

Log of Boring No. BRC-SB-06-B

BMI Site - Hydrogeologic Characterization

Henderson, Nevada



Drilling Method: Rotary Sonic
Drilling Equipment: Rotary Sonic
Drilling Contractor: Prosonic Corporation
Driller: Gerardo Chavez

Borehole Total Depth: 266 ft bgs
Borehole Diameter: 7 in to 266 ft and 8.5 in to 266 ft bgs
Boring Location: Location 6 (Well ID: MCF-06B)
Depth to Water (ft. bgs): 54 ft. bgs

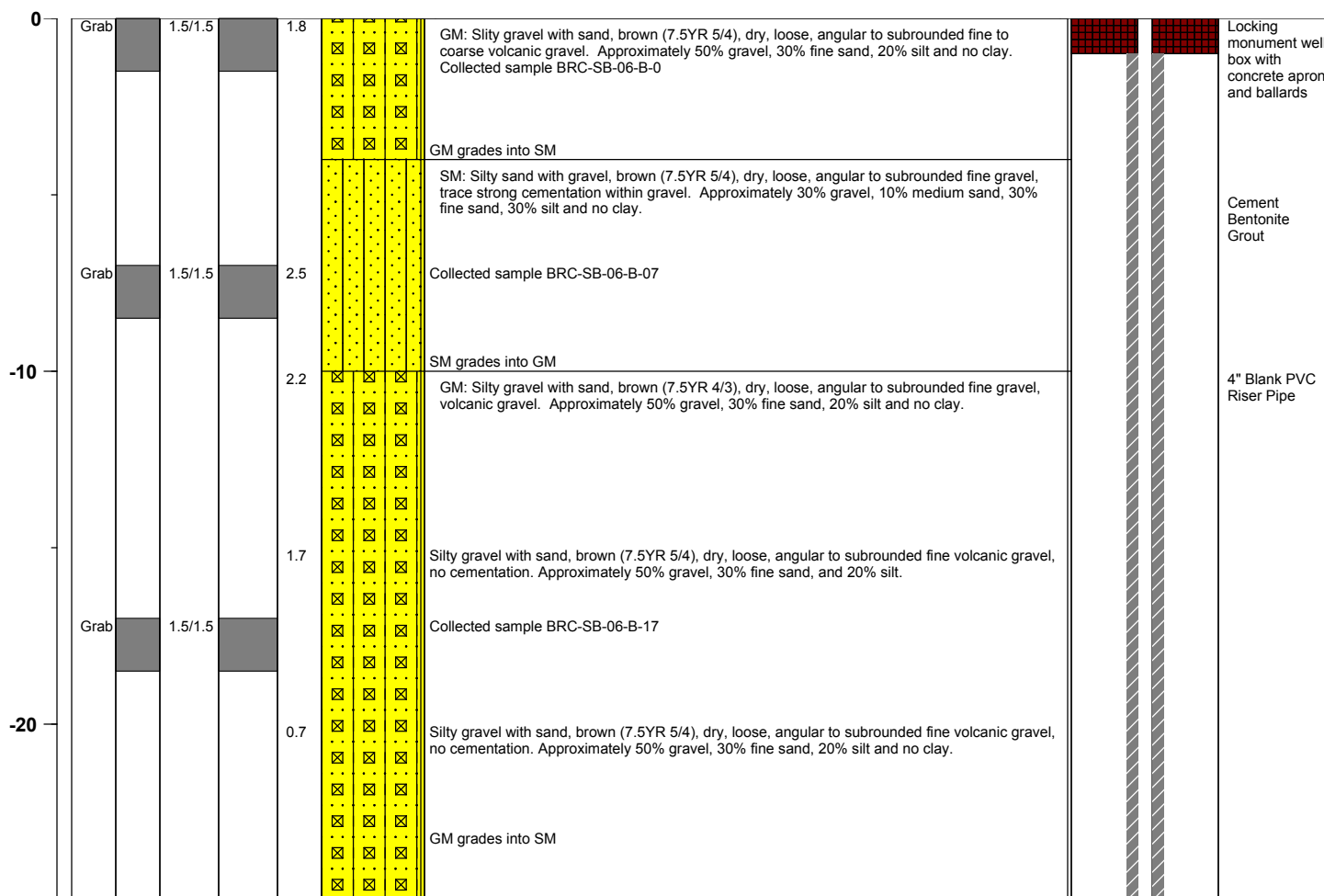
Sample Type: Continuous Core
Sample Interval: Varies

Logged By: Tony Mikacich
Date Started: 7/08/04
Date Completed: 7/10/04

Monitoring Well Construction

Type of Surface Seal:	Bentonite Grout	Screen Slot Size:	0.010 in
Blank Casing Type/Size:	4" Sch 80 PVC	Top of Screen (ft. bgs):	67 ft bgs
Screen Type/Size:	4" Sch 80 PVC	Bottom of Screen (ft. bgs):	82 ft bgs
Transition Sand Type:	N/A	Type of Sand Pack:	# 10 x 20

Depth Elevation (MSLD)	Sample Type	Sample Interval	Sample Recovery (feet)	Sample Retained for Analysis	PID	Lithology	Soil Description	Well Construction
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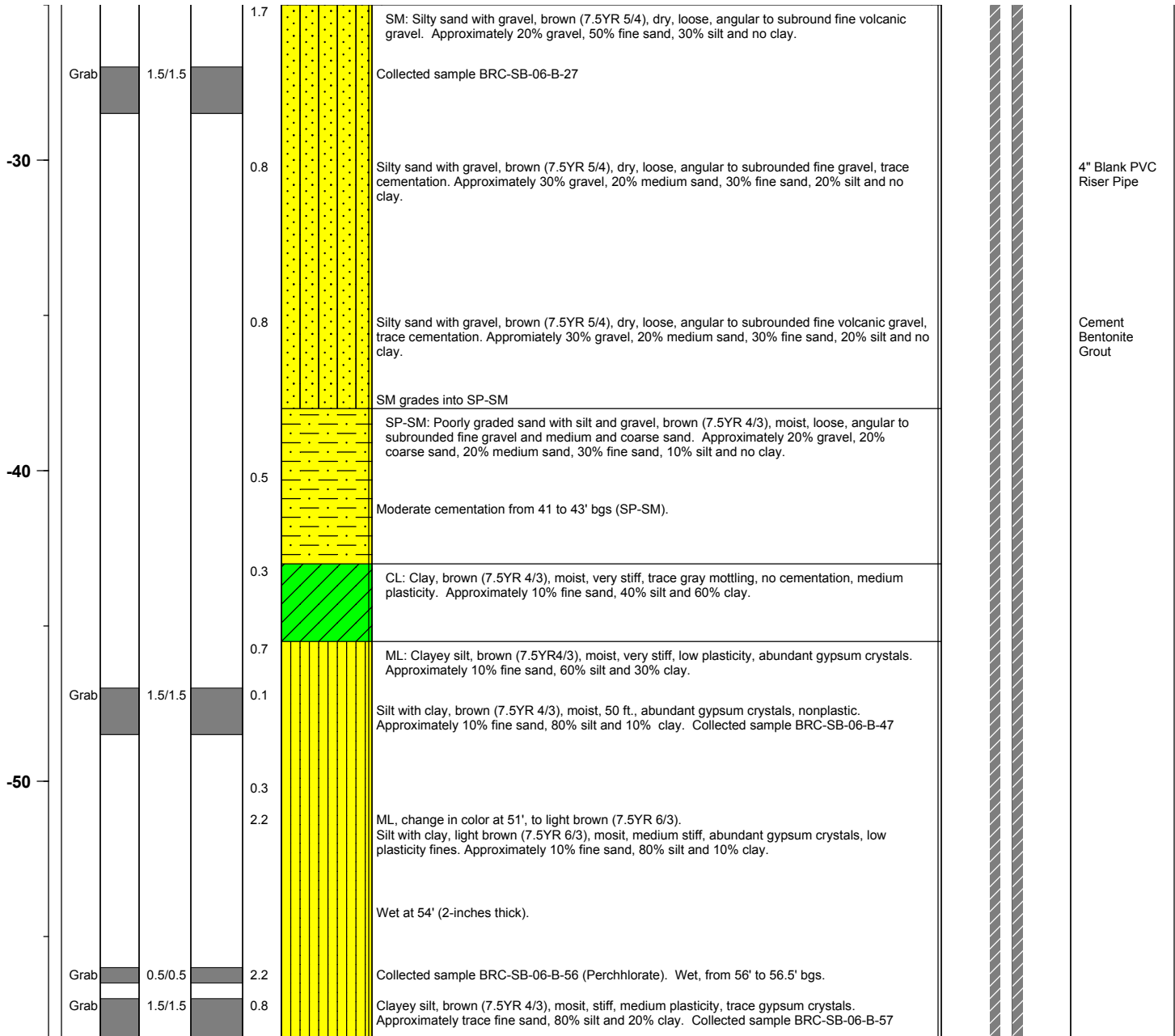
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-60					0.3		Clayey silt, light gray (10YR 7/2), moist, very stiff, medium plasticity. Approximately 70% silt and 30% clay.	
					1.0		Silt, gray (10YR 5/1), moist, very stiff, slight cementation. Approximately 100% silt and no clay.	
					0.7		Silt, gray (10YR 6/1), moist, hard, strong cementation, trace iron oxidation. Approximately 100% silt and no clay.	
					0.8		Silt with clay, brown (7.5YR 4/3), moist, very stiff, trace moderate cementation, abundant gypsum crystals. Approximately 90% silt and 10% clay.	
-70	Grab	0.5/0.5					Collected sample BRC-SB-06-B-71.5 (Perchlorate). Wet, bed of gypsum crystals 3" thick at 71.5' bgs.	
					1.5		CL: Silty clay, brown (7.5YR 4/3), moist, very stiff, medium plasticity, abundant gypsum crystals. Approximately trace fine sand, 40% silt and 60% clay.	
	Grab	1.5/1.5			1.0		ML: Silt with clay, brown (7.5YR 5/4), moist, stiff, low plasticity, trace gypsum crystals. Approximately trace fine sand, 90% silt and 10% clay. Collected sample BRC-SB-06-B-57 (Perchlorate). Wet from 56 to 56.5' bgs.	
-80	Grab	0.5/0.5					Silt with clay, brown (7.5YR 5/4), moist with a 3" wet zone at 80', stiff, low plasticity, abundant gypsum crystals. Approximately 10% fine sand, 80% silt and 10% clay. Collected sample BRC-SB-06-B-80 (Perchlorate).	
					0.4		Silt with clay, brown (7.5YR 5/4), moist, stiff, low plasticity, abundant gypsum crystals. Approximately 10% fine sand, 80% silt and 10% clay.	
	Grab	1.5/1.5			1.0		Clayey silt, brown (7.5YR 5/4), moist, stiff, low plasticity, abundant gypsum crystals. Approximately trace fine sand, 80% silt and 20% clay. Collected sample BRC-SB-06-B-87.	
-90					1.1		Clayey silt, brown (7.5YR 4/2), moist, very stiff, medium plasticity, abundant gypsum crystals. Approximately 70% silt and 30% clay.	

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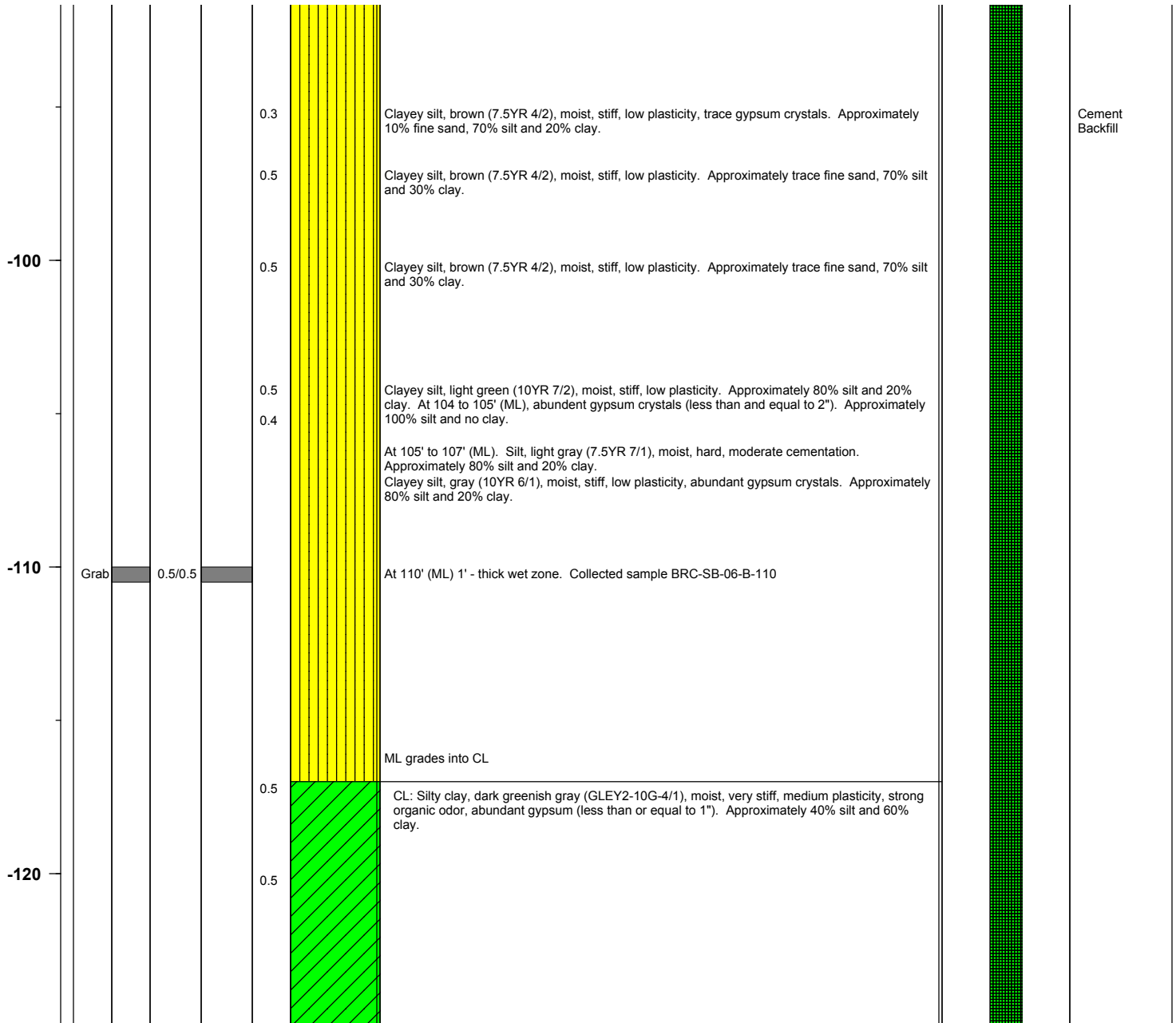
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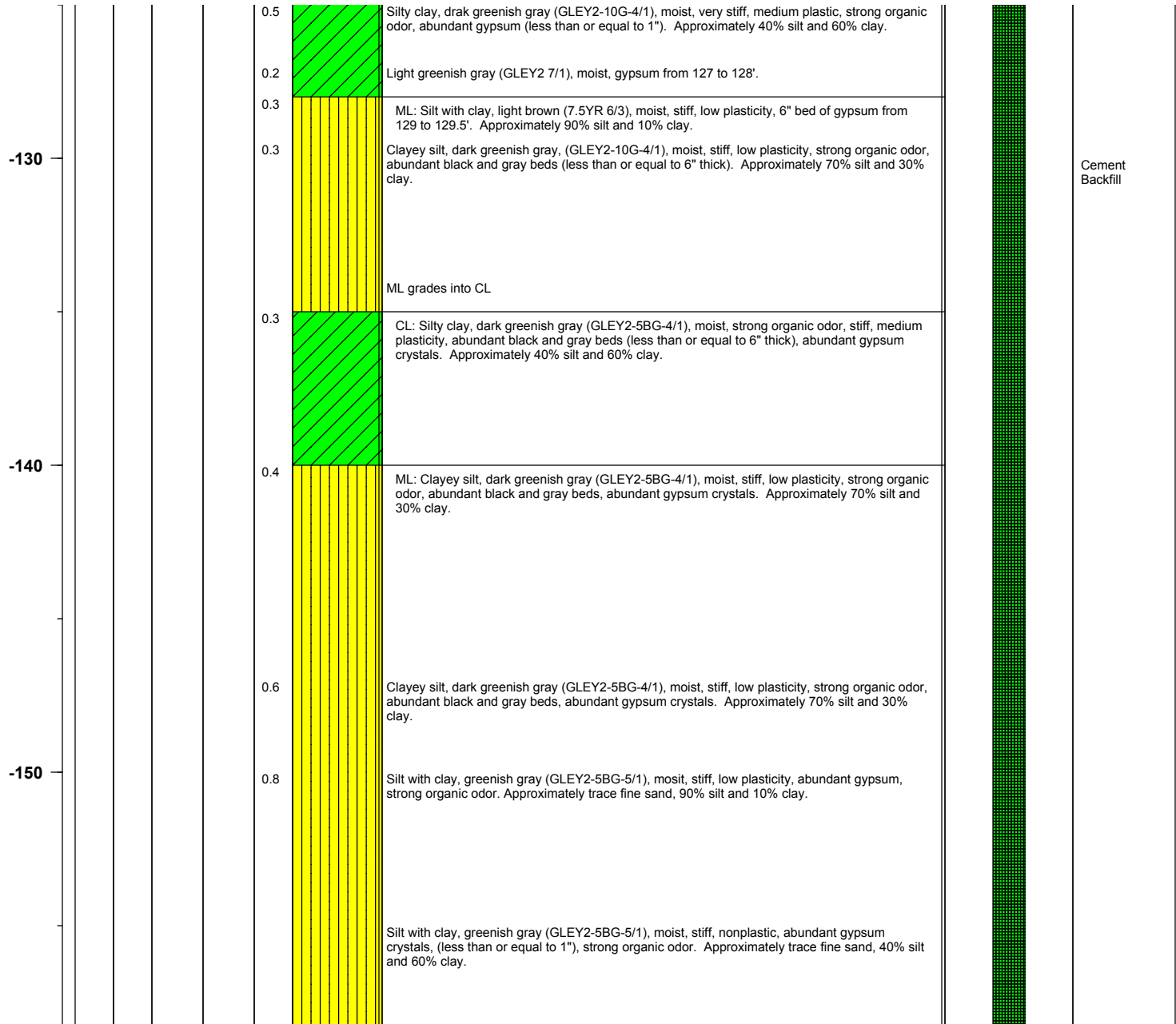
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-160					0.7	ML grades into CL	CL: Silty clay, dark greenish gray (GEY2-5BG-4/1), moist, very stiff, medium to high plasticity, abundant gypsum crystals (less than or equal to 1"), strong organic odor. Approximately trace fine sand, 40% silt and 60% clay.	
					0.7	As above		
					0.7		ML: Clayey silt, dark greenish gray (GEY2-10G-4/1), moist, very stiff, medium plasticity, strong organic odor. Approximately 60% silt and 40% clay.	
-170					0.6		Silt, light greenish gray (GEY2-10BG-8/1), dry, hard, moderate cementation. Approximately 100% silt and no clay.	
					0.5		Silt, greenish gray (GEY2-10G-6/1), dry, very hard, strong cementation, weak organic odor. Approximately 100% silt and no clay.	
					0.6		Color change to light greenish gray (GEY2-10BG-8/1) from 177 to 180'.	
-180					0.9		Clayey silt, greenish gray (GEY2-10BG-5/1), moist, very stiff, weak cementation, medium plasticity, abundant gypsum crystals (less than or equal to 1"). Approximately 80% silt and 20% clay.	
							Silt (silt-stone), light bluish grey (GEY2-5PB-8/1), dry, very hard, strong cementation. Approximately 100% silt and no clay.	
					0.5		Silt, light brown (7.5YR 6/3), moist, stiff, weak to moderate cementation, weak organic odor, trace black matter. Approximately 100% silt and no clay.	
-190					1.0		Silt, light greenish gray (GEY2-10BG-8/1), dry, very hard, strong cementation (silt stone), 189 to 191'. Approximately 100% silt and no clay.	
					0.8		Clayey silt, greenish gray (GEY2-10G-5/1), moist, stiff, low plasticity, weak organic odor.	

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							Approximately 70% silt and 30% clay.	
					0.8		Silt, dark greenish gray (GLEY2-5BG-4/1), dry, hard, moderate cementation, abundant gypsum crystals. Approximately 100 % silt and no clay.	
					0.8		Silt, moist, stiff, no cementation from 194 to 195'. Approximately 100% silt and no clay.	
					0.8		Silt, light greenish gray (GLEY2-10BG-7/1), dry, very hard, strong cementation (silt stone 196-197'). Approximately trace fine sand, 80% silt, and 20% clay.	
					0.6		Clayey silt, greenish gray (GLEY2-5BG-5/1), moist, very stiff, low plasticity, weak cementation, moderate organic odor. Approximately 90% silt and 10% clay.	
-200					0.9		Silt with clay, greenish gray (GLEY2-5BG-5/1), dry, hard, weak cementation from 200 to 207'. Approximately 90% silt and 10% clay.	
					0.6		Silt, brown (7.5YR 5/4), dry, hard, moderate cementation, beds of strong cementation. Approximately 100% silt and no clay.	
-210					0.4		Silt with clay, brown (7.5YR 4/2), moist, very stiff, low plasticity, trace weak cementation. Approximately trace fine sand, 90% silt and 10% clay.	
					0.8		Silt with clay, brown (7.5YR 4/2), moist, very stiff, low plasticity, abundant gypsum crystals. Approximately trace fine sand, 90% silt and 10% clay.	
-220					0.6		Silt with clay, brown (7.5YR 4/2), moist, stiff, low plasticity, strong light gray cementation within matrix. Approximately trace fine sand, 90% silt and 10% clay.	

Cement
Backfill

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230							Silt with clay, brown (7.5YR 4/2), moist, stiff, low plasticity, abundant gypsum crystals. Approximately 90% silt and 10% clay.	
							Silt, light gray (7.5YR 7/1), dry, very hard, strong cementation, from 230 to 231'. Approximately 100% silt and no clay.	Cement Backfill
							Clayey silt, brown (7.5YR 5/4), moist, stiff, medium plasticity abundant gypsum crystals (less than or equal to 1"). Approximately 70% and 30% clay.	
							Clayey silt, brown (7.5YR 4/2), moist, stiff, low plasticity, trace gypsum crystals, no cementation. Approximately trace fine sand, 80% silt and 20% clay.	
240							Clayey silt, brown (7.5YR 4/2), moist, stiff, low plasticity, trace gypsum crystals, no cementation. Approximately trace fine sand, 80% silt and 20% clay.	
							Clayey silt, brown (7.5YR 4/2), moist, stiff, low plasticity, abundant gypsum crystals, no cementation. Approximately 80% silt and 20% clay.	
250							Silt, brown (7.5YR 4/3), dry, hard, moderate cementation, nonplastic. Approximately 100% silt and no clay.	
							Clayey silt, brown (7.5YR 4/2), moist, stiff, low plasticity, no cementation, trace small gypsum crystals. Approximately 80% silt and 20% clay.	



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-260					1.3		Silt, brown (7.5YR 4/2), moist, very stiff, nonplastic, trace-moderate cementation, abundant gypsum crystals. Approximately 100% silt and no clay.	
					1.1		Silt with clay, brown (7.5YR 4/2), moist, stiff, low plasticity, abundant gypsum crystals (less than or equal to 1"), no cementation. Approx. 90% silt and 10% clay. Total depth of boring at 266' bgs.	Cement Backfill

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