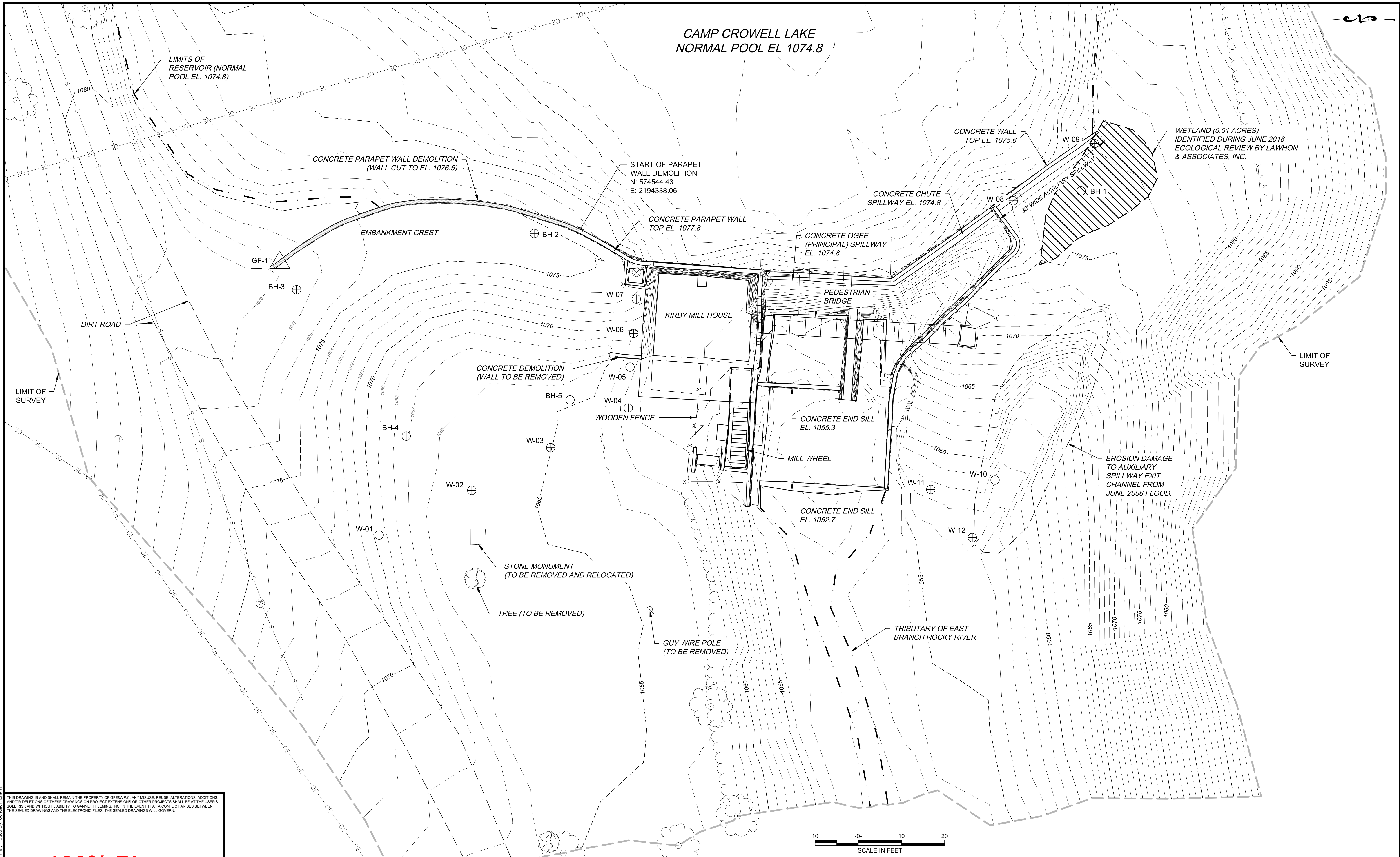


CAMP CROWELL LAKE
NORMAL POOL EL 1074.8



WETLAND (0.01 ACRES)
IDENTIFIED DURING JUNE 2018
ECOLOGICAL REVIEW BY LAWHON
& ASSOCIATES, INC.

EROSION DAMAGE
TO AUXILIARY
SPILLWAY EXIT
CHANNEL FROM
JUNE 2006 FLOOD.



100% Plans

c:\pwworking\gfw\1\schuller\d828228\Existing Conditions Plan.dwg
Plot Date: 10/26/2018 4:57 PM, Plotted By: Schuller, Erik R.

THIS DRAWING IS AND SHALL REMAIN THE PROPERTY OF GF&A P.C. ANY MISUSE, REUSE, ALTERATIONS, ADDITIONS, AND/OR DELETIONS OF THESE DRAWINGS ON PROJECT EXTENSIONS OR OTHER PROJECTS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO GANNETT FLEMING, INC. IN THE EVENT THAT A CONFLICT ARISES BETWEEN THE SEALED DRAWINGS AND THE ELECTRONIC FILES, THE SEALED DRAWINGS WILL GOVERN.

NO.	DESCRIPTION	DATE	BY
REVISIONS			


DESIGNED ERS	CADD ERS/JAY	SCALE AS SHOWN
DRAWN ERS/JAY	CHECKED MWW	APPROVED ----



RICHFIELD JOINT RECREATION DISTRICT
RICHFIELD, OH
LOWER LAKE DAM REHABILITATION
ODNR DAM ID: 1115-003


SITE PLAN
EXISTING CONDITIONS

JOB NO. 64106	SHEET NO. C1
DATE OCT. 2018	DRAWING NO. 5 OF 21

Date Started:	9/26/17	DRILLING LOG 	Hole Number:	BH-1	
Date Finished:	9/26/17		Sheet:	1 of 1	
Soil Drilling:	13.5 ft		Line & Station:		
Rock Sampling:	5.0 ft	Project:	Richfield Joint Recreation District, Lower Dam	Offset:	
Total Depth of Hole:	19.0 ft	Drilling Agency:	Ridgeway Drilling	N Coordinate:	
No. of Undist. Core Samples:	0	Driller:	Kevin Little	E Coordinate:	
Total Number of Core Boxes:	1	Bit Size and Type:	Spoon Size: 2 in. O.D.	Elev. Top of Hole:	+1070.0 ft
GROUNDWATER OBSERVATIONS At 9.0 ft After 0 Hrs Elev. 1061.0 ft After 0 Hrs	Casing Size:	in.	Spoon Size:		Direction of Hole Vertical <input checked="" type="checkbox"/> Inclined <input type="checkbox"/> Degrees from Vertical ---
	Hollow Stem:	3.25" ID	Hammer wt.:	140lb	
	Drilling Fluid:	Water	Hammer Drop:	30.0"	
	Drill Rig:	Diedrich D-50 Turbo Truck Rig			Inspector:


Remarks	Depth (Ft.)	Sample No.	Blows or RQD (%)	Rec. (ft.)	Rec. (%)	USCS	Description Of Materials
2" Topsoil and 6" to 13" Boulders with Clay Infill							0.0'-8.0', Brown To Gray, LEAN CLAY With Sand And Gravel (cl), moist, medium stiff to very stiff
P.P. = 1.50 tsf.	2 - 4	S-1	3-2-4-4	1.3	65		
P.P. = 2.50 tsf; USCS = CL; LL=36; PL=20; MC=26.9%	4 - 6	S-2	2-3-3-4	1.7	85		
P.P. = 1.50 tsf.	6 - 8	S-3	5-8-15-22	1.5	75		
@ 7.0': Sandstone Fragments	8 - 10	S-4	10-10-15-19	1.2	60		8.0'-10.0', Gray, LEAN CLAY With Gravel (cl), moist, hard Top of Rock @ 10.0 ft
P.P. = 4.00 tsf. @ 8.2' to 8.4': Sand Lense	10 - 12	S-5	15-14-14-27	1.2	60		10'-13.5' SHALE, gray, soft to moderately hard, moderately to completely weathered
	12 - 13.5	S-6	22-37-50	1.5	100		
@ 14.4' to 14.6': High Angle Fracture	14 - 16.5	RC-1	28	2.3	92		13.5'-19' MUDSTONE, gray, soft to moderately hard, slightly to moderately weathered, thinly to medium bedded closely to moderately closely spaced, (40% Shale, 60% Siltstone)
@ 16.3' to 17.0': High Angle Fractures	16.5 - 19	RC-2	28	2.5	100		
@ 18.0' to 18.2': High Angle Fractures							
							Bottom of borehole at 19.00 feet.

Remarks:

Date Started:	9/25/17	DRILLING LOG 	Hole Number:	BH-2
Date Finished:	9/25/17		Sheet:	1 of 1
Soil Drilling:	10.0 ft		Line & Station:	
Rock Sampling:	5.0 ft	Project: Richfield Joint Recreation District, Lower Dam	Offset:	
Total Depth of Hole:	17.5 ft	Drilling Agency: Ridgeway Drilling	N Coordinate:	
No. of Undist. Core Samples:	0	Driller: Kevin Little	E Coordinate:	
Total Number of Core Boxes:	1	Bit Size and Type: Spoon Size: 2 in. O.D.	Elev. Top of Hole:	+1076.0 ft
GROUNDWATER OBSERVATIONS	Casing Size: in.	Spoon Size:	Direction of Hole Vertical <input checked="" type="checkbox"/> Inclined <input type="checkbox"/> Degrees from Vertical ---	
	Hollow Stem: 3.25" ID	Hammer wt.: 140lb		
	Drilling Fluid: Water	Hammer Drop: 30.0"		
	Drill Rig: Diedrich D-50 Turbo Truck Rig	Inspector: James Halterman		


Remarks	Depth (Ft.)	Sample No.	Blows or RQD (%)	Rec. (ft.)	Rec. (%)	USCS	Description Of Materials
1" Topsoil P.P. = 4.5+ tsf.	0 - 2	S-1	5-6-5-3	1.4	70		0.0'-4.0', Brown, LEAN CLAY With Gravel (cl), moist, very stiff to hard
P.P. = 3.50 tsf.	2 - 4	S-2	5-2-3-4	1.2	60		1072.0
P.P. = 0.0 to 0.50 tsf; USCS = CL; LL=38; PL=22; MC=29.3%	4 - 6	S-3	3-3-3-4	0.7	35		4.0'-9.8', Gray, LEAN CLAY With Sand (cl), moist, very soft
P.P. = < 0.25 tsf.	6 - 8	S-4	2-1-1-2	1.7	85		1066.2
P.P. = < 0.25 tsf.	8 - 10	S-5	2-2-2-7	1.2	60		Top of Rock @ 9.8 ft
	10 - 12.5	S-6	8-20-32-50	1.9	76		1063.5
	12.5 - 14.5	RC-1	0	1.3	65		9.8'-12.5' SHALE, gray, soft, moderately to highly weathered
	14.5 - 17.5	RC-2	33	3.1	103		1060.0
							12.5'-16' MUDSTONE, gray, soft to hard, slightly to highly weathered, v thinly bedded closely to moderately closely spaced, (Shale with Interbedded Siltstone)
							1058.5
							16'-17.5' SILTSTONE, gray, moderately hard to hard, slightly to moderately weathered, v thinly bedded closely to moderately closely spaced
							Bottom of borehole at 17.50 feet.



Remarks:

Date Started:	9/25/17	DRILLING LOG 	Hole Number:	BH-3
Date Finished:	9/25/17		Sheet:	1 of 1
Soil Drilling:	11.5 ft		Line & Station:	
Rock Sampling:	5.0 ft	Project: Richfield Joint Recreation District, Lower Dam	Offset:	
Total Depth of Hole:	16.5 ft	Drilling Agency: Ridgeway Drilling	N Coordinate:	
No. of Undist. Core Samples:	0	Driller: Kevin Little	E Coordinate:	
Total Number of Core Boxes:	1	Bit Size and Type: Spoon Size: 2 in. O.D.	Elev. Top of Hole:	+1077.0 ft
GROUNDWATER OBSERVATIONS At 9.0 ft After 0 Hrs Elev. 1068.0 ft After 0 Hrs	Casing Size: in.	Spoon Size:	Direction of Hole	
	Hollow Stem: 3.25" ID	Hammer wt.: 140lb	Vertical <input checked="" type="checkbox"/> Inclined <input type="checkbox"/>	
	Drilling Fluid: Water	Hammer Drop: 30.0"	Degrees from Vertical --	
	Drill Rig: Diedrich D-50 Turbo Truck Rig	Inspector: James Halterman		


Remarks	Depth (Ft.)	Sample No.	Blows or RQD (%)	Rec. (ft.)	Rec. (%)	USCS	Description Of Materials
2" Topsoil P.P. = 2.00 tsf.	0 - 1.7	S-1	3-4-7-50	1.2	71	CL	0.0'-4.0', Brown, LEAN CLAY With Sand (cl), moist to dry, very stiff
P.P. = 3.50 tsf.	2 - 4	S-2	9-6-9-5	1.8	90		1073.0
P.P. = 1.50 tsf; USCS = CL; LL=36; PL=22; MC=30.7%	4 - 6	S-3	2-1-2-2	1.4	70	CL	4.0'-9.5', Gray, LEAN CLAY (cl), moist, stiff
P.P. = 1.00 tsf.	6 - 8	S-4	1-1-2-4	1.6	80		1067.5
P.P. = 1.50 tsf.	8 - 10	S-5	3-3-7-22	2.0	100	ML	Top of Rock @ 9.5 ft
	10 - 11.4	S-6	3-7-50	1.3	93		1065.5
	11.5 - 14	RC-1	52	2.3	92	ML	9.5'-11.5' MUDSTONE, gray, soft, moderately weathered
@ 14.0' to 14.3': High Angle Fracture	14 - 16.5	RC-2	28	2.5	100		1060.5
@ 15.9' to 16.1': High Angle Fracture							Bottom of borehole at 16.50 feet.

Remarks:

Date Started:	9/25/17	DRILLING LOG 	Hole Number:	BH-4		
Date Finished:	9/25/17		Sheet:	1 of 1		
Soil Drilling:	6.4 ft		Line & Station:			
Rock Sampling:	5.0 ft	Project:	Richfield Joint Recreation District, Lower Dam	Offset:		
Total Depth of Hole:	11.5 ft	Drilling Agency:	Ridgeway Drilling	N Coordinate:		
No. of Undist. Core Samples:	0	Driller:	Kevin Little	E Coordinate:		
Total Number of Core Boxes:	1	Bit Size and Type:	Spoon Size: 2 in. O.D.	Elev. Top of Hole:	+1073.0 ft	
GROUNDWATER OBSERVATIONS	Casing Size:	in.	Spoon Size:	Direction of Hole		
	Hollow Stem:	3.25" ID	Hammer wt.:	140lb	Vertical <input checked="" type="checkbox"/> Inclined <input type="checkbox"/>	
	Drilling Fluid:	Water	Hammer Drop:	30.0"	Degrees from Vertical	--
	Drill Rig:	Diedrich D-50 Turbo Truck Rig			Inspector:	James Halterman

Remarks	Depth (Ft.)	Sample No.	Blows or RQD (%)	Rec. (ft.)	Rec. (%)	USCS	Description Of Materials
4" Topsoil P.P. = 0.50 tsf.	0 - 2	S-1	1-2-1-2	1.3	65		0.0'-4.0', Brown, LEAN CLAY With Gravel (cl), moist, medium stiff
P.P. = 2.00 tsf.	2 - 4	S-2	1-2-1-3	0.6	30		Top of Rock @ 4.0 ft 1069.0
	4 - 6	S-3	1-1-3-6				4'-6.5' SHALE, gray, very soft to moderately hard, highly to completely weathered 1066.5
@ 6.5' to 6.7': High Angle Fracture	6 - 6.4	S-4	50	0.4	100		6.5'-11.5' MUDSTONE, gray, soft to hard, moderately weathered, v thinly bedded closely spaced, (20% Shale, 80% Siltstone) 1061.5
@ 7.8' to 8.0': High Angle Fracture	6.5 - 11.5	RC-1	18	5.0	100		
@ 9.3' to 9.6': High Angle Fracture							
@ 10.1' to 10.4': High Angle Fracture							
@ 11.0' to 11.3': High Angle Fracture							
							Bottom of borehole at 11.50 feet.

Remarks:

Date Started:	9/25/17	DRILLING LOG 	Hole Number:	BH-5
Date Finished:	9/26/17		Sheet:	1 of 1
Soil Drilling:	3.3 ft		Line & Station:	
Rock Sampling:	5.8 ft	Project: Richfield Joint Recreation District, Lower Dam	Offset:	
Total Depth of Hole:	9.8 ft	Drilling Agency: Ridgeway Drilling	N Coordinate:	
No. of Undist. Core Samples:	0	Driller: Kevin Little	E Coordinate:	
Total Number of Core Boxes:	1	Bit Size and Type: Spoon Size: 2 in. O.D.	Elev. Top of Hole:	+1069.0 ft
GROUNDWATER OBSERVATIONS	Casing Size: in.	Spoon Size:	Direction of Hole	
	Hollow Stem: 3.25" ID	Hammer wt.: 140lb	Vertical <input checked="" type="checkbox"/>	Inclined <input type="checkbox"/>
	Drilling Fluid: Water	Hammer Drop: 30.0"	Degrees from Vertical ---	
	Drill Rig: Diedrich D-50 Turbo Truck Rig	Inspector: James Halterman		

Remarks	Depth (Ft.)	Sample No.	Blows or RQD (%)	Rec. (ft.)	Rec. (%)	USCS	Description Of Materials
4" Topsoil P.P. = 0.50 tsf.	0 - 2	S-1	1-2-4-7	1.4	70		0.0'-1.5', Brown, LEAN CLAY (cl), moist, medium stiff Top of Rock @ 1.5 ft 1067.5
P.P. = 4.50+ tsf.	2 - 3.3	S-2	14-18-50	1.3	100		1.5'-4' SHALE, gray, soft to moderately hard, moderately to completely weathered 1065.0
@ 4.3' to 4.5': High Angle Fracture @ 5.2' to 5.4': High Angle Fracture @ 6.0' to 6.2': High Angle Fracture @ 7.0' to 7.2': High Angle Fracture	4 - 7	RC-1	13	2.8	93		4'-9.75' MUDSTONE, gray, moderately hard to hard, slightly to moderately weathered, v thinly bedded closely to moderately closely spaced, (30% Shale, 70% Siltstone) 1059.3
	7 - 9.8	RC-2	29	2.7	96		Bottom of borehole at 9.80 feet.

Remarks:

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-001

CREW: J. Halterman, J. Yeakley, K. Nelson

SURFACE ELEVATION: 1069.5 feet

PROJECT: RJRD-ACB

WATER ON COMPLETION: _____

ADDRESS: Kirby's Mill

HAMMER WEIGHT: 35 lbs.

LOCATION: Richfield, Ohio

CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	2	8.9	••				2	VERY LOOSE	SOFT
- 1 ft	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	2	8.9	••				2	VERY LOOSE	SOFT
- 2 ft	3	13.3	••••				3	VERY LOOSE	SOFT
-	9	40.0	••••••••••				11	MEDIUM DENSE	STIFF
-	20	88.8	••••••••••••••••				25	MEDIUM DENSE	VERY STIFF
- 3 ft	25	111.0	••••••••••••••••••				25+	DENSE	HARD
- 1 m	40	177.6	••••••••••••••••••••				25+	DENSE	HARD
-	51	196.9	••••••••~				25+	VERY DENSE	HARD
- 4 ft	50	193.0	••••~				25+	VERY DENSE	HARD
-	51	196.9	••••~				25+	VERY DENSE	HARD
- 5 ft									
- 6 ft									
- 2 m									
- 7 ft									
- 8 ft									
- 9 ft									
- 3 m	10 ft								
- 11 ft									
- 12 ft									
- 4 m	13 ft								

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-002

CREW: J. Halterman, J. Yeakley, K. Nelson

SURFACE ELEVATION: 1065.5

PROJECT: RJRD-ACB

WATER ON COMPLETION:

ADDRESS: Kirby's Mill

HAMMER WEIGHT: 35 lbs.

LOCATION: Richfield, Ohio

CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					NON-COHESIVE	COHESIVE
-	4	17.8	•••••	5	LOOSE	MEDIUM STIFF
-	13	57.7	••••••••••••••••••••	16	MEDIUM DENSE	VERY STIFF
- 1 ft	15	66.6	••••••••••••••••••••	19	MEDIUM DENSE	VERY STIFF
-	12	53.3	••••••••••••••••••••	15	MEDIUM DENSE	STIFF
-	5	22.2	•••••	6	LOOSE	MEDIUM STIFF
- 2 ft	3	13.3	••••	3	VERY LOOSE	SOFT
-	1	4.4	•	1	VERY LOOSE	VERY SOFT
-	0	0.0		0	VERY LOOSE	VERY SOFT
- 3 ft	1	4.4	•	1	VERY LOOSE	VERY SOFT
- 1 m	0	0.0		0	VERY LOOSE	VERY SOFT
-	1	3.9	•	1	VERY LOOSE	VERY SOFT
- 4 ft	0	0.0		0	VERY LOOSE	VERY SOFT
-	0	0.0		0	VERY LOOSE	VERY SOFT
-	1	3.9	•	1	VERY LOOSE	VERY SOFT
- 5 ft	6	23.2	••••••	6	LOOSE	MEDIUM STIFF
-	5	19.3	•••••	5	LOOSE	MEDIUM STIFF
-	28	108.1	••••••••••••••••••••	25+	MEDIUM DENSE	VERY STIFF
- 6 ft						
- 2 m						
- 7 ft						
-						
- 8 ft						
-						
- 9 ft						
- 3 m						
- 10 ft						
-						
- 11 ft						
-						
- 12 ft						
-						
- 4 m						
- 13 ft						

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-003
 CREW: J. Halterman, J. Yeakley, K. Nelson
 PROJECT: RJRD-ACB
 ADDRESS: Kirby's Mill
 LOCATION: Richfield, Ohio

SURFACE ELEVATION: 1065 feet
 WATER ON COMPLETION: _____
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					NON-COHESIVE	COHESIVE
-	1	4.4	•	1	VERY LOOSE	VERY SOFT
-	1	4.4	•	1	VERY LOOSE	VERY SOFT
- 1 ft	5	22.2	•••••	6	LOOSE	MEDIUM STIFF
-	10	44.4	••••••••••	12	MEDIUM DENSE	STIFF
-						
- 2 ft						
-						
- 3 ft						
- 1 m						
-						
- 4 ft						
-						
- 5 ft						
-						
- 6 ft						
- 2 m						
-						
- 7 ft						
-						
- 8 ft						
-						
- 9 ft						
-						
- 3 m 10 ft						
-						
-						
- 11 ft						
-						
- 12 ft						
-						
- 4 m 13 ft						

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-004
 CREW: J. Halterman, J. Yeakley, K. Nelson
 PROJECT: RJRD-ACB
 ADDRESS: Kirby's Mill
 LOCATION: Richfield, Ohio

SURFACE ELEVATION: 1062.6 feet
 WATER ON COMPLETION: @ 95 cm - lost water
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
- 1 ft	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	8	35.5	••••••••••				10	LOOSE	STIFF
-	3	13.3	••••				3	VERY LOOSE	SOFT
- 2 ft	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
-	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	3	13.3	••••				3	VERY LOOSE	SOFT
- 3 ft	5	22.2	•••••				6	LOOSE	MEDIUM STIFF
- 1 m	2	8.9	••				2	VERY LOOSE	SOFT
-	6	23.2	••••••				6	LOOSE	MEDIUM STIFF
- 4 ft	4	15.4	••••				4	VERY LOOSE	SOFT
-	4	15.4	••••				4	VERY LOOSE	SOFT
-	1	3.9	•				1	VERY LOOSE	VERY SOFT
- 5 ft	3	11.6	•••				3	VERY LOOSE	SOFT
-	0	0.0					0	VERY LOOSE	VERY SOFT
-	0	0.0					0	VERY LOOSE	VERY SOFT
- 6 ft									
- 2 m									
- 7 ft									
-									
- 8 ft									
-									
- 9 ft									
- 3 m	10 ft								
-									
-	11 ft								
-									
-	12 ft								
-									
- 4 m	13 ft								

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-005
 CREW: J. Halterman, J. Yeakley, K. Nelson
 PROJECT: RJRD-ACB
 ADDRESS: Kirby's Mill
 LOCATION: Richfield, Ohio

SURFACE ELEVATION: 1063.4 feet
 WATER ON COMPLETION: _____
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					NON-COHESIVE	COHESIVE
-	1	4.4	•	1	VERY LOOSE	VERY SOFT
-	4	17.8	•••••	5	LOOSE	MEDIUM STIFF
- 1 ft	3	13.3	••••	3	VERY LOOSE	SOFT
-	5	22.2	••••••	6	LOOSE	MEDIUM STIFF
-	8	35.5	••••••••	10	LOOSE	STIFF
- 2 ft	8	35.5	••••••••	10	LOOSE	STIFF
-	11	48.8	••••••••••	13	MEDIUM DENSE	STIFF
-	10	44.4	••••••••••	12	MEDIUM DENSE	STIFF
- 3 ft	11	48.8	••••••••••	13	MEDIUM DENSE	STIFF
- 1 m	12	53.3	••••••••••••	15	MEDIUM DENSE	STIFF
-						
- 4 ft						
-						
- 5 ft						
-						
- 6 ft						
- 2 m						
- 7 ft						
-						
- 8 ft						
-						
- 9 ft						
- 3 m	10 ft					
-						
- 11 ft						
-						
- 12 ft						
-						
- 4 m	13 ft					

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-007

CREW: J. Halterman, J. Yeakley, K. Nelson

SURFACE ELEVATION: 1072.6 feet

PROJECT: RJRD-ACB

WATER ON COMPLETION: _____

ADDRESS: Kirby's Mill

HAMMER WEIGHT: 35 lbs.

LOCATION: Richfield, Ohio

CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE 0 50 100 150	N'	TESTED CONSISTENCY	
					NON-COHESIVE	COHESIVE
-	0	0.0		0	VERY LOOSE	VERY SOFT
-	0	0.0		0	VERY LOOSE	VERY SOFT
- 1 ft	0	0.0		0	VERY LOOSE	VERY SOFT
-	2	8.9	••	2	VERY LOOSE	SOFT
-	2	8.9	••	2	VERY LOOSE	SOFT
- 2 ft	4	17.8	•••••	5	LOOSE	MEDIUM STIFF
-	7	31.1	••••••••	8	LOOSE	MEDIUM STIFF
-	17	75.5	••••••••••••••••••••	21	MEDIUM DENSE	VERY STIFF
- 3 ft	8	35.5	••••••••	10	LOOSE	STIFF
- 1 m	7	31.1	••••••••	8	LOOSE	MEDIUM STIFF
-	3	11.6	•••	3	VERY LOOSE	SOFT
- 4 ft	6	23.2	••••••	6	LOOSE	MEDIUM STIFF
-	27	104.2	••••••••••••••••••••	25+	MEDIUM DENSE	VERY STIFF
-	15	57.9	••••••••••	16	MEDIUM DENSE	VERY STIFF
- 5 ft	6	23.2	••••••	6	LOOSE	MEDIUM STIFF
-	9	34.7	••••••••	9	LOOSE	STIFF
-	15	57.9	••••••~••••••	16	MEDIUM DENSE	VERY STIFF
- 6 ft	10	38.6	••••••••	11	MEDIUM DENSE	STIFF
-	15	57.9	••~••••••••••	16	MEDIUM DENSE	VERY STIFF
- 2 m	6	23.2	••••••	6	LOOSE	MEDIUM STIFF
- 7 ft	6	20.5	••••••	5	LOOSE	MEDIUM STIFF
-	12	41.0	••••••••••	11	MEDIUM DENSE	STIFF
-	13	44.5	••••••••••	12	MEDIUM DENSE	STIFF
- 8 ft						
- 9 ft						
- 3 m 10 ft						
- 11 ft						
- 12 ft						
- 4 m 13 ft						

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-008
 CREW: J. Halterman, J. Yeakley, K. Nelson
 PROJECT: RJRD-ACB
 ADDRESS: Kirby's Mill
 LOCATION: Richfield, Ohio

SURFACE ELEVATION: 1077.3 feet
 WATER ON COMPLETION: _____
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	1	4.4	•				1	VERY LOOSE	VERY SOFT
-	6	26.6	••••••••				7	LOOSE	MEDIUM STIFF
- 1 ft	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	6	26.6	••••••••				7	LOOSE	MEDIUM STIFF
- 2 ft	6	26.6	••••••~				7	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	10	44.4	••••••••••				12	MEDIUM DENSE	STIFF
- 3 ft	7	31.1	••••••~				8	LOOSE	MEDIUM STIFF
- 1 m	6	26.6	••••••~				7	LOOSE	MEDIUM STIFF
-	6	23.2	••••••				6	LOOSE	MEDIUM STIFF
- 4 ft	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
-	6	23.2	••••••~				6	LOOSE	MEDIUM STIFF
-	7	27.0	••••••~				7	LOOSE	MEDIUM STIFF
- 5 ft	26	100.4	••••••••••••••••••••				25+	MEDIUM DENSE	VERY STIFF
-	16	61.8	••••••••••				17	MEDIUM DENSE	VERY STIFF
-	37	142.8	••••••••••••••••••••				25+	DENSE	HARD
- 6 ft	82	316.5	••••••~				25+	VERY DENSE	HARD
- 2 m									
- 7 ft									
- 8 ft									
- 9 ft									
- 3 m 10 ft									
- 11 ft									
- 12 ft									
- 4 m 13 ft									

WILDCAT DYNAMIC CONE LOG

Gannett Fleming Engineer's and Architects, P.C.
 3340 W. Market St., First Floor
 Akron, OH 44333

PROJECT NUMBER: 064106
 DATE STARTED: 05-25-2018
 DATE COMPLETED: 05-25-2018

HOLE #: W-008A
 CREW: J. Halterman, J. Yeakley, K. Nelson
 PROJECT: RJRD-ACB
 ADDRESS: Kirby's Mill
 LOCATION: Richfield, Ohio

SURFACE ELEVATION: 1077.3 feet
 WATER ON COMPLETION: _____
 HAMMER WEIGHT: 35 lbs.
 CONE AREA: 10 sq. cm

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
- 1 ft	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
- 2 ft	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
- 3 ft	4	17.8	•••••				5	LOOSE	MEDIUM STIFF
- 1 m	5	22.2	••••••				6	LOOSE	MEDIUM STIFF
-	6	23.2	•••••••				6	LOOSE	MEDIUM STIFF
- 4 ft	14	54.0	••••••••••••••				15	MEDIUM DENSE	STIFF
-	12	46.3	••••••••••••••				13	MEDIUM DENSE	STIFF
-	8	30.9	••••••••				8	LOOSE	MEDIUM STIFF
- 5 ft	18	69.5	••••••••••••••••••				19	MEDIUM DENSE	VERY STIFF
-	11	42.5	••••••••••				12	MEDIUM DENSE	STIFF
-	15	57.9	••••••••••••••				16	MEDIUM DENSE	VERY STIFF
- 6 ft	13	50.2	••••••••••				14	MEDIUM DENSE	STIFF
-	5	19.3	•••••				5	LOOSE	MEDIUM STIFF
- 2 m	4	15.4	••••				4	VERY LOOSE	SOFT
- 7 ft	9	30.8	•••••••				8	LOOSE	MEDIUM STIFF
-	8	27.4	•••••••				7	LOOSE	MEDIUM STIFF
-	8	27.4	••••~				7	LOOSE	MEDIUM STIFF
- 8 ft	9	30.8	••••~				8	LOOSE	MEDIUM STIFF
-	11	37.6	••••~				10	LOOSE	STIFF
-	11	37.6	••••~				10	LOOSE	STIFF
- 9 ft	8	27.4	••••~				7	LOOSE	MEDIUM STIFF
-	4	13.7	••••				3	VERY LOOSE	SOFT
-	4	13.7	••••				3	VERY LOOSE	SOFT
- 3 m 10 ft	5	17.1	••••~				4	VERY LOOSE	SOFT
-	10	30.6	••••~				8	LOOSE	MEDIUM STIFF
-	12	36.7	••••~				10	LOOSE	STIFF
-	9	27.5	••••~				7	LOOSE	MEDIUM STIFF
- 11 ft	10	30.6	••••~				8	LOOSE	MEDIUM STIFF
-	9	27.5	••••~				7	LOOSE	MEDIUM STIFF
-	7	21.4	••••~				6	LOOSE	MEDIUM STIFF
- 12 ft	10	30.6	••••~				8	LOOSE	MEDIUM STIFF
-	14	42.8	••••~				12	MEDIUM DENSE	STIFF
-	10	30.6	••••~				8	LOOSE	MEDIUM STIFF
- 4 m 13 ft	7	21.4	••••~				6	LOOSE	MEDIUM STIFF

DEPTH	BLOWS PER 10 cm	RESISTANCE Kg/cm ²	GRAPH OF CONE RESISTANCE				N'	TESTED CONSISTENCY	
			0	50	100	150		NON-COHESIVE	COHESIVE
-	7	19.4	•••••				5	LOOSE	MEDIUM STIFF
-	4	11.1	•••				3	VERY LOOSE	SOFT
- 14 ft	6	16.6	•••••				4	VERY LOOSE	SOFT
-	9	24.9	••••••				7	LOOSE	MEDIUM STIFF
-	15	41.6	••••••••••				11	MEDIUM DENSE	STIFF
- 15 ft	11	30.5	••••••••				8	LOOSE	MEDIUM STIFF
-	12	33.2	••••••••				9	LOOSE	STIFF
-	13	36.0	••••••••				10	LOOSE	STIFF
- 16 ft	7	19.4	•••••				5	LOOSE	MEDIUM STIFF
- 5 m	13	36.0	••••••••				10	LOOSE	STIFF
-	10	25.4	••••••				7	LOOSE	MEDIUM STIFF
- 17 ft	7	17.8	•••••				5	LOOSE	MEDIUM STIFF
-	5	12.7	•••				3	VERY LOOSE	SOFT
-	11	27.9	•••••••				7	LOOSE	MEDIUM STIFF
- 18 ft									
-									
- 19 ft									
-									
- 6 m									
- 20 ft									
-									
- 21 ft									
-									
- 22 ft									
-									
- 7 m									
- 23 ft									
-									
- 24 ft									
-									
- 25 ft									
-									
- 26 ft									
- 8 m									
- 27 ft									
-									
- 28 ft									
-									
- 29 ft									
- 9 m									

