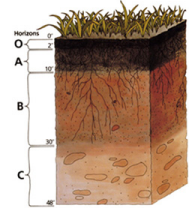


Soil and Environmental
Consulting Services, Inc.



Wednesday, June 14, 2023

Hurdle Enterprises
1616 Lexington Ave
Mansfield OH 44907

Re: Soil investigation for on-site septic disposal for the parcel split north of 18560 Smokey Road, Allen Township, Union County, Ohio

Enclosed you will find the requested detailed soil descriptions for the parcel split north of 18560 Smokey Road, Allen Township, Union County, Ohio

The soils of the selected sites were mapped and described on the enclosed sheets for your records. The locations of the soil borings have been located using GPS and the locations have been delineated on the enclosed map. Copies of this letter, soil boring descriptions, sketch, and system drawing should be submitted to local health department. The health department will make the determination if the soil and site area is suitable for onsite sewage treatment.

Please protect all areas approved for septic disposal by having the contractor stake and rope off the proposed locations prior to driveway and basement excavation. No soil, building, or waste material should be stored on the proposed absorption areas. Disturbance to the areas may result in compaction and the subsequent failure of the system. Any disturbance to the absorption area voids the results of this analysis.

If you have any questions or want to move forward with the septic design process feel free to contact us.

Steven Miller, CPSS

ALL INFORMATION ON THIS PAGE INCLUDING ELEVATIONS AND LOT DIMENSIONS, IS FOR REFERENCE PURPOSES ONLY AND IS NOT INTENDED TO REPRESENT A LEGAL SURVEY OR DOCUMENT. CONTOUR DATA DERIVED FROM DIGITAL DEM DATA. SEE INCLUDED LETTER AND SOIL BORING SHEETS FOR MORE INFORMATION.



SHEET 1 OF 1

TITLE:	SITE AND SOIL EVALUATION Site Layout
DR. BY:	SAM
DATE:	6/14/2023
FILE:	28F214
North of 18560 Smokey Road Allen Township, Union County, Ohio	
Drawn by: Soil & Environmental Consulting Services, Inc.	
P.O. Box 1121 Delaware, OH 43005 614-979-1164	

ALL INFORMATION ON THIS PAGE,
INCLUDING ELEVATIONS AND LOT
DIMENSIONS, IS FOR REFERENCE PURPOSES
ONLY AND IS NOT INTENDED TO REPRESENT
A LEGAL SURVEY OR DOCUMENT. CONTOUR
DATA DERIVED FROM DIGITAL DEM DATA.
SEE INCLUDED LETTER AND SOIL BORING
SHEETS FOR MORE INFORMATION.



FILE:
SITE AND SOIL EVALUATION
Site Layout

North of 18560 Smokey Road
Allen Township, Union County, Ohio

DR. BY: SAM

DATE: 6/14/2023

FILE: 23F214

Drawn
By:

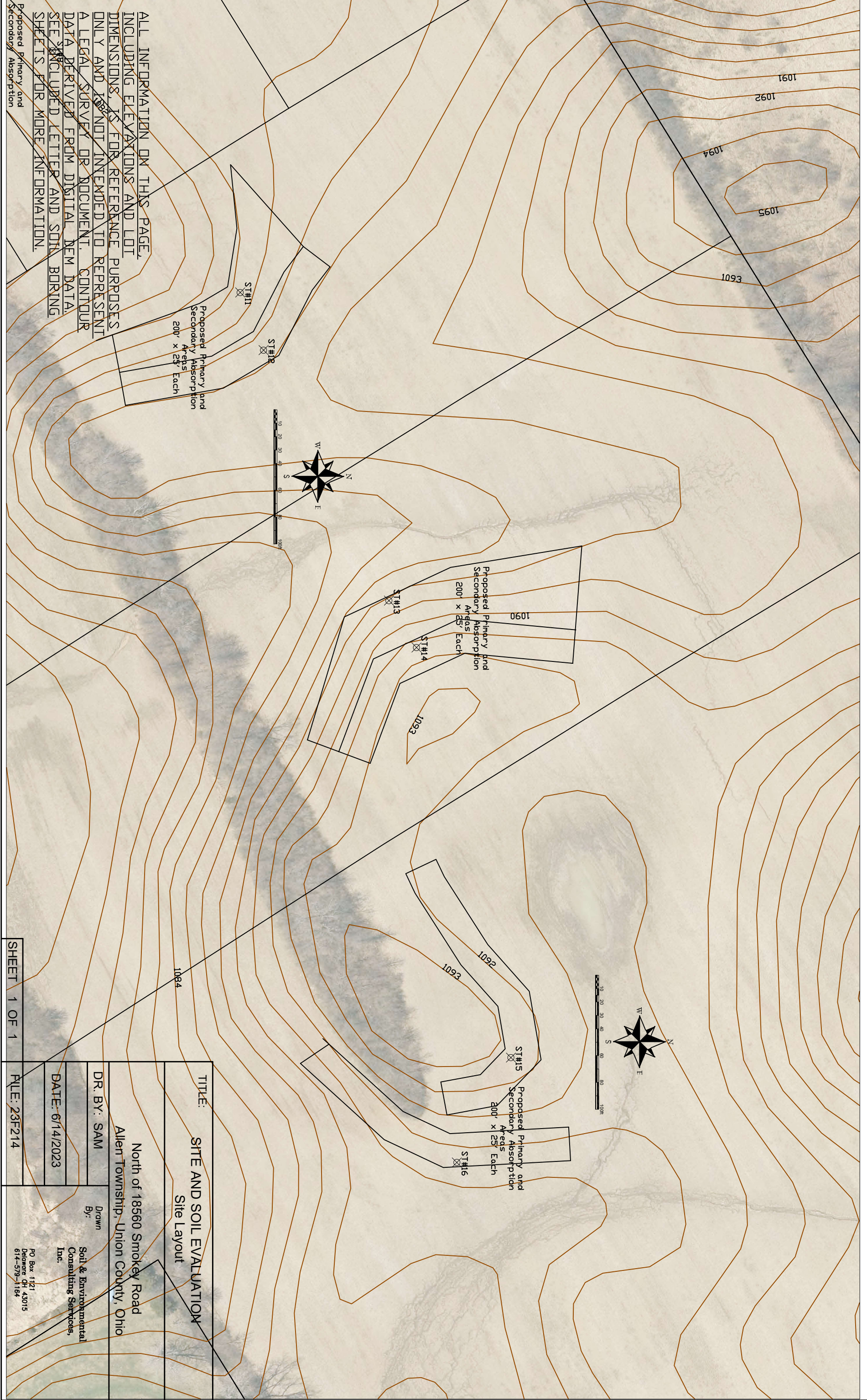
**Soil & Environmental
Consulting Services,
Inc.**

P.O. Box 1121
Delaware OH 43015
614-579-1164



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TITLE: SITE AND SOIL EVALUATION Site Layout	
North of 18560 Smokey Road Allen Township, Union County, Ohio	
DR. BY: SAM	Drawn By:
DATE: 6/14/2023	Soil & Environmental Consulting Services, Inc.
FILE: 23F214	PO Box 1121 Delaware OH 43015 614-579-1164



ALL INFORMATION ON THIS PAGE, INCLUDING ELEVATIONS AND LOT DIMENSIONS, IS FOR REFERENCE PURPOSES ONLY AND IS NOT INTENDED TO REPRESENT A LEGAL SURVEY OR DOCUMENT. CONTOUR DATA DERIVED FROM DIGITAL DEM DATA. SEE INCLUDED LETTER AND SOIL BORING SHEETS FOR MORE INFORMATION.

Proposed Primary and Secondary Absorption Areas 200' x 25' Each

Proposed Primary and Secondary Absorption Areas 200' x 25' Each

Proposed Primary and Secondary Absorption Areas 200' x 25' Each

SHEET 1 OF 1

TITLE: SITE AND SOIL EVALUATION Site Layout	
North of 18560 Smokey Road Allen Township, Union County, Ohio	
DR. BY: SAM	Drawn By:
DATE: 6/14/2023	Soil & Environmental Consulting Services, Inc.
FILE: 23F214	PO Box 1121 Delaware OH 43015 614-579-1164

Landforms
Upland*
Terrace
Flood Plain
Lake Plain
Beach Ridge
*Includes glacial till plain and end moraine

Position on Landform
Depression
Flat
Knoll
Crest
Hillslope
Footslope

Shape of Slope
Convex
Concave
Linear
Complex

Horizon Nomenclature			
Master Horizons		Horizon Suffixes	Horizon Modifiers
O	Predominantly organic matter (litter & humus)	a	Numerical Prefixes: Used to denote lithologic discontinuities. Numerical Suffixes: Used to denote subdivisions within a master horizon.
A	Mineral, organic matter (humus) accumulation, loss of Fe, Al, clay	b	
E	Mineral, loss of Si, Fe, Al, clay, organic matter	d	
B	Subsurface accumulation of clay, Fe, Al, Si, humus; sesquioxides; loss of CaCO ₃ ; subsurface soil structure	e	
C	Little or no pedogenic alteration, unconsolidated earthy material, soft bedrock	g	
R	Hard bedrock	i	
		p	
		r	
		t	
		w	
		x	

Soil Texture	
Texture Class Abbreviations	Textural Class Modifiers
Course Sand	cos
Sand	s
Fine Sand	fs
Very Fine Sand	vfs
Loamy Coarse Sand	lcos
Loamy Sand	ls
Loamy Fine Sand	lfs
Loamy Very Fine Sand	lvfs
Coarse Sandy Loam	cosl
Sandy Loam	sl
Fine Sandy Loam	fsl
Very Fine Sandy Loam	vfsl
Loam	l
Silt Loam	sil
Silt	si
Sandy Clay Loam	scl
Clay Loam	cl
Silty Clay Loam	sicl
Sandy Clay	sc
Silty Clay	sic
Clay	c

Gravelly	GR
Fine Gravelly	FGR
Medium Gravelly	MGR
Coarse Gravelly	CGR
Very Gravelly	VGR
Extremely Gravelly	XGR
Cobbly	CB
Very Cobbly	VCB
Extremely Cobbly	XCB
Stony	ST
Very Stony	VST
Extremely Stony	XST
Bouldery	BY
Very Bouldery	VBY
Extremely Bouldery	XBY
Channery	CN
Very Channery	VCN
Extremely Channery	XCN
Flaggy	FL
Very Flaggy	VFL
Extremely Flaggy	XFL

*Estimate approximate clay percentage within 5 percent

Soil Structure					
Grade	Size	Type (Shape)			
Structureless	0	Very Fine	vf	Granular	gr
Weak	1	Fine	f	Angular Blocky	abk
Moderate	2	Medium	m	Subangular Blocky	sbk
Strong	3	Coarse	co	Platy	pl
		Very Coarse	vc	Prismatic	pr
		Extr. Coarse	ec	Columnar	cpr
		Very Thin*	vn	Single Grain	sg
		Thin*	tn	Massive	m
		Thick*	tk	Cloddy	CDY
		Very Thick*	vk		

* The sizes Very Thin, Thin, Thick, and Very Thick, are used when describing platy structure only. Substitute thin for fine, and thick for coarse when describing platy structure.

Moist Consistence	
Loose	l
Very Friable	vfr
Friable	fr
Firm	fi
Very Firm	vfi
Extremely Firm	efi

For a more detailed explanation on describing and sampling soils, please refer to the "Field Book for Describing and Sampling Soils" Schoeneberger, P.J., Wysocki, D.A., Benham, E.C., and Broderson, W.D. (editors) 2002. Field book for describing and sampling soils, version 2.0. Natural Resources Conservation Service, USDA, National Soil Survey Center, Lincoln, NE.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 1
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 20	10YR 5/4		15%10yR 5/2	sicl	35	2	2	m	sbk	fi	
Bt2	20 to 22	10YR 5/4		20%10YR 5/2	sicl	38	2	2	m	sbk	fi	
BC	22 to 24	10YR 5/4		15%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	24+	10YR 5/4		10%10YR 5/2	cl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glaical till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	24	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 2
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 17	10YR 5/4		10%10yR 5/2	sicl	35	2	2	m	sbk	fi	
Bt2	17 to 20	10YR 5/4		15%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	20 to 22	10YR 5/4		20%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	22+	10YR 5/4		10%10YR 5/2	cl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glaical till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	22	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 3
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 14	10YR 5/4		5%10yR 5/2	sicl	35	2	2	m	sbk	fi	
Bt2	14 to 18	10YR 5/4		10%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	18 to 20	10YR 5/4		15%10YR 5/2	sicl	35	2	1	m	sbk	fi	
Cd	20+	10YR 5/4		10%10YR 5/2	cl	32	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	20	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 4
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 15	10YR 5/4		10%10yR 5/2	sicl	35	2	2	m	sbk	fi	
Bt2	15 to 20	10YR 5/4		20%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	20 to 23	10YR 5/4		25%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	23+	10YR 5/4		10%10YR 5/2	cl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	23	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 5
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 12	10YR 5/4		15%10YR 5/2	sicl	36	2	2	m	sbk	fi	
Bt2	12 to 18	10YR 5/4		25%10YR 5/1	sic	42	2	2	m	sbk	fi	
BC	18 to 20	10YR 5/4		20%10YR 5/1	sicl	36	2	1	m	sbk	fi	
Cd	20+	10YR 5/4		15%10YR 5/1	cl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	20	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 6
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 15	10YR 5/4		20%10YR 5/1	sicl	36	2	2	m	sbk	fi	
Bt2	15 to 19	10YR 5/4		25%10YR 5/1	sic	40	2	2	m	sbk	fi	
BC	19 to 23	10YR 5/4		15%10YR 5/1	sicl	36	2	1	m	sbk	fi	
Cd	23+	10YR 5/4		10%10YR 6/1	cl	35	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	23	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 7
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 2 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 7	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	7 to 15	10YR 5/6			sicl	35	2	2	m	sbk	fi	
Bt2	15 to 20	10YR 5/4		10%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	20 to 25	10YR 5/4		15%10YR 5/2	sicl	35	2	1	m	sbk	fi	
Cd	25+	10YR 5/4		10%10YR 5/2	cl	33	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	7	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	25	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 8
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 3 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 10	10YR 5/6			sicl	36	2	2	m	sbk	fi	
Bt2	10 to 23	10YR 5/4		5%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	23 to 26	10YR 5/4		10%10YR 5/2	sicl	35	2	1	m	sbk	fi	
Cd	26+	10YR 5/4		15%10YR 5/2	cl	33	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	10	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	26	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 9
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 3 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 10	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	10 to 17	10YR 5/4		10%10yR 5/2	sicl	35	2	2	m	sbk	fi	
Bt2	17 to 23	10YR 5/4		15%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	23 to 28	10YR 5/4		10%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	28+	10YR 5/4		25%10YR 5/1	cl	33	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	10	perched on glaical till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	28	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road

 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 10
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 3 to 4%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: 
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 10	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	10 to 18	10YR 5/4		10%10YR 5/1	sicl	35	2	2	m	sbk	fi	
Bt2	18 to 25	10YR 5/4		20%10YR 5/1	sic	40	2	2	m	sbk	fi	
BC	25 to 30	10YR 5/4		15%10YR 5/1	sicl	35	2	1	m	sbk	fi	
Cd	30+	10YR 5/4		10%10YR 5/1	cl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	10	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	30	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 11
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 4 to 5%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: 
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 10	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	10 to 15	10YR 5/4		5%10yR 5/2	sicl	36	2	2	m	sbk	fi	
Bt2	15 to 21	10YR 5/4		15%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	21 to 24	10YR 5/4		20%10YR 5/2	sicl	38	2	1	m	sbk	fi	
Cd	24+	10YR 5/4		15%10YR 5/2	cl	35	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	10	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	24	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 12
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 4 to 5%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: 
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 12	10YR 5/4		10%10YR 5/1	sicl	36	2	2	m	sbk	fi	
Bt2	12 to 18	10YR 5/4		15%10YR 5/1	sic	40	2	2	m	sbk	fi	
BC	18 to 20	10YR 5/4		20%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	20+	10YR 5/4		15%10YR 5/2	cl	35	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	20	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 13
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 7 to 8%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSC
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 4	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt	4 to 8	10YR 5/6		10%10yR 5/3	sicl	38	2	2	m	sbk	fi	
BC	8 to 12	10YR 5/4		10%10YR 5/2	sicl	36	2	2	m	sbk	fi	
Cd	12+	10YR 5/4		15%10YR 5/2	sicl	35	2	1	m	sbk	fi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	12	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 14
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 7 to 8%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____



Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 5	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt	5 to 8	10YR 5/6		15%10YR 5/3	sicl	38	2	2	m	sbk	fi	
BC	8 to 13	10YR 5/4		15%10YR 5/2	sicl	36	2	2	m	sbk	fi	
Cd	13+	10YR 5/4		10%10YR 5/2	sicl	35	2	1	m	sbk	fi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	8	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	13	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road

 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 15
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 4 to 6%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: 
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 8	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	8 to 12	10YR 5/4			sicl	35	2	2	m	sbk	fi	
Bt2	12 to 19	10YR 5/4		10%10yR 5/2	sic	40	2	2	m	sbk	fi	
BC	19 to 22	10YR 5/4		15%10YR 5/2	sicl	36	2	1	m	sbk	fi	
Cd	22+	10YR 4/4		10%10YR 5/2	sicl	34	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	12	perched on glaical till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	22	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.

Site and Soil Evaluation for Sewage Treatment and Dispersal

County: Union
 Township / Sec.: Allen
 Property Address/Location: North of 18560 Smikey Road
 Applicant Name: Hurdle Enterprises
 Address: _____
 Phone #: _____
 Lot #: _____
 Test Hole #: 16
 Latitude/Longitude: _____
 Method: Pit Auger Tube

Land Use / Vegetation: Beans
 Landform: Till Plain
 Position on Landform: Backslope
 Percent Slope: 4 to 6%
 Shape of Slope: Linear / linear
 Bedrooms or GPD: _____
 Date: Tuesday, June 13, 2023
 Evaluator: Steven Miller, CPSSc
Soil & Environmental Consulting, Inc.
P.O. Box 1121
Delaware OH 43015
 Job Number: 23F214
 Soil Series: _____


 Signature: *Steven A. Miller*
 Phone#: p-614.579.1164
soilconsultant@yahoo.com

Soil Profile		Estimating Soil Saturation			Estimating Soil Permeability							Other Soil Features
		Munsell Color (hue, value, chroma)			Texture			Structure				
Horizon	Depth (inches)	Matrix Color	Redoximorphic Features		Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	
			Concentrations	Depletions								
Ap	0 to 9	10YR 4/3			sil	25	2	1	m	sbk	fr	
Bt1	9 to 15	10YR 5/6			sicl	36	2	2	m	sbk	fi	
Bt2	15 to 21	10YR 5/4		15%10YR 5/2	sic	40	2	2	m	sbk	fi	
BC	21 to 24	10YR 5/4		20%10YR 5/2	sicl	35	2	1	m	sbk	fi	
Cd	24+	10YR 4/4		15%10YR 5/2	sicl	32	5	0		m	vfi	

Limiting Conditions	inches	Description	Remarks / Risk Factors:
Perched Seasonal Water Table	15	perched on glacial till	Surface water should be diverted around system. Subsurface ag drainage may be present.
Apparent Water Table	>60		
Highly Permeable Material	>60		
Bedrock	>60		
Restrictive Layer	24	glacial till	

Note : The evaluation shall include a complete site plan or site drawing including all requirements in paragraphs (B)(1) through (B)(4) of OAC 3701-29-08.