

Brown and Caldwell

Carson City, Nevada

BORING LOG

Project Name: OU4 Phase 1 - Yerington Mine Evaporation Ponds

Project Number: 136742

Soil Boring: Monitoring Well: Piezometer:

Boring/Well Name: OU4-UEP-07

Sheet 1 of 2

Boring Location: OU4 Unlined Evaporation Ponds		Northing: 1554219.85	Easting: 322760.42
Drilling Contractor: WDC		Top of PVC Elevation: Ground Surface Elevation: 4374.29 feet amsl	
Drilling Equipment: Geoprobe		Date Started: 10-08-08	Date Finished: 10-08-08
Drilling Method: Direct-Push		Completed Depth: 30 ft bgs	Water Depth: 22 ft bgs
Sampling Method: Continuous Core		WELL CONSTRUCTION	
Driller: Rick Smedley		Type and Diameter of Well Casing: N/A	
Well Seal: N/A		Borehole Diameter: 2"	
Logged By: P. Bassett		Slot Size: N/A	Filter Material: Cement grout
Drilling Fluid: N/A			

Depth (ft)	Elevation (famsl)	USCS Group Symbol	Material Description	Sample Type I Name	Sample Type I Location	Sample Type II Name	Sample Type II Location	Lithology	Remarks
		ML	SILT (Pond Sediments) (0 - 4) Yellow, moist.						<p>Description of drilled cuttings based on ASTM Method D-2488 (the visual-manual procedure), grain-size determinations and nomenclature based on the Unified Soil Classification System.</p> <p>Horizontal Survey data is expressed in the Nevada State Plane system, Nevada West zone, in feet.</p> <p>Sharp contacts indicated by solid lines, gradational contacts indicated by dashed line.</p> <p>All depths are below land surface unless stated otherwise.</p> <p>Type 1 Samples are representative of geochemical and geotechnical soil samples as well as groundwater samples.</p> <p>Type 2 Samples are representative of meteoric water mobility soil samples.</p>
	4370	SM	SILT (Pond Sediments) / SAND with some silt (4 - 5) Yellow. Transition from pond sediments to sand with silt.						
5		SW	SAND with some silt (Native Soil) (5 - 8) Reddish brown, loose, soil crumbles easily. Sand is medium- to coarse-grained with some fine-grains. Well-graded. Sample: <u>OU4-UEP-07A-SC</u> from 5-8 feet. Sample: <u>OU4-UEP-07A-MW</u> from 5-15 feet. Composite sample from 3 boreholes (step-outs) spaced 6 inches apart.	OU4-UEP-07A-SC					
	4365	SM	Silty SAND (8 - 10) Reddish brown, loose, soil crumbles easily. Sand is medium- to coarse-grained with some fine-grains. Sample: <u>OU4-UEP-07A-SG</u> from 8-10 feet.	OU4-UEP-07A-SG					
10		SW	SAND with some silt (10 - 13.5) Reddish brown, loose, soil crumbles easily. Sand is medium- to coarse-grained with some fine-grains.						
	4360	CL	CLAY (13.5 - 14) Gray. Narrow clay seam.						
		SW	Silty SAND (14 - 16) Medium- to coarse-grained sand. Soil is well-graded.						

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		MH	SILT with clay (16 - 18) Moist, soft and plastic. Sample: <u>OU4-UEP-07B-SC</u> from 17-20 feet.						
		SW	Silty SAND with some gravel (18 - 19) Soil is well-graded and gravels are coarse-grained.						
4355		ML	SILT with some clay (19 - 20) Soil is primarily silt with a thin, gray-colored, clay seam.						
20		SM	Clayey SAND (20 - 22) Soil becomes saturated at 22 feet. Sample: <u>OU4-UEP-07B-SG</u> from 20-22 feet.						
		SM	Silty SAND (22 - 25)						
4350									
25		SM	SAND (25 - 30) Medium- to coarse-grained sand with minor silty zones. Good water zone. Sample: <u>OU4-UEP-07-GW</u> from 26-30 feet. Groundwater grab sample from hydropunch screen using bailer.						
4345									
30			Bottom of Borehole at 30 feet below ground surface.						