

APPENDIX A







Boring and Test Pit Logs

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10:46 am, May 23, 2012

Alameda County
Environmental Health

5148.3.002.01
May 25, 2001

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DATE OF BORING: April 26, 2001	BLOWS/FT.	qu UNCON STRENGTH (TSF)	IN PLACE		
				SURFACE ELEVATION: Approx. 444 feet (135 meters)			DRY UNIT WEIGHT	MOIST. CONTENT	
DESCRIPTION				*FIELD PENET. APPROX.	(PCF)	% DRY WEIGHT			
0									
1-1				SILTY CLAY (CH), dark green brown, very stiff, moist, high plasticity, trace root structures, some rare oxidation	27	3.5*	100.0	25.6	
1-2				SILTY CLAY (CL), greenish brown, very stiff, moist, medium plasticity, some mottling, trace sand.	22	3.25*	99.0	23.9	
1-3				Same as above.	16	3.0*	100.0	26.3	
1-4				SILTY CLAY (CL/CH), olive brown, very stiff, moist, high plasticity, slight oxidation.	16	2.5*	98.0	26.9	
1-5				CLAYSTONE, light brown, friable, moderately weathered (oxidation), coarse to medium grained, some rounded lithics, some sand.	27	3.0*	107.0	19.8	
1-6				SILTSTONE, light brown, friable, friable, medium to fine grained, carbonate staining.	20	1.0*	109.0	22.1	
				Bottom of boring at approximately 24 feet. Groundwater not encountered during drilling.					

MET. 5148.GPJ 5/23/01






ENGEO
INCORPORATED

SILVERIA/HAIGHT PROPERTY
DUBLIN, CALIFORNIA

BORING NO.: B-1
DATE: May 2001
PROJ. NO.: 5148.3.002.01

CHECKED BY


FIGURE NO.
A-1

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DATE OF BORING: April 26, 2001		BLOWS/FT.	qu UNCON STRENGTH (TSF)	IN PLACE		
				SURFACE ELEVATION: Approx. 465 feet (142 meters)				DRY UNIT WEIGHT	MOIST. CONTENT	
DESCRIPTION				*FIELD PENET. APPROX.	(PCF)	% DRY WEIGHT				
0										
		2-1		SILTY CLAY (CH), dark brown, stiff, moist, high plasticity, some organics, trace sand.		17	2.0*	103.0	24.0	
-1				Same as above.						
5		2-2				23	2.25*	105.0	22.9	
-2										
		2-3		SILTY CLAY (CL), olive, stiff, moist, low plasticity, trace lithics, some sand.		24	2.5*	113.0	20.0	
				CLAYSTONE, light gray to brown, friable, some root traces, some medium-grained sand.						
10										
				SANDSTONE, light gray, friable, poorly indurated.						
-4		2-4				50	+4.5*	116.0	18.1	
15										
-5										
		2-5		SANDSTONE, light brown, friable, moderately cemented, fine grained.		52	+4.5*	106.0	23.0	
20				Bottom of boring at approximately 19 feet. Groundwater encountered at 18 1/2 feet.						
-7										
25										
-8										
30										
-9										

MET 5148.GPJ 5/23/01

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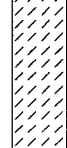
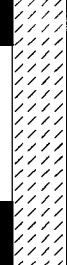
SILVERIA/HAGHT PROPERTY
DUBLIN, CALIFORNIA

BORING NO.: B-2
DATE: May 2001
PROJ. NO.: 5148.3.002.01

CHECKED BY


FIGURE NO.
A-2

MET. 5148.GPJ 5/23/01

DEPTH (FEET)	DEPTH (METERS)	SAMPLE NUMBER	LOG, LOCATION AND TYPE OF SAMPLE	DATE OF BORING: April 26, 2001		BLOWS/FT.	qu UNCON STRENGTH (TSF)	IN PLACE		
				SURFACE ELEVATION: Approx. 475 feet (145 meters)				DRY UNIT WEIGHT	MOIST. CONTENT	
DESCRIPTION				*FIELD PENET. APPROX.	(PCF)	% DRY WEIGHT				
0										
		3-1		SILTY CLAY (CH), dark brown, very stiff to hard, moist, high plasticity,		33	1.25*	104.0	23.4	
		3-2		SILTY CLAY, light brown, hard, slightly moist, low plasticity, some root structures, little sand.		49	4.5*	117.0	17.0	
		3-3		Same as above.		51	4.5*	120.0	16.1	
		3-4		CLAYSTONE, light brown, friable, highly fractured.						
		3-5				36	2.5*	102.0	24.6	
				Bottom of boring at approximately 20 feet. Groundwater not encountered during drilling.		55	+4.5*	113.0	19.3	

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SILVERIA/HAIGHT PROPERTY
DUBLIN, CALIFORNIA

BORING NO.: B-3
DATE: May 2001
PROJ. NO.: 5148.3.002.01

CHECKED BY


FIGURE NO.
A-3

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
TP-1	0 - 2	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	2 - 3	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable.
	3 - 5	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable, with CLAYSTONE interbeds. N5°W 25°E Bottom at 5 feet. No free ground water encountered.
TP-2	0 - 5	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	5 - 7	Grayish brown SILTY CLAY, very stiff, very moist, high – medium plasticity.
	7 - 9	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.
	9 - 10	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 10 feet. No free ground water encountered.
TP-3	0-4	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	4 - 6	Yellowish brown CLAYEY SAND, loose, very moist, low plasticity.
	6 - 7¼	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	7¼ - 7½	Yellowish brown CONGLOMERATE, closely fractured thickly bedded, poorly indurated, friable.
	7½ - 8	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 8 feet. No free ground water encountered.
TP-4	0-5½	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	5½ - 7	Grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity, abundant carbonates.
	7 - 7½	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates, cusp slickensides.
	7½ - 8½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 8½ feet. No free ground water encountered.
TP-5	0 - 4¼	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	4¼ - 6½	Light brown SILTY CLAY, very stiff, moist, high – medium plasticity, abundant carbonates near base of layer.
	7 - 7½	Light brown CLAYSTONE, , closely fractured thickly bedded, poorly indurated, friable, abundant carbonates, cusp slickensides.
	7½ - 8¼	Gray SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
		Bottom at 8¼ feet. No free ground water encountered.
TP-6	0 - 5	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	5 - 7	Dark grayish brown SILTY CLAY, very stiff, very moist becoming moist, high – medium plasticity.
	7 - 8	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 8 feet. No free ground water encountered.
TP-7	0 - 3½	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3½ - 6¼	Grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	6¼ - 11	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, very friable, abundant carbonates. Bottom at 11 feet. No free ground water encountered.
TP-8	0 - 3½	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3½ - 8	Grayish brown SILTY CLAY, stiff, moist, high – medium plasticity.
	8 - 11	Brown SILTY lean CLAY, stiff, moist, medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	11 - 11½	<p>Brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, very friable, abundant random- oriented slickensides-- well developed along down sloping plane.</p> <p>Bottom at 11½ feet. No free ground water encountered.</p>
TP-9	0 - 4½	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	4½ - 9½	Grayish brown SILTY CLAY, stiff, very moist, high – medium plasticity, abundant carbonates.
	9½ - 10	Grayish brown CLAYEY SAND, very moist, medium dense.
	10 - 11	Gray SANDSTONE, closely fractured thickly bedded, poorly indurated, very friable.
	11 - 13	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, very friable, with subrounded claystone pebbles in matrix
	13 - 14½	<p>Light brown SILTY SANDSTONE, closely fractured thickly bedded, poorly indurated, uncemented, very friable.</p> <p>Bottom at 14½ feet. No free ground water encountered.</p>
TP-10	0 - 1½	Dark gray-brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	1½ - 2½	Grayish brown CLAYEY SAND, moist, medium dense, with sandstone fragments.
	2½ - 3¼	Light brown SILTY SAND, moist, loose.
	3¼ - 6	Light brown SILTY SANDSTONE, locally pebbly, closely fractured thickly bedded, poorly indurated, poorly cemented, very friable. Bottom at 6 feet. No free ground water encountered.
TP-11	0 - 3½	Dark gray-brown SILTY CLAY, very stiff, moist becoming very moist, high plasticity, roots common.
	3½ - 6½	Grayish brown fat SILTY CLAY, moist, high plasticity, locally pebbly, medium stiff.
	6½ - 7¾	Brown SILTY CLAY, moist, stiff, medium plasticity.
	7¾ - 9	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 9 feet. No free ground water encountered.
TP-12	0 - 3¼	Dark grayish brown SILTY CLAY, stiff, moist, high plasticity, roots common. trace subrounded pebbles.
	3¼ - 5	Grayish brown SILTY CLAY, moist, high - medium plasticity, medium stiff, abundant carbonates between 4 and 7 feet.
	5 - 6¾	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	6¾ - 8	Light brown SILTY SANDSTONE, closely fractured thickly bedded, poorly indurated, very friable, uncemented, abundant carbonates in upper most layer. Bottom at 8 feet. No free ground water encountered.
TP-13	0 - 3½	Dark gray-brown SILTY CLAY, very stiff, moist, high plasticity, roots common.
	3½ - 5¾	Grayish brown SILTY CLAY, stiff, moist, high – medium plasticity, trace subrounded pebbles.
	5¾ - 7	Brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, moderate to well developed random oriented slickensides.
	7 - 9	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, abundant carbonates. Bottom at 9 feet. No free ground water encountered.
TP-14	0 - 3¼	Dark gray-brown SILTY CLAY, very stiff, moist, high plasticity, roots common.
	3¼ - 4½	Grayish brown SILTY CLAY, stiff, moist, high – medium plasticity.
	4½ - 6½	Grayish brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, abundant carbonates with possible carbonate cement.
	6½ - 7½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates in upper most of layer, gravelly at layer base.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	7½ - 9¾	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, locally pebbly.
	9¾ - 10½	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, moderate to well developed random oriented slickensides at 9¾ to 10 feet. Bottom at 10½ feet. No free ground water encountered.
TP-15	0 - 3½	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3½ - 5	Grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	5 - 7½	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, with occasional subrounded pebbles. Bottom at 7½ feet. No free ground water encountered.
TP-16	0 - 2¼	Dark grayish brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.
	2¼ - 4	Grayish brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable to weak. Bottom at 4 feet. No free ground water encountered.
TP-17	0 - 4	Dark grayish brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	4 - 5½	Dark grayish brown SILTY CLAY, very stiff, very moist, high – medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	5½ - 6½	Brown SILTY CLAY, very stiff, very moist, medium plasticity.
	6½ - 8	Yellowish brown SAND SANDSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 8 feet. No free ground water encountered.
TP-18	0 - 3	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3 - 4½	Grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity, carbonates common.
	4½ - 6	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.
	6 - 7½	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable. N10°W, 5°W
	7½ - 8	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 8 feet. No free ground water encountered.
TP-19	0 - 3	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	3 - 4½	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, minor cementation.
	4½ - 6½	Brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable. Undulating discontinuous shears up to 15 inches in length.
	6½ - 8½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 8½ feet. No free ground water encountered.
TP-20	0 - 2	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	2 - 3	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.
	3 - 6	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates in upper one-foot. Bottom at 6 feet. No free ground water encountered.
TP-21	0 - 2	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	2 - 3¼	Dark grayish brown SILTY CLAY, very stiff, very moist, high – medium plasticity.
	3¼ - 5	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable, minor cementation.
	5 - 5¼	Dark yellowish brown PEBBLE CONGLOMERATE, closely fractured thickly bedded, poorly indurated, friable.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	5¼ - 5½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 5½ feet. No free ground water encountered.
TP-22	0 - 3	Dark gray-brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.
	3 - 4¼	Dark grayish brown SILTY CLAY, stiff, moist, high – medium plasticity.
	4¼ - 5	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable.
	5 - 6	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable
	6 - 6½	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 6½ feet. No free ground water encountered.
TP-23	0 - 4¼	Dark gray-brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.
	4¼ - 5½	Dark grayish brown SILTY CLAY, stiff, very moist, high – medium plasticity.
	5½ - 7	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, moderately developed randomly oriented slickensides abundant near top and decreasing with depth. . Bottom at 7 feet. No free ground water encountered.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
TP-24	0 - 3	Dark grayish brown fat SILTY CLAY, very stiff, slightly moist, high plasticity, roots common, dessication cracks to 3 feet.
	3 - 7	Dark grayish CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable to weak.
	7 - 10½	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable.
	10½ - 11½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 11½ feet. No free ground water encountered.
TP-25	0 - 3½	Dark gray fat SILTY CLAY, very stiff, slightly moist, high plasticity, roots common, minor dessication cracks.
	3½ - 6¼	Dark grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable.
	6¼ - 7	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable.
	7 - 7½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 7½ feet. No free ground water encountered.
TP-26	0 - 2	Very dark gray fat SILTY CLAY, very stiff, slightly moist, high plasticity, roots common, minor dessication cracks.
	2 - 5	Mottled dark grayish brown/ grayish brown lean SILTY CLAY, very stiff, slightly moist, medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	5 - 8	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, poorly developed randomly oriented slickensides and carbonates between 6 and 7 feet.
	8 - 10½	Grayish brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 10½ feet. No free ground water encountered.
TP-27	0 - 2¾	Dark gray-brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.
	2¾ - 5½	Dark grayish brown SILTY CLAY, stiff, slightly moist, high – medium plasticity.
	5½ - 6	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, moderately developed randomly oriented slickensides abundant near top and decreasing with depth.
	6 - 7½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 7½ feet. No free ground water encountered.
TP-28	0 - 3	Dark gray-brown SILTY CLAY, very stiff, slightly moist, high plasticity, roots common.
	3 - 4	Dark grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, moderate to well developed random oriented slickensides.
	4 - 6	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	6 - 7	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, abundant carbonates. Bottom at 7 feet. No free ground water encountered.
TP-29	0 - 2	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	2 - 3½	Dark grayish brown SILTY CLAY, stiff, moist, high – medium plasticity.
	3½ - 5	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable.
	5 - 7	Brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, two moderate to well developed slickensides planes at ~90° to each other. Bottom at 7 feet. No free ground water encountered.
TP-30	0 - 1½	Dark gray-brown SILTY CLAY, very stiff, moist, high plasticity, roots common.
	1½ - 2	Dark grayish brown lean SANDY CLAY, stiff, very moist, medium plasticity.
	2 - 4½	Light brown SANDSTONE, closely fractured thickly bedded, poorly indurated, friable to weak, abundant carbonates, minor carbonate cementing.
	4½ - 6	Grayish brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 6 feet. No free ground water encountered.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
TP-31	0 - ½	Dark gray-brown SILTY CLAY, very stiff, moist, high plasticity, roots common.
	½ - ¾	Dark brown SANDY CLAY, stiff, very moist becoming slightly moist, medium plasticity.
	¾ - 5	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, with two ±2-inch thick coarse SANDSTONE layers.
	5 - 7	Grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates.
	7 - 8½	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 8½ feet. No free ground water encountered.
TP-32	0 - 3	Dark grayish brown SILTY CLAY, stiff, moist becoming grayish brown and very moist, medium plasticity.
	3 - 6	Dark grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. N70°W 22°S Bottom at 6 feet. No free ground water encountered.
TP-33	0 - 1	Dark grayish brown SILTY CLAY, stiff, very moist, medium plasticity.
	1 - 4	Dark grayish brown SILTY CLAY, stiff, very moist, high – medium plasticity.
	4 - 6¼	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	6¼ - 6½	Dark grayish brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. N90°W 17°S Bottom at 6½ feet. No free ground water encountered.
TP-34	0 - 2½	Dark gray-brown SILTY CLAY, very stiff, moist, high plasticity, roots common.
	2½ - 5	Grayish brown SILTY CLAY, very stiff, moist to very moist, high – medium plasticity.
	5 - 7	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 7 feet. No free ground water encountered.
TP-35	0 - 5	Dark gray-brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	5 - 9	Brown SILTY CLAY, very stiff, very moist, high – medium plasticity, minor carbonates.
	9 - 10	Light brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 10 feet. No free ground water encountered.
TP-36	0 - 3½	Very dark gray SILTY CLAY, very stiff, moist to very moist, high – medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	3½ - 6	Grayish brown SILTY CLAY, very stiff, very moist, high – medium plasticity.
	6 - 8	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable. Bottom at 8 feet. No free ground water encountered.
TP-37	0 - 2½	Dark grayish brown SILTY CLAY, very stiff, moist to very moist, high – medium plasticity.
	2½ - 8½	Grayish brown SILTY CLAY, very stiff, very moist, medium plasticity, with poorly developed randomly oriented slickensides between 4 and 6 feet.
	8½ - 12	Light yellowish brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, abundant carbonates in the upper two feet. Bottom at 12 feet. No free ground water encountered.
TP-38	0 - 3	Dark grayish brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3 - 5¼	Grayish brown SILTY CLAY, very stiff, very moist, high plasticity, carbonates common.
	5¼ - 6½	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, carbonates common

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	6½ - 8	Dark gray CLAYSTONE, closely fractured, thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 8 feet. No free ground water encountered.
TP-39	0 - 2½	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	2½ - 7½	Grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	7½ - 9	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, well developed planar slickensides parallel to ground surface.
	9 - 10	Yellowish brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable. Bottom at 10 feet. No free ground water encountered.
TP-40	0 - 1¾	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	1¾ - 5	Grayish brown SILTY CLAY, very stiff, very, high – medium plasticity.
	5 - 9	Light brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, well developed planar slickensides parallel to ground surface at soil-rock interface, abundant carbonate and gypsum mineralization, strong iron oxide staining common. Bottom at 8 feet. No free ground water encountered.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
TP-41	0 - 3	Very dark gray SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3 - 6	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity.
	6 - 11	Olive brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, poorly developed randomly oriented slickensides.
	11 - 17	Olive brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, well developed slickensides in three planar directions. Bottom at 17 feet. No free ground water encountered.
TP-42	0 - 3½	Very dark gray SILTY CLAY, very stiff, moist to very moist, high plasticity, roots common.
	3½ - 5½	Grayish brown fat SILTY CLAY, stiff, moist, high plasticity.
	5½ - 7½	Olive brown CLAYSTONE, closely fractured thickly bedded, poorly indurated, friable, well developed planar slickensides approximately parallel to the ground surface.
	7½ - 8	Olive brown SILTSTONE, closely fractured thickly bedded, poorly indurated, friable, strong iron oxide staining at top of layer. Bottom at 8 feet. No free ground water encountered.
TP-43	0 - 2	Very dark gray SILTY CLAY, very stiff, moist to very moist, high plasticity, roots common.
	2 - 4½	Grayish brown SILTY CLAY, stiff, very moist, high – medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	4½ - 6	Olive gray SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, carbonates common, minor strong iron oxide staining. Bottom at 6 feet. No free ground water encountered.
TP-44	0 - 2	Very dark gray SILTY CLAY, very stiff, very moist, high – medium plasticity, roots common.
	2 - 3½	Grayish brown SILTY CLAY, stiff, very moist, medium plasticity.
	3½ - 4½	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable to weak, carbonates common, partially cemented. Bottom at 4½ feet. No free ground water encountered.
TP-45	0 - 3	Dark grayish brown SILTY CLAY, very stiff, very moist, high plasticity, roots common.
	3 - 5½	Dark yellowish brown SILTY CLAY, very stiff, very moist, medium plasticity.
	5½ - 7½	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, carbonates common. Bottom at 7½ feet. No free ground water encountered.
TP-46	0 - 1	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity, roots common.
	1 - 2	Grayish brown SILTY CLAY, very stiff, very moist, medium plasticity.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	2 - 3	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, abundant carbonates. Bottom at 3 feet. No free ground water encountered.
TP-47	0 - 3½	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity, roots common.
	3 - 4½	Light brown SANDSTONE, closely fractured, thickly bedded, poorly indurated, friable to weak, partially cemented.
	4½ - 5	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, abundant carbonates in upper most of layer, gravelly at layer base. Bottom at 5 feet. No free ground water encountered.
TP-48	0 - 3½	Dark grayish brown SILTY CLAY, very stiff, moist, high – medium plasticity, roots common.
	3½ - 4¼	Light brown SANDSTONE, closely fractured, thickly bedded, poorly indurated, friable, abundant carbonates.
	4¼ - 5	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable to weak. Bottom at 5 feet. No free ground water encountered.
TP-49	0 - 1½	Very dark gray SILTY CLAY, very stiff, moist, high plasticity, roots common.

TEST PIT LOGS

Test Pit Number	Depth (Feet)	Description
	1½ - 2¾	Brown SILTY CLAY, stiff, moist, medium plasticity.
	2¾ - 3	Brown SILTY SAND, loose, moist.
	3 - 3¼	Gray SANDSTONE, closely fractured, thickly bedded, poorly indurated, friable.
	3¼ - 5	Dark yellowish brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable.
	5 - 7½	Dark yellowish brown SILTSTONE, closely fractured, thickly bedded, slightly indurated, friable to weak, carbonates on fracture/ joint faces. Bottom at 7½ feet. No free ground water encountered.
TP-50	0 - 3	Dark grayish brown SILTY CLAY, soft to medium stiff, very moist, medium plasticity.
	3 - 4	Grayish brown SILTY CLAY, very stiff, very moist, high – medium plasticity.
	4 - 6½	Light brown SILTSTONE, closely fractured, thickly bedded, poorly indurated, friable, carbonates on fracture/ joint faces.
	6½ - 8	Light brown SANDSTONE, closely fractured, thickly bedded, poorly indurated, friable to weak. Bottom at 8 feet. No free ground water encountered.