



DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

Project Manager: ?	Project No. 61165057	 51 Lost Mound Drive, Suite 135 Chattanooga, Tennessee 37406	EXPLORATION PLAN	Exhibit
Drawn by: ?	Scale: AS SHOWN		WOODS CROSS SUBSIDENCE Addr1 Addr2	A-2
Checked by: ?	File Name: ?			
Approved by: ?	Date: ?			

BORING LOG NO. FM-01

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDENCE INVESTIGATION.GPJ TERRACON.DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87604° Longitude: -111.9091°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	
										LL-PL-PI	PERCENT FINES
		0.5									
	FILL - SILTY CLAY (CL-ML) , dark brown, with organics										
	FILL - SILTY CLAYEY SAND (SC-SM) , and gravel, brown, very stiff										
		4.5			12	7-9-8-7 N=17		13		20-16-4	43
	FILL - SILTY SAND WITH GRAVEL (SM) , trace clay, brown to dark brown, loose				12	3-3-3-3 N=6					
		7.5									
	FILL - SILT WITH SAND (ML) , brown				24		3.6	35	87	35-25-10	80
	FILL - SILTY GRAVEL (GM) , brown, loose, plastic debris in sampler				2	1-2-0-0 N=2					
		12.0									
	LEAN CLAY (CL) , gray to dark gray, soft, with organics				24			44	76		
					24	0-0-0-0 N=0					
		20.5									
	SILTY SAND (SM) , brown, medium dense, oxidation stains				12	8-9-11-8 N=20					
		25.5									
	SILTY CLAY (CL-ML) , gray to dark brown, soft				12	2-2-2-2 N=4					
	LEAN CLAY (CL) , gray to dark brown, soft, dark brown organic lenses possibly peat.										
	CLAYEY SAND WITH GRAVEL (SC) , gray, medium dense										
		31.0			12	6-10-17-14 N=27		10		NP	20
	SILTY SAND (SM) , trace gravel, brown, medium dense										
		36.0			12	1-0-0-1 N=0					
	LEAN CLAY (CL) , brown to light brown, soft to medium-stiff, oxidation stains										
	with sand and gravel				12	2-3-2-2 N=5					
		42.0									
	Boring Terminated at 42 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Hollow-stem auger	See Exhibit A-3 for description of field procedures.	Notes: 7.5' consolidation w/time rate
Abandonment Method: Temporary 1" piezometer installed to 30'. See well log for details	See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	
WATER LEVEL OBSERVATIONS		
▽ While drilling		Boring Started: 2/22/2016
▽ - 6 hours after drilling		Boring Completed: 2/22/2016
▽ - Measured on 3/5/2016		Drill Rig: Geoprobe 7822D5
		Driller: Direct Push Services
		Project No.: 61165057
		Exhibit: A-4

6949 S High Tech Dr Ste 100
Midvale, UT

BORING LOG NO. FM-02

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87568° Longitude: -111.90808°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	DEPTH										
1.0	FILL - SILTY CLAY (CL-ML) , dark brown										
5.0	FILL - SILTY SAND WITH GRAVEL (SM) , trace clay, brown, loose										
7.0	FILL - SILT (ML) , brown, fractured rocks in the bottom of tube	5			3 6	8-5-3-2 N=8		6		NP	23
7.0	LEAN CLAY (CL) , gray to light brown, soft, brown mottling, with organics						3.7	40	84	40-26-14	96
20.5	SILTY SAND WITH GRAVEL (SM) , trace clay, brown, loose	10									
20.5	Grinding at 24 to 25' very dense, fractured rocks possibly cobbles										
20.5	Grinding, difficult drilling 27 to 29'	15						39			
29.0	SANDY LEAN CLAY (CL) , trace gravel, brown, medium stiff	20									
29.0	soft, with organics	25									
42.0	Boring Terminated at 42 Feet	30									
42.0		35									
42.0		40									
42.0		42.0									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Hollow-stem auger	See Exhibit A-3 for description of field procedures.
Abandonment Method: Temporary 1" piezometer installed to 40'. See well log for details	See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.
WATER LEVEL OBSERVATIONS	
∇ While drilling	
∇ - Measured on 3/5/2016	

Notes:
5' consolidation w/time rate

Boring Started: 2/19/2016	Boring Completed: 2/19/2016
Drill Rig: Geoprobe 7822D5	Driller: Direct Push Services
Project No.: 61165057	Exhibit: A-5

6949 S High Tech Dr Ste 100
Midvale, UT

BORING LOG NO. FM-04

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City Woods Cross, UT

SITE: 1000 West 1400 South Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87656° Longitude: -111.90694°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	
										LL-PL-PI	PERCENT FINES
	FILL - SILTY CLAY (CL-ML) , gray to dark brown, soft, top soil possibly peat										
		4.5			12	2-1-2-3 N=3					
	LEAN CLAY (CL) , gray, soft brown to gray, with organics, oxidation stains	5			12	TV = 600 psf PP = 500 psf		27		45-19-26	94
					24	0-0-0-0 N=0					
		10			24	TV = 300 psf PP = 500 psf	12.5	49	73		
		13.5			24	0-1-6-7 N=7					
	SILTY SAND (SM) , gray, loose with gravel, gray, medium dense, interbedded lean clay lenses Grinding 17 to 18'	15			12	6-15-21-21 N=36		8			18
		19.5									
	SILTY CLAY WITH SAND (CL-ML) , gray, stiff, with organics	20	▽		12	3-7-7-6 N=14					
		25			12	3-6-3-2 N=9					
	SILTY SAND WITH GRAVEL (SM) , brown, loose	26.0	▽								
		29.0									
	LEAN CLAY (CL) , brown, soft, interbedded clayey sand lenses	30			24	0-1-2-4 N=3					
		34.0									
	SILTY SAND (SM) , brown, medium dense	35			12	5-8-6-3 N=14					
	LEAN CLAY (CL) , trace gravel, brown, stiff	36.5									
		39.0									
	SILTY SAND (SM) , trace clay, brown, medium dense	40			18	1-3-7-4 N=10					
	Boring Terminated at 42 Feet	42.0									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Hollow-stem auger	See Exhibit A-3 for description of field procedures.
Abandonment Method: Temporary 1" piezometer installed to 30'. See well log for details	See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.
WATER LEVEL OBSERVATIONS	
▽ While drilling	
▽ - Measured on 3/5/2016	

Notes: 5' UU triaxial 10' consolidation w/time rate	
Boring Started: 2/22/2016	Boring Completed: 2/22/2016
Drill Rig: Geoprobe 7822D5	Driller: Direct Push Services
Project No.: 61165057	Exhibit: A-7

6949 S High Tech Dr Ste 100
Midvale, UT

BORING LOG NO. FM-05

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 061165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87481° Longitude: -111.90611°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	
										LL-PL-PI	PERCENT FINES
		0.5									
FILL - TOP SOIL, dark brown		0.5 - 3.0									
FILL - LEAN CLAY WITH GRAVEL (CL), gray, medium stiff		3.0 - 4.5									
FILL - SILTY CLAY (CL-ML), gray, medium stiff		4.5 - 5.0		×	14	2-4-4 N=8					
LEAN CLAY WITH SAND (CL), light gray to light brown, medium stiff to stiff, oxidation stains, interbedded silt lenses		5.0 - 10.0		×	16	3-4-5 N=9					
light brown		10.0 - 15.0		■	24	TV = 550 psf PP = 4000 psf		23		37-13-24	81
medium stiff, with organics, oxidation stains		15.0 - 20.0		×	18	1-2-4 N=6					
POORLY GRADED SAND WITH SILT (SP-SM), gray to brown, medium dense		20.0 - 22.0		■	12	TV= 400 psf PP = 1500 psf		34		33-19-14	84
SILT (ML), gray to light brown, very stiff, with organics, with gravel between 22 to 24'		22.0 - 25.0		×	14	7-10-13 N=23		22			
SILTY SAND WITH GRAVEL (SM), brown, medium dense		25.0 - 30.0		×	14	3-4-17 N=21		30		NP	92
WELL GRADED GRAVEL WITH SILT AND SAND (GW), brown to gray, dense		30.0 - 33.0		×	6	19-25-14 N=39					
SANDY LEAN CLAY (CL), tan, alternating layers of clay and gravel 30 to 36'		33.0 - 38.5		■	12			27		37-16-21	52
SANDY SILT (ML), with gravel, brown, light brown mottling, trace clay		38.5 - 42.0		■	12						
SANDY SILTY CLAY (CL-ML), brown to light brown, stiff, oxidation stains, interbedded silty sand lenses		42.0 - 45.0									

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Mud rotary

See Exhibit A-3 for description of field procedures.

Notes:

Abandonment Method:
Temporary 1" piezometers installed to 40' and 95'. See well log for details.

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix C for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS
Unknown due to mud rotary

Boring Started: 7/7/2016 Boring Completed: 7/7/2016

Drill Rig: CME-75 Driller: Davis Drilling

Project No.: 61165057 Exhibit: A-8

6949 S High Tech Dr Ste 100
Midvale, UT

BORING LOG NO. FM-05

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87481° Longitude: -111.90611°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS	
										LL-PL-PI	PERCENT FINES
	See Exhibit A-2 Latitude: 40.87481° Longitude: -111.90611° DEPTH	45			12			25			
	SANDY SILTY CLAY (CL-ML) , brown to light brown, stiff, oxidation stains, interbedded silty sand lenses (<i>continued</i>) trace gravel	50		X	18	0-5-7 N=12					
	58.0 SILTY SAND (SM) , trace gravel, brown, dense, interbedded silt lenses, trace clay	55			18	TV = 900 psf PP = 2250 psf		26		27-20-7	64
	60 medium dense, interbedded lean clay lenses	60		X	18	5-21-38 N=59					
	67.5 LEAN CLAY (CL) , tan to light gray, stiff, oxidation stains	65		X	18	10-15-15 N=30		21			
	74.0 CLAYEY GRAVEL (GC) , dense, difficult drilling 75 to 76'	70		X	18	0-5-5 N=10					
	76.0 SANDY SILT WITH GRAVEL (ML) , brown	75		X	0	24-19-12 N=31					
	82.5 WELL GRADED GRAVEL , medium dense, difficult drilling, fractured rocks, possible cobbles	80			18			44		NP	53
84.5 LEAN CLAY WITH SAND (CL) , trace gravel, dark brown	85		X	2	48-16-12 N=28						

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: Mud rotary	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	Notes:
Abandonment Method: Temporary 1" piezometers installed to 40' and 95'. See well log for details.		
WATER LEVEL OBSERVATIONS Unknown due to mud rotary	6949 S High Tech Dr Ste 100 Midvale, UT	Boring Started: 7/7/2016 Boring Completed: 7/7/2016 Drill Rig: CME-75 Driller: Davis Drilling Project No.: 61165057 Exhibit: A-8

BORING LOG NO. FM-05

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City Woods Cross, UT

SITE: 1000 West 1400 South Woods Cross City, Utah

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87481° Longitude: -111.90611°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (In.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
	DEPTH										
89.0	alternating layers of fine and gravelly soils 87 - 90'	90		X	4	90-14-26/4"		12			
	CLAYEY SAND WITH GRAVEL (SC) , brown, very dense										
	difficult drilling 90 to 95', alternating layers with fines and gravels										
95.4	fractured rocks possible cobbles	95		X	3	50/5"					
	Boring Refusal at 95.4 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

<p>Advancement Method: Mud rotary</p> <p>Abandonment Method: Temporary 1" piezometers installed to 40' and 95'. See well log for details.</p>	<p>See Exhibit A-3 for description of field procedures.</p> <p>See Appendix B for description of laboratory procedures and additional data (if any).</p> <p>See Appendix C for explanation of symbols and abbreviations.</p>	<p>Notes:</p>						
<p>WATER LEVEL OBSERVATIONS</p> <p><i>Unknown due to mud rotary</i></p>	<p>6949 S High Tech Dr Ste 100 Midvale, UT</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Boring Started: 7/7/2016</td> <td style="width: 50%;">Boring Completed: 7/7/2016</td> </tr> <tr> <td>Drill Rig: CME-75</td> <td>Driller: Davis Drilling</td> </tr> <tr> <td>Project No.: 61165057</td> <td>Exhibit: A-8</td> </tr> </table>	Boring Started: 7/7/2016	Boring Completed: 7/7/2016	Drill Rig: CME-75	Driller: Davis Drilling	Project No.: 61165057	Exhibit: A-8
Boring Started: 7/7/2016	Boring Completed: 7/7/2016							
Drill Rig: CME-75	Driller: Davis Drilling							
Project No.: 61165057	Exhibit: A-8							

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

BORING LOG NO. FM-06

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.87811° Longitude: -111.90931°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
0.5	FILL - SILTY CLAY (CL-ML) , dark brown										
5.0	LEAN CLAY (CL) , dark gray, medium stiff, few fine organics										
5.5	SILTY SAND (SM) , gray, very loose	5		X	18	0-4-3 N=7	7.1	31			
5.5	LEAN CLAY (CL) , gray, medium stiff, few fine to medium root organics very soft, few medium root organics			X	18	3-3-4 N=7					
10		10		X	12	0-0-0 N=0					
10		10			24						
16.5	POORLY GRADED SAND (SP) , gray, medium dense	15		X	18	0-0-0 N=0	4.2	40			
20		20	▽	X	18	5-6-11 N=17					
23.0	POORLY GRADED SAND WITH CLAY (SP-SC) , gray, medium dense	25		X	18	3-4-7 N=11					
29.0	WELL GRADED SAND WITH CLAY AND GRAVEL (SW-SC) , gray, medium dense	30		X	14	5-11-11 N=22					
33.0	POORLY GRADED SAND WITH CLAY (SP-SC) , gray, medium dense	35		X	18	4-7-8 N=15					
38.0	WELL GRADED SAND WITH CLAY AND GRAVEL (SW-SC) , gray, medium dense	40		X	18	7-7-8 N=15					
41.0	SILTY CLAY (CL-ML) , brown, medium stiff			X	18						
41.5	Boring Terminated at 41.5 Feet										

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method: 4" Solid-stem auger	See Exhibit A-3 for description of field procedures. See Appendix B for description of laboratory procedures and additional data (if any). See Appendix C for explanation of symbols and abbreviations.	Notes:
Abandonment Method: Temporary 1" piezometer installed to 39'. See well log for details.		
WATER LEVEL OBSERVATIONS ▽ While drilling	6949 S High Tech Dr Ste 100 Midvale, UT	Boring Started: 11/1/2016 Boring Completed: 11/1/2016 Drill Rig: CME-550X Driller: Terracon Project No.: 61165057 Exhibit: A-9

BORING LOG NO. FM-08

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057_WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.88187° Longitude: -111.90374°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS LL-PL-PI	PERCENT FINES
DEPTH											
5.0	FILL - SILTY CLAY WITH SAND (CL-ML) , with gravel, brown to red, very stiff	5		X	14	6-9-11 N=20					
11.0	SANDY SILT WITH GRAVEL (ML) , with cobbles, grayish-brown, hard	10		X	14	19-42-21 N=63					
14.0	SANDY LEAN CLAY (CL) , gray to black, stiff, few fine organics	10		X	2	6-4-3 N=7					
14.0	SANDY LEAN CLAY (CL) , gray to black, stiff, few fine organics	10		X	12	10-7-6/0"	6.7	46			
24.0	SANDY SILT WITH GRAVEL (ML) , with cobbles, brown to yellowish-brown, very stiff to hard	15		X	3	30-20-6 N=26					
24.0	SANDY LEAN CLAY (CL) , trace gravel, brown, medium stiff	25		X	16	11-18-24 N=42					
29.0	LEAN CLAY WITH SAND (CL) , brown to brown to light brown, stiff, mottled light brown and brown	25		X	8	6-4-3 N=7					
33.0	POORLY GRADED SAND (SP) , trace gravel, brown, medium dense	30		X	18	0-6-7 N=13					
38.0	SANDY LEAN CLAY (CL) , brown to orange, medium stiff, orange oxidation	35	▽	X	18	6-9-7 N=16					
41.5	Boring Terminated at 41.5 Feet	40		X	18	1-1-5 N=6					

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
4.25" ID - Hollow-stem auger

See Exhibit A-3 for description of field procedures.

Notes:

Abandonment Method:
Temporary 1" piezometer installed to 40'. See well log for details.

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix C for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS

▽ While drilling

Boring Started: 11/1/2016

Boring Completed: 11/1/2016

Drill Rig: CME-550X

Driller: Terracon

Project No.: 61165057

Exhibit: A-10

6949 S High Tech Dr Ste 100
Midvale, UT

BORING LOG NO. FM-09

PROJECT: Woods Cross City Subsidence Investigation

CLIENT: Woods Cross City
Woods Cross, UT

SITE: 1000 West 1400 South
Woods Cross City, Utah

THIS BORING LOG IS NOT VALID IF SEPARATED FROM ORIGINAL REPORT. 06145030 LOG 61165057 WOODS CROSS SUBSIDIENCE INVESTIGATION.GPJ TERRACON_DATATEMPLATE.GDT 2/2/17

GRAPHIC LOG	LOCATION See Exhibit A-2 Latitude: 40.8801° Longitude: -111.9045°	DEPTH (Ft.)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (in.)	FIELD TEST RESULTS	Organic Content (%)	WATER CONTENT (%)	DRY UNIT WEIGHT (pcf)	ATTERBERG LIMITS		PERCENT FINES
										LL-PL-PI		
1.0	FILL - TOP SOIL											
1.0 - 13.0	LEAN CLAY WITH SAND (CL) , soft with organics (rootlets) with peat lenses, vertical rootlets, oxidation stains 7.5 to 10' very soft, with oxidation stains	5			14	0-1-3-5 N=4						
				24								
		10			14	1-1-1-2 N=2		35		39-22-17		
					14	0-0-1-2 N=1						78
13.0	sand lens in the shoe				14	5-7-6-4 N=13						
	POORLY GRADED SAND WITH SILT (SP-SM) , gray to brown, medium dense trace gravel, very loose, silty clay lense, with oxidation	15			12	1-1-2-3 N=3						
18.0	SANDY SILTY CLAY (CL-ML) , trace gravel, brown to grayish-brown, medium stiff, with oxidation, trace organics	20			18	7-2-3-4 N=5						
	difficult drilling 23-24'											
24.5	SANDY SILT (ML) , trace clay, grayish-brown, medium stiff, with oxidation stains	25			24	2-2-3-3 N=5						
28.0	SANDY SILTY CLAY (CL-ML) , grayish-brown, soft, trace oxidation	30			18	1-2-2-2 N=4						
32.0		35			24	12-19-16-23 N=35						
		40				3-4-4-3 N=8						
Boring Terminated at 42 Feet												

Stratification lines are approximate. In-situ, the transition may be gradual.

Hammer Type: Automatic

Advancement Method:
Hollow-stem auger

See Exhibit A-3 for description of field procedures.

Notes:

Abandonment Method:
Borings backfilled with soil cuttings upon completion.

See Appendix B for description of laboratory procedures and additional data (if any).

See Appendix C for explanation of symbols and abbreviations.

WATER LEVEL OBSERVATIONS

Groundwater not encountered

Boring Started: 1/12/2017

Boring Completed: 1/12/2017

Drill Rig: Geoprobe

Driller: Direct Push Services

Project No.: 61165057

Exhibit: A-20

6949 S High Tech Dr Ste 100
Midvale, UT