		(271.0 - 314.9') Bentonite seal pellets Pel-Plug (TR30) 3/8"	(10.0 - 341.0') 10" Borehole	(271.0 - 314.9') 36.8 buckets	(271.0 - 314.9') 42 buckets (114%) Note: Intermediate seal
310 311		•				TO BOTOLOGO		
312 313								
			+					
314								
<u> </u>								
315					<u>.</u> ∵			
<u> </u>								
316		Topock	_					
		Alluvium Deposits	n SM		(244.0. 044.6)			
_317		Deposits	'		(314.9 - 341.0') Cemex #3 MESH		(314.9 - 341.0')	(314.9 - 341.0') 31.5 bags (115%)
- -	MW-B-VAS-				(8x10) Lapis Lustre		27.3 bags	Note: Filter pack
318	317-322 (<0.17 U ppb				<u> </u>			
	2/21/2019				(317.0 - 337.0') 2" Sch 80 PVC			
319	11:00				(20-slot) Screen	1 223		
Abbres	viations: II	SCS - Unifi	ed Soil C	laccifica	tion System ft = feet has	- helow ground surface is	mel = above mean	sea level GW = groundwater

ARC4	DIS Design & C for natura built asset	Consultancy Land es		Well Consti	ruction Log	S	heet: 17 of 18
Date Started:	03/05/2019			Surface Elevation:	473.30 ft amsl	Well ID: MW	/-75-267d, MW-75-337
Date Completed:					473.01 ft amsl		·
Drilling Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E	
Drilling Method:	Sonic Drilling			Northing (NAD83):	2103701.45	Project: Final C	GW Remedy Phase 1
Driller Name:	E. Ramos			_Easting (NAD83):	7615559.26	Location: <u>PG&E</u>	Topock, Needles, California
Drilling Asst:	T. Alymer/ J. 0	<u>Candelari</u>	a	_Borehole Diameter:	6-12 inches		
Logger:	C. Bonessi / S		ne	_Static Water Level:	See Log for Depths	Project Number	: RC000753.0051
Editor:	Sean McGran	е		_Development End Date:			
Total Depth:	357 ft bgs			_Well Completion:	区 Flush	To Be Completed i	n Well Vault
Groundwar Sample II		USCS	Class	Well Co	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
_320		SM :		(317.0 - 337.0') — :			
		ML		2" Sch 80 PVC (20-slot) Screen (314.9 - 341.0') Cemex #3 MESH (8x10) Lapis Lustre Sand	(10.0 - 341.0') 10" Borehole	(314.9 - 341.0') 27.3 bags	(314.9 - 341.0') 31.5 bags (115%) Note: Filter pack
	Topock - Weathered Bedrock - conglomerate	SC SC		(337.5 - 338.5') Centralizer (337.0 - 339.3') Sump and PVC End Cap			

9/	4RC4	DIS Design & for natura built asset	Consultancy al and ts		Well Const	ruction Log	8	Sheet: 18 of 18
Date S	Started:	03/05/2019			_Surface Elevation:	473.30 ft amsl	Well ID: MV	V-75-267d, MW-75-337
Date 0	Completed:	10/16/2019			_Shallow Well Elevation:	473.01 ft amsl		
Drilling	g Co.:	Cascade			_Deep Well Elevation:	473.79 ft amsl	Client: PG&E	<u>-</u>
Drilling	g Method:	Sonic Drilling			_Northing (NAD83):	2103701.45	Project: Final 0	GW Remedy Phase 1
Driller	Name:	E. Ramos			_Easting (NAD83):	7615559.26	Location: PG&E	Topock, Needles, California
Drilling	g Asst:	T. Alymer/ J. 0	<u>Candel</u>	aria	_Borehole Diameter:	6-12 inches	<u> </u>	
Logge	er:	C. Bonessi / S	S. McG	rane	_Static Water Level:	See Log for Depths	Project Number	r: RC000753.0051
Editor	:	Sean McGran	ne		_Development End Date:	9/7/2019		
Total [Depth:	357 ft bgs			_Well Completion:	✓ Flush	To Be Completed	in Well Vault
Depth (ft)	Groundwat Sample II		USCS	USCS Class	Well C	onstruction	Calculated Material Volumes	Material Volumes Installed Note: percentages are the actual volume vs the calculated volume
340 341	MW-B-VAS 339-344	1 Opock -			(314.9 - 341.0') Cemex #3 MESH (8x10) Lapis Lustre Sand	(10.0 - 341.0') 10" Borehole	(314.9 - 341.0') 27.3 bags	(314.9 - 341.0') 31.5 bags (115%) Note: Filter pack
342 	(<0.33 Ü ppt 2/27/2019 12:28	Bedrock - conglomerate	SC			is		
345 346 347		Topock - Weathered Bedrock - conglomerate	SC					
348 349 350 351 352		Topock - Weathered Bedrock - conglomerate	SC		(341.0 - 357.0') Bentonite seal chips	(341.0 - 357.0') 6" Borehole	(341.0 - 357.0') 4.4 bags	(341.0 - 357.0') 4.5 bags (102%) Note: Decommissioned rathole
353	- MW-B-VAS 352-357 (<0.33 U ppt 2/28/2019 15:05		SC					
L	_	(=::3:5:5:4:5			End of Boring at 357.0 ft bgs.			
358	1							
359	1							
<u> </u>	L							

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Во	ring	Log	\$	Sheet: 1 of	18
Date S	tarted:	01/04	1/2019		Surface	Elevat	on: <u>473.30 ft amsl</u>	Boring No	o.: <u>MW-75d</u>	
	•	ted: <u>03/0</u>			Northing					
Drilling		Caso			Easting	•	•	_ Client: PG&		
Drilling			c Drilling		Total De	-	357 ft bgs	-	GW Remedy Ph	
Drill Ri			isonic track m		Borehol			Location: PG&	E Topock, Needl	es, California
Driller I		·	etrone / E. Rar		-		Water: 21.1 ft bgs			
Drilling			<u>ymer/ J. Cande</u>		Samplin	-		Project Numbe	r: <u>RC000753.00</u>	51
Logge			<u>'illford / C. Bor</u>		Samplin	-		-		
Editor:		<u>Sear</u>	McGrane		Convert	ed to V	Vell: ⊠ Yes □ No			
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Soil Description		Drilling Notes	Drilling Fluid
_ 1 1	39.6			Topock - Fil	II SM		(0.0 - 12.0') Topock - Fill; Poorly graded sand pale brown (10YR 8/3); very fine grained to fir subround; little silt; dry; trace organics		(0.0 - 7.0') Soft drilling	(0.0 - 162.0') No water used
9 10 11 12 13	120	Sieve Samples No Collected		Topock - Alluvium Deposits	GM	\$ 0 d	(12.0 - 13.5') Topock - Alluvium Deposits; Silf (GM); dark greenish gray (GLEY1 4/1); medic large pebbles, angular; some silt; little mediu grained sand, angular; dry; 1.5' Meta-Diorite l	m pebbles to very m to very coarse		
				Deposits			(13.5 - 17.0') Topock - Fluvial Deposits; Silty		_	
14 15 16 17				Topock - Fluvial Deposits	GM		(GM); dark ólive brown (2.5Y 3/3); granules to angular to round; some very fine to very coars angular to subround; some silt; trace angular gravel composed of mixed lithology	o very large pebbles, se grained sand, to subround; dry;		
 18 19 	108			Topock - Fluvial Deposits	GM		(17.0 - 21.5') Topock - Fluvial Deposits; Silty (GM); dark grayish brown / dark yellowish bro granules to very large pebbles, angular to sulfine to very coarse grained sand, angular to s little clay; dry	own (10YR 4/2); bround; some very		

9/	ARC	CAD	IS	Design & Consultancy for natural and built assets		Во	ring	Lo	g		Sh	eet: 2 of	18
Date S			1/04/2			Surface	Elevat	ion:	473.30 ft amsl	Borin	a No.:	: MW-75d	
		ted: <u>03</u>	3/05/2	2019		Northing			2103701.45			<u></u>	
Drilling			ascac			Easting	•	33):	7615559.26	Client:	PG&E		
Drilling				Drilling		Total De	•		357 ft bgs	Project:		W Remedy Ph	
Drill Ri	• • •			nic track mo		Borehol			6-12 inches	Location:	PG&E	Topock, Needle	es, California
Driller				one / E. Ram		•			21.1 ft bgs		. —	D0000750 000	- 4
Drilling			-	<u>ier/ J. Candel</u>		Samplin	-		4 inch x 10 ft Core Barrel	Project Number: RC000753.0051			01
Logge Editor:				ord / C. Bone IcGrane	essi	Samplin Convert	-		Continuous	-			
Editor.		3	ean iv	ICGIAIIE		Conven	Eu lo v	veii.	△ res ☐ No				
Depth (ft)	Recovery (in)	Siev Sampl		Groundwater Sample ID	Geologic Formation	Code	USCS		Soil Description			Drilling Notes	Drilling Fluid
21					Topock - Fluvial Deposits	GM				O	<u>,</u>	(21.0') Approximate	
22					Topock - Fluvial Deposits	sc		(SC); r graine	22.5') Topock - Fluvial Deposits; Claye eddish yellow (7.5YR 6/6); very fine grad, angular to subround; some granules s, subangular to subround; little silt; litt	in <mark>ed</mark> to very to very to very large	coarse	depth to water table	
23 24	108				Topock - Fluvial Deposits	СН		compo (22.5 - reddish subrou	sed of mixed lithology 24.0') Topock - Fluvial Deposits; Fat cl 1 yellow (5YR 6/8); high plasticity; little nd; trace very fine grained sand, suban ilt; moist	lay with grave	el (CH);		
25 26 27					Topock - Alluvium Deposits	SM		(24.0 - (SM); t angula	27.0") Topock - Alluvium Deposits; Silt prown (7.5YR 5/3); fine grained to very r to subround; some silt; little granules r to subround; little clay; moist	coarse grain	ed,		
27 28 29 30 31 32	60	Sieve Samples Collect	Not	MW-B-VAS- 27-32 (7.7 J ppb) 1/6/2019 12:50	Topock - Alluvium Deposits	SM		(SM); t	32.0') Topock - Alluvium Deposits; Silt brown (7.5YR 5/3); very fine grained to r to round; some granules to large pebl nd; some silt; little clay; moist	very coarse o	grained, to		
					Topock - Alluvium	sc		(SC); li	33.0') Topock - Alluvium Deposits; Cla ght brown (7.5YR 6/4); fine grained to	very coarse o	grained,		
33					Deposits			angula	r to round; some clay; little granules to r to subround; little silt; wet; gravel com				
	120				Topock - Alluvium Deposits	SM		(33.0 - (SM); b angula		y sand with g very coarse g bbles, angul	ravel grained,		
40								<u> </u>				<u> </u>	<u> </u>

9/	ARC) S	for natural and built assets		Во	ring	Log		Sh	eet: 3 of	18
	Date Started: 01/04/2019 Date Completed: 03/05/2019				_	Surface			Bori	na No.:	: MW-75d	
	•					Northing		•	_			
Drilling			Cascac			Easting	•	•	_ Client:	PG&E		
Drilling				Drilling onic track mo		Total De Borehol	-	357 ft bgs eter: 6-12 inches	_ Project:		W Remedy Ph Topock, Needl	
Drill Ri Driller				rone / E. Ram				Vater: 21.1 ft bgs	_ Locatioi	i. <u>PG&E</u>	тороск, мееці	es, Calliottia
Drilling				ner/ J. Cande		Samplin		_	- Project I	Number:	RC000753.00	 51
Logge			-	ford / C. Bone		Samplin	-		- , -			
Editor:		<u>S</u>	<u> 3ean N</u>	<u> McGrane</u>		Convert	ed to W	/ell: ⊠ Yes □ No				
Depth (ft)	Recovery (in)		eve ple ID	Groundwater Sample ID	Geologic Formation	Code	USCS	Soil Description			Drilling Notes	Drilling Fluid
41 42 43	120				Topock - Alluvium Deposits	SM		+.65	O			
43												
45 46 47	120							(44.5 - 52.0') Topock - Alluvium Deposits; Sil (SM); brown (7.5YR 5/3) little grayish brown in grained to very coarse grained, angular to rovery large pebbles, angular to subround; little silt; little clay; wet	(10YR 5/2); v und; little gra	ery fine nules to		
48 49 50 51	120	Siev Sample Collec	s Not	MW-B-VAS- 47-52 (<0.17 U ppb) 1/9/2019 10:15	Topock - Alluvium Deposits	SM		6/6/				
52 53 54 55 56 57 58 59	120				Topock - Alluvium Deposits	SM		(52.0 - 62.0') Topock - Alluvium Deposits; Sil (SM); brown (7.5YR 4/4); very fine grained to angular to round; some silt; little granules to angular to round; little clay; trace subangular wet	very fine gra very large pe	ined, bbles,		
60		1106	20 1	I:6I O-:I OI	 : :c : : :	- 04	<u> </u>	ot has - holow ground surface am			- 11 0\\	

9/-	ARC	ADI:	for natural and built assets		Во	ring	Lo	g		She	eet: 4 of	18
Date S	Date Started: 01/04/2019 Date Completed: 03/05/2019					Elevat	ion:	473.30 ft amsl	Bori	na No.:	MW-75d	
	•	ted: <u>03/0</u>	5/2019		Northing	• •	,	2103701.45			<u> </u>	
Drilling			cade		Easting	•	3):	7615559.26	Client:	PG&E		
Drilling			ic Drilling		Total De	•		357 ft bgs	Project:		W Remedy Ph	
Drill Ri			asonic track mo		Borehol			6-12 inches	Location	: <u>PG&E</u>	Topock, Needl	es, California
Driller I			etrone / E. Ran		•			21.1 ft bgs	D!4.1		D0000750 00	<u>-</u>
Drilling			lymer/ J. Cande Villford / C. Bon		Samplin Samplin	•		4 inch x 10 ft Core Barrel Continuous	Projecti	number:	RC000753.00	<u> </u>
Loggeı Editor:			n McGrane	<u>essi</u>	Convert	•		× Yes □ No	-			
Luitoi.	1	<u>06a</u>	I WCGIane		Conven		V CII.					I
Depth (ft)	Recovery (in)	Sieve Sample II	Groundwater Sample ID	Geologic Formation	USCS	USCS		Soil Description			Drilling Notes	Drilling Fluid
 61 62	120			Topock - Alluvium Deposits	SM			C	Ó			
6364				Topock - Alluvium Deposits	ML		(ML); b mediur	64.5') Topock - Alluvium Deposits; Sar orown (7.5YR 4/3); medium plasticity; som grained sand, angular to round; little is, angular to subround; little clay; mois	ome very fin granules to	e to		
65				Topock - Alluvium Deposits	GM		(GM); I to subr to roun	65.5') Topock - Alluvium Deposits; Silt brown (7.5YR 4/4); granules to very larg ound; some very fine to very coarse grand; some silt; little subangular to subrou 72.0') Topock - Alluvium Deposits; Silt	ge pebbles, ained sand, und; trace cl	angular angular ay; moist		
66676869707172	120	Sieve Samples No Collected	MW-B-VAS- 67-72 (<0.17 U ppb) 1/9/2019 14:55	Topock - Alluvium Deposits	SM		(SM); t some s subrou	77.0') Topock - Alluvium Deposits; Silt 77.0')	very coarse , angular to e clay; moist	grained; to wet		
73 74 75 76 77	120			Topock - Alluvium Deposits	GM		. (GM); I , angula angula	(7.5) Topock - Alluvium Deposits; Sill light brown (7.5) R 6/4); granules to ver r to round; some very fine to very coars r to round; some silt; trace clay; moist to round; m	y large pebl e grained sa to wet	oles, and,		
		. NOCS		Topock - Alluvium Deposits	SM		(SM); s grained to subr elonga	oo.u) Topock - Allowarin Deposits, Silistrong brown (7.5/R 5/6); very fine graid, angular to round; little small to mediuound; little silt; trace clay; wet; majority ted. Gravel composed of mixed litholog	ned to very our pebbles, of pebbles	coarse angular are		

9/	AR(CADIS	Design & Consultancy for natural and built assets		Во	ring	Log	She	et: 5 of	18
	Comple	eted: <u>03/05/2</u>	2019		Surface	g (NAD	83): <u>2103701.45</u>	Boring No.:	<u>MW-75d</u>	
Drilling		Casca			Easting	•	•	Client: PG&E		
Drilling			-	4	Total De	-	357 ft bgs		N Remedy Ph	
Drill Ri Driller			<u>onic track mo</u> rone / E. Ram		Borehol		eter: <u>6-12 inches</u> Vater: <u>21.1 ft bgs</u>	Location: PG&E 7	ороск, мееак	es, Calliornia
Drilling			ner/ J. Cande		Samplin		_	-	RC000753 00!	 51
Logge		-	ford / C. Bone		Samplin	•		_ 1 Tojeot Namber. <u>1</u>	10000700.000	<u> </u>
Editor:			McGrane		Converted to Well: X Yes No			-		
	>			υ <u>Ε</u>						
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
81 82 83 84	120			Topock - Alluvium Deposits	SM					
86 87 88	120						(88.0 - 91.0') Topock - Alluvium Deposits; Silt (GM); brown (7.5YR 4/3); granules to small co	obbles, angular to		
89 90 91		Sieve Samples Not Collected		Topock - Alluvium Deposits	GM		subround; some very fine to very coarse grain round; some silt; trace clay; moist; gravel conmeta-diorite (91.0 - 97.0') Topock - Alluvium Deposits; Silt	nposed mostly of		
92 93 94 95	60			Topock - Alluvium Deposits	SM		(SM); strong brown (7.5YR 4/6); very fine graingrained, angular to round; some granules to vangular to subround; some silt; trace angular clay; wet; gravel composed of mixed lithology	ned to very coarse very large pebbles, to subangular; trace		
96 97 98 99	120			Topock - Alluvium Deposits	ML		(97.0 - 102.0') Topock - Alluvium Deposits; Si (ML); strong brown (7.5YR 5/6) trace red (10F plasticity; some very fine to very coarse grains to round; little granules to medium pebbles, s subround; trace clay; moist; iron oxide staining	R 5/8); medium ed sand, subangular subangular to		
99										

Date Stated: Dick 2010 42019 Deling Co: Casende Casende Casende Casende Tale Depth: Total D	9/	4R (CAD)IS	Design & Consultancy for natural and built assets		Во	ring	Log	S	heet: 6 of	18
Northing (No.DB) Cascade Casc	Date S						Surface	Elevat	ion: <u>473.30 ft amsl</u>	Boring No	: MW-75d	
Dalling Math-tool: Dalling Auth-tool: Dalling Auth-tool: Tarrasonic track mount Dalling Auth-tool: Da	Date C	Comple	eted: <u>0</u>	<u>3/05/2</u>	2019		Northing	g (NAD	83): <u>2103701.45</u>			
Diff Ry Type: Torrasonic track mount Borehole Diameter: 6-12 inches Location: PG&E Topock, Needles, California. Diffino Asst. T. Abmed. J. Candelalia. Sampling Method: Sam McGrane Continuous Sampling Method: Sampling Individual Sampling Individu	_			asca	<u>de</u>		Easting	(NAD8	33): <u>7615559.26</u>		<u> </u>	
Onlier Name: N. Petrone /E. Ramos Depth to First Water: 21.1 ft.bgs. 21.1 ft.bgs. Project Number: RC000753.0051 Didgor: Compling Assets: T. J.Aymert J. Cededaina. Sampling Method: No. 1 ft. Sampling Method: No.	Drilling	g Metho	od: <u>S</u>	onic [<u>Drilling</u>				•		-	
Dalling Asset T. Ahmerf J. Candelsaita Sampling Interval Confine Confine Project Number RC000753.0051										_ Location: PG&E	Topock, Needl	<u>es, California</u>
Control Cont							-		_			
Editor: Sean McGrane Converted to Well: Yes No Soil Description Drilling Notes Drilling Fluid Topods: Allulum Deposits Silly sand (SM); strong large of the substance trace granted to substance trace granted to very course granted and the substance trace granted and trace granted strong provided and provided and trace granted and granted g	_ ~	•		•			-	-		_ Project Number	: RC000753.00	<u>51</u>
Sample ID Groundater ID						<u>essi</u>		•		_		
Topods: Alluviam Deposits Silly sand (SMx strong trond) for guinted for work of the guinted for work o	Editor:	:	<u>S</u>	ean I	<u>/IcGrane</u>		Convert	ed to v	Vell: X Yes No			T
Alixidum Deposits Mil.	Depth (ft)	Recovery (in)				Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
102						Alluvium	ML			0		
Topock- Topock	 103	120							strong brown (7.5YR 5/6); very fine grained to subangular to subround; some silt; little gran	very coarse grained, ules to medium		
108. 109. 110. 111. 112. 114. 115. 116. 117. 118. 119. 120. 120.	 105	-			(<0.17 U ppb) 1/10/2019	Alluvium	SM		01			
110. Sieve Samples Not Collected Topock - Alluvium Deposits Silty sand with gravel (SM) stong brown, 7 SVB Silvy fine grained to very large prained, angular to subround; some granules to very large pebbles, angular to subround; some silt, trace subangular; trace day, moist to wet Topock - Alluvium Deposits Topock - Alluvium Deposits SM Topock - Alluvium Deposits Topock - Alluvium Deposits SM Topock - Alluvium Deposits	 106				13:00				0-0			
108	 107								(107.0 - 122.0') Topock - Alluvium Deposits:	Silty sand with gravel		
	 108								(SM); strong brown (7.5YR 5/6); very fine gra grained, angular to subround; some granules pebbles, angular to subround; some silt; trac	ined to very coarse to very large		
Samples Not Collected	109						0					
	110		Samples	Not					73 °			
		120										
						Alluvium	SM					
	 _115											
	 116											
120 _119_ 120	 117											
	118											
	119	120										
	 120											

9/	4R (CADIS	Design & Consultancy for natural and built assets		Bo	ring	Log		She	eet: 7 of	18
Date S					Surface		·	Borin	na No.:	MW-75d	
	•	eted: <u>03/05/2</u>			Northin	- '	•				
Drilling		Cascac			Easting	•	•	Client:	PG&E		
Drilling			•		Total D	•	357 ft bgs	Project:		W Remedy Ph Topock, Needle	
Drill Ri Driller	• • •		onic track mo one / E. Ram		Boreho		eter: 6-12 inches Water: 21.1 ft bgs	Location	PGAE	гороск, мееак	es, Calliornia
Drilling			ner/ J. Candel		Samplin		_	Project N	lumber:	RC000753.00	 51
Logge		-	ford / C. Bone		Samplin	-					
Editor		Sean N	/IcGrane		Conver	_					
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	OSCS Code	USCS	Soil Description			Drilling Notes	Drilling Fluid
 121 122				Topock - Alluvium Deposits	SM		C	O			
123	- 120			Topock - Alluvium Deposits	GM		(122.0 - 126.0') Topock - Alluvium Deposits; S (GM); strong brown (7.5YR 5/6) trace very dar granules to very large pebbles, angular to sub fine to very coarse grained sand, angular to su little subangular to subround; trace clay; mois	k gray (7.5Y round; some ubround; son t	R 3/1); e very ne silt;		
127 128 129				Topock - Alluvium Deposits	SM		(126.0 - 129.0') Topock - Alluvium Deposits; S (SM); strong brown (7.5YR 5/6); very fine grain grained, angular to subround; some granules pebbles, angular to subround; some silt; trace clay; moist to wet	ned to very c to very large subangular	oarse ; trace		
130 131 132 133 134_	- 120	Sieve Samples Not Collected		Topock - Alluvium Deposits	GM		(129.0 - 134.0') Topock - Alluvium Deposits; S (GM); strong brown (7.5YR 5/6) some very da granules to very large pebbles, angular to sub fine to very coarse grained sand, angular to su trace angular; trace clay; moist; moderate cen	rk gray (10Y angular; son ubround; son	R 3/1); ne very		
134 135 136 137 138 139 140	120			Topock - Alluvium Deposits	SM		(134.0 - 144.0') Topock - Alluvium Deposits; S (SM); strong brown (7.5YR 5/6); very fine graingrained, angular to round; some silt; little gran pebbles, subangular to subround; trace suban moist	ned to very c nules to med	oarse ium		
170										·	

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Во	ring	Log	SI	neet: 8 of	18
Date S				_	Surface		•	Boring No.	.: <u>MW-75d</u>	
	•	ted: <u>03/05/</u>			Northing	- '	•			
Drilling		Casca			Easting	•	•	Client: PG&E		
Drilling			Drilling		Total De	•	357 ft bgs	Project: Final 0 Location: PG&E	GW Remedy Ph	
Drill Ri Driller			sonic track mo rone / E. Ram		Borehol		eter: <u>6-12 inches</u> Water: <u>21.1 ft bgs</u>	LUCALION. FGXE	Topock, Needi	es, Calliottia
Drilling			mer/ J. Cande		Samplin		_		RC000753 00	 51
Logge		-	lford / C. Bone		Samplin	-		_ 1 10,00011411111001.	1.00007.00.00	
Editor:			McGrane		Convert	-		-		
	>			.o 5						
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
 141 				Tanada				O		
142				Topock - Alluvium Deposits	SM					
143	120						39			
144	120		MW-B-VAS- 142-147 (<0.17 U				(144.0 - 147.0') Topock - Alluvium Deposits; brown (7.5YR 5/4); very fine grained to very c	Silty sand (SM);		
145			ppb) 1/15/2019 14:25	Topock -			angular to subround; some silt; little granules subangular to round; trace clay; moist to wet	to medium pebbles,		
 _146				Alluvium Deposits	SM		(Z-)			
			1							
147							(147.0 - 152.5') Topock - Alluvium Deposits;			
 148							(SM); light brown (7.5YR 6/4); very fine grained grained, angular to subround; some silt; little pebbles, subangular to round; trace clay; moi	granules to large		
149				Topock -						
150		Sieve Samples Not Collected		Alluvium Deposits	SM					
 151		Collected								
152	120									
153				Topock -	014	600	(152.5 - 154.0') Topock - Alluvium Deposits; (GM); light brown (7.5YR 6/4); granules to ver some very fine to very coarse grained sand, a	ry large pebbles;		
 154				Alluvium Deposits	GM		some silt; trace clay; moist	ingular to subround,		
							(154.0 - 157.0') Topock - Alluvium Deposits; s brown (7.5YR 5/4); very fine grained to very c	oarse grained,		
155				Topock -			angular to subround; some silt; little granules subangular to round; trace clay; wet	to medium pebbles,		
 156				Alluvium Deposits	SM					
157							(157.0 - 160.0') Topock - Alluvium Deposits;	Silty gravel with sand		
 158							(GM); dark brown (10YR 3/3) little reddish brogranules to small cobbles, subangular to sub	own (2.5YR 4/4); round; some very fine		
	120			Topock - Alluvium	GM	PP	to very coarse grained sand, angular to subro clay; moist	ound; little silt; little		
159	120			Deposits	GIVI					
<u> </u>						P.R.P				
160	<u> </u>				<u> </u>	<u> </u>				

9/	4R (CADIS	Design & Consultancy for natural and built assets		Во	ring	Log		She	eet: 9 of	18
Date S	Started	: 01/04/2	2019		Surface			Borin	ıq No.:	MW-75d	
		eted: <u>03/05/2</u>			Northing						
Drilling		<u>Cascac</u>			Easting	•		Client:	PG&E	W D l - Dl-	1
Drilling Drill Ri			onic track mo	unt	Total De Borehol	•	357 ft bgs eter: 6-12 inches	Project:		<u>W Remedy Ph</u> Topock, Needl	
Driller			one / E. Ram				Vater: 21.1 ft bgs	LUCATION	FGAL	тороск, тчееці	es, Calliottia
Drilling			<u>ner/ J. Candel</u>		Samplin		_	Proiect N	lumber:	RC000753.00	 51
Logge		-	ford / C. Bone		Samplir	-					
Editor	:	Sean N	<i>I</i> lcGrane		Convert	ted to V	√ell: ⊠ Yes □ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description			Drilling Notes	Drilling Fluid
161	120			Topock - Alluvium Deposits	SM		(160.0 - 167.0") Topock - Alluvium Deposits; S brown (7.5YR 5/4); very fine grained to very ct angular to subround; some silt; little granules subangular to round; trace clay; wet	parse grained to medium p	d, ebbles,		(162.0 - 292.0') 700 gallons of water used; 250 gallons of water recovered; 450 gallons of water lost
-				Topock - Alluvium	GP	600	(167.0 - 168.0') Topock - Alluvium Deposits; F (GP); greenish gray (GLEY2 6/1); small cobbl	es to large c	obbles,		
168				Deposits		00	angular; trace very fine to medium grained sal subangular; trace silt; dry; pulverized metadio	nd, angular t rite boulder	°		
169 170 171 171 172 173	120	Sieve Samples Not Collected		Topock - Alluvium Deposits	ML		(168.0 - 173.0') Topock - Alluvium Deposits; S (ML); reddish brown / moderate brown (5YR 4 plasticity; some very fine to coarse grained sa small pebbles, subangular to subround; little of	Sandy silt wit I/4); medium Ind; little grar clay; moist to	nules to wet		
	-						(173.0 - 183.0') Topock - Alluvium Deposits; S (SM); reddish brown / moderate brown (5YR 4	4/4); very fine	grained		
174							to very coarse grained, angular to subround; s large pebbles, angular to subround; some silt;	; trace clay; v	vet		
175	-										
176											
				Topock - Alluvium	SM						
_177				Deposits							
178											
	120										
179	-										
180	-										
100				161 41							·

9/	ARC	AD	IS	Design & Consultancy for natural and built assets		Во	ring	Log		Sheet: 10 of	18
Date S	Started	: <u>01</u>	/04/2	2019		Surface	Elevat	ion: <u>473.30 ft amsl</u>	- Boring N	No.: MW-75d	
Date C	Comple	ted: <u>03</u>	3/05/2	2019		Northing) (NAC	83): <u>2103701.45</u>	_ Dorning i	10 <u>IVIV-70a</u>	
Drilling	Co.:	<u>C</u> ;	ascac	de		Easting	(NAD	3): <u>7615559.26</u>	Client: PG	8E	
Drilling	Metho	od: <u>So</u>	onic [Drilling		Total De	epth:	357 ft bgs	Project: Fin	al GW Remedy Ph	ase 1
Drill Ri	д Туре	e: <u>Te</u>	erraso	onic track mo	unt	Borehol	e Diam	eter: <u>6-12 inches</u>	Location: PG	&E Topock, Needle	es, California
Driller I	Name:	<u>N</u> .	Petr	one / E. Ram	os	Depth to	First '	Nater: 21.1 ft bgs	_		
Drilling	Asst:	<u>T.</u>	Alym	ner/ J. Candel	laria	Samplin	g Meth	nod: 4 inch x 10 ft Core Barrel	Project Numb	per: RC000753.00	51
Logge	r:	<u>G</u>	. Willf	ford / C. Bone	essi	Samplin	g Inter	val: <u>Continuous</u>	_		
Editor:		<u>S</u>	ean N	<u>//IcGrane</u>		Convert	ed to V	Vell: ⊠ Yes □ No			
Depth (ft)	Recovery (in)	Siev Sampl		Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
 181 182					Topock - Alluvium Deposits	SM		_ (
 183	120							(183.0 - 187.0') Topock - Alluvium Deposits; \$ (SM); gravish brown (10YR 5/2) trace red (2.5)	Silty sand with grav	vel	
184	120			MW-B-VAS- 182-187 (<0.17 U				grained to very coarse grained, angular to sub granules to large pebbles, angular to subroun clay; moist to wet	bround; some		
185				ppb) 2/13/2019 10:30	Topock - Alluvium	SM					
400				. 0.00	Deposits						
186											
 187											
 188								(187.0 - 192.0') Topock - Alluvium Deposits; S (SM); yellowish red / light brown (5YR 5/6); wery coarse grained, angular to subround; sor large pebbles, subangular to subround; little s subangular; trace clay; wet	ery fine grained to me granules to ver	y	
_189		Sieve			Topock - Alluvium Deposits	SM		6			
190 191		Samples Collecte			Doposito						
 192	114										
 _193								(192.0 - 195.0') Topock - Alluvium Deposits; \$ (SM); brown (7.5YR 5/3); very fine grained to angular to subround; some granules to very la subangular to subround; little silt; trace angular to subround; lit	very coarse graine arge pebbles,		
104					Topock - Alluvium Deposits	SM		trace clay; wet			
194 _					·						
195					<u> </u>	+		(195.0 - 197.0') Topock - Alluvium Deposits; \$			
 196					Topock - Alluvium	SM		reddish brown (5YR 6/3); very fine grained to angular to subround; some silt; little granules subangular to round; trace clay; moist	very coarse graine to medium pebble	ed, es,	
 197					Deposits			, , , , , ,			
								(197.0 - 202.0') Topock - Alluvium Deposits; \$ (SM); light reddish brown / light brown (5YR 6 very coarse grained, angular to subround; little	6/4); fine grained to e granules to large		
	60				Topock - Alluvium	SM		pebbles, subangular to subround; little silt; tra clay; moist	ace subangular; tra	ace	
199					Deposits						
200	i ati a sa		C - I	Initial Cail Cl	: : :t:	- Custon	<u> </u>	oot has - below ground ourfood amo			

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring L	Log		She	eet: 11 of	18
Date S Date C	Started Comple	: <u>01/04/</u> eted: <u>03/05/</u>	2019 2019		Northing	Elevation g (NAD83	3): <u>2103701.45</u>	_	_	<u>MW-75d</u>	
Drilling		<u>Casca</u>			_	(NAD83)		_ Client:	PG&E		
Drilling			•		Total De	-	357 ft bgs	Project:		W Remedy Pha	
Drill Ri			onic track mo			le Diamet		_ Location:	PG&E	<u> Fopock, Needle</u>	<u>es, California</u>
Driller			<u>rone / E. Ram</u> ner/ J. Candel		-	o First vva ng Method	ater: 21.1 ft bgs d: 4 inch x 10 ft Core Barrel	- Draigat N	Lumbor: I	RC000753.005	
Drilling Logge		-	lford / C. Bone		-	ig ivietriod ig Interval		_ Projectiv	iumber. <u>i</u>	XC000755.000)
Editor:			McGrane	2331		ted to We		_			
			T	ں =							
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	Class	Soil Description			Drilling Notes	Drilling Fluid
 201 	60			Topock - Alluvium Deposits	SM			O			
202 						(2	202.0 - 207.0') (NR)			(202.0 - 207.0') No core recovery. Driller noted core barrel was full	
204					NR					during core extraction.	l
205							200				l
_206	60										l
						re	207.0 - 215.0') Topock - Alluvi <mark>um De</mark> posits; seddish brown (5YR 6/3); very fine grained to ngular to subround; some silt; little granules ubangular to round; trace clay; wet	very coarse of	grained,		l
_ 209_			MW-B-VAS- 207-212 (<0.17 U		0						l
210		Sieve Samples Not Collected	ppb) 2/14/2019 10:55	Topock -			73 ,				l
_211				Alluvium Deposits	SM						l
213											l
214											l
215	60					(S	215.0 - 220.0') Topock - Alluvium Deposits; SM); yellowish red / light brown (5YR 5/6); w	erv fine graine	ed to		l
216						to	ery coarse grained, angular to subround; son o medium pebbles, angular to subangular; tr ubangular; trace clay; moist; gravel composi	me silt; little g ace angular t	granules o		ſ
_217				Topock -							ı
218	,,,			Alluvium Deposits	SM						ſ
219	114										ſ
220	<u> </u>										

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring	Log	S	heet: 12 of	18
Date S	Started	01/04	/2019		Surface	Elevat	ion: <u>473.30 ft amsl</u>	Boring No	.: <u>MW-75d</u>	
Date 0	Comple	eted: <u>03/05</u>	/2019		Northing	g (NAD	83): <u>2103701.45</u>	-		
Drilling	g Co.:	Casca	<u>ade</u>		Easting	(NAD8	33): <u>7615559.26</u>	Client: PG&E		
Drilling	y Metho	od: <u>Sonic</u>	: Drilling		Total De	-	357 ft bgs	•	<u>GW Remedy Ph</u>	
Drill Ri			<u>sonic track mo</u>		Borehol			Location: PG&E	Topock, Needle	<u>es, California</u>
Driller			trone / E. Ram		•		Water: 21.1 ft bgs			
Drilling	•	-	mer/ J. Cande		Samplin	-		Project Number	: RC000753.00	51
Logge			illford / C. Bone	<u>essi</u>	Samplin	-		-		
Editor		<u>Sean</u>	McGrane		Convert	ed to V	Vell: ⊠ Yes □ No		1	
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
	114			Topock - Alluvium Deposits	SM		(220.0 - 227.0') Topock - Alluvium Deposits; S (SM); yellowish red (5YR 4/6); fine grained to angular to subround; some granules to large subround; some angular to subangular; some moist to wet	very coarse grained, pebbles, angular to		
		Sieve Samples Not Collected		10	NR		(227.0 - 229.0') (NR) (229.0 - 237.0') Topock - Alluvium Deposits; (SM); yellowish red (5YR 4/6); fine grained to angular to subround; some silt; little granules angular to subangular; trace angular to subar	very coarse grained, to large pebbles.	(227.0 - 229.0') No core recovery. Driller noted core barrel was full during core extraction.	
232 233	96			Topock - Alluvium Deposits	SM					
234										
235	_									
<u> </u>										
236	_									
<u> </u>										
_237							(237.0 - 242.0') Topock - Alluvium Deposits;	Sandy silt with gravel	(237.0 - 242.0')	
238 239	60			Topock - Alluvium Deposits	ML		(ML); reddish brown (2.5/R 4/4); low plasticit medium grained sand, angular to subround; l medium pebbles, angular to subround; little c moderate cementation	ty; some very fine to ittle granules to	Rough drilling	
240		11000		 : :: :+:-	- 0	<u> []] </u>	pot has = helpy around surface amo			<u> </u>

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Во	ring	Log	Sh	eet: 13 of	18
Date S	Started	01/0	04/2019		Surface	Elevat	ion: <u>473.30 ft amsl</u>	Boring No.	· MW-75d	
Date C	Comple	eted: <u>03/0</u>	5/2019		Northin	g (NAD	83): <u>2103701.45</u>		. <u>10177 7 0 a</u>	
Drilling	Co.:	<u>Cas</u>	cade		Easting	(NAD8	33): <u>7615559.26</u>	Client: PG&E		
Drilling	Metho	od: <u>Son</u>	ic Drilling		Total D	epth:	357 ft bgs	Project: Final G	W Remedy Ph	ase 1
Drill Ri	g Туре	: <u>Terr</u>	asonic track mo	ount	Boreho	le Diam	eter: <u>6-12 inches</u>	Location: PG&E	Topock, Needle	<u>es, California</u>
Driller			<u> etrone / E. Ran</u>		•		Water: 21.1 ft bgs	<u> </u>		
Drilling			<u>lymer/ J. Cande</u>		Samplir	-		Project Number:	RC000753.005	51
Logge			<u>Villford / C. Bon</u>	<u>essi</u>	Samplin	-		-		
Editor:		<u>Sea</u>	n McGrane		Conver	ted to V	Vell: ⊠ Yes □ No			
Depth (ft)	Recovery (in)	Sieve Sample II	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
 241 _242_	60			Topock - Alluvium Deposits	ML			0		
242 243 244							(242.0 - 254.0') Topock - Alluvium Deposits; (ML); reddish brown (2.5YR 4/4); medium pla fine to medium grained sand, angular to subre to large pebbles, angular to round; little clay; subangular; moist; weak cementation; iron ox	sticity; some very ound; little granules trace angular to	(242.0 - 252.0') Drill rods chattering	
244							0			
							6- O			
	120									
248				Topock - Alluvium Deposits	ML		(6)			
249		Sieve	MW-B-VAS- 247-252 (<0.83 U ppb)		0		6			
250 251		Samples No Collected	ppb) 2/17/2019 11:25							
				Ť			(251'); 2 inch lense of slight saturation			
									(252.0 - 254.0') Rough drilling	
							(254.0 - 269.0') Topock - Alluvium Deposits;	Sandy elastic silt with		
255							gravel (MH); reddish brown (2.5YR 4/4); high fine to coarse grained sand, angular to subrous small pebbles, subangular to subround; little	und; little granules to		
256	120			Topock						
257				Topock - Alluvium Deposits	МН					
258										
259							(258.5'); some granules to very large pebbles subround; little clay; trace subround; medium	, subangular to to high plasticity		
260	<u> </u>	11000	11				pot has = holow ground ourfood one		1 1 011	L

9/	ARC	CAC)IS	Design & Consultancy for natural and built assets		Во	ring	Log	g		She	eet: 14 of	18
Date S	Started	: <u>0</u>	1/04/2	2019		Surface	Elevat	ion:	473.30 ft amsl	Borin	a No ·	MW-75d	
Date C	Comple	eted: <u>0</u>	3/05/2	2019		Northing	y (NAD	83):	2103701.45	Borin	g 110	<u>14144-754</u>	
Drilling	Co.:	<u>C</u>	ascac	le		Easting	(NAD8	33):	7615559.26	Client:	PG&E		
Drilling	Metho	od: <u>S</u>	onic E	Drilling		Total De	epth:		357 ft bgs	Project:	Final G\	W Remedy Ph	ase 1
Drill Ri	д Туре	e: <u>I</u>	errasc	onic track mo	<u>unt</u>	Borehol	e Diam	eter:	6-12 inches	Location:	PG&E 1	Topock, Needle	es, California
Driller	Name:	<u> </u>	I. Petro	one / E. Ram	10S	Depth to	First \	Water:	21.1 ft bgs				
Drilling	Asst:	I	. Alym	<u>ier/ J. Cande</u>	laria	Samplin	g Meth	nod:	4 inch x 10 ft Core Barrel	Project N	umber: I	RC000753.00	51
Logge	r:	<u>C</u>	S. Willf	ord / C. Bone	essi	Samplin	g Inter	val:	Continuous	-			
Editor:		<u>s</u>	Sean M	1cGrane		Convert	ed to V	Vell:					
Depth (ft)	Recovery (in)	Sie Samp		Groundwater Sample ID	Geologic Formation	Code	USCS Class		Soil Description			Drilling Notes	Drilling Fluid
	120	Siev Sample: Collec	s Not	MW-B-VAS- 264-269 (<0.33 U ppb) 2/18/2019 14:00	Topock - Alluvium Deposits Topock - Alluvium Deposits	MH		(ML); of pebble sand, a cemen	- 272.0') Topock - Alluvium Deposits; Clark red (2.5YR 3/6); low plasticity; soms, subangular to round; little very fine to angular to subround; little clay; moist to tation strong cementation; 0.4 foot dry lense	ne granules to o very coarse	large grained	(266.0 - 269.0') Drill rods chattering	
	120				Topock - Alluvium Deposits	ML		(ML); r very la coarse	- 282.0') Topock - Alluvium Deposits; Seddish brown (2.5YR 4/4); low plasticitrge pebbles, angular to subround; som grained sand, angular to subround; littgular to subround; littgular to subround; moist	y; some gran e very fine to	ules to very	(275.0 - 276.0') Drill rods chattering	

9/	ARC	CADI	S	Design & Consultancy for natural and built assets		Во	ring	Log		She	et: 15 of	18
Date S	Started	: <u>01/</u> 0	04/20	019		Surface	Eleva	ion: 473.30 ft amsl	Borine	u No .	MW-75d	
Date C	Comple	eted: <u>03/0</u>	<u>)5/20</u>	<u>)19 </u>		Northin	g (NAE	983): <u>2103701.45</u>		9 110	<u> </u>	
Drilling	Co.:	<u>Cas</u>	cade	Э		Easting	(NAD	33): <u>7615559.26</u>	_ Client:	PG&E		
Drilling	Metho	od: <u>Sor</u>	iic Di	rilling		Total D	epth:	357 ft bgs	_ Project:	Final GV	V Remedy Ph	ase 1
Drill Ri	д Туре	e: <u>Ter</u>	rasor	nic track mo	unt	Boreho	le Dian	neter: 6-12 inches	Location:	PG&E T	opock, Needle	es, California
Driller	Name:	<u>N. F</u>	etro	ne / E. Ram	os	Depth t	o First	Water: 21.1 ft bgs	_			
Drilling	Asst:	<u>T. A</u>	·lymε	er/ J. Candel	laria	Samplin	ng Metl	nod: 4 inch x 10 ft Core Barrel	Project Nu	umber: <u>F</u>	RC000753.00	51
Logge	r:	<u>G. \</u>	<u> Nillfo</u>	ord / C. Bone	essi	Samplin	ng Inter	val: <u>Continuous</u>				
Editor:		<u>Sea</u>	ın Mo	cGrane		Conver	ted to \	Vell: ⊠ Yes ☐ No				
Depth (ft)	Recovery (in)	Sieve Sample l	D	Groundwater Sample ID	Geologic Formation	USCS	USCS Class	Soil Description			Drilling Notes	Drilling Fluid
 _281 _282	120				Topock - Alluvium Deposits	ML			Ò	•		
								(282.0 - 288.0') Topock - Alluvium Deposits; (ML); reddish brown (2.5YR 4/4); medium pla fine to coarse grained sand, angular to round medium pebbles, angular to subround; little of	asticity; some v ; little granules	ery		
284					Topock -							
285 					Alluvium Deposits	ML		000				
	120							100				
 288								(288.0 - 293.0') Topock - Alluvium Deposits;	Sandy silt with	aravel		
			1	MW-B-VAS- 287-292 (<0.17 U		0		(ML); reddish brown (2.5YR 4/4); medium pla fine to coarse grained sand, angular to subro medium pebbles, subangular to subround; lit subround; moist; strong cementation	asticity; some v und; little gran	ery		
290		Sieve Samples N Collected		ppb) 2/20/2019 12:15	Topock - Alluvium	ML						
_291					Deposits	IVIL						
292											(292.0 - 297.0') Drill rods chattering	(292.0 - 297.0') No water used
293 	60				Topock - Alluvium Deposits	GM		(293.0 - 295.0') Topock - Alluvium Deposits; reddish brown (2.5YR 4/4); medium pebbles subangular to subround; little very fine to coa angular to subround; little silt; little clay; trace subround; dry	to very large perse grained sa	ebbles, ind,	, and the second	
295	60							(295.0 - 298.0') Topock - Alluvium Deposits; with sand (ML); reddish brown (2.5YR 4/4); lc	Gravelly elastion	c silt		
296 					Topock - Alluvium Deposits	ML		granules to large pebbles, angular to subrour coarse grained sand, angular to subround; lit	nd; little very fir	ne to		
								(000 0 000 50 7	0:14		(297.0 - 301.0') Rough drilling	(297.0 - 307.0') 200 gallons of water used; 160 gallons of water
 299 	120				Topock - Alluvium Deposits	SM		(298.0 - 299.5') Topock - Alluvium Deposits; (SM); brown (7.5YR 5/4); fine grained to very angular to subround; little granules to small p to subround; little silt; little clay; moist to wet	coárse graine ebbles, suban	d, igular		recovered; 40 gallons of water lost
300						GM	[K]	(299.5 - 301.5') Topock - Alluvium Deposits;				
Abbre	viation	s: USCS	<u>= Ur</u>	nified Soil Cla	assificatio	n Systen	n, ft = f	eet, bgs = below ground surface, ams	sl = above n	nean sea	a level, GW = o	groundwater,

9/	ARC	CADIS	Design & Consultancy for natural and built assets		Bo	ring	Log	g		She	eet: 16 of	18
Date S	Started		2019		Surface Northin			473.30 ft amsl 2103701.45	Borin	ıg No.:	<u>MW-75d</u>	
Drilling		Casca			Easting			7615559.26	Client:	PG&E		
Drilling	Metho	od: <u>Sonic</u>	Drilling		Total D	epth:		357 ft bgs	Project:	Final G\	W Remedy Ph	ase 1
Drill Ri	д Туре		onic track mo		Boreho	le Diam	eter:	6-12 inches	Location:	PG&E	<u> Fopock, Needle</u>	es, California
Driller			rone / E. Ram		-			21.1 ft bgs				
Drilling		-	<u>ner/ J. Candel</u>		Samplin	-		4 inch x 10 ft Core Barrel	Project N	lumber:	RC000753.00	<u>51</u>
Logge			lford / C. Bone McGrane	essi	Samplin	-		Continuous	-			
Editor:		<u>Sean r</u>	vicGrane		Conver	ted to v	veii.	△ res ☐ No				
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS	USCS	(011)	Soil Description			Drilling Notes	Drilling Fluid
301				Topock - Alluvium Deposits	GM		subang	vellowish red (5YR 4/6); granules to ver yular to round; little fine to very coarse or r to subround; little silt; trace angular to	grained sand	,		
302							gravel granule	- 313.5') Topock - Alluvium Depo <mark>sits; \$ (MH); yellowish red (5YR 4/6); high pla- es to large pebbles, angular to subroun ound; some very fine to very coarse gra</mark>	sticity; some d; some sub	angular		
303	120						to subr	ound; little clay; moist; moderate ceme lly composed of metadiorite.				
304												
305								200				
306 								7.00				
				Topock - Alluvium Deposits	МН			C				(307.0 - 322.0') 400 gallons of water used; 380 gallons of water
_ 309_					7			10,				recovered; 20 gallons of water lost
310		Sieve Samples Not Collected					V	3 \			(310.0 - 318.0')	
 311		Collected									Rough drilling	
312												
313	180						(242.5	200 01) Tanada Allusium Danaita (Nia			
_314							(SM); y coarse pebble	 - 320.0') Topock - Alluvium Deposits; Sellowish red / light brown (5YR 5/6); fingrained, angular to subround; little grass, subangular to subround; little silt; little 	ne grained to inules to larg	very e		
315 316							subanç	gular to subround				
310				Topock - Alluvium Deposits	SM							
318			MW-B-VAS- 317-322	Deposits								
319			(<0.17 U ppb) 2/21/2019 11:00									
 320			11.00									

9/	4R (CADIS	Design & Consultancy for natural and built assets		Во	ring	Log		Sheet: 17 of	18
	Started		4/2019		Surface		•	Boring	No.: <u>MW-75d</u>	
	•	ted: <u>03/0</u>			Northin	- '	•			
Drilling		Case			Easting	•	•		G&E	
Drilling			c Drilling		Total D	•	357 ft bgs	•	nal GW Remedy Ph	
Driller	ig Type		asonic track mo etrone / E. Ran		Boreho		eter: <u>6-12 inches</u> Water: <u>21.1 ft bgs</u>	Location: PC	G&E Topock, Needle	es, Calliornia
Drilling			ymer/ J. Cande		Samplin			- Project Num	nber: RC000753.00	 51
Logge			/illford / C. Bon		Samplin	-		_ i iojectivani	DCI. <u>110000733.00</u>	01
Editor			n McGrane	0001	Convert	•		=		
			1		1					1
Depth (ft)	Recovery (in)	Sieve Sample II	Groundwater Sample ID	Geologic Formation	USCS	USCS	Soil Description		Drilling Notes	Drilling Fluid
 321 _322_	180		MW-B-VAS- 317-322 (<0.17 U ppb) 2/21/2019 11:00	Topock - Alluvium Deposits	ML		(320.0 - 322.0') Topock - Alluvium Deposits; (ML); reddish brown (2.5YR 4/4); medium pla fine to coarse grained sand, angular to subro medium pebbles, subangular to subround; litt subround; moist; strong cementation	sticit <mark>y; some ve</mark> ry und; little granule:	/	
322						000	(322.0 - 337.0') Topock - Alluvium Deposits; (ML); reddish brown (2.5YR 4/4); low plasticit	y, little granules to	o Tight hard	(322.0 - 337.0') 300 gallons of
323							medium pebbles, subangular to subround; little grained sand, angular to subround; little clay; moist		arse drilling	water used; 300 gallons of water recovered: 0
324										gallons of water lost
325										
							000			
326										
	-									
328							(328'); 0.4-0.6 foot dry lense			
 _329	_					000				
329	100			Topock -		000				
330	180	Sieve Samples No	t	Alluvium Deposits	ML					
	-	Collected								
331	-						(331'); 0.4-0.6 foot dry lense			
	-									
332			Ĭ			[0]00				
333										
	-						(333'); 0.4-0.6 foot dry lense			
334										
 335	-									
555							(335'); 0.4-0.6 foot dry lense			
336									(335.5 - 337.0') Soft drilling	
<u> </u>										
337						[d o]	(337.0 - 344.0') Topock - Weathered Bedrock	- conglomerate		(337.0 - 347.0')
							Clayey sand with gravel (SC); red (2.5YR 4/6) (2.5YR 4/4); very fine grained to very coarse (to reddish browr	ı lar	No water used
338				Topock -			to subround; some clay; little granules to med	lium pebbles,		
	120			Weathered Bedrock -	SC		subangular to subround; little silt; trace subro strong cementation	unu, ary to moist;		
339	-			conglomera	te					
340										
	viations	s: USCS :	Unified Soil C	lassification	n Systen	1, ft = fe	eet, bgs = below ground surface, ams	sl = above me	an sea level, GW =	groundwater,

9/	ARC	ADIS	Design & Consultancy for natural and built assets		Во	ring	Log	\$	Sheet: 18 of	18
Date S	Started	01/04/2	2019		Surface	Elevati	ion: <u>473.30 ft amsl</u>	Boring No	o.: <u>MW-75d</u>	
	•	ted: <u>03/05/2</u>			Northing		•			
Drilling		<u>Cascac</u>			Easting	•	•	_ Client: PG&		
Drilling			•		Total De	•	357 ft bgs		GW Remedy Ph	
Drill Ri			onic track mo		Borehol		•	_ Location: <u>PG&</u>	E Topock, Needle	es, California
Driller Drilling			one / E. Ram er/ J. Cande		Samplin		Water: 21.1 ft bgs nod: 4 inch x 10 ft Core Barrel	- Project Numbe	r: <u>RC000753.00</u> 5	<u> </u>
Logge		-	ord / C. Bone		Samplin	-		_ Project Numbe	i. <u>RC000753.003</u>)
Editor:			lcGrane		Convert	•		_		
					1					
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	Code	USCS	Soil Description		Drilling Notes	Drilling Fluid
			AMA D.VAQ					0		
342			MW-B-VAS- 339-344 (<0.33 U ppb) 2/27/2019	Topock - Weathered Bedrock - conglomerat	SC					
343	400		12:28	conglomerat			39			
344_	120						(344.0 - 347.0') Topock - Weathered Bedrock Clayey sand (SC); reddish brown (2.5YR 4/3)	< - conglomerate;	_	
345				Topock -			fine grained, subangular to subround; little cla dry; moderate cementation; clay and sand are	ay; trace silt; moist to		
<u> </u>				Weathered Bedrock -	sc					
_346				conglomerat	е					
<u> </u>							1 .00			
_347							(347.0 - 356.0') Topock - Weathered Bedrock	κ - conglomerate;	(347.0 - 356.0')	(347.0 - 357.0')
348_							Clayey sand with gravel (SC); reddish brown reddish brown (2.5YR 4/3); very fine grained	to very coarse	Rough drilling	400 gallons of water used; 380
5		Sieve					grained, suba <mark>ngular to subro</mark> und; some grant pebbles, <mark>angular to</mark> subround; little silt; little c	ules to very large clay; dry to moist;		gallons of water recovered; 20
349_		Samples Not Collected					moderate cementation			gallons of water lost
_350							V , S) Y			
_351				Topock -						
				Weathered Bedrock -	SC					
352	108			conglomerat	е					
353										
354			MW-B-VAS- 352-357							
355			(<0.33 U ppb)							
355_			2/28/2019 15:05							
356_										
357				Topock - Weathered Bedrock - conglomerat	50		(356.0 - 357.0') Topock - Weathered Bedrock Clayey sand (SC); reddish brown (2.5YR 4/3) medium grained, subangular to subround; litt medium pebbles, subangular to subround; tra); very fine grained to le clay; trace small to	(356.0 - 357.0') Soft drilling	
-							cementation End of Boring at 357.0 ft b	gs.	J	
358								-		
250										
359_										
360										
Abbre							eet, bgs = below ground surface, am:			
loob =	narts r	er billion U =	not detecte	d above th	e labora	tory rer	porting limit. J = estimated value. NR	= no recovery: N	lotes: denth to wa	ater was

pb = parts per billion, U = not detected above the laboratory reporting limit, J = estimated value, NR = no recovery; Notes: depth to water was measured during first VAS interval; apparent partial recoveries can be the result of potential compaction of sediments in the core bag; wells MW-75-267d, MW-75-337 installed in borehole