Report

Submitted to:

Ohio Department of Transportation
District 4

Noise Barrier Exploration Report
SUM-271-12.62
(PID 89458)
Modification #1 Revisions

Submitted by:

Gannett Fleming

*Excellence Delivered **As Promised***

February, 2014

Gannett Fleming
Engineers and Architects, P.C.
Excellence Delivered As Promised

October 28, 2013

Thomas J. Powell, PE
District Design Engineer
Ohio Department of Transportation, District 4
2088 South Arlington Road
Akron, Ohio 44306

Re: Noise Barrier Wall- Exploration-Report Modification #1
SUM-271 Noise Barrier Design/ Build, PID: 93445
Summit County, Ohio

Dear Mr. Powell,

On behalf of Gannett Fleming, we want to thank you and Ohio Department of Transportation, District 4 for giving us the opportunity to provide our engineering services on the SUM-271-12.62 Noise Walls [PID 89458].

In accordance to our modification proposal dated December 23, 2013 (task order #2), Gannett Fleming has completed a foundation exploration for SUM-271-12.62 Noise Barrier Walls numbers 1, 2, 3, 4, and 5. This report completes our obligation under agreement number 17785. The report contains the results of the field exploration and laboratory testing. It is understood that soil plan and profiles, soil exploration cover sheet and engineering analysis are not required as part of this task. Included in this report are boring logs prepared in accordance to SGE requirements and Plan Structural Foundation sheets showing the location of the borings. We were not given any 'original' documents that need returned to the district.

We appreciate the opportunity of providing our services to you. If you have any questions, please contact us.

Sincerely,

GANNETT FLEMING ENGINEERS AND ARCHITECTS, P.C.

Thomas L Monaco, P.E.
Geotechnical Engineer

Mitchell W. Weber, P.G.
Vice President

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Noise Barrier Exploration Report

SUM-271-12.62 (PID 89458)

Table of Contents

Contents

1.0 INTRODUCTION 1

2.0 GEOLOGY AND OBSERVATIONS OF THE PROJECT 1

2.1 SITE RECONNAISSANCE 2

3.0 EXPLORATION 3

3.1 HISTORICAL EXPLORATIONS 3

3.2 PROJECT EXPLORATION 3

3.3 LABORATORY TESTING 4

4.0 FINDINGS 4

4.1 SUBSURFACE STRATIGRAPHY 4

4.1.1 Phase 1 Exploration 4

4.1.2 Phase 2 Exploration 5

4.2 GROUNDWATER 5

4.2.1 Phase 1 Exploration 5

4.2.2 Phase 2 Exploration 5

Noise Barrier Exploration Report
SUM-271-12.62
(PID 89458)

1.0 INTRODUCTION

Four noise walls are proposed along the south bound lane of IR-271, and one noise wall in the north bound lane of IR-271 near Macedonia, Ohio. This report includes the borings advanced for the original scope (Walls 1-4) and for the modification to the scope received after the October submission (Wall 5 and the relocation of Wall 1). To distinguish between the phases of the work, this report refers to the exploration before the modification as Phase 1 and work performed after the modification as Phase 2.

The walls will be constructed between stations 90+00 and 224+00. It is understood at the time of this report ODOT District 4 does not require foundation recommendations and subsurface exploration sheets. This report was performed in accordance to ODOT's Specifications for Geotechnical Explorations (SGE) updated August 2013.

2.0 GEOLOGY AND OBSERVATIONS OF THE PROJECT

The project is located northwest Summit County which is characterized by relatively thin layers of glacial till overlying mainly Mississippian bedrock. This is the area of highest relief in the county; the ridges approach El. 1200.0 and the low elevation of the Cuyahoga River valley is around El. 940.0.

The project lies in Ohio Physiographic Region of the Appalachian Plateau province; in a subsection known as the Killbuck-Glaciated Pittsburgh Plateau. This physiographic section is characterized as ridges and flat uplands separating relatively deep valleys. The local stratigraphy consist Hiram-age, end-moraine, glacial till overlying Mississippian shale bedrock. These soils are of a mixture of gray and brown till clays and gray lacustrine silt and clay. The bedrock is generally shale of the Cuyahoga Formation.

Groundwater in the dense, fine-grained, glacial till often follows fractures or is confined to inter-bedded sand and gravel layers. Small amounts of groundwater were observed in the few sand lenses encountered in the

borings and in isolated fractures of the till near the SR82 interchange.

Reviewed Resources:

Brockman, C.S., 1998. "Physiographic regions of Ohio". *Ohio Department of Natural Resources, Division of Geological Survey*, Map. p. 2.

Camp, M.J., 2006. Roadside geology of Ohio. p. 410. Missoula, Montana: Mountain Press Publishing Company.

Heimlich, R.A. and Feldman, R.M Eds. Selected Field Trips in Northeast Ohio. Reprinted 1987. Ohio Department of Natural Resources, Division of Geological Survey, Guidebook No. 2. Engineering and Pliestocence Geology of the Lower Cuyahoga River Valley, by George Garner, et al.

Hoover, K.V., 1960. "Devonian-Mississippian shale sequence in Ohio", *Ohio Department of Natural Resources*, *Division of Geological Survey* Report of Investigation 27. pp. 154, 3 plts., 11 figs., 3 tbls.

Ohio Department of Natural Resources, 2006, Bedrock geologic map of Ohio. Division of Geological Survey, Ohio Department of Natural Resources Map BG-1. p 2.

White, G.M., 1982. "Glacial geology of northeast Ohio". *Ohio Department of Natural Resources, Division of Geological Survey*, Bulletin 68. pp.73, 1 plts., 43 figs., 7 tbls.

White, G.M., 1984. "Glacial geology of Summit County, Ohio". *Ohio Department of Natural Resources, Division of Geological Survey*, Report of Investigation 123. pp.24, 2 plts., 14 figs., 2 tbls.

2.1 SITE RECONNAISSANCE

GF performed a site visit on September 28th and 29th 2013 to evaluate existing conditions and site access. The surrounding land use is a mixture of commercial and residential with the properties adjacent to the wall being residential. Barrier Walls #1 and #4 are near the guard rail on the IR-271 an embankment. The wall is proposed near the top of a 2:1 slope. Barrier Walls #2 and #3 are near the fence line. The topography slopes up the fence and with a level area, ranging from 5 to 20 feet in width, in between top of slope and fence line. This area was wooded with younger growth trees. The drainage ditches and pavement appeared to be in good to fair condition.

A second site visit was performed on December 18, 2013 to evaluate existing conditions for wall five. The proposed wall is located outside the guardrail near the top of a 2:1 slope. The slope embankment slopes appear to be stable.

The field reconnaissance determined that of cut slopes in the south bound lanes were in the glacial till. In this reach of IR 271, the till slope appear to be relatively stable and lack the hummocky surfaces and deep erosional rill of the slopes south of SR 8. The constructed embankment slopes appear stable and penetration resistance was generally very high.

3.0 EXPLORATION

3.1 HISTORICAL EXPLORATIONS

Historical borings were requested but were not received. There was evidence of borings (patched pavement) advanced lately, these borings maybe part of the larger project that is still in design.

3.2 PROJECT EXPLORATION

Phase 1 of the exploration included twenty nine borings. This phase occurred between September 28 and October 7. The borings were designated B-001-0-13 to B-028-0-13 (the 29th boring was B-006-1-13). Borings B-001 to B-006 and B-024 to B-028 were advanced through the pavement of the shoulder. Due to difficult access, Borings B-006-1 and B-011 were advanced outside the right of way. The remaining borings were advanced within the right of way but outside of the pavement. Per the SGE, each boring extended to a depth of 25.0 feet or at least 5 feet into rock. The boring locations can be found on the logs and the attached Structure Foundation Investigation sheets.

Four rigs were used to advance the borings; a truck mounted Diedrich drill rig, a CME 75 Truck drill rig, and ATV mounted CME 550 and CME550X drill rigs. The rigs used either 2.25-inch or 4.25-inch diameter, with hollow stems, and continuous flight augers to advance the borings. A split barrel sampler with a 2.0-inch OD diameter was used to obtain disturbed samples at 2.5 foot intervals. The hammers for the CME 550 and Diedrich 50 were calibrated March 26, 2013 in accordance to ASTM D 4633. The energy ratios were determined to be 80.8% and 81.7% for the CME 550 and Diedrich 50, respectively. The hammers for the CME 75 and CME 550X were calibrated January 12, 2012 and April 26, 2013 in accordance to ASTM D 4633. The energy ratios were determined to be 73.0% and

79.8% for the CME 75 and CME 550X, respectively.

The drilling was performed by Ridgeway Drilling Inc. or TTL associates, and GF personnel were present to examine and log samples in the field. All the field samples were sealed in glass jars and transported to Cardno ATC laboratory in Brecksville for lab testing. At the completion of drilling the bore holes were sealed with 50 lbs. of bentonite chips and auger cuttings. Borings advanced through the shoulder were capped with 12 inches of asphalt cold patch.

3.3 LABORATORY TESTING

In the laboratory, all samples were visually classified and tested for natural moisture content. Complete classifications (grain size gradations, 2-hour hydrometer, and liquid and plastic limits) were performed on selected fine-grained material and grain size analyses were performed on selected non- plastic samples. Hand penetrometer readings were taken in the field. A summary of the laboratory testing can be found appended to this report and the boring logs.

4.0 FINDINGS

4.1 SUBSURFACE STRATIGRAPHY

4.1.1 Phase 1 Exploration

Borings advanced for wall #1 and #4 were advanced through fill ranging in depth from 11 to 25 feet of depth. The fill is mostly fine-grained soil A-6b and A-6a material of stiff to hard consistency. Thin layers of granular soil (A-3a and A-1-b) were observed in a small number of borings. Fill was generally absent in borings for Wall #2 and Wall #3. All these boring were advanced in 2013.

The natural soils across the site were also primarily fine grained material (ODOT Classification A-4a, A-6a, A-6b, and A-7-6). The consistency ranged from very soft to hard, with an average value of very stiff. The very soft material was encountered in boring B-021; in this area the topography had a slight depression that may have allowed water to pool. Although no other borings were in depressed areas, other depressed areas were observed. Thus pockets of near surface very soft material may occur elsewhere within the project.

Weak gray shale bedrock was encountered in borings B-012 to B-023 at depths

ranging from 13.5 feet to 21.0 feet. No rock coring was performed since ODOT BDM only differentiates between bedrock with a compressive strength of over and under 7,500 psi. 7,500 psi is outside the compressive strength of local shales and all bedrock encountered on this project should be assumed to be of less than 7,500 psi. Auger refusal did not occur within the depth of the borings.

For a more comprehensive presentation of the subsurface profile please refer to the appended boring logs.

4.1.2 Phase 2 Exploration

The borings in this phase were advanced for noise wall 5 and the relocated Wall #1. All the borings were advanced through roadway embankment that consisted of very stiff to hard fine grained materials (predominately ODOT A-4a to A-6a), with minor strata of granular material (typically near surface). No bed rock was encountered in the borings.

4.2 GROUNDWATER

4.2.1 Phase 1 Exploration

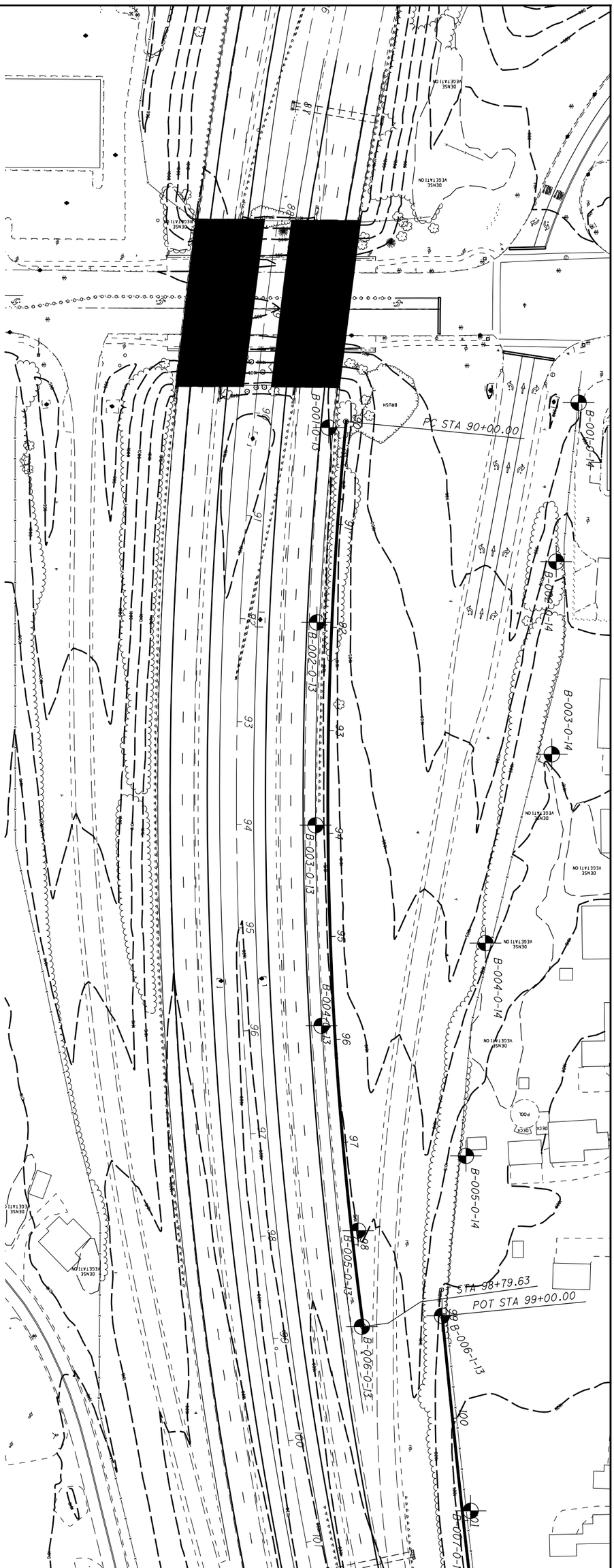
Only one boring encountered significant ground water during drilling (B-017). In this boring, water was found to be at a depth of 17 feet (elevation 1052.8). The bore holes generally collapsed at depths greater than 19 feet and no water was found in the bore holes at completion. The holes were backfilled and sealed at completion.

4.2.2 Phase 2 Exploration

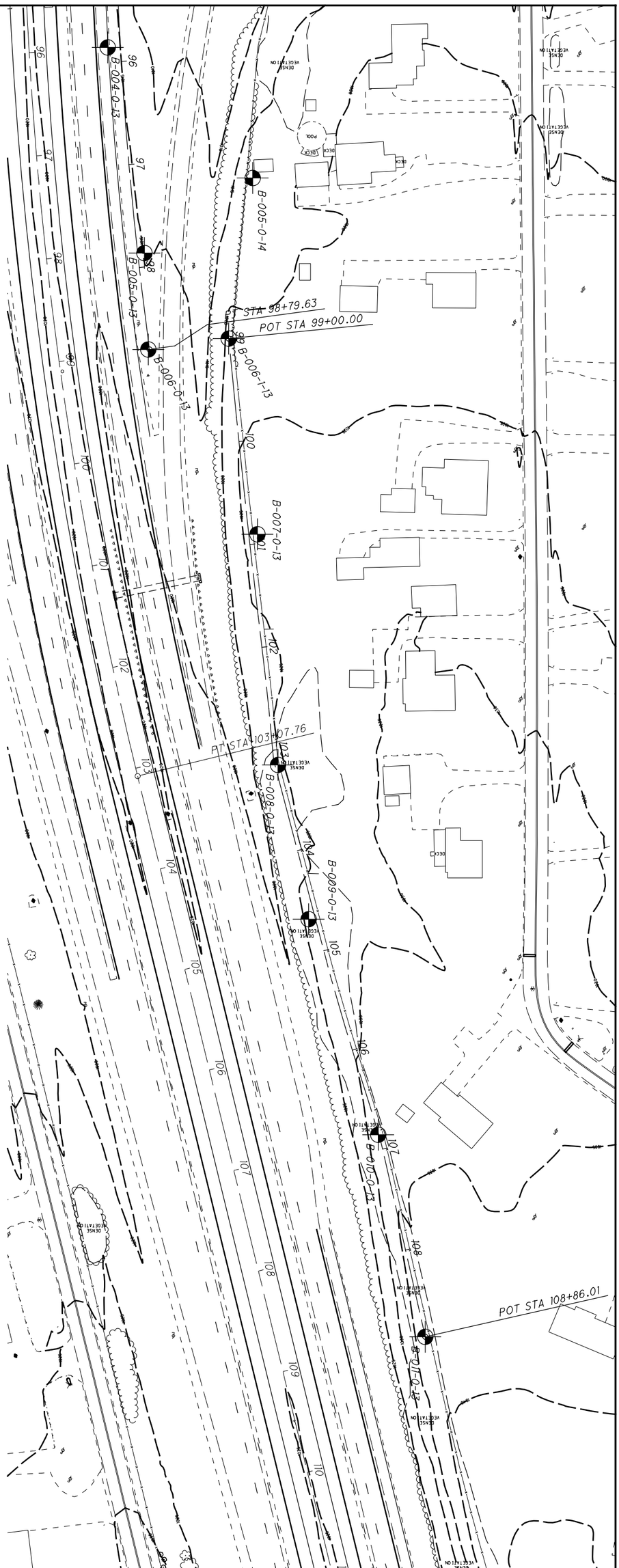
Four of the borings B-002-0-14, B-004-0-14, B-040-0-14, and B-053-014 encountered ground water. Given the absence of water in the remaining boring; the fluctuation of the water levels over the time the water was encountered and the borehole was sealed; and the strata encountered, it is likely that the water is evidence of a perched water table rather than actual ground water elevation. The holes were backfilled and sealed at completion.

APPENDIX A

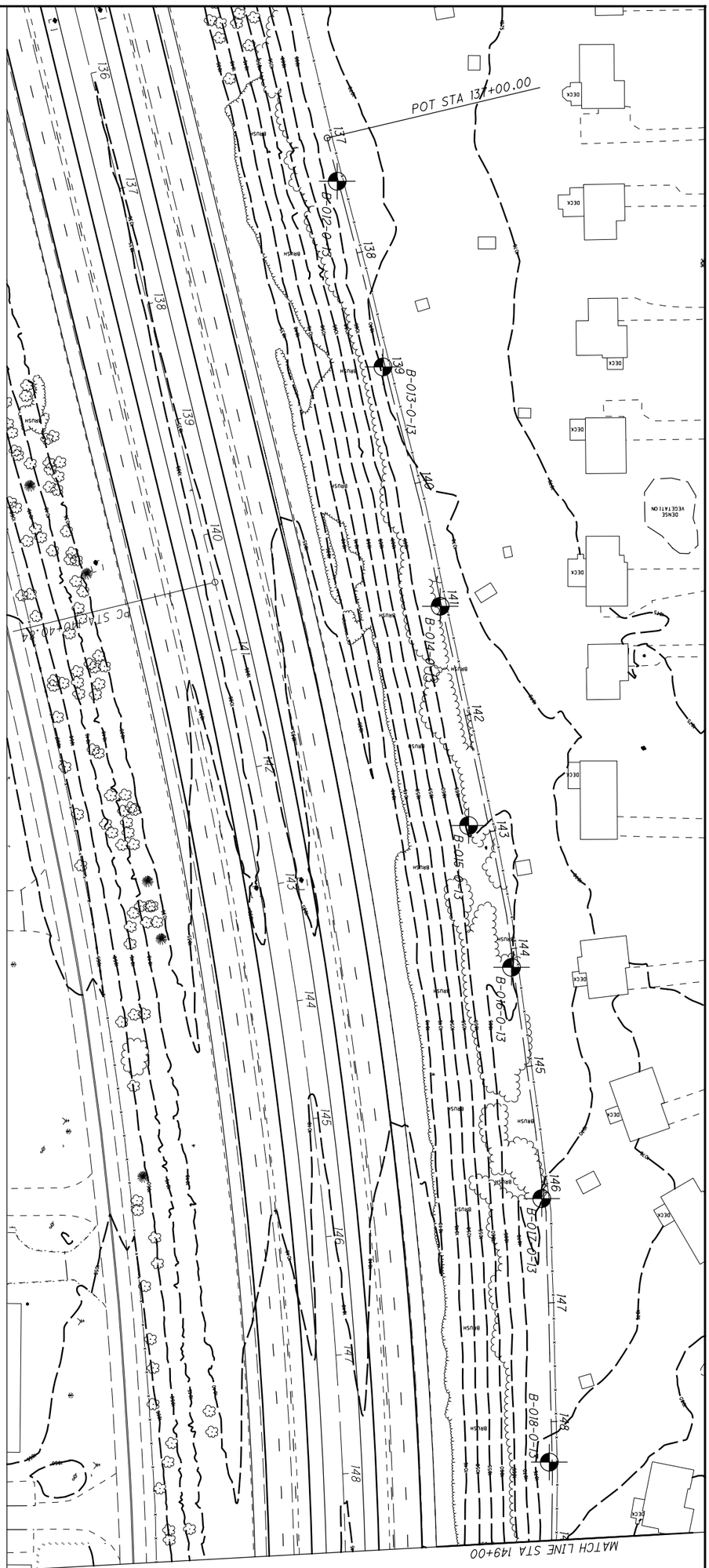
STRUCTURAL FOUNDATION PLANS



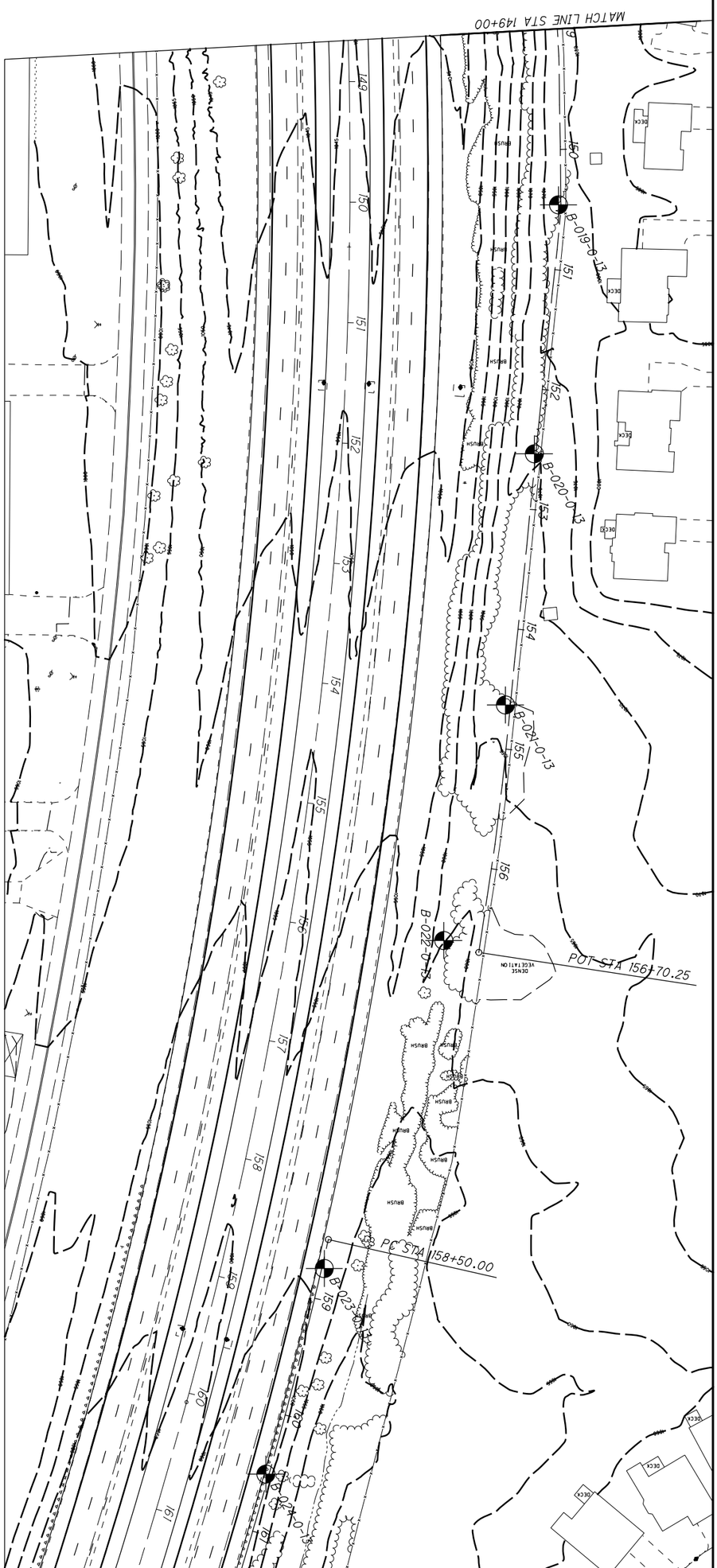
	1 / 9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 1 AND 2	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET



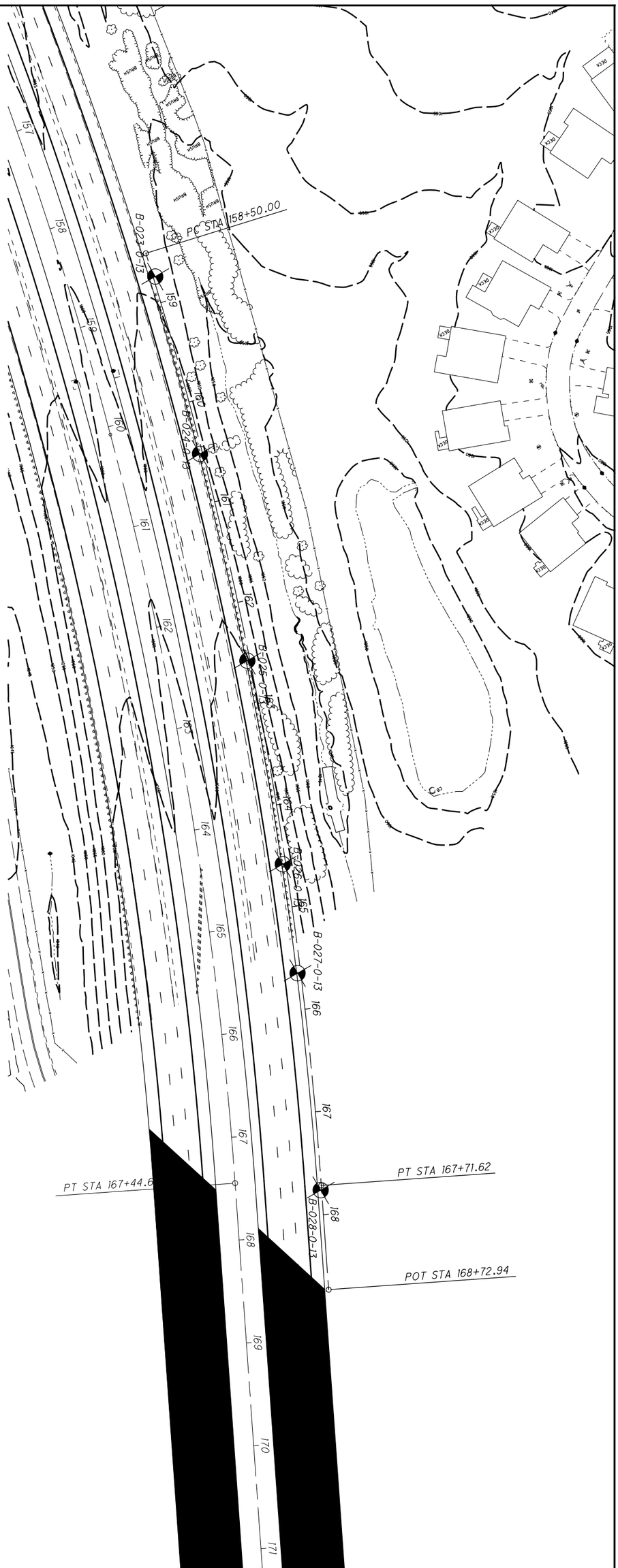
	2/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 2	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET



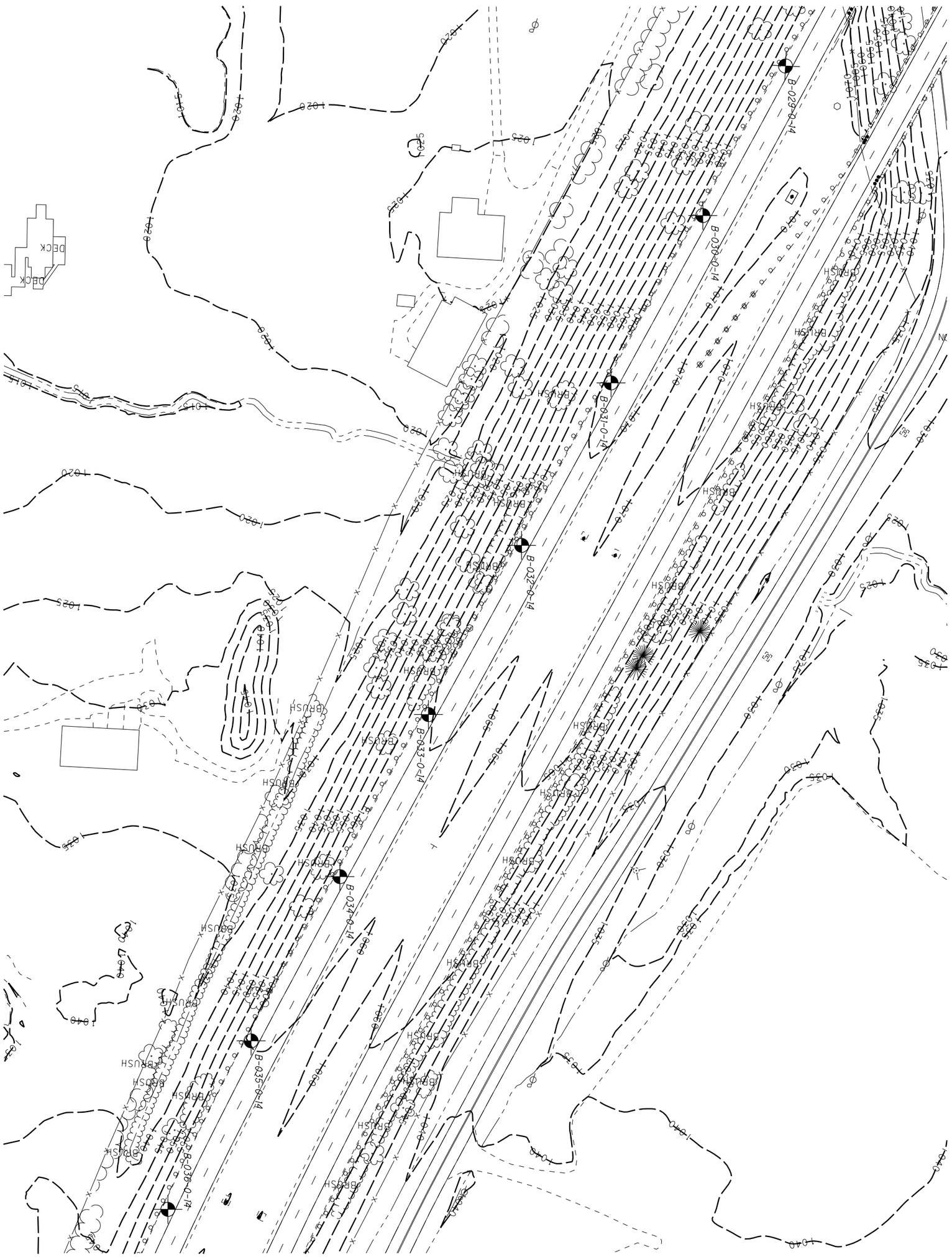
	3/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 3	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET



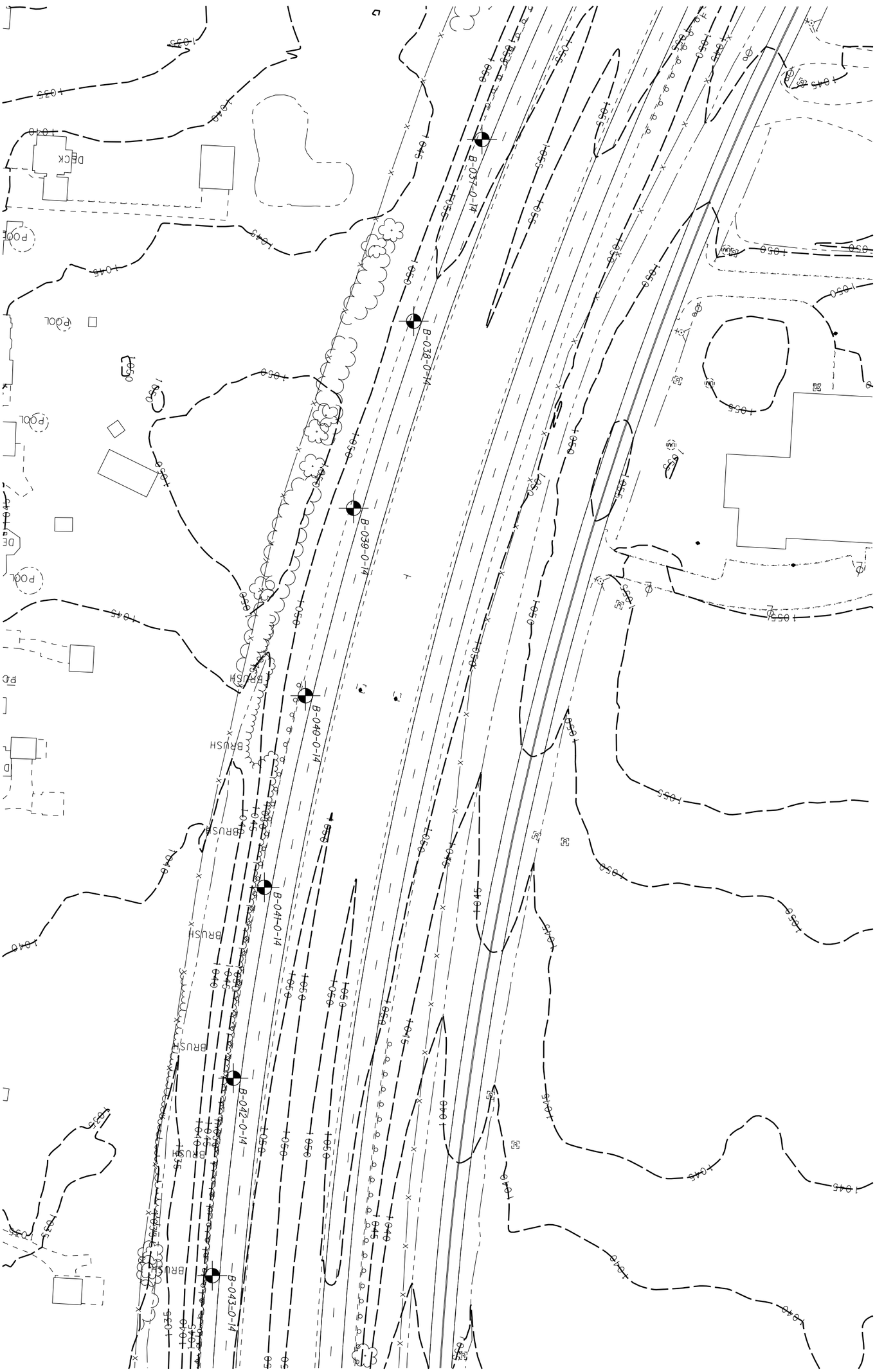
	4/6	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 3	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET



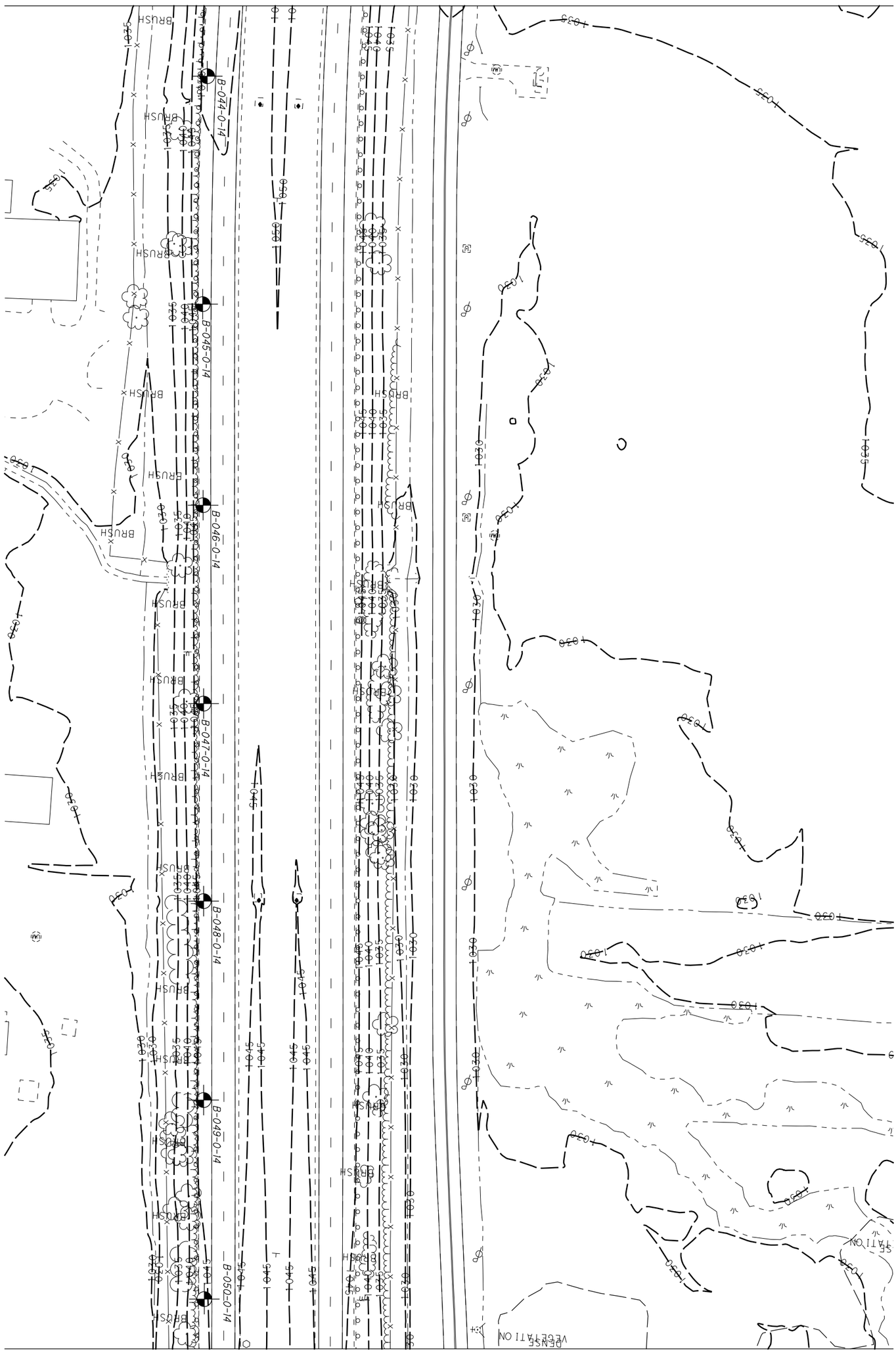
5/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 4	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET	



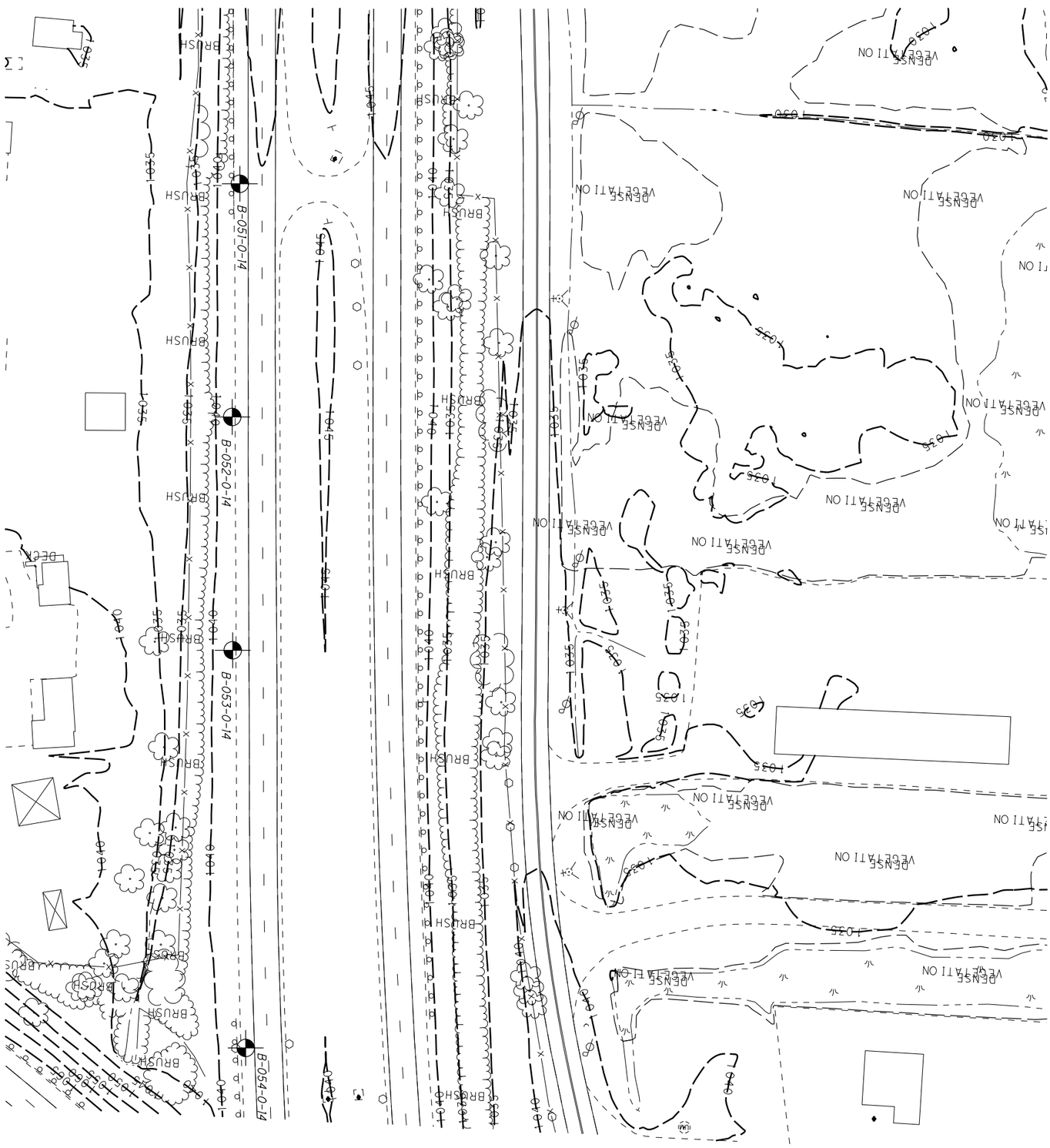
6/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 5	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET	N



7/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 5	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET	N



8/9	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 5	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET	N



6/6	SUM-271-12.62	STRUCTURE FOUNDATIOIN INVESTIGATION NOISE BARRIER NO. 5	DRAWN TLM CHECKED MWW	0 50 25 100 HORIZONTAL SCALE IN FEET	N

APPENDIX B

BORING LOGS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 90+08, 73 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1014.6 (MSL) EOB: 25.0 ft.
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239734.182 N, 601831.646 E

EXPLORATION ID B-001-0-13

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 1014.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (10") OVER GRANULAR BASE (8")	1013.1																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP			3 3 4	10	44	SS-1	4.25	-	-	-	-	-	-	-	-	14	A-6b (V)	
			4 5 7	16	94	SS-2	3.50	9	22	14	17	38	34	16	18	14	A-6b (7)	
			4 5 5	14	89	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	1005.1		3 2 4	8	94	SS-4	1.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
STIFF TO VERY STIFF, BROWN AND GRAY, **SILTY CLAY**, "AND" SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP			6 4 7	15	81	SS-5	2.00	9	20	20	25	26	32	14	18	13	A-6b (6)	
	1000.6		3 5 7	16	89	SS-6	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP			6 5 8	18	100	SS-7	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	995.6		4 5 8	18	100	SS-8	4.5+	9	22	15	23	31	35	16	19	14	A-6b (7)	
STIFF TO HARD, GRAY, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, DAMP			3 4 5	12	100	SS-9	1.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
	989.6	EOB	4 4 6	14	100	SS-10	2.50	-	-	-	-	-	-	-	-	14	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: 12 IN. ASPHALT PATCH; MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 92+00, 74 RT	EXPLORATION ID B-002-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1015.8 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239745.450 N, 602020.575 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1015.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (12") OVER GRANULAR BASE (6")	1014.3	1																
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, "AND" SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP		2	4 3 5	11	67	SS-1	3.50	-	-	-	-	-	-	-	-	12	A-6b (V)	
		3																
		4	4 4 6	14	83	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		5																
		6																
		7	3 4 6	14	56	SS-3	2.00	8	18	20	25	29	33	15	18	13	A-6b (7)	
	1007.3	8																
HARD, BROWN, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP		9	10 9 12	29	67	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
		10																
		11																
		12	8 8 11	26	78	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
		14	9 12 15	37	100	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
	999.8	15																
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, "AND" SAND AND TRACE SHALE FRAGMENTS, MOIST		16																
		17	34 11 10	29	39	SS-7	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		18																
		19	4 4 7	15	100	SS-8	2.00	9	20	18	26	27	35	17	18	14	A-6b (7)	
		20																
		21																
		22	7 9 10	26	100	SS-9	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
		23																
	990.8	24	7 8 9	23	100	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	EOB	25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 94+01, 77 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1016.5 (MSL) EOB: 25.0 ft.
START: 9/29/13 END: 9/29/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239746.913 N, 602217.261 E

EXPLORATION ID B-003-0-13

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (13") OVER GRANULAR BASE (5")	1016.5																	
	1015.0																	
STIFF TO VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP		1	5 2 2	5	44	SS-1	1.50	-	-	-	-	-	-	-	-	13	A-1-b (V)	
		2																
		3																
		4	4 3 4	10	33	SS-2	1.50	8	18	18	26	30	36	19	17	14	A-6b (7)	
		5																
		6																
		7	4 5 5	14	100	SS-3	4.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		8																
	1007.0	9	4 5 6	15	100	SS-4	4.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
VERY STIFF, BROWN AND GRAY, **SILTY CLAY**, "AND" SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP		10																
		11	5 6 9	20	100	SS-5	3.00	5	17	13	32	33	34	20	14	13	A-6a (7)	
		12																
		13																
		14	5 8 10	25	100	SS-6	4.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1000.5	15																
VERY STIFF TO HARD, GRAY, **SILTY CLAY**, SOME SAND AND TRACE SHALE FRAGMENTS, DAMP		16																
		17	5 8 8	22	100	SS-7	4.5+	8	22	21	19	30	38	21	17	15	A-6b (5)	
		18																
		19	5 9 6	20	100	SS-8	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
		20																
		21																
		22	7 7 9	22	100	SS-9	3.50	-	-	-	-	-	-	-	-	15	A-6b (V)	
		23																
		24	4 11 7	25	100	SS-10	2.00	-	-	-	-	-	-	-	-	15	A-6b (V)	
	991.5	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 95+99, 76 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1017.2 (MSL) EOB: 25.0 ft.
START: 9/29/13 END: 9/29/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239741.079 N, 602411.633 E

EXPLORATION ID B-004-0-13

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 1017.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (12") OVER GRANULAR BASE (6")	1015.7	1																
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, "AND" SAND AND TRACE SHALE FRAGMENTS, (FILL), DAMP		2	3 3 4	10	78	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		3																
		4	4 4 6	14	6	SS-2	-	7	25	18	26	24	35	16	19	13	A-6b (6)	
		5																
		6	5 5 8	18	100	SS-3	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		7																
		8	4 5 7	16	100	SS-4	3.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
	1006.2	9																
STIFF TO VERY STIFF, GRAY, **SILT AND CLAY**, SOME SAND, TRACE GRAVEL, DAMP		10	3 2 5	10	100	SS-5	2.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		11																
		12	13 5 6	15	89	SS-6	1.50	8	17	17	35	23	33	20	13	13	A-6a (6)	
		13																
		14	6 8 13	29	100	SS-7	1.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		15																
		16	7 7 7	19	100	SS-8	1.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		17																
		18	4 4 4	11	100	SS-9	1.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		19																
		20	3 3 4	10	100	SS-10	1.00	-	-	-	-	-	-	-	-	17	A-6a (V)	
	992.2	21																
	EOB	22																
		23																
		24																
		25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 98+05, 95 RT	EXPLORATION ID B-005-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1014.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239705.626 N, 602610.310 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (12")	1014.2																	
VERY STIFF TO HARD, BROWN, **SILT AND CLAY**, SOME SAND AND LITTLE SHALE FRAGMENTS, (FILL), DAMP	1013.2	1	3 4 5	12	100	SS-1	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		2																
		3																
		4	5 6 9	20	0	SS-2	4.5+	13	15	18	27	27	35	20	15	13	A-6a (6)	
		5																
		6	5 6 6	16	28	SS-3	2.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		7																
	1005.7	8																
STIFF TO VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND AND LITTLE SHALE FRAGMENTS, (FILL), DAMP		9	3 3 4	10	89	SS-4	1.00	11	14	15	35	25	35	19	16	17	A-6b (7)	
		10																
		11																
		12	3 4 6	14	100	SS-5	3.25	-	-	-	-	-	-	-	-	15	A-6b (V)	
		13																
		14	3 4 6	14	100	SS-6	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
	998.2	15																
STIFF TO VERY STIFF, GRAY, **SILTY CLAY**, SOME SAND AND LITTLE GRAVEL, DAMP		16	3 4 5	12	100	SS-7	1.25	18	13	17	28	24	38	17	21	15	A-6b (7)	
		17																
		18																
		19	3 4 6	14	100	SS-8	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
		20																
		21																
		22	4 5 7	16	100	SS-9	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		23																
	989.2	24																
	EOB	25	4 6 8	19	89	SS-10	3.00	-	-	-	-	-	-	-	-	11	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 99+00, 87 RT	EXPLORATION ID B-006-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1017.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239701.944 N, 602703.429 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1017.6																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP	1017.1		2 2 3	7	100	SS-1	2.75	-	-	-	-	-	-	-	-	14	A-6b (V)	
			6 7 7	19	100	SS-2	4.25	-	-	-	-	-	-	-	-	11	A-6b (V)	
			5 5 6	15	100	SS-3	4.5+	19	7	16	25	33	35	19	16	13	A-6b (7)	
MEDIUM DENSE, BROWN AND BLACK, **COARSE AND FINE SAND**, LITTLE SILT, (FILL), MOIST	1008.6		3 4 12	22	78	SS-4	-	-	-	-	-	-	-	-	-	11	A-3a (V)	
	1005.1		4 6 8	19	78	SS-5	2.50	2	40	38	- 20 -		NP	NP	NP	8	A-3a (0)	
VERY STIFF, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE ROCK FRAGMENTS (SHALE), DAMP			3 6 8	19	100	SS-6	3.00	14	8	17	34	27	34	18	16	15	A-6b (8)	
			4 6 8	19	100	SS-7	3.25	-	-	-	-	-	-	-	-	15	A-6b (V)	
			4 7 8	20	100	SS-8	3.50	-	-	-	-	-	-	-	-	15	A-6b (V)	
@21.0: SAME, GRAY			3 6 8	19	100	SS-9	2.50	-	-	-	-	-	-	-	-	16	A-6b (V)	
	992.6	EOB	4 7 7	19	100	SS-10	2.00	-	-	-	-	-	-	-	-	15	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 99+00, 165 RT	EXPLORATION ID B-006-1-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1027.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/7/13 END: 10/7/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239624.224 N, 602692.932 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1027.0																	
HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP	1026.5	1	6 9 7	22	100	SS-1	4.5+	19	7	17	28	29	34	16	18	9	A-6b (8)	
		2																
		3																
		4	8 8 11	26	100	SS-2	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
		5																
		6																
		7	7 7 6	18	100	SS-3	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
		8																
		9	4 5 9	19	78	SS-4	4.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1016.0	10																
VERY STIFF TO HARD, GRAY, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		11	8 3 3	8	78	SS-5	2.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		12																
		13																
		14	3 3 5	11	100	SS-6	4.5+	17	7	18	36	22	36	17	19	13	A-6b (8)	
		15																
		16																
		17	3 5 7	16	100	SS-7	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		18																
		19	3 5 8	18	100	SS-8	2.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
		20																
		21																
		22	3 4 8	16	100	SS-9	3.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
		23																
		24	3 4 7	15	100	SS-10	2.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1002.0	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 100+99, 163 RT	EXPLORATION ID B-007-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1024.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239596.516 N, 602881.958 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1024.2																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, "AND" SAND, DAMP	1024.7	1	6 8 10	24	67	SS-1	2.75	-	-	-	-	-	-	-	-	11	A-6b (V)	
		2																
		3																
		4	9 11 16	36	94	SS-2	4.25	2	18	24	28	28	37	18	19	12	A-6b (8)	
		5																
		6																
		7	7 11 14	34	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		8																
	1015.7	9	7 12 15	36	100	SS-4	2.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
VERY STIFF, GRAY, **SANDY SILT**, TRACE GRAVEL, MOIST TO WET		10																
		11	5 5 5	13	100	SS-5	2.50	-	-	-	-	-	-	-	-	12	A-6b (V)	
		12																
		13																
		14	3 5 5	13	56	SS-6	3.00	-	-	-	-	-	-	-	-	15	A-4a (V)	
		15																
		16																
		17	4 4 4	11	94	SS-7	3.25	-	-	-	-	-	-	-	-	15	A-4a (V)	
		18																
		19	2 4 6	13	100	SS-8	3.50	6	30	22	26	16	15	7	8	16	A-4a (1)	
		20																
		21																
		22	4 4 5	12	83	SS-9	3.50	-	-	-	-	-	-	-	-	16	A-4a (V)	
		23																
		24																
	999.7	EOB 25	4 6 7	18	94	SS-10	2.00	-	-	-	-	-	-	-	-	14	A-4a (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 103+00, 135 RT	EXPLORATION ID B-008-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1025.0 (MSL) EOB: 12.5 ft.	PAGE 1 OF 1
START: 10/2/13 END: 10/2/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239576.621 N, 603104.870 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1025.0																	
HARD, BROWN, **SILTY CLAY**, "AND" SAND, LITTLE ROCK FRAGMENTS, DAMP	1024.5	1	5 9 10	26	67	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		2																
		3																
		4	6 8 11	26	67	SS-2	4.5+	0	19	22	29	30	36	20	16	12	A-6b (7)	
		5																
@6.0: DROVE ROCK ZERO RECOVERY		6																
		7	8 10 12	30	0	SS-3	-	-	-	-	-	-	-	-	-	-		
		8																
@8.5: DROVE ROCK ZERO RECOVERY		9	7 10 12	30	0	SS-4	-	-	-	-	-	-	-	-	-	-		
		10																
@11.0: DROVE ROCK ZERO RECOVERY		11																
	1012.5	12 EOB	4 7 6	18	0	SS-5	-	-	-	-	-	-	-	-	-	-		

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 103+29, 134 RT	EXPLORATION ID B-008-1-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1025.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/2/13 END: 10/2/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239583.130 N, 603076.421 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
HARD, BROWN, **SILTY CLAY** RELOCATION OF BORING B-008-0-13, AUGERED TO THE DEPTH OF FIRST ZERO RECOVERY SPOON.	1025.0	1						-	-	-	-	-	-	-	-	-	A-6b (V)	
		2																
		3						-	-	-	-	-	-	-	-	-	A-6b (V)	
		4																
		5																
	1019.0	6																
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, LITTLE TO SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		7	4 5 8	18	100	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		8																
		9	6 7 9	22	100	SS-2	4.5+	12	11	17	30	30	38	19	19	14	A-6b (9)	
		10																
		11																
		12	3 4 4	11	100	SS-3	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
		14																
		15	3 4 5	12	100	SS-4	3.00	19	13	6	35	27	35	18	17	14	A-6b (8)	
	1009.0	16																
STIFF TO HARD, GRAY, **SILT AND CLAY**, SOME SAND, TRACE ROCK FRAGMENTS, MOIST		17																
		18	3 4 6	13	100	SS-5	3.00	9	19	21	30	21	26	11	15	13	A-6a (5)	
		19																
		20	4 5 7	16	28	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		21																
		22	3 4 5	12	100	SS-7	2.00	7	8	14	24	47	44	21	23	15	A-7-6 (13)	
		23																
	1000.0	24																
	EOB	25	3 5 7	16	100	SS-8	2.50	-	-	-	-	-	-	-	-	13	A-7-6 (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 104+81, 128 RT	EXPLORATION ID B-009-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1026.4 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/2/13 END: 10/2/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239547.023 N, 603253.942 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1026.4																	
HARD, GRAY, **CLAY**, SOME SAND, TRACE SHALE FRAGMENTS, DAMP	1025.9	1	4 5 5	13	100	SS-1	4.00	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		2																
		3																
		4	3 4 4	11	100	SS-2	4.5+	9	7	17	38	29	46	26	20	14	A-7-6 (11)	
		5																
	1020.4	6																
STIFF TO VERY STIFF, GRAY, **CLAY**, SOME SAND, TRACE SHALE FRAGMENTS, DAMP		7	3 4 4	11	100	SS-3	1.50	-	-	-	-	-	-	-	-	15	A-7-6 (V)	
		8																
		9	3 4 6	13	100	SS-4	3.50	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		10																
		11	4 5 7	16	100	SS-5	4.00	-	-	-	-	-	-	-	-	-	A-7-6 (V)	
		12																
		13																
		14	4 6 9	20	100	SS-6	4.00	9	7	16	31	37	42	22	20	14	A-7-6 (11)	
		15																
		16																
		17	4 5 6	15	100	SS-7	2.00	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		18																
		19	4 4 7	15	100	SS-8	1.70	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		20																
		21																
		22	2 4 6	13	100	SS-9	2.00	-	-	-	-	-	-	-	-	9	A-7-6 (V)	
		23																
		24	3 4 5	12	100	SS-10	1.50	-	-	-	-	-	-	-	-	11	A-7-6 (V)	
	1001.4	EOB 25																

NOTES: SAMPLE S-5 LOST IN TRANSPORT.

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 107+00, 144 RT	EXPLORATION ID B-010-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1032.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/2/13 END: 10/2/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239479.801 N, 603462.170 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (4")	1032.6																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT, MOIST	1029.9	1	5 6 7	18	94	SS-1	-	2	47	34	- 17 -		NP	NP	NP	9	A-3a (0)	
HARD, BROWN, **CLAY**, SOME SAND, TRACE SHALE FRAGMENTS, DAMP	1027.4	2 3 4 5	7 9 13	30	94	SS-2	4.5+	8	5	22	34	31	43	19	24	11	A-7-6 (12)	
MEDIUM DENSE, BROWN, **STONE FRAGMENTS WITH SAND AND SILT**, MOIST	1024.4	6 7 8	5 8 7	20	89	SS-3	-	30	21	32	- 17 -		NP	NP	NP	12	A-1-b (0)	
STIFF TO HARD, BROWN AND GRAY, **CLAY**, SOME SAND, TRACE ROCK FRAGMENTS, DAMP		9	3 3 3	8	78	SS-4	3.00	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		10 11 12	2 2 3	7	94	SS-5	1.50	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		13 14 15	2 3 5	11	100	SS-6	4.5+	6	14	19	25	36	42	20	22	13	A-7-6 (10)	
		16 17 18	3 4 6	13	100	SS-7	4.5+	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		19 20 21	4 4 6	13	100	SS-8	4.5+	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		22 23	6 8 8	22	67	SS-9	3.00	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
	1007.9	EOB 24 25	4 6 7	18	100	SS-10	3.00	-	-	-	-	-	-	-	-	13	A-7-6 (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 109+00, 142 RT	EXPLORATION ID B-011-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1038.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/7/13 END: 10/7/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2239434.350 N, 603657.445 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1038.0																	
STIFF TO VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP	1037.5		6 7 8	20	100	SS-1	2.00	-	-	-	-	-	-	-	-	11	A-6b (V)	
			5 7 8	20	100	SS-2	3.00	15	11	22	25	27	36	17	19	11	A-6b (7)	
			3 3 6	12	100	SS-3	3.00	-	-	-	-	-	-	-	-	10	A-6b (V)	
			3 5 6	15	100	SS-4	3.50	-	-	-	-	-	-	-	-	11	A-6b (V)	
VERY STIFF, GRAY, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP	1027.0		4 4 4	11	100	SS-5	3.00	-	-	-	-	-	-	-	-	12	A-6b (V)	
			5 5 3	11	100	SS-6	2.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
			7 8 10	24	100	SS-7	2.50	17	10	15	35	23	34	16	18	13	A-6b (8)	
			4 6 7	18	100	SS-8	3.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
			5 5 5	13	100	SS-9	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1013.0	EOB	4 5 4	12	100	SS-10	3.00	-	-	-	-	-	-	-	-	14	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 137+37, 180 RT	EXPLORATION ID B-012-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1067.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/2/13 END: 10/2/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238724.512 N, 606404.894 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1067.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (8")	1066.8																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		1	2 3 5	11	72	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		2																
		3																
		4	3 5 4	12	61	SS-2	4.5+	16	11	22	20	31	35	18	17	13	A-6b (6)	
		5																
		6	5 6 6	16	89	SS-3	2.75	-	-	-	-	-	-	-	-	13	A-6b (V)	
		7																
		8																
		9	5 8 9	23	83	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
		10																
		11																
		12	3 5 5	13	83	SS-5	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1054.1	13																
STIFF TO VERY STIFF, GRAY, **CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, DAMP		14	3 3 4	9	94	SS-6	3.00	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		15																
		16																
		17	3 6 8	19	89	SS-7	1.50	16	4	15	27	38	41	17	24	9	A-7-6 (12)	
	1049.1	18																
SHALE, GRAY, HIGHLY WEATHERED, WEAK.		TR 19	4 9 12	28	83	SS-8	-	-	-	-	-	-	-	-	-	12	Rock (V)	
		20																
		21																
		22	17 25 42	90	100	SS-9	-	-	-	-	-	-	-	-	-	11	Rock (V)	
		23																
		24	22 50/6"	-	56	SS-10	-	-	-	-	-	-	-	-	-	8	Rock (V)	
	1042.6	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 138+98, 180 RT	EXPLORATION ID B-013-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1070.3 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/1/13 END: 10/1/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238686.020 N, 606561.162 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1070.3																	
HARD, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, LITTLE ROCK FRAGMENT, SLIGHTLY ORGANIC, MOIST	1069.8		6 9 9	24	100	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
			8 14 16	40	100	SS-2	4.5+	17	13	19	19	32	37	19	18	12	A-6b (6)	
HARD, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE ROCK FRAGMENTS, DAMP	1064.3		8 12 15	36	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
			6 10 14	32	100	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
STIFF TO VERY STIFF, BROWN AND GRAY, **CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, DAMP	1059.3		3 4 6	13	100	SS-5	2.80	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
			3 4 5	12	100	SS-6	1.50	17	6	8	28	41	44	20	24	15	A-7-6 (13)	
			2 4 4	11	100	SS-7	4.00	-	-	-	-	-	-	-	-	15	A-7-6 (V)	
			2 3 4	9	100	SS-8	1.30	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
	1049.8	TR																
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.			16 22 35	77	89	SS-9	-	-	-	-	-	-	-	-	-	5	Rock (V)	
			17 31 50/6"	42	72	SS-10	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	1045.3	EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 141+03, 180 RT	EXPLORATION ID B-014-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1068.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/1/13 END: 10/1/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238637.902 N, 606762.617 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1068.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (10')	1067.9																	
STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP			2 3 5	11	100	SS-1	1.25	-	-	-	-	-	-	-	-	14	A-6b (V)	
			4 9 11	27	100	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
			5 8 11	26	100	SS-3	4.5+	18	12	19	24	27	34	16	18	13	A-6b (6)	
			6 9 12	28	100	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	1056.9		3 5 7	16	100	SS-5	1.25	-	-	-	-	-	-	-	-	14	A-6b (V)	
STIFF TO HARD, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP TO MOIST			2 3 4	9	100	SS-6	1.25	19	3	18	21	39	40	18	22	15	A-6b (10)	
	1052.7	TR																
SHALE, GRAY, HIGHLY WEATHERED, WEAK.			5 7 11	24	94	SS-7	-	-	-	-	-	-	-	-	-	9	Rock (V)	
			8 12 21	44	89	SS-8	-	-	-	-	-	-	-	-	-	7	Rock (V)	
			15 27 50/3.5"	36	72	SS-9	-	-	-	-	-	-	-	-	-	6	Rock (V)	
	1043.7	EOB	24 33 50/3.5"	44	61	SS-10	-	-	-	-	-	-	-	-	-	5	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:50 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 142+80, 166 RT	EXPLORATION ID B-015-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1065.5 (MSL) EOB: 20.0 ft.	PAGE 1 OF 1
START: 10/1/13 END: 10/1/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238614.010 N, 606947.161 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (16")	1065.5																	
	1064.2	1	3 5 6	15	67	SS-1	2.00	-	-	-	-	-	-	-	-	10	A-6b (V)	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		2																
		3																
		4	7 11 14	34	100	SS-2	4.5+	-	-	-	-	-	-	-	-	10	A-6b (V)	
		5																
		6																
		7	7 9 16	34	100	SS-3	4.5+	20	10	19	23	28	36	19	17	12	A-6b (6)	
		8																
		9	7 11 18	39	94	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
		TR 11																
		12	3 4 7	15	100	SS-5	2.25	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1052.0	13																
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		14	4 9 12	28	100	SS-6	-	-	-	-	-	-	-	-	-	8	Rock (V)	
		15																
		16																
		17	23 32 50/3"	43	72	SS-7	-	-	-	-	-	-	-	-	-	5	Rock (V)	
		18																
		19	31 50/2"	-	33	SS-8	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	1045.5	EOB 20																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 143+99, 183 RT	EXPLORATION ID B-016-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1064.2 (MSL) EOB: 17.5 ft.	PAGE 1 OF 1
START: 10/1/13 END: 10/1/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238577.827 N, 607066.471 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1064.2																	
STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP	1063.7	1	6 10 14	32	78	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
		2																
		3																
		4	6 12 15	36	100	SS-2	4.5+	10	17	14	31	28	37	17	20	11	A-6b (9)	
		5																
		6																
		7	6 7 9	22	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		8																
		9	2 3 4	9	100	SS-4	1.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
	1053.2	11																
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		12	6 9 12	28	100	SS-5	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		13																
		14	9 18 29	63	100	SS-6	-	-	-	-	-	-	-	-	-	4	Rock (V)	
		15																
W		16																
	1046.7	17	17 29 50/6"	39	67	SS-7	-	-	-	-	-	-	-	-	-	15	Rock (V)	
EOB																		
TR																		

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: ATV CME 550	STATION / OFFSET: 145+86, 184 RT	EXPLORATION ID B-017-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1069.8 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/1/13 END: 10/1/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238552.401 N, 607261.063 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1069.8																	
HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE GRAVEL, DAMP	1069.3		4 6 8	19	89	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
			9 15 18	44	83	SS-2	4.5+	13	13	19	34	21	34	18	16	11	A-6b (6)	
			6 11 15	35	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
			6 9 12	28	100	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
VERY STIFF, BROWN AND GRAY, **CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, DAMP	1058.8		2 5 5	13	100	SS-5	2.25	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
			2 3 4	9	100	SS-6	2.25	16	5	13	42	24	41	19	22	14	A-7-6 (11)	
HARD, GRAY, **SILTY CLAY**, LITTLE SAND, TRACE ROCK FRAGMENTS, DAMP	1053.8	W	4 6 10	22	100	SS-7	-	10	0	15	35	40	40	17	23	13	A-6b (13)	
SHALE, GRAY, HIGHLY TO MODERATELY WEATHERED, WEAK.	1051.3	TR	12 22 32	73	100	SS-8	-	-	-	-	-	-	-	-	-	14	Rock (V)	
			15 28 50/5.5"	38	100	SS-9	-	-	-	-	-	-	-	-	-	13	Rock (V)	
	1044.8	EOB	29 50/4"	-	100	SS-10	-	-	-	-	-	-	-	-	-	13	Rock (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 147+98, 174 RT	EXPLORATION ID B-018-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1075.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/30/13 END: 9/30/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238546.060 N, 607482.884 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (2")	1075.7																	
HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		1	4 6 8	19	78	SS-1	4.5+	-	-	-	-	-	-	-	-	10	A-6b (V)	
		2																
		3																
		4	6 13 20	44	67	SS-2	4.5+	12	13	15	30	30	34	17	17	11	A-6b (8)	
		5																
		6																
		7	10 12 14	35	72	SS-3	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
		8																
		9	5 8 15	31	94	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
		11																
		12	14 20 12	43	100	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
	1062.4																	
STIFF TO VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		14	3 6 7	18	100	SS-6	2.25	-	-	-	-	-	-	-	-	14	A-6b (V)	
		15																
		16																
		17	3 4 4	11	100	SS-7	3.25	-	-	-	-	-	-	-	-	15	A-6b (V)	
		18																
		19	3 3 5	11	100	SS-8	1.75	11	9	22	31	27	37	19	18	15	A-6b (8)	
	1054.9	20																
		TR 21																
SHALE, GRAY, SEVERELY WEATHERED, WEAK.		22	3 5 6	15	94	SS-9	-	-	-	-	-	-	-	-	-	14	Rock (V)	
		23																
	1050.9	24	11 22 37	79	89	SS-10	-	-	-	-	-	-	-	-	-	13	Rock (V)	
		EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 150+01, 173 RT	EXPLORATION ID B-019-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1078.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/30/13 END: 9/30/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238543.101 N, 607694.745 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1078.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (6")	1078.1																	
HARD, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, DAMP		1	6 8 7	20	-	SS-1	4.5+	-	-	-	-	-	-	-	-	10	A-6b (V)	
		2																
		3																
		4	11 13 14	36	-	SS-2	4.5+	20	10	11	32	27	35	19	16	10	A-6b (7)	
		5																
		6																
		7	7 12 16	38	-	SS-3	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
		8																
	1068.6	9	6 8 10	24	-	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
STIFF, BROWN AND GRAY, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, MOIST		10																
		11																
		12	12 12 9	28	-	SS-5	1.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
		13																
		14	3 4 3	9	-	SS-6	1.00	14	6	9	48	23	40	18	22	15	A-6b (12)	
		15																
		16																
		17	2 4 5	12	-	SS-7	1.25	-	-	-	-	-	-	-	-	15	A-6b (V)	
		18																
		19	3 5 7	16	-	SS-8	1.00	-	-	-	-	-	-	-	-	15	A-6b (V)	
	1057.6	20																
		TR 21																
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		22	9 13 20	44	-	SS-9	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		23																
	1053.6	24	16 34 50/5"	46	-	SS-10	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 152+00, 160 RT	EXPLORATION ID B-020-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1070.1 (MSL) EOB: 20.0 ft.	PAGE 1 OF 1
START: 9/30/13 END: 9/30/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238563.126 N, 607901.332 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1070.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (10")	1069.3																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, DAMP		1	3 4 5	12	100	SS-1	2.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		2																
		3																
		4	5 8 10	24	100	SS-2	4.5+	-	-	-	-	-	-	-	-	-	A-6b (V)	
		5																
		6	6 8 13	28	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		7																
@8.5: SAME, GRAY		8																
		9	6 8 10	24	100	SS-4	4.5+	14	18	14	22	32	35	17	18	14	A-6b (7)	
		10																
		11																
		12	6 9 10	26	100	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
	1056.1	TR 14	6 8 18	35	100	SS-6	-	-	-	-	-	-	-	-	-	11	Rock (V)	
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		15																
		16																
		17	7 32 50/6"	43	100	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		18																
		19	20 40 50/3"	54	100	SS-8	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	1050.1	EOB 20																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 154+01, 153 RT	EXPLORATION ID B-021-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1065.6 (MSL) EOB: 17.5 ft.	PAGE 1 OF 1
START: 9/30/13 END: 9/30/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238587.081 N, 608109.802 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (2")	1065.6																	
	1065.4																	
VERY SOFT, BROWN, **SILTY CLAY**, SOME SAND, LITTLE GRAVEL, WET		1	4 4 4	11	100	SS-1	0.00	-	-	-	-	-	-	-	-	11	A-6b (V)	
		2																
		3																
		4	WOH/12" 8	-	78	SS-2	0.00	11	15	16	23	35	38	15	23	15	A-6b (10)	
		5																
		6																
		7	WOH/12" 5	-	100	SS-3	0.00	-	-	-	-	-	-	-	-	16	A-6b (V)	
	1057.1	8																
HARD, BROWN, **SILTY CLAY**, SOME SAND, SOME SHALE FRAGMENTS, DAMP		9	3 8 9	23	100	SS-4	4.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
		10																
		11																
	1053.6	12	4 20 33	71	100	SS-5	4.5+	24	15	11	19	31	36	16	20	15	A-6b (7)	
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		TR 13																
		14	30 50/3"	-	50	SS-6	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		15																
		16																
	1048.1	17	27 50/3"	-	50	SS-7	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: ATV CME 550	STATION / OFFSET: 155+95, 128 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: SR 271
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1059.8 (MSL) EOB: 15.5 ft.
START: 9/30/13 END: 9/30/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 2238638.289 N, 608305.222 E

EXPLORATION ID B-022-0-13

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 1059.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (9")	1059.1																	
VERY STIFF, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, LITTTLE SHALE FRAGMENTS, DAMP	1056.3	1 2 3	3 4 6	13	100	SS-1	4.00	13	9	26	23	29	38	17	21	12	A-6b (7)	
VERY STIFF, BROWN AND GRAY, **SILT AND CLAY**, SOME SAND, LITTTLE SHALE FRAGMENTS, DAMP	1053.8	4 5	4 7 14	28	100	SS-2	3.00	12	18	16	27	27	20	7	13	12	A-6a (5)	
HARD, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, LITTTLE SHALE FRAGMENTS, DAMP	1050.8	6 7 8	7 16 21	50	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.	1044.8	TR 9 10 11 12 13 14	4 16 22	51	100	SS-4	4.5+	11	8	14	46	21	36	16	20	10	A-6b (10)	
			20 45 50/4"	61	100	SS-5	-	-	-	-	-	-	-	-	-	7	Rock (V)	
			15 40 50/4"	54	100	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		EOB 15																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 158+74, 84 RT	EXPLORATION ID B-023-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1059.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2238737.392 N, 608577.457 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
TOPSOIL (8")	1059.0 / 1058.3																	
LOOSE, BROWN, **FINE SAND**, TRACE SILT, MOIST (FS)	1056.5	1	8 5 2	10	67	SS-1	-	30	16	44	- 10 -		NP	NP	NP	13	A-3 (0)	
VERY STIFF, BROWN AND GRAY, **CLAY**, SOME SAND, TRACE SHALE FRAGMENTS, DAMP		2																
		3	3 4 7	15	100	SS-2	2.00	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		4																
@ 6.0: DROVE ROCK, POOR RECOVERY		5	4 5 7	16	28	SS-3	-	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		6																
		7																
		8																
		9	2 3 3	8	100	SS-4	3.30	5	8	16	43	28	42	18	24	14	A-7-6 (13)	
		10																
		11																
		12	2 2 5	10	100	SS-5	2.00	-	-	-	-	-	-	-	-	13	A-7-6 (V)	
		13																
		14	3 5 9	19	100	SS-6	4.5+	-	-	-	-	-	-	-	-	12	A-7-6 (V)	
		15																
		16																
		17	6 8 9	23	100	SS-7	4.5+	-	-	-	-	-	-	-	-	12	A-7-6 (V)	
	1040.5	18																
SHALE, GRAY, SLIGHTLY WEATHERED, WEAK.		TR 19	8 10 9	26	100	SS-8	-	-	-	-	-	-	-	-	-	14	Rock (V)	
		20																
		21																
		22	45 50/6"	-	67	SS-9	-	-	-	-	-	-	-	-	-	13	Rock (V)	
		23																
		24	34 50/5"	-	67	SS-10	-	-	-	-	-	-	-	-	-	11	Rock (V)	
	1034.0	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 160+47, 79 RT	EXPLORATION ID B-024-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1061.8 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2238785.804 N, 608748.007 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1061.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (8") OVER GRANULAR BASE (4")	1060.8																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP			2 3 4	10	100	SS-1	3.00	-	-	-	-	-	-	-	-	12	A-6b (V)	
			7 9 11	27	100	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
			4 5 7	16	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
			6 8 9	23	100	SS-4	4.5+	15	15	14	27	29	35	18	17	13	A-6b (7)	
@11.5: SAME, GRAY			4 8 9	23	100	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
			4 5 5	14	100	SS-6	3.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
			3 4 8	16	100	SS-7	3.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
			8 9 11	27	100	SS-8	4.5+	12	17	9	35	27	37	15	22	14	A-6b (10)	
			12 14 21	48	100	SS-9	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
	1036.8	EOB	6 9 9	25	100	SS-10	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSUFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 162+49, 80 RT	EXPLORATION ID B-025-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1064.8 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2238846.349 N, 608944.632 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1064.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (9") OVER GRANULAR BASE (9")	1063.3																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP		1	4 2 4	8	44	SS-1	4.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		2																
		3																
		4	4 7 7	19	89	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		5																
		6																
		7	3 6 7	18	94	SS-3	4.5+	16	4	15	33	32	35	18	17	13	A-6b (9)	
		8																
		9	5 4 5	12	100	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
		11																
		12	4 5 5	14	89	SS-5	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
		14	5 7 10	23	100	SS-6	2.00	-	-	-	-	-	-	-	-	12	A-6b (V)	
		15																
		16																
		17	5 2 7	12	100	SS-7	3.50	-	-	-	-	-	-	-	-	11	A-6b (V)	
		18																
		19	3 6 7	18	89	SS-8	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
	1043.8	20																
HARD, BROWN AND GRAY, **SILTY CLAY**, LITTLE SAND, LITTLE SHALE FRAGMENTS, DAMP		21																
		22	8 10 14	33	100	SS-9	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
		23																
		24	8 8 11	26	100	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	1039.8	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 164+45, 80 RT	EXPLORATION ID B-026-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1068.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2238915.251 N, 609132.594 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (9") OVER GRANULAR BASE (4")	1068.0																	
	1066.8																	
VERY STIFF, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP		1	5 3 3	8	67	SS-1	2.00	-	-	-	-	-	-	-	-	9	A-6b (V)	
		2																
		3																
		4	1 4 8	16	61	SS-2	3.00	12	9	17	36	26	38	18	20	13	A-6b (9)	
	1063.0	5																
VERY STIFF TO HARD, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP		6																
		7	3 3 4	10	67	SS-3	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		8																
		9	3 4 5	12	83	SS-4	2.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
		10																
		11	7 2 4	8	61	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		12																
		13																
		14	6 7 8	20	89	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		15																
		16																
		17	6 11 14	34	67	SS-7	2.00	-	-	-	-	-	-	-	-	12	A-6b (V)	
		18																
		19	6 6 13	26	78	SS-8	4.5+	18	14	10	25	33	35	16	19	12	A-6b (8)	
		20																
		21																
		22	5 6 8	19	89	SS-9	2.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
		23																
	1043.0	24	4 5 8	18	100	SS-10	1.50	-	-	-	-	-	-	-	-	14	A-6b (V)	
	EOB	25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/15/14 17:51 - C:\USERS\TMONACO\DESKTOP\30 SUBSURFACE INVEST\SUM-271-1262(2).GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 165+50, 80 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1069.5 (MSL) EOB: 25.0 ft.
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2238955.690 N, 609231.348 E

EXPLORATION ID B-027-0-13

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (8") OVER GRANULAR BASE (4")	1069.5 / 1068.5																	
VERY STIFF TO HARD, BROWN, **SILTY CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP		1	5 3 4	10	100	SS-1	2.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
		2																
		3																
		4	4 6 8	19	94	SS-2	4.5+	12	8	17	22	41	38	17	21	13	A-6b (10)	
		5																
		6																
		7	4 8 10	25	94	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		8																
		9	4 7 7	19	100	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
		11																
		12	5 8 9	23	78	SS-5	4.30	-	-	-	-	-	-	-	-	12	A-6b (V)	
	1056.0	13																
HARD, GRAY, **SILT AND CLAY**, SOME SAND, LITTLE SHALE FRAGMENTS, (FILL), DAMP		14	4 5 7	16	94	SS-6	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		15																
		16																
		17	4 7 7	19	100	SS-7	4.5+	13	10	15	35	27	34	19	15	12	A-6a (7)	
		18																
		19	4 7 7	19	100	SS-8	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		20																
		21																
		22	6 8 10	25	11	SS-9	-	-	-	-	-	-	-	-	-	12	A-6a (V)	
		23																
		24	6 7 9	22	100	SS-10	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1044.5	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / MK	DRILL RIG: TRUCK DIEDRICH	STATION / OFFSET: 167+57, 82 RT	EXPLORATION ID B-028-0-13
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MW	HAMMER: DIEDRICH AUTOMATIC	ALIGNMENT: SR 271	
PID: 89458 BR ID:	DRILLING METHOD: 4.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1070.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 9/28/13 END: 9/28/13	SAMPLING METHOD: SPT	ENERGY RATIO (%): 81.7	COORD: 2239041.463 N, 609424.735 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1070.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	ABAN-DONED
ASPHALT (11") OVER GRANULAR BASE (7")	1069.2	1																
MEDIUM DENSE, BROWN, **FINE SAND**, (FILL), MOIST	1067.2	2	2 3 5	11	6	SS-1	-	1	29	60	- 10 -		NP	NP	NP	12	A-3 (0)	
VERY STIFF TO HARD, BROWN AND GRAY, **SILTY CLAY**, SOME SAND, TRACE SHALE FRAGMENTS, (FILL), DAMP		3																
		4	3 5 6	15	56	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		5																
		6	4 5 6	15	67	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		7																
		8	4 3 6	12	61	SS-4	3.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
		9																
		10	5 6 6	16	72	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		11																
		12	4 4 6	14	83	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		13																
		14	5 15 8	31	94	SS-7	4.5+	8	13	18	27	34	36	18	18	13	A-6b (8)	
		15																
		16	5 6 6	16	100	SS-8	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		17																
@21.0: STIFF		18	4 4 5	12	72	SS-9	1.00	-	-	-	-	-	-	-	-	14	A-6b (V)	
		19																
		20	4 5 6	15	89	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
	1045.7	21 EOB																
		22																
		23																
		24																
		25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: MIXED WITH 50 LB. BENTONITE CHIPS

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 89+25, 308 LT	EXPLORATION ID B-001-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 992.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/20/14 END: 1/20/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 601777.601 N, 2239491.783 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 992.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL - 14 INCHES	991.4																	
STIFF, BROWN, **SANDY SILT**, LITTLE TO SOME CLAY AND TRACE GRAVEL, MOIST	986.6	1	3 3 4	9	100	SS-1	2.00	-	-	-	-	-	-	-	-	23	A-4a (V)	
		2																
		3																
		4	3 5 5	13	83	SS-2	1.25	9	10	36	27	18	24	20	4	20	A-4a (2)	
		5																
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, AND SHALE FRAGMENTS, DAMP (BROKEN JAR NOTED)		6	3 4 6	13	94	SS-3	3.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
		7																
@8.5': LITTLE GRAVEL	981.6	8																
		9	4 5 7	16	94	SS-4	3.00	10	9	8	34	39	28	17	11	14	A-6a (8)	
		10																
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND GRAVEL, DAMP		11																
		12	4 5 7	16	100	SS-5	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		13																
		14	4 6 7	18	72	SS-6	3.75	-	-	-	-	-	-	-	-	15	A-6a (V)	
		15																
		16																
		17	4 5 8	18	100	SS-7	2.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
		18																
@18.5': TRACE GRAVEL		19	3 6 8	19	100	SS-8	3.00	8	5	8	26	53	28	17	11	17	A-6a (8)	
		20																
@21': STIFF, MOIST		21																
		22	2 4 6	13	100	SS-9	1.75	-	-	-	-	-	-	-	-	18	A-6a (V)	
		23																
	967.6	24	3 5 7	16	100	SS-10	3.50	-	-	-	-	-	-	-	-	17	A-6a (V)	
	EOB	25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 91+24, 303 LT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1003.5 (MSL) EOB: 25.0 ft.
START: 1/20/14 END: 1/20/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 601959.832 N, 2239513.319 E

EXPLORATION ID B-002-0-14

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 1003.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL - 7 INCHES	1002.9																	
HARD, BROWN, **SILT AND CLAY**, SOME SAND AND LITTLE GRAVEL, DAMP **EMBANKMENT FILL**	1000.0		5 7 7	19	94	SS-1	4.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
HARD, BROWN, **SILT AND CLAY**, TRACE SAND AND SHALE FRAGMENTS, DAMP **EMBANKMENT FILL**	997.5		6 7 10	23	78	SS-2	4.50	11	10	10	28	41	28	17	11	14	A-6a (7)	
STIFF, BROWN, **SILT AND CLAY**, SOME SAND, SOME GRAVEL, DAMP	995.0		4 5 5	13	94	SS-3	NI	27	16	19	22	16	25	14	11	11	A-6a (1)	
LOOSE, BROWN, **COARSE AND FINE SAND**, SOME SILT AND TRACE GRAVEL, MOIST	992.5	W	3 4 4	11	100	SS-4	NP	-	-	-	-	-	-	-	-	17	A-3a (V)	
VERY STIFF, GRAY/BROWN, **SANDY SILT**, SOME GRAVEL AND CLAY, MOIST	990.0		4 3 3	8	56	SS-5	2.50	23	11	14	32	20	25	18	7	19	A-4a (3)	
VERY STIFF, GRAY, **SILTY CLAY**, TRACE GRAVEL, DAMP	987.5		3 2 4	8	100	SS-6	2.75	-	-	-	-	-	-	-	-	14	A-4a (V)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP			3 4 6	13	100	SS-7	2.25	-	-	-	-	-	-	-	-	16	A-6a (V)	
@18.5': GRAY, TRACE SHALE FRAGMENTS			4 4 7	15	100	SS-8	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
			4 7 9	22	100	SS-9	4.5+	9	8	7	25	51	28	17	11	15	A-6a (8)	
@23.5': BROWN	978.5	EOB	4 4 7	15	100	SS-10	2.50	-	-	-	-	-	-	-	-	16	A-6a (V)	

NOTES: "NP" - NON-PLASTIC, "NI" - NOT INTACT

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 93+26, 306 LT	EXPLORATION ID B-003-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1008.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/20/14 END: 1/20/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 602146.540 N, 2239517.539 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1008.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL - 8 INCHES	1008.0																	
MEDIUM STIFF, BROWN, **SANDY SILT**, SOME CLAY, TRACE GRAVEL, AND ORGANICS, MOIST **EMBANKMENT FILL**	1005.2	1	1 3 3	8	100	SS-1	0.75	-	-	-	-	-	-	-	-	19	A-4a (V)	
MEDIUM STIFF, BROWN, **SILT AND CLAY**, "AND" SAND, TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1002.7	4	4 7 10	23	89	SS-2	0.75	2	8	29	32	29	24	13	11	15	A-6a (6)	
HARD, BROWN, **SILT AND CLAY**, TRACE SAND AND SHALE FRAGMENTS, (BROKEN JAR NOTED), DAMP **EMBANKMENT FILL**		6	4 7 10	23	100	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
@8.5': LITTLE GRAVEL	997.7	9	8 11 10	28	100	SS-4	4.5+	11	8	10	26	45	25	14	11	13	A-6a (8)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, TRACE SHALE FRAGMENTS, MOIST		12	2 5 7	16	100	SS-5	2.75	-	-	-	-	-	-	-	-	15	A-6a (V)	
@13.5': GRAY		14	4 4 5	12	100	SS-6	2.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
		17	4 5 6	15	100	SS-7	2.00	11	8	8	27	46	25	14	11	15	A-6a (8)	
		19	3 5 8	18	100	SS-8	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		22	4 5 7	16	100	SS-9	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	983.7	EOB 25	4 6 8	19	94	SS-10	3.00	-	-	-	-	-	-	-	-	15	A-6a (V)	

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 95+23, 239 LT	EXPLORATION ID B-004-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1008.3 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/20/14 END: 1/20/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 602330.177 N, 2239582.124 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1008.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL - 12 INCHES	1007.3																	
VERY STIFF, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, AND ORGANICS, MOIST **EMBANKMENT FILL**	1004.8	1	2 5 5	13	83	SS-1	2.25	-	-	-	-	-	-	-	-	24	A-6a (V)	
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND, GRAVEL, AND TRACE SHALE FRAGMENTS, DAMP **EMBANKMENT FILL**		4	6 15 21	48	94	SS-2	4.5+	18	8	9	21	44	32	18	14	13	A-6a (8)	
		7	7 15 19	46	56	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		9	7 11 15	35	94	SS-4	4.5+	8	9	12	27	44	31	17	14	14	A-6a (9)	
	997.3																	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, TRACE TO LITTLE SAND, TRACE TO LITTLE SHALE FRAGMENTS, DAMP **EMBANKMENT FILL**		12	4 4 6	13	83	SS-5	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		W 14	4 7 7	19	94	SS-6	4.00	39	8	11	28	14	28	16	12	12	A-6a (2)	
	992.3																	
MEDIUM STIFF, GRAY, **SANDY SILT**, SOME CLAY, MOIST		17	2 3 5	11	100	SS-7	NI	-	-	-	-	-	-	-	-	25	A-4a (V)	
	989.8																	
MEDIUM DENSE, GRAY, **COARSE AND FINE SAND**, SOME SILT AND LITTLE GRAVEL, MOIST	988.8	19	4 8 9	23	100	SS-8	NP	-	-	-	-	-	-	-	-	15	A-3a (V)	
STIFF TO VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST		22	4 10 17	36	89	SS-9	4.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
	983.3	EOB 25	5 9 13	30	94	SS-10	1.75	-	-	-	-	-	-	-	-	14	A-6a (V)	

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 97+39, 206 LT	EXPLORATION ID B-005-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1016.5 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/20/14 END: 1/20/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 602535.748 N, 2239601.055 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
TOPSOIL - 8 INCHES	1016.5 1015.8																	
STIFF, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, AND ORGANICS, MOIST **EMBANKMENT FILL**	1013.0	1	3 3 4	9	94	SS-1	1.50	-	-	-	-	-	-	-	-	21	A-6a (V)	
VERY STIFF, BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1010.5	4	4 5 7	16	100	SS-2	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
VERY STIFF, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND SHALE FRAGMENTS, DAMP **EMBANKMENT FILL** @8.5': VERY STIFF	1005.5	6	3 7 8	20	100	SS-3	4.00	18	7	8	33	34	25	14	11	13	A-6a (7)	
		9	6 9 12	28	100	SS-4	3.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
STIFF, GRAY, **SANDY SILT**, "AND" CLAY, MOIST **EMBANKMENT FILL**	1002.5	12	5 5 5	13	100	SS-5	NI	0	0	19	45	36	22	19	3	20	A-4a (8)	
MEDIUM DENSE, GRAY, **COARSE AND FINE SAND**, SOME SILT AND LITTLE GRAVEL, MOIST	1000.5	14	5 6 5	15	89	SS-6	NP	-	-	-	-	-	-	-	-	12	A-3a (V)	
STIFF TO VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, MOIST		16	2 5 6	15	100	SS-7	2.25	-	-	-	-	-	-	-	-	16	A-6a (V)	
@18.5': TRACE SHALE FRAGMENTS, DAMP		19	3 5 7	16	100	SS-8	2.50	19	8	10	20	43	26	15	11	14	A-6a (6)	
		21	3 4 6	13	94	SS-9	4.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
	991.5	EOB 25	5 6 9	20	72	SS-10	2.00	-	-	-	-	-	-	-	-	14	A-6a (V)	

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 173+57, 72 RT	EXPLORATION ID B-029-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1073.1 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 609896.280 N, 2239442.730 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1073.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1072.4																	
CRUSHED STONE - 4 INCHES	1072.1																	
MEDIUM DENSE, GRAY/BROWN, **COARSE AND FINE SAND**, SOME CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1070.6	1	15 11 4	18	100	SS-1	NP	-	-	-	-	-	-	-	-	35	A-3a (V)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	3 4 5	11	100	SS-2	4.5+	7	8	9	21	55	29	17	12	14	A-6a (9)	
		5																
		6	4 6 10	19	100	SS-3	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		7																
		8	5 7 9	19	100	SS-4	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
		9																
		10	9 9 11	24	100	SS-5	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		11																
		12	3 5 7	15	100	SS-6	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
@15' TO 18.5': BROWN, LITTLE GRAVEL		13																
		14	8 9 11	24	100	SS-7	4.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
	1054.6	15																
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		16	4 5 8	16	100	SS-8	4.00	6	7	7	20	60	29	16	13	14	A-6a (9)	
		17																
@21' TO 25': BROWN/GRAY		18	8 10 11	26	100	SS-9	3.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		19																
@23.5': TRACE SHALE FRAGMENTS		20	7 8 9	21	100	SS-10	3.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1048.1	21 EOB																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 175+38, 73 RT	EXPLORATION ID B-030-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1072.2 (MSL) EOB: 21.8 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 610059.150 N, 2239522.700 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1072.2																	
	1071.5																	
CRUSHED STONE - 4 INCHES	1071.2																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1070.2	1 2	15 7 4	13	100	SS-1	NP	-	-	-	-	-	-	-	-	13	A-3a (V)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		3 4	4 5 7	15	100	SS-2	2.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
		5 6 7	6 8 8	19	100	SS-3	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
@8.5': SOME GRAVEL, DRY		8 9 10	7 8 11	23	67	SS-4	4.50	22	4	8	18	48	28	17	11	9	A-6a (7)	
@11': DAMP		11 12	8 11 12	28	67	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
@13.5': TRACE GRAVEL		13 14 15	6 7 7	17	100	SS-6	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		16 17	7 15 12	33	22	SS-7	4.50	5	6	9	28	52	28	17	11	13	A-6a (8)	
@18.5': TRACE SANDSTONE FRAGMENTS		18 19 20	4 6 10	19	33	SS-8	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1051.2	21																
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE GRAVEL, AND SHALE FRAGMENTS, DAMP	1050.4	FTR3	24 50/3"	-	33	SS-9	4.50	-	-	-	-	-	-	-	-	12	A-6a (V)	

NOTES: AUGER REFUSAL ENCOUNTERED AT A DEPTH OF 21.8 FEET. "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 6 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 177+37, 73 RT	EXPLORATION ID B-031-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1070.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 610238.150 N, 2239609.940 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1070.2																	
CRUSHED STONE - 4 INCHES	1069.5																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1069.2	1	15 7 4	13	100	SS-1	NP	-	-	-	-	-	-	-	-	12	A-3a (V)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**	1068.2	2																
		3																
		4	13 8 8	19	100	SS-2	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		5																
@6': LITTLE SHALE FRAGMENTS		6																
		7	10 10 15	30	100	SS-3	4.50	11	4	7	21	57	27	16	11	13	A-6a (8)	
		8																
		9	7 8 10	22	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		10																
@11' TO 13.5': GRAY, TRACE GRAVEL		11																
		12	10 11 10	26	100	SS-5	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		13																
		14	4 5 5	12	100	SS-6	4.50	6	8	7	21	58	32	18	14	14	A-6a (10)	
		15																
		16																
		17	12 15 11	32	100	SS-7	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		18																
		19	10 11 12	28	100	SS-8	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		20																
		21																
		22	12 13 15	34	100	SS-9	4.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
		23																
@23.5' TO 25': GRAY		24	3 4 7	13	100	SS-10	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1045.2	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 179+38, 73 RT	EXPLORATION ID B-032-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1067.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 610418.420 N, 2239697.970 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1067.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1066.9																	
CRUSHED STONE - 4 INCHES	1066.6																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME SILT, LITTLE GRAVEL, AND TRACE CLAY, DAMP **EMBANKMENT FILL**	1065.6	1	22 7 3	12	67	SS-1	NP	17	27	26	28	2	NP	NP	NP	11	A-3a (0)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, TRACE TO LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	10 7 9	19	6	SS-2	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		5																
@6' TO 8.5': GRAY/BROWN		6																
		7	15 12 13	30	100	SS-3	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		8																
		9	5 6 7	16	100	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		10																
@11' TO 13.5': BROWN/GRAY		11																
		12	12 13 14	33	100	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		13																
		14	6 7 8	18	100	SS-6	4.5+	16	3	6	19	56	29	16	13	12	A-6a (9)	
@15' TO 21': GRAY/BROWN		15																
@16': MOIST		16																
		17	10 10 15	30	100	SS-7	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
		18																
@18.5': DAMP		19	3 6 10	19	100	SS-8	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		20																
		21	9 8 11	23	100	SS-9	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		22																
		23																
	1042.6	24 EOB	3 6 7	16	100	SS-10	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 181+43, 73 RT	EXPLORATION ID B-033-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1064.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 610602.670 N, 2239788.020 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1064.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1064.0																	
CRUSHED STONE - 4 INCHES	1063.7																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1062.7	1	11 10 7	21	100	SS-1	NP	-	-	-	-	-	-	-	-	33	A-3a (V)	
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	6 8 9	21	100	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		5																
		6																
		7	9 10 12	27	100	SS-3	4.5+	4	3	10	20	63	27	16	11	14	A-6a (8)	
		8																
		9	6 6 6	15	100	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
@10' TO 16': GRAY		10																
		11																
		12	10 10 10	24	100	SS-5	4.5+	5	9	7	20	59	27	16	11	13	A-6a (8)	
		13																
		14	4 6 8	17	100	SS-6	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		15																
		16																
		17	10 12 13	30	100	SS-7	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		18																
		19	6 9 10	23	100	SS-8	3.50	7	3	8	20	62	28	17	11	12	A-6a (8)	
		20																
@21' TO 23.5': GRAY		21																
		22	12 12 12	29	100	SS-9	4.5+	-	-	-	-	-	-	-	-	9	A-6a (V)	
		23																
		24	3 6 9	18	100	SS-10	3.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1039.7	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 183+39, 73 RT	EXPLORATION ID B-034-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1062.1 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 610779.110 N, 2239873.580 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1062.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1061.4																	
CRUSHED STONE - 4 INCHES	1061.1																	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		1	25 4 4	10	100	SS-1	2.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		2																
		3																
		4	7 7 9	19	100	SS-2	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		5																
		6																
		7	15 13 20	40	100	SS-3	4.50	5	4	8	20	63	32	18	14	16	A-6a (10)	
	1053.6	8																
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		9	5 9 11	24	100	SS-4	4.50	-	-	-	-	-	-	-	-	12	A-6a (V)	
		10																
@8.5' TO 11': GRAY/BROWN		11	6 10 12	27	100	SS-5	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		12																
		13																
		14	8 9 10	23	100	SS-6	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		15																
@16': COBBLE/BOULDER ENCOUNTERED		16	50/5"	-	100	SS-7	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1043.6	17																
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		18																
		19	4 9 10	23	100	SS-8	4.5+	5	5	7	21	62	29	17	12	12	A-6a (9)	
		20																
		21																
		22	33 17 16	40	100	SS-9	4.50	-	-	-	-	-	-	-	-	12	A-6a (V)	
	1038.6	23																
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		24	6 8 12	24	100	SS-10	3.00	7	5	9	21	58	27	16	11	13	A-6a (8)	
	1037.1	EOB 25																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 185+37, 72 RT	EXPLORATION ID B-035-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1060.1 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 610958.620 N, 2239959.480 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1060.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1059.4																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1058.1	1	6 5 5	13	61	SS-1	NP	-	-	-	-	-	-	-	-	11	A-3a (V)	
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	5 7 10	23	39	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		5																
		6																
		7	7 8 12	27	61	SS-3	4.00	9	6	8	22	55	34	19	15	14	A-6a (10)	
		8																
		9	8 9 9	24	28	SS-4	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		10																
@11' TO 13': GRAY, LITTLE SHALE FRAGMENTS, DRY		11																
		12	9 9 13	29	6	SS-5	NI	-	-	-	-	-	-	-	-	6	A-6a (V)	
	1046.6	13																
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		14	7 7 12	25	72	SS-6	4.5+	7	8	11	28	46	28	17	11	13	A-6a (8)	
		15																
		16																
		17	10 15 18	44	78	SS-7	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		18																
	1041.1	19																
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		20	4 5 8	17	83	SS-8	4.00	-	-	-	-	-	-	-	-	17	A-6a (V)	
		21																
		22	8 11 13	32	83	SS-9	4.00	7	6	11	22	54	32	20	12	19	A-6a (9)	
		23																
@23.5': MOIST		24	3 4 6	13	100	SS-10	3.00	-	-	-	-	-	-	-	-	23	A-6a (V)	
	1035.1	EOB 25																

NOTES: "NP" - NON-PLASTIC, "NI" - NOT INTACT

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:03 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 187+33, 72 RT	EXPLORATION ID B-036-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1057.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 611141.550 N, 2240039.050 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1057.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1057.2																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1055.9	1	12 7 7	19	78	SS-1	NP	-	-	-	-	-	-	-	-	7	A-3a (V)	
VERY STIFF, GRAY, **SILT AND CLAY**, SOME GRAVEL AND LITTLE SAND, DAMP **EMBANKMENT FILL**		2																
		3																
		4	7 7 9	21	39	SS-2	4.00	21	7	8	24	40	30	18	12	13	A-6a (7)	
	1051.9	5																
HARD, GRAY, **SILT AND CLAY**, (RECOVERED SAMPLE WAS ROCK-LIKE, **HIGHLY WEATHERED COBBLE**), DRY **EMBANKMENT FILL**		6	8 9 14	31	50	SS-3	4.5+	-	-	-	-	-	-	-	-	8	A-6a (V)	
	1048.9	7																
HARD, BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		8																
		9	4 5 9	19	78	SS-4	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
@11' TO 16': GRAY/BROWN		10																
		11	8 9 15	32	78	SS-5	4.00	6	7	12	29	46	28	17	11	14	A-6a (8)	
	1041.9	12																
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		13																
		14	10 12 16	37	72	SS-6	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		15																
		16	15 18 24	56	94	SS-7	3.50	-	-	-	-	-	-	-	-	26	A-6a (V)	
		17																
		18																
		19	8 8 10	24	33	SS-8	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		20																
		21																
		22	12 17 23	53	100	SS-9	4.5+	4	7	12	32	45	29	18	11	15	A-6a (8)	
		23																
		24	6 6 7	17	100	SS-10	4.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
	1032.9	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 189+29, 73 RT	EXPLORATION ID B-037-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1055.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 611328.210 N, 2240110.430 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1055.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 12 INCHES	1054.7																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, TRACE CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1053.7	1	4 4 4	11	50	SS-1	NP	-	-	-	-	-	-	-	-	8	A-3a (V)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	5 5 7	16	50	SS-2	4.50	13	8	10	20	49	30	17	13	13	A-6a (8)	
		5																
@6' TO 8.5': BROWN/GRAY, (3 INCH SEAM OF WEATHERED SHALE NOTED)		6																
		7	7 5 6	15	44	SS-3	4.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
		8																
		9	9 10 12	29	83	SS-4	3.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
	1044.7	10																
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**		11	18 11 14	33	94	SS-5	2.50	-	-	-	-	-	-	-	-	19	A-6a (V)	
		12																
		13																
		14	6 9 6	20	89	SS-6	4.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
		15																
		16	9 12 15	36	100	SS-7	4.00	8	8	14	33	37	27	15	12	15	A-6a (8)	
	1037.2	17																
HARD, GRAY, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP		18																
		19	5 7 6	17	83	SS-8	4.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
		20																
		21																
		22	10 10 14	32	100	SS-9	4.00	8	9	13	33	37	27	16	11	13	A-6a (7)	
		23																
@23.5' TO 25': BROWN/GRAY		24	4 5 8	17	22	SS-10	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1030.7	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 191+25, 73 RT	EXPLORATION ID B-038-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1054.5 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 611518.050 N, 2240171.450 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1054.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 10 INCHES	1053.7																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1052.5	1	8 5 5	13	67	SS-1	NP	-	-	-	-	-	-	-	-	5	A-3a (V)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	6 14 6	27	33	SS-2	4.00	-	-	-	-	-	-	-	-	11	A-6a (V)	
		5																
@6': STIFF (ESTIMATE)		6																
		7	9 7 6	17	0	SS-3	NR	-	-	-	-	-	-	-	-	-	A-6a (V)	
		8																
@8.5': GRAY/BROWN, LITTLE GRAVEL		9	7 6 12	24	78	SS-4	4.5+	10	7	12	27	44	29	18	11	14	A-6a (8)	
	1043.0	10																
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE TO LITTLE GRAVEL, MOIST **EMBANKMENT FILL**		11																
		12	12 16 19	47	100	SS-5	2.50	-	-	-	-	-	-	-	-	19	A-6a (V)	
@13.5': DAMP		13																
		14	5 7 18	33	100	SS-6	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		15																
		16																
		17	14 18 18	48	100	SS-7	4.5+	12	11	12	40	25	27	16	11	14	A-6a (6)	
	1036.0	18																
VERY STIFF, GRAY, **SANDY SILT**, SOME CLAY AND TRACE GRAVEL, DAMP		19	3 4 4	11	100	SS-8	2.00	-	-	-	-	-	-	-	-	15	A-4a (V)	
		20																
		21																
		22	5 6 9	20	100	SS-9	2.00	6	7	12	48	27	25	16	9	15	A-4a (8)	
		23																
	1029.5	24	4 5 8	17	83	SS-10	2.00	-	-	-	-	-	-	-	-	17	A-4a (V)	
	EOB	25																

NOTES: "NP" - NON-PLASTIC, "NR" - NO RECOVERY

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 193+23, 73 RT	EXPLORATION ID B-039-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1053.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 611712.920 N, 2240223.720 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1053.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 9 INCHES	1053.1																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, TRACE CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1051.9	1	14 5 5	13	89	SS-1	NP	-	-	-	-	-	-	-	-	10	A-3a (V)	
MEDIUM STIFF, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**		2	2 2 2	5	67	SS-2	1.00	-	-	-	-	-	-	-	-	32	A-6a (V)	
	1047.9	3																
MEDIUM STIFF, GRAY, **CLAY**, "AND" SILT, LITTLE SAND, AND GRAVEL, MOIST **EMBANKMENT FILL**		4	4 5 5	13	89	SS-3	1.00	11	6	7	40	36	43	24	19	32	A-7-6 (12)	
@9' TO 11': GRAY/BROWN, DAMP	1042.9	5	4 5 8	17	89	SS-4	3.00	-	-	-	-	-	-	-	-	20	A-7-6 (V)	
VERY STIFF, GRAY, **SILT AND CLAY**, SOME SAND AND TRACE GRAVEL, MOIST		6	8 10 12	29	100	SS-5	3.00	1	7	19	45	28	26	15	11	18	A-6a (8)	
	1039.9	7																
VERY STIFF, BROWN/GRAY, **SILT AND CLAY**, LITTLE TO SOME SAND, DAMP		8	2 4 5	12	78	SS-6	2.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		9																
		10	6 8 7	20	100	SS-7	3.00	10	7	12	40	31	27	16	11	14	A-6a (8)	
@18.5' TO 21': GRAY		11	4 5 8	17	78	SS-8	3.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
@21': LITTLE GRAVEL		12	6 8 12	27	78	SS-9	2.00	14	7	14	38	27	27	15	12	14	A-6a (7)	
@23.5' TO 25': GRAY	1028.9	13	4 5 7	16	100	SS-10	2.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		EOB																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 195+18, 72 RT	EXPLORATION ID B-040-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1053.4 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 611907.490 N, 2240263.770 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1053.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 10 INCHES	1052.6																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME GRAVEL, LITTLE SILT, AND CLAY, MOIST **EMBANKMENT FILL**	1051.1	1	16 10 7	23	67	SS-1	NP	21	26	25	17	11	NP	NP	NP	26	A-3a (0)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	6 5 6	15	44	SS-2	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		5																
		6																
		7	8 12 12	32	67	SS-3	4.00	11	8	9	31	41	28	17	11	13	A-6a (8)	
		8																
@8.5' TO 11': BROWN, MOIST		9	4 5 7	16	78	SS-4	3.50	-	-	-	-	-	-	-	-	18	A-6a (V)	
		10																
		11																
		12	7 8 8	21	89	SS-5	3.50	-	-	-	-	-	-	-	-	20	A-6a (V)	
	1039.9	13																
VERY STIFF, BROWN, **SILT AND CLAY**, SOME TO "AND" SAND AND TRACE TO LITTLE GRAVEL, DAMP		14 (W)	3 3 6	12	67	SS-6	2.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		15																
		16																
		17	6 7 9	21	50	SS-7	2.00	16	11	26	27	20	25	14	11	13	A-6a (3)	
		18																
		19	5 6 6	16	100	SS-8	4.00	-	-	-	-	-	-	-	-	11	A-6a (V)	
		20																
		21																
@21' TO 25': BROWN/GRAY, MOIST		22	6 7 9	21	100	SS-9	4.00	-	-	-	-	-	-	-	-	15	A-6a (V)	
		23																
		24	3 5 7	16	78	SS-10	3.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
	1028.4	25 (EOB)																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 197+16, 72 RT	EXPLORATION ID B-041-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1052.3 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 612106.110 N, 2240296.240 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 5 INCHES	1052.3																	
CRUSHED STONE - 5 INCHES	1051.9																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, SOME SILT, LITTLE GRAVEL, AND TRACE CLAY, MOIST **EMBANKMENT FILL**	1051.5	1	15 8 7	20	100	SS-1	NP	18	28	24	28	2	25	21	4	24	A-3a (0)	
	1048.8	2																
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		3																
		4	5 6 7	18	100	SS-2	4.5+	6	6	9	32	47	28	17	11	14	A-6a (8)	
@6': TRACE SHALE FRAGMENTS		5																
		6																
		7	8 8 6	19	100	SS-3	3.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		8																
		9	5 6 6	16	100	SS-4	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		10																
		11																
		12	5 6 8	19	100	SS-5	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1038.8	13																
HARD, GRAY/BROWN, **SILTY CLAY**, SOME GRAVEL AND TRACE SAND, DAMP **EMBANKMENT FILL**		14																
		15	5 7 10	23	100	SS-6	3.00	23	3	6	17	51	34	17	17	16	A-6b (9)	
	1036.3	16																
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		17	2 4 4	11	100	SS-7	2.00	-	-	-	-	-	-	-	-	29	A-6a (V)	
	1033.8	18																
HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		19	3 5 6	15	100	SS-8	2.50	-	-	-	-	-	-	-	-	28	A-6a (V)	
		20																
		21	5 6 10	22	100	SS-9	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		22																
		23																
	1027.3	24	7 8 10	24	100	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	EOB	25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 199+11, 73 RT	EXPLORATION ID B-042-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1051.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 612303.470 N, 2240318.520 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1051.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1051.0																	
CRUSHED STONE - 4 INCHES	1050.7																	
LOOSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT AND TRACE CLAY, MOIST **EMBANKMENT FILL**	1048.2	1	10 5 3	11	100	SS-1	NP	29	27	28	15	1	NP	NP	NP	6	A-1-b (0)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP **EMBANKMENT FILL**		4	7 7 7	19	100	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
@6' TO 8.5': BROWN/GRAY, TRACE SHALE FRAGMENTS		7	4 5 6	15	100	SS-3	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		9	4 4 6	13	100	SS-4	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		12	3 4 6	13	100	SS-5	3.75	11	6	8	20	55	28	16	12	14	A-6a (9)	
		14	5 6 9	20	100	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1035.7																	
VERY STIFF TO HARD, BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST		17	5 6 9	20	100	SS-7	2.50	-	-	-	-	-	-	-	-	20	A-6a (V)	
@18.5' TO 25': GRAY/BROWN		19	7 8 11	26	100	SS-8	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
@21': DAMP		22	7 17 20	50	100	SS-9	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1026.7	EOB 25	6 7 11	24	100	SS-10	4.5+	6	6	11	29	48	26	15	11	13	A-6a (8)	

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 201+07, 73 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1054.0 (MSL) EOB: 25.0 ft.
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 612503.400 N, 2240330.570 E

EXPLORATION ID B-043-0-14

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
	1054.0																	
ASPHALT - 9 INCHES	1053.2																	
CRUSHED STONE - 3 INCHES	1053.0																	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT AND TRACE CLAY, DAMP **EMBANKMENT FILL**	1050.5	1	7 4 4	11	100	SS-1	NP	27	28	32	12	1	NP	NP	NP	6	A-1-b (0)	
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		4	5 5 7	16	100	SS-2	4.5+	7	7	11	23	52	29	17	12	13	A-6a (9)	
@6' TO 8.5': BROWN/GRAY, TRACE SHALE FRAGMENTS		7	4 4 5	12	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		9	5 5 7	16	100	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
@11' TO 13.5': GRAY/BROWN		12	7 7 7	19	100	SS-5	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		14	6 6 8	19	100	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1038.0																	
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP		17	5 7 8	20	100	SS-7	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
							4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
@18.5' TO 21': BROWN		19	8 9 11	27	100	SS-8	4.5+	5	10	16	33	36	26	15	11	15	A-6a (7)	
		22	8 10 15	34	100	SS-9	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1029.0	EOB 25	7 10 12	30	100	SS-10	4.25	-	-	-	-	-	-	-	-	13	A-6a (V)	

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 202+73, 74 RT	EXPLORATION ID B-044-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1050.5 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 612672.550 N, 2240333.530 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1050.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8.5 INCHES	1049.8																	
CRUSHED STONE - 3.5 INCHES	1049.5																	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT AND TRACE CLAY, DAMP **EMBANKMENT FILL**	1047.0	1	11 7 4	15	100	SS-1	NP	32	25	30	12	1	NP	NP	NP	7	A-1-b (0)	
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP		4	4 4 5	12	100	SS-2	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		7	2 2 2	5	100	SS-3	4.25	-	-	-	-	-	-	-	-	16	A-6a (V)	
@8.5': TRACE SHALE FRAGMENTS		9	3 4 5	12	100	SS-4	4.5+	13	8	8	23	48	31	19	12	15	A-6a (8)	
@11' TO 13.5': GRAY		12	4 4 5	12	100	SS-5	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		14	5 4 3	9	100	SS-6	4.50	-	-	-	-	-	-	-	-	10	A-6a (V)	
		17	5 4 7	15	100	SS-7	4.5+	-	-	-	-	-	-	-	-	28	A-6a (V)	
	1032.0																	
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		19	9 11 13	32	100	SS-8	4.5+	5	6	11	28	50	26	15	11	14	A-6a (8)	
		22	7 9 13	30	100	SS-9	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
	1025.5	EOB 25	9 15 17	43	100	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 205+01, 75 RT	EXPLORATION ID B-045-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1048.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 612902.810 N, 2240327.040 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 5.5 INCHES	1048.7																	
	1048.3																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT, GRAVEL, AND TRACE CLAY, DAMP **EMBANKMENT FILL**		1	10 5 3	11	100	SS-1	NP	19	25	40	15	1	NP	NP	NP	12	A-3a (0)	
	1045.2	2																
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO SOME GRAVEL, DAMP **EMBANKMENT FILL**		3																
		4	2 2 3	7	100	SS-2	2.50	-	-	-	-	-	-	-	-	17	A-6a (V)	
		5																
		6	4 4 4	11	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		7																
@8.5' TO 11': GRAY, TRACE SHALE FRAGMENTS		8	4 3 3	8	100	SS-4	4.5+	23	9	7	21	40	28	17	11	13	A-6a (6)	
	1037.7	9																
HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		10	4 4 6	13	100	SS-5	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		11																
		12	10 9 10	26	100	SS-6	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		13																
@16' TO 18.5': BROWN/GRAY		14	6 9 9	24	100	SS-7	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
	1030.2	15																
HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST		16	3 3 6	12	100	SS-8	4.5+	9	5	9	23	54	30	18	12	19	A-6a (9)	
		17																
@21': DAMP		18	3 5 9	19	100	SS-9	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		19																
		20	6 11 15	35	100	SS-10	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1023.7	21																
	EOB	22																
		23																
		24																
		25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\11099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: RIDGEWAY / PS	DRILL RIG: DIEDRICK D-50	STATION / OFFSET: 207+02, 75 RT	EXPLORATION ID B-046-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / MWW	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 4/26/13	ELEVATION: 1047.5 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/11/14 END: 1/11/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 80.8	COORD: 613103.920 N, 2240316.920 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 6.5 INCHES	1047.5																	
CRUSHED STONE - 3.5 INCHES	1047.0																	
STIFF, BROWN, **SANDY SILT**, SOME CLAY AND LITTLE GRAVEL, DAMP **EMBANKMENT FILL**	1046.7	1	8 3 4	9	100	SS-1	NI	13	13	25	27	22	21	12	9	11	A-4a (3)	
	1044.0	2																
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		3																
	1041.5	4	3 2 3	7	100	SS-2	2.50	9	3	8	20	60	28	16	12	15	A-6a (9)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND, TRACE TO LITTLE GRAVEL, AND SHALE FRAGMENTS, DAMP **EMBANKMENT FILL**		5																
		6	3 4 5	12	100	SS-3	3.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		7																
		8																
		9	5 3 6	12	100	SS-4	4.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
		10																
@11' TO 18.5': GRAY/BROWN		11																
		12	6 5 7	16	100	SS-5	4.5+	13	5	8	23	51	30	19	11	13	A-6a (8)	
		13																
		14	5 6 7	18	100	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		15																
		16																
		17	4 5 7	16	100	SS-7	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
	1029.0	18																
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST		19	6 6 8	19	100	SS-8	4.5+	-	-	-	-	-	-	-	-	24	A-6a (V)	
		20																
@21': DAMP		21																
		22	2 4 8	16	100	SS-9	3.00	7	4	7	22	60	34	20	14	19	A-6a (10)	
		23																
	1022.5	24	6 8 10	24	100	SS-10	3.75	-	-	-	-	-	-	-	-	17	A-6a (V)	
	EOB	25																

NOTES: "NI" - NOT INTACT

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 209+01, 74 RT	EXPLORATION ID B-047-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1046.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 613303.030 N, 2240306.660 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1046.2																	
CRUSHED STONE - 4 INCHES	1045.9																	
MEDIUM DENSE, BROWN, **GRAVEL AND STONE FRAGMENTS WITH SAND**, LITTLE SILT AND TRACE CLAY, MOIST **EMBANKMENT FILL**	1044.9		15 11 8	23	100	SS-1	NP	24	29	33	13	1	NP	NP	NP	25	A-1-b (0)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**			8 7 8	18	100	SS-2	4.50	9	6	10	24	51	32	17	15	15	A-6a (10)	
			7 9 9	22	100	SS-3	4.50	-	-	-	-	-	-	-	-	10	A-6a (V)	
			8 9 12	26	100	SS-4	4.50	-	-	-	-	-	-	-	-	11	A-6a (V)	
@11.5': TRACE SHALE FRAGMENTS			8 12 12	29	100	SS-5	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
			8 9 6	18	33	SS-6	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
			8 9 15	29	33	SS-7	4.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
			20 6 6	15	100	SS-8	4.50	-	-	-	-	-	-	-	-	22	A-6a (V)	
	1025.9																	
VERY STIFF, BROWN/GRAY, **CLAY**, SOME SILT, TRACE GRAVEL, AND SAND, MOIST			28 13 13	32	100	SS-9	4.50	7	0	1	33	59	41	24	17	28	A-7-6 (11)	
@23.5': SOME SAND, DAMP			6 7 8	18	100	SS-10	4.50	-	-	-	-	-	-	-	-	20	A-7-6 (V)	
	1021.9	EOB																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 211+00, 74 RT
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1046.2 (MSL) EOB: 25.0 ft.
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 613501.690 N, 2240296.990 E

EXPLORATION ID B-048-0-14

PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1045.5																	
CRUSHED STONE - 4 INCHES	1045.2																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT, TRACE TO SOME GRAVEL, AND TRACE CLAY, MOIST **EMBANKMENT FILL**		1	15 12 5	21	100	SS-1	NP	-	-	-	-	-	-	-	-	29	A-3a (V)	
@3.5': DAMP		2																
		3																
		4	4 4 5	11	100	SS-2	NP	21	20	41	17	1	NP	NP	NP	6	A-3a (0)	
	1041.2	5																
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, TRACE TO LITTLE SAND AND TRACE TO SOME GRAVEL, MOIST **EMBANKMENT FILL**		6	15 12 11	28	100	SS-3	3.00	-	-	-	-	-	-	-	-	19	A-6a (V)	
		7																
@8.5': DAMP		8																
		9	4 8 9	21	100	SS-4	2.50	23	4	5	18	50	31	18	13	14	A-6a (8)	
		10																
		11																
		12	4 7 11	22	100	SS-5	3.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
	1033.7	13																
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, SOME GRAVEL AND LITTLE SAND, DAMP		14	5 5 6	13	100	SS-6	4.50	20	6	8	20	46	31	20	11	13	A-6a (7)	
		15																
		16																
		17	6 6 7	16	100	SS-7	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
@18.5': WET		18																
		19	6 10 12	27	100	SS-8	4.5+	-	-	-	-	-	-	-	-	34	A-6a (V)	
		20																
	1025.2	21																
VERY STIFF TO HARD, GRAY, **CLAY**, SOME SILT, LITTLE SAND, AND TRACE GRAVEL, MOIST		22	6 11 11	27	100	SS-9	4.50	6	6	5	20	63	45	20	25	30	A-7-6 (15)	
		23																
@23.5' TO 25': BROWN/GRAY		24	5 6 8	17	100	SS-10	4.50	-	-	-	-	-	-	-	-	17	A-7-6 (V)	
	1021.2	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:04 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / CW	DRILL RIG: CME 75 TRUCK 111	STATION / OFFSET: 213+01, 74 RT	EXPLORATION ID B-049-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / TLM	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1045.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 73	COORD: 613702.520 N, 2240286.820 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1045.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 8 INCHES	1044.9																	
CRUSHED STONE - 4 INCHES	1044.6																	
MEDIUM DENSE, GRAY/BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**	1042.1	1	15 8 5	16	100	SS-1	NP	-	-	-	-	-	-	-	-	42	A-3a (V)	
HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	8 11 11	27	22	SS-2	2.00	-	-	-	-	-	-	-	-	20	A-6a (V)	
		5																
@6' TO 8.5': STIFF, GRAY. "AND" GRAVEL, TRACE SHALE FRAGMENTS		6																
		7	8 8 7	18	100	SS-3	4.00	39	5	7	15	34	33	22	11	12	A-6a (3)	
		8																
		9	8 12 16	34	100	SS-4	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		10																
		11																
		12	10 17 15	39	100	SS-5	4.50	-	-	-	-	-	-	-	-	11	A-6a (V)	
		13																
		14	4 8 10	22	100	SS-6	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		15																
		16																
		17	6 8 11	23	100	SS-7	4.50	-	-	-	-	-	-	-	-	11	A-6a (V)	
	1027.6	18																
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		19	6 12 13	30	100	SS-8	4.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		20																
		21																
		22	6 15 17	39	100	SS-9	4.50	11	6	11	22	50	28	17	11	15	A-6a (8)	
		23																
		24	6 8 10	22	100	SS-10	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
	1020.6	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 215+01, 74 RT	EXPLORATION ID B-050-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1044.8 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 613901.570 N, 2240276.850 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1044.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 9 INCHES	1044.0																	
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1042.5	1	14 6 5	15	72	SS-1	NP	-	-	-	-	-	-	-	-	10	A-3a (V)	
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3	2 3 6	12	50	SS-2	3.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
		4																
		5																
		6																
		7	7 8 13	28	67	SS-3	4.00	-	-	-	-	-	-	-	-	12	A-6a (V)	
		8																
@8.5' TO 11': BROWN/GRAY		9	6 7 9	21	78	SS-4	4.50	14	6	9	19	52	31	17	14	14	A-6a (9)	
		10																
		11																
		12	12 15 15	40	72	SS-5	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		13																
		14	5 5 7	16	0	SS-6	NR	-	-	-	-	-	-	-	-	-	A-6a (V)	
		15																
@16': MOIST		16																
		17	9 10 9	25	17	SS-7	2.00	-	-	-	-	-	-	-	-	20	A-6a (V)	
	1026.8	18																
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP		19	4 5 8	17	78	SS-8	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
		20																
@21' TO 23.5': BROWN, MOIST		21																
		22	6 8 9	23	94	SS-9	4.00	19	6	7	24	44	27	16	11	18	A-6a (7)	
		23																
@23.5': DAMP		24	4 4 7	15	83	SS-10	3.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1019.8	EOB 25																

NOTES: "NP" - NON-PLASTIC, "NR" - NO RECOVERY

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:05 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 217+01, 74 RT	EXPLORATION ID B-051-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1044.3 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 614101.500 N, 2240266.860 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1044.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 13 INCHES	1043.2																	
MEDIUM DENSE, GRAY/BROWN, **COARSE AND FINE SAND**, TRACE CLAY AND GRAVEL, DAMP **EMBANKMENT FILL**	1041.3	1	18 6 6	16	67	SS-1	NP	-	-	-	-	-	-	-	-	21	A-3a (V)	
VERY STIFF TO HARD, BROWN/GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP **EMBANKMENT FILL**		2																
		3																
		4	6 5 10	20	44	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		5																
		6																
		7	10 10 10	27	72	SS-3	4.50	10	7	10	26	47	28	16	12	13	A-6a (8)	
		8																
@8.5' TO 13.5': GRAY, TRACE SHALE FRAGMENTS		9	5 7 8	20	83	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		10																
		11																
@12' TO 12.5': MOIST		12	9 9 12	28	67	SS-5	4.5+	-	-	-	-	-	-	-	-	21	A-6a (V)	
	1029.3	13																
HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		14	5 7 12	25	100	SS-6	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		15																
		16																
		17	12 12 20	43	100	SS-7	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		18																
		19	8 12 12	32	100	SS-8	4.5+	6	4	7	22	61	29	18	11	16	A-6a (8)	
		20																
	1022.3	21	12 20 21	55	100	SS-9	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE TO SOME SAND, TRACE TO LITTLE GRAVEL, AND SHALE FRAGMENTS, MOIST		22																
		23																
		24	5 5 7	16	83	SS-10	4.00	13	7	12	20	48	25	14	11	14	A-6a (7)	
	1019.3	25																
		EOB																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:05 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 219+01, 80 RT	EXPLORATION ID B-052-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1043.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 614301.410 N, 2240263.630 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CRUSHED STONE - 5 INCHES	1042.8																	
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**		1	4 6 7	17	56	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		2																
@3.5' TO 6': BROWN, MOIST		3	5 4 5	12	56	SS-2	3.50	-	-	-	-	-	-	-	-	17	A-6a (V)	
		4																
@6' TO 11': DAMP		5	5 8 8	21	61	SS-3	4.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
		6																
		7	5 6 9	20	78	SS-4	4.5+	5	8	13	30	44	30	16	14	14	A-6a (9)	
		8																
@11' TO 13.5': MOIST		9	12 13 17	40	94	SS-5	4.00	-	-	-	-	-	-	-	-	26	A-6a (V)	
		10																
@13.5' TO 23.5': DAMP		11	2 4 8	16	100	SS-6	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		12																
		13	7 12 16	37	83	SS-7	4.00	-	-	-	-	-	-	-	-	16	A-6a (V)	
		14																
		15	5 9 12	28	100	SS-8	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		16																
		17	12 23 28	68	100	SS-9	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		18																
	1019.7	19																
VERY STIFF, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		20	3 6 6	16	94	SS-10	3.00	7	6	10	26	51	26	15	11	14	A-6a (8)	
	1018.2	21																
		22																
		23																
		24																
		25																
		EOB																

NOTES: NONE

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:05 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 221+00, 80 RT	EXPLORATION ID B-053-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1042.7 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 614501.240 N, 2240253.580 E	

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
CRUSHED STONE - 6 INCHES	1042.2																	
VERY STIFF TO HARD, BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP **EMBANKMENT FILL**			5 6 6	16	39	SS-1	4.50	-	-	-	-	-	-	-	-	11	A-6a (V)	
@3.5' TO 6': BROWN/GRAY			7 7 7	19	61	SS-2	4.5+	9	11	14	22	44	29	17	12	13	A-6a (7)	
			8 12 14	35	50	SS-3	4.00	-	-	-	-	-	-	-	-	17	A-6a (V)	
	1033.7																	
VERY STIFF, BROWN/GRAY, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**			3 5 8	17	100	SS-4	2.00	-	-	-	-	-	-	-	-	21	A-6a (V)	
	1031.7																	
VERY STIFF, GRAY/BROWN, **SILTY CLAY**, LITTLE SAND AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**			5 8 12	27	100	SS-5	2.00	2	5	10	25	58	37	20	17	22	A-6b (11)	
	1029.7	W																
MEDIUM DENSE, BROWN, **COARSE AND FINE SAND**, LITTLE SILT AND TRACE GRAVEL, WET **EMBANKMENT FILL**	1028.7		7 6 7	17	61	SS-6	3.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
VERY STIFF TO HARD, BROWN, **SILT AND CLAY**, LITTLE SAND AND TRACE TO LITTLE GRAVEL, DAMP																		
@16' TO 23': BROWN/GRAY, TRACE SHALE FRAGMENTS			8 9 13	29	67	SS-7	4.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
			7 8 10	24	78	SS-8	4.5+	13	6	10	26	45	27	16	11	13	A-6a (8)	
			9 11 14	33	56	SS-9	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
	1019.7																	
LOOSE, GRAY, **COARSE AND FINE SAND**, SOME SILT, TRACE GRAVEL, AND CLAY, WET			3 4 3	9	61	SS-10	NP	8	40	25	26	1	22	17	5	15	A-3a (0)	
	1017.7	EOB																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:05 - S:\PROJECTS\111099.01.GPJ

PROJECT: SUM-271-12.62	DRILLING FIRM / OPERATOR: TTL / TB	DRILL RIG: CME 550X ATV	STATION / OFFSET: 224+37, 80 RT	EXPLORATION ID B-054-0-14
TYPE: NOISE WALL	SAMPLING FIRM / LOGGER: GF / RP	HAMMER: CME AUTOMATIC	ALIGNMENT: IR 271	
PID: 89458 BR ID: SUM-271-12.62	DRILLING METHOD: 2.25" HSA	CALIBRATION DATE: 1/16/12	ELEVATION: 1042.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 1/12/14 END: 1/12/14	SAMPLING METHOD: SPT	ENERGY RATIO (%): 79.8	COORD: 614840.940 N, 2240225.710 E	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1042.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
ASPHALT - 10 INCHES	1041.4																	
MEDIUM DENSE, GRAY/BROWN, **COARSE AND FINE SAND**, SOME CLAY AND TRACE GRAVEL, MOIST **EMBANKMENT FILL**	1040.2	1	8 8 5	17	50	SS-1	NP	-	-	-	-	-	-	-	-	12	A-3a (V)	
VERY STIFF TO HARD, GRAY/BROWN, **SILT AND CLAY**, LITTLE TO SOME SAND AND TRACE GRAVEL, DAMP		2																
		3																
		4	5 7 8	20	67	SS-2	2.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
		5																
		6																
		7	8 12 18	40	61	SS-3	4.00	8	8	12	25	47	31	17	14	15	A-6a (9)	
		8																
		9	3 4 6	13	67	SS-4	3.00	-	-	-	-	-	-	-	-	17	A-6a (V)	
		10																
@11' TO 16': MOIST		11																
		12	7 14 14	37	89	SS-5	3.50	-	-	-	-	-	-	-	-	18	A-6a (V)	
@13.5' TO 16': BROWN		13																
		14	5 8 10	24	39	SS-6	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1026.2	15																
VERY STIFF TO HARD, GRAY, **SILT AND CLAY**, LITTLE SAND AND TRACE GRAVEL, DAMP		16	10 12 20	43	100	SS-7	4.50	-	-	-	-	-	-	-	-	13	A-6a (V)	
		17																
		18																
		19	3 6 8	19	89	SS-8	4.5+	12	5	9	28	46	26	15	11	14	A-6a (8)	
		20																
		21																
		22	11 18 17	47	83	SS-9	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		23																
		24	3 4 7	15	89	SS-10	4.50	-	-	-	-	-	-	-	-	15	A-6a (V)	
	1017.2	EOB 25																

NOTES: "NP" - NON-PLASTIC

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 7 CF CEMENT-BENTONITE GROUT

STANDARD ODOT SOIL BORING LOG (8.5 X 11) - OH DOT.GDT - 2/13/14 15:05 - S:\PROJECTS\111099.01.GPJ

APPENDIX C

SUMMARY OF LABORATORY TESTING

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-001-0-13	1.0							13.8			
B-001-0-13	3.5	34	16	18	25	55	CL	13.6			
B-001-0-13	6.0							14.2			
B-001-0-13	8.5							13.9			
B-001-0-13	11.0	32	14	18	25	51	CL	13.4			
B-001-0-13	13.5							13.1			
B-001-0-13	16.0							14.4			
B-001-0-13	18.5	35	16	19	25	54	CL	14.1			
B-001-0-13	21.0							13.2			
B-001-0-13	23.5							14.2			
B-002-0-13	1.0							12.2			
B-002-0-13	3.5							12.8			
B-002-0-13	6.0	33	15	18	25	54	CL	12.9			
B-002-0-13	8.5							12.5			
B-002-0-13	11.0							12.9			
B-002-0-13	13.5							13.4			
B-002-0-13	16.0							11.8			
B-002-0-13	18.5	35	17	18	25	53	CL	13.7			
B-002-0-13	21.0							14.1			
B-002-0-13	23.5							13.6			
B-003-0-13	1.0							13.3			
B-003-0-13	3.5	36	19	17	25	56	CL	13.5			
B-003-0-13	6.0							12.7			
B-003-0-13	8.5							14.3			
B-003-0-13	11.0	34	20	14	25	65	CL	13.1			
B-003-0-13	13.5							13.3			
B-003-0-13	16.0	38	21	17	25	49	SC	14.9			
B-003-0-13	18.5							14.1			
B-003-0-13	21.0							14.6			
B-003-0-13	23.5							15.1			
B-004-0-13	1.0							13.1			
B-004-0-13	3.5	35	16	19	25	50	CL	13.3			
B-004-0-13	6.0							12.8			
B-004-0-13	8.5							14.2			
B-004-0-13	11.0							12.8			
B-004-0-13	13.5	33	20	13	25	58	CL	12.8			
B-004-0-13	16.0							14.7			
B-004-0-13	18.5							13.9			
B-004-0-13	21.0							14.4			
B-004-0-13	23.5							16.6			
B-005-0-13	1.0							13.8			
B-005-0-13	3.5	35	20	15	25	54	CL	13.2			
B-005-0-13	6.0							13.4			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-005-0-13	8.5	35	19	16	25	60	CL	16.9			
B-005-0-13	11.0							14.9			
B-005-0-13	13.5							13.3			
B-005-0-13	16.0	38	17	21	25	52	CL	14.5			
B-005-0-13	18.5							13.4			
B-005-0-13	21.0							13.1			
B-005-0-13	23.5							11.2			
B-006-0-13	1.0							13.8			
B-006-0-13	3.5							11.1			
B-006-0-13	6.0	35	19	16	25	58	CL	13.4			
B-006-0-13	8.5							10.8			
B-006-0-13	11.0	NP	NP	NP	4.75	20	SM	7.6			
B-006-0-13	13.5	34	18	16	25	61	CL	14.5			
B-006-0-13	16.0							14.9			
B-006-0-13	18.5							15.3			
B-006-0-13	21.0							15.7			
B-006-0-13	23.5							14.5			
B-006-1-13	1.0	34	16	18	25	57	CL	8.7			
B-006-1-13	3.5							10.5			
B-006-1-13	6.0							11.4			
B-006-1-13	8.5							12.9			
B-006-1-13	11.0							13.4			
B-006-1-13	13.5	36	17	19	25	58	CL	12.8			
B-006-1-13	16.0							12.5			
B-006-1-13	18.5							13.6			
B-006-1-13	21.0							14.2			
B-006-1-13	23.5							13.4			
B-007-0-13	1.0							11.3			
B-007-0-13	3.5	37	18	19	4.75	56	CL	11.9			
B-007-0-13	6.0							12.0			
B-007-0-13	8.5							12.5			
B-007-0-13	11.0							12.4			
B-007-0-13	13.5							14.8			
B-007-0-13	16.0							14.5			
B-007-0-13	18.5	15	7	8	25	42	SC	15.5			
B-007-0-13	21.0							16.3			
B-007-0-13	23.5							14.3			
B-008-0-13	1.0							13.1			
B-008-0-13	3.5	36	20	16	2	59	CL	12.2			
B-008-1-13	6.0							12.9			
B-008-1-13	8.5	38	19	19	4.75	60	CL	13.5			
B-008-1-13	11.0							13.2			
B-008-1-13	13.5	35	18	17	4.75	62	CL	13.6			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-008-1-13	16.0	26	11	15	25	51	CL	13.3			
B-008-1-13	18.5							13.0			
B-008-1-13	21.0	44	21	23	25	71	CL	14.5			
B-008-1-13	23.5							12.5			
B-009-0-13	1.0							13.8			
B-009-0-13	3.5	46	26	20	25	67	CL	14.1			
B-009-0-13	6.0							14.9			
B-009-0-13	8.5							13.0			
B-009-0-13	13.5	42	22	20	25	68	CL	13.5			
B-009-0-13	16.0							13.9			
B-009-0-13	18.5							14.4			
B-009-0-13	21.0							8.8			
B-009-0-13	23.5							10.7			
B-010-0-13	1.0	NP	NP	NP	4.75	17	SM	8.8			
B-010-0-13	3.5	43	19	24	25	65	CL	10.7			
B-010-0-13	6.0	NP	NP	NP	4.75	17	SM	11.5			
B-010-0-13	8.5							12.7			
B-010-0-13	11.0							13.1			
B-010-0-13	13.5	42	20	22	25	61	CL	12.7			
B-010-0-13	16.0							12.9			
B-010-0-13	18.5							14.0			
B-010-0-13	21.0							12.6			
B-010-0-13	23.5							13.4			
B-011-0-13	1.0							10.5			
B-011-0-13	3.5	36	17	19	25	52	CL	10.9			
B-011-0-13	6.0							10.4			
B-011-0-13	8.5							11.3			
B-011-0-13	11.0							12.0			
B-011-0-13	13.5							13.5			
B-011-0-13	16.0	34	16	18	25	58	CL	13.2			
B-011-0-13	18.5							13.8			
B-011-0-13	21.0							12.8			
B-011-0-13	23.5							13.6			
B-012-0-13	1.0							12.5			
B-012-0-13	3.5	35	18	17	25	51	CL	13.0			
B-012-0-13	6.0							13.2			
B-012-0-13	8.5							13.6			
B-012-0-13	11.0							13.2			
B-012-0-13	13.5							13.7			
B-012-0-13	16.0	41	17	24	25	65	CL	9.1			
B-012-0-13	18.5							11.8			
B-012-0-13	21.0							11.1			
B-012-0-13	23.5							7.6			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-013-0-13	1.0							11.1			
B-013-0-13	3.5	37	19	18	25	51	CL	11.8			
B-013-0-13	6.0							12.6			
B-013-0-13	8.5							13.0			
B-013-0-13	11.0							13.5			
B-013-0-13	13.5	44	20	24	25	69	CL	14.5			
B-013-0-13	16.0							14.8			
B-013-0-13	18.5							14.4			
B-013-0-13	21.0							5.4			
B-013-0-13	23.5							4.4			
B-014-0-13	1.0							13.8			
B-014-0-13	3.5							13.0			
B-014-0-13	6.0	34	16	18	25	51	CL	13.3			
B-014-0-13	8.5							13.7			
B-014-0-13	11.0							14.1			
B-014-0-13	13.5	40	18	22	25	60	CL	14.5			
B-014-0-13	16.0							8.8			
B-014-0-13	18.5							6.6			
B-014-0-13	21.0							5.7			
B-014-0-13	23.5							4.9			
B-015-0-13	1.0							10.4			
B-015-0-13	3.5							10.1			
B-015-0-13	6.0	36	19	17	25	51	CL	12.0			
B-015-0-13	8.5							12.9			
B-015-0-13	11.0							12.7			
B-015-0-13	13.5							8.1			
B-015-0-13	16.0							4.9			
B-015-0-13	18.5							5.0			
B-016-0-13	1.0							10.7			
B-016-0-13	3.5	37	17	20	25	59	CL	11.0			
B-016-0-13	6.0							13.4			
B-016-0-13	8.5							13.1			
B-016-0-13	11.0							8.8			
B-016-0-13	13.5							4.4			
B-016-0-13	16.0							14.6			
B-017-0-13	1.0							10.8			
B-017-0-13	3.5	34	18	16	25	55	CL	11.2			
B-017-0-13	6.0							12.0			
B-017-0-13	8.5							12.8			
B-017-0-13	11.0							13.7			
B-017-0-13	13.5	41	19	22	25	66	CL	14.3			
B-017-0-13	16.0	40	17	23	25	75	CL	12.7			
B-017-0-13	18.5							13.6			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-017-0-13	21.0							13.1			
B-017-0-13	23.5							13.4			
B-018-0-13	1.0							10.2			
B-018-0-13	3.5	34	17	17	25	60	CL	10.9			
B-018-0-13	6.0							11.2			
B-018-0-13	8.5							12.8			
B-018-0-13	11.0							13.0			
B-018-0-13	13.5							13.6			
B-018-0-13	16.0							14.6			
B-018-0-13	18.5	37	19	18	25	58	CL	15.1			
B-018-0-13	21.0							14.2			
B-018-0-13	23.5							13.2			
B-019-0-13	1.0							10.1			
B-019-0-13	3.5	35	19	16	25	59	CL	9.9			
B-019-0-13	6.0							10.8			
B-019-0-13	8.5							11.9			
B-019-0-13	11.0							14.2			
B-019-0-13	13.5	40	18	22	25	71	CL	14.7			
B-019-0-13	16.0							14.8			
B-019-0-13	18.5							15.1			
B-019-0-13	21.0							6.2			
B-019-0-13	23.5							5.5			
B-020-0-13	1.0							13.1			
B-020-0-13	6.0							13.4			
B-020-0-13	8.5	35	17	18	25	54	CL	14.3			
B-020-0-13	11.0							12.7			
B-020-0-13	13.5							10.7			
B-020-0-13	18.5							5.0			
B-021-0-13	1.0							11.1			
B-021-0-13	3.5	38	15	23	25	58	CL	14.9			
B-021-0-13	6.0							15.6			
B-021-0-13	8.5							14.2			
B-021-0-13	11.0	36	16	20	25	50	CL	15.0			
B-021-0-13	13.5							9.3			
B-021-0-13	16.0							5.6			
B-022-0-13	1.0	38	17	21	25	52	CL	11.5			
B-022-0-13	3.5	20	7	13	25	54	CL	12.1			
B-022-0-13	6.0							12.3			
B-022-0-13	8.5	36	16	20	25	67	CL	9.7			
B-022-0-13	11.0							6.9			
B-023-0-13	1.0	NP	NP	NP	4.75	10	SP-SM	12.9			
B-023-0-13	3.5							13.6			
B-023-0-13	6.0							13.9			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-023-0-13	8.5	42	18	24	25	71	CL	14.0			
B-023-0-13	11.0							13.2			
B-023-0-13	13.5							11.9			
B-023-0-13	16.0							12.3			
B-023-0-13	18.5							13.5			
B-023-0-13	21.0							12.6			
B-023-0-13	23.5							11.2			
B-024-0-13	1.0							12.2			
B-024-0-13	3.5							12.6			
B-024-0-13	6.0							12.9			
B-024-0-13	8.5	35	18	17	25	56	CL	13.0			
B-024-0-13	11.0							12.5			
B-024-0-13	13.5							13.8			
B-024-0-13	16.0							14.2			
B-024-0-13	18.5	37	15	22	25	62	CL	14.0			
B-024-0-13	21.0							12.8			
B-024-0-13	23.5							12.9			
B-025-0-13	1.0							12.8			
B-025-0-13	3.5							13.4			
B-025-0-13	6.0	35	18	17	25	65	CL	12.7			
B-025-0-13	8.5							13.0			
B-025-0-13	11.0							13.3			
B-025-0-13	13.5							12.1			
B-025-0-13	16.0							11.2			
B-025-0-13	18.5							11.8			
B-025-0-13	21.0							13.6			
B-025-0-13	23.5							14.1			
B-026-0-13	1.0							8.5			
B-026-0-13	3.5	38	18	20	25	62	CL	13.4			
B-026-0-13	6.0							12.8			
B-026-0-13	8.5							13.6			
B-026-0-13	11.0							12.5			
B-026-0-13	13.5							13.4			
B-026-0-13	16.0							12.4			
B-026-0-13	18.5	35	16	19	25	58	CL	11.8			
B-026-0-13	21.0							12.9			
B-026-0-13	23.5							13.7			
B-027-0-13	1.0							12.8			
B-027-0-13	3.5	38	17	21	25	63	CL	12.5			
B-027-0-13	6.0							12.1			
B-027-0-13	8.5							12.6			
B-027-0-13	11.0							11.8			
B-027-0-13	13.5							11.7			

Gannett Fleming, Inc

SUMMARY OF LABORATORY RESULTS

PROJECT SUM-271-12.62 **PID** 89458

OGE NUMBER 0001 **PROJECT TYPE** Noise Wall

Borehole	Depth	Liquid Limit	Plastic Limit	Plasticity Index	Maximum Size (mm)	%<#200 Sieve	Class-ification	Water Content (%)	Dry Density (pcf)	Satur-ation (%)	Void Ratio
B-027-0-13	16.0	34	19	15	25	62	CL	12.1			
B-027-0-13	18.5							13.1			
B-027-0-13	21.0							12.1			
B-027-0-13	23.5							12.5			
B-028-0-13	1.0	NP	NP	NP	4.75	10	SP-SM	11.8			
B-028-0-13	3.5							13.2			
B-028-0-13	6.0							13.3			
B-028-0-13	8.5							12.8			
B-028-0-13	11.0							13.0			
B-028-0-13	13.5							13.3			
B-028-0-13	16.0	36	18	18	25	61	CL	13.4			
B-028-0-13	18.5							12.8			
B-028-0-13	21.0							13.8			
B-028-0-13	23.5							14.4			

TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

SUM-271-12.62; PID 89458
Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-001-0-14	SS-1	89+25	308 LT	1.0	-	2.5	9	23	2.00	-	-	-	-	-	-	-	-	A-4a (VISUAL)
B-001-0-14	SS-2	89+25	308 LT	3.5	-	5.0	13	20	1.25	9	10	36	27	18	24	20	4	A-4a (2)
B-001-0-14	SS-3	89+25	308 LT	6.0	-	7.5	13	12	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-001-0-14	SS-4	89+25	308 LT	8.5	-	10.0	16	14	3.00	10	9	8	34	39	28	17	11	A-6a (8)
B-001-0-14	SS-5	89+25	308 LT	11.0	-	12.5	16	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-001-0-14	SS-6	89+25	308 LT	13.5	-	15.0	18	15	3.75	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-001-0-14	SS-7	89+25	308 LT	16.0	-	17.5	18	15	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-001-0-14	SS-8	89+25	308 LT	18.5	-	20.0	19	17	3.00	8	5	8	26	53	28	17	11	A-6a (8)
B-001-0-14	SS-9	89+25	308 LT	21.0	-	22.5	13	18	1.75	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-001-0-14	SS-10	89+25	308 LT	23.5	-	25.0	16	17	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-002-0-14	SS-1	91+24	303 LT	1.0	-	2.5	19	12	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-002-0-14	SS-2	91+24	303 LT	3.5	-	5.0	23	14	4.50	11	10	10	28	41	28	17	11	A-6a (7)
B-002-0-14	SS-3	91+24	303 LT	6.0	-	7.5	13	11	NI	27	16	19	22	16	25	14	11	A-6a (1)
B-002-0-14	SS-4	91+24	303 LT	8.5	-	10.0	11	17	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-002-0-14	SS-5	91+24	303 LT	11.0	-	12.5	8	19	2.50	23	11	14	32	20	25	18	7	A-4a (3)
B-002-0-14	SS-6	91+24	303 LT	13.5	-	15.0	8	14	2.75	-	-	-	-	-	-	-	-	A-6b (VISUAL)
B-002-0-14	SS-7	91+24	303 LT	16.0	-	17.5	13	16	2.25	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-002-0-14	SS-8	91+24	303 LT	18.5	-	20.0	15	14	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-002-0-14	SS-9	91+24	303 LT	21.0	-	22.5	22	15	4.5+	9	8	7	25	51	28	17	11	A-6a (8)
B-002-0-14	SS-10	91+24	303 LT	23.5	-	25.0	15	16	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-1	93+26	306 LT	1.0	-	2.5	8	19	0.75	-	-	-	-	-	-	-	-	A-4a (VISUAL)
B-003-0-14	SS-2	93+26	306 LT	3.5	-	5.0	23	15	0.75	2	8	29	32	29	24	13	11	A-6a (6)
B-003-0-14	SS-3	93+26	306 LT	6.0	-	7.5	23	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-4	93+26	306 LT	8.5	-	10.0	28	13	4.5+	11	8	10	26	45	25	14	11	A-6a (8)
B-003-0-14	SS-5	93+26	306 LT	11.0	-	12.5	16	15	2.75	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-6	93+26	306 LT	13.5	-	15.0	12	15	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-7	93+26	306 LT	16.0	-	17.5	15	15	2.00	11	8	8	27	46	25	14	11	A-6a (8)
B-003-0-14	SS-8	93+26	306 LT	18.5	-	20.0	18	14	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-9	93+26	306 LT	21.0	-	22.5	16	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-003-0-14	SS-10	93+26	306 LT	23.5	-	25.0	19	15	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-004-0-14	SS-1	95+23	239 LT	1.0	-	2.5	13	24	2.25	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-004-0-14	SS-2	95+23	239 LT	3.5	-	5.0	48	13	4.5+	18	8	9	21	44	32	18	14	A-6a (8)
B-004-0-14	SS-3	95+23	239 LT	6.0	-	7.5	46	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-004-0-14	SS-4	95+23	239 LT	8.5	-	10.0	35	14	4.5+	8	9	12	27	44	31	17	14	A-6a (9)
B-004-0-14	SS-5	95+23	239 LT	11.0	-	12.5	13	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-004-0-14	SS-6	95+23	239 LT	13.5	-	15.0	19	12	4.00	39	8	11	28	14	28	16	12	A-6a (2)
B-004-0-14	SS-7	95+23	239 LT	16.0	-	17.5	11	25	NI	-	-	-	-	-	-	-	-	A-4a (VISUAL)
B-004-0-14	SS-8	95+23	239 LT	18.5	-	20.0	23	15	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-004-0-14	SS-9	95+23	239 LT	21.0	-	22.5	36	15	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-004-0-14	SS-10	95+23	239 LT	23.5	-	25.0	30	14	1.75	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-005-0-14	SS-1	97+39	206 LT	1.0	-	2.5	9	21	1.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
NI - Not Intact
NP - Not Plastic

TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

SUM-271-12.62; PID 89458
Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-005-0-14	SS-2	97+39	206 LT	3.5	-	5.0	16	14	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-005-0-14	SS-3	97+39	206 LT	6.0	-	7.5	20	13	4.00	18	7	8	33	34	25	14	11	A-6a (7)
B-005-0-14	SS-4	97+39	206 LT	8.5	-	10.0	28	13	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-005-0-14	SS-5	97+39	206 LT	11.0	-	12.5	13	20	NI	0	0	19	45	36	22	19	3	A-4a (8)
B-005-0-14	SS-6	97+39	206 LT	13.5	-	15.0	15	12	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-005-0-14	SS-7	97+39	206 LT	16.0	-	17.5	15	16	2.25	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-005-0-14	SS-8	97+39	206 LT	18.5	-	20.0	16	14	2.50	19	8	10	20	43	26	15	11	A-6a (6)
B-005-0-14	SS-9	97+39	206 LT	21.0	-	22.5	13	15	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-005-0-14	SS-10	97+39	206 LT	23.5	-	25.0	20	14	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-1	173+57	72 RT	1.0	-	2.5	18	35	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-029-0-14	SS-2	173+57	72 RT	3.5	-	5.0	11	14	4.5+	7	8	9	21	55	29	17	12	A-6a (9)
B-029-0-14	SS-3	173+57	72 RT	6.0	-	7.5	19	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-4	173+57	72 RT	8.5	-	10.0	19	16	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-5	173+57	72 RT	11.0	-	12.5	24	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-6	173+57	72 RT	13.5	-	15.0	15	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-7	173+57	72 RT	16.0	-	17.5	24	12	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-8	173+57	72 RT	18.5	-	20.0	16	14	4.00	6	7	7	20	60	29	16	13	A-6a (9)
B-029-0-14	SS-9	173+57	72 RT	21.0	-	22.5	26	13	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-029-0-14	SS-10	173+57	72 RT	23.5	-	25.0	21	14	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-1	175+38	73 RT	1.0	-	2.5	13	13	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-030-0-14	SS-2	175+38	73 RT	3.5	-	5.0	15	15	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-3	175+38	73 RT	6.0	-	7.5	19	16	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-4	175+38	73 RT	8.5	-	10.0	23	9	4.50	22	4	8	18	48	28	17	11	A-6a (7)
B-030-0-14	SS-5	175+38	73 RT	11.0	-	12.5	28	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-6	175+38	73 RT	13.5	-	15.0	17	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-7	175+38	73 RT	16.0	-	17.5	33	13	4.50	5	6	9	28	52	28	17	11	A-6a (8)
B-030-0-14	SS-8	175+38	73 RT	18.5	-	20.0	19	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-030-0-14	SS-9	175+38	73 RT	21.0	-	21.8	-	12	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-1	177+37	73 RT	1.0	-	2.5	13	12	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-031-0-14	SS-2	177+37	73 RT	3.5	-	5.0	19	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-3	177+37	73 RT	6.0	-	7.5	30	13	4.50	11	4	7	21	57	27	16	11	A-6a (8)
B-031-0-14	SS-4	177+37	73 RT	8.5	-	10.0	22	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-5	177+37	73 RT	11.0	-	12.5	26	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-6	177+37	73 RT	13.5	-	15.0	12	14	4.50	6	8	7	21	58	32	18	14	A-6a (10)
B-031-0-14	SS-7	177+37	73 RT	16.0	-	17.5	32	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-8	177+37	73 RT	18.5	-	20.0	28	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-9	177+37	73 RT	21.0	-	22.5	34	12	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-031-0-14	SS-10	177+37	73 RT	23.5	-	25.0	13	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-1	179+38	73 RT	1.0	-	2.5	12	11	NP	17	27	26	28	2	NP	NP	NP	A-3a (0)
B-032-0-14	SS-2	179+38	73 RT	3.5	-	5.0	19	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-3	179+38	73 RT	6.0	-	7.5	30	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
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NP - Not Plastic

TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

SUM-271-12.62; PID 89458
Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-032-0-14	SS-4	179+38	73 RT	8.5	-	10.0	16	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-5	179+38	73 RT	11.0	-	12.5	33	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-6	179+38	73 RT	13.5	-	15.0	18	12	4.5+	16	3	6	19	56	29	16	13	A-6a (9)
B-032-0-14	SS-7	179+38	73 RT	16.0	-	17.5	30	18	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-8	179+38	73 RT	18.5	-	20.0	19	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-9	179+38	73 RT	21.0	-	22.5	23	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-032-0-14	SS-10	179+38	73 RT	23.5	-	25.0	16	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-1	181+43	73 RT	1.0	-	2.5	21	33	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-033-0-14	SS-2	181+43	73 RT	3.5	-	5.0	21	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-3	181+43	73 RT	6.0	-	7.5	27	14	4.5+	4	3	10	20	63	27	16	11	A-6a (8)
B-033-0-14	SS-4	181+43	73 RT	8.5	-	10.0	15	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-5	181+43	73 RT	11.0	-	12.5	24	13	4.5+	5	9	7	20	59	27	16	11	A-6a (8)
B-033-0-14	SS-6	181+43	73 RT	13.5	-	15.0	17	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-7	181+43	73 RT	16.0	-	17.5	30	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-8	181+43	73 RT	18.5	-	20.0	23	12	3.50	7	3	8	20	62	28	17	11	A-6a (8)
B-033-0-14	SS-9	181+43	73 RT	21.0	-	22.5	29	9	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-033-0-14	SS-10	181+43	73 RT	23.5	-	25.0	18	13	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-1	183+39	73 RT	1.0	-	2.5	10	15	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-2	183+39	73 RT	3.5	-	5.0	19	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-3	183+39	73 RT	6.0	-	7.5	40	16	4.50	5	4	8	20	63	32	18	14	A-6a (10)
B-034-0-14	SS-4	183+39	73 RT	8.5	-	10.0	24	12	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-5	183+39	73 RT	11.0	-	12.5	27	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-6	183+39	73 RT	13.5	-	15.0	23	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-7	183+39	73 RT	16.0	-	16.4	-	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-8	183+39	73 RT	18.5	-	20.0	23	12	4.5+	5	5	7	21	62	29	17	12	A-6a (9)
B-034-0-14	SS-9	183+39	73 RT	21.0	-	22.5	40	12	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-034-0-14	SS-10	183+39	73 RT	23.5	-	25.0	24	13	3.00	7	5	9	21	58	27	16	11	A-6a (8)
B-035-0-14	SS-1	185+37	72 RT	1.0	-	2.5	13	11	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-035-0-14	SS-2	185+37	72 RT	3.5	-	5.0	23	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-035-0-14	SS-3	185+37	72 RT	6.0	-	7.5	27	14	4.00	9	6	8	22	55	34	19	15	A-6a (10)
B-035-0-14	SS-4	185+37	72 RT	8.5	-	10.0	24	14	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-035-0-14	SS-5	185+37	72 RT	11.0	-	12.5	29	6	NI	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-035-0-14	SS-6	185+37	72 RT	13.5	-	15.0	25	13	4.5+	7	8	11	28	46	28	17	11	A-6a (8)
B-035-0-14	SS-7	185+37	72 RT	16.0	-	17.5	44	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-035-0-14	SS-8	185+37	72 RT	18.5	-	20.0	17	17	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-035-0-14	SS-9	185+37	72 RT	21.0	-	22.5	32	19	4.00	7	6	11	22	54	32	20	12	A-6a (9)
B-035-0-14	SS-10	185+37	72 RT	23.5	-	25.0	13	23	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-036-0-14	SS-1	187+33	72 RT	1.0	-	2.5	19	7	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-036-0-14	SS-2	187+33	72 RT	3.5	-	5.0	21	13	4.00	21	7	8	24	40	30	18	12	A-6a (7)
B-036-0-14	SS-3	187+33	72 RT	6.0	-	7.5	31	8	4.5+	-	-	-	-	-	-	-	-	Rock (VISUAL)
B-036-0-14	SS-4	187+33	72 RT	8.5	-	10.0	19	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)

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Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-036-0-14	SS-5	187+33	72 RT	11.0	-	12.5	32	14	4.00	6	7	12	29	46	28	17	11	A-6a (8)
B-036-0-14	SS-6	187+33	72 RT	13.5	-	15.0	37	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-036-0-14	SS-7	187+33	72 RT	16.0	-	17.5	56	26	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-036-0-14	SS-8	187+33	72 RT	18.5	-	20.0	24	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-036-0-14	SS-9	187+33	72 RT	21.0	-	22.5	53	15	4.5+	4	7	12	32	45	29	18	11	A-6a (8)
B-036-0-14	SS-10	187+33	72 RT	23.5	-	25.0	17	15	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-1	189+29	73 RT	1.0	-	2.5	11	8	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-037-0-14	SS-2	189+29	73 RT	3.5	-	5.0	16	13	4.50	13	8	10	20	49	30	17	13	A-6a (8)
B-037-0-14	SS-3	189+29	73 RT	6.0	-	7.5	15	13	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-4	189+29	73 RT	8.5	-	10.0	29	16	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-5	189+29	73 RT	11.0	-	12.5	33	19	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-6	189+29	73 RT	13.5	-	15.0	20	15	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-7	189+29	73 RT	16.0	-	17.5	36	15	4.00	8	8	14	33	37	27	15	12	A-6a (8)
B-037-0-14	SS-8	189+29	73 RT	18.5	-	20.0	17	13	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-037-0-14	SS-9	189+29	73 RT	21.0	-	22.5	32	13	4.00	8	9	13	33	37	27	16	11	A-6a (7)
B-037-0-14	SS-10	189+29	73 RT	23.5	-	25.0	17	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-038-0-14	SS-1	191+25	73 RT	1.0	-	2.5	13	5	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-038-0-14	SS-2	191+25	73 RT	3.5	-	5.0	27	11	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-038-0-14	SS-3	191+25	73 RT	6.0	-	7.5	17	-	NR	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-038-0-14	SS-4	191+25	73 RT	8.5	-	10.0	24	14	4.5+	10	7	12	27	44	29	18	11	A-6a (8)
B-038-0-14	SS-5	191+25	73 RT	11.0	-	12.5	47	19	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-038-0-14	SS-6	191+25	73 RT	13.5	-	15.0	33	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-038-0-14	SS-7	191+25	73 RT	16.0	-	17.5	48	14	4.5+	12	11	12	40	25	27	16	11	A-6a (6)
B-038-0-14	SS-8	191+25	73 RT	18.5	-	20.0	11	15	2.00	-	-	-	-	-	-	-	-	A-4a (VISUAL)
B-038-0-14	SS-9	191+25	73 RT	21.0	-	22.5	20	15	2.00	6	7	12	48	27	25	16	9	A-4a (8)
B-038-0-14	SS-10	191+25	73 RT	23.5	-	25.0	17	17	2.00	-	-	-	-	-	-	-	-	A-4a (VISUAL)
B-039-0-14	SS-1	193+23	73 RT	1.0	-	2.5	13	10	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-039-0-14	SS-2	193+23	73 RT	3.5	-	5.0	5	32	1.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-039-0-14	SS-3	193+23	73 RT	6.0	-	7.5	13	32	1.00	11	6	7	40	36	43	24	19	A-7-6 (12)
B-039-0-14	SS-4	193+23	73 RT	8.5	-	10.0	17	20	3.00	-	-	-	-	-	-	-	-	A-7-6 (VISUAL)
B-039-0-14	SS-5	193+23	73 RT	11.0	-	12.5	29	18	3.00	1	7	19	45	28	26	15	11	A-6a (8)
B-039-0-14	SS-6	193+23	73 RT	13.5	-	15.0	12	15	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-039-0-14	SS-7	193+23	73 RT	16.0	-	17.5	20	14	3.00	10	7	12	40	31	27	16	11	A-6a (8)
B-039-0-14	SS-8	193+23	73 RT	18.5	-	20.0	17	13	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-039-0-14	SS-9	193+23	73 RT	21.0	-	22.5	27	14	2.00	14	7	14	38	27	27	15	12	A-6a (7)
B-039-0-14	SS-10	193+23	73 RT	23.5	-	25.0	16	15	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-1	195+18	72 RT	1.0	-	2.5	23	26	NP	21	26	25	17	11	NP	NP	NP	A-3a (0)
B-040-0-14	SS-2	195+18	72 RT	3.5	-	5.0	15	14	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-3	195+18	72 RT	6.0	-	7.5	32	13	4.00	11	8	9	31	41	28	17	11	A-6a (8)
B-040-0-14	SS-4	195+18	72 RT	8.5	-	10.0	16	18	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-5	195+18	72 RT	11.0	-	12.5	21	20	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
NI - Not Intact
NP - Not Plastic

TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

SUM-271-12.62; PID 89458
Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-040-0-14	SS-6	195+18	72 RT	13.5	-	15.0	12	14	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-7	195+18	72 RT	16.0	-	17.5	21	13	2.00	16	11	26	27	20	25	14	11	A-6a (3)
B-040-0-14	SS-8	195+18	72 RT	18.5	-	20.0	16	11	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-9	195+18	72 RT	21.0	-	22.5	21	15	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-040-0-14	SS-10	195+18	72 RT	23.5	-	25.0	16	16	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-1	197+16	72 RT	1.0	-	2.5	20	24	NP	18	28	24	28	2	25	21	4	A-3a (0)
B-041-0-14	SS-2	197+16	72 RT	3.5	-	5.0	18	14	4.5+	6	6	9	32	47	28	17	11	A-6a (8)
B-041-0-14	SS-3	197+16	72 RT	6.0	-	7.5	19	13	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-4	197+16	72 RT	8.5	-	10.0	16	14	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-5	197+16	72 RT	11.0	-	12.5	19	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-6	197+16	72 RT	13.5	-	15.0	23	16	3.00	23	3	6	17	51	34	17	17	A-6b (9)
B-041-0-14	SS-7	197+16	72 RT	16.0	-	17.5	11	29	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-8	197+16	72 RT	18.5	-	20.0	15	28	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-9	197+16	72 RT	21.0	-	22.5	22	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-041-0-14	SS-10	197+16	72 RT	23.5	-	25.0	24	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-1	199+11	73 RT	1.0	-	2.5	11	6	NP	29	27	28	15	1	NP	NP	NP	A-1-b (0)
B-042-0-14	SS-2	199+11	73 RT	3.5	-	5.0	19	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-3	199+11	73 RT	6.0	-	7.5	15	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-4	199+11	73 RT	8.5	-	10.0	13	14	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-5	199+11	73 RT	11.0	-	12.5	13	14	3.75	11	6	8	20	55	28	16	12	A-6a (9)
B-042-0-14	SS-6	199+11	73 RT	13.5	-	15.0	20	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-7	199+11	73 RT	16.0	-	17.5	20	20	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-8	199+11	73 RT	18.5	-	20.0	26	16	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-9	199+11	73 RT	21.0	-	22.5	50	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-042-0-14	SS-10	199+11	73 RT	23.5	-	25.0	24	13	4.5+	6	6	11	29	48	26	15	11	A-6a (8)
B-043-0-14	SS-1	201+07	73 RT	1.0	-	2.5	11	6	NP	27	28	32	12	1	NP	NP	NP	A-1-b (0)
B-043-0-14	SS-2	201+07	73 RT	3.5	-	5.0	16	13	4.5+	7	7	11	23	52	29	17	12	A-6a (9)
B-043-0-14	SS-3	201+07	73 RT	6.0	-	7.5	12	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-4	201+07	73 RT	8.5	-	10.0	16	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-5	201+07	73 RT	11.0	-	12.5	19	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-6	201+07	73 RT	13.5	-	15.0	19	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-7a	201+07	73 RT	16.0	-	17.0	20	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-7b	201+07	73 RT	17.0	-	17.5		18	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-8	201+07	73 RT	18.5	-	20.0	27	15	4.5+	5	10	16	33	36	26	15	11	A-6a (7)
B-043-0-14	SS-9	201+07	73 RT	21.0	-	22.5	34	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-043-0-14	SS-10	201+07	73 RT	23.5	-	25.0	30	13	4.25	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-1	202+73	74 RT	1.0	-	2.5	15	7	NP	32	25	30	12	1	NP	NP	NP	A-1-b (0)
B-044-0-14	SS-2	202+73	74 RT	3.5	-	5.0	12	17	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-3	202+73	74 RT	6.0	-	7.5	5	16	4.25	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-4	202+73	74 RT	8.5	-	10.0	12	15	4.5+	13	8	8	23	48	31	19	12	A-6a (8)
B-044-0-14	SS-5	202+73	74 RT	11.0	-	12.5	12	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
NI - Not Intact
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TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

SUM-271-12.62; PID 89458
Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-044-0-14	SS-6	202+73	74 RT	13.5	-	15.0	9	10	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-7	202+73	74 RT	16.0	-	17.5	15	28	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-8	202+73	74 RT	18.5	-	20.0	32	14	4.5+	5	6	11	28	50	26	15	11	A-6a (8)
B-044-0-14	SS-9	202+73	74 RT	21.0	-	22.5	30	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-044-0-14	SS-10	202+73	74 RT	23.5	-	25.0	43	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-1	205+01	75 RT	1.0	-	2.5	11	12	NP	19	25	40	15	1	NP	NP	NP	A-3a (0)
B-045-0-14	SS-2	205+01	75 RT	3.5	-	5.0	7	17	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-3	205+01	75 RT	6.0	-	7.5	11	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-4	205+01	75 RT	8.5	-	10.0	8	13	4.5+	23	9	7	21	40	28	17	11	A-6a (6)
B-045-0-14	SS-5	205+01	75 RT	11.0	-	12.5	13	12	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-6	205+01	75 RT	13.5	-	15.0	26	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-7	205+01	75 RT	16.0	-	17.5	24	18	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-8	205+01	75 RT	18.5	-	20.0	12	19	4.5+	9	5	9	23	54	30	18	12	A-6a (9)
B-045-0-14	SS-9	205+01	75 RT	21.0	-	22.5	19	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-045-0-14	SS-10	205+01	75 RT	23.5	-	25.0	35	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-1	207+02	75 RT	1.0	-	2.5	9	11	NI	13	13	25	27	22	21	12	9	A-4a (3)
B-046-0-14	SS-2	207+02	75 RT	3.5	-	5.0	7	15	2.50	9	3	8	20	60	28	16	12	A-6a (9)
B-046-0-14	SS-3	207+02	75 RT	6.0	-	7.5	12	14	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-4	207+02	75 RT	8.5	-	10.0	12	13	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-5	207+02	75 RT	11.0	-	12.5	16	13	4.5+	13	5	8	23	51	30	19	11	A-6a (8)
B-046-0-14	SS-6	207+02	75 RT	13.5	-	15.0	18	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-7	207+02	75 RT	16.0	-	17.5	16	16	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-8	207+02	75 RT	18.5	-	20.0	19	24	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-046-0-14	SS-9	207+02	75 RT	21.0	-	22.5	16	19	3.00	7	4	7	22	60	34	20	14	A-6a (10)
B-046-0-14	SS-10	207+02	75 RT	23.5	-	25.0	24	17	3.75	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-1	209+01	74 RT	1.0	-	2.5	23	25	NP	24	29	33	13	1	NP	NP	NP	A-1-b (0)
B-047-0-14	SS-2	209+01	74 RT	3.5	-	5.0	18	15	4.50	9	6	10	24	51	32	17	15	A-6a (10)
B-047-0-14	SS-3	209+01	74 RT	6.0	-	7.5	22	10	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-4	209+01	74 RT	8.5	-	10.0	26	11	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-5	209+01	74 RT	11.0	-	12.5	29	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-6	209+01	74 RT	13.5	-	15.0	18	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-7	209+01	74 RT	16.0	-	17.5	29	16	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-8	209+01	74 RT	18.5	-	20.0	15	22	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-047-0-14	SS-9	209+01	74 RT	21.0	-	22.5	32	28	4.50	7	0	1	33	59	41	24	17	A-7-6 (11)
B-047-0-14	SS-10	209+01	74 RT	23.5	-	25.0	18	20	4.50	-	-	-	-	-	-	-	-	A-7-6 (VISUAL)
B-048-0-14	SS-1	211+00	74 RT	1.0	-	2.5	21	29	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-048-0-14	SS-2	211+00	74 RT	3.5	-	5.0	11	6	NP	21	20	41	17	1	NP	NP	NP	A-3a (0)
B-048-0-14	SS-3	211+00	74 RT	6.0	-	7.5	28	19	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-048-0-14	SS-4	211+00	74 RT	8.5	-	10.0	21	14	2.50	23	4	5	18	50	31	18	13	A-6a (8)
B-048-0-14	SS-5	211+00	74 RT	11.0	-	12.5	22	12	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-048-0-14	SS-6	211+00	74 RT	13.5	-	15.0	13	13	4.50	20	6	8	20	46	31	20	11	A-6a (7)

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Summary of Soil Test Data

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-048-0-14	SS-7	211+00	74 RT	16.0	-	17.5	16	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-048-0-14	SS-8	211+00	74 RT	18.5	-	20.0	27	34	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-048-0-14	SS-9	211+00	74 RT	21.0	-	22.5	27	30	4.50	6	6	5	20	63	45	20	25	A-7-6 (15)
B-048-0-14	SS-10	211+00	74 RT	23.5	-	25.0	17	17	4.50	-	-	-	-	-	-	-	-	A-7-6 (VISUAL)
B-049-0-14	SS-1	213+01	74 RT	1.0	-	2.5	16	42	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-049-0-14	SS-2	213+01	74 RT	3.5	-	5.0	27	20	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-3	213+01	74 RT	6.0	-	7.5	18	12	4.00	39	5	7	15	34	33	22	11	A-6a (3)
B-049-0-14	SS-4	213+01	74 RT	8.5	-	10.0	34	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-5	213+01	74 RT	11.0	-	12.5	39	11	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-6	213+01	74 RT	13.5	-	15.0	22	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-7	213+01	74 RT	16.0	-	17.5	23	11	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-8	213+01	74 RT	18.5	-	20.0	30	14	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-049-0-14	SS-9	213+01	74 RT	21.0	-	22.5	39	15	4.50	11	6	11	22	50	28	17	11	A-6a (8)
B-049-0-14	SS-10	213+01	74 RT	23.5	-	25.0	22	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-1	215+01	74 RT	1.0	-	2.5	15	10	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-050-0-14	SS-2	215+01	74 RT	3.5	-	5.0	12	16	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-3	215+01	74 RT	6.0	-	7.5	28	12	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-4	215+01	74 RT	8.5	-	10.0	21	14	4.50	14	6	9	19	52	31	17	14	A-6a (9)
B-050-0-14	SS-5	215+01	74 RT	11.0	-	12.5	40	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-6	215+01	74 RT	13.5	-	15.0	16	-	NR	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-7	215+01	74 RT	16.0	-	17.5	25	20	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-8	215+01	74 RT	18.5	-	20.0	17	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-050-0-14	SS-9	215+01	74 RT	21.0	-	22.5	23	18	4.00	19	6	7	24	44	27	16	11	A-6a (7)
B-050-0-14	SS-10	215+01	74 RT	23.5	-	25.0	15	14	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-1	217+01	74 RT	1.0	-	2.5	16	21	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-051-0-14	SS-2	217+01	74 RT	3.5	-	5.0	20	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-3	217+01	74 RT	6.0	-	7.5	27	13	4.50	10	7	10	26	47	28	16	12	A-6a (8)
B-051-0-14	SS-4	217+01	74 RT	8.5	-	10.0	20	11	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-5	217+01	74 RT	11.0	-	12.5	28	21	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-6	217+01	74 RT	13.5	-	15.0	25	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-7	217+01	74 RT	16.0	-	17.5	43	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-8	217+01	74 RT	18.5	-	20.0	32	16	4.5+	6	4	7	22	61	29	18	11	A-6a (8)
B-051-0-14	SS-9	217+01	74 RT	21.0	-	22.5	55	11	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-051-0-14	SS-10	217+01	74 RT	23.5	-	25.0	16	14	4.00	13	7	12	20	48	25	14	11	A-6a (7)
B-052-0-14	SS-1	219+01	80 RT	1.0	-	2.5	17	14	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-2	219+01	80 RT	3.5	-	5.0	12	17	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-3	219+01	80 RT	6.0	-	7.5	21	13	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-4	219+01	80 RT	8.5	-	10.0	20	14	4.5+	5	8	13	30	44	30	16	14	A-6a (9)
B-052-0-14	SS-5	219+01	80 RT	11.0	-	12.5	40	26	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-6	219+01	80 RT	13.5	-	15.0	16	17	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-7	219+01	80 RT	16.0	-	17.5	37	16	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
NI - Not Intact
NP - Not Plastic

TTL Associates, Inc.
1915 North 12th Street
Toledo, OH 43604

EXPLOR. ID	SAMPLE ID	STATION	OFFSET	Sample Interval Depth (ft) FROM	-	TO	SPT N60 (bpf)	Water Content (Percent)	UCS (tsf)	Particle Size Distribution (percent) Gravel	Coarse Sand	Fine Sand	Silt	Clay	Atterberg Limtis (Percent) Liquid Limit	Plastic Limit	Plasticity Index	ODOT Classification (GI)
B-052-0-14	SS-8	219+01	80 RT	18.5	-	20.0	28	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-9	219+01	80 RT	21.0	-	22.5	68	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-052-0-14	SS-10	219+01	80 RT	23.5	-	25.0	16	14	3.00	7	6	10	26	51	26	15	11	A-6a (8)
B-053-0-14	SS-1	221+00	80 RT	1.0	-	2.5	16	11	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-2	221+00	80 RT	3.5	-	5.0	19	13	4.5+	9	11	14	22	44	29	17	12	A-6a (7)
B-053-0-14	SS-3	221+00	80 RT	6.0	-	7.5	35	17	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-4	221+00	80 RT	8.5	-	10.0	17	21	2.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-5	221+00	80 RT	11.0	-	12.5	27	22	2.00	2	5	10	25	58	37	20	17	A-6b (11)
B-053-0-14	SS-6	221+00	80 RT	13.5	-	15.0	17	15	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-7	221+00	80 RT	16.0	-	17.5	29	14	4.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-8	221+00	80 RT	18.5	-	20.0	24	13	4.5+	13	6	10	26	45	27	16	11	A-6a (8)
B-053-0-14	SS-9	221+00	80 RT	21.0	-	22.5	33	15	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-053-0-14	SS-10	221+00	80 RT	23.5	-	25.0	9	15	NP	8	40	25	26	1	22	17	5	A-3a (0)
B-054-0-14	SS-1	224+37	80 RT	1.0	-	2.5	17	12	NP	-	-	-	-	-	-	-	-	A-3a (VISUAL)
B-054-0-14	SS-2	224+37	80 RT	3.5	-	5.0	20	15	2.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-3	224+37	80 RT	6.0	-	7.5	40	15	4.00	8	8	12	25	47	31	17	14	A-6a (9)
B-054-0-14	SS-4	224+37	80 RT	8.5	-	10.0	13	17	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-5	224+37	80 RT	11.0	-	12.5	37	18	3.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-6	224+37	80 RT	13.5	-	15.0	24	14	3.00	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-7	224+37	80 RT	16.0	-	17.5	43	13	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-8	224+37	80 RT	18.5	-	20.0	19	14	4.5+	12	5	9	28	46	26	15	11	A-6a (8)
B-054-0-14	SS-9	224+37	80 RT	21.0	-	22.5	47	13	4.5+	-	-	-	-	-	-	-	-	A-6a (VISUAL)
B-054-0-14	SS-10	224+37	80 RT	23.5	-	25.0	15	15	4.50	-	-	-	-	-	-	-	-	A-6a (VISUAL)

NR - No Recovery
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Excellence Delivered ***As Promised***

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Akron, OH 44333
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