DLZ Ohio, Inc. * 6121 Huntley Road, Columbus, Ohio 43229 * (614) 888-0040

Client: ms consultants | *Project:* FRA-70-8.93 | *Job No.* 0221-1004.01

LOG OF: Boring B-034-0-08 | *Location:* Sta. 203+85.26, 56.62' LT., BL I-70 WB | *Date Drilled:* 8/7/2008 to 8/14/2008

WATER OBSERVATIONS:
Water seepage at: 5.5', 10.5', 20.5', 25.5', 62.0'
Water level at completion: 43.3' (measured inside casing)
At beginning of shift: 8/8 28.5, BOH 45.0'

FIELD NOTES: Advanced boring using 4.0" diameter flush joint casing.

Depth (ft)	Elev. (ft)	Blows per 6"	Recovery	Sample No. Drive	Sample No. Press / Core	Hand Penetrometer (tsf)	DESCRIPTION	Graphic Log	GRADATION % Aggregate	% C. Sand	% M. Sand	% F. Sand	% Silt	% Clay	STANDARD PENETRATION (N60) Natural Moisture Content, % - ● PL ⊢ LL Blows per foot - ○ / Non-Plastic - NP
	701.5														10 20 30 40
55		20 18 18	8	20		3.75	Very stiff to hard gray SANDY SILT (A-4a), some to "and" fine to coarse sand, trace gravel; damp.		5	14	---	21	46	14	
60		50/2	2	21		4.5+	@ 58.5'-62.0', possible cobbles.								50+
62.0	689.5														
65		50/5	3	22			Boulder/cobble fragments.								50+
67.0	684.5														
70		50/2	2	23			Very dense gray GRAVEL WITH SAND (A-1-b), some fine to coarse sand, little silt; possible cobbles; wet.								50+
72.0	679.5														
75	676.5	37 50/5	9	24			Very dense gray COARSE AND FINE SAND (A-3a), little gravel, trace silt; possible cobbles; wet.								50+