DRILL HOLE LOG

BORING NO. 08-OR8-B1

PROJECT: I-15 UTAH COUNTY CORRIDOR - OR8, I-15 OVER OREM 2000 SOUTH
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:265,950 E:583,494
DRILLING METHOD: 08-CME-55 / N.W. CASING TO 50'
DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 11.0' **AFTER 24 HOURS:** ▼ N.M.

PROJECT NUMBER: 200801.200
DATE STARTED: 8/7/08
DATE COMPLETED: 8/8/08
GROUND ELEVATION: 4558.7'
LOGGED BY: J. PRICE, J. BOONE

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	USCS (AASHTO)	Material Description	Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
				14	6,10,8,(38)	GP-GM (*A-1-b*)	brown, slightly moist, med. dense — GRAVEL W/SILT & SAND possible cobbles		2.8		NP	49	42	9	
4555	5			2	2,3,5,(17)	GM	brown, very moist, loose — SILTY GRAVEL W/SAND possible cobbles								
4550	10			18	8,11,14,(43)	SM (*A-2-4(0)*)	gray to brown, wet, dense — SILTY SAND some layers more silty than others		26.0		NP	0	81	19	
4545	15			17	6,10,12,(34)	SM (*A-2-4(0)*)	gray-brown, wet, dense		17.8		NP	0	73	27	DS
4540	20				*0.42*	CL	brown, moist, firm — LEAN CLAY								
				18	Pushed	ML (*A-4(0)*)	gray-brown, wet	109.7	20.3		NP	0	42	58	CU
				17	4,9,9,(25)	ML	gray-brown to gray, wet, med. dense								
4535	25			13	5,4,5,(12)	ML (*A-4(0)*)	gray, wet, med. dense		24.0		NP	0	40	60	
4530	30			18	7,16,19,(44)	ML	gray, wet, dense — SANDY SILT occasional clay layers to 1" thick								
4525	35			17	13,16,20,(43)	ML (*A-4(0)*)	gray, wet, dense		27.2		NP	0	43	57	
4520	40			18	7,6,15,(24)	SP-SM	gray, wet, med. dense								
4515	45			18	3,3,13,(17)	SP-SM (*A-3(0)*)	gray, wet, med. dense — SAND W/SILT few clay lenses		22.7		NP	0	92	8	
4510															

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RB&G ENGINEERING, INC.

LEGEND:

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED; 0.45 — Torvane (tsf)

OTHER TESTS
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

DRILL HOLE LOG

BORING NO. 08-OR8-B1

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DRILLER: D. SAMPSON
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PROJECT NUMBER: 200801.200
DATE STARTED: 8/7/08
DATE COMPLETED: 8/8/08
GROUND ELEVATION: 4558.7'
LOGGED BY: J. PRICE, J. BOONE

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	Sample USCS (AASHTO)	Material Description		Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
			■	18	9,20,12,(33)	SM	gray, wet, dense									
4505																
	55		■	18	6,23,32,(55)	SM	gray, wet, very dense									
4500																
	60		■	18	12,21,31,(50)	SM (A-2-4(0))	gray, wet, dense	SILTY SAND clay lenses		21.5		NP	0	87	13	
4495																
	65		■	18	19,28,34,(58)	SM	gray, wet, very dense									
4490																
	70		■	18	18,24,13,(33) 0.40	SM	gray, wet, dense									
						CL	gray, moist, firm									
4485																
	75		■	18	2,4,5,(8) 0.45	CL (A-4(7))	gray, very moist to wet, firm	LEAN CLAY angled silt lenses		33.6	29	9	0	10	90	
4480																
	80		☒	18	Pushed 0.60	CL (A-4(6))	gray, moist, stiff	LEAN CLAY W/SAND angled silt lenses	104.4	23.4	28	10	0	20	80	CT UU
4475																
	85				0.60	CL	gray, moist, stiff									
			■	18	10,26,35	SM	gray, wet, hole caved 18" prior to sample	SILTY SAND								
4470																
	90		☒	18	Pushed	SM (A-4(0))	gray, wet	SILTY SAND clay layers to 5" thick		15.3		NP	0	54	46	
4465																
	95		■	18	9,14,28,(33)	SM	gray, wet, dense									
4460																

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RB&G ENGINEERING, INC.

LEGEND:

DISTURBED SAMPLE ■ 2,3,2,(6) ← Blow Count per 6"; ← $(N_1)_{60}$ Value; 0.45 ← Torvane (tsf)

UNDISTURBED SAMPLE ☒ PUSHED 0.45 ← Torvane (tsf)

OTHER TESTS
UC = Unconfined Compression
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DRILL HOLE LOG

BORING NO. 08-OR8-B2

PROJECT: I-15 UTAH COUNTY CORRIDOR - OR8, I-15 OVER OREM 2000 SOUTH
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:265,855 E:583,562
DRILLING METHOD: 08-CME-55 / N.W. CASING TO 55'
DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 25.2' **AFTER 24 HOURS:** ▼ N.M.

PROJECT NUMBER: 200801.200
DATE STARTED: 9/15/08
DATE COMPLETED: 9/17/08
GROUND ELEVATION: 4579.4'
LOGGED BY: M.H., C.S., J.B.

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	USCS (AASHTO)	Material Description		Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
			■	16	6,18,26,(94)	CL-ML	~~gray-brown, moist~~	SILTY CLAY W/SAND								
						SM (A-2-4(0))	brown, moist, very dense	SILTY SAND (fill)		7.8		NP	0	81	19	
4575	5		■	8	14,16,24,(85)	GM	brown, moist, very dense	SILTY GRAVEL W/SAND possible cobbles (fill)								
4570	10		■	16	35,48,39,(99+)	SM (A-4(0))	lt. brown, moist, very dense	SILTY SAND (fill)		15.0		NP	4	49	47	
4565	15		■	9	45,60/6",(REF)	SM (A-2-4(0))	lt. brown, moist, very dense	SILTY SAND W/GRAVEL possible cobbles (fill)		9.8		NP	28	52	20	
4560	20		■	16	29,49,45,(99+)	SM	brown, wet, very dense	SILTY SAND (fill)								
						SM	brown to gray, wet, very dense									
4555	25		▽ ☒	5	Pushed	SM	lt. gray, wet	SILTY SAND clay lenses & layers								
			■	18	2,10,12,(24)	SM (A-2-4(0))	lt. gray to brown, wet, med. dense			23.8		NP	0	68	32	
4550	30		■	11	8,9,10,(20)	SM (A-2-4(0))	brown, wet, med. dense			23.9		NP	0	65	35	DS 7% -0.005 mm
4545	35		■	15	12,14,14,(29)	SM	lt. brown, wet, med. dense	SILTY SAND few silt layers to 0.5" thick								
4540	40		■	14	16,15,21,(36)	SM (A-2-4(0))	lt. brown, wet, dense	POSSIBLE CLAY LAYERS (driller's observation) SILTY SAND		19.8		NP	0	85	15	
4535	45		■	18	4,5,16,(20)	SM	lt. brown to gray, wet, med. dense	SILTY SAND 4" clay layer at 45.5'								
4530								LEAN CLAY								

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RB&G ENGINEERING, INC.

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				14	Pushed	CL (A-6(15))	brown, moist, firm		94.3	29.8	37	14	0	1	99	CT
						ML	dk. gray, wet			26.7		NP	0	28	72	
				11	3,6,22,(26)	(A-4(0))	dk. gray, wet, med. dense	SANDY SILT		25.5		NP	0	46	54	
						ML (A-4(0))										
4525	55			15	7,30,34,(58) 0.41	CL-ML	gray, moist, firm	SILTY CLAY sand lenses								
						SM	dk. gray, moist, very dense	SILTY SAND								
4520	60			18	6,7,5,(11) 0.42	CL-ML (A-4(7))	dk. gray to gray-brown, moist, firm	SILTY CLAY silt lenses		28.9	29	7	0	1	99	24% -0.005 mm
4515	65			18	3,19,30,(42)	SM (A-2-4(0))	gray, wet, dense			21.8		NP	0	77	23	
4510	70			18	22,30,34,(53)	SM	gray, wet, very dense									
4505	75			18	18,37,45,(66)	SM (A-2-4(0))	gray, wet, very dense			22.5		NP	0	76	24	
4500	80			13	28,42,46,(70)	SM	gray, wet, very dense	SILTY SAND occasional silt lenses								
4495	85			13	25,32,32,(49)	SM (A-2-4(0))	gray, wet, dense			20.8		NP	0	83	17	
4490	90			15	21,30,38,(51)	SM	gray, wet, very dense									
4485	95			16	Pushed 0.72	CL (A-7-6(19))	gray, moist, stiff	LEAN CLAY sand layers 1" to 2" thick & 2" to 4" apart	86.7	34.0	43	20	0	11	89	CT
4480								SANDY SILT clayey sand layers 6" thick								

DH_LOGV1 08-OR8.GPJ US EVAL.GDT 2/23/09

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DRILL HOLE LOG

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DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 25.2' **AFTER 24 HOURS:** ▼ N.M.

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Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	Sample USCS (AASHTO)	Material Description	Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
			X	14	Pushed *0.86*	ML (*A-4(0)*)	gray, moist, stiff SANDY SILT clayey sand layers 6" thick		16.8		NP	0	48	52	
4475	105														
4470	110														
4465	115														
4460	120														
4455	125														
4450	130														
4445	135														
4440	140														
4435	145														
4430															

DH_LOGV1 08-OR8.GPJ US EVAL.GDT 2/23/09

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LEGEND:

DISTURBED SAMPLE: 2,3,2,(6) ← Blow Count per 6"; (6) ← $(N_1)_{60}$ Value; *0.45* ← Torvane (tsf)

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