GEOTECHNOLOGY INC
FROM THE GROUND UP

LOG OF TEST BORING

CLIENT: City of Southgate
PROJECT: North Street Landslide
Southgate, Kentucky
LOCATION OF BORING: As shown on Boring Plan, Sheet No. 1

BORING #: B-1
PROJECT #: J033704.01
PAGE #: 1 of 1

ELEV.	COLOR, MOISTURE, DENSITY, PLASTICITY, SIZE, PROPORTIONS DESCRIPTION	Strata Depth (feet)	Depth Scale (feet)	Sample Condition	Sample Number	Sample Type	SPT* Blows/6" Rock Core RQD (%)	Recovery (in.)	Recovery (%)
662.7	Ground Surface	0.0							
662.2	ASPHALT (6 inches)	0.5							
	Mixed brown to black very moist soft to medium stiff FILL, clay, some brick and concrete fragments, trace sand and gravel and organics.			I	1	DS	3-4-5	6	33
				I	2	DS	1-4-1	8	44
			5	I	3	DS	2-3-2	11	61
				I	4	DS	2-2-2	12	67
			10	I	5	DS	1-2-2	13	72
650.7		12.0							
	Brown moist medium stiff LEAN CLAY, trace limestone fragments (colluvium).			I	6	DS	2-3-7	14	78
648.2		14.5	15						
	Brown moist stiff LEAN CLAY, trace to little shale and limestone fragments (colluvium).			I	7	DS	3-5-4	16	89
644.7		18.0							
	Interbedded gray moist extremely weak weathered SHALE and gray strong LIMESTONE (bedrock).			I	8	DS	11-16-23	14	78
640.7		22.0	20	I	9	DS	11-16-22	16	89
	Interbedded gray moist extremely weak to weak unweathered SHALE and gray to very strong LIMESTONE (bedrock).			I	10	DS	28-50/3"	9	100
635.7		27.0	25	I	11	DS	50/6"	6	100
	Bottom of test boring at 27.0 feet.								
			30						

Datum: NAVD88 Hammer Weight: 140 lb. Hole Diameter: 7.5 in. Drill Rig: TD-6
Surface Elevation: 662.7 ft. Hammer Drop: 30 in. Rock Core Diameter: -- Foreman: T. Gilbert
Date Started: 2/18/2019 Pipe Size: 2 in. O.D. Boring Method: HSA-3.25 Engineer: Andrew C. Casto
Date Completed: 2/18/2019

BORING METHOD
HSA = Hollow Stem Augers
CFA = Continuous Flight Augers
DC = Driving Casing
MD = Mud Drilling

SAMPLE TYPE
PC = Pavement Core
CA = Continuous Flight Auger
DS = Driven Split Spoon
PT = Pressed Shelby Tube
RC = Rock Core

SAMPLE CONDITIONS
D= Disintegrated
I = Intact
U= Undisturbed
L = Lost

GROUNDWATER DEPTH
First Noted None
At Completion Dry
After --
Backfilled Immediately

* SPT = Standard Penetration Test - Driving 2" O.D. Sampler 18" with 140-Pound Hammer Falling 30"; Count Made at 6" Intervals

GEOTECHNOLOGY INC
FROM THE GROUND UP

LOG OF TEST BORING

CLIENT: City of Southgate
PROJECT: North Street Landslide
Southgate, Kentucky
LOCATION OF BORING: As shown on Boring Plan, Sheet No. 1

BORING #: B-2
PROJECT #: J033704.01
PAGE #: 1 of 1

ELEV.	COLOR, MOISTURE, DENSITY, PLASTICITY, SIZE, PROPORTIONS DESCRIPTION	Strata Depth (feet)	Depth Scale (feet)	Sample Condition	Sample Number	Sample Type	SPT* Blows/6" Rock Core RQD (%)	Recovery (in.)	Recovery (%)
664.5	Ground Surface	0.0							
663.7	ASPHALT (8 inches)	0.8							
	Brown and gray moist stiff LEAN CLAY, trace shale fragments.			I	1	DS	3-4-5	12	67
				I	2	DS	3-5-6	13	72
660.0		4.5	5						
	Interbedded brown moist extremely weak highly weathered SHALE and gray strong LIMESTONE (bedrock).			I	3	DS	6-6-7	18	100
				I	4	DS	11-17-22	18	100
655.0		9.5	10						
	Interbedded brown and gray moist extremely weak weathered SHALE and gray strong LIMESTONE (bedrock).			I	5	DS	13-17-29	8	44
				I	6	DS	13-36-50/5"	17	100
647.5		17.0	15	I	7	DS	23-35-28	18	100
	Interbedded gray moist weak unweathered SHALE and gray strong to very strong LIMESTONE (bedrock).			I	8	DS	20-37-50/3"	15	100
643.8		20.7	20						
	Bottom of test boring at 20.7 feet.			I	9	DS	32-50/3"		
			25						
			30						

Datum: NAVD88 Hammer Weight: 140 lb. Hole Diameter: 7.5 in. Drill Rig: TD-6
Surface Elevation: 664.5 ft. Hammer Drop: 30 in. Rock Core Diameter: -- Foreman: T. Gilbert
Date Started: 2/18/2019 Pipe Size: 2 in. O.D. Boring Method: HSA-3.25 Engineer: Andrew C. Casto
Date Completed: 2/18/2019

BORING METHOD
HSA = Hollow Stem Augers
CFA = Continuous Flight Augers
DC = Driving Casing
MD = Mud Drilling

SAMPLE TYPE
PC = Pavement Core
CA = Continuous Flight Auger
DS = Driven Split Spoon
PT = Pressed Shelby Tube
RC = Rock Core

SAMPLE CONDITIONS
D= Disintegrated
I = Intact
U= Undisturbed
L = Lost

GROUNDWATER DEPTH
First Noted 15.0 ft.
At Completion Dry
After --
Backfilled Immediately

* SPT = Standard Penetration Test - Driving 2" O.D. Sampler 18" with 140-Pound Hammer Falling 30"; Count Made at 6" Intervals

GEOTECHNOLOGY INC
FROM THE GROUND UP

LOG OF TEST BORING

CLIENT: City of Southgate
PROJECT: North Street Landslide
Southgate, Kentucky
LOCATION OF BORING: As shown on Boring Plan, Sheet No. 1

BORING #: B-3
PROJECT #: J033704.01
PAGE #: 1 of 1

ELEV.	COLOR, MOISTURE, DENSITY, PLASTICITY, SIZE, PROPORTIONS DESCRIPTION	Strata Depth (feet)	Depth Scale (feet)	Sample Condition	Sample Number	Sample Type	SPT* Blows/6" Rock Core RQD (%)	Recovery (in.)	Recovery (%)
663.5	Ground Surface	0.0							
	DENSE GRADED AGGREGATE			I	1	DS	15-15-10	12	67
661.5		2.0							
	Brown and gray moist stiff LEAN CLAY, trace shale and limestone fragments (colluvium).			I	2	DS	4-5-11	12	67
			5	I	3	DS	11-9-5	12	67
656.5		7.0							
	Interbedded brown moist extremely weak highly weathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	4	DS	8-16-23	10	56
654.0		9.5	10						
	Interbedded olive brown moist extremely weak weathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	5	DS	13-13-17	18	100
649.0		14.5							
	Interbedded gray moist extremely weak unweathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	6	DS	43-32-26	18	100
647.5		16.0	15	I	7	DS	29-50/4"	8	80
	Split spoon refusal and bottom of test boring at 16.0 feet.								
			20						
			25						
			30						

Datum: NAVD88 Hammer Weight: 140 lb. Hole Diameter: 8 in. Drill Rig: CME 550 BD-1
Surface Elevation: 663.5 ft. Hammer Drop: 30 in. Rock Core Diameter: -- Foreman: L. Wanstrath
Date Started: 4/12/2019 Pipe Size: 2 in. O.D. Boring Method: HSA-3.25 Engineer: Andrew C. Casto
Date Completed: 4/12/2019

BORING METHOD
HSA = Hollow Stem Augers
CFA = Continuous Flight Augers
DC = Driving Casing
MD = Mud Drilling

SAMPLE TYPE
PC = Pavement Core
CA = Continuous Flight Auger
DS = Driven Split Spoon
PT = Pressed Shelby Tube
RC = Rock Core

SAMPLE CONDITIONS
D= Disintegrated
I = Intact
U= Undisturbed
L = Lost

GROUNDWATER DEPTH
First Noted Dry
At Completion Dry
After --
Backfilled Immediately

* SPT = Standard Penetration Test - Driving 2" O.D. Sampler 18" with 140-Pound Hammer Falling 30"; Count Made at 6" Intervals

GEOTECHNOLOGY INC
FROM THE GROUND UP

LOG OF TEST BORING

CLIENT: City of Southgate
PROJECT: North Street Landslide
Southgate, Kentucky
LOCATION OF BORING: As shown on Boring Plan, Sheet No. 1

BORING #: B-4
PROJECT #: J033704.01
PAGE #: 1 of 1

ELEV.	COLOR, MOISTURE, DENSITY, PLASTICITY, SIZE, PROPORTIONS DESCRIPTION	Strata Depth (feet)	Depth Scale (feet)	Sample Condition	Sample Number	Sample Type	SPT* Blows/6" Rock Core RQD (%)	Recovery (in.)	Recovery (%)
660.5	Ground Surface	0.0							
	Mixed brown and gray moist soft to medium stiff FILL, lean clay with rock fragments.			I	1	DS	1-1-2	12	67
				I	2	DS	1-2-3	18	100
656.0		4.5	5						
	Brown, trace gray moist stiff LEAN CLAY, trace iron oxide stains.			I	3	DS	3-2-2	18	100
				I	4	DS	2-3-4	18	100
648.5		12.0	10	I	5	DS	2-3-3	18	100
	Interbedded brown moist extremely weak highly weathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	6	DS	5-7-10	18	100
646.0		14.5	15						
	Interbedded olive brown moist extremely weak weathered SHALE and medium strong to strong LIMESTONE (bedrock).			I	7	DS	10-14-17	18	100
643.5		17.0							
	Interbedded gray moist extremely weak unweathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	8	DS	4-12-19	12	67
642.0		18.5	20						
	Bottom of test boring at 18.5 feet.								
			25						
			30						

Datum: NAVD88 Hammer Weight: 140 lb. Hole Diameter: 8 in. Drill Rig: CME 550 BD-1
Surface Elevation: 660.5 ft. Hammer Drop: 30 in. Rock Core Diameter: -- Foreman: L. Wanstrath
Date Started: 4/12/2019 Pipe Size: 2 in. O.D. Boring Method: HSA-3.25 Engineer: Andrew C. Casto
Date Completed: 4/12/2019

BORING METHOD
HSA = Hollow Stem Augers
CFA = Continuous Flight Augers
DC = Driving Casing
MD = Mud Drilling

SAMPLE TYPE
PC = Pavement Core
CA = Continuous Flight Auger
DS = Driven Split Spoon
PT = Pressed Shelby Tube
RC = Rock Core

SAMPLE CONDITIONS
D= Disintegrated
I = Intact
U= Undisturbed
L = Lost

GROUNDWATER DEPTH
First Noted Dry
At Completion Dry
After --
Backfilled Immediately

* SPT = Standard Penetration Test - Driving 2" O.D. Sampler 18" with 140-Pound Hammer Falling 30"; Count Made at 6" Intervals

GEOTECHNOLOGY INC
FROM THE GROUND UP

LOG OF TEST BORING

CLIENT: City of Southgate
PROJECT: North Street Landslide
Southgate, Kentucky
LOCATION OF BORING: As shown on Boring Plan, Sheet No. 1

BORING #: B-5
PROJECT #: J033704.01
PAGE #: 1 of 1

ELEV.	COLOR, MOISTURE, DENSITY, PLASTICITY, SIZE, PROPORTIONS DESCRIPTION	Strata Depth (feet)	Depth Scale (feet)	Sample Condition	Sample Number	Sample Type	SPT* Blows/6" Rock Core RQD (%)	Recovery (in.)	Recovery (%)
661.0	Ground Surface	0.0							
	DENSE GRADED AGGREGATE			I	1	DS	2-2-3	12	67
659.0		2.0							
	Mixed brown and gray moist soft to medium stiff FILL, lean clay, trace limestone fragments.			I	2	DS	1-1-2	8	44
			5	I	3	DS	1-2-1	12	67
654.0		7.0							
	Black moist stiff LEAN CLAY, trace shale and limestone fragments (colluvium).			I	4	DS	3-5-6	18	100
649.0		12.0	10	I	5	DS	6-8-7	18	100
	Interbedded brown moist extremely weak highly weathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	6	DS	8-13-22	18	100
646.5		14.5	15						
	Interbedded olive brown and gray moist extremely weak weathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	7	DS	20-70-50/8	12	67
643.5		17.5							
	Interbedded gray moist extremely weak unweathered SHALE and gray medium strong to strong LIMESTONE (bedrock).			I	8	DS	24-41-50/3"	18	100
642.2		18.8	20						
	Bottom of test boring at 18.8 feet.								
			25						
			30						

Datum: NAVD88 Hammer Weight: 140 lb. Hole Diameter: 8 in. Drill Rig: CME 550 BD-1
Surface Elevation: 661.0 ft. Hammer Drop: 30 in. Rock Core Diameter: -- Foreman: L. Wanstrath
Date Started: 4/12/2019 Pipe Size: 2 in. O.D. Boring Method: HSA-3.25 Engineer: Andrew C. Casto
Date Completed: 4/12/2019

BORING METHOD
HSA = Hollow Stem Augers
CFA = Continuous Flight Augers
DC = Driving Casing
MD = Mud Drilling

SAMPLE TYPE
PC = Pavement Core
CA = Continuous Flight Auger
DS = Driven Split Spoon
PT = Pressed Shelby Tube
RC = Rock Core

SAMPLE CONDITIONS
D= Disintegrated
I = Intact
U= Undisturbed
L = Lost

GROUNDWATER DEPTH
First Noted Dry
At Completion Dry
After --
Backfilled Immediately

* SPT = Standard Penetration Test - Driving 2" O.D. Sampler 18" with 140-Pound Hammer Falling 30"; Count Made at 6" Intervals

GEOTECHNOLOGY INC
FROM THE GROUND UP

Drawn by: RLC
Checked by: ACC
Approved by: ACC

Revisions

Date:	Description:

BORING LOGS
North Street Landslide
Southgate, Kentucky

THIS DRAWING IS NOT TO THE INDICATED SCALE IF THIS BAR DOES NOT MEASURE 1 INCH

Scale: AS NOTED
Date: 4/29/2019
Project No.: J033704.01
Client: City of Southgate
Sheet No.: 105

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