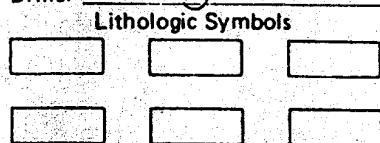


Location CLK-01A Date 7-28-87 Local well number 800501 COC 2
 County Clackamas Map Gladstone Scale 1:24,000 Lat. _____ Long. _____
 District PNW Project number 14500 Altitude _____
 Driller John Singer Helper Collins, Anderson Geologist Morgan



Abbreviations

clay	c	cobbles	cob	sandy	sdv
silt	st	boulders	b	fine	f
sand	s	clayey	clv	medium	m
gravel	g	silty	sty	coarse	co

Rge. 2E
 Twsp. 2S Sec. 14

Time	Drill action	Graphic log	Sample	Scale	Depth	Lithologic description	Summary log
						Note: after each flight is drilled to full Kelly bar, ~2 ft remain above LSD	
	Smooth					0-3 ft near loam, silt w/ fn sand 1 ft. brn	SPH/RND shown as 7/4 for sphericity/roundness
1030 ①			X			3-5 ft silt w/ fn and very fn sand as matrix in gravel 2-3 cm SPH 1.7 RND .9	
	Rough, slow, w/ binding		X			5-10 ft gravel up to 6 cm diameter (7/4)	
②	"					10-13 ft gravel and cobbles up to 10 cm, avg size 5-7 cm.	Augered w/ CME rig from Tacoma using hollow-stem flights 5' long 6 1/2" OD, 3 1/4" ID
			X			16 ft lower 1 ft of auger 'wet' when removed from hole, wet at ~16'	
③						13-18 ft gravel and cobbles 7/4, 5-6 cm avg, w/ 2-3 cm and 8-10 cm making 25%	
						20 ft: drilling is smoother; finer grain sed?	
1130 ④						25 ft - 30 ft: fresh cuttings not coming to surface, but drilling is smoother	
	SMD						
1425 ⑤							
	SMD						
1445 ⑥							
	SMD		X				
1510 ⑦						33 ft - saturated cuttings returning silt-brn, sat., unconsol., silt, clay w/ minor med-grs sand	
	SMD						

Location CLK-01A Date 7-28-87 Local well number _____

County _____ Map _____ Scale _____ Lat. _____ Long. _____

District _____ Project number _____ Altitude _____

Driller _____ Helper _____ Geologist _____

Lithologic Symbols

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Abbreviations

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silt	st	boulders	b	fine	f
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Rge.	
Twsp.	Sec.
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Depth	Scale	Sample	Graphic log	Drill action	Time to depth	Lithologic description	Summary log
1528 (8)				SMD	1530		
1538 (9)		X 1543		SMD	1543	cuttings 30-40 - sat. gm-brn, clay, silt w/ sand, consistency of soft ice cream.	
1612 (10)				SMD		40-43; as above Down 1545-1610 to tighten turn belt 43-48; drilling slower; singer thinks may be "tight clay" balling around auger; after lifting bit, drilling went much faster.	
1627 (11)		1650		SMD	1640	48-53; softer, cuttings still have olive color w/ silt & clay dominant & minor med. sand, "soft ice cream"	
1641 (12)		1654		SMD			
1655 (B)		1659		SMD	1659		

2/

P 4 pages still

F 1/4

Location CLK-01 A Date 7-28-87 Local well number _____
 County _____ Map _____ Scale _____ Lat. _____ Long. _____
 District _____ Project number _____ Altitude _____
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Lithologic Symbols

			clay	c	cobbles	cob	sandy	sd
			silt	st	boulders	b	fine	f
			sand	s	clayey	cl	medium	m
			gravel	g	silty	sty	coarse	co

Abbreviations

Rge.

Twsp.

Sec.

Depth	Scale	Sample	Graphic log	Drill action	Lithologic description	Summary log
15					<p>Sample recovery is zip - other than the olive silt, clay, sand "paste"</p> <p>Brought up by auger.</p> <p>Stopped auger at 73 ft to drive 1.5 in diameter core from 73-75'.</p> <p>No plastic cone barrel liner available.</p> <p>Core driven 1.5 ft using ~150-200 blows - on recovery barrel was bulging from pressure of core.</p> <p>Approx 8-12 in of "undisturbed" core recovered - appears severely compacted.</p> <p>Silt w/ fine and very fine sand gray-grn in color. Sand undisturbed portion in barrel to show Rod Swenson.</p> <p>Sand portion of from drive show in sample bag.</p> <p>Laminated silt and fine and very fine sand, 60% calcareous sand, and some carbonaceous material.</p>	<p>31.8</p> <p>9.0</p> <p>22.8 - casing + screen</p>
					<p>Water level in auger at 1100 7/28/87</p> <p>17.8 - 2.8 = 15 ft bl LSD.</p> <p>14.8</p>	
					<p>Depth of hole measured inside auger</p> <p>73.9 - 2.8 = 71.1 ft below LSD</p> <p>approx.</p>	
					<p>SEE SKETCH OF CONSTRUCTION ON REVERSE</p>	
					<p>24 - 10.44 = 13.56 - 1.1 MP</p> <p>= 12.46 BL LSD</p>	

as per Rod Swenson probably so.