

Date Started:	10/05/2019	Surface Elevation:	520.40 ft amsl	<b>Boring No.: MW-11D</b>	
Date Completed:	10/08/2019	Northing (NAD83):	2101579.71		
Drilling Co.:	Cascade	Easting (NAD83):	7614879.83	Client:	PG&E
Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
1	60	No Sieve Samples Collected		Topock - Fluvial Deposits	SW-SM		(0.0 - 7.0') Topock - Fluvial Deposits; Well graded sand with silt and gravel (SW-SM); yellowish brown / moderate yellowish brown (10YR 5/4); very fine grained to very coarse grained, angular to subround; some granules to very large pebbles, angular to subround; little silt; trace small to large cobbles, subangular to subround; dry	(0.0 - 0.5') Hand auger for utility clearance hit refusal at 0.5 ft. bgs.	(0.0 - 197.0') No water used
2									
3									
4									
5									
6									
7									
8	72	No Sieve Samples Collected		Topock - Alluvium Deposits	NR		(7.0 - 9.5') No recovery (NR)		
9									
10									
11									
12									
13									
14									
15									
16									
17									
18	120	No Sieve Samples Collected		Topock - Alluvium Deposits	SW		(12.0 - 13.0') Topock - Alluvium Deposits; Well graded sand with silt and gravel (SW-SM); yellowish brown / moderate yellowish brown (10YR 5/4); very fine grained to very coarse grained, angular to subround; little silt; trace small cobbles, subangular to subround; dry		
19									
20									

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SOIL BORING LOG: PG&E TOPOCK C:\USERS\SSM\GRANEDOCUMENTS\PG&E TOPOCK\DRIFT BORING LOGS\GINT FILES\14.20\TOPOCK DATABASE FOR PLOG.GPJ TOPOCK DATA TEMPLATE FOR PLOG.GDT 05/14/20 17:55

Date Started: 10/05/2019	Surface Elevation: 520.40 ft amsl	<b>Boring No.: MW-11D</b>
Date Completed: 10/08/2019	Northing (NAD83): 2101579.71	
Drilling Co.: Cascade	Easting (NAD83): 7614879.83	Client: PG&E
Drilling Method: Sonic Drilling	Total Depth: 197 ft bgs	Project: Final GW Remedy Phase 1
Drill Rig Type: Prosonic Truck Mount	Borehole Diameter: 6 inches	Location: PG&E Topock, Needles, California
Driller Name: Steve Vasquez	Depth to First Water: 66.6 ft bgs	
Drilling Asst: L. Amaya / O. Floures	Sampling Method: 10 ft Core Barrel	Project Number: RC000753.0051
Logger: Chris Bonessi	Sampling Interval: Continuous	
Editor: Grant Willford	Converted to Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
21	120			Topock - Alluvium Deposits	SW				
22				Topock - Alluvium Deposits	SM		(23.0 - 24.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); brown (7.5YR 4/3); very fine grained to coarse grained, angular to subround; little granules to medium pebbles, subangular to subround; little silt; dry		
23				Topock - Alluvium Deposits	SW-SM		(24.5 - 31.0') Topock - Alluvium Deposits; Well graded sand with silt and gravel (SW-SM); brown (7.5YR 4/3) to brown (10YR 4/3); very fine grained to very coarse grained, angular to subround; some granules to very large pebbles, subangular to subround; little small to large cobbles, subangular to subround; little silt; dry		
24	72	No Sieve Samples Collected		Topock - Alluvium Deposits	SW-SM			(27.0 - 33.0') Short 6' run due to core barrel getting plugged with rocks.	
25				Topock - Alluvium Deposits	SW-SM		(31.0 - 34.5') Topock - Alluvium Deposits; Well graded sand with silt and gravel (SW-SM); brown (7.5YR 4/3); very fine grained to very coarse grained, angular to subround; and granules to large pebbles, subangular to subround; little silt; dry		
26				Topock - Alluvium Deposits	SM		(34.5 - 37.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); brown (7.5YR 4/3); very fine grained to coarse grained, angular to subround; little granules to medium pebbles, subangular to subround; little silt; dry		
27	48			Topock - Alluvium Deposits	SM				
28				Topock - Alluvium Deposits	SM		(37.0 - 52.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); strong brown (7.5YR 4/6); very fine grained to coarse grained, angular to subround; some silt; little small to very large pebbles, angular to subround; trace small cobbles, subangular to subround; dry		
29				Topock - Alluvium Deposits	SM				
30	60			Topock - Alluvium Deposits	SM				
31				Topock - Alluvium Deposits	SM				
32				Topock - Alluvium Deposits	SM				

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Date Started: 10/05/2019	Surface Elevation: 520.40 ft amsl	<b>Boring No.: MW-11D</b>
Date Completed: 10/08/2019	Northing (NAD83): 2101579.71	
Drilling Co.: Cascade	Easting (NAD83): 7614879.83	Client: PG&E
Drilling Method: Sonic Drilling	Total Depth: 197 ft bgs	Project: Final GW Remedy Phase 1
Drill Rig Type: Prosonic Truck Mount	Borehole Diameter: 6 inches	Location: PG&E Topock, Needles, California
Driller Name: Steve Vasquez	Depth to First Water: 66.6 ft bgs	
Drilling Asst: L. Amaya / O. Floures	Sampling Method: 10 ft Core Barrel	Project Number: RC000753.0051
Logger: Chris Bonessi	Sampling Interval: Continuous	
Editor: Grant Willford	Converted to Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
41	60			Topock - Alluvium Deposits	SM				
42									
43									
44									
45	60								
46									
47									
48									
49									
50		No Sieve Samples Collected							
51									
52	120			Topock - Alluvium Deposits	SM		(52.0 - 60.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); brown (7.5YR 5/4); very fine grained to coarse grained, angular to subround; little small to very large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; trace clay; dry to moist		
53									
54									
55									
56									
57									
58	120								
59									
60									

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Date Completed:	10/08/2019	Northing (NAD83):	2101579.71		
Drilling Co.:	Cascade	Easting (NAD83):	7614879.83	Client:	PG&E
Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
61	120			Topock - Alluvium Deposits	SM		(60.5 - 67.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); brown (7.5YR 5/4); very fine grained to coarse grained, angular to subround; little granules to very large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; trace clay; moist; weak cementation		
62									
63									
64									
65	120	No Sieve Samples Collected	MW-11D-VAS-67-72 (370 ppb) 10/6/2019 12:00	Topock - Alluvium Deposits	SM		(67.0 - 74.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); dark yellowish brown (10YR 4/4); very fine grained to very coarse grained, angular to subround; some granules to very large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; moist		
66									
67									
68									
69									
70									
71									
72									
73	120			Topock - Alluvium Deposits	SM		(74.5 - 87.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); dark yellowish brown (10YR 4/4); medium grained to very coarse grained, angular to subround; some granules to very large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; wet		
74									
75									
76									
77									
78									
79									
80									

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Date Started: 10/05/2019	Surface Elevation: 520.40 ft amsl	<b>Boring No.: MW-11D</b>
Date Completed: 10/08/2019	Northing (NAD83): 2101579.71	
Drilling Co.: Cascade	Easting (NAD83): 7614879.83	Client: PG&E
Drilling Method: Sonic Drilling	Total Depth: 197 ft bgs	Project: Final GW Remedy Phase 1
Drill Rig Type: Prosonic Truck Mount	Borehole Diameter: 6 inches	Location: PG&E Topock, Needles, California
Driller Name: Steve Vasquez	Depth to First Water: 66.6 ft bgs	
Drilling Asst: L. Amaya / O. Floures	Sampling Method: 10 ft Core Barrel	Project Number: RC000753.0051
Logger: Chris Bonessi	Sampling Interval: Continuous	
Editor: Grant Willford	Converted to Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
81	120			Topock - Alluvium Deposits	SM				
82									
83									
84									
85	No Sieve Samples Collected			Topock - Alluvium Deposits	SM		(87.0 - 95.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); brown (10YR 4/3); medium grained to very coarse grained, angular to subround; little granules to very large pebbles, angular to subround; little silt; wet		
86									
87									
88									
89									
90									
91									
92									
93	120			Topock - Alluvium Deposits	SM		(95.0 - 102.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); yellowish brown / moderate yellowish brown (10YR 5/4) with reddish brown (5YR 5/4); medium grained to very coarse grained, angular to subround; some silt; little granules to large pebbles, angular to subround; wet		
94									
95									
96	120			Topock - Alluvium Deposits	SM				
97									
98									
99									
100									

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Drilling Co.:	Cascade	Easting (NAD83):	7614879.83	Client:	PG&E
Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
101				Topock - Alluvium Deposits	SM				
102				Topock - Alluvium Deposits	SM		(102.0 - 109.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); yellowish brown / moderate yellowish brown (10YR 5/4) with reddish brown (5YR 5/4); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; some silt; wet		
103	120								
104									
105									
106									
107									
108								(108.0 - 110.0') Rough drilling	
109									
110		No Sieve Samples Collected		Topock - Alluvium Deposits	SM		(109.5 - 114.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown (5YR 5/4) with yellowish brown / moderate yellowish brown (10YR 5/4); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; some silt; wet		
111									
112	120								
113									
114									
115				Topock - Alluvium Deposits	SM		(114.0 - 121.8') Topock - Alluvium Deposits; Silty sand with gravel (SM); grayish brown (10YR 5/2) little strong brown (7.5YR 5/6); medium grained to very coarse grained, angular to subround; some granules to very large pebbles, subangular to subround; little silt; trace small cobbles, subangular to subround; wet		
116									
117									
118	120								
119								(119.0 - 120.0') Rough drilling	
120									

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Date Completed:	10/08/2019	Northing (NAD83):	2101579.71		
Drilling Co.:	Cascade	Easting (NAD83):	7614879.83	Client:	PG&E
Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
121				Topock - Alluvium Deposits	SM				
122							(121.8 - 130.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown (5YR 5/4) with yellowish brown / moderate yellowish brown (10YR 5/4); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; some silt; wet		
123	120								
124			MW-11D-VAS-122-127 (92 ppb) 10/7/2019 12:15	Topock - Alluvium Deposits	SM				
125									
126				Topock - Alluvium Deposits	SM				
127									
128		No Sieve Samples Collected							
129									
130									
131				Topock - Alluvium Deposits	ML		(130.5 - 133.0') Topock - Alluvium Deposits; Sandy silt (ML); reddish brown (5YR 4/3); medium plasticity; some very fine to very coarse grained sand, angular to subround; little granules to medium pebbles, subangular to subround; moist; medium stiff	(131.0 - 133.0') Rough drilling	
132	120								
133									
134				Topock - Alluvium Deposits	SM		(133.0 - 149.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; moist		
135									
136									
137									
138	120								
139									
140									

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Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
141				Topock - Alluvium Deposits	SM		(145'); dry; to 145.5 ft. bgs	(140.0 - 142.0')	
142								(147.0 - 153.0')	
143	120								
144									
145									
146									
147									
148									
149									
150		No Sieve Samples Collected		Topock - Alluvium Deposits	ML		(149.0 - 150.5') Topock - Alluvium Deposits; Sandy silt (ML); dark reddish gray (5YR 4/2); low plasticity; some very fine to very coarse grained sand, angular to subround; little granules to medium pebbles, subangular to subround; moist; medium stiff		
151				Topock - Alluvium Deposits	SM		(150.5 - 152.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; moist		
152	120								
153				Topock - Alluvium Deposits	SM		(152.0 - 154.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; some silt; wet	(153.0 - 157.0')	Soft drilling
154			MW-11D-VAS-152-157 (10 ppb) 10/7/2019 16:50						
155							(154.0 - 163.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown (5YR 4/3); fine grained to very coarse grained, angular to subround; some granules to very large pebbles, subangular to subround; little silt; wet		
156									
157				Topock - Alluvium Deposits	SM				
158	120								
159									
160									

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Drilling Method: Sonic Drilling	Total Depth: 197 ft bgs	Project: Final GW Remedy Phase 1
Drill Rig Type: Prosonic Truck Mount	Borehole Diameter: 6 inches	Location: PG&E Topock, Needles, California
Driller Name: Steve Vasquez	Depth to First Water: 66.6 ft bgs	
Drilling Asst: L. Amaya / O. Floures	Sampling Method: 10 ft Core Barrel	Project Number: RC000753.0051
Logger: Chris Bonessi	Sampling Interval: Continuous	
Editor: Grant Willford	Converted to Well: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

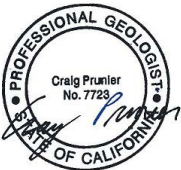
Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
161				Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
162									
163	120			Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
164									
165				Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
166									
167				Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
168									
169		No Sieve Samples Collected		Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
170									
171				Topock - Alluvium Deposits	SM		(163.0 - 173.0') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); fine grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; little silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
172	120								
173				Topock - Alluvium Deposits	GM		(173.0 - 179.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); grayish brown (10YR 5/2); granules to very large pebbles, angular to subround; some fine to very coarse grained sand, angular to subround; some silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
174									
175				Topock - Alluvium Deposits	GM		(173.0 - 179.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); grayish brown (10YR 5/2); granules to very large pebbles, angular to subround; some fine to very coarse grained sand, angular to subround; some silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet		
176									
177				Topock - Alluvium Deposits	GM		(173.0 - 179.0') Topock - Alluvium Deposits; Silty gravel with sand (GM); grayish brown (10YR 5/2); granules to very large pebbles, angular to subround; some fine to very coarse grained sand, angular to subround; some silt; trace small cobbles, subangular to subround; little coarser clasts composed of metadiorite; wet	(177.0 - 182.0') Soft drilling	
178									
179	120	MW-11D-VAS-177-182 (<0.17 U ppb) 10/8/2019 12:00		Topock - Alluvium Deposits	ML		(179.0 - 180.0') Topock - Alluvium Deposits; Sandy silt (ML); reddish gray / pale brown (5YR 5/2); medium plasticity; some very fine to very coarse grained sand, angular to subround; little		
180									

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, 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; well MW-11D installed in borehole

SOIL BORING LOG: PG&E TOPOCK C:\USERS\SSM\GRAND\DOCUMENTS\PG&E TOPOCK\DRIFT BORING LOGS\GINT FILES\05.14.20\TOPOCK DATABASE FOR PLOG.GPJ TOPOCK DATA TEMPLATE FOR PLOG.GDT 05/14/20 17:55

Date Started:	10/05/2019	Surface Elevation:	520.40 ft amsl	<b>Boring No.: MW-11D</b>	
Date Completed:	10/08/2019	Northing (NAD83):	2101579.71		
Drilling Co.:	Cascade	Easting (NAD83):	7614879.83	Client:	PG&E
Drilling Method:	Sonic Drilling	Total Depth:	197 ft bgs	Project:	Final GW Remedy Phase 1
Drill Rig Type:	Prosonic Truck Mount	Borehole Diameter:	6 inches	Location:	PG&E Topock, Needles, California
Driller Name:	Steve Vasquez	Depth to First Water:	66.6 ft bgs		
Drilling Asst:	L. Amaya / O. Floures	Sampling Method:	10 ft Core Barrel	Project Number:	RC000753.0051
Logger:	Chris Bonessi	Sampling Interval:	Continuous		
Editor:	Grant Willford	Converted to Well:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Depth (ft)	Recovery (in)	Sieve Sample ID	Groundwater Sample ID	Geologic Formation	USCS Code	USCS Class	Soil Description	Drilling Notes	Drilling Fluid
181			MW-11D-VAS-177-182 (<0.17 U ppb) 10/8/2019 12:00	Topock - Alluvium Deposits	SM		granules to medium pebbles, subangular to subround; wet; soft (180.0 - 181.5') Topock - Alluvium Deposits; Silty sand with gravel (SM); reddish brown / moderate brown (5YR 4/4) with dark reddish gray (5YR 4/2); medium grained to very coarse grained, angular to subround; some granules to large pebbles, angular to subround; some silt; little coarser clasts composed of metadiorite; wet		
182							(181.5 - 193.0') Topock - Weathered Bedrock - conglomerate; Sandy silt with gravel (ML); red (2.5YR 4/6); low plasticity; some very fine to very coarse grained sand, angular to subangular; little granules to very large pebbles, angular to subangular; little coarser clasts composed of metadiorite; wet to moist; stiff	(182.0 - 187.0') Rough drilling	
183	120								
184									
185									
186									
187				Topock - Weathered Bedrock - conglomerate	ML				
188		No Sieve Samples Collected						(187.0 - 192.0') Rough drilling	
189									
190									
191	108								
192									
193							(193.0 - 196.0') Topock - Competent Bedrock - conglomerate; (5YR 3/6); dry; friable, pulverized	(192.0 - 196.0') Hard rough drilling. Core barrel plugged at 9' into run.	
194				Topock - Competent Bedrock - conglomerate					
195									
196									
197	0				NR		(196.0 - 197.0') No recovery (NR); See drilling notes	(196.0 - 197.0') Attempted to retrieve last foot of run, sample was lost down hole and was disturbed upon retrieval.	
							End of Boring at 197.0 ft bgs.		



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SOIL BORING LOG: PG&E TOPOCK C:\USERS\MCGRAM\DOCUMENTS\PG&E TOPOCK\DRIFT BORING LOGS\GINT FILES\05.14.20\TOPOCK DATABASE FOR PLOG.GPJ TOPOCK DATA TEMPLATE FOR PLOG.GDT 05/14/20 17:55