C. Soil Boring Logs

MOT	T DONAL	м	м					SOII	L BORING LO	G						BORING NO.: B-01 Page 1 of 2
Project	t:	Powell C	reek Sola	ır						Project No.:		_{	5133	3850	46-071	
Locatio	on:	Miller Cit	ty, OH							Project Mgr:		Ē	Eric	Pau	li	
Client:	•	Avangrid	d Renewa	bles						Field Eng. Staff	:	<u> </u>	Yuta	Na	kamura	45
Drilling	J CO.: Holpor:	Ohio Te	<u>stBor Inc.</u>	ith Cibo	1					Date/Time Start	ed: bod:	<u>_</u>	<u>May</u> May	<u>11,</u> 11	2020 at 2 2020 at 3	:15 pm :20 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Borin	ng Location	• See Boring	Location Plan	Date/Time Time	Coo	<u>'</u> rd.:	La	at: 4	1.10546 L	.ong: -84.12062
ltem		Casing	Sam	oler Co	re Barrel		.g _0000.01	i eee bening	Loodion Fian		Hori	zon	tal D	Datu	m: NAD 1	983
Type		HSA 5.ft		} t	-		Make & Moo	tel: Diedrich	D-50	Hammer Type	Dr	illing onto	g Flu	uid	Drill Ro	d Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			Geoprobe	✓ Winch			olyn	ner			
Hammer	Wt. (lb.)	140 30	140)	-	Tra	ack 🗌	Air Track	Roller Bit	Automatic		/ate	r			ionow otomi ragor
Tianine					T			J				ield	Tes	sts		
Depth/ Elev.	Sample No. /	Rec. (in)	Sample Blows	Stratur Graphi	n USCS Group	S	V	isual - Manu (Density/cor onstituents r	al Identification & Desc nsistency, color, Group N particle size structure m	cription lame, loisture	lcy	ness	ity	rength		Remarks
(π)	(ft)	()	per 6"		Symbo		optio	nal descriptio	ons, geologic interpretatio	on, Symbol)	Dilata	Tough	Plasti	Dry S		
	S-1	17	2	///	CL		Medium sti	ff, gray and bro	own CLAY, trace coarse to fi	ne Sand, dry (CL)	N	M	Μ	L	PP = 2.0	isf
	0.0'- 2.0'		3	///	1										1V = 0.51	SI
-			3 5	$\langle / / \rangle$	2											
			Ũ	///												
F	S-2	21	3	///	CL		Stiff, gray a	and brown CLA	Y, trace coarse to fine Sand	, dry (CL)	N	н	м	м	PP = 3.0	sf
	2.0'- 4.0'		5	///	7										TV = 0.61	sf
-			7	///	1											
			10		7											
-	S-3	23	5	KK	<u>4</u> мL	4.0	Very stiff, o	ray SILT, some	e medium to fine Sand, dry (l	ML)	ЧN	н	L	L	PP > 4.5	sf
	40'-60'		7												TV = 0.51	sf
5	4.0 0.0		10													
			15													
-	S-4	24	6	H		6.0	Verv stiff h	rown CLAY dr	ov (CL)			Ь	м	м	PP > 45	ef
		24	9	$\langle / / \rangle$	2		vory oun, c		y (0L)		`				TV = 0.51	sf
-	0.0 - 0.0		11	///	4											
			15	$\langle / / \rangle$	2											
-	S-5	24	4	$\langle / / \rangle$			Very stiff h	rown CLAV dr	ov (CL)			_L	м	м		ef
		27	7	$\langle / / /$			very still, c		y (OL)		'	1	101		TV = 0.7	sf
-	8.0'- 10.0'		11	///	2											
			14		1											
10				$\langle / / \rangle$	7											
				///	1											
_					2											
					4	11.5	<u> </u>				_					
-																
-							0	0.00	(011)						55 4 6	
	5-6	23	4 5		СН		Suit, dark b	JOWN CLAY, dr	iy (СП)			IVI	Г	IVI	PP = 4.01 TV = 0.21	sf
F	13.0'- 15.0'		8													
			11													
15																
F																
F																
F	07	22	A				Ctiff Had									of
	3-1	23	4				Jun, uark D	JOWN CLAT, OF					1		TV = 0.31	sf
╞	18.0'- 20.0'		6													
			9													
		Watorla				+	Samel	o Type	Notes:			L		1		
		Elapsed	Dep	oth in fe	et to:	0	Open Fn	d Rod	PP = Pocket Penetro	ometer						
Date	Time	Time	Bot. of	Bottor	N Wate	r]Ť	Thin-Wa	ll Tube	TV = Torvane	ountored during	V654	+:				
		(nr)	Casing	Of HOL	•	ΗŪ	Undistur	bed Sample	No groundwater enc	ounterea auring in	vestig	yatic	n.			
						ss	Split Spc	on Sample								
					-	G	Grab Sa	mple							.	D 04
							_								Boring N	o.: B-01
Field Te	st Legend	d: Dila Tou	tancy: ahness:	N - N I _ I	lone S- ow M-M	Slow	R - Rapid	h	Plasticity: NP - No Dry Strength: N - Non	on-Plastic L - Low ne L - Low M - M	/M- 1ediur	Me n ⊦	diur H - F	n ŀ Hiah	H - High VH - V≏	rv Hiah
NOTES:	1.) <u>"</u> ppd" de	enotes soil	sample ave	erage diar	netral pock	et pene	etrometer rea	ading2.) "pr	pa" denotes soil sample aver	rage axial pocket per	etrom	eter	read	ing.		· · · ································
	3.) Maximu	m Particle	Size is dete	rmined b	y direct ob	servatio	on within limit	tations of samp	oler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	man	ual method	s per ASTM D2488.

MOT MAC	T DONAL	D M	м									BORING NO.: B-01 Page 2 of 2
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Symbol Group	Visual - Manual Identification & Description (Density/consistency, color, Group Name, constituents, particle size, structure, moisture, optional descriptions, geologic interpretation, Symbol)	Dilatancy	Toughness	Plasticity Bal	Dry Strength		Remarks
-		24			L L	Stiff dark brown CLAY dry (CH)	N	Μ	г	м	PP = 3.5	tef
-	23.0'- 25.0'	24	4 7 10		CIT	25.0				IVI	TV = 0.3	tsf
— 25 -						End of Boring at 25 feet BGS. Borehole backfilled with soil cuttings.						
-												
- 30												
-												
_												
- 35												
-												
-												
40 												
_												
-												
— 45 —												
							PRO 513	JEC 338	ст м 5 50	10.: 46	-071	BORING NO.: B-01
NOTES:	Image: TES: 1.) "ppd" denotes soil sample average diametral pocket penetrometer reading. 2.) "ppa" denotes soil sample average axial pocket penetrometer reading. 3.) Maximum Particle Size is determined by direct observation within limitations of sampler size. 4.) Soil identifications and field tests based on visual-manual methods per ASTM D2488.											

MOT	T DONAL	D M	м					SOIL	BORING LO	G						BORING NO.: B-02 Page 1 of 2
Projec	t:	Powell C	reek Sola	r						Project No.:		5	5133	3850	46-071	Fage I OF Z
Locatio	on:	Miller Cit	ty, OH							Project Mgr:		E	Eric	Pau	li	
Client:		Avangrio	d Renewa	bles						Field Eng. Staff:		<u> </u>	Yuta	Nal	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Start	ed:		May	<u>11,</u>	2020 at 4	:00 pm
Driller/	Helper:	John Mir	nchak /Ke	ith Gibel		<u> </u>				Date/Time Finis	hed:	<u> </u>	May	11,	2020 at 4	:40 pm
Item	n. Grade	Casing	Sam	oler Co	re Barrel	Borin	ig Location	1: See Boring I	Location Plan		Hori	zon	tal D	ac. 4 Datu	m: NAD 1	983
Туре		HSA	SS	3	-	Rig N	lake & Moo	del: Diedrich [D-50	Hammer Type	Dr	lling	g Flu	ıid	Drill Ro	d Size:
Length	ia (in)	5 ft	2 f	t 75	-	Tru	uck 🗆	Tripod	Cat-Head	Safety Doughput		ento	onite			Casing Advance
Hammer	Wt. (lb.)	140	140	5	-	Tra	ack 🗌	Air Track	Roller Bit	Automatic	⊡ v	/ate	r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-	∣∐ Sk	id L		Cutting Head			one	Tor	to		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratun Graphio	Group Symbo	S D D	V c optic	isual - Manu (Density/con constituents, p nal descriptio	al Identification & Desc isistency, color, Group N particle size, structure, m ns, geologic interpretation	cription lame, oisture, on, Symbol)	ilatancy	oughness	lasticity	ry Strength		Remarks
	S-1	22	3	///	CL	+	Medium sti	iff, gray and bro	wn CLAY, some medium to	fine Sand, dry	N	M	∩_ M	M	PP = 2.5	sf
	0.0'- 2.0'		3	$\langle / / \rangle$			(CL)								TV = 0.21	sf
-	0.0-2.0		4	///	1											
			4	$\langle / / /$	2											
-	S-2	21	3	///			Medium sti	iff arey and brow	wn CLAV, some medium to	fine Sand dry		м	м	м	PP = 25	ef
	201 401	21	3	$\langle / / \rangle$			(CL)	in, gray and bro		line ound, dry	1	1			TV = 0.35	tsf
F	∠.∪ - 4.0'		4	V///												
			5	X///	1											
-				$\langle / / \rangle$			0	o				I				
	S-3	23	3	///			Stiff, brown	1 CLAY, trace m	nedium to fine Sand, dry (CL	.)		Гн	IVI	м	TV = 0.35	tsf
	4.0'- 6.0'		5	///	2											
-			6	///	1											
_				////	1											
	S-4	24	5	$\langle / / \rangle$	CL		Very stiff, o	dark brown CLA	Y, dry (CL)		N	н	м	н	PP = 4.5 TV = 0.71	lsf sf
	6.0'- 8.0'		8	///	1											
			14	$\langle / / \rangle$	2											
				///	1											
_	S-5	24	5	////	CL		Very stiff, o	dark brown CLA	Y, dry (CL)		N	н	м	н	PP > 4.5	sf
	8.0'- 10.0'		9	$\langle / / \rangle$	1										1V = 0.75	ISI
-			13 16	///	1											
				$\langle / / \rangle$	2											
10				///	1											
					2											
-				$\langle / / \rangle$	1											
				////	1											
-				$\langle / / \rangle$	2											
				///	1											
-	S-6	24	4	$\langle / / /$			Very stiff	ark brown CLA	$V_{\rm dr}$ (CL)			м	м	Ц	PP = 15	tef
	12.01	£-7	6	V///			y oun, t		,, ()						TV = 0.75	tsf
┝	13.0'- 15.0'		9	///	1											
			13	V///	1											
15				X///	1											
				V///	1											
-				X///	1											
					· 	16.5	<u> </u>				_					
╞																
F							0.55									
	5-7	24	4		СН		Suff, dark b	prown CLAY, dr	у (СН)		^N	M	Н	^H	PP = 4.0 TV = 0.85	tsf
\vdash	18.0'- 20.0'		8													
			11													
		Mate				_	0	• T	Natari							
		vvater Le	ever Data Der	oth in fe	et to:			e iype	PP = Pocket Penetro	ometer						
Date	Time	Time	Bot. of	Botton	Wate	r I -		all Tube	TV = Torvane							
		(hr)	Casing	of Hole		· .	Undietur	hed Sample	No groundwater enco	ountered during in	vestig	atic	on.			
						∃ss	Split Snr	on Sample								
						- G	Grab Sa	mple								
						Ţ									Boring N	o.: B-02
Field Te	st Legend	1: Dila	tancy:	N - N	one S-	Slow	R - Rapid	1	Plasticity: NP - Nc	on-Plastic L - Low	M -	Me	diur	n ⊦	H-High	
NOTES	4 \ "	Tou	ghness:		ow M-N	Viedium	n H - Hig	n [Dry Strength: N - Non		ediur	n F	<u>+ - F</u>	ligh	VH - Ve	ry High
NUIES:	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	servatio	on within limi	tations of samp	ler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual-	man	ual method	s per ASTM D2488.
													-	-		

MOT MAC	T DONAL	D M	м									BORING NO.: B-02 Page 2 of 2
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Symbol Group	Visual - Manual Identification & Description (Density/consistency, color, Group Name, constituents, particle size, structure, moisture, optional descriptions, geologic interpretation, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
-	<u>S-8</u>	23	4		СН	Stiff, dark brown CLAY, dry (CH)	N	м	н	н	PP = 3.5	tsf
-	23.0'- 25.0'		5 8 11			25.0					TV = 0.6	; tsf
25 						End of Boring at 25 feet BGS. Borehole backfilled with soil cuttings.						
-												
- 30												
_												
-												
- 35												
_												
_												
-	40											
_												
- 45												
_												PORING
NOTES	1) "mad" -1		ample are		tral pocket	ponetrometer reading 2) "one" denotes sell sources suice as suice as the	PRO 513	338	350	10.: 146	-071	BORING NO.: B-02
NUTES:	3.) Maximu	m Particle	Size is dete	ermined by o	direct obser	vation within limitations of sampler size. 4.) Soil identifications and field tests ba	ised o	on vi	sual	-mar	ual methoo	s per ASTM D2488.

MOT	T DONAL	D M	м					SOIL	BORING	LO	G						BORING NO.: B-03 Page 1 of 1
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangrid Ohio Tes	Creek Sola ty, OH d Renewa stBor Inc.	nr bles							Project No.: Project Mgr: Field Eng. Staf Date/Time Star	: ted:	 	5133 Eric Yuta May	8850 Pau Nal 12,	46-071 li kamura 2020 at 1	1:00 am
Driller/	Helper:	John Mir	nchak /Ke	ith Gibel							Date/Time Finis	shed:	1	May	12,	2020 at 1	1:40 am
Item	n: Grade	Casing	Samp	n: oler Co	e Barrel	Boring	Location:	See Boring I	Location Plan			Hori	ra.: zon	tal E	at: 4 Datu	m: NAD 1	983
Type		HSA	SS	3	-	Rig Ma	ke & Mode	I: Diedrich [D-50		Hammer Type	Dr	illing	g Flu	uid	Drill Ro	d Size:
Inside D	ia. (in.)	4.25	1.37	75	-		к 🗆	Geoprobe	Winch		Doughnut		olyn	ner			
Hammer	Wt. (lb.)	140	140	2	-	Tracl	k 🗆 .	Air Track	Roller Bit		Automatic		/ate	r			Hollow Stern Auger
Hammer	Fall (in.)	30	30		-		,		Cutting Head			<u>I™</u> N F	ield	Tes	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	1	Vis (cor optiona	Density/con Density/con Instituents, p al descriptio	al Identification & lasistency, color, Gro particle size, structur ns, geologic interpre	Deso up N re, m etatio	cription Jame, noisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1	14	2	7 <u>11</u> 7 <u>7</u>	4	0.5 (6	6") TOPSOI	L				-	-	-	-		
-	0.0'- 2.0' 0.5'-'		2 3 4		CL	N (0	/ledium stiff, CL)	gray and brow	wn CLAY, trace coarse	e to fi	ne Sand, moist	N	м	м	м	PP = 3.0 TV = 0.35	tsf tsf
-	S-2 2.0'- 4.0'	22	3 3 5 7		CL	s	Stiff, gray an	d brown CLA	Y, trace coarse to fine \$	Sand	l, moist (CL)	N	м	м	м	PP = 3.5 TV = 0.5	lsf sf
	S-3 4.0'- 6.0'	24	3 5 7 10		CL Stiff, gray and brown CLAY, some coarse to fine Sand, dry (CL) $N H M H PP > 4$ TV = C CL Very stiff. brown CLAY. dry (CL) $N H M H PP > 4$										PP > 4.5 TV = 0.8	isf sf	
-	S-4 6.0'- 8.0'	24	6 9 13 17		CL Very stiff, brown CLAY, dry (CL)									PP > 4.5 TV = 0.6	lsf sf		
-	S-5 8.0'- 10.0'	24	6 9 13 18		CL	v	Very stiff, brown CLAY, dry (CL) N H M H PP									PP > 4.5 TV = 1.0	isf sf
- 10 - - - 15 -	S-6 13.0- 15.0'	24	2 4 5 7		СН	<u>11.5</u> s		own CLAY, dr	у (СН)			 N	м	н	н	PP = 3.0 TV = 0.5	isf sf
_	S-7 18.0'- 20.0'	24	3 4 7 10		СН	E 20.0 B	Stiff, dark bro End of Boring Borehole bac	own CLAY, tra g at 20 feet Br skfilled with so	ace fine Gravel, dry (CH GS. ir cuttings.	H)		N	м	н	н	PP = 2.5 TV = 0.5	isf sf
		Water Le	evel Data	oth in fe	et to:		Sample	Туре	Notes:	net	omotor						
Date	Time	Time (hr)	Bot. of Casing	Bottom of Hole	Water	Т	Open End Thin-Wall	Rod Tube	TV = Torvane No groundwater	enc	connecer countered during in	vestio	gatic	on.			
						U SS	Undisturbe Split Spoo	ed Sample n Sample			5						
						┤゜	Jian Jaili	hic								Boring N	o.: B-03
Field Te	st Legend	d: Dila	tancy:	N - N	one S-	Slow F	R - Rapid	I	Plasticity: NP	- No	on-Plastic L - Lov	v M-	Me	diur	n F	I - High	
NOTES	4 \ #=== # .	Tou	ghness:	L - Lo	w M-N	/ledium	H - High	[Dry Strength: N -	Non	ne L-Low M-N	/iediur	n ŀ	<u> </u>	ligh	VH - Ve	ry High
NUTES:	3.) Maximu	m Particle	sample ave Size is dete	erage diam ermined by	etral pock direct obs	ervation	ometer read	tions of samp	er size. 4.) Soil iden	avei atificat	tions and field tests l	ased o	eter i on vi	read sual-	ng. man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-04 Page 1 of 1
Projec Locati Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Tes	Creek Sola ty, OH d Renewa stBor Inc.	th Gibel					Project No.: Project Mgr: Field Eng. Staff Date/Time Start Date/Time Einis	ed:		5133 Eric Yuta May May	3850 Pau Nal 13, 13	46-071 li kamura 2020 at 5 2020 at 6	:30 pm
Elevatio	n: Grade	t. Vert	ical Datur	n:		Borii	ng Location: See Boring L	_ocation Plan	Date/Time Time	Coo	rd.:	La	at: 4	1.09999 L	.ong: -84.14257
Item		Casing	Sam	oler Cor	e Barrel	D'		. 50		Hori	zon	tal D	Datu	m: NAD 1	983
Length		5 ft	2 f	t	-		uck Diedrich L	Cat-Head	Safety		ento	g rite	<u>, na</u>		Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			Winch			olyr	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-		kid 🗌 🔤 🔤	Cutting Head		M N	one	1			
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	S D D	Visual - Manua (Density/con: constituents, p optional description	al Identification & Desc sistency, color, Group N article size, structure, m ns, geologic interpretatic	c ription lame, oisture, on, Symbol)	Dilatancy	Loughness	Plasticity a	Dry Strength		Remarks
-	S-1 0.0'- 2.0'	16	1 2 2 3		CL		Medium stiff, brown and gr. (CL)	ay CLAY, trace medium to f	fine Sand, dry	N	М	м	м	PP = 2.0 TV = 0.2	tsf isf
-	S-2 2.0'- 4.0'	19	2 3 5 8		CL		Stiff, brown and gray CLAY	r, dry (CL)		N	н	М	м	PP = 4.5 TV = 0.5 t	tsf Isf
	S-3 24 4 -5 6 4.0'- 6.0' 9 11 1 S-4 24 3 CL Stiff, brown CLAY, dry (CL) N H M H M H												н	PP > 4.5 TV = 1.01	tsf Isf
-	S-4 6.0'- 8.0'	24	3 4 7 9		CL		Stiff, brown CLAY, dry (CL)	PP > 4.5 TV = 1.31	tsf Isf						
	S-5 8.0'- 10.0'	24	4 5 7 16		CL		Stiff, brown CLAY, dry (CL)							PP = 4.5 TV = 1.5	tsf Isf
- - - -	S-6 13.0'- 15.0'	23	3 4 7 10		CL		Stiff, brown CLAY, dry (CL))		Z	н	м	н	PP = 4.5 TV = 1.3	tsf Isf
-	S-7 18.0'- 20.0'	24	4 5 7		сн	<u>16.5</u>	5	,			н	н	н	PP = 3.0 TV = 0.9 t	tsf isf
						20 0	End of Boring at 20 feet BO Borehole backfilled with so	GS. il cuttings.							
	·	Water Le	evel Data			20.0	Sample Type	Notes:			L	<u> </u>			
Data	Time	Elapsed	Dep Rot of	oth in fee	et to:	0	Open End Rod	PP = Pocket Penetro	ometer						
Date	i ime	(hr)	BOT. Of Casing	of Hole	Water	г т	Thin-Wall Tube	I v = I orvane No groundwater ence	ountered durina in	vestic	atio	on.			
		. /				U	Undisturbed Sample				,				
						_ss	Solit Spoon Sample								
						G	Grab Sample							Derin 1	- P 04
					<u> </u>	1								Boring N	0 D-V4
Field Te	st Legend	I: Dila Tou	tancy: ahness:	N - N	one S- w M-N	Slow /lediu	К-Rapid F m H-High Г	Plasticity: NP - No Dry Strength: N - Non	on-Plastic L-Low ne L-Low M-M	M - ediur	Me n ŀ	diur H - F	n ⊦ −liah	1 - High VH - V≏	rv Hiah
NOTES:	1.) "ppd" de	notes soil	sample ave	erage diam	etral pock	et pen	etrometer reading. 2.) "pp	a" denotes soil sample aver	rage axial pocket pen	etrome	eter	read	ing.		· , · ···
	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	servatio	on within limitations of sample	er size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-05
Project Locatio Client: Drilling Driller/	t: on: g Co.: Helper:	Powell C Miller Cir Avangrid Ohio Te John Mi	<u>Creek Sola</u> ty, OH d Renewa stBor Inc. nchak /Ke	ar Ibles eith Gibel					Project No.: Project Mgr: Field Eng. Staff Date/Time Start Date/Time Finis	: ed: hed:		5133 Eric Yuta Yuta May May	8850 Pau Nal 13, 13,	46-071 li kamura 2020 at 4 2020 at 5	:30 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Borin	g Location: See Boring I	Location Plan		Coo	rd.:	La	at: 4	1.091746	Long: -84.14449
ltem		Casing	Sam	pler Co	e Barrel			2.50		Hori	zon	tal C)atu	m: NAD 1	983
Lenath		HSA 5 ft	21	s ft	-	RIG M	uck Diedrich L	D-50	Bammer Type □ Safetv		iling ento	g FIL onite	lid	Drill Ro	Casing Advance
Inside D	ia. (in.)	4.25	1.3	75	-		V 🛛 Geoprobe	Winch	Doughnut	ΠP	olyn	ner			Hollow Stem Auger
Hammer	Fall (in.)	140 30	14)	-	M Ira □ Ski	ack ∐AırTrack id □	Cutting Head	Automatic	I∐ W I⊠ N	ate one	r			Ū.
	Commite						Manual Marrie			F	ield	Tes	sts	1	
Depth/ Elev. (ft)	No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	S D D	(Density/con constituents, p optional description	al Identification & Desc isistency, color, Group N article size, structure, m ns, geologic interpretation	lame, loisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1	20	2	17	CL		Medium stiff, brown and gr	ray CLAY, dry (CL)		N	M	М	М	PP = 2.5	tsf
	0.0'- 2.0'		3	<i>\///</i>	1									1 V = 0.2	IST
-			3	$\langle / / \rangle$											
			Ŭ	V///											
-	S-2	19	2	\mathbb{V}/\mathbb{V}	CL		Stiff, brown CLAY, dry (CL	.)		N	м	м	м	PP = 3.5	tsf
	2.0'- 4.0'		3	$\langle / / \rangle$	1									TV = 0.7	tsf
-	2.0 4.0		6	<i>\///</i>	1										
			10	\mathbb{V}/\mathbb{I}	1										
-			-	$\langle / / \rangle$				Nik turner og som to fins Ora	d tra a Oracial					DD - 4.5	
	S-3	20	5	<i>\///</i>			Stiff, brown CLAY, some S dry (CL)	silt, trace coarse to fine San	d, trace Gravel,	N	M	L		PP = 4.5 TV = N/A	tst
	4.0'- 6.0'		8		1										
5			11	$\langle / / \rangle$	1										
				<i>\///</i>	1										
S-4 21 5 CL Very stiff, brown CLAY, dry (CL) N M												м	м	PP = 4.5	tsf
	60'-80'		7	V//										TV = 1.0	tsf
-	0.0 0.0		8	V///	1										
			11	X///	1										
L				\mathbf{V}/\mathbf{A}				、 、			l			55 4 6	
	S-5	24	5	V///			Stiff, brown CLAY, dry (CL	.)			Н	M	н	TV = 1.0	tsf
	8.0'- 10.0'		6	<i>\///</i>	1										
			11	$\backslash / /$	1										
				$\langle ///$	1										
10				Y///	1										
				\mathbb{V}/\mathbb{I}											
-				$\langle / / \rangle$	1										
					4	111.5									
-															
	S-6	24	3		СН		Stiff, dark brown CLAY, dr	y (CH)		N	М	н	н	PP = 3.5 TV = 1.0	tsf
L	13.0'-		4											1.0	
Ē	15.0		9												
				////											
15			1												
F															
┝				////											
F				\///			0///	(011)						DE	
	S-7	24	3		СН		Stiff, dark brown CLAY, dr	y (CH)		N	М	Н	Р	PP = 3.5 TV = 0.9	tsi tsf
L	18.0'-		7												
	20.0		8				End of Boring at 20 fast D	68							
						20.0	Borehole backfilled with so	bil cuttings.							
		Water Le	evel Data			T	Sample Type	Notes:							
Date	Time	Elapsed	De Bot of	Bottom	et to:	-0	Open End Rod	PP = Pocket Penetro	ometer						
Date		(hr)	Casing	of Hole	Water	Т	Thin-Wall Tube	No groundwater enc	ountered during in	vestic	atic	on.			
						U	Undisturbed Sample		5						
						ss	Split Spoon Sample								
						G	Grab Sample							Deriv v N	
								<u> </u>		-				BUTING N	0 D-U3
Field Te	st Legeno	d: Dila	tancy:	N - N	one S-	Slow	R-Rapid F	Plasticity: NP - No Dry Strength: N - Non	on-Plastic L - Low	/ M - Iediur	Me	diur 1 - F	n F Hiab	I - High	ry High
NOTES	1.) "ppd" d	enotes soil	sample ave	erade diam	etral pock	et nene	etrometer reading 2 \ "ng	a" denotes soil sample aver	rade axial nocket pen	etrom	ter	readi	ingri	vii- ve	· <i>i</i> · "9"
	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	servatio	on within limitations of sampl	ler size. 4.) Soil identificat	tions and field tests b	ased o	n vi	sual-	man	ual method	s per ASTM D2488.

MOT MAC	T DONAL	D M	м					SOIL	BORING LO	OG						BORING NO.: B-06 Page 1 of 1
Projec	t:	Powell C	Creek Sola	ar						Project No.:		_!	5133	3850	46-071	
Locati	on:	Miller Ci	t <u>y, OH</u>	blac						Project Mgr:			Eric	Pau	lli Komura	
Drilling	n Co.:	Avangrid Ohio Te	<u>a Renewa</u> stBor Inc	DIES						Date/Time Star	: ed:	-	<u>ruta</u> Mav	<u>110a</u> 14	<u>xamura</u> 2020 at 9	1 [.] 00 am
Driller/	Helper:	John Mi	nchak /Ke	ith Gibel						Date/Time Finis	shed:		May	14,	2020 at 9	:40 am
Elevatio	n: Grade	ft. Vert	ical Datun	n:		Boring Lo	ocation: See	Boring	Location Plan		Coo	rd.:	La	at: 4	1.09461 L	_ong: -84.14104
Item Type		Casing HSA	Samp SS	oler Co	re Barrel	Rig Make	& Model: D)iedrich I	D-50	Hammer Type	Hori	illing	tal C g Flu	<u>Datu</u> Jid	Drill Ro	1983 od Size:
Length	ia (in)	5 ft	2 f	t 75	-		Trip	od	Cat-Head	□ Safety	B	ento	onite			Casing Advance
Hammer	r Wt. (lb.)	4.25	1.37	0	-	Track	□ Geo	probe Track	Roller Bit	Automatic		/ate	ner er			Hollow Stem Auger
Hammer	r Fall (in.)	30	30		-	□ Skid			Cutting Head			one	Tar	to		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratun Graphie	USCS Group Symbo		Visual (Der constit optional de	- Manu nsity/con tuents, p escriptio	al Identification & De hsistency, color, Group particle size, structure, i hns, geologic interpreta	scription Name, moisture, tion, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
_	S-1 0.0'- 2.0'	24	2 3 3	1. <u>x</u> 1/2	CL	0.3_(4") Med	TOPSOIL lium stiff, gray	y and bro	wn CLAY, dry (CL)		 N	M	M	- M	PP = 2.5 TV = 0.4	tsf tsf
-	S-2 2.0'- 4.0'	23	4 3 3 6 9		CL	Stiff	, brown and g	gray CLA`	Y, dry (CL)		N	н	м	м	PP = 3.0 TV = 1.0	tsf tsf
	S-3 4.0'- 6.0'	24	2 4 5 8		CL	Stiff	, brown and g	gray CLA`	Y, dry (CL)		N	н	М	м	PP = 3.5 TV = 0.6	tsf tsf
-	S-4 6.0'- 8.0'	23	3 4 6 18		CL	Stiff	, brown CLA	Y, trace m	nedium to fine Sand, dry (C	CL)	N	н	М	н	PP > 4.5 TV = 1.17 Occasion	tsf * tsf al Sand partings.
-	S-5 8.0'- 10.0'	24	4 6 10 11		CL	Venj	y stiff, brown (CLAY, dr	y (CL)		N	н	М	н	PP > 4.5 TV = 1.8	tsf tsf
- 10 	S-6 13.0'- 15.0'	24	3 4 6 9		СН	_ <u>11.5</u> Stiff	, dark brown	— — —	у (СН)		N	н	н	н	PP = 3.5 TV = 0.8	tsf tsf
-	S-7 18.0'- 20.0'	24	3 4 7 10		СН	Stiff End 20.0 Bore	, dark brown of Boring at a chole backfille	CLAY, dr 20 feet Br ed with sc	y (CH) GS. ji cuttings.		N	н	н	н	PP = 3.0 TV = 0.5	tsf tsf
		vvater Le Elapsed	evel Data Dei	oth in fe	et to:		pen End Roy	ne d	PP = Pocket Penel	trometer						
Date	Time	Time	Bot. of	Botton	Water		in-Wall Tub	u Ne	TV = Torvane							
<u> </u>		(hr)	Casing	of Hole			disturbed S	Sample	No groundwater er	ncountered during in	vestig	gatio	on.			
					-	Sp Sp	lit Spoon Sa	ample								
					+	G Gr	ab Sample	•								D 00
						1									Boring N	o.: B-U6
Field Te	st Legend	l: Dila	tancy:	N - N	lone S-	Slow R- 1edium ⊔	Rapid	l	Plasticity: NP - N	Non-Plastic L - Lov	v M Nedium	Me n '	diur	n F Tiab	H - High	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dian	netral pock	et penetrom	eter reading.	2.) "pp	a" denotes soil sample av	verage axial pocket pe	netrom	eter	read	ing.	v/1 * VC	.,
	3.) Maximu	m Particle	Size is dete	ermined by	/ direct obs	ervation wit	hin limitations	of samp	ler size. 4.) Soil identific	cations and field tests	based o	on vi	sual	man	ual method	ls per ASTM D2488.

MOT MAC	T DONAL	D M	м				SOIL	BORING LC	G						BORING NO.: B-07 Page 1 of 1
Projec Locati Client: Drilling	t: on: n Co.:	Powell C Miller Cit Avangric Ohio Te	Creek Sola ty, OH d Renewa stBor Inc	ır bles					Project No.: Project Mgr: Field Eng. Staff Date/Time Start	: ed:	5 E 1	5133 Eric Yuta Mav	850 Pau Nal 13	46-071 li kamura 2020 at 6	-50 pm
Driller/	Helper:	John Mir	nchak /Ke	ith Gibel					Date/Time Finis	hed:		May	13,	2020 at 7	:20 pm
Elevatio	n: Grade	ft. Vert	ical Datun	n:	- Demai	Boring Location	1: See Boring	Location Plan		Cool	rd.:	La	at: 4	1.09622 L	.ong: -84.131143
Type		HSA	Samp		- e Barrei	Rig Make & Mod	del: Diedrich I	D-50	Hammer Type	Dri	lling	ar L 3 Flu	uid	Drill Ro	d Size:
Length	ia (in)	5 ft	2 f	t	-		Tripod	Cat-Head	□ Safety	B	ento	onite	1		Casing Advance
Hammer	Wt. (lb.)	4.25	1.37	0	-	∐ ATV L I Track □	Air Track	Roller Bit	Automatic		oiyn 'atei	ner r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-	Skid []	Cutting Head		M N	one	_			
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	c optio	'isual - Manu (Density/con constituents, p nal descriptio	al Identification & Des sistency, color, Group N article size, structure, m ns, geologic interpretation	cription Name, noisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
_	S-1 0.0'- 2.0' 0.3'-'	23	3 3 3 4	<u>x</u> 1,	CL	0.3 (4") TOPS(Medium sti (CL)	OIL ff, brown and gi	ay CLAY, trace medium to	fine Sand, dry	N	M	M	M	PP = 2.0 TV = 0.3	tsf sf
-	S-2 2.0'- 4.0'	20	3 4 5 7		CL	Stiff, brown	n CLAY, dry (CL)		N	м	м	м	PP = 4.0 TV = 0.9	isf sf
	S-3 4.0'- 6.0'	23	2 3 5 7		CL	Stiff, browr	PP = 4.0 TV = 0.5	lsf sf							
-	S-4 6.0'- 8.0'	18	3 4 6 9		CL	Stiff, brown	PP = 3.0 TV = 1.0 t	isf sf							
-	S-5 8.0'- 10.0'	24	3 5 6 9		СН	8.0 Stiff, dark b	PP = 3.5 TV = 0.5	isf sf							
- - - - 15	S-6 13.0'- 15.0'	24	3 3 6 8		СН	Stiff, dark t	prown CLAY, dr	y (CH)		N	М	н	Т	PP = 2.5 TV = 0.6 f	lsf sf
- 15 - 15 - 15 - 15 - 15 - 15 - 15 - 15 - 18.0'- - 20.0' 9 - 11 - 11 - 11 - 15 - 1											м	Н	н	PP = 3.5 TV = 1.0 1	isf sf
		Water Le	evel Data	th in for	t to:	Sampl	е Туре	Notes:							
Date	Time	Elapsed Time	Dep Bot. of	Bottom	et to:	Open Er	nd Rod	PP = Pocket Penetr	ometer						
54.0		(hr)	Casing	of Hole	Water	T Thin-Wa	ll Tube	No groundwater end	countered during in	vestig	atio	n.			
						U Undistur	bed Sample		-	-					
						SS Split Spo	on Sample								
						G Grab Sa	mple							Borina N	o.: B-07
Field To	st Lecenc	l 1: Dila	tancv:	INN/	I one Sr	Slow R - Ranid		l Plasticity: NP - N/	on-Plastic L-Low	/ M -	Me	diur	n ⊢	I - Hiah	
			ghness:	<u>L - Lo</u>	<u>w M</u> -N	Aedium H - Hig	h	Dry Strength: N - Nor	$\frac{1}{100} = \frac{1}{100} = \frac{1}$	lediun	<u>1</u> F	<u> -</u>	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage diam	etral pocke	et penetrometer re	ading. 2.) "pp	a" denotes soil sample ave	rage axial pocket per	etrome	eter r	ead	ng.		
	Maximu	m Particle	Size is dete	ermined by	direct obs	ervation within limi	tations of samp	er size. 4.) Soil identifica	tions and field tests b	ased o	n vis	sual-	man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м				;	SOIL	BORING LO	G						BORING NO.: B-08 Page 1 of 1
Project	t:	Powell C	Creek Sola	ar						Project No.:		ţ	5133	3850	46-071	
Locatio	on:	Miller Ci	ty, OH							Project Mgr:		E	Eric	Pau	li	
Client:		Avangri	d Renewa	bles						Field Eng. Staff	:		Yuta	Nal	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Start	ed:		May	12,	<u>2020 at 3</u>	8:45 pm
Driller/	Helper:	John Mi	nchak /Ke	ith Gibe	el					Date/Time Finis	hed:		Иay	12,	2020 at 4	:30 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Boring	Location: See	Boring L	_ocation Plan		Coo	rd.:	La	at: 4	1.09785	Long: -84.12940
Item Type		Casing HSA	Sam	bler C	ore Barrel	Rig Ma	ke & Model: Di	edrich [0-50	Hammer Type	Hor	illind	tal L 5 Fli	atu Jid	Drill Ro	1983 od Size:
Length		5 ft	2 f	ť	-		k 🗌 Tripo	d	Cat-Head	□ Safety		ento	onite			Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			probe	Winch			olyn	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-	Skid		Iduk	Cutting Head		M N	one				
	Comple						Viewel	Manua	al Identification 8 Dec	ovintion	F	ield	Tes	sts		
Depth/	No. /	Rec.	Sample	Stratu		;	(Dens	sitv/con	sistency, color, Group N	lame.		s		gth		D
Elev. (ft)	Interval	(in)	Blows per 6"	Graph	ic Group		constitu	ients, p	article size, structure, m	oisture,	ancy	hne	ticity	Stren		Remarks
()	(ft)		P0. 0				optional de	scription	ns, geologic interpretatio	on, Symbol)	Dilat	Toug	Plas	Dry :		
	S-1	21	2	V77	CL	Ņ	Aedium stiff, brow	n and gr	ay CLAY, trace medium to f	fine Sand, dry	N	М	М	М	PP = 2.5	tsf
	0 0'- 2 0'		3	$\langle / /$	/	(0	CL)								TV = 0.4	tsf
F	0.0 2.0		3	<i>\//</i>	1											
			5	\mathbb{V}/\mathbb{I}	$\langle \rangle$											
L				V//												
	S-2	19	2	V//			Stiff, brown CLAY	, trace m	edium to fine Sand, dry (CL	-)		M	м	м	PP = 3.0 TV = 0.6	tst tsf
	2.0'- 4.0'		5	$\langle / / \rangle$	$\langle \rangle$											
			9	V//	7											
				V//	7											
-	S-3	22	2	{///	CL	_ ⊾	Aedium stiff, brow	n and gr	ay CLAY, trace medium to f	fine Sand, moist	N	L	м	м	PP = 1.0	tsf
	4.0'- 6.0'		3	$\mathbb{V}//$	$\langle \rangle$	((CL)								TV = 0.15	5 tsf
	4.0 - 0.0		3	V//	7											
			5	<i>\//</i>	1											
_					4	6.0										
	S-4	24	6	/././	SC	(*	12") - Brown med	ium to fir	ne SAND, some Clay, wet (S	SC)	-	-	-	-	Perched	water from 6 to 7 feet BGS.
	6.0'- 8.0'		7			7.0										
-			8 13	$\sqrt{77}$	CL	(*	12") - Brown CLA	Y, dry (C	CL)		ΠN	н	м	н	PP > 4.5	tsf
	7.0'-'		10	$\langle / /$	/										TV = 1.3	tsf
-	S-5	22	6	{///			/erv stiff. brown C	LAY. drv	/ (CL)		_N	Ιн	м	н	PP > 4.5	tsf
			7	V//	7 -			,,	(()						TV = 1.2	tsf
-	8.0'- 10.0'		10	$\langle / /$	7											
			14	<i>\//</i>	1											
10				$\mathbb{V}//$	$\langle \rangle$											
10				V//	7											
				Y//												
-				$\langle / / \rangle$	$\langle \rangle$	11 5										
					/	<u> </u>					-					
-																
L									(01)			. .			DD 0.5	
	S-6	24	4		СН		Stiff, dark brown C	LAY, dry	(CH)		N	M	н	н	PP = 2.5 TV = 0.7	tsf
L	13.0'- 15.0'		7													
	10.0		10													
15			1													
┝																
╞																
L																
	S-7	24	3		СН	s	Stiff, dark brown C	LAY, dry	y (CH)		-	-	-	-	PP = 3.0	tsf T tof
	18.0'-		4												1 V = 0.65	1 (5)
F	20.0'		7													
						E	End of Boring at 2	0 feet B0	GS. il cuttings							
	I	Waterla	evel Data			20.0		a with 50	Notes:			1	I			
		Elapsed	De	pth in f	et to:	0	Open Fnd Rod	-	PP = Pocket Penetro	ometer						
Date	Time	Time	Bot. of	Botto	m Water	· -	Thin-Wall Tube	ż	TV = Torvane							
		(hr)	Casing	of Ho	e	-1	Indisturbed S	ample	No groundwater enco	ountered during in	vesti	gatic	on.			
			<u> </u>		+		Solit Spoon So	mole								
							Grah Samala	nihie								
						- [°]	Gran Sample								Boring N	lo.: B-08
Field Te	st Legeng	l: Dila	tancv:	N -	None S-	Slow F	R - Rapid	F	Plasticity: NP - No	on-Plastic L-Low	/ M -	Me	diur	n ⊦	I - Hiah	
		Tou	ighness:	L - I	_ow_M - N	/ledium	H - High		Dry Strength: N - Non	$\underline{ne} \ \underline{L} - \underline{Low} \ \mathbf{M} - \mathbf{M}$	lediur	<u>n</u> ł	<u> </u> -	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et penetr	ometer reading.	2.) "pp	a" denotes soil sample aver	rage axial pocket per	etrom	eter	readi	ing.		
	3.) Maximu	m Particle	Size is dete	ermined I	by direct obs	ervation	within limitations	of sampl	er size. 4.) Soil identificat	tions and field tests b	ased	on vi	sual-	man	ual method	ls per ASTM D2488.

MOT MAC	T DONAL	D M	м				SOII	L BORING LO	G						BORING NO.: B-09 Page 1 of 1
Projec	t:	Powell C	Creek Sola	ar					Project No.:		Ę	5133	8850	46-071	
Locati	on:	Miller Ci	ty, OH						Project Mgr:		Ē	Eric	Pau	li	
Client:		Avangri	d Renewa	bles					Field Eng. Staff	:	_	Yuta	Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.						Date/Time Start	ed:	<u> </u>	May	12,	2020 at 1	2:55 pm
Driller/	Helper:	Jonn IVII	ical Datur	n.		Devine Lee	etiana Cas Darian	Leastian Dian	Date/Time Finis	nea:	 rd ·	viay	12,	2020 at 1	.30 pm
Item		Casing	Sam	oler Co	ore Barrel	Borning Loca	ation. See Bonng			Hori	zon	tal C)atu	m: NAD 1	983
Type		HSA	SS	3	-	Rig Make &	Model: Diedrich	D-50	Hammer Type	Dri	lling	g Flu	uid	Drill Ro	od Size:
Inside D	ia. (in.)	4.25	1.37	ر 75	-		Geoprobe	Winch	Doughnut		entc olyn	ner			Casing Advance
Hammer	Wt. (lb.)	140	14	0	-	Track	🗌 Air Track	Roller Bit	Automatic		/ate	r			Hollow Stern Auger
Hammer	Fall (in.)	30	30		-			Cutting Head			one ield	Tes	te		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratu Graph	m Group Symbo		Visual - Manu (Density/cor constituents, p optional descriptio	al Identification & Desensistency, color, Group N particle size, structure, m ons, geologic interpretation	cription lame, loisture, on, Symbol)	oilatancy -	oughness	lasticity	iry Strength		Remarks
	S-1	24	3	N 14. N	.1,	0.3 (4") - 1	TOPSOIL		_	-	<u>-</u>	-	-		
	0.0' 2.0'		2		CL	Mediu	im stiff, brown and g	ray CLAY, dry (CL)		N	L	м	м	PP = 2.5	tsf
-	0.0-2.0		3	<i>\//</i>	1									1 V = 0.4	ISI
	0.3'-'		4	$\langle / / \rangle$	7										
-	S-2	20	3	<i>\//</i>		Stiff h	prown and drav CLA	V dry (CL)			м	м	м	PP = 10	tef
	201 401	20	5	$\langle / / \rangle$				r, diy (OL)			"			TV = 0.7	tsf
-	2.0-4.0		7	<i>\//</i>											
			10	\mathbb{V}/\mathbb{I}	7										
-	6.2	22	4	<i>\//</i>		Von	tiff brown and grow	CLAV trace modium to fine	Sond dry (CL)			м			tof
	5-3	23	4	///		verys	ani, brown and gray	CLAY, trace medium to line	Sand, dry (CL)			IVI		TV = 0.85	isi itsf
	4.0'- 6.0'		11	$\langle / / \rangle$	/										
			15	///	1										
-						6.0		(01)			l			DD . 45	
	S-4	23	6		СН	Very s	stiff, brown CLAY, dr	у (СН)			Гн	н	н	PP > 4.5 TV = 0.75	tsf 5 tsf
L	6.0'- 8.0'		10												
			15												
L															
	S-5	24	5		СН	Very s	stiff, brown CLAY, dr	y (CH)		N	н	н	н	PP > 4.5 TV = 1.0	tsf tsf
_	8.0'- 10.0'		10												
			13												
10															
Γ															
-															
-	S-6	24	4		СН	Stiff, d	dark brown CLAY, dr	τγ (CL)		N	М	н	н	PP = 4.0	tsf
	13.0'-		5											1V = 1.2	IST
F	15.0'		8 11												
15															
Γ															
Γ															
Γ	S-7	24	3		СН	Stiff, d	dark brown CLAY, dr	ry (CL)		N	М	н	н	PP = 4.0	tsf
	18.0'-		5											iv = 1.31	ISI
Γ	20.0'		10												
					1	End of 20.0 Boreh	т вогіng at 20 feet B ole backfilled with so	oil cuttings.							
		Water Le	evel Data			Sa	mple Type	Notes:			•		-		
Date	Time	l ⊨lapsed Time	De Bot. of	Botto	et to: n	Ope	n End Rod	PP = Pocket Penetro	ometer						
		(hr)	Casing	of Hol	e Wate	T Thin	-Wall Tube	No groundwater enc	ountered during in	vestig	jatic	on.			
					_		Isturbed Sample								
							Sample								
							Jample							Boring N	o.: B-09
Field Te	st Legend	d: Dila	tancy:	N - I	None S-	Slow R - R	apid	Plasticity: NP - No	on-Plastic L - Low	/ M -	Me	diur	n F	I - High	
		Tou	ighness:	L - L	ow M-N	Medium H -	High	Dry Strength: N - Non	ne L-Low M-N	lediun	n ŀ	- I - I	ligh	VH - Ve	ry High
NUTES:	 "ppd" de 3.) Maximu 	enotes soil m Particle	sample ave Size is dete	erage dia ermined h	metral pock by direct obs	et penetromet	er reading. 2.) "pp n limitations of same	bar denotes soil sample aver ler size. 4.) Soil identificat	rage axial pocket pen tions and field tests b	etrome ased c	eter i on vi	read sual-	ng. man	ual method	s per ASTM D2488.
	,				,		51 Samp	,							

MOT MAC	T DONAL	M	м				S	OIL	BORING LO	G						BORING NO.: B-10 Page 1 of 1
Projec	t:	Powell C	Creek Sola	ar						Project No.:		_{	5133	850	46-071	
Locati	on:	Miller Ci	t <u>y, OH</u>							Project Mgr:		_ <u>F</u>	<u>Eric</u>	Pau	li	
Client:		Avangrid	<u>d Renewa</u> stBor Inc	bles						Field Eng. Staff	: od:	_	Yuta Mav	<u>Nał</u> 12	<u>xamura</u> 2020 at 2	:45 pm
Driller	Helper:	John Mi	nchak /Ke	ith Gibe	1					Date/Time Finis	shed:	<u>י</u> ו	<u>viay</u> May	<u>12,</u> 12,	2020 at 2 2020 at 3	:25 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Boring Lo	cation: See Bo	oring L	ocation Plan		Coo	rd.:	La	it: 4	1.09836 L	ong: -84.12308
Item			Sam	oler Co	re Barrel	Pig Mako	& Model: Dier	Irich F	-50		Hori	zon	tal D	atuı) atur	m: NAD 1	983 od Sizo:
Length		5 ft	2 f	t	-	Truck	Tripod		Cat-Head	□ Safety	□в	ento	onite	14	Dimite	Casing Advance
Inside D Hammer	ia. (in.) · Wt. (lb.)	4.25	1.37	75 0	-	□ ATV ✓ Track	Geopro	obe ck	Winch Roller Bit	Doughnut		olyn /ate	ner r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-	Skid			Cutting Head		N N	one				
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratur Graphi	n Group Symbo	i D	Visual - M (Densit constitue optional desc	/lanua y/cons nts, pa riptior	al Identification & Desc sistency, color, Group N article size, structure, m ns, geologic interpretation	cription lame, loisture, on, Symbol)	Dilatancy	Loughness	Plasticity Se L	Dry Strength		Remarks
_	S-1 0.0'- 2.0'	22	3 3 5 9		CL	Stiff	f, brown CLAY, d	ry (CL))		N	M	M	M	PP = 3.5 TV = 0.5	tsf Isf
-	S-2 2.0'- 4.0'	20	3 6 10 14		CL	Ver	y stiff, brown CL/	ΑΥ, dry	r (CL)		N	н	м	н	PP = 4.5 TV = 0.75	tsf tsf
	S-3 4.0'- 6.0'	21	5 7 11 16		CL	Ver	y stiff, brown and	н	PP > 4.5 TV = 0.7	tsf Isf						
-	S-4 6.0'- 8.0'	18	5 7 10 13		CL	CL Very stiff, brown CLAY, trace medium to fine Sand, dry (CL) N H M CL Stiff, brown CLAY, trace medium to fine Sand, dry (CL) N H M								н	PP > 4.5 TV = 1.5	tsf tsf
-	S-5 8.0'- 10.0'	24	4 4 9 14		CL	Stiff	f, brown CLAY, tr	ace m	edium to fine Sand, dry (CL	N	н	М	н	PP > 4.5 TV = 1.7 Occasion	tsf tsf al sand partings.	
	S-6 13.0'- 15.0'	24	4 4 7 9		СН	<u>11,5</u> Stiff	f, dark brown CL	— —	e Silt, trace Sand, dry (CH)		 N	м	н	Н	PP > 4.5 TV = 1.5	tsf tsf
-	S-7 18.0'- 20.0'	24	4 6 9 12		СН	Ver End 20.0 Bor	y stiff, dark brown I of Boring at 20 t ehole backfilled v	n CLAN feet BC vith soi	Y, dry (CH) GS. Il cuttings.		N	М	н	н	PP = 3.0 TV = 1.1	tsf Isf
		Water Le	evel Data	oth in fe	et to:		Sample Type		PD = Pocket Ponetre	ometer						
Date	Time	Time	Bot. of	Bottor					TV = Torvane	JITIELEI						
		(hr)	Casing	of Hol			nii-vvali TUDe	nlo	No groundwater enco	ountered during ir	vestig	gatic	on.			
							lit Spoon Sam	ple ble								
						G Gr	rab Sample									
															Boring N	o.: B-10
Field Te	st Legend	l: Dila	tancy:	N - N	lone S-	Slow R -	Rapid	F	Plasticity: NP - No	on-Plastic L - Lov	v M-	Me	diur	n ⊢ liα'	H-High	n / High
NOTES	1) "nnd" de	I OU	sample ave	L - L	ow IVI - I	et penetrom	n - mign neter reading	2) "nn"	a" denotes soil sample aver	rade axial pocket per	nearom	ii h	1 - F	ngn	vri - Ve	iy mign
NUTES:	3.) Maximu	m Particle	Size is dete	ermined b	y direct obs	servation wit	thin limitations of	sample	er size. 4.) Soil identificat	tions and field tests t	ased o	on vi	sual-	man	ual method	s per ASTM D2488.

MOT MAC	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-11 Page 1 of 1
Projec Locati Client: Drilling	t: on: g Co.:	Powell C Miller Ci Avangric Ohio Te	Creek Sola ty, OH d Renewa stBor Inc.	ar Ibles					Project No.: Project Mgr: Field Eng. Staff Date/Time Starf	: ed:		5133 Eric Yuta May	3850 Pau Na 15,	046-071 Ili kamura 2020 at 1	1:45 am
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Boring Lo	ocation: See Boring	Location Plan	Date/Time Finis	Coo	rd.:	Li	at: 4	1.09938 I	_ong: -84.10948
ltem		Casing	Sam	pler C	ore Barrel					Hori	zon	tal I	Datu	m: NAD	1983
Type Length		HSA 5 ft		3 't	-	Rig Make	& Model: Diedrich I	D-50	Hammer Type	Dri	Iling entr	g Fl i onite	uid	Drill Ro	od Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		□ Geoprobe	Winch		□ P	olyr	ner			Hollow Stem Auger
Hammer	• Wt. (lb.) • Fall (in)	140 30	140	0	-	Track	☐ Air Track	Cutting Head	Automatic	I ⊡ W	/ate	r			i leneti etemi i lagei
Tiannei											ield	Те	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratu Graph	m ic Symbo	i D D	Visual - Manu (Density/con constituents, p optional descriptio	al Identification & Desensistency, color, Group N particle size, structure, m ns, geologic interpretation	cription lame, loisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1	24	1	<u>× 1/</u>		0.5 (6")	- TOPSOIL			-	-	-	-		
	0.0'- 2.0'		1	777	CL	Me	dium stiff, brown and g	ray CLAY, moist (CL)		N	L	М	м	PP = 2.0	tsf
-	0.5'-'		3	\mathbb{Z}	2									TV = 0.3	tsf
			· ·	\mathbb{V}/\mathbb{I}	$\langle \rangle$										
-	S-2	19	3	$\langle / /$	CL	Stif	f, gray and brown CLA	Y, dry (CL)		N	м	м	м	PP = 3.0	tsf
	20'-40'		4	Y//	Δ									TV = 0.8	tsf
-	2.0-4.0		6	\mathbb{V}/\mathbb{I}	$\langle \rangle$										
			7	V//	7										
_				¥///	7										
	S-3	23	3	\mathbb{V}/\mathbb{I}		Stif	f, gray and brown CLA	Y, dry (CL)		N	М	м	м	PP > 4.5 TV = 0.9	tsf tsf
F	4.0'- 6.0'		4	$\langle / /$	λ										
5			7	Y//											
				///	$\langle \rangle$										
-	S-4	24	5	V//	CL	Ver	y stiff, brown CLAY, tra	ace medium to fine Sand, dr	y (CL)	N	н	м	н	PP > 4.5	tsf
	60'-80'		7	$\langle / /$										TV = 1.5	tsf al Sand partings
-	0.0-0.0		10	///	Δ									Occasion	ai Sanu parungs.
			14	$\mathbb{V}//$	7										
_				V//											
	S-5	24	4	///		Ver	y stiff, brown CLAY, tra	ace medium to fine Sand, dr	y (CL)	N	Н	м	Н	PP > 4.5	tsf tsf
	8.0'- 10.0'		11	$\mathbb{V}//$	7									Occasion	al Sand partings.
_			14	V//	/										
				///	Δ										
10				V//	$\langle \rangle$										
				V//	7										
F				X//	1										
					;;	11.5									
_															
	S-6	24	4		СН	Ver	y stiff, dark brown CLA	Y, dry (CH)		N	н	н	н	PP = 4.0 TV = 0.9	tsf tsf
	13.0'-		7											1 0.0	
Γ	15.0'		11												
15											1		1		
F															
╞															
F															
	S-7	24	4		СН	Stif	t, dark brown CLAY, dr	y (CH)		N	lн	н	Гн	PP = 3.5 TV = 0.8	tst tsf
L	18.0'-		5												
	20.0		11			_	l of Devices - + Co.f.	<u></u>							
						20.0 Bor	ehole backfilled with sc	bil cuttings.							
		Water Le	evel Data				Sample Type	Notes:			<u> </u>	· .	<u> </u>	•	
Dato	Timo	Elapsed	Dep Bot of	pth in f	eet to:	 0	pen End Rod	PP = Pocket Penetro	ometer						
Date		(hr)	Casing	of Ho	le Wate	• T Th	nin-Wall Tube	No groundwater enc	ountered durina ir	vestic	atic	on.			
		. ,				U Ur	ndisturbed Sample								
					_	SS Sp	olit Spoon Sample								
<u> </u>						G G	rab Sample							D	D 44
														Boring N	o.: B-11
Field Te	st Legend	d: Dila	tancy:	N -	None S-	Slow R -	Rapid I	Plasticity: NP - No	on-Plastic L - Lov	/ M -	Me	diui	n I	H - High	ny High
NOTES	1) "nnd" d	enotes soil	sample ave	- J	metral pock	et penetrom	neter reading 2 \ "pr	a" denotes soil sample aver	rade axial nocket per	etrom	ter	read	ing(vii-ve	a y raigit
	3.) Maximu	m Particle	Size is dete	ermined	by direct ob	servation wi	thin limitations of samp	ler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	-mar	ual method	ls per ASTM D2488.

MOT	T DONAL	м	м					SOIL	BORING LC)G						BORING NO.: B-12 Page 1 of 1
Projec	t:	Powell C	reek Sola	ır						Project No.:		(5133	3850	46-071	
Locati	on:	Miller Cit	ty, OH							Project Mgr:		I	Eric	Pau	li	
Client:		Avangrio	d Renewa	bles						Field Eng. Staf	:	_	Yuta	Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Star	ed:	_	May	15,	2020 at 1	<u>0:30 am</u>
Driller/	Helper:	John Mir	nchak /Ke	ith Gibe	<u> </u>					Date/Time Finis	shed:		May	15,	2020 at 1	1:10 am
Elevatio	n: Grade	Casing	Samr	n: Ner Co	ore Barrel	Boring Lo	cation: See	e Boring I	Location Plan		Hor	ra.:	Li Ital I	at: 4 Datu	1.09420 I	Long: -84.11099
Туре		HSA	SS		-	Rig Make	& Model: D	Diedrich [D-50	Hammer Type	Dr	illing	g Flu	uid	Drill Ro	od Size:
Length	ia (in)	5 ft	2 f	t 75	-			od	Cat-Head	□ Safety		ento	onite			Casing Advance
Hammer	Wt. (lb.)	140	1.57	5	-	Track		Track	Roller Bit	Automatic		/ate	er			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-	Skid			Cutting Head			one	·			
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratur Graphi	m Group Symbo	i b bl	Visual (Der constit optional de	l - Manu nsity/con tuents, p escriptio	al Identification & Des Isistency, color, Group M article size, structure, n ns, geologic interpretati	cription Name, noisture, ion, Symbol)	Dilatancy	DIBI	Plasticity	Dry Strength		Remarks
_	S-1 0.0'- 2.0'	23	1 2 2		CL	Med	lium stiff, gra	y and brow	wn CLAY, dry (CL)		N	L	M	M	PP = 2.5 TV = 0.3	tsf tsf
-	S-2 2.0'- 4.0'	22	2 3 4 7		CL	Med	lium stiff, bro	wn CLAY,	, moist (CL)		N	м	м	м	PP = 3.0 TV = 0.7	tsf tsf
	S-3 4.0'- 6.0'	23	3 4 7 10		ML	4.0 Stiff	, gray and bro	own SILT	, dry (ML)		N	м	L	м	PP > 4.5 TV = N/A Corrosior 6 feet BG	tsf i soil sample taken from 2 to S.
-	S-4 6.0'- 8.0'	24	6 9 11 16		CL	6.0 Very	y stiff, brown	CLAY, tra	ace medium to fine Sand, d	ry (CL)	N	н	м	н	PP > 4.5 TV = 1.6	tsf tsf
- - 10	S-5 8.0'- 10.0'	24	5 9 11 16		CL	Very	y stiff, brown	ry (CL)	N	н	м	н	PP > 4.5 TV = 1.3 Occasion	tsf tsf al Sand partings.		
- - 	S-6 13.0'- 15.0'	24	4 6 9 12		СН	<u>11.5</u> Very		rown CLA	Y, dry (CH)		N	н	н	н	PP = 3.5 TV = 0.9	tsf tsf
-	S-7 18.0'- 20.0'	24	4 6 8 11		СН	Stiff, End 20.0 Bore	, dark brown of Boring at chole backfille	CLAY, dr 20 feet Br ed with so	y (CH) GS. il cuttings.		N	н	н	н	PP = 4.0 TV = 1.2	tsf tsf
		Water Le	evel Data	oth in fe	et to:		Sample Typ	be	DD = Dooket Der -t-	romotor						
Date	Time	Time	Bot. of	Bottor	n w		en End Ro	a	TV = Torvane	ometer						
		(hr)	Casing	of Hol	e Water	T Th	in-Wall Tub	be	No groundwater end	countered during ir	nvesti	gatic	on.			
						U Un	disturbed S	Sample								
					+	- SS Sp	lit Spoon S	ample								
						Gra	ab Sample								Boring N	o · B-12
Field T			lanc: "	L		Class: D	Danid		Diasticity ND 1			14	نام.	, ,		··· U- 16
Field le	st Legend	i: Dila Tou	ancy: ahness:	N - 1 L - 1	vone S- .ow M-M	ыоw К- Лedium Н	rkapid I - High	l I	Plasticity: NP - N Dry Strength: N - No	ne L-Low M-N	v M.∙ ∕lediu	nvle n F	aiur H - F	n t Tjah	י - High VH - Ve	rv Hiah
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et penetrom	eter reading.	2.) "pn	a" denotes soil sample ave	erage axial pocket per	netrom	eter	read	ing.		, ,
	3.) Maximu	m Particle :	Size is dete	ermined b	y direct obs	ervation wit	hin limitations	s of samp	ler size. 4.) Soil identifica	ations and field tests I	based	on vi	isual	man	ual method	ls per ASTM D2488.

MOT	T DONAL	м	м				SOIL	BORING LO	G						BORING NO.: B-13 Page 1 of 1
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Tes	breek Sola ty, OH d Renewa stBor Inc.	ır bles					Project No.: Project Mgr: Field Eng. Staff Date/Time Start	: ed:	 	513 Eric Yuta May	3850 Pau a Na 26,	046-071 Ili kamura 2020 at 1	1:30 am
Driller/	Helper:	John Mir	hchak /Ke	ith Gibel					Date/Time Finis	hed:	<u> </u>	May	26,	2020 at 1	2:05 pm
Item	n. Grade	Casing	Samp	oler Co	re Barrel	Boring Lo	ocation: See Boring L	Location Plan		Hori	zon	tal I	at: 4 Datu	m: NAD	1983
Type		HSA	SS	3	-	Rig Make	& Model: Diedrich D	D-50	Hammer Type	Dr	lling	g Fl	uid	Drill Ro	od Size:
Inside Di	ia. (in.)	4.25	1.37	75	-			Winch	Doughnut		olyr	ner	•		
Hammer	Wt. (lb.)	140	140)	-	Track	Air Track	Roller Bit Cutting Hood	Automatic		/ate	r			Hollow Stelli Auger
nammer		- 30	30		-						ield	Те	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	Group Symbo	5 5 51	Visual - Manua (Density/con: constituents, pa optional description	al Identification & Desc sistency, color, Group N article size, structure, m ns, geologic interpretatio	c ription lame, oisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1	20	1 1			(10' 0.8	") - TOPSOIL			-	-	-	-		
_	0.8'-'		2 3		CL	Sof	t, brown and gray CLAY	Y, moist (CL)		N	М	М	м	PP = 2.0 TV = 0.4	tsf tsf
-	S-2 2.0'- 4.0'	19	2 2 3 5		CL	Mec (CL	dium stiff, brown and gr. .)	ay CLAY, trace coarse to fir	ne Sand, moist	N	м	м	м	PP = 2.0 TV = 0.4	tsf tsf
	S-3 4.0'- 6.0'	23	3 4 8		ML	4.0 Stiff	f, gray and brown SILT,	PP > 4.5 TV = 1.1	tsf tsf						
-	S-4 6.0'- 8.0'	20	10 5 8		CL	6.0 Ver	y stiff, brown and gray (PP > 4.5 TV = 1.3 Occasion	tsf tsf al Sand partings.						
-	S-5	24	10 13 4		CL	Ver	y stiff, brown CLAY, dry	PP > 4.5 TV = 1.5	tsf						
- 10 	8.0'- 10.0'		9 13												
- 	S-6 13.0'- 15.0'	24	4 6 9 11		CL	Ver	y stiff, brown CLAY, tra	ce medium to fine Sand, dr	y (CL)	N	н	м	н	PP = 4.5 TV = 1.0 Occasion	tsf tsf al Sand partings.
-	S-7 18.0'- 20.0'	24	4 5 8 11		СН	Stiff Enc 20.0 Bor	f, dark brown CLAY, dry d of Boring at 20 feet B0 ehole backfilled with so	PP = 3.5 TV = 0.9	tsf tsf						
		Water Le	evel Data Der	oth in fe	et to:		Sample Type	PP = Pocket Popetre	ometer						
Date Time Bot. of Bottom Water Time O Open End Rod PP = Pocket Penetrometer Time Time Bottom Water T Time Time Time															
		(hr)	Casing	of Hole			nn-vvall Tube	No groundwater enco	ountered during in	vestig	atio	on.			
			<u> </u>				nuisiurpea Sample								
						مە دە –	rah Sample								
					+		as outple							Boring N	o.: B-13
Field Te	st Legend	I: Dilat	tancy:	N - N	one S-	Slow R -	- Rapid F	Plasticity: NP - No	on-Plastic L - Low	/ M -	Me	diu	m I	H - High	
		Tou	ghness:	L - Lo	ow M-I	Aedium H	H - High [Dry Strength: N - Non	e L-Low M-N	lediur	n ł	- I - I	-ligh	VH - Ve	ry High
NUTES:	1.) "ppd" de 3.) Maximu	enotes soil : m Particle :	sample ave Size is dete	erage dian ermined by	etral pock	et penetrom	neter reading. 2.) "pp thin limitations of sample	a denotes soil sample aver er size. <u>4.) Soi</u> l identificat	age axial pocket pen tions and field tests b	etromo	eter on vi	reac sual	ing. -mar	ual method	ls per ASTM D2488.

MOT	T DONAL	M	м					SOIL	L BORING LC)G						BORING NO.: B-14 Page 1 of 1
Project	t:	Powell C	reek Sola	ar						Project No.:		Į	5133	3850	46-071	
Locatio	on:	Miller Cit	t <u>y, OH</u>							Project Mgr:		_ <u>F</u>	Eric	Pau	lli	
Drilling	Co ·	Avangric	<u>a Renewa</u> stBor Inc	DIES						Field Eng. Statt	ed.	_	<u>ruta</u> Mav	26	<u>kamura</u> 2020 at 1	2:30 pm
Driller/	Helper:	John Mir	nchak /Ke	ith Gibe						Date/Time Finis	hed:		May	26,	2020 at 1	:10 pm
Elevatio	n: Grade	it. Vert	ical Datur	n:		Bori	ng Locatio	n: See Boring	Location Plan		Coo	rd.:	La	at: 4	1.10093 I	_ong: -84.09970
Item		Casing	Sam	oler Co	ore Barrel	Dia	Maka 8 Mar	dal. Diodrich (D 50	Hammar Type	Hori	zon	tal C)atu	m: NAD 1	1983 od Sizo:
Length		5 ft	2 f	t	-		uck	Tripod	Cat-Head	□ Safety		ento	onite			Casing Advance
Inside D Hammer	ia. (in.) Wt. (lb.)	4.25	1.37	75 0	-	і □ А [:] І Г 1	TV 🗌	Geoprobe	Winch Roller Bit	Doughnut		olyn /ate	ner r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-		kid []	Cutting Head		M N	one				
Depth/	Sample		Sample				v	/isual - Manu	al Identification & Des	cription	F	ield	Tes	sts		
Elev.	No. / Interval	Rec. (in)	Blows	Stratur Graphi	n Grou	p	c	(Density/con constituents. p	nsistency, color, Group N particle size, structure, m	Name, noisture.	5	ness	äty	trengt		Remarks
(ft)	(ft)	()	per 6"	0.00	Symb	ol	optic	onal descriptio	ons, geologic interpretation	on, Symbol)	Dilatar	Lough	Plastic	Dry St		
	S-1	24	2	<u> </u>	1/		(12") - TOF	PSOIL			-	-	-	-		
	0.0'- 2.0'		3	1/. 11/	. 1	1 0										
-			3 5	777	CL		Brown and	I gray CLAY, mo	pist (CL)		ΠN	М	М	м	PP = 1.5	tsf
	1.0'-'		-	<i>\//</i>	1										1V = 0.5	tsf
-	S-2	20	2	///	CL		Stiff, brown	n and gray CLA	Y, dry (CL)		N	м	М	м	PP = 3.0	tsf
	2.0'- 4.0'		3	$\langle / / \rangle$	1										10 - 0.7	ISI
_			6		λ											
_				///	1											
	S-3	23	2	$\langle / / \rangle$	CL		Medium st	iff, brown CLAY	′, dry (CL)		N	М	М	М	PP = 2.5 TV = 0.7	tsf tsf
	4.0'- 6.0'		3 4	$\langle / / \rangle$	λ											
-			6	$\langle //$	3											
_					4	6.0										
	S-4	24	3		СН		Medium st	iff, gray and bro	wn CLAY, moist (CH)		N	М	н	м	PP = 1.5 TV = 0.2	tsf tsf
_	6.0'- 8.0'		4													
			8													
-	0.5	04	4			8.0	04:46	- OLAX 4	a super to fine O and show (OL)	<u>, </u>		l		l	DD : 15	
	5-5	24	4 5	$\langle / / \rangle$			Stiff, drown	n GLAY, trace c	coarse to tine Sand, dry (CL))		Г	IVI	Н	TV = 1.3	tsf
-	8.0'- 10.0'		8	$\langle / / \rangle$												
			11	$\langle / / \rangle$	λ											
10				<i>\//</i>												
				$\langle / / \rangle$	λ											
-				$\langle / / \rangle$			_									
					/	- 11.	5				-					
-																
-	S-6	24	4		СН		Very stiff, o	dark brown CLA	Y, dry (CH)		N	н	н	н	PP = 3.5	tsf
	13.0'-		6												TV = 0.9	tsf
-	15.0'		9 11													
15																
													1			
					2									1		
L														1		
														1		
_							0									
	S-7	24	3		СН		Stiff, dark l	brown CLAY, dr	у (CH)		N	Гн	н	Н	PP = 3.0 TV = 0.8	tsf tsf
-	18.0'- 20.0'		7													
			9		2		End of Bor	ing at 20 feet B	GS.					1		
		Waterla	evel Data			20.) Borehole b Samp	e Type	DII cuttings.					1		
-		Elapsed	Dep	oth in fe	et to:	10	Open Er	nd Rod	PP = Pocket Penetr	ometer						
Date	Time	Time (hr)	Bot. of Casing	Bottor	n Wate	r T	Thin-Wa	all Tube	TV = Torvane	countered during in	vestin	atic	n			
												,				
					+	_ss	Split Spo	oon Sample								
					1	G	Grab Sa	Imple							Borina N	o.: B-14
Field To	st Legeng	l: Dila	tancv [.]	IN M	l None S.	. Slow	R - Rapic		Plasticity: NP - N/	on-Plastic L-Low	M -	Me	diur	n ŀ	9 14	<i>u</i> 1-1
	ogoin	Tou	ghness:	L - L	ow M-	Mediu	m H - Hig	h l	Dry Strength: N - Nor	ne L-Low M-N	lediur	n ŀ	H - F	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral poc	ket per	etrometer re	ading. 2.) "pp	oa" denotes soil sample ave	rage axial pocket pen	etrom	eter i	read	ing.	ual mother	s nor ASTM D2/89
	J. IVIAXITTIU	m r arucie		za na	y un ect OD	acı va(l	on wiunn nm	nauons or samp	NOI SIZE. 4./ SUII IUEIIUTICA	auvito attu tietu tests D	ພວຍປີ (AT VI	Judi	ndſ	uai metnoo	13 per 70 HVI D2400.

MOT	T DONAL	M	м				SOI	L BORING LO	G						BORING NO.: B-15 Page 1 of 1
Project	t:	Powell C	Creek Sola	ar					Project No.:		ţ	513	3850	046-071	
Locatio	on:	Miller Ci	ty, OH						Project Mgr:		_	Eric	Pau	uli	
Client:		Avangric	<u>d Renewa</u> stBor Inc	bles					Field Eng. Staff: Date/Time Start	od.	_	Yuta May	<u>a Na</u> , 27	kamura	:45 am
Driller/	Helper:	John Mir	nchak /Ke	ith Gibe	1				Date/Time Finis	hed:	<u>י</u> _ ו	May May	<u>27</u> , 27,	2020 at 2	1:25 am
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Borii	ng Location: See Boring	Location Plan		Coo	rd.:	Li	at: 4	1.09472	_ong: -84.09656
Item		Casing	Sam	oler Co	re Barrel	Dia	Make 9 Medal, Diedvich	D 50	Hermony Trune	Hori	zon	tal I	Datu	Im: NAD	1983
Length		5 ft	2 f	t l	-		ruck	Cat-Head	Safety		ento	g ri onite	uiu ?	Drill RC	Casing Advance
Inside Di	ia. (in.)	4.25	1.37	75	-		TV Geoprobe	Winch	Doughnut		olyr	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-		kid 🗌	Cutting Head		M N	one				
_	Sample						Visual - Man	ual Identification & Desc	cription	F	ield	Te	sts		
Depth/ Flev	No. /	Rec.	Sample Blows	Stratur	n USCS		(Density/co	nsistency, color, Group N	lame,	>	sse	~	ngth		Remarks
(ft)	Interval (ft)	(in)	per 6"	Graphi	c Symbo	bl	constituents, optional descripti	particle size, structure, m ons. geologic interpretatio	oisture, on. Svmbol)	atanc	ndhn	asticit	y Stre		i tomanto
	(···/	21	1	1.3 1.1 3	1	_	(c") TOPCOU	, ggp	···, - j ····,	ā	To	Ē	Ď		
	5-1	21	2			0.5	(6") - TOPSOIL	may CLAX maint (CL)		- <u>-</u>	-	-	-	DD - 25	taf
-	0.0'- 2.0'		3	$\langle / / \rangle$			Medium sun, brown and g	gray CLAY, moist (CL)			IVI	IVI	IVI	PP = 2.5 TV = 0.7	tsf
	0.5'-'		5	$\langle / / \rangle$	2										
-		04		{///			Offf have and may Old		for a Quanda day						+- f
	5-2	21	5	$\langle / / \rangle$			(CL)	Ar, illue Sill, trace medium to	line Sand, dry		IVI	IVI	1	TV = 1.0	tsf
-	2.0'- 4.0'		7	V//	2										
			10	V//.	1										
-		24		K//	4	4.0	Chiff many and have OU			┥.					taf
	S-3	24	3		ML		Stiff, gray and brown SIL	I, dry (ML)			Н	L	M	TV = 1.1	tsf
	4.0'- 6.0'		8												
-				ĻЦ		6.0									
	S-4	24	7	///			Very stiff, brown and gray	/ CLAY, dry (CL)		N	Н	м	Н	PP > 4.5 TV = 1.2	tsf tsf
-	6.0'- 8.0'		10	$\langle / / \rangle$	7										
			13	<i>\//</i>	1										
_				V//	2										
	S-5	23	4	<i>\//</i>			Stiff, brown and gray CLA	AY, dry (CL)		N	Н	м	Н	PP > 4.5 TV = 0.8	tsf tsf
-	8.0'- 10.0'		8	$\langle / / \rangle$	2										
			12	<i>\//</i>	1										
10				$\langle / / \rangle$	2										
				<i>\//</i>	1										
-				$\langle / / /$	2										
				<i>\//</i>	1										
-				$\langle / / \rangle$	2										
				<i>\//</i>	7										
-				$\mathbb{V}//$					(2)						
	S-6	24	4	<i>\//</i>			Very stiff, brown CLAY, ti	ace medium to fine Sand, dr	y (CL)		Н	M	Гн	TV = 1.3	tsf
-	13.0'- 15.0'		10	V//	2							1		Occasion	al Sand partings.
			10	V//,								1			
15				\$///	7										
				V//,											
-				V//	7										
					4	16.5	5			_					
F															
-	07	24	4				Stiff dark brown OLAX				.				tef
	0-1	24	5				Jun, dark blown CLAY, C	iny (CIII)			^	1		TV = 0.8	tsf
-	18.0'- 20.0'		6									1			
			9				End of Boring at 20 feet I	3GS.							
		Water I 4	evel Data			20.0	O Borenole backfilled with s	Notes:				_	1		
_		Elapsed	Dep	oth in fe	et to:	0	Open End Rod	PP = Pocket Penetro	ometer						
Date Time Bot. of (hr) Bottom Casing Water T Thin-Wall Tube TV = Torvane No groundwater encountered during investigation T Thin-Wall Tube No groundwater encountered during investigation															
		("")	casing		<u> </u>	Jυ	Undisturbed Sample	no groundwater end		ະບວນຢູ	Jano	<i>.</i>			
						_ss	Split Spoon Sample								
						G	Grab Sample							Dovin - 1	. D 15
				L .	1	1						-1°			0 D-13
	st Legend	a: Dila Tou	iancy: ghness:	N - 1 L - L	wone S- .ow M-I	SIOW Nediu	тк-каріа im H-High	Dry Strength: NP - No	n-Plastic L-Low e L-Low M-M	- IVI - lediur	nvle n ł	aiui H - H	n I High	п - ніgh i VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et pen	netrometer reading. 2.) "p	pa" denotes soil sample aver	age axial pocket pen	etrome	eter	read	ling.		
	3.) Maximu	m Particle	Size is dete	ermined b	y direct ob	servatio	ion within limitations of sam	pler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	-mar	nual methoo	ls per ASTM D2488.

MOT	T DONAL	D M	м					SOIL	BORING LO	G						BORING NO.: B-16
Project	t:	Powell C	Creek Sola	ar						Project No.:		ţ	5133	3850	046-071	
Locatio	on:	Miller Ci	ty, OH							Project Mgr:		I	Eric	Pau	ıli	
Client:		Avangrid	d Renewa	bles						Field Eng. Staff:		_	Yuta	a Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Start	ed:	_	May	14,	2020 at 2	2:45 pm
Driller/	Helper:	John Mi	nchak /Ke	ith Gibe	el					Date/Time Finis	ned:		May	14,	2020 at 3	3:30 pm
Elevatio	n: Grade	ft. Vert	ical Datun	n:		Boring	g Locatio	n: See Boring L	_ocation Plan		Coo	rd.:		at: 4	1.091072	Long: -84.107717
Type		HSA	Sam		-	Ria Ma	ake & Mo	del: Diedrich D	0-50	Hammer Type	Dr	illin	a Fli	Jatu uid	Drill Ro	od Size:
Length		5 ft	2 f	ť	-	Tru	ick [Tripod	Cat-Head	□ Safety	B	ento	onite	;		Casing Advance
Inside D	ia. (in.) Wt (lb.)	4.25	1.37	75 n	-		V L	Geoprobe	Winch Roller Bit	Doughnut		olyn	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-		d [Cutting Head			lone				
	Sample						,	/ieual - Manus	al Identification & Desc	cription	F	ield	Tes	sts		
Depth/	No. /	Rec.	Sample	Stratu				(Density/con:	sistency, color, Group N	lame,		ss		gth		Pomorko
(ft)	Interval	(in)	per 6"	Graph	ic Symbo	, bl	opti	constituents, pa	article size, structure, m	oisture,	Itanc	ghne	sticity	Stre		Remains
	(11)		-				opu		ns, geologic interpretatio	on, Symbol)	Dila	Tou	Pla	Dry		
	S-1	20	1	V//	CL		Soft, brow	n CLAY, trace m	edium to fine Sand, dry (CL	-)	N	М	М	М	PP = 2.0 TV = 0.2	tsf tsf
	0.0'- 2.0'		1	X///	1										10-0.2	151
-			4	$\langle / / \rangle$	7											
			· ·	V//	/											
-	S-2	20	2	<i>\//</i>			Stiff. brow	n CLAY, drv (CL))		_N	М	м	м	PP = 3.0	tsf
	20' 40'		4	\mathbb{V}/\mathbb{I}	7 -		,								TV = 0.4	tsf
╞	2.0-4.0		5	V//.	7								1			
			8	X///	1											
_				$\mathbb{V}//$	7											
	S-3	23	3	V//			Stiff, brow	n and gray CLAY	', little Silt, trace medium to	fine Sand, dry	N	м	L	N	PP = 4.0 TV = 0.5	tsf tsf
_	4.0'- 6.0'		5	<i>\//</i>	1		(02)									
5			10	\mathbb{V}/\mathbb{I}	$\langle \rangle$											
			-													
-	S-4	24	5	Y///	CL		Very stiff,	brown and gray (CLAY, dry (CL)		N	н	м	н	PP > 4.5	tsf
	6.0'- 8.0'		8	\mathbb{V}/\mathbb{I}	$\langle \rangle$										TV = 0.6	tsf
-	0.0 - 0.0		10	$\langle / /$	7											
			13	<i>\//</i>	1											
F				$\mathbb{V}//$						(01)		I		l		
	S-5	24	4	V//			Very stiff,	brown CLAY, tra	ce medium to fine Sand, dry	y (CL)		Гн	M	Гн	TV = 0.3	tsf
_	8.0'- 10.0'		9	X///	1										Occasion	al Sand partings.
			13	\mathbb{V}/\mathbb{I}	7											
10				V//	2											
				Y///	1											
				V//	7											
-				V//	2											
				///	$\langle \rangle$											
-				V//	7											
				V//	2											
-		0.1		¥///			\			(01)		I		l	DD . 45	1.1
	5-0	24	4	V//			very sun,	DIOWN CLAY, ITA	ce medium to line Sand, dry	y (CL)			IVI		TV = 1.4	tsf
L	13.0'- 15.0'		10	<i>\//</i>	7										Occasion	al Sand partings.
			14	V//	4								1			
				V//	2								1			
15				K///	1								1			
				V//	7								1			
Γ				V//.	7	16 5							1			
					/	+ <u>+</u>					-		1			
F													1			
┝	S-7	24	5		СН		Verv stiff	dark brown CLA	Y dry (CH)		N	_H	н	н	PP = 3.0	tsf
		24	7				vory our,				1.	1	· ·	1	TV = 0.8	tsf
F	18.0'- 20.0'		9										1			
			12				End of Bo	ring at 20 feet B0	GS.				1			
						20.0	Borehole	packfilled with so	il cuttings.							
		Water Le	evel Data	oth in fe	et to:	-	Samp	le Type	DD - Dooket Denstra	motor						
Date	Time	Time	Bot. of	Botto	n w	<u>_</u>	Open E	nd Kod	TV = Torvane	ometer						
Date Finite Dott of a bottom Water T Thin-Wall Tube No groundwater encountered during investigation.																
						ا ل	Undistu	rbed Sample								
						SS	Split Sp	oon Sample								
						G	Grab Sa	ample							Borina N	lo.: B-16
Field To	et Logona		tancy:	L		Slow	R. Doni	ч г	lasticity: ND No	n-Plastic L Low	N.4	Ma	diu	n '		
	st Legent	Tou	ghness:	L - L	ow M-1	Aedium	1 H - Hig	gh C	Dry Strength: N - Non	ie <u>L-</u> Low M-M	ediur	n ł	H	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et penet	trometer re	eading. 2.) "pp	a" denotes soil sample aver	age axial pocket pen	etrom	eter	read	ing.		
	3.) Maximu	m Particle	Size is dete	ermined b	y direct ob	servatior	n within lin	itations of sample	er size. 4.) Soil identificat	tions and field tests b	ased	on vi	sual	-mar	ual method	ls per ASTM D2488.

MOT MAC	T DONAL	D M	м				SO	IL BORING LC)G						BORING NO.: B-17 Page 1 of 1
Projec	t:	Powell C	Creek Sola	ar					Project No.:		_{	5133	3850	46-071	Fage I OI I
Locati	on:	Miller Ci	ty, OH						Project Mgr:		Ē	Eric	Pau	li	
Client:		Avangri	d Renewa	bles					Field Eng. Staff	:	<u> </u>	Yuta	<u>Na</u>	kamura	
Drilling	g Co.:	Ohio Te	<u>stBor Inc.</u>	ith Cibe	4				Date/Time Start	ed:	<u> </u>	<u>May</u> May	13,	<u>2020 at 1</u>	<u>1:05 am</u>
Elevatio	n: Grade f	ft. Vert	ical Datur	n:	;	Boring I	ocation: See Borin	ng Location Plan	Date/Time Finis	Coo	rd.:	viay La	13, at: 4	1.09230	
Item	-	Casing	Sam	oler Co	ore Barrel	Doning L	boulon coo Bon	ig Eoodion Plan	-	Hori	zon	tal [Datu	m: NAD	1983
Type		HSA 5 ft	SS	} +	-		e & Model: Diedric	h D-50	Hammer Type	Dr	illing	g Flu	uid	Drill Ro	od Size:
Inside D	ia. (in.)	4.25	1.37	75	-			e ⊻ Winch			olyn	ner			
Hammer	·Wt. (lb.) ·Fall (in)	140	14	0	-	Track	☐ Air Track	Roller Bit Cutting Head	Automatic		/ate	r			rionow otomi rugor
Tiannei									<u> </u>	F	ield	Tes	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratu Graph	m ic Symbo	S D DI	Visual - Mar (Density/c constituents optional descrip	nual Identification & Des consistency, color, Group N s, particle size, structure, m tions, geologic interpretati	Name, noisture, ion, Symbol)	Dilatancy	oughness	lasticity	Jry Strength		Remarks
	S-1	20	2	177		Me	edium stiff, brown and	d gray CLAY, trace medium to	fine Sand, dry		M	M	M	PP = 3.0	tsf
	0.0'- 2.0'		3	$\langle / /$	7	(CI	L)							TV = 0.5	tsf
-	0.0-2.0		3	///	4										
			5	$\langle / / \rangle$	7										
-	S-2	20	3	<i>\//</i>		Ve	erv stiff brown and gr	av CLAY trace medium to fine	e Sand dry (CL)		Н	м	м	PP > 4.5	tsf
	20' 40'	20	7	$\mathbb{V}//$	7		, storm and gr		5 Gana, ary (62)		···			TV = 1.4	tsf
╞	2.0-4.0		10	K///											
			12	///	$\langle \rangle$										
-	S-3	24	5	V//			any stiff brown CLAY	dny (CL)			_L	м	 _н		tef
		24	7	///			iy still, blown olert,			"	''	IVI	l	TV = 0.9	tsf
	4.0-0.0		10	\mathbb{V}/\mathbb{I}	2										
			16	///	1										
-	S 1	24	5	$\langle / / \rangle$		Vo	on stiff brown and ar	av CLAX trace medium to find	a Sand dry (CL)			м			tef
	0-4	24	9	<i>\//</i>		1 10	ay still, blown and gr	ay CLAT, trace medium to mile			''	IVI	l''	TV = 1.3	tsf
_	6.0'- 8.0'		10	$\langle / / \rangle$	7									Occasion	al Sand partings.
			16	V//											
_	0.5		4	$\langle / / \rangle$			mustiff brown and an	au CLAX trace medium to fine					l		taf
	5-5	22	4 8	V//		ve	ery stiff, prown and gr	ay CLAY, trace medium to fine	e Sand, dry (CL)		Г	IVI	Г	TV = 1.2	tsf
L	8.0'- 10.0'		12	\mathbb{V}/\mathbb{I}	1									Occasion	al Sand partings.
			13	\mathbb{V}/\mathbb{I}	2										
10				¥///	1										
				$\langle / /$	7										
_				X///	1										
				$\langle / / \rangle$	7										
L				<i>\//</i>											
				$\langle / / \rangle$	7										
_				Y//											
	S-6	24	5	\mathbb{V}/\mathbb{I}	CL	Ve	ery stiff, brown CLAY,	trace medium to fine Sand, di	ry (CL)	N	Н	Μ	н	PP > 4.5 TV = 0.6	tsf tsf
L	13.0'- 15.0'		10	V//.	1									Occasion	al Sand partings.
	10.0		12	V//	λ										
15				V//.	2										
				///	$\langle \rangle$										
F				V//.	1										
					4	16.5				_					
F															
F			_												
	S-7	24	5 8		СН	Ve	ery stiff, dark brown C	EAY, dry (CH)		N	^H	Н	H	PP = 3.5 TV = 0.9	tsi tsf
F	18.0'- 20.0'		9												
			11			En	nd of Boring at 20 fee	t BGS.							
		Weter !	Nol D-4			_{20.0} Bo	somple Trees	soil cuttings.							
		Elapsed	Dei Data	oth in fe	et to:		Den End Rod	PP = Pocket Penetr	rometer						
Date	Time	Time	Bot. of	Botto	n Wate		hin-Wall Tube	TV = Torvane							
		(nr)	Casing	OT HO	e		Indisturbed Sample	No groundwater end	countered during in	vestig	gatic	on.			
					1	∣ss s	plit Spoon Sample								
				<u> </u>		G G	Grab Sample								
														Boring N	o.: B-17
Field Te	st Legend	d: Dila	tancy:	N -	None S-	Slow R	- Rapid	Plasticity: NP - N	on-Plastic L - Lov	/M-	Me	diur	n F	H-High	ny High
NOTES	4. "haa" (.1	enotes soil	sample ave	L - L erade dia	metral nock	et penetror	meter reading 2)	"ppa" denotes soil sample ave	rade axial pocket per	etrom	ter i	read	ingn ina	vn - Ve	iyillyll
	3.) Maximu	m Particle	Size is dete	ermined t	y direct ob	servation w	ithin limitations of sa	mpler size. 4.) Soil identifica	ations and field tests b	ased	on vi	sual	-man	ual method	ls per ASTM D2488.

MOT	T DONAL	M	м					SOII	BORING LO	G						BORING NO.: B-18 Page 1 of 1
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Te	Creek Sola ty, OH d Renewa stBor Inc.	ir bles						Project No.: Project Mgr: Field Eng. Staff Date/Time Start	ed:		5133 Eric Yuta May	3850 Pau Na 13,	046-071 Ili kamura 2020 at 1 2020 at 1	:00 pm
Elevatio	n: Grade	t. Vert	ical Datun	n:		Borin	g Locatio	on: See Boring	Location Plan	Date/Time Fillis	Coc	ord.:	La	at: 4	1.08946 I	_ong: -84.13
ltem		Casing	Samp	oler Co	e Barrel				D. 50		Hor	izon	tal [Datu	m: NAD 1	1983
Lenath		5 ft	2 f	t	-	Rig M	lake & Mo Jock	Diedrich I	D-50	□ Safety		ento	g Fli onite	uid	Drill Ro	Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		V	Geoprobe	Winch	Doughnut	□ F	olyr	ner			Hollow Stem Auger
Hammer	· Wt. (Ib.) · Fall (in.)	140 30	30		-	M Ira □ Ski	ack id	□ Air Track	Cutting Head	Automatic	L V M №	Vate Ione	er			Ū
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo		opti	Visual - Manu (Density/cor constituents, p ional descriptio	al Identification & Desensistency, color, Group N particle size, structure, m ns, geologic interpretation	cription Jame, noisture, on, Symbol)	Dilatancv	ield	lasticity	ory Strength		Remarks
_	S-1 0.0'- 2.0'	22	1 2 3 4		CL		Medium s (CL)	stiff, brown and g	ray CLAY, trace medium to	fine Sand, dry	N	M	M	M	PP = 2.0 TV = 0.3	tsf tsf
-	S-2 2.0'- 4.0'	21	3 7 11 14		CL		Very stiff,	brown CLAY, tra	ace medium to fine Sand, dr	у (CL)	N	н	М	н	PP = 4.5 TV = 0.8	tsf tsf
	S-3 4.0'- 6.0'	24	4 6 8 11		CL		Stiff, brov	vn CLAY, dry (CL	.)	М	м	PP = 4.5 TV = 0.4	tsf tsf			
-	S-4 6.0'- 8.0'	24	7 10 13 16		CL		Very stiff, brown CLAY, dry (CL)									tsf tsf
-	S-5 8.0'- 10.0'	24	5 7 10 14		CL		Very stiff,	brown CLAY, dr	y (CL)	N	н	М	н	PP > 4.5 TV = 1.1	tsf tsf	
- 10 - - - - 15 -	S-6 13.0'- 15.0'	24	3 7 10 12		CL	<u> 16.5 </u>	Very stiff,	brown CLAY, dr	y (CL)		N	н	м	н	PP > 4.5 TV = 1.0	tsf tsf
-	S-7 18.0'- 20.0'	24	4 6 8 11		СН	20.0	Stiff, dark End of Bo Borehole	t brown CLAY, dr bring at 20 feet B backfilled with so	y (CH) GS. ji cuttings.		N	м	н	н	PP = 4.0 TV = 1.0	tsf tsf
		Water Le	evel Data	oth in fee	et to:	-	Samp	ble Type	DD = Docket Departs	omotor						
Date	Time	Time	Bot. of	Bottom	Meter	.1°	Open E	nd Rod	TV = Torvane	ometer						
Date Time Time Bot. of (hr) Bottom of Hole Water T Thin-Wall Tube TV = Torvane No groundwater encountered during investigation.																
							Undist	urbed Sample								
							Split Sp	boon Sample								
						G	Grab S	ample							Borina N	o.: B-18
Field To	st Lecenc	l• Dila	tancy:	NN	I one S-	Slow	R - Ran	id	Plasticity: NP - Nr	on-Plastic L - L ou	м	Me	diur	n ŀ	High	
			ghness:	<u> </u>	<u>w M-N</u>	/ledium	n <u>H</u> -Hi	gh	Dry Strength: N - Nor	$\frac{1}{100} = \frac{1}{100} = \frac{1}$	ediu	n l	<u> -</u>	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage diam	etral pock	et pene	trometer r	eading. 2.) "pr	oa" denotes soil sample ave	rage axial pocket pen	etrom	eter	read	ing.		
	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	servatio	n within lir	nitations of samp	ler size. 4.) Soil identifica	tions and field tests b	ased	on vi	sual	-man	ual method	ls per ASTM D2488.

MOT	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-19 Page 1 of 1
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Ci Avangrid Ohio Te	Creek Sola ty, OH d Renewa stBor Inc.	ar bles					Project No.: Project Mgr: Field Eng. Staff Date/Time Start	ed:		5133 Eric Yuta May	3850 Pau Nal	946-071 li kamura 2020 at 2	::15 pm
Driller/	Helper:	John Mii ft Vert	nchak /Ke ical Datur	eith Gibel n·		Poring Loca	tion: Soo Poring I	ocation Plan	Date/Time Finis	hed:	<u> </u> rd ·	May La	<u>13,</u>	2020 at 2 1 09040 1	.:55 pm
Item		Casing	Sam	pler Co	re Barrel	Borning Loca	don. See Doning I			Hori	zon	tal [Datu	m: NAD [·]	1983
Type Length		HSA 5 ft		S 't	-	Rig Make & I	Model: Diedrich	D-50	Hammer Type	Dr B	illing entr	g Flu onite	uid	Drill Ro	od Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			Winch	Doughnut	□ P	olyr	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-	Skid		Cutting Head		L V M N	/ate one	r			-
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratun Graphio	USCS Group Symbo	ol ol	Visual - Manua (Density/con constituents, p ptional description	al Identification & Desc sistency, color, Group N article size, structure, m ns, geologic interpretatic	cription lame, oisture, on, Symbol)	Dilatancy	Toughness	Plasticity aL	Dry Strength		Remarks
-	S-1 0.0'- 2.0'	20	2 2 3 4		CL	Mediun (CL)	n stiff, brown and gr	ay CLAY, trace medium to f	fine Sand, dry	N	М	M	м	PP = 3.5 TV = 0.5	tsf tsf
-	S-2 2.0'- 4.0'	19	5 6 9 12		СН	Very st	iff, brown and gray	CLAY, dry (CH)		N	М	н	м	PP = 4.0 TV = 0.7	tsf tsf
	S-3 4.0'- 6.0'	24	3 6 9 14		CL	4.0 Very st	iff, brown CLAY, dry	/ (CL)	N	н	М	н	PP > 4.5 TV = 1.0	tsf tsf	
-	S-4 6.0'- 8.0'	23	5 6 9 11		CL	Very st	iff, brown CLAY, dry	(CL)	N	н	М	н	PP > 4.5 TV = 1.0	tsf tsf	
10	S-5 8.0'- 10.0'	24	4 7 9 15		CL	Very st	iff, brown CLAY, tra	ce medium to fine Sand, dry	N	н	м	н	PP > 4.5 TV = 0.9 Occasion	tsf tsf al Sand partings.	
- 10 - - - - 15	S-6 13.0'- 15.0'	24	4 7 11 13		CL	Very st	iff, brown CLAY, dry	/ (CL)		Z	н	м	н	PP > 4.5 TV = 1.5	tsf tsf
-	S-7 18.0'- 20.0'	24	3 5 7 9		сн	16.5 Stiff, da 20.0 Boreho	ark brown CLAY, dry Boring at 20 feet B0 le backfilled with so	y (CL) GS. ∦ cuttings.			н	н	н	PP = 3.5 TV = 1.1	tsf tsf
		Elapsed	Data	<u>oth in</u> fe	et to:	0 Open	Find Rod	PP = Pocket Penetro	ometer						
Date	Time	Time	Bot. of	Botton	Wate	T Thin-	Wall Tube	TV = Torvane							
		(nr)	Casing	of Hole	<u> </u>	U Undis	sturbed Sample	No groundwater enco	ountered during in	vestig	gatic	on.			
						Split	Spoon Sample								
					+	G Grab	Sample							. .	D 40
				L		1				_				Boring N	o.: B-19
Field Te	st Legend	l: Dila	tancy: ahness:	N - N	one S- w M-M	Slow R - Ra /ledium H - I	apid F High r	Plasticity: NP - No Dry Strength: N - Non	on-Plastic L - Low le L - Low M - M	/ M - lediur	Me n F	diur H - F	n H Hiah	I - High VH - V≏	rv Hiah
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dian	netral pock	et penetromete	r reading. 2.) "pp	a" denotes soil sample aver	rage axial pocket pen	etrom	eter	read	ing.		,
	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	ervation within	limitations of sampl	er size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	-man	ual method	ls per ASTM D2488.

MOT	T DONAL	D M	м				SOII	L BORING LO	G						BORING NO.: B-20
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Tes	Creek Sola ty, OH d Renewa stBor Inc.	ar bles					Project No.: Project Mgr: Field Eng. Staff Date/Time Start	: ed:	 	5133 <u>Eric</u> Yuta <u>May</u>	3850 Pau Nal 13,	946-071 li kamura 2020 at 9	:40 am
Driller/ Elevation	Helper:	John Mir ft Vert	nchak /Ke ical Datur	ith Gibel n:		Boring	Location: See Boring	Location Plan	Date/Time Finis	hed:	 rd.:	May La	<u>13,</u>	<u>2020 at 1</u> 1 09256 I	0:20 am ong: -84 12818
ltem		Casing	Sam	oler Cor	e Barrel	Doning	Location. Occ Doning	Location Fiam	-	Hori	zon	tal E	Datu	m: NAD 1	983
Type		HSA 5.ft		s t	-	Rig Mak	ke & Model: Diedrich I	D-50	Hammer Type	Dri	Iling	g Flu	biu	Drill Ro	od Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			Winch	Doughnut		olyn	ner			Hollow Stem Auger
Hammer	· Wt. (lb.) · Fall (in)	140 30	140		-	Track	k 🗌 Air Track	Roller Bit Cutting Head	Automatic	□ W M N	/ate	r			inenew etern rager
Tianine											ield	Tes	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	1	Visual - Manu (Density/cor constituents, p optional descriptio	al Identification & Desensistency, color, Group N particle size, structure, m ons, geologic interpretation	cription Jame, noisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
_	S-1 0.0'- 2.0'	17	2 2 3 5		CL	M (C	ledium stiff, brown and g CL)	ray CLAY, trace medium to	fine Sand, dry	N	м	М	М	PP = 2.5 TV = 0.2	tsf tsf
-	S-2 2.0'- 4.0'	200	3 4 5 8		CL	SI	tiff, brown and gray CLA	Y, dry (CL)		N	м	М	м	PP = 2.5 TV = 0.3	tsf tsf
	S-3 4.0'- 6.0'	24	4 5 6 10		CL	SI	tiff, brown and gray CLA	N	н	М	м	PP > 4.5 TV = 0.8	tsf tsf		
-	S-4 6.0'- 8.0'	16	5 8 11 14		CL	Ve	′ery stiff, brown CLAY, dr	N	н	М	н	PP > 4.5 TV = 0.8	tsf tsf		
- - 	S-5 8.0'- 10.0'	24	5 6 8 10		CL	SI	tiff, brown CLAY, some S)	N	н	М	н	PP > 4.5 TV = 1.7	tsf Isf	
15	S-6 13.0'- 15.0'	24	4 5 7 9		CH	<u>11.5</u> Si	tiff, dark brown CLAY, dr	у (СН)		N	н	н	Т	PP = 4.5 TV = 1.5	tsf tsf
-	S-7 18.0'- 20.0'	24	4 5 6 10		СН	Si 20.0 Bo	tiff, dark brown CLAY, dr	y (CH) GS. oli cuttings.		N	М	н	н	PP = 3.5 TV = 0.6	tsf Isf
		water Le	ever Data Der	oth in fee	et to:		Sample Type	PP = Pocket Penotr	ometer						
Date	Time	Time	Bot. of	Bottom	Water			TV = Torvane	UNELEI						
		(hr)	Casing	of Hole	vvaler	4. 1	No groundwater enc	countered during in	vestig	jatic	on.				
							Split Speen Sample								
						~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	Grah Sample								
						$+$ $^{\circ}$	oran oarripie							Boring N	o.: B-20
Field Te	st Legend	d: Dila	tancy:	N - N	one S-	Slow R	R - Rapid	Plasticity: NP - No	on-Plastic L - Low	/ M -	Me	diur	n F	I - High	
		Tou	ghness:	L - Lo	w M-N	ledium	H - High	Dry Strength: N - Nor	ne L-Low M-M	lediur	n ŀ	H - H	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de 3.) Maximu	enotes soil m Particle !	sample ave Size is dete	erage diam ermined by	direct obs	et penetro	ometer reading. 2.) "pp within limitations of same	ba" denotes soil sample aver ler size. 4.) Soil identifica	rage axial pocket pen tions and field tests h	etrome ased o	eter i on vi	read sual	ing. -man	ual method	s per ASTM D2488
										2000		- adi			

MOT	T DONAL	м	м					SOIL	BORING LO	G						BORING NO.: B-21 Page 1 of 1
Project	t:	Powell C	reek Sola	ır						Project No.:		. (51 <u>3</u> 3	3850)4 <u>6-07</u> 1	
Locatio	on:	Miller Ci	ty, OH							Project Mgr:		I	Eric	Pau	li	
Client:		Avangrid	d Renewa	bles						Field Eng. Staff		`	Yuta	Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Start	ed:	_[May	13,	2020 at 8	:30 am
Driller/	Helper:	John Mi	nchak /Ke	ith Gibe	I					Date/Time Finis	hed:	_	May	13,	2020 at 9	:15 am
Elevatio	n: Grade	ft. Vert	ical Datun	n:		Boring	Location	n: See Boring I	Location Plan		Coo	rd.:	La	at: 4	1.08751 I	_ong: - 84.12756
Item		Casing	Samp	oler Co	re Barrel	Dia Ma	ko 9 Mor	del. Diadriah (D 50		Hori	zon	tal [Datu	m: NAD 1	1983
Length		5 ft	2 f	t	-		k [Tripod	Cat-Head	□ Safety		ento	onite			Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		′ [Geoprobe	Winch	Doughnut	P	olyr	ner			Hollow Stem Auger
Hammer	Wt. (ID.)	140 30	140		-	M I rac □ Skid	ск ∟ н Г	Air Track	Cutting Head	M Automatic		/ate	r			0
											I F	ield	Tes	sts		
Depth/	Sample	Bee	Sample	Strotur	USCS		v	isual - Manua	al Identification & Desc	cription	F	6	1	£		
Elev.	Interval	(in)	Blows	Graphi	Group		c	onstituents, p	article size, structure, m	ioisture,	ъ	nes	oity	treng		Remarks
(11)	(ft)		pero		Symbo	2	optio	nal descriptio	ns, geologic interpretation	on, Symbol)	Dilata	ong	lasti	S Y S		
	S-1	20	2	St 14. St	7/	(6") TOPS	OIL				-	-	-		
		-	3	777		0.5	Medium sti	iff brown and g	ray CLAY trace medium to t	fine Sand dry		М	м	м	PP = 3.5	tsf
-	0.0 - 2.0		3	$\langle / / \rangle$		(CL)	in, brown and gi		line ound, dry	``	1			TV = 0.4	tsf
	0.5'-'		4	///	7											
L				X///	1											
	S-2	18	3	$\langle / / \rangle$		5	Stiff, browr	n and gray CLA	Y, dry (CL)		N	м	М	м	PP = 3.5 TV = 0.6	tsf tsf
	2.0'- 4.0'		4	///	7											
Γ			8	Y///	1									1		
				X///	1											
-	S-3	23	3	V//			Stiff brown	CLAY dry (CL)			М	м	м	PP > 45	tsf
		20	6	///			,		-/						TV = 1.0	tsf
	4.0 - 6.0		6	X///	1											
			9	\mathbb{V}/\mathbb{I}	7											
				///	7											
	S-4	21	5	X///	CL CL	\	√ery stiff, k	prown CLAY, dr	y (CL)		N	н	М	н	PP > 4.5	tsf
	6.0'- 8.0'		8	$\langle / / \rangle$	7										10 - 1.0	151
-			11	$\langle / / \rangle$	7											
			10	$\langle / / \rangle$	1											
-	S-5	24	4	$\langle / / /$	CL		verv stiff, t	prown and grav	CLAY, some medium to fine	Sand. drv (CL)	_N	Ιн	м	н	PP > 4.5	tsf
			7	$\langle / / \rangle$	7		,			,, (,		1			TV = 1.2	tsf
-	8.0'- 10.0'		9	<i>\//</i>	1										Occasion	ai Sand partings.
			16	$\langle / / \rangle$	2											
10				$\langle / / \rangle$	7											
10				///	4											
				///	1											
_				$\langle / / \rangle$	λ											
				///	1											
-				///	1											
				$\langle / / \rangle$	λ											
_		00	4	$\langle / / \rangle$			/					١		l	DD : 45	4- f
	5-0	23	4	(///		`	very stiff, t	prown CLAY, an	y (GL)			"	IVI	Н	TV = 1.8	tsf
L	13.0'- 15.0'		11	V//	7											
	10.0		14	V//.	1									1		
				K///	1											
15				V//	7											
				V//.	1											
F				X///	1									1		
					-	16.5					-					
╞																
F														1		
	S-7	24	5		СН		√ery stiff, k	prown CLAY, tra	ace medium to fine Sand, dr	y (CH)	N	н	н	н	PP > 4.5	tsf tsf
L	18.0'- 7 11														Occasion	al Sand partings.
Γ	20.0'		15		2											
							=nd of Bor Borehole b	ing at 20 feet B	GS. bil cuttings.							
		Water Le	evel Data		<u></u>	20.0	Sampl	e Type	Notes:			-	-			
		Elapsed	Dep	oth in fe	et to:	0	Open Er	nd Rod	PP = Pocket Penetro	ometer						
Date	Time	lime (hr)	Bot. of	Bottor	n Wate	т	Thin-Wa	all Tube	TV = Torvane	ountered during in	voeti-	natio	n			
		(11)	Jasing		<u> </u>	U	Undistur	bed Sample		ountered during IN	v ປຣເເ	Jario	л.			
						ss	Split Spc	on Sample								
					+	G	Grab Sa	mple								
					+	\dashv	Ou								Boring N	o.: B-21
Field Te	st Legend	d: Dila	tancy:	N - N	lone S-	Slow F	R - Rapid	1 1	Plasticity: NP - No	on-Plastic L - Low	M -	Me	diur	n ŀ	H - High	
		Tou	ghness:	L - L	ow M-N	/ledium	H - Hig	h I	Dry Strength: N - Non	ne L-Low M-N	ediur	n ł	H - H	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	netral pock	et penetr	rometer re	ading. 2.) "pp	a" denotes soil sample aver	rage axial pocket pen	etrom	eter	read	ing.		
I	3.) Maximu	m Particle	Size is dete	ermined b	y direct obs	ervation	within limi	tations of samp	er size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	man	ual method	IS per ASTM D2488.

MOT	T DONAL	D M	м				SOII	BORING LO	G						BORING NO.: B-22
Projec	t:	Powell C	Creek Sola	ar					Project No.:		Ę	5133	3850	46-071	Page 1 of 1
Locati	on:	Miller Ci	ty, OH						Project Mgr:		E	Eric	Pau	li	
Client:		Avangrid	d Renewa	bles					Field Eng. Staff		_	Yuta	Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.						Date/Time Start	ed:	_	May	12,	2020 at 5	:30 pm
Driller/	Helper:	John Mil	nchak /Ke	eith Gibel		Dealers Land		l ti Di	Date/Time Finis	hed:	<u> </u> rd ·	Vlay	12,	2020 at 6	:10 pm
Item	n. orade	Casing	Sam	oler Co	re Barrel	Bonny Loca	ation: See Boning	Location Plan		Hori	zon	tal D	Datu	m: NAD 1	983
Туре		HSA	SS	3	-	Rig Make &	Model: Diedrich	D-50	Hammer Type	Dri	lling	g Flu	uid	Drill Ro	od Size:
Inside D	ia. (in.)	5π 4.25	1.37	τ 75	-	□ Iruck □ ATV	Iripod Geoprobe	Winch	Doughnut		entc olvn	nite ner			Casing Advance
Hammer	Wt. (lb.)	140	140	0	-	Track	☐ Air Track	Roller Bit	Automatic		/ate	r			Hollow Stern Auger
Hammer	Fall (in.)	30	30		-			M Cutting Head			one ield	Tes	sts		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratun Graphi	Group Symbo		Visual - Manu (Density/cor constituents, p ptional descriptio	al Identification & Desensistency, color, Group N particle size, structure, m ns, geologic interpretation	cription Jame, Joisture, on, Symbol)	ilatancy -	anghness	lasticity	ry Strength		Remarks
	S-1	18	2	777		Mediur	m stiff, brown and g	rav CLAY, trace medium to t	fine Sand, drv		⊢ M	۵. M	□ M	PP = 2.5	tsf
		10	3	$\langle / / \rangle$		(CL)	g and a second and a		into cana, ary					TV = 0.5	tsf
-	0.0-2.0		3	///	1										
			5	$\langle / / /$	2										
-	S-2	20	3	<i>\///</i>		Stiff b	rown CLAV trace n	pedium to fine Sand dry (Cl)		__	м	Ц		tef
	20' 40'	20	5	$\langle / / \rangle$		Cuil, D			-)	1.	``		· ·	TV = 1.0	tsf
╞	2.0-4.0		8	<i>\///</i>	1										
			12	V//	2										
-	S-3	23	4	$\langle / / \rangle$		Vervisi	tiff brown CLAY dr	v (CL)			_	м	н	PP > 45	tef
	40' 60'	20	6	///		Vory		y (02)		1.	``		· ·	TV = 1.3	tsf
	4.0-0.0		10	///	1										
			13	///	1										
-	S 1	18	6	$\langle / / \rangle$		Venue	tiff brown CLAX dr	v (CL)				м			tef
	0-4	10	9	///		Verys		y (OL)			[''	IVI	''	TV = 1.5	tsf
_	6.0'- 8.0'		12	$\langle / / /$	2										
			16	///	1										
-	0.5	24	5	$\sqrt{//}$		Vanca					l			00 - 4 5	taf
	5-5	24	5 6	<i>\///</i>		verys	un, brown CLAY, dr	y (GL)				IVI		TV = 1.5	tsf
_	8.0'- 10.0'		10	$\langle / / \rangle$	2										
			13	///	1										
10				$\langle / / /$	2										
				///	1										
-				///	1										
					4	<u>11.5 </u>	·			_					
L															
_											l				
	S-6	24	5		СН	Very st	tiff, dark brown CLA	Y, dry (CH)		N	Гн	н	н	PP = 4.0 TV = 1.3	tsf tsf
_	13.0'- 15.0'		9												
			11												
15															
					2							1			
F															
╞															
					2										
╞		04	2			Out of	ork brown OLAX							DD - 0 5	tof
	3-1	24	5		СН	Sun, da	aik Diowii GLAY, di	y (0n)				"		TV = 3.5 TV = 1.0	tsf
F	18.0'- 20.0'		8												
			10		2	End of	Boring at 20 feet B	GS.							
L		Wator	aval Data			20.0 Boreho	ble backfilled with so	bil cuttings.					1		
		Elapsed	Dep	oth in fe	et to:	0 Oner	n End Rod	PP = Pocket Penetro	ometer						
Date	Time	Time	Bot. of	Botton	Water	T Thin-	-Wall Tube	TV = Torvane	eventered during 1						
(hr) Casing of Hole water T Thin-Wall Tube No groundwater encountered during investigation.															
						SS Split	Spoon Sample								
					+	G Grab	Sample							.	D 00
					1	1								Boring N	o.: B-22
Field Te	st Legend	1: Dila דסט	tancy: ahness:	N - N L - L	lone S- ow M-N	Slow R - Ra /ledium H -	apid High	Plasticity: NP - No Dry Strength: N - Non	on-Plastic L - Lov ne L - Low M - M	v M ∕lediun	Me n ⊦	diur H - F	n H Hjah	H - High VH - V≏	rv Hiah
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage diar	netral pock	et penetromete	er reading. 2.) "pr	pa" denotes soil sample aver	rage axial pocket per	etrome	eter i	read	ing.		, , , , , , , , , , , , , , , , , , ,
	3.) Maximu	m Particle	Size is dete	ermined by	/ direct obs	ervation within	limitations of samp	ler size. 4.) Soil identificat	tions and field tests b	ased o	n vi	sual	man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-23
Project	t:	Powell C	Creek Sola	ar					Project No.:		ł	513	3850	046-071	Fage For
Locatio	on:	Miller Ci	ty, OH						Project Mgr:			Eric	Pau	ıli	
Client:		Avangri	d Renewa	bles					Field Eng. Staff	:	_	Yuta	a Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.						Date/Time Start	ed:		May	14,	2020 at 1	2:25 pm
Driller/	Helper:	John Mi	nchak /Ke	ith Gibe	1				Date/Time Finis	hed:		May	14,	2020 at 1	:05 pm
Elevation	n: Grade	ft. Vert	ical Datur	n:		Boring Loc	ation: See Boring I	Location Plan		Coo	rd.:	Li	at: 4	1.09230 I	Long: -84.11353
Type		HSA	Sam S		-	Rig Make &	Model: Diedrich [D-50	Hammer Type	Dri	llin	a Fl	uid	Drill Ro	od Size:
Length		5 ft	2 f	ť	-	Truck		Cat-Head	□ Safety	□в	ento	onite	;		Casing Advance
Inside D	ia. (in.) Wt (lb.)	4.25	1.37	75 N	-	∐ ATV ▼ Track	Geoprobe Air Track	Winch Roller Bit	Doughnut		olyr /ate	mer			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-			Cutting Head		M N	one)			
	Sample						Visual - Manu	al Identification & Desc	cription	F	ield	l Te	sts		
Depth/	No. /	Rec.	Sample	Stratu			(Density/con	isistency, color, Group N	lame,		SSS		ngth		Remarks
(ft)	Interval (ft)	(in)	per 6"	Graph	ic Symbo		constituents, p	article size, structure, m	ioisture, on Symbol)	atanc	auybr	sticity	Stre		Remarks
	(11)				_	`			on, Cymboly	Ē	Tot	Pla	Δ		
	S-1	20	3	× 14. ×		0.3 (4") T	OPSOIL	to a second time to fine O and			- M	-	-		tef
	0.0'- 2.0'		3	\mathbb{V}/\mathbb{I}		Mediu	Im Stiff, Drown CLAY	, trace medium to fine Sand	, dry (CL)	``		101		TV = 0.3	tsf
_	0.3'-'		3	$\langle / /$	/										
				X///	1										
F	S-2	24	2	V//	CL	Stiff, b	prown CLAY, dry (CL	.)		N	М	м	м	PP = 3.5	tsf
	2.0'- 4.0'		4	V//	2									TV = 0.6	tsf
-			5	///	1										
			9	V//	7										
-	6.2	24	4	<i>\//</i>		0.55		/ trace course to fine Cand	dm ((CL)		١				tof
	5-3	24	6	///		Suit, t	brown and gray CLA	r, trace coarse to line Sand,	, dry (CL)		"	IVI	IVI	TV = 1.0	tsf
	4.0'- 6.0'		8	V//	2										
			11	V//											
				///											
	S-4	24	5	V//	CL	Very s	stiff, brown CLAY, tra	ace medium to fine Sand, dr	y (CL)	N	н	м	н	PP > 4.5	tsf
	6.0'- 8.0'		8	V//										Occasion	al Sand partings.
-			12	$\langle / / \rangle$	1										
				$\langle / / \rangle$	7										
-	S-5	24	5	<i>\//</i>	CL	Very s	stiff, brown CLAY, tra	ace medium to fine Sand, dr	v (CL)	N	н	м	н	PP > 4.5	tsf
	9 0' 10 0'		7	$\langle / / \rangle$, . ,	· ·	, ,					TV = 1.0	tsf
-	0.0 - 10.0		11	$\langle / /$	/									Occasion	ai Sanu parungs.
			14	<i>\//</i>	1										
10				$\mathbb{V}//$	7										
				V//	7										
L				///	1										
				$\langle / / \rangle$	λ										
				V//											
Γ				$\langle / / \rangle$	1										
				$\langle / / \rangle$	7										
-	S-6	24	4	Y///	CL	Very s	stiff, brown CLAY, dr	y (CL)		N	н	м	н	PP > 4.5	tsf
	13.0'-		6	\mathbb{V}/\mathbb{I}	7									TV = 0.9	tsf
F	15.0'		9	V//.	7										
				K///	1										
15				///	7										
				K///	1										
F				V//	7						1				
					4	16.5				_					
╞															
L															
	S-7	24	4		СН	Stiff, c	dark brown CLAY, dr	y (CH)		N	н	н	н	PP = 2.5	tsf
L	18.0'-		5 8												
Г	20.0'		11					00							
						End of 20.0 Boreh	ole backfilled with so	ອວ. vil cuttings.							
		Water Le	evel Data			Sa	mple Type	Notes:		- 1	<u> </u>		<u> </u>		
Date	Time	Elapsed	De Bot of	oth in fe	et to:	Ope	n End Rod	PP = Pocket Penetro	ometer						
Date	inne	(hr)	Casing	of Hol	e Water	T Thin	-Wall Tube	No groundwater enc	ountered during in	vestic	atio	on.			
						U Und	isturbed Sample		5						
			<u> </u>			SS Split	Spoon Sample								
						G Grat	o Sample							Boring N	o · B_23
Field T			toncir				lanid		n Diastia I I	, 14	N4 ·	ال			U D-23
	si Legent	Tou	ighness:	L - L	ow M-N	Aledium H-	High	Dry Strength: N - Non	ne L-Low M-N	lediur	n ł	H - H	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et penetromet	er reading. 2.) "pp	a" denotes soil sample aver	rage axial pocket pen	etrome	eter	read	ing.		
	3.) Maximu	m Particle	Size is dete	ermined t	y direct obs	ervation within	n limitations of samp	ler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	isual	-mar	ual method	ls per ASTM D2488.

MOT	T DONAL	м	м				SOIL	BORING LO	G						BORING NO.: B-24 Page 1 of 1
Projec Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Te	Creek Sola ty, OH d Renewa stBor Inc.	bles					Project No.: Project Mgr: Field Eng. Staff Date/Time Start	ed:		513 Eric Yuta May	8850 Pau Na 27,	046-071 Ili kamura 2020 at 1	1:00 am
Elevatio	n: Grade	t. Vert	ical Datur	n:		Bori	ng Location: See Boring I	ocation Plan	Date/Time Finis	nea: Coo	rd.:	viay La	<u>27,</u> at: 4	1.08414 L	.ong: -84.12511
Item		Casing	Sam	oler Cor	e Barrel					Hori	zon	tal [Datu	m: NAD 1	983
Lenath		5 ft	2 f	t	-		uck Diedrich L	D-50	□ Safetv		IIIn ento	g Fli onite	uid	Drill Ro	d Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		TV 🗌 Geoprobe	Winch	Doughnut	□ P	olyr	ner			Hollow Stem Auger
Hammer	· Wt. (Ib.) · Fall (in.)	140 30	30		-	IM Ir □ SI	rack ∐Aırlrack kid □	☐ Roller Bit ✓ Cutting Head	Automatic	L ₩ M	/ate one	er			Ũ
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	S D D	Visual - Manua (Density/con constituents, p optional description	al Identification & Desc sistency, color, Group N article size, structure, m ns, geologic interpretatic	c ription lame, oisture, on, Symbol)	Dilatancy H	oughness	lasticity aL	ory Strength		Remarks
	S-1	22	1	<u></u>	4	0.5	(6") - TOPSOIL			-	-	-	-		
-	0.0'- 2.0' 0.5'-'		2 2 4		CL	0.5	Medium stiff, brown CLAY,	, dry (CL)		N	м	м	м	PP = 2.5 TV = 0.5	tsf Isf
-	S-2 2.0'- 4.0'	24	3 5 8 13		CL		Stiff, brown CLAY, dry (CL)		N	н	м	м	PP = 4.5 TV = 1.0	tsf Isf
	S-3 4.0'- 6.0'	24	3 6 8 11		CL		Stiff, brown and gray CLAY	۲, dry (CL)		N	н	М	н	PP > 4.5 TV = 1.1	tsf isf
-	S-4 6.0'- 8.0'	23	3 6 8 12		CL		Stiff, brown and gray CLAY	۲, dry (CL)		N	н	М	н	PP > 4.5 TV = 1.5	tsf isf
-	S-5 8.0'- 10.0'	24	3 5 7 10		CL		Stiff, brown CLAY, dry (CL)		N	н	М	н	PP > 4.5 TV = 1.5	tsf Isf
	S-6 13.0'- 15.0'	24	3 6 8 11		CL	16.3	Stiff, brown CLAY, dry (CL)		N	н	м	н	PP > 4.5 TV = 0.8	tsf isf
-	S-7 18.0'- 20.0'	24	3 6 7 11		СН	20.0	Stiff, dark brown CLAY, dry End of Boring at 20 feet B0 0 Borehole backfilled with so	y (CH) GS. il cuttings.		N	н	н	н	PP = 3.0 TV = 0.9	tsf isf
		Water Le	evel Data	oth in fee	et to:	┥╴	Sample Type	PP = Pocket Popetra	ometer						
Date	Time	Time	Bot. of	Bottom	14/04/01	<u></u>	Open End Rod	TV = Torvane	ometer						
	-	(hr)	Casing	of Hole	vvate	<u>'</u>]	Thin-Wall Tube	No groundwater enco	ountered during in	vestig	jatio	on.			
						-	Undisturbed Sample								
						$\exists \hat{s}s$	Split Spoon Sample								
						- ^G	Grab Sample							Boring N	o.: B-24
Field Te	st Leaena	l: Dila	tancv:	I N - N	one S-	Slow	R - Rapid F	Plasticity: NP - No	on-Plastic L - Low	M -	Me	diur	n F	H- Hiah	
		Tou	ghness:	L - Lo	w M-N	Mediu	m H - High [Dry Strength: N - Non	ie L-Low M-N	lediur	n l	H	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	notes soil	sample ave	erage diam	etral pock	ket pen	etrometer reading. 2.) "pp	a" denotes soil sample aver	age axial pocket pen	etrome	eter	read	ing.		
	3.) Maximu	m Particle	Size is dete	ermined by	direct obs	servati	on within limitations of sampl	ler size. 4.) Soil identificat	tions and field tests b	ased o	on vi	sual	-man	ual method	s per ASTM D2488.

MOT MAC	T DONAL	м	м				SOIL	BORING LO	G						BORING NO.: B-25
Projec	t:	Powell C	Creek Sola	ar					Project No.:		5	5133	3850	46-071	
Locati	on:	Miller Ci	ty, OH						Project Mgr:		E	Eric	Pau	li	
Client:		Avangrio	d Renewa	bles					Field Eng. Staff	•)	Yuta	Na	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.						Date/Time Start	ed:		May	<u>27,</u>	2020 at 1	<u>1:50 am</u>
Driller/	Helper:		nchak /Ke	eith Gibe	I T	Dealers Locatio			Date/Time Finis	hed:	<u> </u> rd ·	Vlay	27,	2020 at 1	2:25 pm
Item		Casing	Sam	pler Co	re Barrel	Boring Locatio	n. See bonny i			Hori	zon	tal D	atu	m: NAD 1	1983
Туре		HSA	SS	3	-	Rig Make & Mo	del: Diedrich [D-50	Hammer Type	Dri	lling	g Flu	ıid	Drill Ro	od Size:
Inside D	ia. (in.)	5π 4.25	1.37	τ 75	-	⊔ Iruck L □ATV [Geoprobe	☐ Cat-Head ✓ Winch	Doughnut		entc olvn	nite ner			
Hammer	Wt. (lb.)	140	140	0	-	Track [Air Track	Roller Bit	Automatic		/ate	r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-			M Cutting Head			one iold	Too	ete		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratur Graphi	n Group Symbo	l opti	Visual - Manua (Density/con constituents, p onal description	al Identification & Desc sistency, color, Group N article size, structure, mo ns, geologic interpretation	c ription lame, oisture, on, Symbol)	Dilatancy	oughness	lasticity	ory Strength		Remarks
	S-1	22	1	<u></u> <u>_</u>	1/	6") - TOP	SOIL				-	-	-		
	0.0'- 2.0'		2	777		0.5 Medium s	tiff, gray and brov	wn CLAY, dry (CL)		ΠN	L	м	м	PP = 2.5	tsf
-	0.5'-'		2	$\langle / /$	2									TV = 0.3	tsf
	0.5-		4	///	1										
-	S-2	22	3	$\langle / / \rangle$	CL	Stiff. grav	and brown CLA	Y. drv (CL)		N	Н	м	н	PP > 4.5	tsf
	2 0'- 4 0'		5	<i>\//</i>	1									TV = 1.2	tsf
F			8	V//	7										
			11	K///	1										
-	S-3	23	3	$\mathbb{V}//$	CL	Stiff, grav	and brown CLA	Y. trace coarse to fine Sand.	drv (CL)	N	Н	м	Н	PP = 4.5	tsf
	10' 60'	20	5	V//		July Star		, laco coarco lo lino calla,	,, (02)				· ·	TV = 0.8	tsf
	4.0-0.0		7	\mathbb{V}/\mathbb{I}	2										
			11	\mathbb{V}/\mathbb{I}	7										
-	84	24	4	<i>\///</i>		Vonvotiff	brown and grow	CLAX trace modium to fine	Sond dry (CL)						tof
	3-4	24	6	$\langle / /$		very sun,	biowii aliu glay	CLAT, trace medium to line	Sand, dry (CL)		Г	IVI		TV = 1.5	tsf
_	6.0'- 8.0'		9	<i>\//</i>	1									Occasion	al Sand partings.
			12	$\mathbb{V}//$	7										
L				<i>\//</i>		0.11									
	S-5	24	3	$\mathbb{V}//$		Stiff, brow	in and gray CLAY	r, trace medium to fine Sand	a, ary (CL)		Н	M	Н	TV = 1.3	tsf
-	8.0'- 10.0'		7	$\langle / /$	2									Occasion	al Sand partings.
			10	///	1										
10				\mathbb{V}/\mathbb{V}	2										
				<i>\///</i>	1										
L				$\langle / / \rangle$	λ										
					4	11.5				_					
L															
_															
	S-6	23	3		СН	Stiff, dark	brown CLAY, dr	y (CH)		N	н	н	н	PP = 3.5 TV = 0.8	tsf tsf
L	13.0'- 15.0'		5 6									1			
	10.0		9												
L															
L															
L															
	S-7	24	3		СН	Stiff, dark	brown CLAY, dr	y (CH)		N	н	н	н	PP = 2.5 TV = 0.8	tsf tsf
L	18.0'- 20.0'		6												
	20.0		9			End of Bo	ring at 20 feet R	GS.							
						20.0 Borehole	backfilled with so	il cuttings.							
		Water Le	evel Data	oth in fe	et to:	Samp	nd Deci	PR = Pocket Ponetre	ometer						
Date	Time	Time	Bot. of	Bottor	n Wator		nu K00 all Tuba	TV = Torvane	סוווכוכו						
		(hr)	Casing	of Hol	e vale		air rube rhed Sample	No groundwater enco	ountered during in	vestig	atic	n.			
							oon Sample								
						G Grab Sa	ample								
														Boring N	o.: B-25
Field Te	st Legend	l: Dila	tancy:	N - 1	None S-	Slow R - Rapi	d f	Plasticity: NP - No	on-Plastic L - Low	/ M -	Me	diur	n F	H - High	
NOTES	1.) "nnd" de	I OU	sample ave	L - L erade dia	netral pock	et penetrometer re	eading 2\"m	a" denotes soil sample aver	rade axial nocket per	etrome	ter i	ı - f	ingn ing	vn - ve	יואויז איז
NOTES.	3.) Maximu	m Particle	Size is dete	ermined b	y direct obs	ervation within lim	nitations of sampl	ler size. 4.) Soil identificat	tions and field tests b	ased o	n vi	sual	man	ual method	ls per ASTM D2488.

MOT	T DONAL	D M	м				SOII	L BORING LO	G						BORING NO.: B-26 Page 1 of 1
Project	t:	Powell C	reek Sola	ar					Project No.:		5	5133	3850	46-071	
Locatio	on:	Miller Cit	ty, OH						Project Mgr:		E	Eric	Pau	li	
Client:		Avangric	<u>d Renewa</u> etRor Inc	bles					Field Eng. Staff	: 		<u>Yuta</u>	<u>Na</u> 27	kamura	:00 pm
Driller/	Helper:	John Mir	nchak /Ke	ith Gibe	1				Date/Time Start	ea: hed:	_ <u>r</u>	<u>viay</u> Mav	<u>27,</u> 27.	2020 at 3 2020 at 3	:35 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Boring Locati	on: See Boring	Location Plan		Coo	rd.:	La	at: 4	1.08696 L	.ong: -84.11559
ltem		Casing	Sam	oler Co	re Barrel			D. 50		Hori	zon	tal C	Datu	m: NAD 1	983
Length		5 ft	2 f	t I	-	Truck	Diedrich I	D-50	□ Safety		ento	g Fil	מוג	Drill Ro	Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-			Winch	Doughnut		olyn	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-	Skid		Cutting Head		M N	one	r			
	Sample						Visual - Manu	al Identification & Des	cription	F	ield	Tes	sts		
Depth/ Elev.	No. /	Rec.	Sample Blows	Stratur	n USCS Group		(Density/cor	sistency, color, Group N	lame,	2	ess	~	ength		Remarks
(ft)	Interval (ft)	(in)	per 6"	Graphi	c Symbo	bl opt	constituents, p tional descriptio	particle size, structure, m ons. geologic interpretatio	ioisture, on. Svmbol)	atanc	ndhn	asticit	y Stre		i tomanto
	(···/	10	4	34.3	1.	(6") TO				ā	To	Ē	Ď	DD = 1.5	taf
	5-1	15	2			0.5 (0) - 10	otiff, grov and bra	we CLAY dev (CL)			-	-	-	TV = 0.3	tsf
-	0.0'- 2.0'		2	$\backslash / /$		Weduins	sun, gray and bro	WITCEAT, dry (CE)			IVI	IVI	IVI	PP = 1.5 TV = 0.3	tsf
	0.5'-'		2	$\langle / / \rangle$	3										
-	6.2	24	2	$\langle / / /$		Stiff brow	un and grov CLA	$V_{\rm dn}$ (CL)			м	м	м	DD = 2.0	tof
	201 401	24	4	<i>\//</i>		500, 500	WIT and gray OLA	T, dry (OE)			IVI	IVI	IVI	TV = 0.3	tsf
╞	∠.∪'- 4.0'		5	V//	2										
			7	V//											
-		04		{///		04:55 have									f
	5-3	24	3	$\langle / / \rangle$		Stiff, brov	wn and gray CLA	Y, dry (CL)			IVI	IVI	IVI	TV = 0.4	tsf
	4.0'- 6.0'		6	///	1										
			8	$\langle / / \rangle$	2										
_				<i>\///</i>											
	S-4	24	3	$\langle / / /$		Stiff, brov	wn CLAY, dry (CL	_)			н	М	м	PP = 4.0 TV = 1.1	tsf tsf
_	6.0'- 8.0'		8	$\langle //$											
			9	///	1										
					2	8.0									
	S-5	24	3		СН	Stiff, brov	wn CLAY, dry (CH	H)		N	н	н	н	PP > 4.5 TV = 1.4	tsf tsf
_	8.0'- 10.0'		8												
			11												
10															
L															
Γ															
_	S-6	24	3		СН	Stiff, darl	k brown CLAY, dr	ry (CH)		N	н	н	н	PP = 3.5 TV = 0.8	tsf tef
	13.0'-		4											1 V = 0.0	
	10.0		9												
15															
- 15												1			
L															
L															
L															
	S-7	24	2		СН	Stiff, darl	k brown CLAY, m	oist (CH)		N	М	н	н	PP = 3.0 TV = 0.6	tsf tsf
L	18.0'-		3											0.0	
	20.0		6			End of D	oring at 20 fact D	GS							
						20.0 Borehole	backfilled with so	pil cuttings.			L				
		Water Le	evel Data	oth in fo	et to:	Sam	ple Type	Notes:	amotor						
Date	Time	Time	Bot. of	Botton	n _{Wato}		End Rod	TV = Torvane	unielei						
		(hr)	Casing	of Hole		I Thin-W	vall Tube	No groundwater enc	ountered during in	vestig	atic	on.			
				<u> </u>			u peu Sample								
						G Grab S	Sample								
														Boring N	o.: B-26
Field Te	st Legend	i: Dila	tancy:	N - N	lone S-	Slow R - Rap	bid	Plasticity: NP - No	on-Plastic L - Low	<u>и</u> М	Me	diur	n I	I - High	
NOTES	1) "nnd" d	Tou notes soil	gnness:	L - L	OW M - N	/ieaium H - Hi	Ign	Dry Strength: N - Non	ie L - Low M - N	etrom		1 - F	ingh	vH - Ve	ry Hign
MUTEO:	3.) Maximu	m Particle	Size is dete	ermined b	y direct obs	servation within li	mitations of samp	er size. 4.) Soil identificat	tions and field tests b	ased c	n vi	sual	man	ual method	s per ASTM D2488.

MOT	T DONAL	м	м				SOIL	BORING LO	G						BORING NO.: B-27
Project Location	t: on:	Powell C Miller Cit	breek Sola ty, OH t Renewal	ir bles					Project No.: Project Mgr: Field Eng. Staff		_5 _E	5133 Eric Zuta	3850 Pau)46-071 Ili kamura	
Drilling	g Co.:	Ohio Tes	stBor Inc.	5100					Date/Time Start	ed:	Ν	May	27,	2020 at 1	:55 pm
Driller/	Helper:	John Mir	ical Datur	ith Gibel		Poring Loo	ation: Soo Poring	Leastion Plan	Date/Time Finis	hed:	<u> </u> rd ·	May	27,	2020 at 2	:25 pm
Item		Casing	Samp	oler Co	e Barrel	Boring Loca	ation: See Boning			Hori	zon	tal E	at. 4 Datu	m: NAD 1	983
Type		HSA 5 ft	SS 2 ft	; •	-	Rig Make &	Model: Diedrich I	D-50	Hammer Type	Dri	Iling	g Flu	uid	Drill Ro	od Size:
Inside D	ia. (in.)	4.25	1.37	'5	-		Geoprobe	Winch			olyn	ner			Hollow Stem Auger
Hammer Hammer	· Wt. (lb.) · Fall (in.)	<u>140</u> 30	140)	-	✓ Track Skid	☐ Air Track	Cutting Head	Automatic	⊡ W I⊠ N	/ate	r			i leneti etem i lager
	Comple						Viewel Menu	al Identification 9 Dec		F	ield	Tes	sts		
Depth/ Elev. (ft)	No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratum Graphic	USCS Group Symbo	l c	(Density/con constituents, p pptional descriptio	nsistency, color, Group N particle size, structure, m ns, geologic interpretation	Name, noisture, on, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1 0.0'- 2.0'	17	1	<u>x1, x</u>	4 CL	(8") - 1 0.6 Soft. b	TOPSOIL	Y. moist (CL)			- L	- M	- м	PP = 1.5 TV = 0.2 PP = 1.5	tsf tsf tsf
_	0.6'-'		2											TV = 0.2	tsf
-	S-2 2.0'- 4.0'	21	3 4 6 9		CL	Stiff, b	prown and gray CLA	Y, dry (CL)		N	м	м	м	PP = 3.0 TV = 0.6	tsf Isf
- 	S-3 4.0'- 6.0'	23	3 4 7 9		CL	Stiff, b	prown and gray CLA	Y, trace medium to fine San	d, dry (CL)	N	м	м	м	PP = 2.0 TV = 0.6	tsf tsf
-	S-4 6.0'- 8.0'	23	6 9 11 14		CL	Very s	stiff, brown CLAY, tra	ace medium to fine Sand, dr	у (CL)	N	н	м	н	PP > 4.5 TV = 1.1 Occasion	tsf tsf al Sand partings.
-	S-5 8.0'- 10.0'	22	4 5 7 11		CL	Stiff, b	prown CLAY, trace m	nedium to fine Sand, dry (Cl	-)	N	н	м	н	PP > 4.5 TV = 1.3 Occasion	tsf tsf al Sand partings.
- 10 - - - - 15 -	S-6 13.0'- 15.0'	24	5 7 10 14		CL	Very s (CL)	tiff, brown CLAY, litt	le Silt, trace fine Sand, trac	e fine Gravel, dry	N	н	м	н	PP > 4.5 TV = 1.2 Occasion	tsf tsf al Sand partings.
-	S-7 18.0'- 20.0'	24	4 5 6 9		СН	Stiff, c End o 20.0 Boreh	lark brown CLAY, dr f Boring at 20 feet B ole backfilled with sc	y (CH) GS. ji cutings.		N	н	н	н	PP = 3.0 TV = 1.0	tsf tsf
		Water Le	evel Data	oth in for	et to:	Sa	mple Type	Notes:	omotor						
Date	Time	iapsed Time	Bot. of	Bottom	Meter	Ope	n End Rod	TV = Pocket Penetro	ometer						
		(hr)	Casing	of Hole	vvater	T Thin	-Wall Tube	No groundwater end	countered during in	vestig	atic	n.			
							Snoon Sample								
					1	G Grat	Sample								
							Soundie							Boring N	o.: B-27
Field Te	st Legend	I: Dilat	tancy:	N - N	one S-	Slow R - R	apid I	Plasticity: NP - No	on-Plastic L - Lov	/ M -	Me	diur	n ŀ	I - High	
NOTES	1) "	Tou	ghness:	L - Lo	w M-N	1edium H -	High I	Dry Strength: N - Nor	ne L-Low M-N	1ediun	n H	1 - H	ligh	VH - Ve	ry High
NUTES:	3.) Maximu	motes soil : m Particle :	sample ave Size is dete	rmined by	direct obs	ervation within	er reading. 2.) "pp n limitations of samp	ler size. 4.) Soil identifica	tions and field tests b	etrome ased c	n vi	ead sual-	ing. ·man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м				SOIL	BORING LO	G						BORING NO.: B-28 Page 1 of 1
Project Locatio Client: Drilling	t: on: g Co.:	Powell C Miller Cit Avangric Ohio Tes	breek Sola ty, OH d Renewa stBor Inc.	ar bles					Project No.: Project Mgr: Field Eng. Staff: Date/Time Start	ed:		5133 Eric Yuta May	8850 Pau Na 27,	046-071 li kamura 2020 at 5	:20 pm
Driller/	Helper:	John Mir	<u>ical Datur</u>	ith Gibel n:		Po	ving Location: Soc Poring L	ocation Plan	Date/Time Finis	hed:	 rd ·	May La	27,	2020 at 5	:50 pm
Item		Casing	Samp	oler Co	re Barrel	60	ing Location. See Boing I			Hori	zon	tal	Datu	m: NAD 1	983
Type Length		HSA 5 ft		s t	-	Ric	g Make & Model: Diedrich E Truck	D-50 Cat-Head	Hammer Type Safetv	Dr	illing ento	g Fli onite	uid	Drill Ro	od Size: Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		ATV Geoprobe	Winch			olyr	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-		Skid	Cutting Head			one	: :			
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratun Graphic	USCS Group Symbo	S p ol	Visual - Manua (Density/con constituents, p optional description	al Identification & Desc sistency, color, Group Na article size, structure, mo ns, geologic interpretatio	r iption ame, bisture, n, Symbol)	Dilatancy	Toughness	Plasticity	Dry Strength		Remarks
	S-1	20	1	<u>717</u> 7	<u>//</u>	0.	(8") - TOPSOIL			-	-	-	-	PP = 2.0 TV = 0.3	tsf tsf
L	0.0'- 2.0'		2	///	CL		Medium stiff, brown and gr	ay CLAY, dry (CL)		Ν	L	М	м	PP = 2.0	tsf
	0.6'-'		3		1									1 V = 0.3	ISI
-	S-2 2.0'- 4.0'	21	2 4 7 11		СН	2.	_0Stiff, brown CLAY, dry (CH	 i)		- N	М	н	м	PP = 3.5 TV = 0.6	tsf Isf
	S-3 4.0'- 6.0'	23	3 6 8 9		CL	4.	.0 Stiff, brown CLAY, dry (CL)		N	н	м	н	PP = 4.5 TV = 0.9	tsf tsf
-	S-4 6.0'- 8.0'	23	3 6 8 10		CL		Stiff, brown CLAY, dry (CL)		N	н	М	н	PP > 4.5 TV = 1.2	tsf tsf
- - 10	S-5 8.0'- 10.0'	24	4 6 9 13		CL		Very stiff, brown CLAY, dry	y (CL)		N	н	м	н	PP > 4.5 TV = 1.3	tsf tsf
	S-6 13.0'- 15.0'	24	4 6 9 11		CL		Very stiff, dark brown CLA	Y, dry (CL)		N	н	м	н	PP > 4.5 TV = 1.1	tsf tsf
-	S-7 18.0'- 20.0'	24	3 5 6 9		сн		Stiff, dark brown CLAY, dry End of Boring at 20 feet Bo 0.0 Borehole backfilled with so	y (CH) GS. il cuttings.		N	н	н	н	PP = 3.0 TV = 0.9	tsf Isf
		Elapsed	Dep	oth in fe	et to:		Open End Rod	PP = Pocket Penetro	meter						
Date	Time	Time	Bot. of	Botton	Wate	,] `	T Thin-Wall Tube	TV = Torvane	untored during in	(00 ^{+:}	10t ² -	nn.			
		(nr)	Casing			<u> </u>	U Undisturbed Sample	No groundwater enco	ounterea auring in	vestig	jatio	JN.			
						s	SS Split Spoon Sample								
							G Grab Sample							D- 1 - 11	- D 20
						Ţ								Boring N	0.: B-2ð
Field Te	st Legend	I: Dila Tou	tancy: ghness:	N - N L - L (ione S- ow M-1	· Slo Medi	w R - Rapid F lium H - High Г	Plasticity: NP - No Dry Strength: N - None	n-Plastic L - Low e L - Low M - M	- M ediur	Me n F	ediur H - F	n H Hiah	1 - High VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dian	netral pock	ket pe	enetrometer reading. 2.) "pp	a" denotes soil sample avera	age axial pocket pen	etrom	eter	read	ing.		, , , , , , , , , , , , , , , , , , ,
	3.) Maximu	m Particle	Size is dete	ermined by	/ direct ob	serva	ation within limitations of sampl	er size. 4.) Soil identificati	ions and field tests b	ased	on vi	sual	man	ual method	s per ASTM D2488.

MOT	T DONAL	D M	м				SOII	L BORING LO	G						BORING NO.: B-29
Project	t:	Powell C	reek Sola	ar					Project No.:		ļ	5133	3850	046-071	rage 1 of 1
Locatio	on:	Miller Ci	ty, OH						Project Mgr:			Eric	Pau	ıli	
Client:	•	Avangrid	d Renewa	bles					Field Eng. Staff	:	_	Yuta	Na	kamura	
Drilling Driller/	g Co.: Helper	John Mi	<u>stBor Inc.</u> nchak /Ke	ith Gibe	_				Date/Time Start	ea: hed [.]	<u>ו</u> ו	<u>vlay</u> Mav	<u>27,</u> 27	2020 at 4 2020 at 4	:20 pm :50 pm
Elevation	n: Grade	ft. Vert	ical Datur	n:	51	Borina	Location: See Boring	Location Plan	Dute/ Time Time	Coo	rd.:	La	at: 4	1.08218 L	.ong: -84.10502
ltem		Casing	Sam	oler C	ore Barrel	<u> </u>		D. 50		Hori	zon	tal [Datu	m: NAD 1	983
Lenath		HSA 5 ft	2 f	it l	-	Truc	ck Diedrich I	D-50	□ Safety	Dr	ento	g FII onite	ud	Drill Ro	d Size: Casing Advance
Inside Di	ia. (in.)	4.25	1.37	75	-		/ 🗌 Geoprobe	Winch	Doughnut	D P	olyr	ner			Hollow Stem Auger
Hammer	• Wt. (Ib.) • Fall (in.)	140 30	140)	-	M I rac ☐ Skid	ck ∐AırTrack dı ∏	Cutting Head	Automatic	M N	/ate one	r			Ŭ
	Comple						Viewel Menu	el Identification ⁸ Dec.		F	ield	Tes	sts		
Depth/ Elev. (ft)	No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratu Graph	m USCS Group Symbo	i D D	(Density/cor constituents, p optional descriptio	nsistency, color, Group N particle size, structure, m ns, geologic interpretation	Vame, noisture, on, Symbol)	ilatancy	oughness	lasticity	ry Strength		Remarks
	S-1	24	1	<u>\ 1</u> /. \	<u>, ,</u>	((12") - TOPSOIL			-	-	-	-		
	0.0'- 2.0'		1	1, 11											
-			3	777		1.0 E	Brown and gray CLAY, dry	y (CL)		ЧN	м	М	м	PP = 2.5	tsf
	1.0'-'		4	$\langle / /$	2									TV = 0.3	sf
-	S-2	24	3	\mathbb{V}/\mathbb{V}	CL	5	Stiff, brown and gray CLA	Y, dry (CL)		N	н	М	м	PP = 3.5	tsf
	2.0'- 4.0'		4	$\langle / /$	2									TV = 0.9	isf
F			6	K///	1								1		
			10	$\langle / / \rangle$	$\langle \rangle$								1		
-	S-3	24	3	Y//	CL		Stiff, gray and brown CLA	Y. drv (CL)		_N	Гн	м	Н	PP > 4.5	tsf
	40' 60'		5	\mathbb{V}/\mathbb{I}	7 -		, 3,	.,, ()			· ·			TV = 1.5	isf
	4.0-0.0		8	\mathbb{V}/\mathbb{I}	2										
			12	\mathbb{V}/\mathbb{I}	$\langle \rangle$										
-	S /	24	5	V//			Vanustiff brown CLAV tr	ace medium to fine Sand, dr				м			tef
	0-4	24	7	$\langle / / \rangle$		`	very suit, blown CLAT, uz		y (CL)		''	IVI	''	TV = 1.6	isf
-	6.0'- 8.0'		10	$\langle / / \rangle$	λ										
			14	<i>\//</i>											
-	0.5	24	4	$\mathbb{V}//$			(any stiff brown CLAX the	and modium to find Cand du			١				f
	5-5	24	4 8	V//		`	very suit, brown CLAY, tra	ace medium to line Sand, dr	y (CL)			IVI		TV = 1.6	isf
-	8.0'- 10.0'		11	\mathbb{V}/\mathbb{I}	$\langle \rangle$									Occasion	al Sand partings.
			15	$\langle / /$	2										
10				$\mathbb{V}//$	$\langle \rangle$										
				$\langle / /$	/										
_				///	Δ										
				$\langle / / \rangle$	7										
L				///	Δ										
				\mathbb{V}/\mathbb{I}	$\langle \rangle$										
				Y//											
	S-6	24	4	\mathbb{V}/\mathbb{I}		`	Very stiff, brown CLAY, dr	y (CL)		N	н	Μ	н	PP > 4.5 TV = 1.3	tsf isf
_	13.0'- 15.0'		11	V//	2										
	13.0		15	///	4						1				
				<u>///</u>	2								1		
				V//	4								1		
				V//	2								1		
				V//	1								1		
				///	7								1		
				K///	1								1		
L				V//	7								1		
	S-7	24	5	K///	CL CL		Very stiff, brown CLAY, dr	y (CL)		N	н	Μ	н	PP > 4.5 TV = 1.8	tsf Isf
	18.0'-		12	$\langle / / \rangle$	7								1		
	20.0		16	X///	2		End of Boring at 20 fact P	GS					1		
				V//		20.0	Borehole backfilled with so	pil cuttings.							
		Water Le	evel Data	oth in f	eet to:		Sample Type	Notes:	omotor						
Date	Time	Time	Bot. of	Botto	m 14/-4	- <u>°</u>	Open End Rod	TV = Torvane	ometer						
		(hr)	Casing	of Ho	le vvate		I nin-Wall Tube	No groundwater enc	countered during in	vestig	atic	on.			
							Solit Spoon Sample								
					_	- - -	Grab Sample								
				-	+	٦Ľ	c.us cumpio							Boring N	o.: B-29
Field Te	st Legend	d: Dila	tancy:	N -	None S -	Slow F	R - Rapid	Plasticity: NP - No	on-Plastic L - Low	<u>м</u> -	Me	diur	n ŀ	H - High	
NOTES	1) "nnd" d	Tou	gnness:	L -	LOW M - N	/iedium	H - High	Dry Strength: N - Non	rade axial pocket part	etrom	n h		ingh	vH - Ve	ry Hign
INUIES:	3.) Maximu	m Particle	Sample ave	ermined I	by direct ob	servation	within limitations of samp	en size. 4.) Soil identification	tions and field tests b	ased o	on vi	sual	my. mar	ual method	s per ASTM D2488.

MOT MAC	T DONAL	D M	м				SOIL	BORING LO	G						BORING NO.: B-SS-1 Page 1 of 1
Projec	t:	Powell C	Creek Sola	ar					Project No.:		5	5133	3850	46-071	
Locati	on:	Miller Ci	t <u>y, OH</u>						Project Mgr:		Ē	<u>Eric</u>	Pau	li	
Client:		Avangrio	<u>d Renewa</u> stBor Inc	bles					Field Eng. Staff	od·		<u>Yuta</u> May	<u>Nal</u>	kamura 2020 at 1	1:20 am
Driller	/Helper:	John Mi	nchak /Ke	ith Gibel					Date/Time Finis	hed:	 N	viay May	14,	2020 at 1 2020 at 1	2:00 pm
Elevatio	n: Grade	ft. Vert	ical Datur	n:		Boring Loca	tion: See Boring	Location Plan		Coo	rd.:	La	at: 4	1.09316 L	.ong: -84.11941
Item		Casing	Sam	oler Co	re Barrel	- Dia Maka 9	Madalı Diadvialı (2.50	Lieuween Trans	Hori	zon	tal C	Datu	m: NAD 1	983 d Sizer
Length		5 ft	2 f	t I	-	Truck	Tripod	Cat-Head	□ Safety		ento	g rit onite	מוג	Drill Ro	Casing Advance
Inside D	ia. (in.)	4.25	1.37	75	-		Geoprobe	Winch	Doughnut		olyn	ner			Hollow Stem Auger
Hammer	Fall (in.)	30	30)	-	Skid		Cutting Head		M N	one	r			-
	Sampla						Vieual Menu	al Identification & Dec	orintion	F	ield	Tes	sts		
Depth/ Elev.	No. /	Rec.	Sample Blows	Stratum	USCS		(Density/con	isistency, color, Group N	Vame,	c	less	ity	ength		Remarks
(ft)	(ft)	(11)	per 6"		Symbo	" o	ptional descriptio	ns, geologic interpretation	on, Symbol)	oilatar	ough	lastic	Iry St		
	S-1	18	2	N. 17. N	1/	0.3_(4") TC	OPSOIL			-	-	-	-		
	0.0'- 2.0'		3		CL	Mediur	m stiff, gray and brow	wn CLAY, dry (CL)		N	М	М	м	PP = 2.0 TV = 0.3	tsf tsf
-	0.0-2.0		3	////	1									10 - 0.3	151
	0.3		4	$\langle / / \rangle$											
-	S-2	22	2	<i>\///</i>		Stiff b	rown and dray CLA	V little Silt trace fine Sand	dry (CL)		м	м	м	PP = 3.0	tef
	201 401		3	$\langle / / \rangle$			ionn and gray official	r, into ont, traco into ouria,		1.				TV = 0.7	tsf
-	2.0-4.0		5	X///	1										
			7	V//.											
-	63	23	4	<i>\///</i>		Stiff b	rown CLAX trace m	pedium to fine Sand dry (Cl)			м	м		tef
		25	4	$\langle / / /$		Suit, D	TOWIT CEAT, trace IT	ledidin to line Sand, dry (Or	-)			IVI	IVI	TV = 0.9	tsf
5	4.0'- 6.0'		7	$\langle / / \rangle$											
			10	////	1										
-	6.4	24	4	$\langle / / \rangle$		Vania	liff hannun CLAV, da	(0)			l				taf
	5-4	24	4	////		very si	un, brown CLAY, dr	y (CL)			Н	IVI	н	TV = 1.1	tsf
_	6.0'- 8.0'		11	$\langle / / \rangle$	2										
			15	<i>\///</i>	1										
-			-	$\langle / / /$				(01.)						DD . 45	
	S-5	24	6	<i>\///</i>		Very st	tiff, brown CLAY, dr	y (CL)			н	м	н	PP > 4.5 TV = 1.6	tsf tsf
_	8.0'- 10.0'		10	$\langle / / /$	2										
			14	V///	1										
10				$\langle / / /$	2										
				///											
_				///	1										
					4	11.5				_					
-															
_															
	S-6	24	4		СН	Stiff, d	ark brown CLAY, dr	y (CH)		N	м	н	н	PP = 4.5 TV = 0.8	tsf tsf
F	13.0'- 15.0'		8												
			11												
15															
F															
L															
F				////				(01)							L-6
	5-7	24	3		СН	Stiff, d	ark brown CLAY, dr	y (UH)		-	-	-	-	TV = 2.5	tsi
-	18.0'- 20.0'		6												
			9			End of	Boring at 20 feet B	GS.							
		Wator	aval Data			20.0 Boreho	ble backfilled with so	bil cuttings.			1				
		Elapsed	Dep	oth in fe	et to:	0 Oper	n End Rod	PP = Pocket Penetr	ometer						
Date	Time	Time	Bot. of	Botton	Water	T Thin-	-Wall Tube	TV = Torvane	ountored during in	V00+:-	oti-				
			Casing			U Undi	sturbed Sample	No groundwater end	ountered during in	vestig	auc	л1.			
					-	SS Split	Spoon Sample								
						G Grab	Sample							D- 1 - 11	- D CC 4
E 1.1.2 E		. C"					:					al'		Boring N	0 D-99-1
Field Te	st Legend	a: Dila Tou	tancy: ghness:	N - N L - Lo	one S- ow M-N	blow R-Ra 1edium H-	apıd İ High İ	Plasticity: NP - No Dry Strength: N - Nor	on-Plastic L-Low ne L-Low M-N	/ M - lediun	n Ne n ⊦	aıur 1 - F	n ⊦ -ligh	1 - High VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	- sample ave	erage dian	netral pock	et penetromete	er reading. 2.) "pp	a" denotes soil sample ave	rage axial pocket per	etrome	eter i	readi	ing.		
	3.) Maximu	m Particle	Size is dete	ermined by	/ direct obs	ervation within	limitations of samp	ler size. 4.) Soil identifica	tions and field tests b	ased c	n vi	sual-	man	ual method	s per ASTM D2488.

MOT	T DONAL	M	м					SOIL	BORING LO	G						BORING NO.: B-SS-2 Page 1 of 1
Project	t:	Powell C	Creek Sola	ar						Project No.:		Ę	5133	3850	46-071	Fage I OF I
Locatio	on:	Miller Ci	ty, OH							Project Mgr:		E	Eric	Pau	li	
Client:		Avangrid	d Renewa	bles						Field Eng. Staff	:	_	Yuta	Nał	kamura	
Drilling	g Co.:	Ohio Te	stBor Inc.							Date/Time Start	ed:		<u>May</u>	26,	2020 at 2	:40 pm
Driller/	Helper:	John Mil	nchak /Ke	th Gibe	el			0 D .		Date/Time Finis	hed:	<u> </u>	May	26,	2020 at 3	:20 pm
Item	II. Graue	Casing	Sam	oler Co	ore Barrel	Boring	Location	: See Boring	Location Plan		Hori	zon	tal D	atu Datu	n: NAD 1	983
Туре		HSA	SS	6	-	Rig Ma	ke & Mod	lel: Diedrich I	D-50	Hammer Type	Dri	illing	g Flu	uid	Drill Ro	d Size:
Length Inside D	ia. (in.)	5 ft 4.25	21	t 75	-		× ∟ ′ Γ] Tripod] Geoprobe	☐ Cat-Head	Doughnut	ПР	ento olvn	onite ner			Casing Advance
Hammer	Wt. (lb.)	140	140	0	-	Trac	k ⊑	Air Track	Roller Bit	Automatic		/ate	r			Hollow Stem Auger
Hammer	Fall (in.)	30	30		-	<u> </u>			Cutting Head			one	Tor	te		
Depth/ Elev. (ft)	Sample No. / Interval (ft)	Rec. (in)	Sample Blows per 6"	Stratu Graph	m USCS Group Symbo	i bl	V c optio	isual - Manu (Density/con onstituents, p nal descriptio	al Identification & Desensistency, color, Group N particle size, structure, m	cription Name, noisture, on, Symbol)	atancy	nghness	asticity	v Strength		Remarks
	(1-7 <u> </u> <u> </u> <u> </u> <u> </u> 1 1 1 1 1 1 1 1 1 1	22	1	314.5				2011	····, g- ··· g· · ····· p· - ····		ā	٩	Ē	Ę.		
	5-1	23	2			0.5	6) - TOPS	SOIL			<u> </u>		-			
L	0.0'- 2.0'		2	$\langle / / \rangle$			vledium stil	if, brown and gi	ray CLAY, moist (CL)			M	м	м	PP = 2.0 TV = 0.4 f	sf
	0.5'-'		4	$\langle / / \rangle$	7											
L				Y//												
	S-2	17	1	\mathbb{V}/\mathbb{I}	CL	N	Medium stil	ff, brown and gi	ray CLAY, dry (CL)		N	М	м	м	PP = 2.5 TV = 0.61	isf sf
	2.0'- 4.0'		3	V//	7											
_			6	///	Λ											
				$\langle / / \rangle$	λ	4.0										
_	S-3	22	2		СН	5	Stiff, brown	CLAY, dry (CH	H)		N	н	н	н	PP = 4.0	sf
	4.0'- 6.0'		4												IV = 0.6 I	SI
			5													
			-			6.0										
-	S-4	20	3		CL	0.0	Stiff, brown	CLAY, dry (CL	_)		N	н	м	н	PP > 4.5	isf
	6.0'- 8.0'		5	V//	2										TV = 1.01	sf
-			6	///	Λ											
			11	$\langle / / \rangle$	7											
-	S-5	24	4	<i>\//</i>			Stiff. brown	CLAY. drv (CL	-)		_N	Н	м	н	PP > 4.5	sf
			6	\mathbb{V}/\mathbb{I}				02/11, di j (02	-)						TV = 1.31	sf
-	0.0 - 10.0		8	V//	7											
			11	///	1											
10				V//	7											
				<i>\//</i>	1											
_				$\langle / / \rangle$	7											
					4	11.5					_					
_																
_																
	S-6	24	3		СН	5	Stiff, dark b	prown CLAY, dr	y (CH)		N	Н	н	н	PP = 3.5 TV = 1.01	isf sf
L	13.0'-		5													
	10.0		10													
15																
- 15																
L																
ľ																
Γ																
Γ	S-7	24	3		СН	5	Stiff, dark b	orown CLAY, dr	y (CH)		N	М	н	н	PP = 3.0	isf
	18.0'-		4												IV = 0.81	SI
F	20.0'		/ 10													
						20 n E	nd of Bori Borehole ba	ng at 20 feet B ackfilled with so	GS. bil cuttings.							
		Water Le	evel Data			_0.0	Sample	е Туре	Notes:			<u> </u>	•			
Date	Time	Elapsed	Dep Bot of	oth in fe	et to:	0	Open En	d Rod	PP = Pocket Penetro	ometer						
Date	inne	(hr)	Casing	of Ho	Wate	т	Thin-Wa	ll Tube	No groundwater enc	countered during in	vestic	gatic	on.			
						U	Undisturl	bed Sample		5						
					-	SS	Split Spo	on Sample								
					_	G	Grab Sa	mple							Borina N	.: B-SS-2
Field To	st Logong		tancv:	 N _ !	None 9	Slow 5	R - Ranid		Plasticity: NP - N/	on-Plastic Lator	/ M	Me	diur	n ⊢	I - Hinh	
		Tou	ghness:	<u> </u>	<u>_ow_M - N</u>	/ledium	H - Higl	h	Dry Strength: N - Nor	$\frac{1}{100} = \frac{1}{100} = \frac{1}$	lediur	n ŀ	<u> </u>	ligh	VH - Ve	ry High
NOTES:	1.) "ppd" de	enotes soil	sample ave	erage dia	metral pock	et penetr	rometer rea	ading. 2.) "pp	oa" denotes soil sample ave	rage axial pocket per	etrome	eter	readi	ing.		
	Maximu	m Particle	Size is dete	ermined t	by direct obs	servation	within limit	tations of samp	ler size. 4.) Soil identifica	tions and field tests b	ased o	on vi	sual-	man	ual method	s per ASTM D2488.

Mott MacDonald | Avangrid Renewables Powell Creek Solar Project Geotechnical Report

D. Test Pit Logs

PROJECT NAME	Avangird – Powell Creek Solar	TEST PIT NUMBER	TP-01
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	9:45 AM	TIME CLOSED	10:25 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/29/2020

Test Pit Photo 1 of 1 (0" to 120")



FOOTAGE MARKINGS SHOWN ON PHOTOS REPRESENT TAPE MEASUREMENT VALUES FROM BASE OF EXCAVATION.

<u>0-48"</u> Brownish gray CLAY, little Silt, moist

<u>48-120''</u> Gray CLAY, trace coarse to fine Gravel, trace Silt

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-02
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	7:15 AM	TIME CLOSED	7:40 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



<u>0-75"</u> Grayish brown CLAY, trace Silt, moist

75-120" Brownish gray CLAY, trace Silt, dry

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-03
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	7:50 AM	TIME CLOSED	8:25 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	119 inches (9.9 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 119")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-04
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	10:40 AM	TIME CLOSED	11:15 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/29/2020

Test Pit Photo 1 of 1 (0" to 120")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-05
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	8:45 AM	TIME CLOSED	9:30 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/29/2020

Test Pit Photo 1 of 1 (0" to 120")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-06
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	5:00 PM	TIME CLOSED	5:40 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-07
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	3:45 PM	TIME CLOSED	4:30 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



FOOTAGE MARKINGS SHOWN ON PHOTOS REPRESENT TAPE MEASUREMENT VALUES FROM BASE OF EXCAVATION.

<u>0-72"</u> Brownish gray CLAY, trace Silt, moist

72-120" Gray CLAY, trace Silt, moist

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-08
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	8:45 AM	TIME CLOSED	9:20 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	122 inches (10.2 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 122")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-09
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	11:25 AM	TIME CLOSED	12:05 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	125 inches (10.4 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 125")



<u>0-125"</u> Brownish gray CLAY, trace Silt, moist

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-10
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	10:00 AM	TIME CLOSED	10:45 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



0-80" Grayish brown CLAY, trace Silt, moist

80-120" Gray CLAY, trace fine Sand, trace Silt, dry

FOOTAGE MARKINGS SHOWN ON PHOTOS REPRESENT TAPE MEASUREMENT VALUES FROM BASE OF EXCAVATION.

10 and 11 have the same picture

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-11
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	2:35 PM	TIME CLOSED	3:10 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



FOOTAGE MARKINGS SHOWN ON PHOTOS REPRESENT TAPE MEASUREMENT VALUES FROM BASE OF EXCAVATION.

<u>0-70"</u> Dark brown CLAY, little Silt, moist

70-120" Gray CLAY, trace Silt, dry

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-12
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	12:30 PM	TIME CLOSED	1:20 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	118 inches (9.8 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 118")



Brownish gray CLAY, trace Silt, moist

<u>0-118"</u>

PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-13
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	1:55 PM	TIME CLOSED	2:25 PM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/28/2020

Test Pit Photo 1 of 1 (0" to 120")



PROJECT NAME	Avangrid – Powell Creek Solar	TEST PIT NUMBER	TP-14
PROJECT NUMBER	513385046-071	MOTT MACDONALD REPRESENTATIVE	Chris Gibbons
GENERAL LOCATION	Miller City, Ohio	CONTRACTOR	Fenson Contracting, LLC.
TIME OPENED	7:30 AM	TIME CLOSED	8:15 AM
DEPTH TO WATER (FEET BGS)	Not encountered	EQUIPMENT	Komatsu PC78MR
FINAL EXCAVATION DEPTH (FEET BGS)	120 inches (10 feet)	DATE	5/29/2020

Test Pit Photo 1 of 1 (0" to 120")



FOOTAGE MARKINGS SHOWN ON PHOTOS REPRESENT TAPE MEASUREMENT VALUES FROM BASE OF EXCAVATION.

<u>0-48"</u> Dark brown CLAY, trace Silt, moist

<u>48-120"</u> Brownish gray CLAY, dry This foregoing document was electronically filed with the Public Utilities

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in

Case No(s). 20-1084-EL-BGN

Summary: Application Exhibit H - Geotechnical Report (Part 2 of 3) electronically filed by Teresa Orahood on behalf of Dylan F. Borchers