

**PROJECT DESCRIPTION**

THIS HAN-75-14.39 PROJECT INVOLVES IMPROVEMENTS TO A SECTION OF INTERSTATE ROUTE 75 (IR-75) FROM 0.22 MILES NORTH OF C.R. 313/LIMA AVENUE TO 0.4 MILES SOUTH OF C.R. 99 WITH AN APPROXIMATE LENGTH OF 5.128 MILES AND TO A SECTION OF U.S. ROUTE 68 (US 68) FROM 0.56 MILES SOUTH OF C.R. 313/LIMA AVENUE TO IR-75 WITH AN APPROXIMATE LENGTH OF 1.0 MILE IN FINDLAY, HANCOCK COUNTY, OHIO. AS PART OF THESE IMPROVEMENTS, A SECTION OF IR-75 BETWEEN HARRISON STREET AND THE NORFOLK SOUTHERN RAILROAD BRIDGES WILL BE COMPLETELY REALIGNED, A THIRD LANE WILL BE ADDED ALONG IR-75 IN EACH NB AND SB DIRECTION EITHER ALONG THE MEDIAN OR OUTSIDE SHOULDER DEPENDING ON SPACE AVAILABILITY, EXISTING PAVEMENTS ALONG IR-75 WITHIN THE PROJECT LIMIT WILL BE REHABILITATED TO FULL DEPTH, SECTIONS OF ALL IR-75 RAMPS AT THE SR 12 AND US 224 INTERCHANGES WILL BE REALIGNED AND REHABILITATED TO FULL DEPTH OF PAVEMENT, AND EXISTING PAVEMENTS OF US 68 WILL BE WIDENED AND REHABILITATED TO FULL DEPTH.

ALSO THE INTERCHANGE AT IR-75/US 68 WILL BE COMPLETELY REDESIGNED TO INCLUDE THE REMOVAL OF THE EXISTING RAMPS AND REPLACEMENT WITH 10 NEW RAMPS; US 68 RAMP A, US 68 RAMP B, US 68 RAMP C, US 68 RAMP D, LIMA RAMP A, LIMA RAMP B, LIMA RAMP E, LIMA RAMP F, LIMA RAMP G, AND LIMA RAMP H. ASSOCIATED WITH REDESIGNING THE IR-75/US 68 INTERCHANGE, THE US 68/LIMA AVENUE INTERCHANGE WILL BE COMPLETELY REDESIGNED TO INCLUDE REALIGNMENT OF EXISTING LIMA AVENUE. SECTIONS OF EXISTING SIDE ROADS INCLUDING HARRISON STREET, LOGAN AVENUE, AND GRAY STREET WILL BE REHABILITATED AND A SERVICE ROAD WILL BE CONSTRUCTED NORTH OF THE INTERCHANGE OF US 68/LIMA AVENUE AND WEST OF LIMA AVENUE.

IN ADDITION, A TOTAL OF 8 BRIDGES; 5 REPLACEMENT AND 3 NEW, WILL BE DESIGNED AND CONSTRUCTED ASSOCIATED WITH THESE IMPROVEMENTS. FIVE REPLACEMENT BRIDGES INCLUDE IR-75 MAINLINE BRIDGE NOS. HAN-75-1526 L & R OVER US 68 RAMP A, IR-75 MAINLINE BRIDGE NOS. HAN-75-1540 L & R OVER NORFOLK SOUTHERN RAILROAD, IR-75 MAINLINE BRIDGE NOS. HAN-75-1697 L & R OVER BLANCHARD RIVER, US 68 MAINLINE BRIDGE NO. HAN-68-1585 OVER LIMA AVENUE, AND HARRISON STREET BRIDGE NO. HAN-75-1477 OVER IR-75 AND NORFOLK SOUTHERN RAILROAD. THREE NEW BRIDGES WILL INCLUDE US 68 RAMP D, BRIDGE NO. HAN-68-1617 OVER LIMA AVE. RAMP H, US 68 RAMP C BRIDGE NO. HAN-68-1668 OVER US 68 RAMP A AND NORFOLK SOUTHERN RAILROAD, AND US 68 RAMP C BRIDGE NO. HAN-68-1656 OVER IR-75 AND US 68 RAMP B.

**HISTORIC RECORDS**

HISTORIC INFORMATION FROM THREE (3) GEOTECHNICAL EXPLORATIONS WAS OBTAINED FROM THE ODOT GEOTECHNICAL DOCUMENTS MANAGEMENT SYSTEM FTP SITE. A ROADWAY GEOTECHNICAL EXPLORATION WAS PERFORMED IN 1955 UNDER THE PROJECT DESIGNATION OF HAN-25-13.71 (HAN-25-12.99) FOR THE ORIGINAL CONSTRUCTION OF A SECTION OF IR-75 FROM 0.89 MILES SOUTH OF LIMA AVENUE (CR 313) TO 400 FEET NORTH OF CR 95 WITH A TOTAL PROJECT LENGTH OF 5.74 MILES. SOIL PROFILE SHEETS ARE AVAILABLE FOR THIS EXPLORATION. NOTE THAT MANY OF THE HISTORIC SOIL BORINGS PRESENTED ON THE SOIL PROFILE SHEETS REPRESENT THE ORIGINAL GRADE AND MOST OF WHICH IS EMBANKMENT FILL TO RAISE THE GRADE TO CURRENT IR-75 SUBGRADE. ALSO N-VALUES FROM SPT TESTS WERE NOT INCLUDED ON THE HISTORIC SOIL PROFILES. THEREFORE THESE ABOVE HISTORIC BORINGS ARE NOT INCLUDED IN THE CURRENT SOIL PROFILE SHEETS. A STRUCTURE FOUNDATION EXPLORATION WAS PERFORMED IN 2002 UNDER THE PROJECT DESIGNATION OF HAN-75-15.99 FOR THE WEST SANDUSKY STREET BRIDGE OVER IR-75. STRUCTURE FOUNDATION INVESTIGATION SHEETS ARE AVAILABLE FOR THIS EXPLORATION. SOIL INFORMATION OBTAINED FROM TEST BORING B-104-0-02 WHICH WAS ADVANCED ALONG THE IR-75 MEDIAN WILL BE INCLUDED IN THE CURRENT SOIL PROFILE SHEETS. A ROADWAY/STRUCTURE EXPLORATION WAS PERFORMED IN 2010 UNDER THE PROJECT DESIGNATION OF HAN-224-11.81 FOR US 224 INTERCHANGE IMPROVEMENTS. SOIL PROFILE SHEETS ARE AVAILABLE FOR THIS EXPLORATION AND SOIL INFORMATION OBTAINED FROM TEST BORINGS B-006-0-10, B-010-0-10 THROUGH B-013-0-10, B-015-0-10 THROUGH B-017-0-10, B-021-0-10 THROUGH B-023-0-10, AND B-025-0-10 THROUGH B029-0-10 WHICH WERE ADVANCED IN THE VICINITY OF THE US 224 INTERCHANGE ARE INCLUDED IN THE CURRENT SOIL PROFILE SHEETS.

ALSO HISTORICAL RECORDS OF GEOTECHNICAL EXPLORATIONS PERFORMED IN 1987 FOR IR-75 MAINLINE BRIDGE NOS. HAN-75-1540 L & R OVER NORFOLK SOUTHERN RAILROAD AND IR-75 MAINLINE BRIDGE NOS. HAN-75-1697 L & R OVER BLANCHARD RIVER AND IN 1960 FOR HARRISON ST BRIDGE NO. HAN-75-1477 WERE AVAILABLE. THESE RECORDS CONSIST OF STRUCTURE FOUNDATION INVESTIGATION SHEETS INCLUDING BORING LOGS IDENTIFIED AS B-1, B-2, AND B-4 (B-001-0-87, B-002-0-87, AND B-004-0-87) FOR IR-75 MAINLINE BRIDGE NOS. HAN-75-1540 L & R, BORING LOGS IDENTIFIED AS B-1, B-2, B-3, AND B-4 (B-001-1-87, B-002-1-87, B-003-1-87, AND B-004-1-87) FOR IR-75 MAINLINE BRIDGE NOS. HAN-75-1697 L & R, AND BORING LOGS IDENTIFIED AS B-4, B-9, AND B-13 (B-004-0-60, B-009-0-60, AND B-013-0-60) FOR HARRISON ST. BRIDGE NO. HAN-75-1477. SOIL/ROCK INFORMATION FROM THESE HISTORIC BORING LOGS WERE INCLUDED IN THE STRUCTURE FOUNDATION EXPLORATION SHEETS OF THESE BRIDGES. ODOT CLASS LEGEND FOR HISTORIC SOIL INFORMATION WAS INCLUDED IN THE COVER SHEET.

**SPECIFICATIONS**

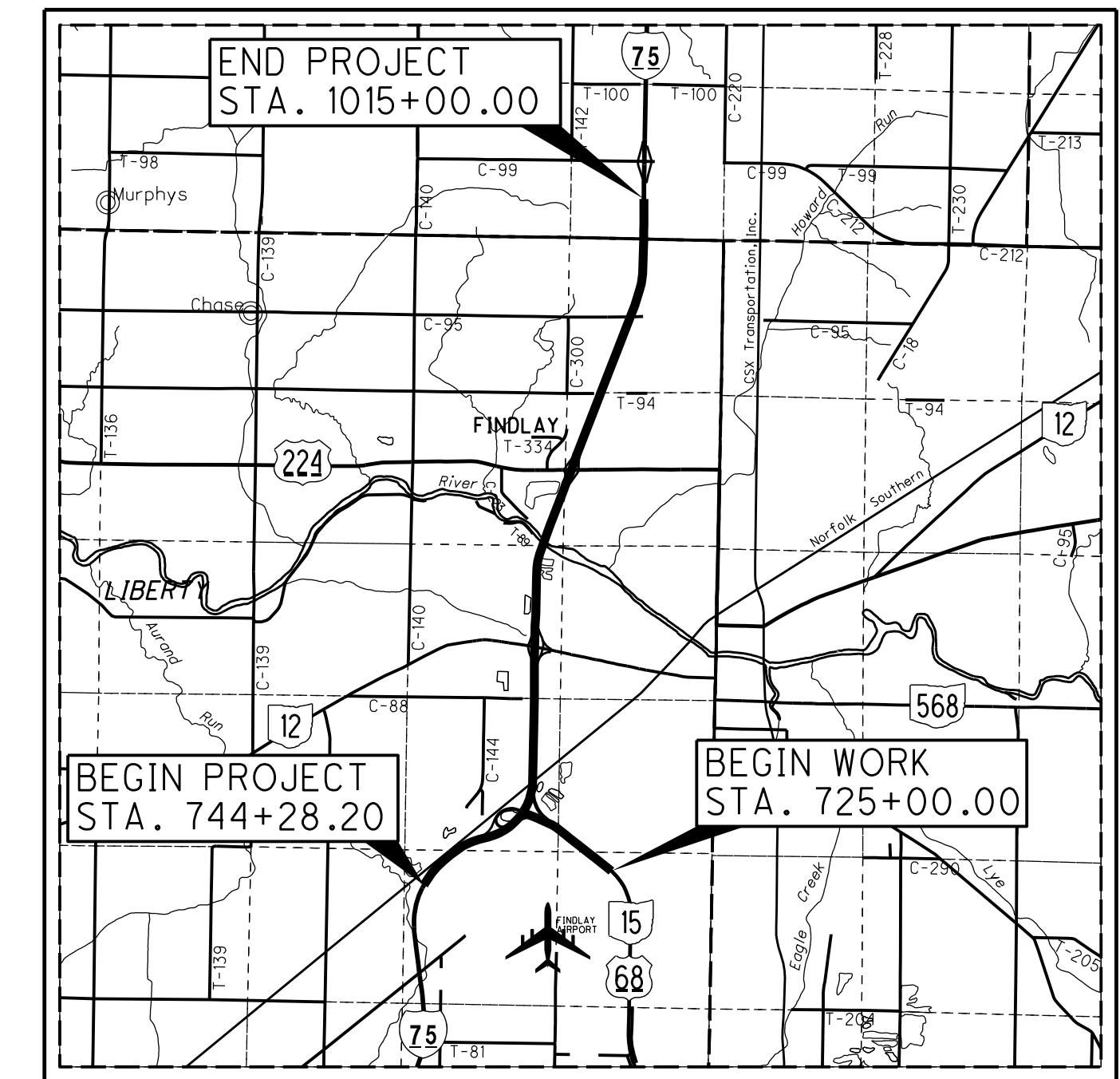
THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 2007 AND UPDATED JANUARY 20, 2012.

**AVAILABLE INFORMATION**

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE SOIL PROFILE SHEETS HAS BEEN SO REPORTED. ADDITIONAL SUBSURFACE EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE, THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1600 WEST BROAD STREET OR THE OFFICE OF STRUCTURAL ENGINEERING AT 1980 WEST BROAD STREET.

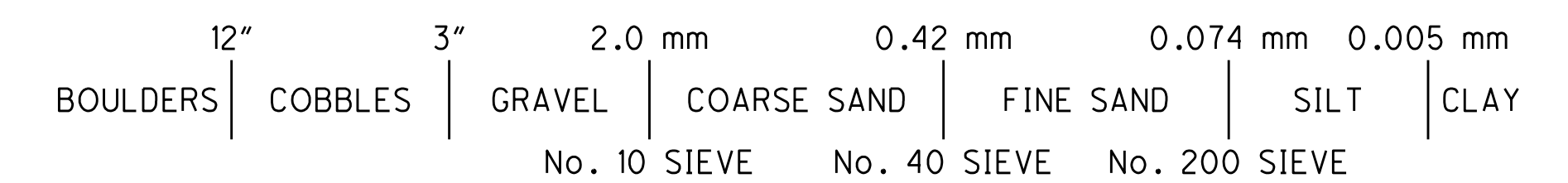
**LEGEND**

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	2	11
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	8	9
FINE SAND	A-3	0	1
COARSE AND FINE SAND	A-3a	2	16
SANDY SILT	A-4a	52	127
SILT	A-4b	10	32
GRAVEL/STONE FRAGMENTS WITH SAND AND SILT	A-2-4	5	6
GRAVEL/STONE FRAGMENTS w/SAND, SILT AND CLAY	A-2-6	1	0
ELASTIC SILT AND CLAY	A-5	3	1
SILT AND CLAY	A-6a	59	141
SILTY CLAY	A-6b	61	92
ELASTIC CLAY	A-7-5	13	19
CLAY	A-7-6	41	43
<b>TOTAL</b>	<b>TOTAL</b>	<b>257</b>	<b>498</b>
DOLOMITE	VISUAL		
PAVEMENT OR BASE = 1.3' = APPROXIMATE THICKNESS	VISUAL		
SOD AND TOPSOIL = 0.5' = APPROXIMATE THICKNESS	VISUAL		
BORING LOCATION - PLAN VIEW.			
HISTORIC BORING LOCATION - PLAN VIEW			
DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.			
<b>WC</b>	INDICATES WATER CONTENT IN PERCENT.		
<b>N<sub>60</sub></b>	INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.		
<b>X/Y/Z</b>	NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT): X= NUMBER OF BLOWS FOR FIRST 6 INCHES. Y= NUMBER OF BLOWS FOR SECOND 6 INCHES. Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.		
<b>W</b>	INDICATES FREE WATER ELEVATION.		
●	INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.		
⊕	INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.		
<b>*</b>	INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.		
<b>SS</b>	INDICATES A SPLIT SPOON SAMPLE.		
<b>NP</b>	INDICATES A NON-PLASTIC SAMPLE.		
<b>ST</b>	INDICATES A SHELBY TUBE SAMPLE.		
<b>TR</b>	INDICATES THE TOP OF ROCK.		



LOCATION MAP  
SCALE IN MILES

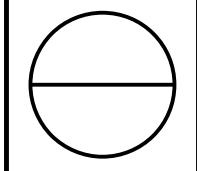
**PARTICLE SIZE DEFINITIONS**



RECON. - WN/SS/FB/JUNE 2013  
 DRILLING - DLZ/B-M/OTB/JUNE THROUGH SEPTEMBER 2013  
 DRAWN - SS/FEBRUARY/MARCH/2014  
 REVIEWED - SS/FEBRUARY/MARCH/2014

**LEGEND**

HISTORIC BORING DESCRIPTIONS	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGMENTS	A-1-a	2	4
GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	3	3
FINE SAND	A-3	0	2
COARSE AND FINE SAND	A-3a	0	4
SANDY SILT	A-4a	17	5
SILT	A-4b	4	10
GRAVEL/STONE FRAGMENTS WITH SAND AND SILT	A-2-4	1	0
GRAVEL/STONE FRAGMENTS w/SAND, SILT AND CLAY	A-2-6	0	1
SILT AND CLAY	A-6a	22	25
SILTY CLAY	A-6b	13	9
CLAY	A-7-6	3	4
<b>TOTAL</b>	<b>TOTAL</b>	<b>65</b>	<b>67</b>
DOLOMITE	VISUAL		



## GEOLOGY

THE PROJECT SITE LIES ON THE HURON-ERIE LAKE PLAINS AND TILL PLAINS SECTIONS OF THE CENTRAL LOWLAND PROVINCE. THE SOUTHERN PART OF THE PROJECT SITE IS LOCATED WITHIN THE FINDLAY EMBAYMENT DISTRICT OF THE MAUMEE LAKE PLAINS REGION OF THE HURON-ERIE LAKE PLAINS SECTION WHILE THE NORTHERN PART OF THE PROJECT SITE IS LOCATED WITHIN THE CENTRAL OHIO CLAYEY TILL PLAIN REGION OF THE TILL PLAINS SECTION. THE COLUMBUS ESCARPMENT SEPARATES THE FINDLAY EMBAYMENT DISTRICT FROM THE CENTRAL OHIO CLAYEY TILL PLAIN REGION. BOTH THE ILLINOIAN AND WISCONSINIAN GLACIERS PASSED OVER THE AREA AND LEFT A COATING OF DRIFT MATERIALS (LARGELY TILL) RANGING FROM 5 FEET TO 100 FEET IN THICKNESS. THE MAIN GEOLOGIC DEPOSIT IN THE SOUTHERN PART OF THE PROJECT SITE CONSISTS OF SILTY TO GRAVELLY WISCONSINIAN-AGE LACUSTRINE DEPOSITS AND WAVE-PLANED CLAY TILL; GROUND MORAINES, FLAT TO GENTLY UNDULATING OVER DOLOMITE BEDROCK OF SILURIAN-AGE. THE NORTHERN PART OF THE PROJECT SITE CONSISTS OF CLAYEY, HIGH-LIME WISCONSINIAN-AGE TILL; LAKE-PLANED MORAINES, VERY FLAT, PLANED BY WAVES IN GLACIAL LAKES; SMALL PATCHES OF SAND, SILT, OR CLAY OVER DOLOMITE BEDROCK OF SILURIAN-AGE. BEDROCK IS EXPECTED TO CONSIST OF TYMOCHTEE/GREENFIELD GROUP DOLOMITE. TYMOCHTEE GROUP DOLOMITE IS DESCRIBED AS SHADES OF GRAY AND BROWN, VERY FINELY CRYSTALLINE WHICH OCCUR AS THIN TO MASSIVE BEDS WITH CARBONACEOUS SHALE LAMINAE AND BEDS. GREENFIELD GROUP DOLOMITE IS DESCRIBED AS SHADES OF GRAY AND BROWN; VERY FINELY TO COARSELY CRYSTALLINE WHICH OCCURS AS MASSIVE BEDS TO LAMINAE; ARGILLACEOUS AND LOCALLY BRECCIATED IN THE LOWER PORTION.

## RECONNAISSANCE

THE PROJECT SITE IS LOCATED TO THE WEST AND SOUTH-WEST OF THE FINDLAY DOWNTOWN AREA. THE BLANCHARD RIVER INTERSECTS THE PROJECT SITE ON THE NORTH SIDE. THIS SECTION OF IR-75 AND US 68 NB AND SB CONSISTS OF TWO TRAFFIC LANES IN EACH DIRECTION WITH PAVED SHOULDERS. EXISTING IR-75 AND US 68 TRAFFIC LANE PAVEMENT APPEARED TO BE IN GOOD CONDITION WITH FEW TRANSVERSE CRACKS OBSERVED ACROSS THE ENTIRE PROJECT SITE. OCCASIONAL EDGE CRACKING WAS OBSERVED ALONG THE EDGE OF PAVEMENT. MEDIAN SHOULDERS ALONG IR-75 ARE COVERED WITH GRASS SOUTH OF THE HARRISON STREET BRIDGE AND NORTH OF THE US 224 BRIDGE. THE EMBANKMENT SECTIONS OF EXISTING IR-75 AND US 68 WITHIN THE PROJECT SITE GENERALLY APPEARED TO BE IN GOOD CONDITION WITH OCCASIONAL MINOR EROSION. THESE EMBANKMENT SECTIONS ARE COVERED WITH GRASS AND/OR SMALL BUSHES. NO VISIBLE SIGNS OF EMBANKMENT SLOPE INSTABILITY OR SETTLEMENT WERE OBSERVED. THREE WETLAND AREAS ARE LOCATED IN THE VICINITY OF THE PROPOSED RAMP SITES AT THE IR-75/US 68 INTERCHANGE. FEW DRAINAGE DITCHES ARE LOCATED WITHIN THE PROJECT SITE AND TALL CATTAIL VEGETATION WAS OBSERVED ALONG THE DRAINAGE DITCHES AND IN THE WETLAND AREAS. THE PROPOSED RAMP SITE IS COVERED WITH GRASS, SMALL BUSHES, AND FEW TREES AND IS RELATIVELY FLAT. THE PAVEMENT SURFACE OF THE EXISTING RAMPS CONSISTS OF AN ASPHALTIC CONCRETE OVERLAY WHICH GENERALLY APPEARED TO BE IN FAIR CONDITION. UNDERGROUND OIL, GAS, SEWER, AND WATER LINES ARE PRESENT ACROSS THE PROJECT SITE. PAVEMENT ALONG THE SIDE ROADS CONSISTS OF ASPHALTIC CONCRETE, WHICH GENERALLY APPEARED TO BE IN FAIR TO POOR CONDITION WITH LONGITUDINAL AND LATERAL CRACKS OBSERVED THROUGHOUT THE SITE.

## SUBSURFACE EXPLORATION

174 TEST BORINGS WERE COMPLETED AS PART OF THIS SUBSURFACE EXPLORATION, FROM JUNE THROUGH SEPTEMBER, 2013. 133 BORINGS WERE ADVANCED FOR PAVEMENT, ROADWAY, AND EMBANKMENT DESIGN PURPOSES WHILE 41 TEST BORINGS WERE ADVANCED FOR BRIDGE DESIGN PURPOSES. ALL TERRAIN VEHICLE (ATV) MOUNTED DIEDRICH D-50, DIEDRICH D-90, CME 45C TRACK, AND CME 750X AND TRUCK MOUNTED CME 55 AND CME 75 DRILL RIGS WERE USED TO ADVANCE THE TEST BORINGS THROUGH SOIL USING 2.25-INCH AND 3.25-INCH HOLLOW STEM AUGERS. DISTURBED SOIL SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT CONTINUOUS TO 5.0 FEET INTERVALS FOR FULL DEPTH OF THE SOIL PORTION OF THE BORINGS. AUTOMATIC HAMMERS WERE CALIBRATED ON 12/10/11 FOR DIEDRICH D-50, ON 9/18/2012 FOR DIEDRICH D-90, ON 1/6/2012 FOR CME 45C TRACK, ON 1/6/2012 FOR CME 750X, ON 6/13/2013 FOR CME 55, AND ON 1/6/2012 FOR CME 75 DRILLING RIGS WITH DRILL ROD ENERGY RATIOS OF 82%, 80%, 85%, 67%, 70%, AND 71%, RESPECTIVELY. A TOTAL OF 21 UNDISTURBED SOIL SAMPLES WERE OBTAINED IN ACCORDANCE WITH AASHTO T207.

## EXPLORATION FINDINGS

ALL OF THE BORINGS ENCOUNTERED SOILS OF GLACIAL ORIGIN, EITHER GLACIAL OUTWASH OR GLACIAL TILL, COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-4b, A-6a, A-6b, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-1-a, A-1-b, A-3, A-3a, AND OTHERS WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. LAYERS OF ELASTIC SILT AND CLAY (A-5) AND ELASTIC CLAY (A-7-5) WERE ENCOUNTERED IN TEST BORINGS AS NOTED.

**IR-75 PAVEMENT REHABILITATION & WIDENING:** 37 TEST BORINGS; B-001-0-13 THROUGH B-011-0-13, B-028-0-13 THROUGH B-042-0-13, B-053-0-13, B-054-0-13, B-056-0-13, B-057-0-13, B-061-0-13 THROUGH B-064-0-13, B-066-0-13 THROUGH B-068-0-13 WERE ADVANCED ALONG EXISTING IR 75 NB AND SB LANES AND SHOULDERS FOR PAVEMENT REHABILITATION AND WIDENING PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-2-6, A-4a, A-6a, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-1-a, A-1-b, A-3, A-3a, A-4a, AND A-4b WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 23 OF THE 75 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. 4 OF THE 35 SAMPLES TESTED HAD SULFATE CONTENTS GREATER THAN 3,000 PPM ON THE SOUTH OF THE PROJECT. GROUNDWATER WAS ENCOUNTERED IN EIGHT OF THE TEST BORINGS AT DEPTHS RANGING FROM DRY TO 11.0 FEET DURING DRILLING AND DRY TO 14.0 FEET UPON COMPLETION.

**IR-75 REALIGNMENT:** EIGHT TEST BORINGS; B-012-0-13 THROUGH B-016-0-13, B-021-0-13, B-025-1-13, AND B-026-0-13 WERE ADVANCED ALONG PROPOSED IR 75 REALIGNMENT FOR EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-6a, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-1a, A-3a, AND A-4b WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE.

2 OF THE 13 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. GROUNDWATER WAS ENCOUNTERED IN TEST BORINGS B-025-1-13 AND B-026-0-13 AT DEPTHS OF 9.0 FEET AND 33.5 FEET DURING DRILLING AND 9.0 FEET TO 27.0 FEET RESPECTIVELY, UPON COMPLETION.

**IR-75 EMBANKMENT WIDENING:** ELEVEN TEST BORINGS; B-118-0-13, B-026-2-13, B-027-0-13, B-027-2-13, B-043-0-13, B-044-0-13, B-044-1-13, B-047-1-13, B-049-0-13, B-049-1-13, and B-050-0-13 WERE ADVANCED ALONG SECTIONS OF EXISTING IR 75 FOR EMBANKMENT WIDENING DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-4b, A-6a, A-6b, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-2-4, A-3a, AND A-4a WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 13 OF THE 27 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. GROUNDWATER WAS ENCOUNTERED IN EIGHT OF THE TEST BORINGS AT DEPTHS RANGING FROM 7.0 FEET TO 41.0 FEET DURING DRILLING AND DRY TO A DEPTH OF 27.0 FEET UPON COMPLETION.

**IR 75 RAMPS AT SR 12 INTERCHANGE:** SIX TEST BORINGS; B-034-1-13, B-035-1-13, B-035-2-13, B-036-1-13, B-037-1-13, AND B-038-1-13 WERE ADVANCED ALONG EXISTING IR 75 RAMPS AT SR 12 INTERCHANGE FOR REALIGNMENT AND PAVEMENT REHABILITATION DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-6a, AND A-6b. NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-4a AND A-4b WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 3 OF THE 10 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS.

**US 68 PAVEMENT REHABILITATION AND WIDENING:** SIX TEST BORINGS; B-078-0-13 THROUGH B-082-0-13 AND B-088-0-13 WERE ADVANCED ALONG US 68 SB AND NB LANES FOR PAVEMENT REHABILITATION AND WIDENING DESIGN PURPOSES. ALL SIX TEST BORINGS CONSISTED ENTIRELY OF FILL MATERIAL. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-6a, A-6b, AND A-7-6. GRANULAR SOIL, CLASSIFIED AS ODOT A-1-b WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 1 OF THE 8 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A NATURAL MOISTURE CONTENT EQUAL TO ITS PLASTIC LIMIT. 1 OF THE 6 SAMPLES TESTED HAD A SULFATE CONTENT GREATER THAN 3,000 PPM. AUGER REFUSAL WAS ENCOUNTERED IN TEST BORINGS B-079-0-13, B-080-0-13, AND B-082-0-13 AT DEPTHS RANGING FROM 6.0 FEET TO 6.5 FEET ON WHAT MAY HAVE BEEN BEDROCK.

**US 68 RAMP A:** NINE TEST BORINGS; B-089-0-13 THROUGH B-097-0-13 WERE ADVANCED ALONG THE PROPOSED US 68 RAMP A ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-6a, A-6b, A-7-5, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-2-4 WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC CLAY (A-7-5) THAT WERE ENCOUNTERED IN TEST BORING B-091-0-13 BETWEEN DEPTHS OF 2 TO 11 FEET BELOW THE EXISTING GROUND SURFACE. 7 OF THE 13 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. AUGER REFUSAL WAS ENCOUNTERED IN SEVEN OF THE TEST BORINGS AT DEPTHS RANGING FROM 4.5 FEET TO 36.0 FEET ON WHAT MAY HAVE BEEN BEDROCK.

**LIMA RAMP B:** FOUR TEST BORINGS; B-098-0-13 THROUGH B-101-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP B ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT THROUGHOUT THE SITE, CLASSIFIED AS ODOT A-4a, A-6a, AND A-7-6. HYDROCARBON ODOR WAS ENCOUNTERED IN TEST BORING B-098-0-13 AT A DEPTH OF 3.5 FEET. 1 OF THE 6 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A NATURAL MOISTURE CONTENT GREATER THAN ITS PLASTIC LIMIT. GROUNDWATER WAS ENCOUNTERED IN TEST BORING B-098-0-13 AT A DEPTH OF 7.0 FEET DURING DRILLING AND WAS DRY UPON COMPLETION OF DRILLING OPERATIONS.

**LIMA RAMP C:** FOUR TEST BORINGS; B-102-0-13, B-103-0-13, B-119-0-13, AND B-120-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP C FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-5, A-6b, AND A-7-6. GRANULAR SOIL CLASSIFIED AS ODOT A-1-a WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC SILT AND CLAY (A-5) ENCOUNTERED IN TEST BORING B-119-0-13 BETWEEN DEPTHS OF 3.5 FEET TO 8.5 FEET BELOW GROUND SURFACE AND ELASTIC CLAY (A-7-5) ENCOUNTERED IN TEST BORING B-119-0-13 BETWEEN DEPTHS OF 0.5 FEET TO 8.0 FEET BELOW THE GROUND SURFACE. 1 OF THE 6 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A NATURAL MOISTURE CONTENT GREATER THAN ITS LIQUID LIMIT. GROUNDWATER WAS ENCOUNTERED IN TEST BORINGS B-103-0-13, B-104-0-13, B-119-0-13, AND B-120-0-13 AT DEPTHS RANGING FROM 7.0 FEET TO 13.0 FEET DURING DRILLING AND 4.7 FEET TO 8.5 FEET UPON COMPLETION. AN EXTENDED WATER LEVEL OF 5.2 FEET WAS MADE 14 HOURS AFTER COMPLETION OF TEST BORING B-119-0-13 DRILLING OPERATIONS.

**LIMA RAMP D:** THREE TEST BORINGS B-104-0-13, B-105-0-13, AND B-106-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP D ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-5, A-6a, A-6b, A-7-5 AND A-7-6. GRANULAR/NON-COHESIVE SOIL, CLASSIFIED AS ODOT A-1-a AND A-4a WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC SILT AND CLAY (A-5), AND ELASTIC CLAY (A-7-5) WHICH WERE ENCOUNTERED IN TEST BORING B-104-0-13 BETWEEN DEPTHS OF 4.0 FEET TO 6.0 FEET, IN TEST BORING B-105-0-13 BETWEEN DEPTHS OF 6.0 FEET AND 6.5 FEET, AND IN TEST BORING B-106-0-13 BETWEEN DEPTHS OF 0.7 FEET AND 8.5 FEET BELOW THE EXISTING GROUND SURFACE. 1 OF THE 4 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A NATURAL MOISTURE CONTENT GREATER THAN ITS PLASTIC LIMIT. GROUNDWATER WAS ENCOUNTERED IN TEST BORING B-104-0-13 AT A DEPTH OF 8.5 FEET DURING DRILLING AND 6.6 FEET UPON COMPLETION.

**US 68 RAMP D:** SIX TEST BORINGS; B-107-0-13 THROUGH B-110-0-13, B-115-0-13, AND B-117-0-13 WERE ADVANCED ALONG PROPOSED US 68 RAMP D ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-4b, A-6a, A-6b, A-7-5 AND A-7-6. NON-COHESIVE SOIL, CLASSIFIED AS ODOT A-4a AND A-4b WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC CLAY (A-7-5) ENCOUNTERED IN TEST BORING B-108-0-13 BETWEEN DEPTHS OF 1.5 FEET AND 8.5 FEET, IN TEST BORING B-109-0-13 BETWEEN DEPTHS OF 3.5 FEET AND 7.5 FEET, IN TEST BORING B-110-0-13 BETWEEN DEPTHS OF 3.0 FEET AND 6.0 FEET. 1 OF THE 10 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A NATURAL MOISTURE CONTENT GREATER THAN ITS LIQUID LIMIT. GROUNDWATER WAS ENCOUNTERED IN ALL OF THE TEST BORINGS WITH THE EXCEPTION OF B-107-0-13 AT DEPTHS RANGING FROM 8.0 FEET TO 38.5 FEET DURING DRILLING AND 6.5 FEET TO 38.5 FEET UPON COMPLETION.

**US 68 RAMP C:** NINE TEST BORINGS; B-121-0-13 THROUGH B-125-0-13, B-132-0-13, B-136-0-13, B-138-0-13, AND B-140-0-13 WERE ADVANCED ALONG PROPOSED US 68 RAMP C ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4b, A-6a, A-6b, AND A-7-6. NON-COHESIVE SOIL, CLASSIFIED AS ODOT A-4a AND A-4b WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 2 OF THE 8 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. GROUNDWATER WAS ENCOUNTERED IN FIVE OF THESE TEST BORINGS AT DEPTHS RANGING FROM 8.5 FEET TO 13.5 FEET DURING DRILLING AND AT 5.3 FEET TO 6.1 FEET UPON COMPLETION OF DRILLING OPERATIONS.

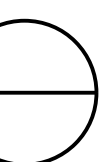
**LIMA RAMP E:** FOUR TEST BORINGS; B-141-0-13, B-143-0-13 THROUGH B-145-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP E ALIGNMENT FOR ROADWAY AND EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-6a, A-6b, AND A-7-5. GRANULAR/NON-COHESIVE SOIL, CLASSIFIED AS ODOT A-2-4 AND A-4a WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC CLAY (A-7-5) WHICH WERE ENCOUNTERED IN TEST BORINGS B-144-0-13 AND B-141-0-13 BETWEEN DEPTHS OF 0.5 FEET TO 3.5 FEET AND BETWEEN DEPTHS OF 6.0 FEET TO 8.5 FEET, RESPECTIVELY BELOW THE EXISTING GROUND SURFACE. 2 OF THE 5 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN THEIR LIQUID LIMIT. GROUNDWATER WAS ENCOUNTERED AT A DEPTH OF 8.5 FEET IN B-143-0-13 DURING DRILLING OPERATIONS.

**LIMA RAMP A:** FOUR TEST BORINGS; B-146-0-13 THROUGH B-149-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP A ALIGNMENT FOR ROADWAY/EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS CLASSIFIED AS ODOT A-4a, AND A-6b WERE ENCOUNTERED THROUGHOUT THE SITE. BOTH OF THE COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN THEIR PLASTIC LIMITS. AUGER REFUSAL WAS ENCOUNTERED IN BOTH TEST BORINGS AT DEPTHS RANGING FROM 3.0 FEET TO 4.1 FEET ON WHAT MAY HAVE BEEN BEDROCK.

**US 68 RAMP B:** FIVE TEST BORINGS; B-150-0-13, B-153-0-13 THROUGH B-156-0-13 WERE ADVANCED ALONG PROPOSED US 68 RAMP B ALIGNMENT FOR ROADWAY AND EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS, CLASSIFIED AS ODOT A-4a, A-6a, A-6b, A-7-5, AND A-7-6 WERE ENCOUNTERED THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC CLAY (A-7-5) ENCOUNTERED IN TEST BORINGS B-154-0-13 AND B-155-0-13 TO APPROXIMATE DEPTHS OF 6.0 FEET AND 3.5 FEET BELOW THE GROUND SURFACE. 2 OF THE 4 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN THEIR PLASTIC LIMITS. AUGER REFUSAL WAS ENCOUNTERED IN TEST BORINGS B-154-0-13 AND B-155-0-13 AT DEPTHS OF 8.0 FEET AND 8.6 FEET ON WHAT MAY HAVE BEEN BEDROCK. GROUNDWATER WAS ENCOUNTERED IN TEST BORING B-155-0-13 AT A DEPTH OF 6.0 FEET DURING DRILLING AND AT 3.0 FEET UPON COMPLETION OF DRILLING OPERATIONS.

**LIMA RAMP F:** SEVEN TEST BORINGS; B-151-0-13, B-152-0-13, B-157-0-13 THROUGH B-161-0-13 WERE ADVANCED ALONG PROPOSED LIMA RAMP F ALIGNMENT FOR ROADWAY AND EMBANKMENT DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-5, A-6a, A-6b, AND A-7-6. GRANULAR/NON-COHESIVE SOIL, CLASSIFIED AS ODOT A-1-b AND A-4a WAS LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. UNUSUALLY HIGH MOISTURE CONTENTS OCCURRED IN SOILS CLASSIFIED AS ELASTIC SILT AND CLAY (A-5) ENCOUNTERED IN TEST BORING B-158-0-13 BETWEEN DEPTHS OF 6 FEET TO 7.2 FEET BELOW THE GROUND SURFACE. 1 OF THE 9 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD A MOISTURE CONTENT GREATER THAN ITS LIQUID LIMIT. AUGER REFUSAL WAS ENCOUNTERED IN TEST BORING B-158-0-13 AT A DEPTH OF 9.9 FEET ON WHAT MAY HAVE BEEN BEDROCK. GROUNDWATER WAS ENCOUNTERED IN TEST BORING B-159-0-13 AT A DEPTH OF 8.5 FEET DURING AND UPON COMPLETION OF DRILLING OPERATIONS.

**SIDE ROADS IMPROVEMENTS:** TEN TEST BORINGS; B-162-0-13 THROUGH B-166-0-13, B-176-0-13, AND B-177-0-13 THROUGH B-180-0-13 WERE ADVANCED ALONG THE SIDE ROADS FOR THE PROPOSED LIMA AVENUE RELOCATION, LOGAN AVENUE AND HARRISON STREET PAVEMENT REHABILITATION, AND PROPOSED SERVICE ROAD DESIGN PURPOSES. COHESIVE SOILS ARE PREDOMINANT, CLASSIFIED AS ODOT A-4a, A-6a, A-6b, AND A-7-6. GRANULAR/NON-COHESIVE SOILS, CLASSIFIED AS ODOT A-2-4, A-3a, AND A-4a WERE LESS PREVALENT, BUT PRESENT THROUGHOUT THE SITE. 3 OF THE 15 COHESIVE SOIL SAMPLES TESTED FOR ATTERBERG LIMITS HAD NATURAL MOISTURE CONTENTS GREATER THAN OR EQUAL TO THEIR PLASTIC LIMITS. A SAMPLE OBTAINED FROM B-180-0-13 AT A DEPTH OF 1 FOOT HAD AN ORGANIC CONTENT OF 9.7% WHICH CLASSIFIES THE SAMPLE AS 7#32 MODERATELY ORGANIC #32 A-6a. GROUNDWATER WAS ENCOUNTERED IN TEST BORING B-180-0-13 AT A DEPTH OF 8.5 FEET DURING AND AT 5.0 FEET UPON COMPLETION OF DRILLING OPERATIONS.



**SUMMARY OF SOIL TEST DATA**

**HAN-75-14.39**

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% W.C.	OHIO CLASS
<b>PAVEMENT/ROADWAY/EMBANKMENT</b>													
<b>IR 75</b>													
B-001-0-13 STA. 745+51.30, 44.5' RT LATITUDE=41.01507381 LONGITUDE=83.68731928	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	83 89 56 100	20 14	9 13	19 18	32 34	19 21	26 18	14 14	12 4	12 7	A-6a (4) * A-4a (4) A-4a (V) A-6a (V)
													BLACK SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL)
B-002-0-13 STA. 749+60.32, 32.4' RT LATITUDE=41.01618064 LONGITUDE=83.68734928	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	78 83 100 83	19 2	3 9	11 17	49 45	18 27	23 22	13 17	10 5	11 14 16 16	A-4a (6) * A-4a (V) A-4a (V) A-4a (V)
													SAME AS SS-2 SAME AS SS-2 SAME AS SS-2 SAME AS SS-2
B-003-0-13 STA. 754+55.67, 29.0' LT LATITUDE=41.01754666 LONGITUDE=83.68727014	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 AS-2 SS-3 SS-4	22 0 17 56	6	8	17	41	28	26	17	9	10	A-4a (7) * A-4a (V) A-4a (8) A-4a (V)
													SAME AS SS-3 SAME AS SS-3 SAME AS SS-3 SAME AS SS-3
B-004-0-13 STA. 758+26.50, 74.1' RT LATITUDE=41.01856871 LONGITUDE=83.68699751	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-11.50	SS-1 SS-2 SS-3 SS-4 SS-5	56 67 78 89 100	5 16	6 9	13 17	47 32	29 27	25 26	16 16	9 10	14 11 16 18 10	A-4a (8) * A-4a (5) * A-6a (V) A-6a (V) A-4a (V)
													BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) SAME AS SS-3 BROWN SANDY SILT, SOME CLAY, LITTLE STONE FRAGMENTS (FILL)
B-005-0-13 STA. 761+87.79, 37.1' RT LATITUDE=41.01933698 LONGITUDE=83.68606635	1.50-1.90 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	100 78 78 89	62 4	23 7	8 16	7 40	NP 33	NP 28	NP 17	NP 11	10 14 16 22	A-1-a (0) A-6a (8) A-6a (V) A-6a (V)
													DARK BROWN SILT AND CLAY, SOME SAND, TRACE STONE FRAGMENTS (FILL) BLACK SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL)
B-006-0-13 STA. 765+98.51, 16.5' RT LATITUDE=41.02030076 LONGITUDE=83.68532048	1.00-2.50 3.50-5.00 6.00-7.25	SS-1 SS-2 SS-3	39 89 93	13 5	6 4	15 18	35 46	31 27	29 38	17 26	12 12	11 17 24	A-6a (7) A-6a (8) A-6a (V)
													BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS
B-007-0-13 STA. 770+17.46, 23.1' RT LATITUDE=41.02123307 LONGITUDE=83.6842025	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	89 83 72 83	29 10 13	15 20 7	18 30 14	21 10 37	18 30 28	19 25 26	13 17 16	6 8 10	6 11 12 17	A-4a (1) * A-4a (1) A-4a (6) A-4a (V)
													SAME AS SS-3
B-008-0-13 STA. 773+78.27, 7.4' LT LATITUDE=41.02186826 LONGITUDE=83.68341034	1.00-2.50 2.50-4.00 4.00-5.50 5.50-7.00	SS-1 SS-2 SS-3 SS-4	56 67 56 67	23 10 47	9 6 9	13 15 11	32 41 23	23 27 11	24 26 19	16 16 15	8 10 4	12 13 8 22	A-4a (4) * A-4a (7) * A-2-a (0) A-6b (V)
													BLACK SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL)
B-009-0-13 STA. 778+14.97, 12.3' RT LATITUDE=41.02254947 LONGITUDE=83.68210809	1.50-1.80 2.00-3.50 3.50-5.00 5.00-6.50 6.50-8.00	SS-1 SS-2 SS-3 SS-4 SS-5	100 44 50 72 67	21 26	11 8	19 15	45 33	4 19	NP 23	NP 13	NP 10	9 15 11 18 26	A-1-b (V) * A-4a (3) A-4a (3) A-6a (V) A-6b (V)
													GRAY STONE FRAGMENTS WITH SAND, TRACE FINES (FILL) DARK BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) BLACK SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL)
B-010-0-13 STA. 782+35.61, 5.0' RT LATITUDE=41.02317439 LONGITUDE=83.68083018	0.50-2.00 2.00-3.50 4.50-6.00 7.00-8.50 8.50-9.00	SS-1 AS-2 SS-3 SS-4 SS-5	100 0 100 100 86	27 44	8 6	16 12	31 21	18 17	25 20	16 12	9 8	11 8 13 19 5	A-4a (3) * A-4a (1) A-4a (V) A-6a (V) A-1-a (V)
													BLACK SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) LIGHT GRAY DOLOMITE FRAGMENTS, TRACE FINES
B-011-0-13 STA. 785+91.58, 10.9' RT LATITUDE=41.02360284 LONGITUDE=83.67967343	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	22 89 56 67	27 15	41 7	17 15	12 38	3 26	NP 27	NP 16	NP 11	20 12 17 16	A-1-b (0) A-6a (6) A-6a (V) A-6a (V)
													SAME AS SS-2 SAME AS SS-2 SAME AS SS-2
B-012-0-13 STA. 789+90.38, 17.7' LT LATITUDE=41.02411882 LONGITUDE=83.67839513	1.00-1.80	SS-1	89										BROWN SILTY CLAY, LITTLE SAND, SOME ROOTS (FILL)
B-013-0-13 STA. 793+83.61, 20.71' LT LATITUDE=41.02436862 LONGITUDE=83.67694735	1.00-2.50 3.50-5.00 6.00-7.50 8.50-9.60	SS-1 SS-2 SS-3 SS-4	39 78 83 92	4 5	7 5	17 14	37 41	34 35	37 33	29 20	8 13	6 13 16 18	A-1-a (V) A-4a (7) A-6a (9) A-6a (V)
													GRAY CONCRETE AND STONE FRAGMENTS (FILL) SAME AS SS-3
B-014-0-13 STA. 797+77.14, 34.85' RT LATITUDE=41.02502631 LONGITUDE=83.67579416	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-11.40	SS-1 SS-2 SS-3 SS-4 SS-5	56 44 78 56 40	10 2	5 4	16 20	30 37	39 37	40 38	21 19	19 19	19 21 25	A-6b (10) A-6b (11) A-6a (V) A-7-6 (V) Rock (V)
													BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) DARK BROWN CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) GRAY DOLOMITE BEDROCK
B-015-0-13 STA. 801+61.66, 32.9' RT LATITUDE=41.02575844 LONGITUDE=83.67476204	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	100 44 100 72	5 12	7 9	12 14	36 25	40 40	40 38	19 19	21 19	18 17 17 22	A-6b (12) A-6b (10) A-6a (V) A-7-6 (V)
													GRAY SILT AND CLAY, TRACE SAND, TRACE STONE FRAGMENTS (FILL) DARK GRAY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% W.C.	OHIO CLASS
B-016-0-13 STA. 804+79.49, 29.5' LT LATITUDE=41.02808366 LONGITUDE=83.67424007	1.00-2.50 3.50-5.00 6.00-7.50 8.00-8.20	SS-1 SS-2 SS-3 SS-4	67 100 100 50										DARK BROWN SILT AND CLAY, LITTLE SAND, LITTLE ROOTS (FILL) SAME AS SS-2 SAME AS SS-2 LIGHT GRAY DOLOMITE BEDROCK
B-021-0-13 STA. 811+13.01, 4.8' RT LATITUDE=41.02808366 LONGITUDE=83.67318835	1.50-3.00 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 23.50-25.00 28.50-30.00 33.50-33.70 33.70-35.00	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11A SS-11B	44 56 50 44 44 56 61 67 56 83 100 61	26 4	14 5	16 20	25 39	19 33	33 29	21 16	12 13	14 14 15 14 16 17 13 16 15 18	A-6a (2) A-6a (8) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-7-6 (14) A-3a (V) A-4b (V)
													BROWN COARSE AND FINE SAND SEAMS BROWN AND GRAY NON-PLASTIC SILT, TRACE SAND
B-025-1-13 STA. 815+36.6, 207.6' LT LATITUDE=41.02958106 LONGITUDE=83.67246556	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	56 78 83 67	5	7	16	37	35	25	17	8	22	BROWN, MOTTLED GRAY SILTY CLAY, SOME SAND, TRACE STONE FRAGMENTS GRAY, NON-PLASTIC SILT, TRACE SAND GRAY SANDY SILT, SOME CLAY, LITTLE STONE FRAGMENTS
B-118-0-13 STA. 819+31.83, 45.0' RT LATITUDE=41.03031361 LONGITUDE=83.67273529	1.50-3.00 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 18.50-20.00 23.50-25.50 28.50-30.00 33.50-35.00	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 ST-8 SS-9 SS-10	72 67 44 72 83 78 78 100 89 89	8	12	18	30	32	33	20	13	14	A-6a (7) A-6a (V) A-4a (V) A-6a (8) A-6a (V) A-4a (V) A-4a (V) A-4a (V) A-6b (V) A-4b (8)
													BROWN AND GRAY SANDY SILT, SOME CLAY, TRACE STONE FRAGMENTS (FILL) SAME AS SS-4 DARK BROWN SANDY SILT, SOME CLAY, TRACE STONE FRAGMENTS (FILL) SAME AS SS-7 SAME AS SS-7 BROWN, MOTTLED GRAY SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS
B-026-0-13 STA. 820+01.19, 36.0' LT LATITUDE=41.03050548 LONGITUDE=83.67302744	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 23.50-25.00 28.50-30.00 33.50-35.00	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11	50 78 6 56 44 78 22 56 78 100 89	29 5	27 7	19 17	20 39	5 32	31 28	29 18	2 10	16 13 9 14 15 15 11 14 13 19 20	A-1-b (0) A-4a (7) A-4a (V) A-4a (V) A-4a (V) A-4a (V) A-4a (V) A-6a (V) A-6a (V) A-6b (V) A-4b (10)
													DARK BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) SAME AS SS-8 BROWN, MOTTLED GRAY SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS
B-026-2-13 STA. 822+18.71, 92.2' RT LATITUDE=41.03110005 LONGITUDE=83.67255727	1.00-2.50 3.50-5.00 5.50-7.50 7.50-9.50 10.00-11.50 12.00-14.00 14.00-16.00 16.00-17.50	SS-1 SS-2 ST-3 ST-4 SS-5 ST-6 ST-7 SS-8	83 67 54 88 100 0 75 89	4	8	16	56	16	23	15	8	15	BROWN SANDY SILT, SOME CLAY, TRACE STONE FRAGMENTS, TRACE ROOTS (FILL) SAME AS SS-1 SAME AS SS-1 ST-4 DARK BROWN PLASTIC SILT, SOME CLAY, SOME SAND, TRACE STONE FRAGMENTS NO RECOVERY BROWN PLASTIC SILT, SOME CLAY, LITTLE SAND, TRACE STONE FRAGMENTS SAME AS ST-7
B-027-0-13 STA. 825+00.6, 43.7' RT LATITUDE=41.03187459 LONGITUDE=83.67272597	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.30	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9	89 100 56 78 94 67 100 83 93	2	4	13	38	42	38	18	20	16	BROWN SANDY SILT, SOME CLAY, LITTLE STONE FRAGMENTS (FILL) BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS (FILL) BROWN SANDY SILT, SOME CLAY, TRACE STONE FRAGMENTS (FILL) SAME AS SS-3 BROWN PLASTIC SILT, "AND" CLAY, TRACE STONE FRAGMENTS GRAY PLASTIC SILT, "AND" CLAY, TRACE SAND SAME AS SS-7
B-027-2-13 STA. 826+44.16, 73.6' RT LATITUDE=41.03226800 LONGITUDE=83.67261403	1.00-2.50 3.50-5.00 5.50-7.00 8.50-10.00 11-12.50 13.50-15.00	SS-1 ST-2 SS-3 SS-4 SS-5 SS-6	100 71 89 100 100 83	2 6	4 8	22 19	33 37	39 30	38 31	20 19	18 12	22 16 13 16 7	A-6b (11) A-6a (17) A-4a (V) A-4a (V) A-4a (V) A-6b (V) A-4a (V)
													BROWN SANDY SILT, SOME CLAY, LITTLE STONE FRAGMENTS SAME AS SS-3 GRAY, NON-PLASTIC SILT, TRACE SAND GRAY, NON-PLASTIC SANDY SILT, SOME STONE FRAGMENTS
B-028-0-13 STA. 829+05.07, 9.3' LT LATITUDE=41.03298563 LONGITUDE=83.67290819	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	89 100 100 100	2 1	6 4	18 18	25 41	49 36	28 38	16 22	12 16	12 19 22 20	A-6a (9) A-6b (10) A-6b (V) A-6b (V)
													GREENISH GRAY SILTY CLAY, LITTLE SAND, TRACE STONE FRAGMENTS
B-029-0-13 STA. 833+01.02, 8.1' RT LATITUDE=41.03407194 LONGITUDE=83.67283511	2.00-3.50 3.50-5.00 5.00-6.50 6.50-8.00	SS-1 SS-2 SS-3 SS-4	100 28 67 67	6 40	12 26	22 17	39 14	21 3	35 NP	23 NP	12 NP	19 21 17 13	A-6a (6) * A-1-b (0) A-6a (V) A-4a (V)
													BROWN SILT AND CLAY, LITTLE SAND, TRACE STONE FRAGMENTS BROWN SANDY SILT, SOME CLAY, TRACE STONE FRAGMENTS
B-030-0-13 STA. 836+21.08, 44.6' LT LATITUDE=41.03495133 LONGITUDE=83.67301854	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	44 72 89 100	14 8	10 8	17 17	33 43	26 24	38 23	15 15	23 8	12 12 12 11	A-6b (10) A-4a (6) A-4a (V) A-4a (V)
													SAME AS SS-2 SAME AS SS-2

**PGI Pro Geotech, Inc.**

**SOIL PROFILE SUMMARY OF SOIL TEST DATA**

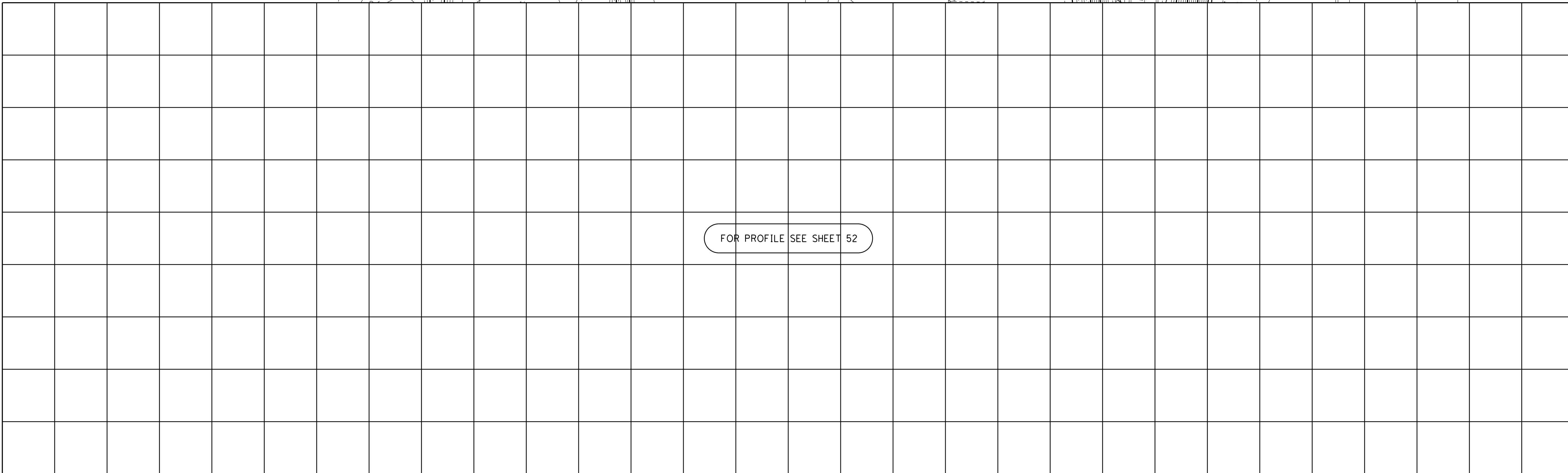
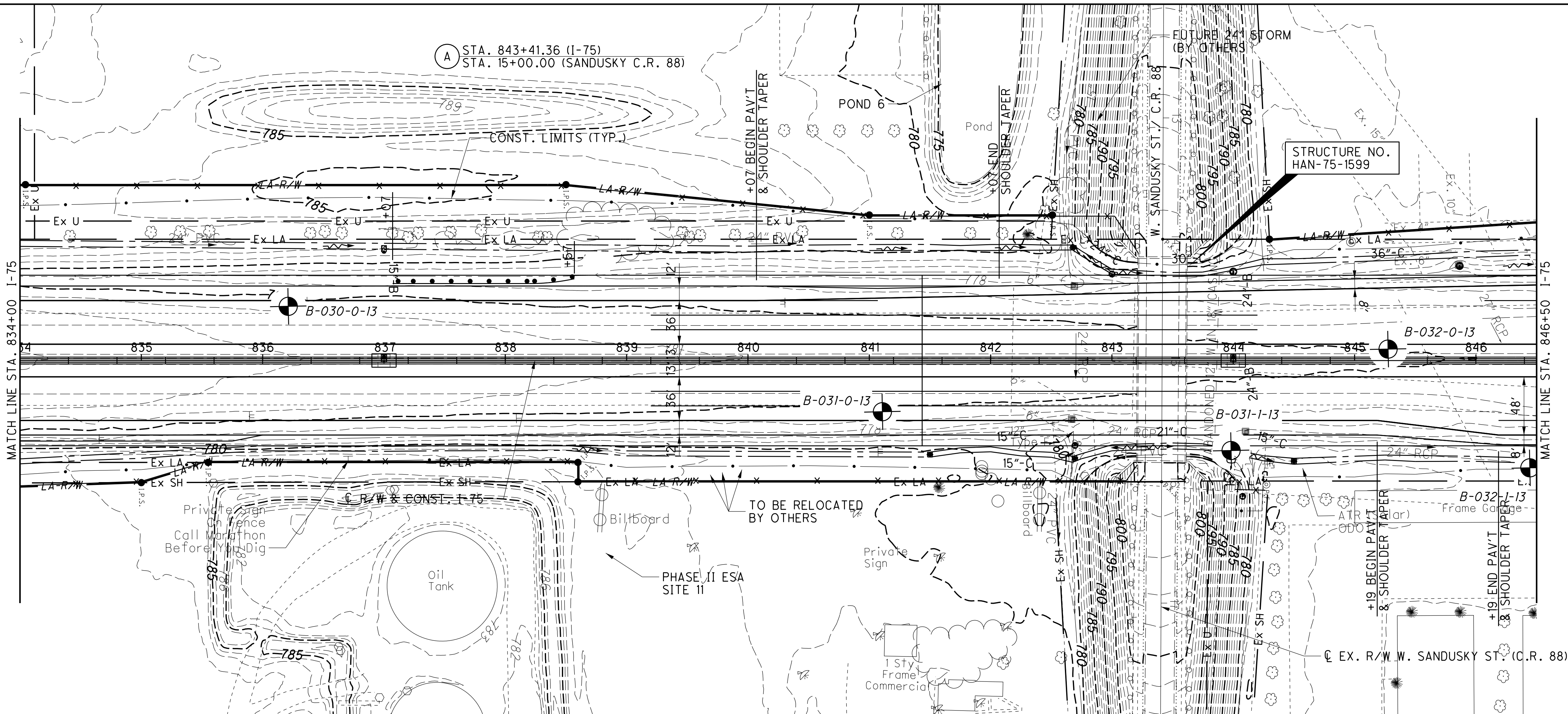
**HAN - 75 - 14.39**

DRAWN: SS, CHECKED: SS

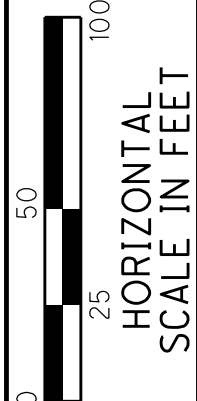
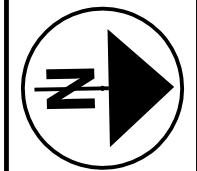
EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	W.C.	OHIO CLASS
B-031-0-13 STA. 841+10.79, 42.2' RT LATITUDE=41.03629367 LONGITUDE=83.67269149	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	56 61 100 94	19 6 6 6	7 10 10 10	15 16 16 16	29 39 39 39	30 29 29 29	34 29 29 29	18 17 17 17	16 12 12 12	13 17 10 11	A-6b (7) A-6a (V) A-4a (V) A-4a (V)
B-032-0-13 STA. 845+27.59, 9.4' LT LATITUDE=41.03743852 LONGITUDE=83.67286832	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50 7.50-9.00	SS-1 SS-2 SS-3 SS-4 SS-5	33 72 39 100 100	6 1 1 1 1	22 2 2 2 2	25 14 14 14 14	31 37 37 37 37	16 46 40 40 40	NP NP NP NP NP	NP NP NP NP NP	NP 21 21 21 21	23 20 20 24 26	A-4a (2) * A-6b (12) A-6a (V) A-4b (V) A-3a (V)
B-033-0-13 STA. 849+13.60, 7.9' RT LATITUDE=41.03849758 LONGITUDE=83.67279588	2.00-3.50 3.50-5.00 5.00-6.50 6.50-8.00	SS-1 SS-2 SS-3 SS-4	67 28 100 67	8 1 1 1	15 3 3 3	26 14 14 14	36 42 42 42	16 40 40 40	36 34 34 34	26 17 17 17	10 17 17 17	19 17 22 26	A-4a (3) * A-6b (11) A-6b (V) A-3a (V)
B-034-0-13 STA. 853+21.08, 8.9' RT LATITUDE=41.03961785 LONGITUDE=83.67305694	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	50 72 100 100	7 0 0 0	5 0 0 0	15 4 4 4	31 27 27 27	42 68 68 68	38 39 39 39	16 21 21 21	22 18 18 18	18 25 20 11	A-6b (12) A-6b (11) A-3a (V) A-3a (V)
B-035-0-13 STA. 857+24.68, 43.2' RT LATITUDE=41.04072286 LONGITUDE=83.67264793	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	50 72 100 100	7 13 13 13	6 6 6 6	16 14 14 14	40 42 42 42	31 25 25 25	27 29 29 29	14 17 17 17	13 12 12 12	18 20 13 22	A-6a (8) A-6a (7) A-3a (V) A-3a (V)
B-036-0-13 STA. 860+69.46, 11.5' LT LATITUDE=41.04167011 LONGITUDE=83.67283793	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	33 67 89 100	69 0 0 0	18 9 9 9	7 63 63 63	31 7 7 7	6 NP NP NP	NP NP NP NP	NP NP NP NP	NP NP NP NP	9 26 20 18	A-1-a (0) * A-3a (0) A-6b (V) A-3a (V)
B-037-0-13 STA. 864+87.84, 7.7' RT LATITUDE=41.04281798 LONGITUDE=83.67275752	2.00-3.50 3.50-5.00 6.00-7.50	SS-1 SS-2 SS-3	56 61 44	16 6 6	31 9 9	24 17 17	10 33 33	19 34 34	37 27 27	20 17 17	17 10 10	16 15 13	A-2-6 (1) * A-4a (7) A-4a (V)
B-038-0-13 STA. 869+08.39, 11.7' RT LATITUDE=41.04397259 LONGITUDE=83.67304069	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	39 56 89 94	14 12 12 12	14 16 16 16	20 25 25 25	27 23 23 23	25 24 24 24	33 32 32 32	18 17 17 17	15 15 15 15	14 16 14 12	A-6a (5) A-6a (4) A-4a (V) A-6a (V)
B-039-0-13 STA. 873+16.69, 57.4' RT LATITUDE=41.04509176 LONGITUDE=83.67255695	1.50-3.00 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	89 100 89 100	9 3 3 3	11 7 7 7	25 20 20 20	25 31 31 31	31 36 36 36	18 18 18 18	18 17 17 17	18 17 17 17	7 20 18 21	A-1-a (V) A-6b (7) A-6b (10) A-6b (V)
B-040-0-13 STA. 877+14.24, 11.2' LT LATITUDE=41.04618409 LONGITUDE=83.67279580	1.50-3.00 3.00-4.50 4.50-6.00 6.00-7.50	SS-1 SS-2 SS-3 SS-4	44 78 83 89	1 1 1 1	4 2 2 2	21 16 16 16	38 31 31 31	37 50 50 50	39 42 42 42	21 16 16 16	18 26 26 26	20 24 22 20	A-6b (V) * A-6b (11) A-7-6 (15) A-6b (V)
B-041-0-13 STA. 881+15.29, 7.6' RT LATITUDE=41.04728438 LONGITUDE=83.67271758	2.00-3.50 3.50-5.00 6.00-7.50	SS-1 SS-2 SS-3	100 61 89	4 0 0	11 6 6	22 39 39	27 31 31	37 24 24	30 29 29	17 19 19	13 10 10	15 16 19	A-6a (7) * A-4a (4) A-6a (V)
B-042-0-13 STA. 885+07.94, 44.4' LT LATITUDE=41.04836299 LONGITUDE=83.67289661	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4	56 67 100 100	2 4 4 4	6 7 7 7	18 18 18 18	33 41 41 41	37 37 37 37	21 21 21 21	16 16 16 16	9 9 9 9	5 20 14 24	A-3a (V) A-6b (10) A-4a (7) A-3a (V)
B-043-0-13 STA. 889+24.05, 53.7' RT LATITUDE=41.04948825 LONGITUDE=83.67248240	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.50 23.50-27.75	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10	67 89 83 94 89 100 89 17 100 107	9 1 1 1 1 1 1 1 1 1	11 1 1 1 1 1 1 1 1 1	16 4 4 4 4 4 4 4 4 4	30 51 51 51 51 51 51 51 51 51	34 43 43 43 43 43 43 43 43 43	33 27 27 27 27 27 27 27 27 27	18 17 17 17 17 17 17 17 17 17	15 10 10 10 10 10 10 10 10 10	20 18 18 24 26 12 9 14 10 5	A-6a (V) A-6a (8) A-4b (8) A-3a (V) A-3a (V) A-4a (V) A-4a (V) A-4a (1) A-4a (V) A-1-b (V)
B-044-0-13 STA. 892+90.74, 45.2' LT LATITUDE=41.05052389 LONGITUDE=83.67258998	1.00-2.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.50 23.50-25.00 28.50-29.00 29.00-30.10	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11A SS-11B	44 50 78 56 56 100 89 89 100 100 100 100	1 3 3 3 1 1 1 1 1 1 1 1	4 6 6 6 3 3 3 3 3 3 3 3	12 16 16 16 12 12 12 12 12 12 12 12	29 37 37 37 31 31 31 31 31 31 31 31	54 38 38 38 54 54 54 54 54 54 54 54	44 31 31 31 48 48 48 48 48 48 48 48	20 18 18 18 20 20 20 20 20 20 20 20	24 13 13 13 28 28 28 28 28 28 28 28	18 15 15 18 20 17 17 12 12 12 12 6	A-7-6 (14) * A-6a (9) A-6a (V) A-6a (V) A-6a (V) A-7-6 (17) A-6a (V) A-4b (V) A-4b (V) A-4a (V) A-4a (V) A-4a (V) A-4a (V) A-4a (V) Rock (V)

EXPLORATION NO., STATION & OFFSET	FROM TO	SAMPLE ID	% REC	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	W.C.	OHIO CLASS
B-044-1-13 STA. 895+92.51, 35.1' RT LATITUDE=41.05124492 LONGITUDE=83.67197214	1.50-3.00 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.50 23.50-25.00 26.00-27.50 28.50-30.00 31.00-32.50	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11 SS-12 SS-13	50 94 89 100 100 89 100 78 72 100 89 89 83	15 6 6 6 3 3 3 3 3 3 3 3 3	17 8 8 8 8 8 8 8 8 8 8 8 8	14 16 16 16 17 17 17 17 17 17 17 17 17	25 36 36 36 39 39 39 39 39 39 39 39 39	29 29 29 29 29 29 29 29 29 29 29 29 29 29	29 26 26 26 26 26 26 26 26 26 26 26 26	17 17 17 17 17 17 17 17 17 17 17 17 17	12 9 9 9 9 9 9 9 9 9 9 9 9	14 13 13 13 13 13 13 13 13 13 13 13 13	A-6a (5) A-4a (7) A-4a (V) A-6a (V) A-6a (V) A-6a (9) A-6b (V) A-4b (V) A-4b (V) A-4a (V) A-4a (6) A-4a (V) A-4a (V)
B-047-1-13 STA. 902+90.56, 128.5' LT LATITUDE=41.05319741 LONGITUDE=83.67165344	1.00-2.50 3.50-5.00 6.00-8.00 8.50-10.00 11.00-12.50 13.50-15.00	SS-1 SS-2 SS-3 SS-4 SS-5 SS-5	67 100 33 56 94 100	1 17 17 17 17 17	2 6 6 6 6 6	29 29 29 29 29 29	39 39 39 39 39 39	28 23 23 23 23 23	17 16 16 16 16 16	11 7 7 7 7 7	11 7 7 7 7 7	25 18 8 8 9 8	A-6a (V) A-6a (V) A-6a (7) A-4b (7) A-4a (V) A-4a (V)
B-049-0-13 STA. 902+96.45, 34.7' LT LATITUDE=41.05312343 LONGITUDE=83.67132715	2.00-3.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.50 23.50-25.00 26.00-27.50 28.50-30.00 31.00-32.50 33.50-35.00 36.00-37.50 38.50-39.90	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11 SS-12 SS-13 SS-14 SS-15 SS-16	56 100 72 100 100 100 100 100 100 100 100 100 100 100 100 94	3 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5	8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	16 15 15 15 15 15 15 15 15 15 15 15 15 15 15 15	40 30 30 30 30 30 30 30 30 30 30 30 30 30 30 30	32 48 48 48 48 48 48 48 48 48 48 48 48 48 48 48 48	22 41 41 41 41 41 41 41 41 41 41 41 41 41 41 41 41	14 19 19 19 18 18 18 18 18 18 18 18 18 18 18 18	8 22 22 22 18 18 18 18 18 18 18 18 18 18 18 18	13 14 16 17 17 17 17 17 17 17 17 17 17 17 17 17	A-4a (V) * A-4a (8) A-7-6 (13) A-7-6 (V) A-7-6 (V) A-7-6 (V) A-6b (V) A-6b (11) A-6b (V) A-4a (V) A-4a (V) A-4a (V) A-6a (V) A-6a (10) A-6a (V)
B-049-1-13 STA. 904+26.91, 76.6' RT LATITUDE=41.05335341 LONGITUDE=83.67078446	1.00-2.50 3.50-5.00 6.00-8.00 8.00-9.50 11.00-12.50 13.50-15.00 16.00-16.30	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7	78 100 75 78 89 100 33	2 2 2 2 0 0 0	5 7 7 7 0 0 0	16 21 21 21 21 21 21	36 39 39 39 39 39 39	41 31 31 31 28 28 28	39 33 33 33 28 28 28	20 19 14 14 4 4 4	19 14 24 24 25 25 25	17 17 24 24 9 9 9	A-6b (12) A-6b (V) A-6a (9) A-6a (V) A-4b (8) A-4a (V) Rock (V)
B-050-0-13 STA. 905+34.80, 34.5' RT LATITUDE=41.05367119 LONGITUDE=83.67079217	2.00-3.50 3.50-5.00 6.00-7.50 8.50-10.00 11.00-12.50 13.50-15.00 16.00-17.50 18.50-20.00 21.00-22.50 23.50-25.00 26.00-27.50 28.50-30.00 31.00-32.50 33.50-35.00 36.00-37.50 38.50-40.00 41.00-42.50 43.50-43.60	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6 SS-7 SS-8 SS-9 SS-10 SS-11 SS-12 SS-13 SS-14 SS-15 SS-16 SS-17 SS-18	67 100 100 94 100 100 100 100 100 100 100 100 100 100 100 100 39 100	23 4 4 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2	13 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	32 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17	24 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40 40	9 35 35 35 35 35 35 35 35 35 35 35 35 35 35 35 35 35	NP NP NP NP NP NP NP NP NP NP NP NP NP NP NP NP NP NP	NP 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20 20	12 15 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18 18 18	A-2-4 (0) A-6a (10) * A-6b (V) * A-6b (11) A-7-6 (12) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6a (V) A-6b (V) A-6a (V) A-6a (V) A-6b (8) A-4a (V) Rock (V)	
B-053-0-13 STA. 918+00.62, 34.4' LT LATITUDE=41.05699570 LONGITUDE=83.66943687	1.20-2.70 3.50-5.00 6.00-7.50	SS-1 SS-2 SS-3	39 67 0	0 6 6	8 12 12	26 21 21	34 29 29	32 32 32	40 35 35	17 17 17	23 18 18	11 17 11	A-6b (11) A-6b (8) -
B-054-0-13 STA. 922+32.12, 35.0' RT LATITUDE=41.05804050 LONGITUDE=83.66865845	1.00-2.50 3.50-5.00 6.00-7.50	SS-1 SS-2 SS-3	50 78 94	36 2 2	4 11 11	13 27 27	43 32 32	4 28 28	NP NP NP	NP NP NP	NP 11 11	15 17 11	A-4a (2) A-6a (5) A-6a (V)
B-056-0-13 STA. 930+01.24, 25.4' RT LATITUDE=41.06002982 LONGITUDE=83.66772512	2.00-3.50 3.50-5.00 6.00-7.50	SS-1 SS-2 SS-3	100 133 122	32 1 1	14 10 10	24 45 45	17 20 20	13 24 24	NP 229 229	NP 17 17	NP 12 12	12 16 19	A-2-4 (0) * A-6a (2) A-3a (V)
B-057-0-13 STA. 933+83.96, 16.8' LT LATITUDE=41.06105535 LONGITUDE=83.66738824	1.00-2.50 2.50-4.00 4.00-5.50 5.50-7.00 7.00-8.50 8.50-10.00	SS-1 SS-2 SS-3 SS-4 SS-5 SS-6	100 100 78 67 100 100	3 4 4 4 4 4	6 16 16 16 16 16	15 22 22 22 22 22	42 27 27 27 27 27	33 31 31 31 31 31	35 39 39 39 39 39	19 16 16 16 16 16	16 23 23 23 23 23		





834+00    835+00    836+00    837+00    838+00    839+00    840+00    841+00    842+00    843+00    844+00    845+00    846+00



DRAWN: SS  
CHECKED: SS

**SOIL PROFILE - I-75**  
**STA. 834+00 TO STA. 846+50**

**HAN-75-14.39**

