



Environmental Resources Management

Boring/Well No.: H-1

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508287, 3327846

Surface Elev.: NM Boring T.D.: 44 ft. Boring Dia.: 2.25 inch

Date Started: 10/29/2019 Date Completed: 10/30/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.5/4.0	0.65	0.0	0-4	0.0-2.5': clayey SILT to CLAY: dark gray (10YR, 4/1) to yellowish brown (10YR, 5/4), compositional and color change at 1.7' bgs, no odor, damp, medium stiff, rootlets near top
				2.75	0.0		2.5-4.0': No recovery
5			3.2/4.0	4.09	0.0	4-8	4.0-7.2': silty CLAY: yellowish brown (10YR, 5/4), fine sand layer at 6.9', very pale brown (10YR, 6/2), damp, medium stiff, no odor, calcite nodules at 5.0-5.2', manganese nodules at 5.6', orange mottling
				4.41	0.0		7.2-8.0': No recovery
10			4.0/4.0	3.67	0.0	8-12	8.0-8.5': sandy CLAY: brown (10YR, 5/3) with some clay
				4.95	0.0		8.5-10.4': silty CLAY: yellowish brown (10YR, 5/4), intermittent silt lenses
15			4.0/4.0	4.36	NA	12-16	10.4-10.9': SHELL HASH: calcite and shell layer
				3.43	0.0		10.9-12.0': CLAY: dark yellowish brown (10YR, 4/6), no odor, damp, medium stiff
20			2.8/2.0	1.4	0.0	16-18	12.0-16.0': silty CLAY: light brownish gray (10YR, 6/2), intermittent silt layers, damp, no odor, stiff, orange mottling
				2.96			16.0-18.0': clayey SILT: light brownish gray (10YR, 6/2), intermittent silt layers, damp, no odor, medium stiff, orange mottling at base of core, medium stiff
25			1.7/2.0	1.7	0.0	18-20	18.0-19.7': clayey SILT: pale brown (10YR, 6/3), intermittent silt layers, damp, medium soft at top, medium stiff at bottom, orange mottling near top and bottom
				1.75			19.7-20.0': No recovery
30			3.8/2.0	1.46	0.0	20-22	20.0-22.0': CLAY: yellowish brown (10YR, 5/4), damp, stiff, no odor
				1.66			22.0-24.0': CLAY: light yellowish brown (10YR, 6/4), medium stiff grading to medium soft, no odor, damp
35			2.3/2.0	1.68	0.0	22-24	24.0-26.0': silty CLAY to CLAY: pale brown (10YR, 6/3), medium soft to medium stiff with depth, no odor, damp, orange mottling near base, decreasing silt content with depth
				1.59			26.0-28.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, slight orange mottling near top
40			2.6/2.0	1.66	0.0	24-26	28.0-30.0': CLAY to silty CLAY: light brownish gray (10YR, 6/2), medium stiff to medium soft, no odor, damp, orange mottling near top
				1.85			
45			2.0/2.0	2.18	0.0	26-28	
				2.41			
50			3.2/2.0	1.8	0.0	28-30	
				2.16			



Project No.: 0526033 Date Drilled: 10/30/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION		
30			2.2/2.0	2.2	0.0	30-32	30.0-32.0': clayey SILT: yellowish brown (10YR, 5/4) grading to pale brown (10YR, 6/3), soft to medium stiff, damp, no odor		
				1.95					
					4.0/2.0	2.45	0.0	32-34	32.0-34.0': CLAY: brown (10YR, 5/3), calcium nodules, orange mottling, very stiff, damp, no odor
					2.49				
35					4.0/2.0	2.48	0.0	34-36	34.0-36.0': CLAY to SILT: brown (10YR, 5/3), orange mottling, stiff to soft, damp, no odor
					2.44				
					2.6/2.0	2.67	0.0	36-38	36.0-38.0': silty CLAY to clayey SILT: light olive brown (10YR, 5/4), slight orange mottling, soft to very soft, damp, no odor
					2.29				
					4.0/2.0	2.51	0.0	38-40	38.0-40.0': silty SAND: yellowish brown (10YR, 5/4), fine grained, loose, wet to saturated, 0.3' clay layer at bottom, medium soft, damp, no odor
40						2.58			
					4.0/2.0	2.56	0.0	40-42	40.0-42.0': silty CLAY: brown (10YR, 5/3), wet, medium stiff, no odor, orange mottling
						1.93			
			3.7/2.0	1.56	0.0	42-44	42.0-44.0': CLAY: brown (10YR, 5/3), damp, stiff, no odor, orange mottling		
				2.24					
45									
50									
55									
60									
65									



Environmental Resources Management

Boring/Well No.: H-2

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508071, 3328241

Surface Elev.: NM Boring T.D.: 36 ft. Boring Dia.: 2.25 inch

Date Started: 10/30/2019 Date Completed: 10/30/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.4/4.0	1.36	0.0	0-4	0.0-0.3': TOPSOIL: black (10YR, 2/1)
				1.69	0.0		0.3-2.4': silty CLAY: very dark gray (10YR, 3/1), medium stiff at top to medium soft at bottom, damp, orange mottling, increase in silt near bottom, no odor
5			1.8/4.0	1.86	0.0	4-8	2.4-4.0': No recovery
				1.94	NA		4.0-5.8': silty CLAY: yellowish brown (10YR, 5/4) with siltier layer (dark gray [10YR, 4/1], medium soft), medium stiff, dark gray portion, no odor, damp
10			3.6/4.0	2.43	0.0	8-12	5.8-8.0': No recovery
				1.93	0.0		8.0-10.6': silty CLAY to clayey SILT: yellowish brown (10YR, 5/4) to dark gray (10YR, 4/1), very stiff to very soft, damp
15			4.0/4.0	2.98	0.0	12-16	10.6-11.2': SHELLS
				1.83	0.0		11.2-11.6': silty CLAY
20			3.2/4.0	2.92	0.0	16-20	11.6-12.0': No recovery
				3.03	0.0		12.0-16.0': silty CLAY: gray (10YR, 5/1), very stiff, damp, orange mottling throughout, no odor
25			4.0/4.0	2.80	0.0	20-24	16.0-19.2': silty CLAY: gray (10YR, 5/1), very stiff to medium stiff at bottom, silt lenses near bottom (18.3-19.2'), damp, no odor, orange mottling
				2.53	0.0		19.2-20.0': No recovery
30			3.4/2.0	2.74	0.0	24-26	20.0-24.0': silty CLAY: gray (10YR, 6/1), grades from medium stiff to very stiff, decrease in silt content with depth, damp, no odor, orange mottling
				2.8	0.0		24.0-26.0': silty CLAY: gray (10YR, 6/1), medium stiff, no odor, damp, orange mottling
			3.4/2.0	2.79	0.0	26-28	26.0-28.0': silty CLAY: gray (10YR, 6/1), medium stiff, no odor, damp, orange mottling
				2.26	0.0		28.0-30.0': silty CLAY: gray (10YR, 6/1), very stiff, no odor, damp, orange mottling, some dark brown nodules and mottling
			4.0/2.0	2.36	0.0	28-30	
				1.07	0.0		



Project No.: 0526033 Date Drilled: 10/30/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.4/2.0	2.77	0.0	30-32	30.0-32.0': silty CLAY: gray (10YR, 6/1), very stiff, no odor, damp, orange mottling, dark brown nodules, increasing silt composition at bottom
				2.84			
			2.8/2.0	2.44	0.0	32-34	32.0-32.7': silty CLAY: gray (10YR, 6/1), very stiff, no odor, damp 32.7-33.6': clayey SILT: gray (10YR, 6/1), wet, no odor, soft
				2.48			
35			2.2/2.0	3.02	0.0	34-36	33.6-34.0': silty CLAY to CLAY: gray (10YR, 6/1), very stiff to soft, no odor, damp 34.0-36.0': clayey SILT: brown (10YR, 5/3), wet at 34.0-35.0', damp below 35.0', increasing clay content with depth, very soft to medium stiff
40							
45							
50							
55							
60							
65							



Environmental Resources Management

Boring/Well No.: H-3

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0509690, 3327925

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 10/31/2019 Date Completed: 10/31/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Jay Culpepper

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0	[Diagonal hatching pattern]	[Dotted pattern]	3.1/4.0	1.73	NA	0-4	0.0-3.1': CLAY: brown (7.5Y, 4/4) to dark gray (10YR, 4/1), moist, no odor, stiff, little silt content, rootlets, few wood pieces, little Fe staining 3.1-4.0': No recovery
				3.07			
5	[Diagonal hatching pattern]	[Dotted pattern]	1.9/4.0	1.61	NA	4-8	4.0-5.9': CLAY: dark gray (10YR, 4/1) to light olive brown (2.5Y, 5/3), stiff to medium soft, moist, no odor, clayey silt lenses at 5.1' bgs, little Fe/Mn staining, little silt content 5.9-8.0': No recovery
				1.69			
10	[Diagonal hatching pattern]	[Dotted pattern]	4.0/4.0	1.83	NA	8-12	8.0-12.0': CLAY: brown (10YR, 5/3), stiff, moist, no odor, Fe/Mn staining, few Fe concretions, some mottling, little silt content
				1.71			
15	[Diagonal hatching pattern]	[Dotted pattern]	3.1/4.0	1.73	NA	12-16	12.0-15.1': CLAY: gray (2.5Y, 5/1) to brown (10YR, 5/3), stiff, some medium soft at top, moist, no odor, some silt content decreasing with depth, Fe/Mn staining, clayey silt lense at 12.4' and 13.1' bgs, some mottling 15.1-16.0': No recovery
				2.30			
20	[Diagonal hatching pattern]	[Dotted pattern]	4.0/4.0	3.82	NA	16-20	16.0-20.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, some mottling, clayey silt lenses at 18.5', 18.9-19.0', and 19.4' bgs
				3.27			
25	[Diagonal hatching pattern]	[Dotted pattern]	2.7/2.0	1.57	NA	20-22	20.0-22.0': CLAY to clayey SILT: light brownish gray (2.5Y, 6/2) to yellowish brown (10YR, 5/4), medium soft, moist to slightly wet at bottom, no odor, little silt content at top
				1.25			
	[Diagonal hatching pattern]	[Dotted pattern]	3.0/2.0	1.14	NA	22-24	22.0-24.0': clayey SILT to SILT: brown (7.5YR, 5/4), soft, slightly wet to wet, no odor, trace of fine grain sand
				1.20			
	[Diagonal hatching pattern]	[Dotted pattern]	3.1/2.0	1.35	NA	24-26	24.0-26.0': SILT: brown (7.5YR, 5/4), soft, wet, no odor, little clay content, clay lense near bottom
				0.95			
	[Diagonal hatching pattern]	[Dotted pattern]	2.7/2.0	0.98	NA	26-28	26.0-28.0': SILT: brown (7.5YR, 5/4), soft, wet, no odor, little clay content, clay lense near middle
				1.11			
30	[Diagonal hatching pattern]	[Dotted pattern]	3.3/2.0	2.21	NA	28-30	28.0-30.0': CLAY: brown (7.5YR, 5/3), stiff to medium soft, moist, no odor, little silt content
				1.54			



Project No.: 0526033 Date Drilled: 10/31/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
30			3.4/2.0	1.10	NA	30-32	30.0-32.0': CLAY: reddish brown (5YR, 4/4), stiff, moist, no odor, little gray, very little Fe staining	
				1.50				
				4.0/2.0	1.97	NA	32-34	32.0-34.0': CLAY to SILT at bottom: brown (7.5YR, 5/3) with little gray, stiff at top to soft at bottom, moist at top to wet at bottom, some clay content at bottom of silt
				1.47				
35				1.8/2.0	2.43	NA	34-36	34.0-35.8': CLAY: brown (7.5YR, 5/4), stiff, moist, no odor, silt lense at 35.6' bgs
				4.0/2.0	2.32	NA	36-38	35.8-36.0': No recovery
					2.35			
				4.0/2.0	1.25	NA	38-40	36.0-38.0': CLAY: brown (7.5YR, 5/4) to gray (10YR, 5/1), stiff to medium soft, moist, no odor
40					1.87			
								38.0-40.0': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor
45								
50								
55								
60								
65								



Environmental Resources Management

Boring/Well No.: H-4

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0509758, 3328169

Surface Elev.: NM Boring T.D.: 18 ft. Boring Dia.: 2.25 inch

Date Started: 11/4/2019 Date Completed: 11/4/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Marsh Master with Geoprobe Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
0			2.7/4.0	1.29	0.0	0-4	0.0-2.7': CLAY: gray (10YR, 5/1) to grayish brown (10YR, 5/2), medium soft, moist, no odor, very little silt content, come clayey silt at top, rootlets, little Fe staining/mottling 2.7-4.0': No recovery	
				1.19	0.0			
5			2.7/4.0	1.44	0.0	4-8	4.0-6.7': CLAY: light yellowish brown (10YR, 6/4), medium soft to stiff, moist, no odor, little Fe staining, mottling, soft gray clay at 4.5-4.9' and 5.7-5.8' bgs, very little silt content 6.7-8.0': No recovery	
				1.81	0.0			
10			2.4/4.0	2.09	0.0	8-12	8.0-10.4': CLAY: reddish brown (5YR, 4/4), stiff, moist, no odor, Fe/Mn staining, some mottling, very little silt content, little gray at top 10.4-12.0': No recovery	
				2.71	0.0			
15			4.0/4.0	2.95	0.0	12-16	12.0-16.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, some Fe/Mn staining/mottling, very little silt content	
				2.45	0.0			
			3.2/2.0	4.94	0.0	16-18	16.0-18.0': CLAY: light brownish gray (2.5Y, 6/2) to reddish brown (5R, 5/4), stiff to medium soft, moist, no odor, little silt content increasing with depth	
				2.81				
20								
25								
30								



Environmental Resources Management

Boring/Well No.: H-5

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0509140, 3327865

Surface Elev.: NM Boring T.D.: 16 ft. Boring Dia.: 2.25 inch

Date Started: 11/4/2019 Date Completed: 11/4/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Marsh Master with Geoprobe Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION		
0			2.4/4.0	4.82	0.0	0-4	0.0-2.4': CLAY: very dark gray (10YR, 3/1) to brown (10YR, 5/3), medium soft to stiff, moist, no odor, very little Fe staining, little clayey silt at top, rootlets		
				2.70	0.0		2.4-4.0': No recovery		
5			3.7/4.0	4.46	0.0	4-8	4.0-7.7': CLAY: gray (10YR, 6/1) to gray (2.5Y, 5/1), medium soft to stiff, moist, no odor, little Fe staining, few concretions, little silt content		
				4.32	0.0		7.7-8.0': No recovery		
10			4.0/4.0	5.85	0.0	8-12	8.0-12.0': CLAY: reddish brown (5YR, 4/4) to olive gray (5Y, 5/2), stiff, moist, no odor, Fe/Mn staining, mottling, little CaCO3 concretions, very little silt content, very small silt lense at 12.2' bgs, very soft gray clay at 14.7-14.8' bgs		
				14.72	0.0				
15			3.9/4.0	6.45	0.0	12-16	12.0-15.9': CLAY: olive gray (5Y, 5/2) to olive yellow (2.5Y, 6/6), stiff, moist, no odor, Fe staining/mottling, very little CaCO3 concretions		
				5.43	0.0			15.9-16.0': No recovery	
20									
25									
30									



Environmental Resources Management

Boring/Well No.: H-6

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0509083, 3327888

Surface Elev.: NM Boring T.D.: 16 ft. Boring Dia.: 2.25 inch

Date Started: 11/5/2019 Date Completed: 11/5/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Marsh Master with Geoprobe Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION		
0			2.2/4.0	5.36	0.6	0-4	0.0-2.2': CLAY: dark gray (2.5Y, 4/1) to grayish brown (2.5Y, 5/2), medium soft to stiff, moist, no odor, Fe/Mn staining, few concretions, organic material, roots/rootlets at top, very little silt content 2.2-4.0': No recovery		
				8.87	0.6				
5			3.5/4.0	4.56	0.2	4-8	4.0-6.9': CLAY: grayish brown (2.5Y, 5/2), stiff, moist, no odor, some silt content increasing with depth, Fe/Mn staining, few concretions, mottling 6.9-7.5': CLAY: dark gray (2.5Y, 4/1), very soft, moist, no odor 7.5-8.0': No recovery		
				7.86	0.3				
10			2.8/4.0	7.20	0.2	8-12	8.0-10.8': CLAY: gray (2.5Y, 5/1) to light yellowish brown (10YR, 6/4), soft at top to stiff, moist, no odor, Fe/Mn staining, mottling, shell fragments at 13.1-13.4' and 13.7-13.8' bgs, very little silt content at bottom 10.8-12.0': No recovery		
				8.32	0.1				
15			3.9/4.0	14.40	0.1	12-16	12.0-15.9': CLAY: light brownish gray (2.5Y, 6/2) to light yellowish brown (10YR, 6/4), stiff, moist, no odor, Fe/Mn staining/mottling, very little silt content 15.9-16.0': No recovery		
				12.85	0.0				
20									
25									
30									



Environmental Resources Management

Boring/Well No.: H-7

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508193, 3328295

Surface Elev.: NM Boring T.D.: 16 ft. Boring Dia.: 2.25 inch

Date Started: 11/5/2019 Date Completed: 11/5/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Marsh Master with Geoprobe Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.3/4.0	2.63	0.4	0-4	0.0-1.3': CLAY: dark gray (2.5Y, 4/1) at top to light yellowish brown (2.5Y, 6/4), soft to medium soft, moist, no odor, little silt content, very little Fe staining, rootlets at top, little clayey silt at top 1.3-4.0': No recovery
				4.28			
5			3.8/4.0	4.24	0.3	4-8	4.0-7.8': CLAY: light brownish gray (2.5Y, 6/2) to strong brown (7.5YR, 5/6), stiff, moist, no odor, Fe/Mn staining, Fe concretions, mottling, clayey silt lense at 3.5-3.6' bgs, very little silt content 7.8-8.0': No recovery
				4.30	0.6		
10			2.8/4.0	1.28	0.3	8-12	8.0-9.9': CLAY: strong brown (7.5YR, 5/6), medium soft to stiff, moist, no odor, Mn staining, little clayey silt content at top 9.9-10.8': CLAY: light yellowish brown (10YR, 6/4), medium soft, moist, no odor, very little Fe/Mn staining, shell fragments at 9.9-10.1' bgs, little silt content
				2.69	0.5		
15			4.0/4.0	4.32	0.3	12-16	10.8-12.0': No recovery 12.0-16.0': CLAY: light brownish gray (2.5Y, 6/2) to olive yellow (2.5Y, 6/6), stiff, moist, no odor, Fe staining/mottling, little silt content, silt lense at 15.6' bgs
				4.22	0.2		
20							
25							
30							



Environmental Resources Management

Boring/Well No.: H-8

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508087, 3323161

Surface Elev.: NM Boring T.D.: 16 ft. Boring Dia.: 2.25 inch

Date Started: 11/5/2019 Date Completed: 11/5/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Marsh Master with Geoprobe Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
0			2.9/4.0	2.08	0.8	0-4	0.0-2.9': CLAY: dark grayish brown (10YR, 4/2), medium soft to stiff, moist, no odor, some silt content 0.0-1.3' bgs, very little silt content at 1.3' bgs to bottom, little Fe staining rootlets at top 2.9-4.0': No recovery	
				2.73	0.3			
5			3.6/4.0	3.92	1.3	4-8	4.0-7.6': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, very slight odor, Fe/Mn staining, few concretions, mottling 7.6-8.0': No recovery	
				3.04	14.3			
10			4.0/4.0	5.75	0.4	8-12	8.0-12.0': CLAY: reddish brown (5YR, 5/4) to light yellowish brown (10YR, 6/4), stiff to medium soft, moist, no odor, shell hash/fragments with clay at 10.0-11.1' bgs, Fe/Mn staining, Fe concretions, very little silt content	
				6.23	0.2			
15			3.9/4.0	3.81	0.1	12-16	12.0-15.9': CLAY: reddish brown (5YR, 5/4) at top to light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, little CaCO3 concretions, very little silt content increasing at bottom 15.9-16.0': No recovery	
				2.92	0.2			
20								
25								
30								



Environmental Resources Management

Boring/Well No.: H-9

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0507779, 3328206

Surface Elev.: NM Boring T.D.: 60 ft. Boring Dia.: 2.25 inch

Date Started: 11/5/2019 Date Completed: 11/8/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. & Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.3/4.0	1.11	0.7	0-4	0.0-1.3': CLAY: dark gray (2.5Y, 4/1) to grayish brown (10YR, 5/2), soft at top to medium soft, moist, no odor, very little Fe staining, very little silt content
				1.84			1.3-4.0': No recovery
5			3.6/4.0	2.15	0.8	4-8	4.0-7.6': CLAY: light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, Fe staining, concretions, mottling, little silt content
				1.92			7.6-8.0': No recovery
10			3.9/4.0	2.26	0.7	8-12	8.0-11.9': CLAY: light brownish gray (2.5Y, 6/2) to yellowish brown (10YR, 5/4), stiff, moist, no odor, little silt content, Fe/Mn staining, shell hash/fragments at 10.8-11.3' bgs
				1.17			11.9-12.0': No recovery
15			3.8/4.0	2.86	0.6	12-16	12.0-15.8': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe/Mn staining, mottling, little silt content
				3.35			15.8-16.0': No recovery
20			2.8/4.0	3.00	0.3	16-20	16.0-18.8': CLAY: light brownish gray (2.5Y, 6/2) to grayish brown (2.5Y, 5/2), medium soft to stiff, moist, no odor, very little silt content, some clayey silt at top
				3.43			18.8-20.0': No recovery
			2.3/2.0	2.68	0.0	20-22	20.0-22.0': CLAY: greenish gray (GLE1, 6/10Y), stiff, moist, no odor, little Fe staining
			3.0/2.0	2.25	0.0	22-24	22.0-24.0': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, little Fe staining
25	3.4/2.0	2.21	0.0	24-26	24.0-26.0': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, little Fe staining, some greenish gray		
	2.9/2.0	1.96	0.0	26-28	26.0-28.0': CLAY: light olive gray (5Y, 6/2) to greenish gray (GLE1, 6/10Y), stiff, moist, no odor, CaCO3 concretions, very little Fe staining		
30	3.3/2.0	1.89	0.0	28-30	28.0-30.0': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, CaCO3 concretions, little Fe/Mn staining, very little silt content		



Project No.: 0526033 Date Drilled: 11/8/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
30			3.3/2.0	2.94	0.0	30-32	30.0-32.0': CLAY: light olive gray (5Y, 6/2) to light brownish gray (10YR, 6/2), stiff, moist, no odor, Fe/Mn staining/mottling, CaCO3 concretions/nodules, very little silt content	
			2.7/2.0	2.62	0.0	32-34	32.0-34.0': CLAY: brown (10YR, 5/3) to gray (2.5Y, 6/1), stiff to medium soft, moist, no odor, little Fe/Mn staining, CaCO3 nodules/concretions, layer at 32.5' bgs, little silt content increasing at bottom	
35			1.8/2.0	2.22	0.0	34-36	34.0-35.1': clayey SILT: brown (10YR, 5/3), medium soft, moist, no odor, Fe staining	
			2.7/2.0	2.43	0.0	36-38	35.1-35.8': CLAY: brown (10YR, 5/3), stiff, moist, no odor, little gray, very little silt content, Fe staining 35.8-36.0': No recovery	
			3.0/2.0	3.56	0.0	38-40	36.0-38.0': CLAY: brown (10YR, 5/3), little gray, stiff, moist, no odor, Fe/Mn staining, few CaCO3 concretions, very little silt content	
40				3.9/2.0	4.19	0.0	40-42	38.0-40.0': CLAY: brown (10YR, 5/3) to light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, very little silt content
			3.5/2.0	4.22	0.0	42-44	40.0-42.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, very little silt content	
45				4.0/2.0	5.12	0.0	44-46	42.0-44.0': CLAY: brown (10YR, 5/3), stiff, moist, no odor, Fe/Mn staining
			4.0/2.0	7.22	0.0	46-48	44.0-46.0': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor, Fe staining, very little silt content	
			3.1/2.0	13.80	0.0	48-50	46.0-48.0': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor, very little silt content	
50				2.6/2.0	OR	0.0	50-52	48.0-49.0': CLAY: olive gray (5Y, 5/2), stiff, moist, no odor, very little silt content increasing at bottom 49.0-50.0': clayey SILT to SILT: olive gray (5Y, 5/1), medium soft, moist to slightly wet, no odor
			4.0/2.0	18.50	0.0	52-54	50.0-51.0': SILT: olive gray (5Y, 5/2), firm, wet, no odor 51.0-52.0': clayey SILT: dark greenish gray (GLEY1, 4/10Y), soft, slightly wet to wet, no odor, some clay lenses, CaCO3 concretions/nodules	
55				2.2/2.0	15.43	0.0	54-56	52.0-54.0': SILT to clayey SILT: dark greenish gray (GLEY1, 4/10Y), firm to medium soft, wet to slightly wet, no odor, increasing clay content at bottom, CaCO3 nodules at bottom, clay lense near top
			4.0/2.0	16.07	0.0	56-58	54.0-56.0': SILT: dark greenish gray (GLEY1, 4/10Y), firm wet to slightly wet, moist at bottom, little clay content at bottom	
60				4.0/2.0	14.63	0.0	58-60	56.0-58.0': CLAY: dark greenish gray (GLEY1, 4/10Y) to dark gray (5Y, 4/1), stiff, moist, no odor, very little silt content
65						58.0-60.0': CLAY: dark gray (5Y, 4/1), stiff to medium soft, moist, no odor, very little silt content, little wood piece at bottom		



Environmental Resources Management

Boring/Well No.: H-10

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508023, 3328292

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/6/2019 Date Completed: 11/6/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, P.G. Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.9/4.0	0.57	0.7	0-4	0.0-0.5': clayey SILT: dark gray (10YR, 4/1), medium soft, moist, no odor
				1.51	0.5		0.5-2.9': CLAY: grayish brown (10YR, 5/2), medium soft to stiff, moist, no odor, little Fe staining, little silt content
5			3.3/4.0	2.02	0.8	4-8	2.9-4.0': No recovery
				2.36	0.9		4.0-7.3': CLAY: light brownish gray (10YR, 6/2) to strong brown (7.5YR, 5/6), medium soft at top to stiff, moist, no odor, Fe/Mn staining/concretions, mottling, little silt content
10			3.8/4.0	2.09	0.6	8-12	7.3-8.0': No recovery
				2.43	0.5		8.0-11.8': CLAY: light brownish gray (10YR, 6/2) to pale brown (10YR, 6/3) with strong brown mottling, stiff, moist, no odor, Fe staining/mottling, shell hash/fragments at 10.0-10.4' bgs, CaCO3 concretions at 11.0' bgs, little silt content decreasing with depth
15			3.9/4.0	2.40	0.8	12-16	11.8-12.0': No recovery
				1.93	0.6		12.0-15.9': CLAY: light brownish gray (2.5Y, 6/2) to brown (7.5YR, 5/3), stiff, moist, no odor, Fe/Mn staining, mottling, very little silt content
20			3.5/4.0	2.26	0.6	16-20	15.9-16.0': No recovery
				2.37	1.2		16.0-19.5': CLAY: gray (2.5Y, 6/1) to greenish gray (GLE1, 5/10Y), stiff, moist, no odor, little silt decreasing with depth, very little Fe staining
25			3.1/2.0	2.83	1.4	20-24	19.5-20.0': No recovery
				2.08	0.9		20.0-24.0': CLAY: greenish gray (GLE1, 5/10Y) to light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe staining, very little silt content
25	3.5/2.0	2.30	0.9	24-26	24.0-26.0': CLAY: light brownish gray (2.5Y, 6/2) to light yellowish brown (10YR, 6/4), stiff, moist, no odor, Fe/Mn staining, few concretions, very little silt content, few CaCO3 concretions		
		2.33	0.9		26.0-28.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe/Mn staining, very little silt content, CaCO3 concretions, Fe nodules/concretions near bottom		
30	3.7/2.0	2.39	0.9	26-28			
		3.40	0.9				
30	3.7/2.0	2.76	0.6	28-30			
		2.31	0.6		28.0-30.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe/Mn staining, very little silt content		



Project No.: 0526033 Date Drilled: 11/6/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.3/2.0	2.30	0.7	30-32	30.0-32.0': CLAY: light olive gray (5Y, 6/2), stiff to medium soft, moist, no odor, very little silt content, very little Fe/Mn staining at top
				2.21			
			2.6/2.0	2.23	0.4	32-34	32.0-34.0': CLAY: light olive gray (5Y, 6/2) to yellowish brown (10YR, 5/4) at bottom, medium soft, moist, no odor, clayey silt near bottom with clay bottom, very little Fe staining
35			2.7/2.0	1.87	0.3	34-36	34.0-36.0': CLAY: yellowish brown (10YR, 5/6), medium soft, moist, no odor, some silt content increasing with depth, some clayey silt at bottom, little Fe staining
			3.0/2.0	2.02	0.1	36-38	36.0-38.0': SILT to clayey SILT: yellowish brown (10YR, 5/4), soft, wet to slightly wet/moist, no odor, some wood pieces
40			3.2/2.0	2.33	0.0	38-40	38.0-40.0': CLAY: yellowish brown (10YR, 5/4) to gray (10YR, 6/1), medium soft, moist, no odor, very little silt content, little Fe staining, some clayey silt near top
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50							
55							
60							
65							



Environmental Resources Management

Boring/Well No.: H-11

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0507827, 3328234

Surface Elev.: NM Boring T.D.: 60 ft. Boring Dia.: 2.25 inch

Date Started: 11/12/2019 Date Completed: 11/12/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.7/4.0	1.00	0.1	0-4	0.0-0.3': silty CLAY: dark brown (10YR, 3/3) 0.3-1.0': SAND: fine, light grayish brown (10YR, 4/2) 1.0-2.7': silty CLAY: very dark brown, medium stiff, no odor, damp, gravel at 1.0' 2.7-4.0': No recovery
				2.22	0.1		
5			3.7/4.0	3.09	0.1	4-8	4.0-7.7': CLAY: grades from dark brown (10YR, 3/3) to light brownish gray (10YR, 6/2), medium stiff, no odor, damp, orange mottling throughout 7.7-8.0': No recovery
				3.35	0.0		
10			4.0/4.0	2.89	0.0	8-12	8.0-12.0': CLAY to silty CLAY: light brownish gray (10YR, 6/2), medium stiff, soft area at 10.7-11.2', shell layer at 11.5-12.0', no odor, damp, orange and black mottling
				3.51	0.0		
15			4.0/4.0	4.33	0.0	12-16	12.0-16.0': CLAY: light brownish gray (10YR, 6/2), medium stiff, no odor, damp, orange mottling, few silt lenses
				4.73	0.0		
20			3.9/4.0	3.83	0.0	16-20	16.0-19.9': CLAY: light brownish gray (10YR, 6/2), medium stiff, no odor, damp, orange mottling 19.9-20.0': No recovery
				4.17	0.0		
25			2.7/2.0	2.95	0.0	20-22	20.0-22.0': CLAY: light brownish gray (10YR, 6/2), medium stiff, no odor, damp, orange mottling
			3.2/2.0	3.42	0.0	22-24	22.0-24.0': CLAY: light brownish gray (10YR, 6/2), medium stiff, no odor, damp, orange mottling
			2.7/2.0	2.77	0.0	24-26	24.0-26.0': CLAY: light brownish gray (10YR, 6/2), very stiff, no odor, damp, orange mottling
			3.3/2.0	2.99	0.0	26-28	26.0-28.0': CLAY: light brownish gray (10YR, 6/2), very stiff, no odor, damp, orange mottling
30			3.7/2.0	3.90	0.0	28-30	28.0-30.0': CLAY: light brownish gray (10YR, 6/2), very stiff, no odor, damp, orange mottling, calcium nodules throughout



Project No.: 0526033 Date Drilled: 11/12/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.9/2.0	4.83	0.0	30-32	30.0-32.0': CLAY: light brownish gray (10YR, 6/2), very stiff, no odor, damp, orange mottling, increase in calcium nodules
			3.0/2.0	5.30	0.0	32-34	32.0-34.0': CLAY: light brownish gray (10YR, 6/2), very stiff, no odor, damp, orange mottling, calcium nodules throughout, increase in silt content at bottom
35			2.2/2.0	5.77	0.0	34-36	34.0-34.8': clayey SILT: light brownish gray (10YR, 6/2), soft, damp to wet, no odor
			3.3/2.0	6.23	0.0	36-38	34.8-36.0': silty CLAY: decreasing silt content, light brownish gray (10YR, 6/2), damp, no odor
			3.4/2.0	7.27	0.0	38-40	36.0-38.0': silty CLAY: light brownish gray (10YR, 6/2), medium stiff, damp, no odor, silt lenses, orange and black mottling
40			4.0/2.0	7.11	0.0	40-42	38.0-40.0': silty CLAY to CLAY: grayish brown (10YR, 5/2), grades from stiff to very stiff, no odor, damp, orange mottling
			3.9/2.0	6.28	0.0	42-44	40.0-42.0': CLAY: grayish brown (10YR, 5/2), stiff, no odor, damp, orange mottling
45			3.0/2.0	4.92	0.0	44-46	42.0-44.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, light orange mottling
			4.0/2.0	4.67	0.0	46-48	44.0-46.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, light orange mottling
			4.0/2.0	3.97	0.0	48-50	46.0-48.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, light orange mottling
50			4.0/2.0	4.14	0.0	50-52	48.0-50.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, light orange mottling
			4.0/2.0	4.31	0.0	52-54	50.0-52.0': CLAY: dark gray (10YR, 4/1), stiff, no odor, damp, light orange mottling
			4.0/2.0	4.31	0.0	52-54	52.0-54.0': CLAY: light brownish gray (10YR, 6/2), stiff, no odor, damp, light orange mottling, 0.3' silty clay layer with calcium nodules near bottom
55			3.9/2.0	4.62	0.0	54-56	54.0-56.0': CLAY: dark gray (10YR, 4/1), stiff, damp, no odor, some mottling
			4.0/2.0	4.53	0.0	56-58	56.0-58.0': CLAY: dark gray (10YR, 4/1), stiff, damp, no odor, some mottling
			4.0/2.0	4.12	0.0	58-60	58.0-60.0': CLAY: dark gray (10YR, 4/1), stiff, damp, no odor, some mottling
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65							



Environmental Resources Management

Boring/Well No.: H-12

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0507776, 3328260

Surface Elev.: NM Boring T.D.: 54 ft. Boring Dia.: 2.25 inch

Date Started: 11/13/2019 Date Completed: 11/13/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.8/4.0	1.02	0.1	0-4	0.0-1.8': silty CLAY: grades from very dark gray (10YR, 3/1) to dark grayish brown (10YR, 4/2), no odor, damp, medium stiff, orange mottling, small sand layer at 0.3'
				2.29	0.1		1.8-4.0': No recovery
5			3.8/4.0	3.12	0.1	4-8	4.0-7.8': silty CLAY: decreasing silt content with depth, grades from dark grayish brown (10YR, 4/2) to gray (10YR, 5/1), orange mottling, dark layer at 5.2', no odor, stiff, damp
				3.58	0.1		7.8-8.0': No recovery
10			4.0/4.0	3.24	0.1	8-12	8.0-12.0': silty CLAY: decreasing silt content with depth, gray (10YR, 5/1), orange and black mottling, no odor, stiff, decreasing stiffness with depth, damp, shells at 11.8-12.0'
				3.44	0.1		
15			4.0/4.0	3.88	0.1	12-16	12.0-16.0': silty CLAY: gray (10YR, 5/1), orange mottling, no odor, stiff, silt lenses at 12.7', 14.5', 14.9', 15.5', 15.6', and 15.9', damp
				4.26	0.1		16.0-16.7': silty CLAY: gray (10YR, 5/1), stiff, no odor, damp
			3.0/2.0	4.93	0.1	16-18	16.7-18.0': alternating CLAY and SILT: gray (10YR, 5/1), orange mottling, no odor, medium soft (silt) to stiff (clay), wet layers at 17.7' and at bottom, otherwise damp
			3.7/2.0	5.98	0.1	18-20	18.0-20.0': silty CLAY to CLAY: gray (10YR, 5/1), damp, medium stiff, no odor, orange mottling
20			3.7/2.0	2.03	0.1	20-22	20.0-22.0': silty CLAY: decreasing silt content with depth, gray (10YR, 5/1), stiff, no odor, orange mottling
			2.0/2.0	1.95	0.1	22-24	22.0-24.0': CLAY: gray (10YR, 5/1), stiff, no odor, orange mottling
25	2.7/2.0	3.54	0.1	24-26	24.0-26.0': CLAY: gray (10YR, 5/1), stiff, no odor, orange mottling		
	3.3/2.0	3.30	0.0	26-28	26.0-28.0': CLAY: gray (10YR, 5/1), stiff, no odor, orange mottling		
30	3.2/2.0	2.27	0.0	28-30	28.0-30.0': CLAY: gray (10YR, 5/1), stiff, no odor, orange and black mottling, some calcite nodules		



Project No.: 0526033 Date Drilled: 11/13/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.4/2.0	4.48	0.0	30-32	30.0-32.0': CLAY: gray (10YR, 5/1), stiff, no odor, orange and black mottling, large calcite nodules or impacted silt at 30.7'
			2.4/2.0	2.97	0.1	32-34	32.0-34.0': silty CLAY to clayey SILT: gray (10YR, 5/1), stiff to medium stiff (decrease in stiffness with depth), no odor, damp, orange mottling
35			2.7/2.0	3.82	0.0	34-36	34.0-36.0': clayey SILT to CLAY: gray (10YR, 5/1), stiff, no odor, damp, orange mottling
			3.9/2.0	4.11	0.0	36-38	36.0-38.0': alternating silty CLAY and CLAY: gray (10YR, 5/1), medium stiff, damp, orange mottling
			4.0/2.0	6.17	0.1	38-40	38.0-40.0': silty CLAY: gray (10YR, 6/1), stiff, damp, no odor, orange mottling
40			3.6/2.0	5.28	0.1	40-42	40.0-42.0': CLAY: gray (10YR, 6/1), very stiff, damp, no odor, decrease in orange mottling with depth
			4.0/2.0	5.31	0.0	42-44	42.0-44.0': CLAY: gray (10YR, 6/1), very stiff, damp, no odor, some orange mottling
45			3.7/2.0	6.01	0.1	44-46	44.0-46.0': CLAY: gray (10YR, 6/1), grades from stiff to medium soft, damp, no odor, some orange mottling
			2.9/2.0	11.53	0.1	46-48	46.0-48.0': silty CLAY to clayey SILT: gray (10YR, 5/1), grades from stiff to medium soft, damp, no odor
			3.3/2.0	16.61	0.1	48-50	48.0-50.0': clayey SILT to silty CLAY: gray (10YR, 6/1), grades from very soft and wet to medium soft and damp at bottom, no odor, orange mottling
50			3.1/2.0	OR	0.1	50-52	50.0-52.0': clayey SILT: very soft and wet to medium soft and damp at bottom, no odor, grayish olive (10Y-5GY, 5/2)
			3.6/2.0	OR	0.2	52-54	52.0-54.0': silty SAND: fine grained, wet, greenish gray (GLEY1, 5/10GY), no odor, very soft at top to medium soft at bottom
55							
60							
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Environmental Resources Management

Boring/Well No.: H-13

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0507789, 3328106

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/14/2019 Date Completed: 11/14/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Patrick Baudoin Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.7/4.0	1.80	0.0	0-4	0.0-2.7': CLAY: dark gray (10YR, 4/1), stiff, damp, no odor, orange mottling, rootlets in top 0.6' 2.7-4.0': No recovery
				3.26	0.0		
5			3.8/4.0	3.43	0.0	4-8	4.0-7.8': CLAY: light gray (10YR, 7/1), stiff, damp, no odor, orange and black mottling 7.8-8.0': No recovery
				3.67	0.0		
10			4.0/4.0	3.76	0.0	8-12	8.0-12.0': CLAY to silty CLAY: light gray (10YR, 7/1), silt lenses throughout, shell layer from 11.0-11.5', medium stiff, medium soft in silt, no odor, damp
				3.31	0.0		
15			4.0/4.0	3.89	0.0	12-16	12.0-16.0': CLAY: gray (10YR, 6/1), silt lenses at 15.0', 15.2', and 15.4', very stiff, damp, no odor, orange mottling
				2.91	0.0		
20			4.0/4.0	2.45	0.0	16-20	16.0-20.0': CLAY: gray (10YR, 6/1), silt lenses throughout, stiff, soft from 17.4-17.7', no odor, orange mottling from 16.0-17.0', damp
				2.67	0.0		
25			3.1/2.0	1.93	0.0	20-22	20.0-22.0': CLAY: light gray (10YR, 7/1), stiff, orange mottling, no odor, damp
			3.2/2.0	1.87	0.0	22-24	22.0-24.0': CLAY: light gray (10YR, 7/1), stiff, orange mottling, no odor, damp
	3.9/2.0	1.87	0.0	24-26	24.0-26.0': CLAY: light gray (10YR, 7/1), stiff, orange mottling, no odor, damp, silt lens at 24.9-25.1'		
	3.5/2.0	1.91	0.0	26-28	26.0-28.0': CLAY: light gray (10YR, 7/1), stiff, orange mottling, no odor, damp		
30	3.8/2.0	2.52	0.0	28-30	28.0-30.0': CLAY: gray (10YR, 6/1), stiff, no odor, damp, orange and black mottling, calcite nodules at 28.7-29.5'		



Project No.: 0526033 Date Drilled: 11/14/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.7/2.0	2.03	0.0	30-32	30.0-32.0': CLAY: gray (10YR, 6/1), stiff, damp, no odor, orange and black mottling, calcite nodules at 32.0'
			3.6/2.0	2.15	0.0	32-34	32.0-34.0': CLAY: gray (10YR, 6/1), stiff, damp, no odor, orange and black mottling
35			2.3/2.0	1.47	0.0	34-36	34.0-36.0': silty CLAY: gray (10YR, 6/1), soft, damp, no odor, orange mottling, very soft at 35.0-35.6'
			3.2/2.0	2.26	0.0	36-38	36.0-38.0': CLAY: gray (10YR, 6/1), stiff, damp, no odor, orange mottling
40			3.4/2.0	2.09	0.0	38-40	38.0-40.0': CLAY: gray (10YR, 6/1), stiff, damp, no odor, orange mottling
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Environmental Resources Management

Boring/Well No.: H-14

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0507827, 3328103

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/18/2019 Date Completed: 11/18/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.6/4.0	1.39	0.1	0-4	0.0-2.6': CLAY: with minor silt content, dark gray (10YR, 4/1), medium soft, moist, no odor
				2.82	0.0		2.6-4.0': No recovery
5			3.0/4.0	3.76	0.0	4-8	4.0-7.0': CLAY: gray (10YR, 6/1) with moderate orange mottling, medium soft, moist, no odor
				3.78	0.0		7.0-8.0': No recovery
10			3.2/4.0	3.67	0.0	8-12	8.0-11.2': CLAY: gray (10YR, 5/1) with orange mottling, medium stiff to stiff, moist, no odor, soft, slightly wet gray layer (no mottling) at 8.8-9.1', shell hash at 10.1-10.5'
				3.78	0.0		11.2-12.0': No recovery
15			4.0/4.0	3.75	0.0	12-16	12.0-16.0': CLAY: light olive brown (2.5Y, 5/6), very minor gray mottling, medium stiff to stiff, dry to moist, minor silt lenses, minor black mineral staining
				3.86	0.0		
			2.5/2.0	4.19	0.0	16-18	16.0-18.0': CLAY: grades from light olive brown (2.5Y, 5/6) to gray (2.5Y, 5/1), medium stiff, moist, no odor, minor silt layers, slightly wet at 16.4', 16.8', 17.3', 17.7', and 18.0'
			3.3/2.0	3.75	0.0	18-20	18.0-20.0': CLAY: gray (2.5Y, 5/1), medium stiff, moist, no odor, very minor silt content at 18.5' and 18.7'
20			2.8/2.0	1.84	0.0	20-22	20.0-22.0': CLAY: gray (2.5Y, 5/1), moist, stiff, no odor, minor orange mottling
			3.0/2.0	1.66	0.0	22-24	22.0-24.0': CLAY: gray (2.5Y, 6/1), moist, stiff, no odor
25			3.9/2.0	1.73	0.0	24-26	24.0-26.0': CLAY: gray (2.5Y, 5/1), moist, stiff, no odor, minor orange mottling
			3.2/2.0	1.74	0.0	26-28	26.0-28.0': CLAY: light olive brown (2.5Y, 5/4), moist, stiff, no odor, minor orange staining
30			3.9/2.0	1.87	0.0	28-30	28.0-30.0': CLAY: light olive brown (2.5Y, 5/4), moist, stiff, no odor, abundant calcium nodules



Project No.: 0526033 Date Drilled: 11/18/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.3/2.0	2.26	0.0	30-32	30.0-32.0': CLAY: light olive brown (2.5Y, 5/4), moist, stiff, no odor, calcium nodules throughout
			3.7/2.0	1.71	0.0	32-34	32.0-34.0': CLAY: light olive brown (2.5Y, 5/4), moist, stiff, no odor, ~0.6' silt layer at bottom, medium stiff, moist to slightly wet
35			1.9/2.0	1.89	0.0	34-36	34.0-35.9': clayey SILT: light olive brown (2.5Y, 5/4), moist, medium soft, no odor 35.9-36.0': No recovery
			3.8/2.0	2.36	0.0	36-38	36.0-38.0': CLAY: dark brown (10YR, 3/3), dry to moist, very stiff, no odor
			3.0/2.0	2.55	0.1	38-40	38.0-40.0': CLAY: dark brown (10YR, 3/3), moist, very stiff, no odor
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Environmental Resources Management

Boring/Well No.: H-15

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508133, 3328127

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/19/2019 Date Completed: 11/19/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			3.0/4.0	1.25	3.3	0-4	0.0-3.0': CLAY: grades from dark olive brown (2.5Y, 3/3) to light olive brown (2.5Y, 5/4) with orange mottling, moist, medium soft, no odor, minor silt content at top 3.0-4.0': No recovery
				2.68	1.1		
5			4.0/4.0	3.74	6.3	4-8	4.0-8.0': CLAY: with minor silt content, gray (2.5YR, 6/1) with orange mottling, medium stiff, moist, faint odor
				3.35	18.7		
10			3.9/4.0	7.73	27.1	8-12	8.0-9.7': silty CLAY: dark yellowish brown (10YR, 3/4), moist, medium stiff, faint to moderate odor 9.7-10.7': CLAY: gray (10YR, 5/1), moist, stiff, faint to moderate odor, abundant shell fragments 10.7-11.9': silty CLAY: dark yellowish brown (10YR, 4/4), moist, medium stiff, faint to moderate odor 11.9-12.0': No recovery
				10.40	53.6		
15			4.0/4.0	5.67	0.8	12-16	12.0-16.0': CLAY: predominantly dark yellowish brown (10YR, 4/6) with some gray (10YR, 6/1), moist, very stiff, faint odor decreasing with depth, medium soft, silty clay layer at 13.6-14.0', very thin silt layers at 15.4', 15.7', and 15.8'
				4.87	0.3		
20			3.9/4.0	4.74	0.3	16-20	16.0-19.9': CLAY: gray (10Y, 5/1), moist, stiff, no odor, orange mottling at 16.0-17.0', clayey silt layers at 16.7-16.8' and 17.5-17.7' 19.9-20.0': No recovery
				3.67	0.2		
25			3.1/2.0	1.96	0.3	20-22	20.0-22.0': CLAY: grayish brown (2.5Y, 5/2), stiff, moist, no odor, minor orange mottling
			3.4/2.0	2.03	0.3	22-24	22.0-24.0': CLAY: grayish brown (2.5Y, 5/2), stiff, moist, no odor
	3.7/2.0	2.10	0.2	24-26	24.0-26.0': CLAY: grayish brown (2.5Y, 5/2), medium stiff, moist, no odor, minor calcium concretions		
	3.4/2.0	2.06	0.2	26-28	26.0-28.0': CLAY: grayish brown (2.5Y, 5/2), stiff, moist, no odor, abundant calcium nodules at bottom		
30	3.9/2.0	2.19	0.3	28-30	28.0-30.0': CLAY: dark yellowish brown (10YR, 4/4), stiff, moist, no odor, calcium concretions at top		



Project No.: 0526033 Date Drilled: 11/19/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			2.9/2.0	1.90	0.0	30-32	30.0-32.0': CLAY to clayey SILT: grayish brown (2.5Y, 5/2), medium stiff, moist, no odor, calcium concretions at 30.7-31.1'
			2.9/2.0	3.85	0.0	32-34	32.0-34.0': SILT: with clay, yellowish brown (10YR, 5/4), medium soft, moist to very slightly wet, no odor
35			2.8/2.0	5.05	0.1	34-36	34.0-36.0': CLAY: gray (10YR, 5/1), medium soft, moist, no odor, yellowish brown (10YR, 5/6), silt layer at 35.0-35.2'
			2.2/2.0	2.19	0.0	36-38	36.0-38.0': alternating CLAY and clayey SILT: gray (10YR, 5/1) and yellowish brown (10YR, 5/6), medium soft, dry to moist, no odor
40			2.2/2.0	2.16	0.1	38-40	38.0-40.0': clayey SILT: grayish brown (2.5Y, 5/2), medium soft, moist, no odor
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Environmental Resources Management

Boring/Well No.: H-16

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508142, 3328216

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/20/2019 Date Completed: 11/20/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION	
0			3.1/4.0	1.51	0.5	0-4	0.0-3.1': CLAY: with minor silt content, grades from dark yellowish brown (10YR, 3/4) to yellowish brown (10YR, 5/4), medium stiff, moist, no odor, rootlets at top, orange mottling at bottom 3.1-4.0': No recovery	
				2.60	0.7			
5			3.9/4.0	3.52	2.1	4-8	4.0-7.9': CLAY: gray (10YR, 5/1) with orange mottling, stiff, moist, no odor, calcium concretions at 4.3' 7.9-8.0': No recovery	
				4.25	0.8			
10			4.0/4.0	8-12	5.54	2.8	8-12	8.0-10.3': CLAY: grades from gray (10YR, 5/1) to dark yellowish brown (10YR, 4/6), stiff, moist, no odor, multiple very thin silt layers 10.3-11.0': CLAY: gray (10YR, 5/1), moist, medium soft, abundant shell fragments, slight odor 11.0-12.0': silty CLAY: dark yellowish brown (10YR, 4/6), medium stiff, moist, very faint to no odor
					8.83	0.7		
15			4.0/4.0	12-16	11.41	11.1	12-16	12.0-16.0': CLAY: mottled gray (10YR, 5/1) and yellowish brown (10YR, 5/4), stiff, moist, no odor, multiple very thin silt layers, clayey silt layer at 14.9-15.1'
					12.27	12.5		
20			3.3/4.0	16-20	OR	11.2	16-20	16.0-19.3': CLAY: gray (10YR, 5/1), moist, grades from soft to stiff, multiple silty clay layers in 16.0-18.0' interval, no odor 19.0-20.0': No recovery
					14.85	5.2		
25			2.9/2.0	4.09	0.3	20-22	20.0-22.0': CLAY: gray (10YR, 6/1), moist, medium soft, no odor, minor silt content at top	
			3.3/2.0	3.97	0.3	22-24	22.0-24.0': CLAY: light olive brown (2.5Y, 5/4) with minor orange mottling, medium stiff, moist, no odor	
	3.9/2.0	4.15	0.8	24-26	24.0-26.0': CLAY: light olive brown (2.5Y, 5/4), very stiff, moist, no odor			
	3.6/2.0	4.17	0.7	26-28	26.0-28.0': CLAY: light olive brown (2.5Y, 5/4), very stiff, moist, no odor			
30	3.9/2.0	4.84	0.3	28-30	28.0-30.0': CLAY: light olive brown (2.5Y, 5/4), very stiff, moist, no odor, large calcium concretion			



Project No.: 0526033 Date Drilled: 11/20/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			2.6/2.0	4.87	1.6	30-32	30.0-32.0': CLAY to clayey SILT: grades from gray (10YR, 5/1) to light olive brown (2.5Y, 5/4), stiff, moist, no odor
			2.9/2.0	5.04	0.2	32-34	32.0-34.0': CLAY: light olive brown (2.5Y, 5/4), medium stiff to stiff, moist, no odor, multiple thin silty clay layers
35			2.5/2.0	6.37	0.1	34-36	34.0-36.0': clayey SILT: yellowish brown (10YR, 5/4), medium soft, wet, no odor
			3.9/2.0	8.03	0.9	36-38	36.0-38.0': clayey SILT: yellowish brown (10YR, 5/4), soft, wet, no odor
40			3.1/2.0	9.68 6.45	0.8	38-40	38.0-40.0': clayey SILT: yellowish brown (10YR, 5/4), soft, saturated, no odor, multiple thin silty clay layers, moist clay at bottom
45							
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Environmental Resources Management

Boring/Well No.: H-17

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508145, 3327835

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/20/2019 Date Completed: 11/20/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.0/4.0	0.67	0.4	0-4	0.0-2.0': CLAY: grades from dark yellowish brown (10YR, 3/4) to gray (10YR, 5/1) with orange mottling, medium stiff, moist, no odor, rootlets and minor silt content at top 2.0-4.0': No recovery
				2.17	0.6		
5			3.2/4.0	3.11	13.8	4-8	4.0-7.2': silty CLAY: light olive brown (2.5Y, 5/3), moist, medium stiff, slight odor, orange mottling 7.2-8.0': No recovery
				2.60	3.3		
10			4.0/4.0	2.68	101.8	8-12	8.0-10.8': clayey SILT: gray (10YR, 5/1), medium stiff, moist, slight odor 10.8-12.0': CLAY: gray (10YR, 5/1), stiff, moist, slight to no odor
				4.35	49.2		
15			4.0/4.0	2.95	13.2	12-16	12.0-16.0': CLAY: gray (10YR, 5/1) with orange mottling, stiff, faint odor, moist, thin silt layers at 12.9', 14.6', 15.0', and 15.6-15.8', odor slightly stronger in silt layers
				3.59	31.4		
20			3.9/4.0	2.74	1.1	16-20	16.0-19.9': CLAY: gray (10Y, 5/1), stiff, moist, no odor, abundant orange mottling at 16.0-18.0' 19.9-20.0': No recovery
				3.07	0.6		
			3.0/2.0	1.95	0.5	20-22	20.0-22.0': CLAY: grayish brown (2.5Y, 5/2), medium soft, moist, no odor
			2.0/2.0	1.62	0.8	22-24	22.0-24.0': CLAY: light olive brown (2.5Y, 5/4), medium soft, moist, no odor
25	3.4/2.0	1.54	0.6	24-26	24.0-26.0': CLAY: light olive brown (2.5Y, 5/4), medium stiff, moist, no odor		
	3.2/2.0	1.74	0.5	26-28	26.0-28.0': CLAY: grayish brown (2.5Y, 5/2), moist, stiff, no odor		
30	3.9/2.0	1.79	0.8	28-30	28.0-30.0': CLAY: light olive brown (2.5Y, 5/4), stiff, moist, no odor		



Project No.: 0526033 Date Drilled: 11/20/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.3/2.0	1.87	0.3	30-32	30.0-32.0': CLAY: light olive brown (2.5Y, 5/4), stiff, moist, no odor
			3.4/2.0	1.98	0.4	32-34	32.0-34.0': CLAY to silty CLAY: grades from olive brown (2.5Y, 4/4) to light olive brown (2.5Y, 5/4), moist, stiff to medium soft, no odor
35			2.8/2.0	1.75	0.2	34-36	34.0-36.0': silty CLAY: yellowish brown (10YR, 5/4), moist, soft, no odor
			4.0/2.0	1.92	0.0	36-38	36.0-38.0': CLAY: yellowish brown (10YR, 5/4), moist, stiff, no odor
40			4.0/2.0	2.47	0.0	38-40	38.0-40.0': CLAY: grades from yellowish brown (10YR, 5/4) to light olive brown (2.5Y, 5/4), very stiff, moist, no odor
45							
50							
55							
60							
65							



Environmental Resources Management

Boring/Well No.: H-18

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508226, 3327886

Surface Elev.: NM Boring T.D.: 60 ft. Boring Dia.: 2.25 inch

Date Started: 11/21/2019 Date Completed: 11/21/2019 Well Dia./Materials: 3/4 inch PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.2/4.0	2.70	0.3	0-4	0.0-0.4': silty CLAY: dark olive brown (2.5Y, 3/3), medium soft, moist, no odor
				2.72			0.4-2.2': CLAY: light olive brown (2.5Y, 3/3), medium stiff, moist, no odor
5			4.0/4.0	2.13	0.1	4-8	4.0-8.0': silty CLAY: light yellowish brown (2.5Y, 6/3) with orange mottling, moist, medium stiff, no odor, increasing silt content with depth
				2.93			0.2
10			4.0/4.0	3.27	0.5	8-12	8.0-10.1': silty CLAY: light yellowish brown (2.5Y, 6/3) with orange mottling, moist, stiff, no odor, higher clay content at 9.1-9.5'
				4.42			0.2
15			4.0/4.0	5.93	0.3	12-16	12.0-16.0': CLAY: mottled brownish yellow (10YR, 6/6) and gray (10YR, 6/1), stiff, moist, no odor, few very thin silt layers near bottom
				6.47			1.0
20			3.0/4.0	6.02	1.1	16-20	16.0-19.0': CLAY: gray (10YR, 6/1) with minor orange mottling, very stiff, moist, no odor, soft silty clay layer at 16.5-16.7'
				4.94			0.5
25			2.7/2.0	3.12	0.2	20-22	20.0-22.0': CLAY: gray (10YR, 5/1), moist, medium soft to medium stiff, no odor
			2.8/2.0	3.71	0.6	22-24	22.0-24.0': CLAY: brown (10YR, 5/3) with minor orange mottling, moist, grades from medium stiff to soft, no odor
	3.6/2.0	3.38	0.6	24-26	24.0-26.0': CLAY: light brownish gray (10YR, 6/2), moist, medium stiff, no odor, calcium concretions at bottom		
	3.4/2.0	3.08	0.3	26-28	26.0-28.0': CLAY: yellowish brown (10Y, 5/4), moist, medium stiff, no odor, calcium concretions at bottom		
30	3.9/2.0	3.01	0.7	28-30	28.0-30.0': CLAY: brown (10YR, 5/3), moist, stiff, no odor		



Project No.: 0526033 Date Drilled: 11/21/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			3.7/2.0	3.24	0.6	30-32	30.0-32.0': CLAY: with silt, light brownish gray (2.5Y, 6/2), moist, stiff, orange mottling increasing with depth, increasing silt content with depth, no odor
			3.8/2.0	3.47	0.4	32-34	32.0-34.0': CLAY: with silt, gray (2.5Y, 6/1) with minor orange mottling, moist, stiff, black mineral concretions
35			3.4/2.0	3.71	0.1	34-36	34.0-36.0': CLAY: light olive brown (2.5Y, 5/3), stiff, moist, no odor, black mineral concretions at top
			4.0/2.0	3.89	0.6	36-38	36.0-38.0': CLAY: dark yellowish brown (10YR, 4/6), stiff, moist, no odor
			4.0/2.0	3.47	0.4	38-40	38.0-40.0': CLAY: dark yellowish brown (10YR, 4/6) with minor gray mottling, stiff, moist, no odor
40			4.0/2.0	2.94	0.6	40-42	40.0-42.0': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor
			4.0/2.0	2.52	0.6	42-44	42.0-44.0': CLAY: light brownish gray (2.5Y, 6/2) with abundant orange mottling, stiff, moist, no odor
45			4.0/2.0	2.56	0.4	44-46	44.0-46.0': CLAY to silty CLAY: grades from light brownish gray (2.5Y, 6/2) to light olive brown (2.5Y, 5/3), moist, medium stiff, no odor
			2.7/2.0	2.75	0.8	46-48	46.0-48.0': clayey SILT: light brownish gray (2.5Y, 6/2), moist, medium soft, no odor
			3.2/2.0	3.28	0.3	48-50	48.0-50.0': clayey SILT: light brownish gray (2.5Y, 6/2), saturated at top to slightly wet, soft, silty clay at bottom (moist, medium soft), no odor
50			2.9/2.0	3.09	0.9	50-52	50.0-51.3': clayey SILT: light brownish gray (2.5Y, 6/2), saturated at top to moist, medium soft, no odor
			4.0/2.0	3.97	0.4	52-54	51.3-52.0': CLAY: light brownish gray (2.5Y, 6/2) with orange mottling, stiff, moist, no odor
			4.0/2.0	2.85	0.5	54-56	52.0-54.0': CLAY: gray (2.5Y, 5/1) with orange mottling, moist, medium stiff to stiff, no odor
55			3.1/2.0	2.18	0.6	56-58	54.0-56.0': CLAY: gray (2.5Y, 5/1) with minor orange mottling, moist, medium stiff to stiff, no odor
	3.9/2.0	2.32	0.3	58-60	56.0-58.0': CLAY: gray (2.5Y, 6/1) with minor orange mottling, moist, stiff, no odor		
60					58.0-60.0': CLAY: dark yellowish gray (10YR, 4/6), moist, very stiff, no odor		
65							



Environmental Resources Management

Boring/Well No.: H-19

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu & Jefferson Davis Parish, Louisiana Coordinates: 0508251, 3327873

Surface Elev.: NM Boring T.D.: 40 ft. Boring Dia.: 2.25 inch

Date Started: 11/22/2019 Date Completed: 11/22/2019 Well Dia./Materials: NA

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push – Geoprobe 7822DT Grouting Method: Portland/Bentonite

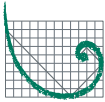
Logged by: Shawn Wiggins Soil Sample Method: Geoprobe tube with acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			3.6/4.0	0.97	0.5	0-4	0.0-3.6': CLAY: grades from very dark gray (2.5Y, 3/1) to gray (2.5YR, 5/1), medium soft, moist, no odor, minor silt content and rootlets at top
				3.23	0.7		3.6-4.0': No recovery
5			3.9/4.0	3.60	1.3	4-8	4.0-7.9': CLAY: light brownish gray (2.5Y 6/2), stiff, moist, no odor, orange mottling increasing with depth
				2.38	1.4		7.9-8.0': No recovery
10			4.0/4.0	2.87	0.4	8-12	8.0-8.6': clayey SILT: light brownish gray (2.5Y 6/2) with orange mottling, medium stiff, moist, no odor
				4.86	1.1		8.6-10.9': CLAY: light brownish gray (2.5Y 6/2), stiff, moist, no odor, abundant shell fragments at 10.5-10.9'
15			4.0/4.0	6.26	0.8	12-16	10.9-12.0': CLAY: dark yellowish brown (10YR, 4/6), very stiff, moist, no odor
				5.86	1.0		12.0-16.0': CLAY: grayish brown (2.5Y, 5/2), very stiff, moist, no odor, orange mottling
20			3.6/4.0	6.91	1.0	16-20	16.0-19.6': CLAY: grayish brown (2.5Y, 5/2), grades from medium soft to very stiff, moist, no odor, silty clay layers at 16.6', 16.8-17.1', 17.3-17.4', and multiple very thin layers at 17.8-18.5'
				2.73	1.2		19.6-20.0': No recovery
			3.7/2.0	2.41	1.0	20-22	20.0-22.0': CLAY: light yellowish brown (2.5Y, 6/3), stiff, moist, no odor, minor orange mottling
			3.2/2.0	2.44	0.7	22-24	22.0-24.0': CLAY: light yellowish brown (2.5Y, 6/3), medium stiff, moist, no odor
25	3.2/2.0	2.50	0.9	24-26	24.0-26.0': CLAY: light yellowish brown (2.5Y, 6/3), medium stiff to stiff, moist, no odor		
	3.6/2.0	2.44	1.0	26-28	26.0-28.0': CLAY: light yellowish brown (2.5Y, 6/3), stiff, moist, no odor, minor black mineral staining, orange mottling at bottom, black mineral concretions at 27.7'		
30	3.3/2.0	2.52	1.0	28-30	28.0-30.0': CLAY: gray (10YR, 6/1), medium stiff, moist, no odor, orange mottling at top, silt at bottom yellowish brown (10YR, 5/6)		



Project No.: 0526033 Date Drilled: 11/22/2019

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (ppm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			2.0/2.0	2.81	1.2	30-32	30.0-32.0': silty CLAY: yellowish brown (10YR, 5/4), medium soft to medium stiff, moist, no odor, minor black mineral staining
			3.2/2.0	3.41	1.1	32-34	32.0-34.0': silty CLAY: yellowish brown (10YR, 5/4), soft to medium stiff, moist, no odor, black mineral concretions at bottom
35			3.4/2.0	3.64	0.8	34-36	34.0-36.0': CLAY: yellowish brown (10YR, 5/4), soft to medium soft, moist, no odor, minor black mineral staining
			3.3/2.0	4.12	1.0	36-38	36.0-38.0': CLAY: yellowish brown (10YR, 5/4), stiff, moist, no odor
40			3.4/2.0	4.24	1.0	38-40	38.0-40.0': CLAY: grades from dark yellowish brown (10YR, 4/4) to gray (10YR, 6/1), stiff, moist, no odor
45							
50							
55							
60							
65							



ERM Environmental Resources Management

Boring/Well No.: H-20

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508386, 3328261

Surface Elev.: NM Boring T.D.: 48 ft. Boring Dia.: 2.25"

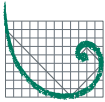
Date Started: 3/29/2021 Date Completed: 3/29/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Jay Culpepper and Dylan White

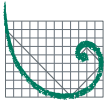
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.6/4.0	T: 0.80 B: 1.39	NA	0-4	0-0.3': CLAYEY SILT: dark gray (2.5Y, 4/1), soft, moist, no odor, shell fragments, rootlets 0.3-1.6': CLAY: dark gray (2.5Y, 4/1) to dark grayish brown (10YR, 4/2), stiff, moist, no odor, Fe staining, little mottling, little silt content 1.6-4': NO RECOVERY
5			3.5/4.0	T: 2.10 B: 2.50	NA	4-8	4-7.5': CLAY: gray (2.5Y, 6/1), medium soft to stiff, moist, no odor, Fe staining, mottling - light yellowish brown, little silt content 7.5-8': NO RECOVERY
10			4.0/4.0	T: 2.32 B: 1.45	NA	8-12	8-11.7': CLAY: gray (2.5Y, 6/1), medium soft to stiff, moist, no odor, Fe/Mn staining, little mottling, some silt content increasing with depth 11.7-12': CLAYEY SILT: brown (10YR, 5/3), soft, moist to slightly wet, no odor
15			3.2/4.0	T: 1.00 B: 1.86	NA	12-16	12-15.2': CLAY: brown (10YR, 5/3) to gray (10YR, 5/1), medium soft to stiff, moist, no odor, Fe/Mn staining, some silt content, clayey silt lenses at 12.3-12.4', 12.6-12.7', 13.4', 14.1' and 14.7' bgs 15.2-16': NO RECOVERY
20			4.0/4.0	T: 2.54 B: 2.85	NA	16-20	16-20': CLAY: light yellowish brown (2.5Y, 6/3) to gray (5Y, 5/1), medium soft to stiff, moist, no odor, some silt content, clayey silt lenses at 17.0', 17.3', 17.7-17.8', 18.0', 18.4' and 18.7' bgs, Fe staining/mottling at 16.0-18.0' bgs and rare to bottom
25			4.0/4.0	T: 2.16 B: 1.77	NA	20-24	20-24': CLAY: gray (2.5Y, 6/1) to grayish brown (2.5Y, 5/2), medium soft to stiff, moist, no odor, Fe staining, mottling, little silt content
25			4.0/4.0	T: 1.47 B: 1.42	NA	24-28	24-28': CLAY: light brownish gray (2.5Y, 6/2), stiff to medium soft, moist, no odor, little Fe/Mn staining, little silt content
30			4.0/4.0	T: 1.94 B: 1.49	NA	28-32	28-32': CLAY: light brownish gray (2.5Y, 6/2), stiff to medium soft, moist, no odor, little Fe staining, little silt content



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			4.0/4.0	T: 1.94 B: 1.49	NA	28-32	28-32': CLAY: light brownish gray (2.5Y, 6/2), stiff to medium soft, moist, no odor, little Fe staining, little silt content
			3.1/2.0	M: 1.55	NA	32-34	32-34': CLAY: yellowish brown (10YR, 5/4), stiff to medium soft at bottom, moist, no odor, Fe staining/mottling, little silt content
35			1.5/2.0	M: 1.48	NA	34-36	34-35': CLAYEY SILT: light brownish gray (2.5Y, 6/2), medium soft, moist, no odor, very little Fe staining 35-35.5': CLAY: light brownish gray (2.5Y, 6/2), medium soft, moist, no odor, very little Fe staining, some silt content
			3.3/2.0	M: 1.68	NA	36-38	35.5-36': NO RECOVERY 36-38': CLAY: light brownish gray (2.5Y, 6/2) to brown (10YR, 5/3), stiff, moist, no odor, little Fe staining/mottling, some silt content
			2.3/2.0	M: 1.26	NA	38-40	38-38.5': CLAYEY SILT: light brownish gray (10YR, 6/2), soft, slightly wet to wet, no odor 38.5-40': CLAY: brown (10YR, 5/3), medium soft to stiff, moist, no odor, some silt content, Fe staining
40			2.5/2.0	M: 2.03	NA	40-42	40-42': CLAY: brown (10YR, 5/3), soft at top to stiff, moist, no odor, little silt content
			2.4/2.0	M: 1.94	NA	42-44	42-44': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe staining/mottling, little silt content
45			3.9/4.0	T: 1.55 B: 1.26	NA	44-48	44-48': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, very little Fe/Mn staining, little silt content
50							
55							
60							
65							



ERM Environmental Resources Management

Boring/Well No.: H-21

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508137, 3328313

Surface Elev.: NM Boring T.D.: 16 ft. Boring Dia.: 2.25"

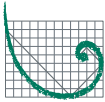
Date Started: 3/30/2021 Date Completed: 3/30/2021 Well Dia./Materials: NA

Drilling Company: ICON Driller: Jay Culpepper

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.2/4.0	T: 1.61 B: 4.03	NA	0-4	0-2.2': CLAY: light olive brown (2.5Y, 5/4) to very dark grayish brown (10YR, 3/2), medium soft, moist, no odor, Fe/Mn staining, rootlets, little silt content 2.2-4': NO RECOVERY
5		3.0/4.0	T: 4.59 B: 5.17	NA	4-8	4-7': CLAY: light yellowish brown (10YR, 6/4), medium soft, moist, no odor, Fe/Mn staining, Fe concretions 7-8': NO RECOVERY
10		3.9/4.0	T: 5.97 B: 3.85	NA	8-12	8-8.9': CLAY: light yellowish brown (10YR, 6/4), medium soft, moist, no odor, Fe/Mn staining 8.9-9.9': CLAY: gray (2.5Y, 6/1), soft, moist, no odor 9.9-10.6': CLAYEY SILT: gray (2.5Y, 6/1) to brown (7.5YR, 5/4), soft, moist, no odor 10.6-11.9': CLAY: reddish brown (5YR, 4/4), medium soft to stiff, moist, no odor, some silt content, Fe/Mn staining 11.9-12': NO RECOVERY
15		4.0/4.0	T: 4.55 B: 4.16	NA	12-16	12-16': CLAY: greenish gray (GLEYS 1, 6/10GY) to light yellowish brown (10YR, 6/4) with some gray, stiff, moist, no odor, little silt content, shell fragments/clay at 12.0-12.5'
20						
25						
30						



ERM Environmental Resources Management

Boring/Well No.: H-22

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508092, 3328089

Surface Elev.: NM Boring T.D.: 44 ft. Boring Dia.: 2.25"

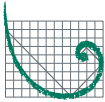
Date Started: 4/1/2021 Date Completed: 4/1/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Jay Culpepper

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

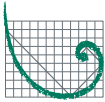
Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.3/4.0	T: 0.98 B: 2.30	NA	0-4	0-2.3': CLAY: dark grayish brown (10YR, 4/2), medium soft at top to stiff, moist, no odor, little Fe staining, little silt content, some clayey silt at top 2.3-4': NO RECOVERY
5			3.0/4.0	T: 3.08 B: 3.07	NA	4-8	4-7': CLAY: brownish yellow (10YR, 6/6), some gray, medium soft to stiff, moist, no odor, clayey silt lens at 6.0-6.2' bgs, little Fe/Mn staining, mottling 7-8': NO RECOVERY
10			4.0/4.0	T: 2.61 B: 1.82	NA	8-12	8-11.3': CLAY: gray (10YR, 6/1) with reddish yellow (7.5YR, 6/6), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content 11.3-12': CLAY: with shell fragments, light yellowish brown (10YR, 6/4), medium soft, moist, no odor, little silt content
15			4.0/4.0	T: 2.38 B: 2.83	NA	12-16	12-16': CLAY: gray (5Y, 6/1) to light yellowish brown (2.5Y, 6/6), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content, clayey silt lenses at 15.2-15.5' bgs, little CaCO3 13.0-13.7' bgs
20			3.4/4.0	T: 2.34 B: 2.63	NA	16-20	16-19.4': CLAY: light yellowish brown (2.5Y, 6/6) to gray (2.5Y, 6/1), medium soft to stiff, moist, no odor, little silt content, clayey silt lenses at 16.3-16.5', 16.7', 17.0' and 17.7', little Fe staining/mottling top to 17' to rare 17' to bottom 19.4-20': NO RECOVERY
25			4.0/4.0	T: 1.80 B: 1.92	NA	20-24	20-24': CLAY: gray (5Y, 6/1), stiff, moist, no odor, little Fe staining/mottling, very little silt content
25			4.0/4.0	T: 1.88 B: 1.70	NA	24-28	24-28': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, very little Fe staining, very little silt content
30			4.0/4.0	T: 2.00 B: 1.97	NA	28-32	28-32': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, little Fe/Mn staining, very little silt content, CaCO3 concretions/nodules



Project No.: 0526033 Date Drilled: 4/1/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			4.0/4.0	T: 2.00 B: 1.97	NA	28-32	(Cont. from page 1) 28-32': CLAY: light olive gray (5Y, 6/2), stiff, moist, no odor, little Fe/Mn staining, very little silt content, CaCO3 concretions/nodules
35			4.0/4.0	T: 1.90 B: 1.94	NA	32-36	32-35.7': CLAY: brownish gray (10YR, 6/2), stiff, moist, no odor, little silt content, little Fe/Mn staining, some mottling
40			3.3/4.0	T: 1.23 B: 1.42	NA	36-40	35.7-36': CLAYEY SILT: light yellowish brown (10YR, 6/3), firm, moist, no odor 36-36.3': CLAY: yellowish brown (10YR, 5/4), medium soft, moist, no odor, some silt content 36.3-37': CLAYEY SILT: yellowish brown (10YR, 5/4), firm, moist to slightly wet, no odor 37-38.9': CLAY: yellowish brown (10YR, 5/4), medium soft, moist, no odor, clayey silt at 37.5-37.7', some silt content, very little Fe staining 38.9-39.3': CLAYEY SILT: yellowish brown (10YR, 5/4), firm, moist to slightly wet, no odor, very little Fe staining 39.3-40': NO RECOVERY
			2.5/2.0	M: 1.32	NA	40-42	40-41': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, wet, no odor 41-42': CLAY: with silt, yellowish brown (10YR, 5/4), moist to slightly wet, no odor, little Fe staining
			3.2/2.0	M: 2.10	NA	42-44	42-44': CLAY: grayish brown (2.5Y, 5/2), stiff, moist, no odor, very little silt content, Fe/Mn staining, little mottling
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ERM Environmental Resources Management

Boring/Well No.: H-23

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508079, 3328398

Surface Elev.: NM Boring T.D.: 37 ft. Boring Dia.: 2.25"

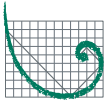
Date Started: 4/5/2021 Date Completed: 4/5/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Dylan White

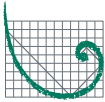
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.1/4.0	M: 1.40	NA	0-4	0-0.2': CLAYEY SILT: grayish brown (10YR, 5/2), soft, moist, no odor, rootlets 0.2-2.1': CLAY: yellowish brown (10YR, 5/4), medium soft to stiff, moist, no odor, very little Fe/Mn staining 2.1-4': NO RECOVERY
5			4.0/4.0	T: 1.21 B: 0.91	NA	4-8	4-8': CLAY: gray (2.5Y, 6/1) to brown (7.5YR, 5/4), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content, CaCO3 concretions at 4.7-4.8' and 5.8-5.9'
10			4.0/4.0	T: 1.37 B: 2.05	NA	8-12	8-12': CLAY: brown (7.5YR, 4/4) to gray (2.5Y, 6/1), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content, shell fragments in clay at 9.6-10.0' - shell hash
15			4.0/4.0	T: 1.88 B: 2.20	NA	12-16	12-16': CLAY: gray (2.5Y, 6/1) to light yellowish brown (10YR, 6/4), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content
20			4.0/4.0	T: 2.17 B: 2.06	NA	16-20	16-20': CLAY: gray (2.5Y, 6/1), stiff to medium soft, moist, no odor, Fe staining, some mottling, little silt content
25			4.0/4.0	T: 1.81 B: 1.83	NA	20-24	20-24': CLAY: pale brown (10YR, 6/3), medium soft to stiff, moist, no odor, very little Fe/Mn staining, little silt content
25			4.0/4.0	T: 1.80 B: 1.96	NA	24-28	24-28': CLAY: light brownish gray (10YR, 6/2), stiff, moist, no odor, Fe/Mn staining, little CaCO3 concretions, few Fe concretions
30			3.5/2.0	M: 2.15	NA	28-30	28-30': CLAY: pale brown (10YR, 6/3), stiff, moist, no odor, Fe/Mn staining, little silt content, CaCO3 concretions, few Fe concretions



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			3.1/2.0	M: 1.95	NA	30-32	30-32': CLAY: pale brown (10YR, 6/3), stiff to medium soft, moist at bottom, no odor, little silt increasing at bottom, some clayey silt at bottom, little Fe/Mn staining, little CaCO3 concretions
			3.7/2.0	T: 0.98 B: 1.45	NA	32-34	32-32.7': SILT: brown (10YR, 5/3), firm, saturated, no odor 32.7-34': CLAYEY SILT: brown (10YR, 5/3), medium soft, wet to slightly wet, moist at bottom, no odor, very little Fe staining
35			2.0/1.0	M: 1.28	NA	34-35	34-35': SILT: brown (10YR, 5/3), firm to soft, saturated, no odor, little clay content at bottom
			1.4/1.0	M: 1.54	NA	35-36	35-36': SILT: brown (10YR, 5/3), firm, saturated to wet, no odor, clay lens in middle, very little Fe staining
			1.6/1.0	M: 1.52	NA	36-37	36-37': CLAY: gray (2.5Y, 6/1), medium soft, moist, no odor, little Fe staining, little clayey silt content at top
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ERM Environmental Resources Management

Boring/Well No.: H-24

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508615, 3327849

Surface Elev.: NM Boring T.D.: 46 ft. Boring Dia.: 2.25"

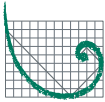
Date Started: 4/6/2021 Date Completed: 4/6/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Jay Culpepper

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

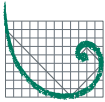
Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.5/4.0	T: 0.78 B: 1.50	NA	0-4	0-0.2': FILL: Limestone 0.2-2.5': CLAY: very dark grayish brown (10YR, 3/2), medium soft, moist, no odor, very little Fe staining, silt lens at 0.9-1.2', little silt content 2.5-4': NO RECOVERY
5			3.5/4.0	T: 2.46 B: 2.53	NA	4-8	4-7.5': CLAY: dark gray (10YR, 4/1) to light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, little Fe staining, few concretions, little silt content 7.5-8': NO RECOVERY
10			4.0/4.0	T: 2.49 B: 2.92	NA	8-12	8-12': CLAY: light brownish gray (2.5Y, 6/2) to brownish yellow (10YR, 6/6), stiff, moist, no odor, Fe/Mn staining, some mottling, little silt content, shell fragments with clay at 10.7-11.1' bgs - shell hash, rare CaCO3 nodules at bottom
12			2.1/2.0	M: 3.28	NA	12-14	12-14': CLAY: brownish yellow (10YR, 6/6) to gray (10YR, 6/1), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content
14			2.3/2.0	M: 2.63	NA	14-16	14-16': CLAY: gray (10YR, 6/1), stiff, moist, no odor, Fe/Mn staining, mottling, little silt content
16			1.7/2.0	M: 1.97	NA	16-18	16-17.7': CLAY: yellowish brown (10YR, 5/4), some gray, stiff, moist, no odor, Fe/Mn staining, clayey silt lens at 16.1-16.2' bgs, mottling, very little silt content 17.7-18': NO RECOVERY
18			2.4/2.0	M: 2.37	NA	18-20	18-20': CLAY: yellowish brown (10YR, 5/4) to gray (2.5Y, 6/1), stiff, moist, no odor, little Fe staining/mottling, silt lens at 18.5' bgs, very little silt content
20			2.2/2.0	M: 1.38	NA	20-22	20-22': CLAY: gray (10YR, 6/1), stiff, moist, no odor, little Fe staining/mottling, very little silt content
22			2.4/2.0	M: 1.31	NA	22-24	22-24': CLAY: pale brown (10YR, 6/3), stiff to medium soft, moist, no odor, little Fe/Mn staining
24			2.7/2.0	M: 1.45	NA	24-26	24-26': CLAY: pale brown (10YR, 6/3) to brown (10YR, 5/3), stiff, moist, no odor, rare Fe staining, little Mn staining
26			3.0/2.0	M: 1.32	NA	26-28	26-28': CLAY: brown (10YR, 5/3) to pale brown (10YR, 6/3), medium soft to stiff, moist, no odor, very little Fe/Mn staining
28			3.0/2.0	M: 1.72	NA	28-30	28-30': CLAY: light brownish gray (10YR, 6/2), stiff, moist, no odor, Fe/Mn staining, little silt content, little mottling
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Project No.: 0526033 Date Drilled: 4/6/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			3.0/2.0	M: 1.55	NA	30-32	30-32': CLAY: light brownish gray (10YR, 6/2) to brown (10YR, 5/3), stiff, moist, no odor, very little silt content
			2.9/2.0	M: 1.53	NA	32-34	32-34': CLAY: brown (10YR, 5/3) to light brownish gray (10YR, 6/2), stiff, moist, no odor, little Fe/Mn staining, little mottling, little silt content increasing at bottom
35			2.0/2.0	M: 1.13	NA	34-36	34-36': CLAY: brown (10YR, 5/3), stiff, moist, no odor, Fe/Mn staining, Fe/Mn staining, clayey silt lens at 34.6' and 35.1-35.3'
			2.7/2.0	M: 1.55	NA	36-38	36-36.8': CLAY: with silt, pale brown (10YR, 6/3), very soft, moist to slightly wet, no odor 36.8-38': CLAY: brown (10YR, 6/3), stiff, moist, no odor, little Fe/Mn staining, little silt content
			3.8/2.0	M: 1.42	NA	38-40	38-40': CLAY: brown (10YR, 5/3), medium soft to stiff, moist, no odor, little silt content decreasing with depth, little clayey silt content at top, little Fe/Mn staining
40			3.9/2.0	M: 1.46	NA	40-42	40-42': CLAY: light brownish gray (10YR, 6/2) to brown (10YR, 5/3), stiff, moist, no odor, Fe/Mn staining, little silt content
			1.9/1.0	M: 1.13	NA	42-43	42-43': CLAY: light brownish gray (10YR, 6/2), stiff to medium soft, moist, no odor, little Fe staining, little silt content increasing at bottom, little clayey sily content at bottom
			1.2/1.0	M: 0.89	NA	43-44	43-43.8': CLAY: brown (10YR, 5/3), stiff, moist, no odor, little Fe staining, little silt content 43.8-44': CLAYEY SILT: brown (10YR, 5/3), soft, slightly wet to wet, no odor
45			2.5/2.0	M: 0.90	NA	44-46	44-45': SILT: yellowish brown (10YR, 5/3), soft, saturated, no odor 45-46': CLAYEY SILT: yellowish brown (10YR, 5/3), some gray, firm, moist to slightly wet, no odor, Fe staining, increasing clay content with depth
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ERM Environmental Resources Management

Boring/Well No.: H-25

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 506724, 3327899

Surface Elev.: NM Boring T.D.: 48 ft. Boring Dia.: 2.25"

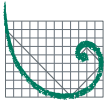
Date Started: 4/7/2021 Date Completed: 4/7/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

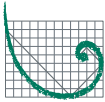
Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			3.0/4.0	T: 0.58 B: 2.64	NA	0-4	0-3': CLAY: very dark grayish brown (10YR, 3/2) to brown (10YR, 5/3), stiff, moist, no odor, little Fe/Mn staining, little silt content, little silt at top, rootlets 3-4': NO RECOVERY
5			4.0/4.0	T: 2.15 B: 1.83	NA	4-8	4-8': CLAY: gray (2.5Y, 6/1), medium soft to stiff, moist, no odor, little Fe/Mn staining, yellowish brown mottling
10			4.0/4.0	T: 1.76 B: 1.42	NA	8-12	8-10.5': CLAY: gray (2.5Y, 6/1) to reddish yellow (7.5YR, 6/6), stiff to very soft, gray at 9.3-10.0', moist, no odor, Fe/Mn staining, mottling, little silt content 10.5-11.6': CLAY: with shell fragments - shell hash, light gray (2.5Y, 7/1), firm, moist, no odor 11.6-12': CLAY: gray (2.5Y, 6/1) to brownish yellow (10YR, 6/6), stiff, moist, no odor, Fe/Mn staining/mottling, little silt content
15			4.0/4.0	T: 2.01 B: 1.18	NA	12-16	12-16': CLAY: gray (2.5Y, 6/1) to yellowish brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining/mottling, CaCO3 concretions at 18.4-18.6', clayey silt lens at 15.4-15.6', little silt content increasing at bottom
20			2.8/4.0	T: 1.43 B: 1.22	NA	16-20	16-18.8': CLAY: gray (2.5Y, 6/1), stiff to medium soft, moist, no odor, little Fe staining, little silt content 18.8-20': NO RECOVERY
25			4.0/4.0	T: 1.52 B: 1.57	NA	20-24	20-24': CLAY: brown (10YR, 5/3), stiff, moist, no odor, little Fe/Mn staining, very little silt content
25			3.2/2.0	M: 1.75	NA	24-26	24-26': CLAY: light brownish gray (2.5Y, 6/2), stiff, medium soft at top, moist, no odor, little silt content, little Fe/Mn staining, little CaCO3 concretions near bottom
25			2.5/2.0	M: 1.96	NA	26-28	26-28': CLAY: brown (10YR, 5/3), some gray, stiff, moist, no odor, Fe staining/mottling, some CaCO3/Mn concretions, very little silt content
30			2.6/2.0	M: 2.20	NA	28-30	28-30': CLAY: gray (2.5Y, 6/1) with brownish yellow, stiff, moist, no odor, Fe staining/mottling, little Mn staining, very little CaCO3 concretions, little silt content



Project No.: 0526033 Date Drilled: 4/7/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			2.5/2.0	M: 1.38	NA	30-32	30-31.5': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, Fe/Mn staining, mottling, little CaCO3 concretions 31.5-32': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, moist, no odor, little Fe staining
			3.0/2.0	M: 1.82	NA	32-34	32-34': CLAY: brown (10YR, 5/3), stiff to medium soft, moist, no odor, Fe/Mn staining, little CaCO3 concretions, little silt content increasing with depth
35			3.1/2.0	M: 1.32	NA	34-36	34-36': CLAY: brown (10YR, 5/3), stiff, moist, no odor, Fe/Mn staining, little silt content
			3.1/2.0	M: 1.27	NA	36-38	36-38': CLAY: yellowish brown (10YR, 5/4), stiff to medium soft, moist, no odor, Fe/Mn staining, little silt content
			2.0/2.0	M: 1.39	NA	38-40	38-40': CLAY: brown (10YR, 4/4) to light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, little silt content
40			2.1/2.0	M: 1.72	NA	40-42	40-40.7': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, wet to slightly wet, no odor 40.7-42': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, little silt content
			3.2/2.0	M: 1.53	NA	42-44	42-44': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little silt content decreasing with depth, Fe staining/concretions
45			3.2/2.0	M: 1.10	NA	44-46	44-46': CLAY: gray (5Y, 5/1) to grayish brown (2.5Y, 5/2), stiff to medium soft, moist, no odor, Fe/Mn staining, some silt content increasing with depth, wet clayey silt lense near middle
			2.5/2.0	M: 1.53	NA	46-48	46-48': CLAY: gray (2.5Y, 5/1), stiff to medium soft, moist, no odor, Fe/Mn staining, some silt content
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ERM Environmental Resources Management

Boring/Well No.: H-26

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 506899, 3327907

Surface Elev.: NM Boring T.D.: 49 ft. Boring Dia.: 2.25"

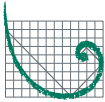
Date Started: 4/8/2021 Date Completed: 4/8/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

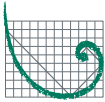
Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.9/4.0	T: 0.89 B: 2.63	NA	0-4	0-2.9': CLAY: very dark grayish brown (10YR, 3/2) to brown (10YR, 5/3), medium soft to stiff, moist, no odor, little Fe/Mn staining, little silt content, rootlets at top 2.9-4': NO RECOVERY
5			4.0/4.0	T: 2.10 B: 2.15	NA	4-8	4-8': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, Fe/Mn staining, little mottling, CaCO3 nodule layer at 5.4-5.7', little silt content
10			4.0/4.0	T: 1.91 B: 1.84	NA	8-12	8-12': CLAY: light yellowish brown (2.5Y, 6/3) to reddish brown (5YR, 4/4), stiff, moist, no odor, Fe/Mn staining/mottling, little silt content, little CaCO3 concretions at bottom
15			4.0/4.0	T: 1.86 B: 1.97	NA	12-16	12-16': CLAY: gray (2.5Y, 6/1), some yellowish brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining/mottling, little CaCO3 concretions
20			4.0/4.0	T: 2.05 B: 2.04	NA	16-20	16-20': CLAY: gray (2.5Y, 6/1) to yellowish brown (10YR, 5/4), stiff to medium soft, moist, no odor, Fe/Mn staining/mottling, little silt content, little CaCO3 concretions at top
25			3.1/2.0	M: 1.44	NA	24-26	24-26': CLAY: light brownish gray (2.5Y, 6/2), stiff to medium soft at bottom, moist, no odor, little Fe/Mn staining, very little CaCO3 concretions at bottom
			2.9/2.0	M: 1.46	NA	26-28	26-28': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe staining, very little silt content
			2.8/2.0	M: 1.70	NA	28-30	28-30': CLAY: light brownish gray (2.5Y, 6/2), some yellowish brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining, some mottling, little silt increasing at bottom, Fe/Mn concretions at middle
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Project No.: 0526033 Date Drilled: 4/8/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			2.5/2.0	M: 1.48	NA	30-32	30-31.7': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe staining, little silt content 31.7-32': CLAYEY SILT: yellowish brown (10YR, 5/6), soft, wet, no odor
			2.0/2.0	M: 1.30	NA	32-34	32-32.4': CLAYEY SILT: yellowish brown (10YR, 5/6), soft, wet to slightly wet, no odor 32.4-34': CLAY: yellowish brown (10YR, 5/4), medium soft to stiff, moist, some silt content, little Fe staining
35			2.3/2.0	M: 1.67	NA	34-36	34-36': CLAY: brown (10YR, 5/3) to gray (2.5Y, 6/1) at bottom, stiff to medium soft at bottom, moist, no odor, little silt content, Fe staining
			1.3/1.0	M: 1.50	NA	36-37	36-37': CLAY: gray (2.5Y, 6/1) to brown (10YR, 5/3) at bottom, stiff to medium soft, moist, no odor, little silt content, little clayey silt at bottom
			1.3/1.0	M: 1.33	NA	37-38	37-38': CLAY: brown (10YR, 5/3), stiff to medium soft, moist, no odor, little Fe/Mn staining, little clayey silt at middle
			1.7/1.0	M: 1.45	NA	38-39	38-39': CLAY: light brownish gray (2.5Y, 6/2) to brown (10YR, 5/3), stiff, moist, no odor, little Fe/Mn staining, little silt content
40			1.9/1.0	M: 1.62	NA	39-40	39-40': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor, Fe staining/mottling, little silt content
			1.9/1.0	M: 1.63	NA	40-41	40-41': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor, Fe/Mn staining/mottling, very little silt content
			1.8/1.0	M: 1.71	NA	41-42	41-42': CLAY: grayish brown (10YR, 5/2), stiff, moist, no odor, Fe/Mn staining, little silt content
			1.8/1.0	M: 1.71	NA	42-43	42-43': CLAY: brown (10YR, 5/3), stiff, moist, no odor, little Fe staining
			2.3/1.0	M: 1.81	NA	43-44	43-44': CLAY: grayish brown (10YR5/2), stiff, moist, no odor, little Fe staining, very little silt content
45			2.8/1.0	M: 1.26	NA	44-45	44-45': CLAY: light brownish gray (10YR, 6/2), stiff, moist, no odor, little Fe staining, very little silt content
			3.1/1.0	M: 1.60	NA	45-46	45-46': CLAY: light brownish gray (10YR, 6/2), stiff, moist, no odor, little Fe staining, very little silt content
			2.8/1.0	M: 1.32	NA	46-47	46-47': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, little Fe staining, very little silt content
			2.2/1.0	M: 0.91	NA	47-48	47-48': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, some silt content, little clayey silt in middle
			2.2/1.0	M: 0.74	NA	48-49	48-48.5': SANDY SILT: light brownish gray (10YR, 6/2), firm, wet to saturated, no odor 48.5-49': CLAY: light brownish gray (10YR, 6/2), medium soft, moist, no odor, some silt content decreasing at bottom, little clayey silt at top
50							
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ERM Environmental Resources Management

Boring/Well No.: H-27

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 507109, 3327897

Surface Elev.: NM Boring T.D.: 51 ft. Boring Dia.: 2.25"

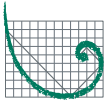
Date Started: 4/9/2021 Date Completed: 4/9/2021 Well Dia./Materials: 3/4" PVC

Drilling Company: ICON Driller: Dylan White

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland/Bentonite

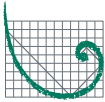
Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			3.0/4.0	T: 0.77 B: 3.08	NA	0-4	0-3': CLAY: very dark grayish brown (10YR, 3/2) to dark gray (10YR, 4/1), medium soft, moist, no odor, little Fe/Mn staining, little silt content, little silt at top, rootlets 3-4': NO RECOVERY
5			3.5/4.0	T: 3.51 B: 2.70	NA	4-8	4-7.5': CLAY: gray (10YR, 6/1), medium soft, moist, no odor, Fe/Mn staining, little Fe concretions at bottom, little silt content 7.5-8': NO RECOVERY
10			2.8/4.0	T: 2.00 B: 1.63	NA	8-12	8-10.8': CLAY: light gray (5Y, 7/1), medium soft, moist, no odor, Fe/Mn staining, little silt content, very soft gray clay at 8.2-8.9' bgs (partial length of core) 10.8-12': NO RECOVERY
15			3.9/4.0	T: 1.15 B: 0.73	NA	12-16	12-15.9': CLAY: light gray (5Y, 7/1), medium soft, moist, no odor, very little Fe staining, some silt content increasing with depth, clayey silt lenses at 12.5-12.8' and 13.2-13.4' bgs 15.9-16': NO RECOVERY
20			3.8/4.0	T: 0.73 B: 0.57	NA	16-20	16-17': CLAYEY SILT: light gray (5Y, 7/1), firm, slightly wet, no odor 17-19.3': SILT: light gray (5Y, 7/1), firm, wet, no odor, little fine grain sand, very little Fe staining 19.3-19.8': CLAY: gray (2.5Y, 6/1), medium soft, moist, no odor, little silt content, Fe staining, little mottling, little Fe concretions at 19.5' bgs 19.8-20': NO RECOVERY
			2.7/2.0	M: 1.57	NA	20-22	20-22': CLAY: light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, Fe staining, mottling, few Fe concretions
			2.9/2.0	M: 1.51	NA	22-24	22-24': CLAY: gray (2.5Y, 6/1) to light olive brown (2.5Y, 5/4), medium soft to stiff, moist, no odor, little Fe staining/mottling, very little silt content
25			3.1/2.0	M: 1.25	NA	24-26	24-26': CLAY: pale brown (10YR, 6/3), medium soft, moist, no odor, little Fe/Mn staining, very little silt content
			3.0/2.0	M: 1.49	NA	26-28	26-28': CLAY: light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, little silt content, little Fe/Mn staining, few Fe concretions at top
30			2.7/2.0	M: 1.89	NA	28-30	28-30': CLAY: light brownish gray (2.5Y, 6/2) to yellowish brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining, mottling, concretions at top, little silt content



Project No.: 0526033 Date Drilled: 4/9/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			2.6/2.0	M: 2.02	NA	30-32	30-32': CLAY: gray (2.5Y, 6/1) to yellowish brown (10YR, 5/4), stiff, moist, no odor, little Fe/Mn staining, mottling
			2.0/2.0	M: 1.85	NA	32-34	32-34': CLAY: yellowish brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining, little mottling, few Fe concretions
35			2.7/2.0	M: 1.54	NA	34-36	34-36': CLAY: gray (10YR, 6/1), medium soft, moist, no odor, some silt content decreasing with depth, little Fe staining decreasing with depth
			3.1/2.0	M: 1.54	NA	36-38	36-38': CLAY: gray (10YR, 6/1), medium soft, moist, no odor, some silt content increasing with depth, Fe/Mn staining
			4.0/2.0	M: 1.84	NA	38-40	38-40': CLAY: grayish brown (10YR, 5/2), medium soft, moist, no odor, some silt content decreasing with depth, Fe/Mn staining
40			2.4/1.0	M: 2.23	NA	40-41	40-41': CLAY: light brownish gray (2.5Y, 6/2), some brown (10YR, 5/3) stiff, moist, no odor, very little silt content, little mottling at top
			1.8/1.0	M: 2.11	NA	41-42	41-42': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, very little silt content, some mottling, little Fe/Mn staining
			2.1/1.0	M: 1.81	NA	42-43	42-43': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, very little silt content, very little mottling
			2.1/1.0	M: 1.98	NA	43-44	43-44': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, very little silt content, very little mottling, rare CaCO3
45			2.6/1.0	M: 1.80	NA	44-45	44-45': CLAY: gray (2.5Y, 6/1), stiff, moist, no odor, little silt content, very little mottling, rare CaCO3
			2.0/1.0	M: 1.33	NA	45-46	45-46': CLAY: gray (2.5Y, 6/1), medium soft, moist, no odor, little mottling, little silt content increasing with depth, rare CaCO
			2.0/1.0	M: 1.59	NA	46-47	46-47': CLAY: light olive brown (2.5Y, 5/3), medium soft to stiff, moist, no odor, little silt content, little Fe staining, mottling, little CaCO3 concretions at bottom
			2.3/1.0	M: 1.65	NA	47-48	47-48': CLAY: light olive brown (2.5Y, 5/3), stiff at top to medium soft, moist, no odor, little silt content increasing at bottom, very little Fe staining
			1.6/1.0	M: 1.65	NA	48-49	48-49': CLAY: light olive brown (2.5Y, 5/3), medium soft to stiff at bottom, moist, no odor, some silt content decreasing at bottom, little Fe staining
50			1.7/1.0	M: 1.69	NA	49-50	49-50': CLAY: light olive brown (2.5Y, 5/3), medium soft, moist, no odor, some silt content, little Fe staining
			2.5/1.0	M: 1.33	NA	50-51	50-50.5': SANDY SILT: dark greenish gray (GLEY 1, 4/10Y), firm, saturated, no odor 50.5-51': CLAY: olive gray (5Y, 5/2), medium soft, moist, no odor, some silt content, Fe staining, some clayey silt content near bottom
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ERM Environmental Resources Management

Boring/Well No.: H-28

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 508643, 3327822

Surface Elev.: NM Boring T.D.: 15 ft. Boring Dia.: 2.25"

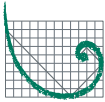
Date Started: 4/12/2021 Date Completed: 4/12/2021 Well Dia./Materials: NA

Drilling Company: ICON Driller: Jay Culpepper/Dylan White

Drilling Method: Direct Push - Marsh Master with 540B Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.1/4.0	T: 1.56 B: 1.82	NA	0-4	0-0.2': Organic material 0.2-2.1': CLAY: dark gray (10YR, 4/1), medium soft, moist, no odor, little Fe/Mn staining, little silt content 2.1-4': NO RECOVERY
5		3.8/4.0	T: 2.05 B: 2.99	NA	4-8	4-7.8': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, mottling, few concretions, little silt content 7.8-8': NO RECOVERY
10		4.0/4.0	T: 2.37 B: 2.88	NA	8-12	8-12': CLAY: light brownish gray (2.5Y, 6/2), some brown (10YR, 5/4), stiff, moist, no odor, Fe/Mn staining, mottling top to 10' bgs, shell fragments with clay - shell hash at 8.3-8.9'
15		4.0/3.0	T: 2.51 B: 2.98	NA	12-15	12-15': CLAY: light brownish gray (2.5Y, 6/2), stiff, moist, no odor, Fe/Mn staining, some mottling, little silt content
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ERM Environmental Resources Management

Boring/Well No.: H-29

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 507897, 3328049

Surface Elev.: NM Boring T.D.: 12 ft. Boring Dia.: 2.25"

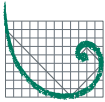
Date Started: 4/12/2021 Date Completed: 4/12/2021 Well Dia./Materials: NA

Drilling Company: ICON Driller: Jay Culpepper/Dylan White

Drilling Method: Direct Push - Marsh Master with 540B Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.3/4.0	T: 0.97 B: 1.35	NA	0-4	0-2.3': CLAY: very dark grayish brown (10YR, 3/2), medium soft to stiff, moist, no odor, very little Fe/Mn staining, little silt content 2.3-4': NO RECOVERY
5		3.3/4.0	T: 1.87 B: 1.76	NA	4-8	4-7.3': CLAY: light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, Fe/Mn staining, little mottling, few Fe/Mn concretions, little silt content 7.3-8': NO RECOVERY
10		3.4/4.0	T: 1.67 B: 1.73	NA	8-12	8-11.4': CLAY: reddish brown (5YR, 4/4) to dark yellowish brown (10YR, 4/6), stiff, moist, no odor, Fe/Mn staining, some mottling, shell fragments with clay - shell hash at 10.0-10.4', CaCO3 layer at 10.7-10.8', little silt content 11.4-12': NO RECOVERY
15						
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25						
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ERM Environmental Resources Management

Boring/Well No.: H-30

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 507878, 3328049

Surface Elev.: NM Boring T.D.: 12 ft. Boring Dia.: 2.25"

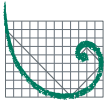
Date Started: 4/12/2021 Date Completed: 4/12/2021 Well Dia./Materials: NA

Drilling Company: ICON Driller: Jay Culpepper/Dylan White

Drilling Method: Direct Push - Marsh Master with 540B Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.3/4.0	T: 0.66 B: 1.28	NA	0-4	0-2.1': CLAY: very dark grayish brown (10YR, 3/2), medium soft, moist, no odor, very little Fe/Mn staining, little CaCO3 at bottom, very little silt content 2.1-4': NO RECOVERY
5		3.3/4.0	T: 1.58 B: 1.61	NA	4-8	4-7.3': CLAY: light brownish gray (2.5Y, 6/2), medium soft to stiff, moist, no odor, Fe/Mn staining, some mottling, CaCO3 concretions at top, little silt content, few Fe concretions 7.3-8': NO RECOVERY
10		3.7/4.0	T: 1.78 B: 1.99	NA	8-12	8-11.7': CLAY: reddish brown (5YR, 4/4) to yellowish brown (10YR, 5/4) at bottom, stiff, moist, no odor, Fe/Mn staining, some mottling, shell fragments with clay - shell hash at 10.1-10.6' and 10.9-11.0', little silt content 11.7-12': NO RECOVERY
15						
20						
25						
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ERM Environmental Resources Management

Boring/Well No.: H-31

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Calcasieu Jefferson Davis Parish, Louisiana Coordinates: 507826, 3328065

Surface Elev.: NM Boring T.D.: 12 ft. Boring Dia.: 2.25"

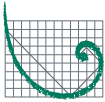
Date Started: 4/12/2021 Date Completed: 4/12/2021 Well Dia./Materials: NA

Drilling Company: ICON Driller: Jay Culpepper/Dylan White

Drilling Method: Direct Push - Marsh Master with 540B Grouting Method: Portland/Bentonite

Logged by: R. Charles Trahan, PG Soil Sample Method: Geoprobe tube with Acetate Liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPMV)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		1.3/4.0	M: 1.00	NA	0-4	0-1.3': CLAY: dark gray (10YR, 4/1), medium soft to stiff, moist, no odor, very little silt content, very little Fe staining 1.3-4': NO RECOVERY
5		2.9/4.0	T: 1.72 B: 2.60	NA	4-8	4-6.9': CLAY: light brownish gray (2.5Y, 6/2), medium soft, moist, no odor, little silt content, little Fe/Mn staining, few Fe concretions 6.9-8': NO RECOVERY
10		3.7/4.0	T: 2.05 B: 1.69	NA	8-12	8-11.7': CLAY: reddish brown (5YR, 4/4) to yellowish brown (10YR, 5/4) at bottom, stiff to medium soft, moist, no odor, Fe/Mn staining, little mottling, Fe concretions, shell fragments with clay - shell hash at 10.1-10.8', CaCO3 concretions at 11.5', little silt content 11.7-12': NO RECOVERY
15						
20						
25						
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ERM Environmental Resources Management

Boring/Well No.: H-1SE

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508304, 3327823

Surface Elev.: NM Boring T.D.: 22' Boring Dia.: 3.25"

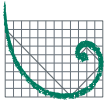
Date Started: 12/13/2021 Date Completed: 12/13/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Wanya Cook

Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.0/2.0	Top: 0.05 Bottom: 1.41	0.1	0-2	0-2': SILTY CLAY: dark brown (10YR, 3/3), medium stiff, dry to slightly moist, rootlets at top, no odor, penetrometer: 2.0 T/sq. ft.
5		4.0/4.0	Top: 1.83 Middle: 1.79 Bottom: 2.52	Top: 0.1 Bottom: 0.1	2-6	2-6': CLAY: mottled grayish brown (10YR, 5/2) and yellowish brown (10YR, 5/4), medium soft, moist, minor black mottling, no odor, penetrometer: 1.0 T/sq. ft.
10		4.0/4.0	Top: 2.09 Middle: 1.69 Bottom: 1.97	Top: 0.1 Bottom: 0.1	6-10	6-10': SILTY CLAY: light yellowish brown (10YR, 6/4), stiff to very stiff, dry to slightly moist, orange mottling, no odor, penetrometer: 2.5-3.5 T/sq. ft.
15		4.0/4.0	Top: 2.12 Middle: 2.81 Bottom: 2.72	Top: 0.2 Bottom: 0.1	10-14	10-14': CLAY: grades from dark yellowish brown (10YR, 4/6) to brown (10YR, 5/3), very stiff to stiff, slightly moist, abundant shells at 10.4-10.9' bgs, no odor, penetrometer: 2.0-3.5 T/sq. ft.
20		4.0/4.0	Top: 2.89 Middle: 2.55 Bottom: 1.85	Top: 0.1 Bottom: 0.1	14-18	14-18': CLAY: grayish brown (10YR, 5/2), stiff, moist, slightly wet clayey silt layers at 16.2-16.3' bgs, 16.9-17.0' bgs, 17.2-17.4' bgs, and 17.6-17.7' bgs, no odor, penetrometer: 0.5-2.0 T/sq. ft.
25		4.0/4.0	Top: 2.48 Middle: 1.86 Bottom: 1.88	Top: 0.2 Bottom: 0.1	18-22	18-22': CLAY to SILTY CLAY: gray (10YR, 5/1), medium stiff, slightly moist, orange mottling at bottom, no odor, penetrometer: 1.5 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: H-12R

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 507777, 3328259

Surface Elev.: NM Boring T.D.: 78' Boring Dia.: 2.25"

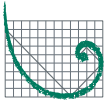
Date Started: 11/16/2021 Date Completed: 11/17/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

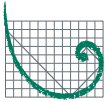
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

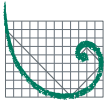
DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			Top: 2.01 Middle: 0.95 Bottom: 1.48	Top: 0.9 Middle: 1.6 Bottom: 1.7	0-4	0-2.7': SILTY CLAY: dark gray (5YR, 4/1), slightly moist, medium stiff, good plasticity, no odor, very silty top with less silt on bottom, penetrometer: 1.5 T/sq. ft 2.7-4': NO RECOVERY
5		4.0/4.0	Top: 2.03 Middle: 2.72 Bottom: 2.72	Top: 1.9 Bottom: 1.3	4-8	4-8': CLAY: very pale brown (10YR, 7/4), dry, stiff, mottled, medium plasticity, no odor, penetrometer: 1.5-2.5 T/sq. ft
10		4.0/4.0	Top: 3.25 Middle: 2.55 Bottom: 4.77	Top: 1.2 Bottom: 0.9	8-12	8-12': CLAY: red to light gray (2.5YR, 5/6), dry, medium stiff, medium plasticity, little silt, mottled, no odor, penetrometer: 1.5 T/sq. ft
15		4.0/4.0	Top: 3.25 Middle: 3.81 Bottom: 3.84	Top: 0.8 Bottom: 2.0	12-16	12-16': CLAY: light yellow brown (2.5YR, 6/4), dry, stiff, poor plasticity, no odor, penetrometer: 2.5-2.75 T/sq. ft
20		4.0/4.0	Top: 3.58 Middle: 4.12 Bottom: 3.35	Top: 1.9 Bottom: 1.8	16-20	16-20': SILTY CLAY: gray (2.5Y, 6/1), dry and medium stiff with pockets of moist to wet and soft silt and clayey silt, no odor, penetrometer: 0.5-2.75 T/sq. ft.
25		3.5/4.0	Top: 2.28 Middle: 2.09 Bottom: 2.06	Top: 3.6 Bottom: 1.7	20-24	20-23.5': SILTY CLAY: pale brown (2.5Y, 7/3) with yellow/orange mottling, dry, medium stiff, medium to good plasticity, no odor, slightly silty, penetrometer: 2.25 T/sw. ft 23.5-24': NO RECOVERY
25		4.0/2.0	Top: 2.23 Middle: 2.11 Bottom: 2.24	3.3	24-26	24-26': CLAY: pale brown (2.5Y, 7/3), dry, very stiff, medium to poor plasticity, little silt, no odor, penetrometer: 4.25 T/sq. ft
25		4.0/2.0	Top: 2.32 Middle: 2.25 Bottom: 2.29	4.8	26-28	26-28': CLAY: light brownish gray (2.5Y, 6/2), dry, stiff, poor plasticity, calcium concretions, no odor, penetrometer: 3.75 T/ sq. ft
30		3.3/2.0	Top: 2.38 Middle: 2.29 Bottom: 2.54	4.0	28-30	28-30': CLAY: light brownish gray (2.5Y, 6/2), dry, stiff, poor plasticity, occasional calcium concretions, no odor, penetrometer: 4.0 T/ sq. ft



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30						(Cont. from page 1)
		3.6/1.0	Top: 2.15 Middle: 1.48 Bottom: 3.07	2.7	30-31	30-31': CLAY: light yellowish brown (10YR, 6/4), dry, stiff, poor plasticity, occasional calcium concretions, no odor, penetrometer: 3.0 T/sq. ft
		3.1/1.0	Top: 3.27 Middle: 2.54 Bottom: 3.16	4.7	31-32	31-32': CLAY: light yellowish brown (10YR, 6/4), dry, stiff, poor plasticity, occasional calcium concretions, no odor, penetrometer: 3.5 T/sq. ft
		1.7/1.0	Top: 3.01 Bottom: 3.15	4.1	32-33	32-33': SILTY CLAY: yellowish brown (10YR, 5/6), dry, stiff, no odor, penetrometer: 3.75 T/sq. ft
		1.4/1.0	Top: 3.40 Bottom: 3.18	6.2	33-34	33-34': SILTY CLAY: yellowish brown (10YR, 5/6) to light gray, dry, stiff, no odor, penetrometer: 2.25 T/sq. ft
35		3.0/2.0	Top: 3.61 Middle: 3.75 Bottom: 3.84	5.7	34-36	34-36': SILTY CLAY: yellowish brown (10YR, 5/6), dry, stiff, no odor, very silty at top, some concretions at bottom, penetrometer: 2.0 T/sq. ft
		3.0/2.0	Top: 3.73 Middle: 4.15 Bottom: 3.92	5.3	36-38	36-38': CLAYEY SILT: yellowish brown (10YR, 5/4), moist, fairly soft, good plasticity, more clay at base, no odor, penetrometer: 1.25 T/sq. ft
		4.0/2.0	Top: 4.06 Middle: 4.64 Bottom: 4.94	4.9	38-40	38-39': SILTY CLAY: brown (10YR, 5/3), slightly moist to dry, fairly soft, no odor, penetrometer: 1.75 T/sq. ft 39-40': CLAY: brown (10YR, 5/3), dry, very stiff, no odor, penetrometer: 3.25 T/sq. ft
40		4.0/2.0	Top: 5.11 Middle: 4.75 Bottom: 4.51	7.0	40-42	40-42': CLAY: pale brown (10YR, 6/3), dry, very stiff, poor plasticity, mottled, no odor, penetrometer: 3.5 T/sq. ft
		4.0/2.0	Top: 4.94 Middle: 5.31 Bottom: 5.57	4.7	42-44	42-44': CLAY: pale brown (10YR, 6/3), dry, very stiff, poor plasticity, mottled, no odor, penetrometer: 4.0 T/sq. ft
45		4.0/2.0	Top: 6.12 Middle: 6.34 Bottom: 4.77	6.9	44-46	44-46': CLAY: pale brown (10YR, 6/3), dry, very stiff, poor plasticity, mottled, no odor, penetrometer: 3.5 T/sq. ft
		4.0/2.0	Top: 6.56 Middle: 9.12 Bottom: 8.79	3.6	46-48	46-47': CLAY: pale brown (10YR, 6/3), dry, very stiff, poor plasticity, mottled, no odor, penetrometer: 2.25 T/sq. ft 47-48': SILTY CLAY: pale brown (10YR, 6/3), slightly moist to dry, medium stiff, calcium concretions, penetrometer: 2.25 T/sq. ft
		2.2/2.0	Top: 8.64 Bottom: 10.51	2.8	48-50	48-50': SILTY CLAY: brown (10YR, 5/3), slightly moist, fairly soft where silt, stiff where clay ~50/50 silt/clay, penetrometer: 1.0-2.5 T/sq. ft
50		1.3/1.0	Top: 11.35 Bottom: 13.03	4.6	50-51	50-51': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, silt with clay pockets, soft, good plasticity, penetrometer: 0.5-1.5 T/sq. ft
		3.0/1.0	Top: 16.01 Middle: 19.39 Bottom: 12.63	4.3	51-52	51-52': SANDY SILT: gray (5Y, 5/1), wet to saturated, fairly soft, good plasticity, loose at top, no odor, penetrometer: 1.0 T/sq. ft
		3.0/1.0	Top: 19.44 Middle: 18.24 Bottom: 9.42	6.9	52-53	52-53': CLAYEY SILTY SAND: gray (5Y, 5/1), wet to saturated, fairly soft, good plasticity, very fine sand, medium to good clay, penetrometer: 1.0 T/sq. ft
		3.0/1.0	Top: >20 Bottom: 18.28	5.9	53-54	53-54': SAND: dark blue gray (GLEYS, 4/5PB), saturated, medium to coarse sand, loose, penetrometer: 3.25 T/sq. ft
55		0.0/8.0	NM	NM	54-62	54-60': SAND: flowing sand
60						60-62': NO RECOVERY
65		4.0/4.0	Top: 9.08 Middle: 7.61 Bottom: 5.97	Top: 0.3 Bottom: 1.2	62-66	62-64': CLAY: gray, slightly moist, silty, fairly soft, good plasticity, no odor, penetrometer: 1.0 T/sq. ft 64-66': CLAY: gray, dry, medium stiff, no odor, penetrometer: 2.0 T/sq. ft



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
65		4.0/4.0	Top: 9.08 Middle: 7.81 Bottom: 5.97	Top: 0.3 Bottom: 1.2	62-66	(Cont. from page 2) 64-66': CLAY: Gray, dry, medium stiff, no odor, penetrometer: 2.0 T/sq. ft
		4.0/4.0	Top: 5.69 Middle: 4.64 Bottom: 3.85	Top: 0.2 Bottom: 0.2	66-70	66-70': CLAY: greenish gray (GLE Y2, 6/10G), dry, medium stiff, medium to good plasticity, no odor, penetrometer: 2.0-1.75 T/sq. ft
70		4.0/4.0	Top: 4.03 Middle: 4.43 Bottom: 3.06	Top: 1.9 Bottom: 5.5	70-74	70-74': CLAY: greenish gray (GLE Y2, 5/10GB), dry, stiff, poor plasticity, silt at bottom, penetrometer: 3.25-2.25 T/sq. ft
75		4.0/4.0	Top: 1.35 Middle: 1.83 Bottom: 1.81	5.4	74-78	74-76': CLAY: greenish gray (GLE Y2, 5/10GB), dry, stiff, poor plasticity, silt at bottom, this section soil core cut and capped for verticle permeability analysis 76-78': CLAY: greenish gray (GLE Y2, 5/10GB), dry, stiff, poor plasticity, silt at bottom, penetrometer: 3.0 T/sq. ft
80						
85						
90						
95						
100						



ERM Environmental Resources Management

Boring/Well No.: H-15E

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508164, 3328125

Surface Elev.: NM Boring T.D.: 8' Boring Dia.: 2.25"

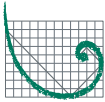
Date Started: 11/19/2021 Date Completed: 11/19/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		3.0/4.0	Top: 2.57 Bottom: 2.40	Top: 0 Bottom: 0	0-4	0-3': SILTY CLAY: brownish yellow (10YR, 6/6), medium soft, dry, good plasticity, no odor, stiffer and more clayey at bottom, penetrometer: 1.0-1.5 T/sq. ft. 3-4': NO RECOVERY
5		4.0/4.0	Top: 2.95 Middle: 2.32 Bottom: 3.29	Top: 0 Bottom: 0	4-8	4-8': CLAY: yellow to light gray (10YR, 7/6), medium stiff to stiff, dry, medium to poor plasticity, no odor, little silt
10						
15						
20						
25						
30						



ERM Environmental Resources Management

Boring/Well No.: H-15N

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508134, 3328151

Surface Elev.: NM Boring T.D.: 8' Boring Dia.: 2.25"

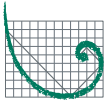
Date Started: 11/18/2021 Date Completed: 11/18/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.3/4.0	Top: 1.03 Bottom: 2.12	Top: 0 Bottom: 0	0-4	0-2.3': SILTY CLAY: dark gray (10 YR, 5/4) to yellowish brown, moist to dry, medium stiff to medium soft, good plasticity, no odor, penetrometer: 1.5 T/sq. ft. 2.3-4': NO RECOVERY
5		3.7/4.0	Top: 2.94 Middle: 3.08 Bottom: 3.72	Top: 0 Bottom: 0	4-8	4-6': CLAY: yellowish brown (10 YR, 5/6), dry, stiff, medium plasticity, no odor, penetrometer: 2.0 T/sq. ft. 6-7.7': SILTY CLAY: gray to yellowish brown, medium soft, good plasticity, no odor, penetrometer: 1.0 T/sq. ft. 7.7-8': NO RECOVERY
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25						
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ERM Environmental Resources Management

Boring/Well No.: H-15R

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508133, 3328127

Surface Elev.: NM Boring T.D.: 8' Boring Dia.: 2.25"

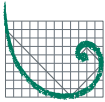
Date Started: 11/18/2021 Date Completed: 11/18/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		3.2/4.0	Top: 1.79 Bottom: 2.76	Top: 2.2 Bottom: 2.5	0-4	0-2': SILTY CLAY: black (GLEY1, 2.5/N), medium stiff, dry, no odor, roots, medium plasticity, Fe stain, penetrometer: 2.25 T/sq. ft. 2-3.2': CLAY: greenish gray (GLEY1, 5/10Y), medium stiff to medium soft, dry, medium to good plasticity, penetrometer: 2.0 T/sq. ft. 3.2-4': NO RECOVERY
5		4.0/4.0	Top: 2.84 Middle: 3.46 Bottom: 3.56	Top: 49.3 Bottom: 57.8	4-8	4-8': CLAY: greenish gray (GLEY2, 6/5BG) to yellow brown, mottled, medium stiff, slight odor at base, penetrometer: 2.25-1.75 T/sq. ft.
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25						
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ERM Environmental Resources Management

Boring/Well No.: H-15S

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508132, 3328105

Surface Elev.: NM Boring T.D.: 8' Boring Dia.: 2.25"

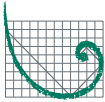
Date Started: 11/19/2021 Date Completed: 11/19/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		3.0/4.0	Top: 0.96 Bottom: 2.03	Top: 0.8 Bottom: 0.5	0-4	0-3': SILTY CLAY: olive yellow (2.5Y, 6/6) to dark gray, stiff to medium stiff, dry, softer, good plasticity at base, roots at top, penetrometer: 3.0-1.5 T/sq. ft. 3-4': NO RECOVERY
5		3.0/4.0	Top: 2.25 Middle: 2.12 Bottom: 1.94	Top: 0.6 Bottom: 0.3	4-8	4-6': SILTY CLAY: olive yellow (2.5Y, 6/6) to dark gray, stiff to medium soft, dry, softer, good plasticity at base, roots at top, no odor, penetrometer: 1.5 T/sq. ft. 6-7': CLAY: red (2.5YR, 5/6) to light gray, mottled, stiff, dry, poor plasticity, no odor, penetrometer: 3.75 T/sq. ft. 7-8': NO RECOVERY
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25						
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ERM Environmental Resources Management

Boring/Well No.: H-15W

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508115, 3328127

Surface Elev.: NM Boring T.D.: 8' Boring Dia.: 2.25"

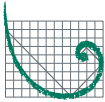
Date Started: 11/18/2021 Date Completed: 11/18/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.6/4.0	Top: 1.23 Bottom: 2.06	Top: 0 Bottom: 0	0-4	0-2.6': SILTY CLAY: brown (10YR, 4/3), medium stiff, dry to moist, good plasticity, crumbly at top, no odor, penetrometer: 3.5-2.0 T/sq. ft. 2.6-4': NO RECOVERY
5		4.0/4.0	Top: 3.13 Middle: 3.11 Bottom: 2.97	Top: 0 Bottom: 0	4-8	4-6.5': CLAY: brownish yellow (10YR, 6/6), mottled, medium stiff, dry, gray silt 5-6 feet, moist, penetrometer: 1.5 T/sq. ft. 6.5-8': SILTY CLAY: red/brown, medium stiff, dry, no odor, penetrometer: 1.75 T/sq. ft.
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25						
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ERM Environmental Resources Management

Boring/Well No.: H-16R

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508141, 3328216

Surface Elev.: NM Boring T.D.: 51' Boring Dia.: 2.25"

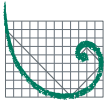
Date Started: 11/15/2021 Date Completed: 11/15/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

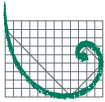
Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			Top: 1.07 Middle: 1.67 Bottom: 2.44	Top: 5.0 Bottom: 6.2	0-4	0-2.1': CLAY: very dark grayish brown (10YR, 3/2), medium stiffness, dry, no odor, wood fragments at 0.2- 0.3 feet, penetrometer: 1.75 T/sq. ft. 2.1-4': NO RECOVERY
5		4.0/4.0	Top: 3.23 Middle: 2.81 Bottom: 3.42	Top: 8.4 Bottom: 7.9	4-8	4-6': CLAY: yellowish brown (5YR, 5/4), medium stiff, dry, medium to good plasticity, no odor, penetrometer: 1.5 T/sq. ft. 6-8': CLAY: reddish brown (5YR, 4/4), stiffer, dry, medium to poor plasticity, mottled, no odor, penetrometer: 2.75 T/sq. ft.
10		4.0/4.0	Top: 4.02 Middle: 2.68 Bottom: 6.13	Top: 6.8 Bottom: 8.5	8-12	8-9': CLAY: reddish brown (5YR, 4/4), stiffer, dry, medium to poor plasticity, mottled, no odor, penetrometer: 3.0 T/sq. ft. 9-10.5': SILTY CLAY: red/brown (5YR, 4/4), medium soft, moist, good plasticity, no odor, penetrometer: 1.25 T/sq. ft. 10.5-11.5': SILTY CLAY: gray (10YR, 6/1), moist, no odor, crushed shells (abundant), penetrometer: 2.5 T/sq. ft. 11.5-12': SILTY CLAY: yellowish gray, medium soft, very silty, moist, good plasticity, penetrometer: 2.5 T/sq. ft.
15		4.0/4.0	Top: 6.89 Middle: 9.65 Bottom: 8.58	Top: 5.6 Bottom: 10.9	12-16	12-16': CLAY: yellowish brown (10YR, 5/4), medium stiff, dry, medium to poor plasticity, no odor, some silty pockets 14-16 feet, penetrometer: 2.25-2.0 T/sq. ft.
20		4.0/4.0	Top: 11.78 Middle: 11.53 Bottom: 7.36	Top: 12.4 Bottom: 12.7	16-20	16-19.5': SILTY CLAY: gray (2.5Y, 5/1), medium stiff to soft, clay with moist silty pockets, soft and moist where silty, stiffer and less silty at base, penetrometer: 1.5-1.75 T/sq. ft. 19.5-20': NO RECOVERY
		4.0/2.0	Top: 3.88 Middle: 3.71 Bottom: 3.57	5.7	20-22	20-22': CLAY: gray (2.5Y, 6/1), stiff, dry, medium plasticity, no odor, silt at bottom, penetrometer: 2.75 T/sq. ft.
		3.1/2.0	Top: 3.75 Middle: 3.22 Bottom: 3.68	5.8	22-24	22-24': CLAY: grayish brown (2.5Y, 5/2), stiff, dry, medium to poor plasticity, no odor, penetrometer: 3.5 T/sq. ft.
25		4.0/2.0	Top: 3.49 Middle: 4.25 Bottom: 4.29	7.7	24-26	24-26': CLAY: grayish brown (2.5Y, 5/2), stiff, dry, medium to poor plasticity, no odor, some organic nodules (2-10 millimeter), penetrometer: 2.75 T/sq. ft.
		2.8/2.0	Top: 4.19 Middle: 4.09 Bottom: 3.71	7.1	26-28	26-28': CLAY: grayish brown (10YR, 5/2), stiff, dry, medium to poor plasticity, no odor, little silt, penetrometer: 2.25 T/sq. ft.
30		4.0/2.0	Top: 3.84 Middle: 4.03 Bottom: 4.49	5.8	28-30	28-30': CLAY: grayish brown (10YR, 5/2), stiff, dry, medium to poor plasticity, no odor, little silt, dry material at 29 feet with calcium concretions, penetrometer: 3.75 T/sq. ft.



Project No.: 0526033 Date Drilled: 11/15/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30						(Cont. from page 1)
		3.5/2.0	Top: 3.98 Middle: 5.05 Bottom: 5.30	5.2	30-32	30-31.5': CLAY: brown (7.5YR, 5/3), stiff, dry, no odor, little silt, penetrometer: 2.5 T/sq. ft. 31.5-32': CLAYEY SILT: brown, moist, soft, somewhat crumbly, penetrometer: 2.5 T/sq. ft.
		3.4/2.0	Top: 5.23 Middle: 5.94 Bottom: 5.35	3.3	32-34	32-33.5': CLAY: brown (7.5YR, 4/3), stiff, dry, organic matter, calcium concretions, penetrometer: 3.5 T/sq. ft. 33.5-34': CLAYEY SILT: brown, moist, soft, good plasticity, penetrometer: 1.25 T/sq. ft.
35		4.0/2.0	Top: 4.63 Middle: 7.84 Bottom: 7.14	6.1	34-36	34-34.5': CLAY: brown, stiff, dry, no odor, penetrometer: 0.5 T/sq. ft. 34.5-36': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, good plasticity, soft, no odor, penetrometer: 0.5 T/sq. ft.
		4.0/2.0	Top: 7.46 Middle: 7.34 Bottom: 7.66	7	36-38	36-38': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, good plasticity, soft, no odor, penetrometer: 0.5 T/sq. ft.
		4.0/2.0	Top: 8.29 Middle: 7.99 Bottom: 8.54	7.1	38-40	38-40': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, good plasticity, soft, no odor, well saturated, penetrometer: 0.75 T/sq. ft.
40		2.4/2.0	Top: 6.44 Middle: 6.88 Bottom: 2.33	8.5	40-42	40-41': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, good plasticity, soft, no odor, well saturated, penetrometer: 1.25 T/sq. ft. 41-42': CLAY: brown (10YR, 5/3), stiff, dry, poor plasticity, no odor, some silt, penetrometer: 3.5 T/sq. ft.
		3.7/2.0	Top: 6.07 Middle: 5.89 Bottom: 5.51	8.4	42-44	42-44': CLAY: grayish brown (2.5Y, 5/2), very stiff, dry, poor plasticity, no odor, penetrometer: 2.75 T/sq. ft.
45		4.0/2.0	Top: 5.23 Middle: 3.94 Bottom: 3.64	9	44-46	44-46': CLAY: light gray (2.5Y, 7/2), very stiff, dry, poor plasticity, no odor, penetrometer: 3.0 T/sq. ft.
		4.0/2.0	Top: 3.64 Middle: 3.34 Bottom: 2.14	6.1	46-48	46-48': CLAY: light gray (2.5Y, 7/2), very stiff, dry, poor plasticity, no odor, penetrometer: 2.75 T/sq. ft.
		3.0/1.0	Top: 2.99 Middle: 3.16 Bottom: 3.08	9.6	48-49	48-49': CLAY: light gray (2.5Y, 7/2), very stiff, dry, poor plasticity, no odor, orange/brown mottles, penetrometer: 3.0 T/sq. ft.
50		3.0/1.0	Top: 3.12 Middle: 2.96 Bottom: 2.21	9.5	49-50	49-50': CLAY: light gray (2.5Y, 7/2), very stiff, dry, poor plasticity, no odor, penetrometer: 2.75 T/sq. ft.
		0.0/1.0	Top: 2.55 Middle: 2.09 Bottom: 2.43	8.1	50-51	50-50.5': CLAY: light gray (2.5Y, 7/2), very stiff, dry, poor plasticity, no odor, penetrometer: 2.75 T/sq. ft. 50.5-51': CLAY: Geotech, not opened, clay on top and bottom
55						
60						
65						



ERM Environmental Resources Management

Boring/Well No.: H-17SW

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508111, 3327804

Surface Elev.: NM Boring T.D.: 12' Boring Dia.: 2.25"

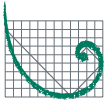
Date Started: 12/7/2021 Date Completed: 12/7/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.8/4.0	Top: 0.80 Middle: 1.52 Bottom: 1.95	Top: 5.8 Bottom: 0.4	0-4	0-2.8': CLAY: grayish brown (2.5Y, 5/2), moist to dry, medium soft, good plasticity, some silt, penetrometer: 1.75-1.5 T/sq. ft. 2.8-4': NO RECOVERY
5		4.0/4.0	Top: 2.11 Middle: 2.03 Bottom: 2.46	Top: 0.3 Bottom: 0.2	4-8	4-8': SILTY CLAY: light yellowish brown (10YR, 6/4) to light gray, moist to dry, medium soft, good plasticity, trace very fine sand at bottom, penetrometer: 1.0-1.5 T/sq. ft.
10		4.0/4.0	Top: 2.89 Middle: 2.45 Bottom: 2.92	Top: 0.2 Bottom: 0.3	8-12	8-11': SILTY CLAY: reddish brown (5YR, 5/4) to light gray, mottled, stiff, dry clay with silt pockets/lenses, no odor, dense moist shell layer at 10.5-11' bgs, penetrometer: 2.25 T/sq. ft. 11-12': CLAY: yellowish brown to light gray, dry, stiff, no odor, penetrometer: 2.25 T/sq. ft.
15						
20						
25						
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ERM Environmental Resources Management

Boring/Well No.: H-18NW

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508214, 3327901

Surface Elev.: NM Boring T.D.: 24' Boring Dia.: 2.25"

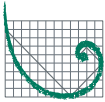
Date Started: 12/3/2021 Date Completed: 12/3/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.6/4.0	Top: 0.52 Middle: 2.53 Bottom: 6.43		0-4	0-2.6': SILTY CLAY: dark gray (10YR, 4/1), slightly moist, stiff silt to soft silty clay, good plasticity where clayey, penetrometer: 2.5 T/sq. ft. 2.6-4': NO RECOVERY
5		3.5/4.0	Top: 5.21 Middle: 6.12 Bottom: 6.31		4-8	4-7.5': CLAY: brownish yellow (10YR, 6/6), dry, medium soft to medium stiff, good plasticity, little silt, penetrometer: 1.25-1.5 T/sq. ft. 7.5-8': NO RECOVERY
10		4.0/4.0	Top: 6.44 Middle: 6.81 Bottom: 4.27		8-12	8-12': SILTY CLAY: yellowish brown (10YR, 5/6), dry, crumbly, somewhat blocky texture, stiff, no odor, penetrometer: 3.0-4.0 T/sq. ft.
15		4.0/4.0	Top: 3.67 Middle: 5.30 Bottom: 4.74		12-16	12-16': CLAY: yellowish brown (10YR, 5/6) to light gray, mottled, very stiff, poor plasticity, penetrometer: 3.0-2.5 T/sq. ft.
20		4.0/4.0	Top: 6.08 Middle: 7.24 Bottom: 5.17		16-20	16-20': SILTY CLAY: yellow brown to light gray, dry, medium stiff clay with abundant slightly moist, soft silt lenses, penetrometer: 2.5-2.0 T/sq. ft.
25		4.0/4.0	Top: 2.85 Middle: 2.14 Bottom: 1.81		20-24	20-24': CLAY: light yellowish brown (10YR, 6/4) to light gray, dry, stiff, medium to poor plasticity, little silt, no odor, penetrometer: 3.0 T/sq. ft.
30						



ERM Environmental Resources Management

Boring/Well No.: H-18R

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508225, 3327887

Surface Elev.: NM Boring T.D.: 28' Boring Dia.: 2.25"

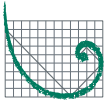
Date Started: 12/3/2021 Date Completed: 12/3/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0						
0-4		2.0/4.0	Top: 1.32 Bottom: 1.88	NA	0-4	0-2': CLAY: light yellowish brown (10Y, 6/4), dry, medium soft, good plasticity, with silt, no odor, penetrometer: 1.5 T/sq. ft. 2-4': NO RECOVERY
4-8		4.0/4.0	Top: 1.85 Middle: 2.13 Bottom: 3.15	NA	4-8	4-6': CLAY: brownish yellow (10YR, 6/6), dry, medium stiff to stiff, black nodules/concretions, no odor, penetrometer: 2.0 T/sq. ft. 6-8': SILTY CLAY: brownish yellow (10YR, 6/6) to light grey, dry, medium stiff to stiff, black nodules/concretions, no odor, penetrometer: 4.0 T/sq. ft.
8-12		4.0/4.0	Top: 3.32 Middle: 4.95 Bottom: 6.36	NA	8-12	8-10': SILTY CLAY: brownish yellow (10YR, 6/6) to light grey, dry, medium stiff to stiff, black nodules/concretions, no odor, penetrometer: 2.5 T/sq. ft. 10-12': CLAY: yellowish red (5YR, 5/6), dry, very stiff, with dense crushed shell layer at 11 feet, penetrometer: 3.5 T/sq. ft.
12-16		4.0/4.0	Top: 6.86 Middle: 6.11 Bottom: 6.23	NA	12-16	12-16': CLAY: brownish yellow (10YR, 6/6) to light gray, mottled, stiff, with occasional silt lenses on bottom, penetrometer: 2.5 T/sq. ft.
16-20		3.1/4.0	Top: 5.89 Middle: 6.61 Bottom: 4.72	NA	16-20	16-17': SILTY CLAY: gray, medium soft clay with soft, moist, silt lenses, penetrometer: 1.5 T/sq. ft. 17-19.1': CLAY: gray (10YR, 6/1), dry, stiff, medium to poor plasticity, penetrometer: 1.5-2.25 T/sq. ft. 19.1-20': NO RECOVERY
20-24		4.0/4.0	Top: 3.17 Middle: 3.11 Bottom: 3.38	20-24	20-24	20-22': CLAY: gray (10YR, 6/1), dry, stiff, medium to poor plasticity, little silt, penetrometer: 2.25 T/sq. ft. 22-24': SILTY CLAY: light gray (10YR, 7/2), slightly moist to dry, soft, good plasticity, no odor, penetrometer: 1.0 T/sq. ft.
24-28		4.0/4.0	Top: 2.93 Middle: 3.02 Bottom: 2.94	NA	24-28	24-28': CLAY: light brownish gray (2.5Y, 6/2), dry, medium stiff, little silt with concretions, no odor, penetrometer: 2.0-2.25 T/sq. ft.
30						



ERM Environmental Resources Management

Boring/Well No.: H-21R

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508137, 3328313

Surface Elev.: NM Boring T.D.: 24' Boring Dia.: 2.25"

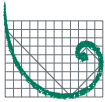
Date Started: 11/17/2021 Date Completed: 11/17/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.6/4.0	Top: 1.29 Middle: 1.81 Bottom: 3.25	Top: 6.5 Bottom: 4.5	0-4	0-1.2': CLAY: pale brown (2.5Y, 7/4), dry, stiff, medium plasticity, no odor, penetrometer: 3.25 T/sq. ft 1.2-2.6': SILTY CLAY: gray (2.5Y, 5/1), dry, fairly soft, good plasticity, no odor, penetrometer: 1.25 T/sq. ft 2.6-4': NO RECOVERY
5		3.7/4.0	Top: 4.83 Middle: 5.76 Bottom: 4.51	Top: 3.5 Bottom: 8.3	4-8	4-7.7': CLAY: yellow (2.5Y, 7/6), dry, med stiff and plastic, mottled, silty at bottom, penetrometer: 1.75-1.5 T/sq. ft 7.7-8': NO RECOVERY
10		4.0/4.0	Top: 4.85 Middle: 4.37 Bottom: 4.56	Top: 6.7 Bottom: 5.9	8-12	8-9.5': CLAY: yellow (2.5Y, 7/6), dry, med stiff and plastic, mottled, silty at bottom, penetrometer: 2 T/sq. ft 9.5-12': SILTY CLAY: reddish yellow (5YR, 6/6), slightly moist, soft and plastic where silty, medium stiff where clayey, pockets of silt, penetrometer: 0.5-1.25 (T/sq. ft)
15		4.0/4.0	Top: 3.16 Middle: 3.91 Bottom: 4.62	Top: 7.4 Bottom: 7.2	12-16	12-13.5': SILTY CLAY: brownish yellow (10YR, 6/6), dry, medium soft, good plasticity, shell fragments, no odor, penetrometer: 1.75 T/sq. ft 13.5-16': CLAY: brownish yellow to light gray, dry, stiff, medium plasticity, no odor, penetrometer: 2.25 T/sq. ft
20		4.0/4.0	Top: 4.14 Middle: 4.12 Bottom: 4.16	Top: 7.9 Bottom: 6.2	16-20	16-20': SILTY CLAY: light yellowish brown (2.5Y, 6/4), slightly moist to dry, medium stiff, medium to good plasticity, more light gray at bottom, penetrometer: 2 T/sq. ft
25		4.0/4.0	Top: 3.91 Middle: 2.63 Bottom: 1.94	Top: 3.3 Bottom: 8.4	20-24	20-24': CLAY: gray (2.5Y, 6/1), dry, medium stiff, medium to poor plasticity, silt at bottom, no odor, penetrometer: 2.25-1.75 T/sq. ft
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ERM Environmental Resources Management

Boring/Well No.: H-21W

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508108, 3328312

Surface Elev.: NM Boring T.D.: 10' Boring Dia.: 2.25"

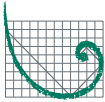
Date Started: 11/18/2021 Date Completed: 11/18/2021 Well Dia./Materials: NA

Drilling Company: Walker Hill Driller: Blake Sistruck

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0		2.5/4.0	Top: 1.08 Middle: 1.65 Bottom: 2.12	Top: 4.9 Bottom: 6.0	0-4	0-2.5': CLAY: light olive brown (2.5Y, 5/4), dry, medium stiff, good plasticity, little silt, no odor, penetrometer: 2.5 T/sq. ft 2.5-4': NO RECOVERY
5		4.0/4.0	Top: 2.10 Middle: 2.28 Bottom: 3.16	Top: 8.2 Bottom: 6.6	4-8	4-8': CLAY: light yellowish brown (2.5Y, 6/4), dry, medium stiff, good plasticity, mottled, no odor, penetrometer: 2.5 T/sq. ft
10		2.9/2.0	Top: 3.78 Bottom: 3.25	6.4	8-10	8-10': SILT and CLAY: yellowish red (5YR, 4/6), moist where silty to dry where clay, soft plastic silt with stiff clay, no odor, penetrometer: 1.0 T/sq. ft
15						
20						
25						
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ERM Environmental Resources Management

Boring/Well No.: MW-1

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 507828.25, 3327953.8

Surface Elev.: NM Boring T.D.: 60' Boring Dia.: 2.25"

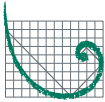
Date Started: 12/1/2021 Date Completed: 12/1/2021 Well Dia./Materials: 3/4" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

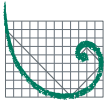
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION		
0			3.0/4.0	Top: 0.84 Middle: 0.85 Bottom: 1.61	0-4	0-3': CLAY: dark gray (10YR, 4/1), dry, medium soft to medium stiff, good plasticity, silty at top, no odor, penetrometer: 1.0-1.75 T/sq. ft. 3-4': NO RECOVERY		
5			4.0/4.0	Top: 1.83 Middle: 2.81 Bottom: 2.83	4-8	4-8': CLAY: light gray (10YR, 7/2), dry, medium stiff, good plasticity, no odor, penetrometer: 2.0 T/sq. ft.		
10			3.6/4.0	Top: 3.08 Middle: 2.56 Bottom: 2.43	8-12	8-9': CLAY: light gray (10YR, 7/2), dry, medium stiff, good plasticity, no odor, penetrometer: 1.75 T/sq. ft. 9-11.6': SILTY CLAY: yellowish red (5YR, 5/6) to light gray, dry, mottled, stiff clay with softer silt pockets and lenses, sparse shell fragments, no odor, penetrometer: 1.75-2.25 T/sq. ft. 11.6-12': NO RECOVERY		
15			4.0/4.0	Top: 3.02 Middle: 3.06 Bottom: 2.73	12-16	12-16': CLAY: brownish yellow (10YR, 6/6) to light gray, mottled, dry, stiff, medium plasticity, occasional silty pockets/lenses 14-16 feet, no odor, penetrometer: 2.0 T/sq. ft.		
20			3.2/4.0	Top: 2.19 Middle: 1.75 Bottom: 2.34	16-20	16-18': SILTY CLAY: light brownish gray (10YR, 6/2), moist where silty, medium stiff clay with silt pockets and lenses, no odor, penetrometer: 2.0 T/sq. ft. 18-19.2': CLAY: gray, dry, stiff, medium plasticity, no odor, penetrometer: 2.0 T/sq. ft. 19.2-20': NO RECOVERY		
25			4.0/4.0	Top: 1.75 Middle: 1.62 Bottom: 1.42	20-24	20-24': CLAY: very pale brown (10YR, 7/3), dry, medium stiff to stiff, poor plasticity, little silt, no odor, penetrometer: 2.0-2.5 T/sq. ft.		
30			4.0/4.0	Top: 1.61 Middle: 1.72 Bottom: 1.52	24-28	24-28': CLAY: very pale brown (10YR, 7/3), dry, very stiff, poor plasticity, little silt, no odor, penetrometer: 2.5-3.5 T/sq. ft.		
			4.0/4.0	Top: 1.71 Middle: 1.71 Bottom: 2.29	28-32	28-32': CLAY: light brownish gray (10YR, 6/2), dry, very stiff, poor plasticity, some concretions, penetrometer: 3.25 T/sq. ft.		



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
(Cont. from page 1)						
30			4.0/4.0	Top: 1.71 Middle: 1.71 Bottom: 2.29	28-32	28-32': CLAY: light brownish gray (10YR, 6/2), dry, very stiff, poor plasticity, some concretions, penetrometer: 3.25 T/sq. ft.
35			4.0/4.0	Top: 1.74 Middle: 1.67 Bottom: 2.02	32-36	32-36': SILTY CLAY: strong brown (7.5YR, 5/6), dry, stiff clay with some silt, slightly softer where silty, no odor, penetrometer: 1.0-4.0 T/sq. ft.
40			4.0/4.0	Top: 1.81 Middle: 1.57 Bottom: 2.18	36-40	36-40': CLAY: brown (7.5YR, 5/3), with some black streaks, dry, stiff, sparse concretions, poor plasticity, no odor, penetrometer: 3.0 T/sq. ft.
45			4.0/4.0	Top: 1.87 Middle: 2.11 Bottom: 1.91	40-44	40-44': CLAY: pale brown (10YR, 6/3) to light gray, mottled, dry, stiff to very stiff, medium to poor plasticity, penetrometer: 2.5-3.0 T/sq. ft.
50			4.0/4.0	Top: 1.27 Middle: 1.64 Bottom: 1.54	44-48	44-48': CLAY: brown (10YR, 6/3), mottled, dry, very stiff, medium to poor plasticity, penetrometer: 4.5 T/sq. ft.
55			4.0/2.0	Top: 1.53 Bottom: 1.41	48-50	48-50': SILTY CLAY: gray (10YR, 6/1), very stiff clay, dry, medium soft where very silty, penetrometer: 3.0-1.25 T/sq. ft.
60			4.0/2.0	Top: 1.19 Bottom: 1.48	50-52	50-52': CLAYEY SILT: greenish gray (GLE Y1, 6/10Y), medium soft, moist to dry, more clay and stiffer at base, penetrometer: 1.75 T/sq. ft.
65			4.0/2.0	Top: 1.36 Bottom: 1.19	52-54	52-54': CLAYEY SILT: greenish gray (GLE Y1, 6/10Y), medium soft, moist to wet, more clay and stiffer at base, penetrometer: 1.0 T/sq. ft.
70			4.0/2.0	Top: 1.26 Bottom: 1.88	54-56	54-56': SILTY CLAY: greenish gray (GLE Y1, 5/5GY), slightly moist to dry, medium soft, good plasticity, penetrometer: 1.5 T/ sq. ft.
75			4.0/2.0	Top: 2.45 Bottom: 2.71	56-58	56-58': CLAY: greenish gray, medium stiff, dry, some silt, no odor, penetrometer: 2.0 T/sq. ft.
80			4.0/2.0	Top: 2.52 Bottom: 2.14	58-60	58-60': CLAY: gray, slightly moist to dry, medium stiff, with scattered wood fragments, penetrometer: 1.75 T/ sq. ft.



ERM Environmental Resources Management

Boring/Well No.: MW-2

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 507704.97, 3328141.8

Surface Elev.: NM Boring T.D.: 62' Boring Dia.: 3.25"

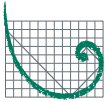
Date Started: 12/9/2021 Date Completed: 12/10/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Wanya Cook

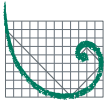
Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.0/2.0	Top: 0.84 Bottom: 1.71	0-2	0-2': SILTY CLAY: very dark gray (10YR, 3/1), stiff, moist, rootlets at top, no odor, penetrometer: 2.0 T/sq. ft.
5			4.0/4.0	Top: 1.81 Middle: 3.61 Bottom: 3.62	2-6	2-6': CLAY: with SILT: grades from very dark gray (10YR, 3/1) to pale brown (10YR, 6/3), medium stiff, slightly moist, orange and black mottling, no odor, penetrometer: 1.0-1.25 T/sq. ft.
10			4.0/4.0	Top: 3.58 Middle: 2.59 Bottom: 1.92	6-10	6-8.8': SANDY CLAY: pale brown (10YR, 6/3), medium stiff, moist, black and orange mottling, fine sand increasing with depth, no odor, penetrometer: 1.5 T/sq. ft. 8.8-10': SILTY CLAYEY SAND: pale brown (10YR, 6/3), medium dense, slightly wet, orange and black mottling, fine sand, no odor, penetrometer: 1.5 T/sq. ft.
15			4.0/4.0	Top: 3.00 Middle: 2.75 Bottom: 3.56	10-14	10-12': CLAY: with fine SAND: mottled brown (10YR, 5/3) and reddish brown (5YR, 4/4), medium soft to medium stiff, moist, thin (less than 0.1') layer of shells at bottom, no odor, penetrometer: 1.75 T/sq. ft. 12-14': CLAY: brown (10YR, 5/3), stiff, slightly moist, no odor, penetrometer: 3.0 T/sq. ft.
20			4.0/4.0	Top: 3.38 Middle: 3.27 Bottom: 1.72	14-18	14-17.3': CLAY: grayish brown (10YR, 5/2), stiff to medium soft, moist, minor silty clay lenses, orange mottling decreasing with depth, no odor, penetrometer: 1.25-2.25 T/sq. ft. 17.3-18': SILTY CLAY: grayish brown (10YR, 5/2), soft, wet, no odor, penetrometer: 1.25 T/sq. ft.
25			4.0/4.0	Top: 2.68 Middle: 2.51 Bottom: 1.81	18-22	18-22': CLAY: gray (7.5Y, 5/1), medium stiff, slightly moist, blacker mineral staining near middle, orange mottling at top and bottom, no odor, penetrometer: 1.25-1.75 T/sq. ft.
30			4.0/4.0	Top: 1.66 Middle: 1.71 Bottom: 1.77	22-26	22-26': CLAY: brown (10YR, 5/3), stiff to very stiff, dry to slightly moist, minor orange mottling, no odor, penetrometer: 3.0-3.75 T/sq. ft.
			4.0/4.0	Top: 1.79 Middle: 1.84 Bottom: 1.89	26-30	26-30': CLAY: brown (10YR, 5/3), grades from very stiff to medium stiff, slightly moist, minor orange and black mottling at bottom, no odor, penetrometer: 1.5-4.5 T/sq. ft.



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30						(Cont. from page 1)
30-34			4.0/4.0	Top: 1.90 Middle: 2.02 Bottom: 1.98	30-34	30-34': CLAY: brown (10YR, 5/3), hard to very stiff, dry to slightly moist, orange mottling, minor white mineral concretions, no odor, penetrometer: 3.5-4.0 T/sq. ft.
34-38			4.0/4.0	Top: 1.84 Middle: 1.75 Bottom: 1.77	34-38	34-34.7': CLAY: dark yellowish brown (10YR, 4/6), stiff, slightly moist, no odor, penetrometer: 2.75 T/sq. ft. 34.7-35.3': CLAYEY SILT: dark yellowish brown (10YR, 4/4), soft, slightly wet, no odor, penetrometer: 0.5 T/sq. ft. 35.3-38': CLAY: brown (10YR, 4/3), very stiff, slightly moist, no odor, penetrometer: 3.0 T/sq. ft.
38-42			4.0/4.0	Top: 1.84 Middle: 1.43 Bottom: 1.42	38-42	38-42': CLAY: grades from dark yellowish brown (10YR, 4/4) to light yellowish brown (10YR, 6/4), very stiff to stiff, dry to slightly moist, minor silt content, no odor, penetrometer: 2.0-3.25 T/sq. ft.
42-46			3.4/4.0	Top: 1.47 Middle: 1.34 Bottom: 1.48	42-46	42-45.4': SILTY CLAY: with fine SAND: brown (10YR, 5/3), medium stiff, slightly moist, orange mottling, increasing grain size with depth, no odor, penetrometer: 1.5 T/sq. ft. 45.4-46': NO RECOVERY
46-50			4.0/4.0	Top: 1.14 Middle: 0.93 Bottom: 0.55	46-50	46-47.6': CLAYEY SILTY SAND: light brownish gray (2.5Y, 6/2), medium soft, wet, fine grained, no odor, penetrometer: 1.25 T/sq. ft. 47.6-49': CLAYEY SILT: light brownish gray (2.5Y, 6/2), medium stiff, moist, no odor, penetrometer: 0.75-1.25 T/sq. ft. 49-50': SAND: with SILT: dark grayish brown (2.5Y, 4/2), dense, wet, fine grained, no odor, penetrometer: 0.75 T/sq. ft.
50-54			3.0/4.0	Top: 1.03 Middle: 1.11 Bottom: 0.81	50-54	50-50.6': SILTY SAND: dark greenish gray (GLE Y1, 4/10Y), medium dense, wet, fine grained, no odor, penetrometer: 1.0 T/sq. ft. 50.6-53': SANDY CLAY: dark greenish gray (GLE Y1, 4/10Y), medium stiff, moist to slightly wet in spots, slightly wet silty sand layers at 52.2-52.4' bgs, 52.5-52.6' bgs, and 52.7-53' bgs, no odor, penetrometer: 1.0-2.0 T/sq. ft. 53-54': NO RECOVERY
54-58			4.0/4.0	Top: 0.77 Middle: 1.09 Bottom: 2.00	54-58	54-57.5': SILTY SAND: dark grayish green (GLE Y1, 4/10Y), grades from unconsolidated to very dense, saturated to wet, minor clay content, fine grained sand with slight increase in grain size with depth, no odor, penetrometer: 0.25-0.5 T/sq. ft. 57.5-58': CLAY: very dark brown (10YR, 2/2), medium stiff, moist, high plasticity, no odor, penetrometer: 1.5 T/sq. ft.
58-62			4.0/4.0	Top: 2.28 Middle: 2.31 Bottom: 1.98	58-62	58-62': CLAY: dark gray (10YR, 4/1), medium stiff, moist, high plasticity, some wood fragments interspersed at 59.9' bgs and 60.9-61.0' bgs, no odor, penetrometer: 1.5-2.0 T/sq. ft.
65						



ERM Environmental Resources Management

Boring/Well No.: MW-3

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 507710.19, 3328311.5

Surface Elev.: NM Boring T.D.: 62' Boring Dia.: 3.25

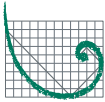
Date Started: 12/8/2021 Date Completed: 12/9/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Wanya Cook

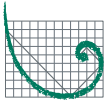
Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.3/2.0	Top: .080 Bottom: 0.94	0.6	0-2	0-1.3': SILTY CLAY: dark yellowish brown (10YR, 3/4), medium soft, moist, no odor, minor rootlets at top, penetrometer: 1.25 T/sq. ft. 1.3-2': NO RECOVERY
5			3.0/4.0	Top: 1.23 Middle: 2.14 Bottom: 2.81	Top: 0.4 Bottom: 0.5	2-6	2-5': CLAY: dark grayish brown (10YR, 4/2), medium stiff to medium soft, slightly moist, minor orange and black mottling, no odor, penetrometer: 1.0-1.5 T/sq. ft. 5-6': NO RECOVERY
10			4.0/4.0	Top: 2.66 Middle: 3.16 Bottom: 2.60	Top: 0.7 Bottom: 0.7	6-10	6-8': CLAY: grayish brown (10YR, 5/2), medium stiff, slightly moist, minor orange mottling, no odor, penetrometer: 1.75 T/sq. ft. 8-8.7': SILTY CLAY: grayish brown (10YR, 5/2), very soft, wet, no odor, penetrometer: 0.0 T/sq. ft. 8.7-10': CLAY: grayish brown (10YR, 5/2), stiff to very stiff, slightly moist, no odor, penetrometer: 3.5 T/sq. ft.
15			4.0/4.0	Top: 2.43 Middle: 3.23 Bottom: 3.46	Top: 0.5 Bottom: 0.4	10-14	10-14': CLAY: grayish brown (10YR, 5/2), stiff, slightly moist, minor orange and black mottling, some silt content near top, reddish brown mineral concretion at 11.0' bgs, no odor, penetrometer: 2.0-2.25 T/sq. ft.
20			4.0/4.0	Top: 3.56 Middle: 2.07 Bottom: 2.24	Top: 0.8 Bottom: 0.7	14-18	14-18': CLAY: grayish brown (10YR, 5/2), grades from stiff to medium stiff, moist to slightly wet, medium soft clayey silt lenses at 16.4-16.6' bgs, 17.0-17.1' bgs, and 17.3-17.4'; bgs, no odor, penetrometer: 1.25-1.75 T/sq. ft.
25			4.0/4.0	Top: 2.01 Middle: 1.72 Bottom: 1.63	Top: 1.0 Bottom: 0.3	18-22	18-22': CLAY: grades from very dark grayish brown (10YR, 3/2) to grayish brown (10YR, 5/2), medium soft, moist, orange mottling at bottom, no odor, penetrometer: 0.75-1.0 T/sq. ft.
30			4.0/4.0	Top: 1.77 Middle: 1.62 Bottom: 1.81	NM	22-26	22-26': CLAY: gray (2.5Y, 6/1), grades from medium soft to stiff, moist, minor silt content, no odor, penetrometer: 0.75-3.25 T/sq. ft.
			4.0/4.0	Top: 1.75 Middle: 1.86 Bottom: 1.98	NM	26-30	26-30': CLAY: dark gray (2.5Y, 4/1), very stiff, slightly moist, no odor, penetrometer: 3.5 T/sq. ft.



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			4.0/4.0	Top: 1.82 Middle: 1.81 Bottom: 1.18	NM	30-34	30-34': CLAY: dark gray (2.5Y, 4/1), stiff, slightly moist, white mineral concretions, some silt content at bottom, extensive brown mottling, no odor, penetrometer: 2.25-3.25 T/sq. ft.
35			4.0/4.0	Top: 1.63 Middle: 1.43 Bottom: 1.41	NM	34-38	34-36': CLAY: yellowish brown (10YR, 5/4), medium soft, slightly moist, silty clay lenses at 35.1-35.2' bgs and 35.5-35.7' bgs, no odor, penetrometer: 1.25 T/sq. ft. 36-37.5': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, slightly wet, no odor, penetrometer: 0.25 T/sq. ft. 37.5-38': SILTY CLAY: yellowish brown (10YR, 5/4), medium stiff, moist, no odor, penetrometer: 1.5 T/sq. ft.
40			4.0/4.0	Top: 1.52 Middle: 1.82 Bottom: 2.34	NM	38-42	38-38.5': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, moist, no odor, penetrometer: 0.0 T/sq. ft. 38.5-42': CLAY: dark yellowish brown (10YR, 5/4), stiff, slightly moist to dry, no odor, penetrometer: 2.5-3.5 T/sq. ft.
45			4.0/4.0	Top: 2.16 Middle: 2.33 Bottom: 2.03	NM	42-46	42-46': CLAY: gray (5Y, 5/1), very stiff, slightly moist, minor orange mottling, no odor, penetrometer: 3.25-4.5 T/sq. ft.
50			4.0/4.0	Top: 2.10 Middle: 2.19 Bottom: 1.82	NM	46-50	46-50': CLAY: very dark gray (5Y, 3/1), very stiff, dry to slightly moist, minor orange mottling, no odor, penetrometer: 3.25-3.75 T/sq. ft.
55			4.0/4.0	Top: 2.25 Middle: 2.01 Bottom: 2.73	NM	50-54	50-54': CLAY: very dark gray (5Y, 3/1), stiff, slightly moist, sandy clay clay lense at 52.5-52.6' with slightly moist very fine sand components, no odor, penetrometer: 2.0-3.5 T/sq. ft.
60			4.0/4.0	Top: 3.06 Middle: 2.75 Bottom: 2.69	NM	54-58	54-58': CLAY: very dark gray (5Y, 3/1), stiff, slightly moist, minor orange mottling, no odor, penetrometer: 2.75 T/sq. ft.
65			4.0/4.0	Top: 2.41 Middle: 2.32 Bottom: 2.28	NM	58-62	58-62': CLAY: very dark gray (5Y, 3/1), medium stiff to medium soft, moist, wood fragments interspersed within clay increasing with depth, no odor, penetrometer: 1.0-1.5 T/sq. ft.



ERM Environmental Resources Management

Boring/Well No.: MW-4

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 507844.65, 3328348.5

Surface Elev.: NM Boring T.D.: 62' Boring Dia.: 3.25"

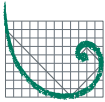
Date Started: 12/8/2021 Date Completed: 12/8/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

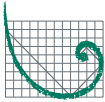
Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.6/2.0	Top: 0.68 Bottom: 1.13	0.2	0-2	0-1.6': CLAY: very dark brown (10YR, 2/2), slightly moist, medium stiff to stiff, no odor, reddish sand layer at 0.5' bgs, penetrometer: 2.0 T/sq. ft. 1.6-2': NO RECOVERY
5			4.0/4.0	Top: 1.33 Middle: 2.02 Bottom: 2.12	Top: 0.3 Bottom: 0.4	2-6	2-6': CLAY: brown (10YR, 5/3), medium stiff, slightly moist, no odor, orange mottling, penetrometer: 1.0-1.5 T/sq. ft.
10			4.0/4.0	Top: 1.93 Middle: 2.05 Bottom: 2.14	Top: 0.4 Bottom: 0.7	6-10	6-10': CLAY: brown (10YR, 5/3), grades from medium stiff to stiff, moist to slightly moist, no odor, light orange mottling at top and dark orange mottling at bottom, penetrometer: 0.5-2.0 T/sq. ft.
15			4.0/4.0	Top: 3.03 Middle: 2.28 Bottom: 2.95	Top: 1.0 Bottom: 0.5	10-14	10-10.4': CLAY: grayish brown (10YR, 5/2), stiff, moist, penetrometer: 1.5 T/sq. ft. 10.4-10.9': CLAY: grayish brown (10YR, 5/2), medium soft, moist, no odor, with abundant shells, penetrometer: 1.5 T/sq. ft. 10.9-14': CLAY: brown (10YR, 5/3), stiff, slightly moist, no odor, penetrometer: 2.5 T/sq. ft.
20			4.0/4.0	Top: 3.13 Middle: 3.23 Bottom: 3.43	Top: 2.5 Bottom: 0.4	14-18	14-15.1': CLAY: light grayish brown (10YR, 6/2), stiff, slightly moist, no odor, moist silty lense at 14.4-14.5' bgs, penetrometer: 1.5 T/sq. ft. 15.1-15.5': SILTY CLAY: brown (10YR, 5/3), soft, slightly wet, no odor, penetrometer: 0.0 T/sq. ft. 15.5-18': CLAY: grades from brown (10YR, 5/3) to dark grayish brown (10YR, 4/2), stiff, moist, no odor, silty clay lenses at 16.2-16.4' bgs and 17.3-17.4' bgs, penetrometer: 1.75 T/sq. ft.
25			4.0/4.0	Top: 2.48 Middle: 2.45 Bottom: 2.20	Top: 0.3 Bottom: 0.6	18-22	18-22': CLAY: gray (10YR, 6/1), medium soft to stiff, slightly moist, orange mottling, mineral nodules at 19.0-20.0' bgs, no odor, penetrometer: 0.5-2.25 T/sq. ft.
30			3.3/4.0	Top: 2.72 Middle: 2.49 Bottom: 2.33	Top: 0.3 Bottom: 0.5	22-26	22-25.3': CLAY: brown (10YR, 5/3), very stiff, dry to slightly moist, orange and black mineral mottling, mineral concretions at 24.1' bgs, no odor, penetrometer: 3.25 T/sq. ft. 25.3-26': NO RECOVERY
			3.7/4.0	Top: 2.36 Middle: 2.29 Bottom: 2.26	Top: 0.2 Bottom: 0.1	26-30	26-29.7': CLAY: brown (7.5YR, 5/3), very stiff, dry to slightly moist, minor orange mottling, minor silt content, no odor, penetrometer: 3.0-3.25 T/sq. ft. 29.7-30': NO RECOVERY



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
30-31'			3.7/4.0	Top: 2.31 Middle: 2.52 Bottom: 2.49	Top: 0.2 Bottom: 0.4	30-34	30-31': CLAY: brown (7.5YR, 5/3), very stiff, dry, no odor, penetrometer: 3.5 T/sq. ft. 31-32': SILTY CLAY: brown (7.5YR, 5/3), soft, slightly moist, no odor, penetrometer: 1.0 T/sq. ft. 32-33.7': CLAY: grades from light brownish gray (10YR, 6/2) to brown (7.5YR, 5/4), medium stiff to stiff, slightly moist, black mineral concretions at 33.0' bgs, no odor, penetrometer: 1.5-2.75 T/sq. ft. 33.7-34': NO RECOVERY
35			4.0/4.0	Top: 2.65 Middle: 2.72 Bottom: 2.78	Top: 0.8 Bottom: 0.5	34-38	34-35.2': CLAY: yellowish brown (10YR, 5/4), medium soft, slightly moist, no odor, penetrometer: 0.75 T/sq. ft. 35.2-36.1': SILTY CLAY: dark yellowish brown (10YR, 4/6), soft, slightly moist, no odor, penetrometer: 0.75 T/sq. ft. 36.1-38': CLAY: dark yellowish brown (10YR, 3/4), stiff, dry to slightly moist, no odor, penetrometer: 2.75 T/sq. ft.
40			4.0/4.0	Top: 2.52 Middle: 2.67 Bottom: 2.46	Top: 0.6 Bottom: 0.9	38-42	38-42': CLAY: dark grayish brown (2.5Y, 4/2), very stiff, dry to slightly moist, orange mottling, no odor, penetrometer: 3.5 T/sq. ft.
45			3.5/4.0	Top: 2.24 Middle: 1.87 Bottom: 1.84	Top: 1.4 Bottom: 1.3	42-46	42-44.8': CLAY: yellowish brown (10YR, 5/4), stiff, moist, orange mottling, no odor, penetrometer: 2.75 T/sq. ft. 44.8-45.5': SILTY CLAY to CLAYEY SILT: yellowish brown (10YR, 5/4), medium soft, moist, no odor, penetrometer: 1.0 T/sq. ft. 45.5-46': NO RECOVERY
50			4.0/4.0	Top: 2.04 Middle: 1.99 Bottom: 2.46	Top: 1.5 Bottom: 1.6	46-50	46-46.6': CLAYEY SILT: yellowish brown (10YR, 5/4), soft, moist to very slightly wet, no odor, penetrometer: 0.0 T/sq. ft. 46.6-48.2': SILTY CLAY: yellowish brown (10YR, 5/4), medium soft to medium stiff, moist, minor orange and black mottling, no odor, penetrometer: 0.75 T/sq. ft. 48.2-50': CLAY: yellowish brown (10YR, 5/4), stiff, moist, minor silt content, minor orange mottling, no odor, penetrometer: 1.75 T/sq. ft.
55			4.0/4.0	Top: 2.35 Middle: 1.87 Bottom: 3.01	Top: 1.5 Bottom: 2.2	50-54	50-54': CLAY: brown (10YR, 5/3), stiff, slightly moist, orange mottling, no odor, penetrometer: 2.0-2.5 T/sq. ft.
55			4.0/4.0	Top: 2.53 Middle: 2.47 Bottom: 1.51	Top: 2.6 Bottom: 2.8	54-58	54-58': CLAY: dark gray (10YR, 4/1) with extensive brown (10YR, 4/3) mottling, very stiff, moist, no odor, penetrometer: 3.0-3.5 T/sq. ft.
60			4.0/4.0	Top: 2.23 Middle: 2.14 Bottom: 1.76	Top: 2.1 Bottom: 2.1	58-62	58-62': CLAY: dark yellowish brown (10YR, 4/4), very stiff, slightly moist, very thin silt lenses at 60.5-60.7' bgs, no odor, penetrometer: 3.0-4.5 T/sq. ft.
65							



ERM Environmental Resources Management

Boring/Well No.: MW-5

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 507937.43, 3328245.4

Surface Elev.: NM Boring T.D.: 60' Boring Dia.: 2.25"

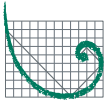
Date Started: 11/30/2021 Date Completed: 11/30/2021 Well Dia./Materials: 3/4" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

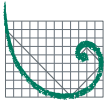
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
0-4			2.0/4.0	Top: 0.75 Bottom: 1.98	Top: 1.9 Bottom: 2.2	0-4	0-2': CLAY: brown (7.5YR, 5/2), slightly moist to dry, medium soft, good plasticity, silty at top, no odor penetrometer: 0.75- 1.5 T/sq. ft. 2-4': NO RECOVERY
5			3.6/4.0	Top: 2.02 Middle: 2.26 Bottom: 2.09	Top: 3.9 Bottom: 2.2	4-8	4-6': CLAY: light yellowish brown (10YR, 6/4), dry, medium soft, good plasticity, little silt, no odor, penetrometer: 1.5 T/ sq. ft. 6-7.6': CLAY: reddish yellow (5YR, 6/6) to light gray, mottled, dry, stiff, very silty at top, no odor, penetrometer: 2.5 T/sq. ft. 7.6-8': NO RECOVERY
10			4.0/4.0	Top: 1.62 Middle: 1.59 Bottom: 2.46	Top: 4.6 Bottom: 2.6	8-12	8-10.5': SILTY CLAY: red (2.5YR, 5/6), slightly moist where silty, stiff clay with softer silt lenses, no odor, penetrometer: 2.5 T/sq. ft. 10.5-12': CLAY: yellow (10YR, 7/6) to light gray, mottled, dry, stiff, with crushed shells at 11 feet, no odor, 1.75 T/sq. ft.
15			4.0/4.0	Top: 2.33 Middle: 2.45 Bottom: 2.37	Top: 3.2 Bottom: 2.9	12-16	12-16': CLAY: very pale brown (10YR, 7/4) to light gray, mottled, dry, medium stiff to stiff, medium plasticity, no odor, penetrometer: 2.75 T/sq. ft.
20			4.0/4.0	Top: 2.58 Middle: 2.53 Bottom: 2.61	Top: 3.8 Bottom: 3.6	16-20	16-20': CLAY: very pale brown (10YR, 7/4) to light gray, mottled, dry, medium stiff to stiff, medium plasticity, little silt, no odor, penetrometer: 2.25-2.5 T/sq. ft.
25			4.0/4.0	Top: 1.97 Middle: 1.82 Bottom: 1.91	Top: 1.9 Bottom: 2.4	20-24	20-24': CLAY: very pale brown (10YR, 7/4), dry, medium stiff, good plasticity, no odor, penetrometer: 2.75-3.0 T/sq. ft.
25			4.0/2.0	Top: 2.10 Bottom: 2.09	2.7	24-26	24-26': CLAY: very pale brown (10YR, 7/4), dry, medium stiff, good plasticity, no odor, penetrometer: 2.75 T/sq. ft.
26			4.0/2.0	Top: 2.00 Bottom: 2.33	3.5	26-28	26-28': CLAY: very pale brown (10YR, 7/4), dry, very stiff, poor plasticity, no odor, penetrometer: 4.5 T/sq. ft.
28			4.0/2.0	Top: 2.29 Bottom: 2.56	2.7	28-30	28-30': CLAY: very pale brown (10YR, 7/4), dry, very stiff, slightly softer, poor plasticity, no odor, penetrometer: 3.0 T/sq. ft.
30							



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			4.0/2.0	Top: 2.50 Bottom: 2.57	3.2	30-32	30-32': CLAY: very pale brown (10YR, 7/4), dry, very stiff, slightly softer, poor plasticity, no odor, with sparse concretions, penetrometer: 2.75 T/sq. ft.
			2.0/2.0	Top: 2.06 Bottom: 2.01	2.8	32-34	32-34': CLAYEY SILT: light yellowish brown (10YR, 6/4), wet, soft, sticky, no odor, penetrometer: 0.5 T/sq. ft.
35			3.5/2.0	Top: 1.81 Bottom: 2.12	2.7	34-36	34-35': CLAYEY SILT: light yellowish brown (10YR, 6/4), moist, soft, sticky, no odor, penetrometer: 0.75 t/sq. ft. 35-36': CLAY: yellowish brown (10YR, 5/4), dry, stiff, poor plasticity, no odor, penetrometer: 2.75 T/sq. ft.
			4.0/2.0	Top: 1.95 Bottom: 2.22	2.1	36-38	36-38': CLAY: yellowish brown (10YR, 5/4), dry, stiff, poor plasticity, no odor, penetrometer: 3.25 T/sq. ft.
			4.0/2.0	Top: 2.69 Bottom: 2.48	2.2	38-40	38-40': CLAY: yellowish brown (10YR, 6/4), dry, stiff, poor plasticity, no odor, penetrometer: 3.25 T/sq. ft.
40			4.0/2.0	Top: 2.35 Bottom: 2.61	1.6	40-42	40-42': CLAY: light brownish gray (10YR, 6/2), dry, stiff, poor plasticity, no odor, penetrometer: 3.25 T/sq. ft.
			4.0/2.0	Top: 2.52 Bottom: 2.34	1.3	42-44	42-44': CLAY: light brownish gray (10YR, 6/2), dry, very stiff, poor plasticity, no odor, penetrometer: 3.75 T/sq. ft.
45			4.0/4.0	Top: 1.93 Middle: 1.71 Bottom: 2.52	Top: 1.4 Bottom: 2.6	44-48	44-48': CLAY: brown (7.5YR, 5/3), dry, stiff, medium to good plasticity, no odor, bluish gray and brown at base, penetrometer: 2.25 T/sq. ft.
			4.0/4.0	Top: 2.63 Middle: 2.66 Bottom: 2.27	Top: 3.0 Bottom: 2.6	48-52	48-52': CLAY: greenish gray (GLE Y, 6/10Y), dry, stiff, medium to poor plasticity, no odor, penetrometer: 2.5 T/sq. ft.
50			4.0/4.0	Top: 1.83 Middle: 1.44 Bottom: 1.52	Top: 3.2 Bottom: 2.6	52-56	52-56': SILTY CLAY: light olive brown (2.5Y, 5/4), dry, stiff to medium stiff, medium to good plasticity, no odor, penetrometer: 1.75-2.75 T/sq. ft.
			4.0/2.0	Top: 1.61 Bottom: 1.44	2.2	56-58	56-58': SILTY CLAY: light greenish gray (GLE Y1, 7/10Y), dry, very silty, medium stiff, large silt grains, no odor, penetrometer: 2.25 T/sq. ft.
			2.7/2.0	Top: 1.21 Bottom: 1.29	2.8	58-60	58-60': SILTY CLAY: light greenish gray (GLE Y1, 7/10Y), dry, very silty, medium stiff, large silt grains, no odor, trace fine sand, penetrometer: 1.5 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-6

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508137.47, 3328271.9

Surface Elev.: NM Boring T.D.: 40' Boring Dia.: 3.25"

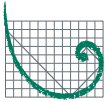
Date Started: 11/18/2021 Date Completed: 11/18/2021 Well Dia./Materials: 1" Pre-Pack PVC

Drilling Company: Walker Hill Driller: Blake Sistrunk

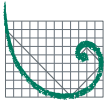
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.3/4.0	Top: 1.70 Bottom: 2.42	0.1	0-4	0-2.3': SILTY CLAY: very dark gray (10YR, 3/1) , medium soft, dry, good plasticity, no odor, shells at top, penetrometer: 2.25 T/sq. ft. 2.3-4': NO RECOVERY
5			4.0/4.0	Top: 3.03 Middle: 3.06 Bottom: 3.53	0.1	4-8	4-8': CLAY: brownish yellow (10YR, 6/6) to light gray, mottled, medium stiff, dry, medium plasticity, no odor, some silt, penetrometer: 2.0-2.25 T/sq. ft.
10			4.0/4.0	Top: 3.22 Middle: 3.26 Bottom: 4.05	Top: 0.1 Bottom: 0	8-12	8-9': CLAY: brownish yellow (10YR, 6/6) to light gray, mottled, medium stiff, dry, medium plasticity, no odor, some silt, penetrometer: 2.25 T/sq. ft. 9-12': SILTY CLAY: yellowish red (5YR, 5/6) to light gray, mottled, soft, slightly moist to dry, silts interbedded with stiff clay, shell fragments at bottom, penetrometer: 0.5-3.0 T/sq. ft.
15			4.0/4.0	Top: 4.16 Middle: 4.55 Bottom: 3.83	Top: 0 Bottom: 0.1	12-16	12-16': CLAY: yellow brown (10YR, 5/6) to light gray, mottled, stiff, dry, poor plasticity, no odor, silty at top, penetrometer: 3.0-3.5 T/sq. ft.
20			4.0/4.0	Top: 3.92 Middle: 4.66 Bottom: 4.73	Top: 0.1 Bottom: 0	16-20	16-20': SILTY CLAY: gray (10YR, 5/1), moist, soft silt interbedded with firm dry clays, no odor, more clay at base, penetrometer: 1.5-1.75 T/sq. ft.
25			4.0/4.0	Top: 2.49 Middle: 2.81 Bottom: 2.70	0.1	20-24	20-24': CLAY: gray (10YR, 5/1), stiff, dry, medium plasticity, no odor, some concretions at top, penetrometer: 2.5-3.0 T/ sq. ft.
25			4.0/4.0	Top: 2.15 Middle: 2.05 Bottom: 2.09	Top: 0.1 Bottom: 0	24-28	24-28': CLAY: gray (10YR, 5/1), stiff, dry, poor plasticity, no odor, some concretions at top, penetrometer: 2.5-3.75 T/sq. ft.
30			4.0/4.0	Top: 2.56 Middle: 2.38 Bottom: 2.31	0	28-32	28-32': CLAY: gray (10YR, 5/1), stiff, dry, poor plasticity, no odor, some concretions at top, penetrometer: 3.0 T/sq. ft.



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30			4.0/4.0	Top: 2.56 Middle: 2.38 Bottom: 2.31	0	28-32	(Cont. from page 1) 28-32': CLAY: gray (10YR, 5/1), stiff, dry, poor plasticity, no odor, some concretions at top, penetrometer: 3.0 T/sq. ft.
35			4.0/4.0	Top: 2.32 Middle: 2.57 Bottom: 2.50	0	32-36	32-36': SILTY CLAY: light olive brown (2.5Y, 5/4), medium soft, slightly moist to dry, good plasticity, penetrometer: 1.0-1.75 T/sq. ft.
			3.3/2.0	Top: 2.34 Bottom: 2.00	0.1	36-38	36-38': CLAYEY SILT: brown (10YR, 4/3), medium soft, moist, good plasticity, clay at top, penetrometer: 1.0 T/sq. ft.
40			3.5/2.0	Top: 2.14 Bottom: 2.36	0	38-40	38-40': CLAYEY SILT: brown (10YR, 4/3), soft, wet, good plasticity, clay at bottom, penetrometer: 0.5 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-7

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508221.24, 3328165.12

Surface Elev.: NM Boring T.D.: 44' Boring Dia.: 3.25"

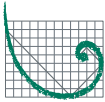
Date Started: 11/29/2021 Date Completed: 11/29/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

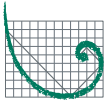
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			3.6/4.0	Top: 1.05 Middle: 1.78 Bottom: 2.29	Top: 0.9 Bottom: 0.5	0-4	0-2': SILTY CLAY: light yellowish brown (2.5Y, 6/4), dry, medium stiff, crumbly, no odor, penetrometer: 2.75 T/sq. ft. 2-3.6': CLAY: light yellowish brown (2.5Y, 6/4), dry, medium soft, good plasticity, no odor, little gravel at 3' bgs, penetrometer: 2.0 T/sq. ft. 3.6-4': NO RECOVERY
5			4.0/4.0	Top: 2.08 Middle: 2.13 Bottom: 2.96	Top: 2.4 Bottom: 1.4	4-8	4-8': CLAY: light yellowish gray (5YR, 5/6) to yellowish red, dry, stiff, medium to poor plasticity, gravel at 4.5' bgs, little silt, mottled, no odor, penetrometer: 2.5 T/sq. ft.
10			4.0/4.0	Top: 2.65 Middle: 3.02 Bottom: 3.33	Top: 3.7 Bottom: 3.6	8-12	8-12': CLAY: yellowish red, dry, medium stiff, very silty at top and bottom, crushed shells at 10.5' bgs, no odor, penetrometer: 2.25-2.5 T/sq. ft.
15			4.0/4.0	Top: 3.78 Middle: 4.03 Bottom: 3.61	Top: 4.4 Bottom: 3.8	12-16	12-16': CLAY: light yellowish brown (2.5Y, 6/4), dry, stiff, medium to poor plasticity, some very silty pockets at 14-16' bgs, penetrometer: 2.75 T/sq. ft.
20			4.0/4.0	Top: 4.21 Middle: 4.01 Bottom: 3.76	Top: 3.2 Bottom: 3.6	16-20	16-20': CLAY: gray (7.5YR, 5/1), dry, medium stiff, little silt, no odor, penetrometer: 2.25 T/sq. ft.
25			4.0/2.0	Top: 2.11 Bottom: 2.09	2.4	20-22	20-22': CLAY: pale brown (10YR, 6/3), dry, medium stiff, medium to poor plasticity, somewhat crumbly, little silt, no odor, penetrometer: 2.25 T/sq. ft.
			3.8/2.0	Top: 2.15 Bottom: 2.03	1.9	22-24	22-24': CLAY: pale brown (10YR, 6/3), dry, medium stiff, medium to poor plasticity, somewhat crumbly, little silt, no odor, penetrometer: 2.5 T/sq. ft.
			4.0/2.0	Top: 2.10 Bottom: 2.01	2.4	24-26	24-26': CLAY: pale brown (10YR, 6/3), dry, medium stiff, medium to poor plasticity, somewhat crumbly, little silt, no odor, penetrometer: 3.0 T/sq. ft.
			4.0/2.0	Top: 1.84 Bottom: 2.04	2.5	26-28	26-28': CLAY: yellowish brown (10YR, 5/6) to light gray, dry, very stiff, poor plasticity, mottled, penetrometer: 4.5 T/sq. ft.
30			4.0/2.0	Top: 1.87 Bottom: 2.16	2.4	28-30	28-30': CLAY: yellowish brown (10YR, 5/6) to light gray, dry, stiff, poor plasticity, mottled, some silt at top, penetrometer: 2.5 T/sq. ft.



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			4.0/2.0	Top: 1.90 Bottom: 2.52	1.9	30-32	30-32': CLAY: gray (5YR, 6/1), dry, medium soft, good plasticity, little silt, no odor, penetrometer: 1.5 T/sq. ft.
			3.3/2.0	Top: 2.08 Bottom: 1.91	2.9	32-34	32-34': SILTY CLAY: reddish brown 5YR, 5/3), dry, medium stiff to stiff, penetrometer: 2.75 T/sq. ft.
35			3.4/2.0	Top: 1.55 Bottom: 2.19	3	34-36	34-36': CLAYEY SILT: brown (7.5YR, 5/3), slightly moist to moist, soft, good plasticity, more stiff clay at base, penetrometer: 0.75 T/sq. ft.
			4.0/4.0	Top: 2.91 Middle: 2.04 Bottom: 1.85	Top: 2.5 Bottom: 3.2	36-40	36-37.5': CLAY: brown (7.5YR, 4/3), dry, stiff, no odor, penetrometer: 3.0 T/sq. ft. 37.5-38.2': CLAYEY SILT: brown (7.5YR, 5/4), slightly moist, soft, good plasticity, no odor, penetrometer: 0.75 T/sq. ft. 38.2-40': CLAY: light yellow brown, dry, medium stiff to stiff, no odor, penetrometer: 3.0 T/sq. ft.
40			4.0/4.0	Top: 2.81 Middle: 2.26 Bottom: 2.55	Top: 2.2 Bottom: 2.7	40-44	40-44': CLAY: brown (7.5YR, 5/3), dry very stiff, poor plasticity, no odor, penetrometer: 3.0-3.25 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-8

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508217.59, 3327817.3

Surface Elev.: NM Boring T.D.: 54' Boring Dia.: 3.25"

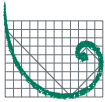
Date Started: 12/14/2021 Date Completed: 12/14/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Wanya Cook

Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

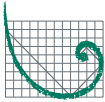
Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.0/2.0	Top: 0.76 Bottom: 1.15	0.1	0-2	0-2': SILTY CLAY: very dark brown (10YR, 2/2), medium soft, dry to slightly moist, rootlets at top, no odor, penetrometer: 1.0 T/sq. ft.
5			4.0/4.0	Top: 1.42 Middle: 2.11 Bottom: 2.18	Top: 0.2 Bottom: 0.3	2-6	2-6': CLAY: grayish brown (10YR, 5/2), medium stiff, moist, orange mottling increasing with depth, no odor, penetrometer: 1.25-1.5 T/sq. ft.
10			4.0/4.0	Top: 1.53 Middle: 2.00 Bottom: 1.95	Top: 0.3 Bottom: 0.3	6-10	6-10': CLAY: mottled reddish brown (5YR, 4/4), medium soft to stiff, slightly moist, clayey silt layers at 6.0-6.2' bgs, 6.4-6.5' bgs, 7.2' bgs, 7.3' bgs, 7.9' bgs, and 8.8-9.0' bgs, abundant shells at 9.6-10.0' bgs, no odor, penetrometer: 0.5-2.25 T/sq. ft.
15			4.0/4.0	Top: 3.03 Middle: 3.37 Bottom: 3.34	Top: 0.2 Bottom: 0.2	10-14	10-14': CLAY: grades from yellowish brown (10YR, 5/6), to brown (10YR, 5/3), very stiff to stiff, slightly moist, some black mottling near the top, no odor, penetrometer: 2.75-3.25 T/sq. ft.
20			4.0/4.0	Top: 3.16 Middle: 3.09 Bottom: 3.30	Top: 0.2 Bottom: 0.2	14-18	14-18': CLAYEY SILT: alternating with CLAY: yellowish brown (10YR, 5/4), clay is medium stiff and moist, clayey silt is very soft and slightly wet, clayey silt at 14.8-14.9' bgs, 15.2-15.3' bgs, 15.7-16.0' bgs, 16.1-16.2' bgs, 16.6-16.7' bgs, 16.9-17.1' bgs, and 17.5-17.6' bgs, no odor, penetrometer: 0-1.75 T/sq. ft.
25			4.0/4.0	Top: 3.12 Middle: 1.92 Bottom: 1.95	Top: 0.3 Bottom: 0.3	18-22	18-22': CLAY: light yellowish brown (10YR, 6/4), medium soft to stiff, moist, minor mineral concretions, abundant orange mottling, no odor, penetrometer: 0.5-2.0 T/sq. ft.
30			4.0/4.0	Top: 1.84 Middle: 1.96 Bottom: 1.98	Top: 0.1 Bottom: 0.1	22-26	22-26': CLAY: yellowish brown (10YR, 5/4), medium stiff, moist, minor silt content, minor black mineral concretions, no odor, penetrometer: 1.5-1.75 T/sq. ft.
30			4.0/4.0	Top: 2.40 Middle: 2.28 Bottom: 2.10	Top: 0.0 Bottom: 0.0	26-30	26-30': CLAY: dark yellowish brown (10YR, 4/6), hard, slightly moist, mineral concretions at 29.1' bgs, no odor, penetrometer: 4.25 T/sq. ft.



Project No.: 0526033 Date Drilled: 12/14/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
30-33.2'			4.0/4.0	Top: 2.00 Middle: 2.20 Bottom: 1.55	Top: 0.1 Bottom: 0.2	30-34	30-33.2': CLAY: with SILT: yellowish brown (10 YR, 5/4), very stiff, moist, silty clay at 30.5-30.6' bgs, 31.6-32.0' bgs, 32.7-32.9' bgs, no odor, penetrometer: 4.0 T/sq. ft. 33.2-34': SANDY CLAYEY SILT: yellowish brown (10YR, 5/4), medium soft, moist to slightly wet, no odor, penetrometer: 1.5 T/sq. ft.
34-35'			4.0/4.0	Top: 2.00 Middle: 2.27 Bottom: 2.29	Top: 0.4 Bottom: 0.4	34-38	34-35': SILTY CLAY: yellowish brown (10YR, 5/4), medium soft, moist, no odor, penetrometer: 0.75 T/sq. ft. 35-38': CLAY: grades from brown (10YR, 5/3) to dark yellowish brown (10YR, 4/4), stiff, slightly moist, no odor, penetrometer: 3.25 T/sq. ft.
38-42'			4.0/4.0	Top: 2.01 Middle: 2.48 Bottom: 2.20	Top: 0.1 Bottom: 0.3	38-42	38-42': CLAY: grades from yellowish brown (10YR, 5/6) to brown (10YR, 5/3), very stiff, slightly moist, no odor, penetrometer: 3.0-3.25 T/sq. ft.
42-46'			4.0/4.0	Top: 2.51 Middle: 2.29 Bottom: 1.38	Top: 0.2 Bottom: 0.6	42-46	42-46': CLAY: brown (10YR, 4/3), very stiff, moist, some silt content near bottom, orange mottling, no odor, penetrometer: 3.25-3.5 T/sq. ft.
46-50'			4.0/4.0	Top: 1.79 Middle: 1.29 Bottom: 2.70	Top: 0.1 Bottom: 0.1	46-50	46-47.8': SILTY CLAY: yellowish brown (10YR, 5/4), stiff, moist, no odor, penetrometer: 2.5-3.0 T/sq. ft. 47.8-48': SILT: yellowish brown (10YR, 5/4), wet, no odor 48-50': CLAY: yellowish brown (10YR, 5/4), stiff, moist, no odor, penetrometer: 2.5-3.0 T/sq. ft.
50-52'			4.0/4.0	Top: NM Middle: 2.12 Bottom: 1.87	Top: NM Bottom: 0.1	50-54	50-52': CLAY: observed at top and bottom, sealed for geotechnical analysis 52-54': CLAY: brown (10YR, 5/3), stiff, moist, mineral concretions at 53.3' bgs, orange mottling, no odor, penetrometer: 2.75 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-9

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508265.87, 3327953.8

Surface Elev.: NM Boring T.D.: 52' Boring Dia.: 2.25"

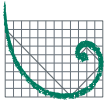
Date Started: 12/2/2021 Date Completed: 12/2/2021 Well Dia./Materials: 3/4" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

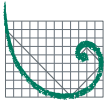
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.7/4.0	Top: 0.51 Middle: 2.00 Bottom: 2.15	0-4	0-2.7': CLAY: light yellow brown (2.5Y, 6/3) to gray on top, medium soft to medium stiff, dry, little silt at top, sparse white concretions, no odor, penetrometer: 1.5 T/sq. ft. 2.7-4': NO RECOVERY
5			4.0/4.0	Top: 2.21 Middle: 1.78 Bottom: 2.22	4-8	4-5.5': CLAY: light yellow brown (2.5Y, 6/3) to gray on top, medium soft to medium stiff, dry, little silt at top, sparse white concretions, no odor, penetrometer: 2.0 T/sq. ft. 5.5-8': SILTY CLAY: strong brown (7.5YR, 5/6), stiff clay with abundant silt pockets and lenses, dry, no odor, penetrometer: 2.0-2.5 T/sq. ft.
10			4.0/4.0	Top: 2.22 Middle: 2.35 Bottom: 2.81	8-12	8-10': SILTY CLAY: strong brown (7.5YR, 5/6), stiff clay with abundant silt pockets and lenses, dry, no odor, penetrometer: 2.5 T/sq. ft. 10-12': CLAY: reddish brown to yellow brown (10YR, 5/6), stiff, dry, abundant crushed shell layers at 11-11.5' bgs, no odor, penetrometer: 2.75 T/sq. ft.
15			4.0/4.0	Top: 3.37 Middle: 2.98 Bottom: 2.27	12-16	12-16': CLAY: light yellow brown (2.5Y, 6/3), stiff, dry, medium plasticity, little silt, mottled, no odor, penetrometer: 2.5 T/sq. ft.
20			4.0/4.0	Top: 2.23 Middle: 2.52 Bottom: 2.31	16-20	16-20': CLAY: gray (2.5Y, 6/1), medium stiff to stiff, dry, medium to good plasticity, some silt, no odor, penetrometer: 2.0-2.25 T/sq. ft.
25			4.0/4.0	Top: 1.61 Middle: 1.47 Bottom: 1.46	20-24	20-24': CLAY: light yellow brown (2.5Y, 6/4), stiff, dry, medium plasticity, with silt, no odor, penetrometer: 2.5 T/sq. ft.
25			4.0/4.0	Top: 1.49 Middle: 1.40 Bottom: 1.46	24-28	24-28': CLAY: light yellow brown (2.5Y, 6/4), stiff, dry, medium plasticity, with silt and scattered white mineral concretions, no odor, penetrometer: 2.5-2.75 T/sq. ft.
30			4.0/4.0	Top: 1.63 Middle: 1.79 Bottom: 1.64	28-32	28-32': CLAY: light yellow brown (2.5Y, 6/4), very stiff, dry, medium plasticity, with silt, mottled, with concretions, no odor, penetrometer: 3.25-3.75 T/sq. ft.



DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
						(Cont. from page 1)
30			4.0/4.0	Top: 1.63 Middle: 1.79 Bottom: 1.64	28-32	28-32': CLAY: light yellow brown (2.5Y, 6/4), very stiff, dry, medium plasticity, with silt, mottled, with concretions, no odor, penetrometer: 3.25-3.75 T/sq. ft.
			4.0/4.0	Top: 1.95 Middle: 1.38 Bottom: 2.14	32-36	32-34': SILTY CLAY: light gray (2.5Y, 7/1), medium soft, slightly moist to dry, good plasticity, no odor, penetrometer: 1.0-1.25 T/sq. ft. 34-36': CLAYEY SILT: light gray to yellowish brown, medium soft, slightly moist, good plasticity, no odor, penetrometer: 1.0-2.5 T/sq. ft.
35			4.0/4.0	Top: 1.97 Middle: 1.73 Bottom: 2.48	36-40	36-40': CLAY: brown (10YR, 5/3), stiff, dry, medium plasticity, silty at top, no odor, penetrometer: 2.0-2.5 T/sq. ft.
40			4.0/4.0	Top: 2.51 Middle: 2.36 Bottom: 2.18	40-44	40-44': CLAY: light yellowish brown (10YR, 6/4), very stiff, dry, poor plasticity, no odor, penetrometer: 3.0 T/sq. ft.
45			4.0/4.0	Top: 2.49 Middle: 2.14 Bottom: 1.83	44-48	44-48': CLAY: with SILT: light yellow brown, stiff, soft, medium to good plasticity, more silt at bottom, no odor, penetrometer: 2.0-3.0 T/sq. ft.
50			3.0/2.0	Top: 2.36 Bottom: 2.06	48-50	48-49.5': CLAYEY SANDY SILT: pale brown (10YR, 6/3), stiff, slightly moist to wet, softer and with good plasticity where wet, no odor, penetrometer: 2.5 T/sq. ft.
			4.0/2.0	Top: 2.60 Bottom: 2.72	50-52	49.5-52': CLAY: light brownish gray (10YR, 6/2), stiff, dry, medium plasticity, no odor, penetrometer: 2.25 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-9D

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508266.11, 3327954.1

Surface Elev.: NM Boring T.D.: 52' Boring Dia.: 2.25"

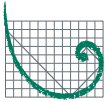
Date Started: 12/2/2021 Date Completed: 12/2/2021 Well Dia./Materials: 3/4" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Blake Sistrunk

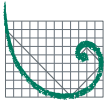
Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			2.7/4.0	Top: 0.51 Middle: 2.00 Bottom: 2.15	0-4	0-2.7': CLAY: light yellow brown (2.5Y, 6/3) to gray on top, medium soft to medium stiff, dry, little silt at top, sparse white concretions, no odor, penetrometer: 1.5 T/sq. ft. 2.7-4': NO RECOVERY
5			4.0/4.0	Top: 2.21 Middle: 1.78 Bottom: 2.22	4-8	4-5.5': CLAY: light yellow brown (2.5Y, 6/3) to gray on top, medium soft to medium stiff, dry, little silt at top, sparse white concretions, no odor, penetrometer: 2.0 T/sq. ft. 5.5-8': SILTY CLAY: strong brown (7.5YR, 5/6), stiff clay with abundant silt pockets and lenses, dry, no odor, penetrometer: 2.0-2.5 T/sq. ft.
10			4.0/4.0	Top: 2.22 Middle: 2.35 Bottom: 2.81	8-12	8-10': SILTY CLAY: strong brown (7.5YR, 5/6), stiff clay with abundant silt pockets and lenses, dry, no odor, penetrometer: 2.5 T/sq. ft. 10-12': CLAY: reddish brown to yellow brown (10YR, 5/6), stiff, dry, abundant crushed shell layers at 11-11.5' bgs, no odor, penetrometer: 2.75 T/sq. ft.
15			4.0/4.0	Top: 3.37 Middle: 2.98 Bottom: 2.27	12-16	12-16': CLAY: light yellow brown (2.5Y, 6/3), stiff, dry, medium plasticity, little silt, mottled, no odor, penetrometer: 2.5 T/sq. ft.
20			4.0/4.0	Top: 2.23 Middle: 2.52 Bottom: 2.31	16-20	16-20': CLAY: gray (2.5Y, 6/1), medium stiff to stiff, dry, medium to good plasticity, some silt, no odor, penetrometer: 2.0-2.25 T/sq. ft.
25			4.0/4.0	Top: 1.61 Middle: 1.47 Bottom: 1.46	20-24	20-24': CLAY: light yellow brown (2.5Y, 6/4), stiff, dry, medium plasticity, with silt, no odor, penetrometer: 2.5 T/sq. ft.
25			4.0/4.0	Top: 1.49 Middle: 1.40 Bottom: 1.46	24-28	24-28': CLAY: light yellow brown (2.5Y, 6/4), stiff, dry, medium plasticity, with silt and scattered white mineral concretions, no odor, penetrometer: 2.5-2.75 T/sq. ft.
30			4.0/4.0	Top: 1.63 Middle: 1.79 Bottom: 1.64	28-32	28-32': CLAY: light yellow brown (2.5Y, 6/4), very stiff, dry, medium plasticity, with silt, mottled, with concretions, no odor, penetrometer: 3.25-3.75 T/sq. ft.
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DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
						(Cont. from page 1)
30			4.0/4.0	Top: 1.63 Middle: 1.79 Bottom: 1.64	28-32	28-32': CLAY: light yellow brown (2.5Y, 6/4), very stiff, dry, medium plasticity, with silt, mottled, with concretions, no odor, penetrometer: 3.25-3.75 T/sq. ft.
			4.0/4.0	Top: 1.95 Middle: 1.38 Bottom: 2.14	32-36	32-34': SILTY CLAY: light gray (2.5Y, 7/1), medium soft, slightly moist to dry, good plasticity, no odor, penetrometer: 1.0-1.25 T/sq. ft. 34-36': CLAYEY SILT: light gray to yellowish brown, medium soft, slightly moist, good plasticity, no odor, penetrometer: 1.0-2.5 T/sq. ft.
35			4.0/4.0	Top: 1.97 Middle: 1.73 Bottom: 2.48	36-40	36-40': CLAY: brown (10YR, 5/3), stiff, dry, medium plasticity, silty at top, no odor, penetrometer: 2.0-2.5 T/sq. ft.
40			4.0/4.0	Top: 2.51 Middle: 2.36 Bottom: 2.18	40-44	40-44': CLAY: light yellowish brown (10YR, 6/4), very stiff, dry, poor plasticity, no odor, penetrometer: 3.0 T/sq. ft.
45			4.0/4.0	Top: 2.49 Middle: 2.14 Bottom: 1.83	44-48	44-48': CLAY: with SILT: light yellow brown, stiff, soft, medium to good plasticity, more silt at bottom, no odor, penetrometer: 2.0-3.0 T/sq. ft.
			3.0/2.0	Top: 2.36 Bottom: 2.06	48-50	48-49.5': CLAYEY SANDY SILT: pale brown (10YR, 6/3), stiff, slightly moist to wet, softer and with good plasticity where wet, no odor, penetrometer: 2.5 T/sq. ft.
50			4.0/2.0	Top: 2.60 Bottom: 2.72	50-52	49.5-52': CLAY: light brownish gray (10YR, 6/2), stiff, dry, medium plasticity, no odor, penetrometer: 2.25 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-10

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM N15 508109.37, 3327861.3

Surface Elev.: NM Boring T.D.: 52' Boring Dia.: 3.25"

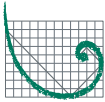
Date Started: 12/13/2021 Date Completed: 12/14/2021 Well Dia./Materials: 1" PVC Pre-Pack

Drilling Company: Walker Hill Driller: Wanya Cook

Drilling Method: Direct Push - Geoprobe 3230DT Grouting Method: Portland

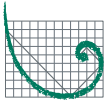
Logged by: Shawn Wiggins Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0			1.6/2.0	Top: 0.72 Bottom: 1.40	1.2	0-2	0-1.6': SILTY CLAY: dark brown (10R, 3/3), very stiff, slightly moist, minor rootlets at top, no odor, penetrometer: 3.0 T/sq. ft. 1.6-2': NO RECOVERY
5			3.7/4.0	Top: 1.94 Middle: 2.00 Bottom: 1.36	Top: 1.9 Bottom: 3.0	2-6	2-5.7': CLAY: mottled brownish yellow (10YR, 6/6), medium soft, moist, no odor, penetrometer: 1.0-1.25 T/sq. ft. 5.7-6': NO RECOVERY
10			4.0/4.0	Top: 0.52 Middle: 2.20 Bottom: 2.18	Top: 2.6 Bottom: 2.0	6-10	6-10': SILTY CLAY: grades from brownish yellow (10YR, 6/6) to light brownish gray (10YR, 6/2), very stiff to medium stiff, moist, minor fine sand content, some silty sand at bottom, no odor, penetrometer: 2.5-4.5 T/sq. ft.
15			4.0/4.0	Top: 2.56 Middle: 3.54 Bottom: 3.17	Top: 3.8 Bottom: 1.7	10-14	10-10.3': CLAY: light brownish gray, very hard, dry, no odor, penetrometer: 2.5 T/sq. ft. 10.3-11': SHELLY CLAY: yellowish brown (10YR, 5/4), medium stiff, moist to slightly wet, no odor, penetrometer: 2.5 T/sq. ft. 11-14': CLAY: grades from brownish yellow (10YR, 6/6) to grayish brown (10YR, 5/2), very stiff to stiff, moist, no odor, penetrometer: 2.5-3.5 T/sq. ft.
20			4.0/4.0	Top: 3.03 Middle: 2.07 Bottom: 1.83	Top: 3.7 Bottom: 2.6	14-18	14-18': CLAY: light olive brown (2.5Y, 5/4), medium stiff, moist to wet in spots, slightly wet to wet silt layers at 14.8' bgs, 15.0' bgs, 15.2' bgs, 15.7' bgs, 16.0-16.3' bgs, 16.5-16-7' bgs, and 17.6' bgs, no odor, penetrometer: 2.0-3.0 T/sq. ft.
25			4.0/4.0	Top: 2.84 Middle: 1.60 Bottom: 1.69	Top: 3.0 Bottom: 2.9	18-22	18-22': CLAY: grades from dark grayish brown (2.5Y, 4/2) to light yellowish brown (2.5Y, 6/2), medium stiff to medium soft, slightly moist, orange mottling at 20.0-21.4' bgs, some silt content at 21.5-22.0' bgs, no odor, with abundant shells, penetrometer: 1.56-1.75 T/sq. ft.
30			4.0/4.0	Top: 1.69 Middle: 1.52 Bottom: 1.63	Top: 4.0 Bottom: 3.0	22-26	22-26': CLAY: light yellowish brown (2.5Y, 6/4), medium stiff, slightly moist, minor orange mottling, minor silt content increasing with depth, no odor, penetrometer: 1.5-2.5 T/sq. ft.
30			4.0/4.0	Top: 1.60 Middle: 1.49 Bottom: 1.74	Top: 1.8 Bottom: 1.9	26-30	26-30': CLAY: light olive brown (2.5Y, 5/3), medium stiff, dry to slightly moist, minor black and orange mottling, minor silt content, no odor, penetrometer: 2.0-2.5 T/sq. ft.



Project No.: 0526033 Date Drilled: 12/14/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
30-34			4.0/4.0	Top: 1.58 Middle: 1.96 Bottom: 1.63	Top: 1.3 Bottom: 2.6	30-34	30-34': CLAY: mottled light brownish gray (2.5Y, 6/2) and dark yellowish brown (10YR, 4/6), hard, dry to slightly moist, minor black mineral concretions, no odor, penetrometer: 3.75-4.25 T/sq. ft.
34-38			4.0/4.0	Top: 1.42 Middle: 1.89 Bottom: 1.97	Top: 2.5 Bottom: 2.4	34-38	34-36': CLAYEY SILT: alternating with SILTY CLAY: light olive brown (2.5Y, 5/6), silty clay is medium stiff, clayey silt is soft to medium soft, clayey silt at 34.4-34.6' bgs, 34.7-34.8' bgs, 35.0-35.1' bgs, and 35.6-35.9' bgs, no odor, penetrometer: 0.0 T/sq. ft. 36-38': CLAY: dark yellowish brown (10YR, 4/6), very stiff, dry to slightly moist, no odor, penetrometer: 3.5 T/sq. ft.
38-42			4.0/4.0	Top: 2.68 Middle: 2.27 Bottom: 2.28	Top: 1.5 Bottom: 3.7	38-42	38-42': CLAY: light brownish gray (10YR, 6/2), hard, slightly moist, minor black mottling, extensive orange mottling, no odor, penetrometer: 4.0-4.25 T/sq. ft.
42-46			4.0/4.0	Top: 2.51 Middle: 2.16 Bottom: 1.76	Top: 3.1 Bottom: 2.0	42-46	42-46': CLAY: gray (10YR, 6/1), very stiff, dry to slightly moist, orange mottling and minor black mottling, minor silt content near bottom, no odor, penetrometer: 3.5-4.0 T/sq. ft.
46-50			4.0/4.0	Top: 1.54 Middle: 1.31 Bottom: 1.35	Top: 1.7 Bottom: 1.7	46-50	46-50': CLAYEY SILT: yellowish brown (10YR, 5/4), medium stiff, moist to very slightly wet, minor orange mottling, no odor, penetrometer: 0.75 T/sq. ft.
50-52			4.0/2.0	Top: 1.21 Middle: 2.92 Bottom: 2.97	2.8	50-52	50-52': CLAY: gray (10YR, 5/1), stiff, slightly moist, orange mottling, no odor, penetrometer: 2.5 T/sq. ft.
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ERM Environmental Resources Management

Boring/Well No.: MW-11

Project: Henning Management, L.L.C. v. Chevron U.S.A. Inc., et al. Project No.: 0526033

Location: Hayes, LA Coordinates: UTM 15N 508381.91, 3327861.8

Surface Elev.: NM Boring T.D.: 52' Boring Dia.: 2.25" soil/3.25" well

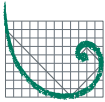
Date Started: 12/7/2021 Date Completed: 12/7/2021 Well Dia./Materials: 1" Pre-Pack PVC

Drilling Company: Walker Hill Driller: Blake Sistrunk

Drilling Method: Direct Push - Geoprobe 7822DT Grouting Method: Portland

Logged by: Cory Hunter Soil Sample Method: Acetate liner

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
0							
0-4			2.0/4.0	Top: 2.47 Bottom: 2.80	0.1	0-4	0-2': CLAY: brown (7.5YR, 4/2), dry, medium stiff, soft and silty at top, good plasticity, no odor, penetrometer: 0.75-2.0 T/sq. ft. 2-4': NO RECOVERY
4-8			4.0/4.0	Top: 3.06 Middle: 2.64 Bottom: 2.75	Top: 0.2 Bottom: 0.1	4-8	4-8': CLAY: light yellowish brown (10YR, 6/4) to light gray, dry, mottled, stiff, medium plasticity, some silt, penetrometer: 1.75-2.25 T/sq. ft.
8-12			4.0/4.0	Top: 2.74 Middle: 2.58 Bottom: 3.18	Top: 0.2 Bottom: 0.3	8-12	8-10': SILTY CLAY: yellowish red (5YR, 4/6) to light gray, mottled, dry, stiff, no odor, penetrometer: 2.0 T/sq. ft. 10-12': CLAY: yellowish red (5YR, 4/6), dry, stiff with dense shell at 11 feet, no odor, penetrometer: 3.5 T/sq. ft.
12-16			4.0/4.0	Top: 3.47 Middle: 3.22 Bottom: 2.82	0.2	12-16	12-16': CLAY: light olive brown (2.5Y, 5/4) to light gray, dry, stiff, with occasional silt pockets/lenses, penetrometer: 2.25-2.5 T/sq. ft.
16-20			4.0/4.0	Top: 2.99 Middle: 2.83 Bottom: 1.85	0.2	16-20	16-20': SILTY CLAY: gray (10YR, 5/1) to yellowish brown (10YR, 5/6), slightly moist to dry, medium stiff to soft where silty, with abundant silty lenses and pockets, penetrometer: 0.5-1.5 T/sq. ft.
20-24			4.0/4.0	Top: 1.91 Middle: 1.92 Bottom: 1.90	0.2	20-24	20-24': CLAY: yellowish brown (10YR, 5/6), dry, medium stiff, good plasticity, little silt, no odor, penetrometer: 2.25 T/sq. ft.
24-28			4.0/4.0	Top: 1.85 Middle: 2.20 Bottom: 2.01	Top: 0.1 Bottom: 0.3	24-28	24-28': CLAY: yellowish brown (10YR, 5/6), dry, medium stiff, good plasticity, little silt, no odor, penetrometer: 2.0 T/sq. ft.
28-32			4.0/4.0	Top: 2.05 Middle: 1.71 Bottom: 2.07	Top: 1.8 Bottom: 0.7	28-32	28-29.5': CLAY: yellowish brown (10YR, 5/6), dry, medium stiff, good plasticity, little silt, no odor, penetrometer: 1.75-3.0 T/sq. ft.



Project No.: 0526033 Date Drilled: 12/7/2021

DEPTH (FEET)	LITHOLOGY (GRAPHIC LOG)	WELL CONSTRUCTION	SAMPLE RECOVERY (FEET/FEET)	FIELD EC (mS/cm)	PID (PPM)	DESCRIPTION INTERVAL (FEET)	SOIL DESCRIPTION
30							(Cont. from page 1)
			4.0/4.0	Top: 2.05 Middle: 1.71 Bottom: 2.07	Top: 1.8 Bottom: 0.7	28-32	29.5-30.5': CLAYEY SILT: yellowish brown (10YR, 5/4), moist to wet, soft, penetrometer: 1.75-3.25 T/sq. ft. 30.5-32': CLAY: yellowish brown (10YR, 5/6), dry, very stiff, little silt, penetrometer: 3.25 T/sq. ft.
			4.0/4.0	Top: 2.12 Middle: 2.15 Bottom: 2.16	Top: 0.3 Bottom: 0.4	32-36	32-36': SILTY CLAY: light yellowish brown (10YR, 6/4), dry, medium stiff, medium plasticity, somewhat crumbly, no odor, penetrometer: 1.5-2.25 T/sq. ft.
			4.0/4.0	Top: 1.92 Middle: 2.09 Bottom: 2.55	0.4	36-40	36-38.5': CLAYEY SILT: yellowish brown (10YR, 5/4), moist, medium soft, good plasticity, with stiff clayey interval 37.5-38 feet, no odor, penetrometer: 1.0 T/sq. ft. 38.5-40': CLAY: brown, dry, stiff, medium plasticity, no odor, penetrometer: 3.5 T/sq. ft.
			4.0/4.0	Top: 2.15 Middle: 2.30 Bottom: 2.46	Top: 0.3 Bottom: 0.2	40-44	40-44': CLAY: light brownish gray (10YR, 6/2), dry, very stiff, medium to poor plasticity, no odor, penetrometer: 3.25 T/sq. ft.
			3.7/4.0	Top: 2.59 Middle: 1.53 Bottom: 1.88	0.2	44-48	44-48': SILTY CLAY: light yellowish brown (10YR, 6/4), moist to dry, soft at top, clay with abundant silt pockets and lenses, 0.75-2.25 T/sq. ft.
			4.0/4.0	Top: 2.76 Middle: 2.64 Bottom: 1.64	Top: 0.5 Bottom: 0.8	48-52	48-52': CLAY: grayish brown (10YR, 5/2), dry when cut, stiff, medium to poor plasticity, penetrometer: 2.5 T/sq. ft.
55							
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65							