

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 1  
DATE: 3/21/2019  
ELEVATION: 981.0  
LOGGED BY: D. M. He

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126009.4 EASTING 162086.9  
COUNTY / STATE: Burnett Cty Wis

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Shoulder  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 5"	ML	Silt loam	10YR 3/1	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM COESS BEDROCK
<p>DILATANCY: <u>NONE</u> PLASTICITY: <u>NONPLASTIC</u> MOISTURE: <u>DRY</u> CONSISTENCY: <u>VERY SOFT</u></p> <p>STRUCTURE: <u>GRADE</u> SIZE: <u>VERY FINE</u> TYPE: <u>PLATY</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u></p> <p>TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes</u></p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
5" / 10"	Ch	loam to silt loam	5YR 4/4	98	10YR 3/2	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM COESS BEDROCK
<p>DILATANCY: <u>NONE</u> PLASTICITY: <u>LOW</u> MOISTURE: <u>SLIGH. MOIST</u> CONSISTENCY: <u>FIRM</u></p> <p>STRUCTURE: <u>GRADE</u> SIZE: <u>FINE</u> TYPE: <u>PLATY</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u></p> <p>TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>This layer was also frozen, looks like the real till but has a silt feel to it</u></p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
10" / 17"	ML	Silt loam	10YR 8/1	90	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM COESS BEDROCK
<p>DILATANCY: <u>NONE</u> PLASTICITY: <u>LOW</u> MOISTURE: <u>SLIGH. MOIST</u> CONSISTENCY: <u>FIRM</u></p> <p>STRUCTURE: <u>GRADE</u> SIZE: <u>FINE</u> TYPE: <u>PLATY</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u></p> <p>TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>This is the original top soil layer was frozen</u></p>											

OVERALL NOTES: This was frozen to 24 inches plus, observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. no material was wet or saturable no seeps observed. Material above 12 inches was disturbed and must have been brought in.

SAMPLES TAKEN: YES / NO  
WATER OBSERVED: YES / NO  
BEDROCK: YES / NO

SAMPLE ID: JS 1.1 7-9ft TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_ DEPTH OF BEDROCK: \_\_\_\_\_  
OR HOLE EXTENT: 12ft  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_ No Bedrock  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_ El. 969.0

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
17" / 75"	ML	Silt loam	10YR 5/3	80	5YR 3/4	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
			10YR 5/6	20		FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	HOMOGENEOUS		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12"	1/4" to 3"
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:						
		ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN						3" to 12"		< #200 <u>70-80</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
75" / 117"	CL	loam	5YR 4/3	100	5YR 4/6	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
			4/3	100	2.5/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	HOMOGENEOUS		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12"	1/4" to 3"
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:						
		ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		a very good CL material, darker in color, no gravels - clean. Has the black mottles also				3" to 12"		< #200 <u>50-70</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
117" / 18'	CL to SC	Loam	10YR 4/3	100	7.5 YR 4/6	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
			4/3	100	5/6	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	HOMOGENEOUS		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12"	1/4" to 3"
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:						
		ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		Material is like what was in SB 9				3" to 12"		< #200 <u>40-70</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	HOMOGENEOUS		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12"	1/4" to 3"
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:						
		ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		This material is slightly different than any observed in previous test pits - is a good CL				3" to 12"		< #200

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	HOMOGENEOUS		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12"	1/4" to 3"
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:						
		ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN						3" to 12"		< #200

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 2  
DATE: 3/21/2019  
ELEVATION: 979.9  
LOGGED BY: D. Mite

SITE LOCATION: ADDRESS  
C 12884 State Hwy 48, Grantsburg  
NORTHING 126180.7 EASTING 162045.1  
COUNTY / STATE: Burnett Co, WI

ANY KARST FEATURES WITHIN 1000 FEET: YES  NO   
LANDSCAPE POSITION: Toe slope  
LANDSCAPE GEOMETRY: Concave

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0/12	ML	Silt 10cm	10YR 2/2	100	—	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE		% BOULDERS	
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK		>12" 0	
SLOW		LOW	SLIGHT MOIST	SOFT		FINE		MODERATE		1/4" to 3" 0	
RAPID		MEDIUM	MOIST	FIRM		MEDIUM		STRONG		% COBBLE	
		HIGH	VERY MOIST	HARD		COARSE				% FINES	
			WET	VERY HARD		VERY COARSE				3" to 12" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes</u>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
12/19	ML	Silt 10cm	10YR 4/4	80	10YR 6/3	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE		% BOULDERS	
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK		>12" 0	
SLOW		LOW	SLIGHT MOIST	SOFT		FINE		MODERATE		1/4" to 3" 0	
RAPID		MEDIUM	MOIST	FIRM		MEDIUM		STRONG		% COBBLE	
		HIGH	VERY MOIST	HARD		COARSE				% FINES	
			WET	VERY HARD		VERY COARSE				3" to 12" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>layer was frozen, notes are from small sample</u>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
19/57	ML	Silt 10cm	10YR 4/4	50	10YR 6/3	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE		% BOULDERS	
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK		>12" 0	
SLOW		LOW	SLIGHT MOIST	SOFT		FINE		MODERATE		1/4" to 3" 1/3	
RAPID		MEDIUM	MOIST	FIRM		MEDIUM		STRONG		% COBBLE	
		HIGH	VERY MOIST	HARD		COARSE				% FINES	
			WET	VERY HARD		VERY COARSE				3" to 12" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>has a little small fine gravel stone mixed in, under 3/8" in size also has some mottling</u>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

OVERALL NOTES: frozen to 32 inches plus observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch, no material was wet or saturated, no seeps observed.

SAMPLES TAKEN: YES  NO

WATER OBSERVED: YES  NO

BEDROCK: YES  NO

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

DEPTH OF BEDROCK OR HOLE EXTENT: 7.1'  
No Bedrock  
E1.962.8

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
<i>57"</i> <i>17.1</i>	<i>Ch</i>	<i>10cm</i>	<i>7.5YR 4/4</i>	<i>70</i>	<i>7.5YR 5/6</i>	<i>FEW COMMON MANY</i>	<i>MINIMUM COARSE</i>	<i>FAINT DISTINCT PROMINENT</i>	<i>IN-MATRIX ROOT HAIR</i>	<i>STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS</i>	<i>ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK</i>	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" <i>0</i>	1/4" to 3" <i>&lt;1</i>
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <i>has some small gravels up to 3" to 12" 0 &lt; #200</i> <i>1/2 inch in size, no larger</i> <i>Color is mostly a reddish/brown but</i>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						<i>FEW COMMON MANY</i>	<i>FINE MINIMUM COARSE</i>	<i>FAINT DISTINCT PROMINENT</i>	<i>PED SURFACE IN-MATRIX ROOT HAIR</i>	<i>STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS</i>	<i>ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK</i>	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <i>there are areas of a pinkish/gray</i> <i>Do not see any of the black mottles</i>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						<i>FEW COMMON MANY</i>	<i>FINE MINIMUM COARSE</i>	<i>FAINT DISTINCT PROMINENT</i>	<i>PED SURFACE IN-MATRIX ROOT HAIR</i>	<i>STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS</i>	<i>ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK</i>	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> _____								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						<i>FEW COMMON MANY</i>	<i>FINE MINIMUM COARSE</i>	<i>FAINT DISTINCT PROMINENT</i>	<i>PED SURFACE IN-MATRIX ROOT HAIR</i>	<i>STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS</i>	<i>ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK</i>	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> _____								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						<i>FEW COMMON MANY</i>	<i>FINE MINIMUM COARSE</i>	<i>FAINT DISTINCT PROMINENT</i>	<i>PED SURFACE IN-MATRIX ROOT HAIR</i>	<i>STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS</i>	<i>ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK</i>	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> _____								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 3  
DATE: 3/21/2019  
ELEVATION: 980.2  
LOGGED BY: D. Mitte

**SITE LOCATION: ADDRESS**

12884 State Hwy 48 Grantsburg  
NORTHING 126140.2 EASTING 162164.5  
COUNTY / STATE: Burnett City WI

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Backslope  
LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0" / 15"	ML	Silt 10cm	10YR 2.5/3	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
<p><b>DILATANCY</b> NONE SLOW RAPID <b>PLASTICITY</b> NONPLASTIC LOW MEDIUM HIGH <b>MOISTURE</b> DRY SLIGH. MOIST MOIST VERY MOIST WET <b>CONSISTENCY</b> VERY SOFT SOFT FIRM HARD VERY HARD <b>GRADE</b> STRUCTURELESS WEAK MODERATE STRONG <b>STRUCTURE</b> VERY FINE FINE MEDIUM COARSE VERY COARSE <b>TYPE</b> PLATY GRANULAR CRUMB ANGULAR <b>LOCATION</b> SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN <b>% BOULDERS</b> &gt;12" 0 <b>% COBBLE</b> 3" to 12" 0 <b>% FINES</b> &lt; #200 70-80</p>											
<p><b>BOUNDARY</b> <b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE <b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN <b>NOTES:</b> This layer was frozen notes are from small sample brought back to office for notes</p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
15" / 23"	ML	Silt 10cm	10YR 5/3 7.5YR 4/6	90	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
<p><b>DILATANCY</b> NONE SLOW RAPID <b>PLASTICITY</b> NONPLASTIC LOW MEDIUM HIGH <b>MOISTURE</b> DRY SLIGH. MOIST MOIST VERY MOIST WET <b>CONSISTENCY</b> VERY SOFT SOFT FIRM HARD VERY HARD <b>GRADE</b> STRUCTURELESS WEAK MODERATE STRONG <b>STRUCTURE</b> VERY FINE FINE MEDIUM COARSE VERY COARSE <b>TYPE</b> PLATY GRANULAR CRUMB ANGULAR <b>LOCATION</b> SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN <b>% BOULDERS</b> &gt;12" 0 <b>% COBBLE</b> 3" to 12" 0 <b>% FINES</b> &lt; #200 50</p>											
<p><b>BOUNDARY</b> <b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE <b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN <b>NOTES:</b> layer was frozen, notes are from small sample</p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
23" / 67"	ML	Silt 10cm	7.5YR 7/6 10YR 5/3	80	5YR 3/2	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
<p><b>DILATANCY</b> NONE SLOW RAPID <b>PLASTICITY</b> NONPLASTIC LOW MEDIUM HIGH <b>MOISTURE</b> DRY SLIGH. MOIST MOIST VERY MOIST WET <b>CONSISTENCY</b> VERY SOFT SOFT FIRM HARD VERY HARD <b>GRADE</b> STRUCTURELESS WEAK MODERATE STRONG <b>STRUCTURE</b> VERY FINE FINE MEDIUM COARSE VERY COARSE <b>TYPE</b> PLATY GRANULAR CRUMB ANGULAR <b>LOCATION</b> SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN <b>% BOULDERS</b> &gt;12" 0 <b>% COBBLE</b> 3" to 12" 0 <b>% FINES</b> &lt; #200 80</p>											
<p><b>BOUNDARY</b> <b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE <b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN <b>NOTES:</b> less a few gravel stones under 3/8" in size</p>											

**OVERALL NOTES:** This was frozen to 32 inches plus observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch, no material was wet or saturated, no seeps observed.

**SAMPLES TAKEN:** YES (NO)  
**WATER OBSERVED:** YES (NO)  
**BEDROCK:** YES (NO)  
DEPTH OF BEDROCK OR HOLE EXTENT: 14'-4"  
No Bedrock  
El. 965.9

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
67" 14.4"	Ch	loam	7.5YR 4/4	98	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>DISTINCTIVENESS</b>						<b>% GRAVEL</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>NOTES:</b>						a few areas of slightly different colors to above listed, not mottled					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>DISTINCTIVENESS</b>						<b>% GRAVEL</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>NOTES:</b>						3" to 12" < #200					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>DISTINCTIVENESS</b>						<b>% GRAVEL</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>NOTES:</b>						3" to 12" < #200					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>DISTINCTIVENESS</b>						<b>% GRAVEL</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>NOTES:</b>						3" to 12" < #200					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>DISTINCTIVENESS</b>						<b>% GRAVEL</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						SMOOTH WAVY IRREGULAR BROKEN					
<b>NOTES:</b>						3" to 12" < #200					

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 4  
DATE: 3/21/2019  
ELEVATION: 982.0  
LOGGED BY: D. Mithe

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126041.4 EASTING 162274.1  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Back slope  
LANDSCAPE GEOMETRY: uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY			
0 / 15"	ML	Silt loam	10YR 3/2	100	-	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLOUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK			
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE	STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL		
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0		
BOUNDARY														
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes</u>								3" to 12" 0		< #200 70-80
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY			
15 / 14.4"	CL	loam	10YR 4/4	100	-	FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLOUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK			
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE	STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL		
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0		
BOUNDARY														
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>is like the material in SIB #9, could be a very good SC but feels like a CL for all of the depth</u>								3" to 12" 0		< #200 40-70
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY			
						FEW COMMON MANY	MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLOUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK			
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE	STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL		
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0		
BOUNDARY														
DISTINCTIVENESS		TOPOGRAPHY		NOTES:								3" to 12" 0		< #200
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN												

OVERALL NOTES:  
frozen to 32 inches plus.  
observed material as it was excavated, all material below the frozen material was slightly moist to moist by feel and visual inspection. no material was wet or saturated, no seeps observed.

SAMPLES TAKEN: YES/NO NO  
WATER OBSERVED: YES/NO NO  
BEDROCK: YES/NO NO  
DEPTH OF BEDROCK OR HOLE EXTENT: 14'-4"  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
No Bedrock  
El. 967.7



OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTINUED SHEET 2 OF 2

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE											
<b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN											
<b>NOTES:</b> _____											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE											
<b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN											
<b>NOTES:</b> _____											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE											
<b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN											
<b>NOTES:</b> _____											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE											
<b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN											
<b>NOTES:</b> _____											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS</b> ABRUPT CLEAR GRADUAL DIFFUSE											
<b>TOPOGRAPHY</b> SMOOTH WAVY IRREGULAR BROKEN											
<b>NOTES:</b> _____											

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 5  
DATE: 3/21/19  
ELEVATION: 981.3  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@ 12834 State Hwy 48 Grantsburg  
NORTHING 126168.3 EASTING 162280.8  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Backslope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 15"	ML	Silt CLAY	10YR 3/2	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	LOESS BEDROCK
<b>DILATANCY</b>		<b>PLASTICITY</b>		<b>MOISTURE</b>		<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH		DRY SLIGH. MOIST MOIST VERY MOIST WET		VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		SIZE VERY FINE FINE MEDIUM COARSE VERY COARSE	
								TYPE		% BOULDERS	
								PLATY GRANULAR CRUMB ANGULAR		SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	
										14" to 3"	
										% COBBLE	
										3" to 12"	
										DISTINCTIVENESS	
										TOPOGRAPHY	
										SMOOTH WAVY IRREGULAR BROKEN	
										NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes.</u>	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
15" / 5'-6"	CL	10am	5YR 3/4	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	LOESS BEDROCK
<b>DILATANCY</b>		<b>PLASTICITY</b>		<b>MOISTURE</b>		<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH		DRY SLIGH. MOIST MOIST VERY MOIST WET		VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		SIZE VERY FINE FINE MEDIUM COARSE VERY COARSE	
								TYPE		% BOULDERS	
								PLATY GRANULAR CRUMB ANGULAR		SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	
										14" to 3"	
										% COBBLE	
										3" to 12"	
										DISTINCTIVENESS	
										TOPOGRAPHY	
										SMOOTH WAVY IRREGULAR BROKEN	
										NOTES: <u>like layer 3 in 588</u>	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
5'-6" / 9'-10"	CL	Clay 10am	5YR 3/4	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	LOESS BEDROCK
<b>DILATANCY</b>		<b>PLASTICITY</b>		<b>MOISTURE</b>		<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH		DRY SLIGH. MOIST MOIST VERY MOIST WET		VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		SIZE VERY FINE FINE MEDIUM COARSE VERY COARSE	
								TYPE		% BOULDERS	
								PLATY GRANULAR CRUMB ANGULAR		SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	
										14" to 3"	
										% COBBLE	
										3" to 12"	
										DISTINCTIVENESS	
										TOPOGRAPHY	
										SMOOTH WAVY IRREGULAR BROKEN	
										NOTES: <u>like in 588 material gets a lot harder to excavate, color stays the same.</u>	

**OVERALL NOTES:** This was frozen to 24 inches plus, observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection, no material was wet or saturated, no seeps observed. No black mottles seen. This Hole is very similar to 588

SAMPLES TAKEN: YES/NO NO WATER OBSERVED: YES/NO NO BEDROCK: YES/NO NO  
DEPTH OF BEDROCK OR HOLE EXTENT: 14' 6"  
E1. 966.8  
No Bedrock

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
9-10ft 14'6"	CL	loam	7.5YR	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
			4/4			FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" <1
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
DISTINCTIVENESS		<b>TOPOGRAPHY</b>	<b>NOTES:</b> <i>material feels to me to be Ch, could be a very good SC</i>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
DISTINCTIVENESS		<b>TOPOGRAPHY</b>	<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
DISTINCTIVENESS		<b>TOPOGRAPHY</b>	<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
DISTINCTIVENESS		<b>TOPOGRAPHY</b>	<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
DISTINCTIVENESS		<b>TOPOGRAPHY</b>	<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OWNER: Jeff Sever  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 6  
DATE: 3/21/2019  
ELEVATION: 982.7  
LOGGED BY: D. M. He

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126102.1 EASTING 162350.2  
COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Back slope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 9"	ML	Silt loam	10YR 3/2	100	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY: <u>NONE</u> PLASTICITY: <u>NONPLASTIC</u> MOISTURE: <u>DRY</u> CONSISTENCY: <u>VERY SOFT</u> SLOW MEDIUM HIGH SLIGH. MOIST MOIST VERY MOIST WET SOFT FIRM HARD VERY HARD GRADE: <u>WEAK</u> STRUCTURE: <u>STRUCTURELESS</u> SIZE: <u>VERY FINE</u> TYPE: <u>PLATY</u> LOCATION: <u>SUBANGULAR</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u> MODERATE STRONG FINE MEDIUM COARSE VERY COARSE CRUMB ANGULAR COLUMNAR PRISMATIC SINGLE GRAIN BOUNDARY: _____										
DISTINCTIVENESS: <u>ABRUPT</u> TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes</u> CLEAR WAVEY IRREGULAR BROKEN GRADUAL DIFFUSE										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
9 / 15"	Mh	Silt loam	10YR 4/3	100	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY: <u>NONE</u> PLASTICITY: <u>NONPLASTIC</u> MOISTURE: <u>DRY</u> CONSISTENCY: <u>VERY SOFT</u> SLOW MEDIUM HIGH SLIGH. MOIST MOIST VERY MOIST WET SOFT FIRM HARD VERY HARD GRADE: <u>WEAK</u> STRUCTURE: <u>STRUCTURELESS</u> SIZE: <u>VERY FINE</u> TYPE: <u>PLATY</u> LOCATION: <u>SUBANGULAR</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u> MODERATE STRONG FINE MEDIUM COARSE VERY COARSE CRUMB ANGULAR COLUMNAR PRISMATIC SINGLE GRAIN BOUNDARY: _____										
DISTINCTIVENESS: <u>ABRUPT</u> TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>like above, layer was frozen, notes are from sample</u> CLEAR WAVEY IRREGULAR BROKEN GRADUAL DIFFUSE										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
15 / 13.0'	Ch	loam	5YR 3/4 to 7.5YR 4/4	100	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY: <u>NONE</u> PLASTICITY: <u>NONPLASTIC</u> MOISTURE: <u>DRY</u> CONSISTENCY: <u>VERY SOFT</u> SLOW MEDIUM HIGH SLIGH. MOIST MOIST VERY MOIST WET SOFT FIRM HARD VERY HARD GRADE: <u>WEAK</u> STRUCTURE: <u>STRUCTURELESS</u> SIZE: <u>VERY FINE</u> TYPE: <u>PLATY</u> LOCATION: <u>SUBANGULAR</u> % BOULDERS: <u>0</u> % GRAVEL: <u>0</u> MODERATE STRONG FINE MEDIUM COARSE VERY COARSE CRUMB ANGULAR COLUMNAR PRISMATIC SINGLE GRAIN BOUNDARY: _____										
DISTINCTIVENESS: <u>ABRUPT</u> TOPOGRAPHY: <u>SMOOTH</u> NOTES: <u>Material starts as 5YR 3/4 and slowly turns to 7.5 YR 4/4, Has small gravel up to 3/8" size, If not ch is a very good SC by touch</u> CLEAR WAVEY IRREGULAR BROKEN GRADUAL DIFFUSE										

OVERALL NOTES: This was frozen to 30 inches plus. observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. no material was wet or saturated, no seeps observed. do not see the black mottles.

SAMPLES TAKEN: <u>YES/NO</u>	WATER OBSERVED: <u>YES/NO</u>	BEDROCK: <u>YES/NO</u>
SAMPLE ID: <u>JS 6.1 2-3 ft.</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK: <u>13.0"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	OR HOLE EXTENT: <u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 969.7</u>

OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>			<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT		STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR		>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM		WEAK	FINE	GRANULAR	COLUMNAR			
	HIGH	VERY MOIST	HARD		MODERATE	MEDIUM	CRUMB	PRISMATIC			
		WET	VERY HARD		STRONG	COARSE	ANGULAR	SINGLE GRAIN		<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>			<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT		STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR		>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM		WEAK	FINE	GRANULAR	COLUMNAR			
	HIGH	VERY MOIST	HARD		MODERATE	MEDIUM	CRUMB	PRISMATIC			
		WET	VERY HARD		STRONG	COARSE	ANGULAR	SINGLE GRAIN		<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
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DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>			<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT		STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR		>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM		WEAK	FINE	GRANULAR	COLUMNAR			
	HIGH	VERY MOIST	HARD		MODERATE	MEDIUM	CRUMB	PRISMATIC			
		WET	VERY HARD		STRONG	COARSE	ANGULAR	SINGLE GRAIN		<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>			<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT		STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR		>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM		WEAK	FINE	GRANULAR	COLUMNAR			
	HIGH	VERY MOIST	HARD		MODERATE	MEDIUM	CRUMB	PRISMATIC			
		WET	VERY HARD		STRONG	COARSE	ANGULAR	SINGLE GRAIN		<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>			<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT		STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR		>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM		WEAK	FINE	GRANULAR	COLUMNAR			
	HIGH	VERY MOIST	HARD		MODERATE	MEDIUM	CRUMB	PRISMATIC			
		WET	VERY HARD		STRONG	COARSE	ANGULAR	SINGLE GRAIN		<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT		SMOOTH									
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 7  
DATE: 3/21/2019  
ELEVATION: 983.0  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126031.9 EASTING 162472.2  
COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Backslope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 12"	ML	Silt 10cm	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>0</u>
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>This Backhoe Pit is identical to SB6 done just before this pit</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
12" 19"	ML	Silt 10cm	10YR 4/3	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>0</u>
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>like above, layer was frozen notes are from sample</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
19" 14.9"	Ch	10cm	5YR 3/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>1/1</u>
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>exactly like material in SB6</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

**OVERALL NOTES:** This was frozen to 24 inches plus, observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. no material was wet or saturated, no seeps observed.

<b>SAMPLES TAKEN:</b> YES/NO	<b>WATER OBSERVED:</b> YES/NO	<b>BEDROCK:</b> YES/NO
SAMPLE ID: <u>J.S. 7.1 12-19 inches</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>14.9"</u>
SAMPLE ID: <u>JS 7.2 12-14 ft.</u>	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 968.85</u>

OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS >12" _____	% GRAVEL 1/4" to 3" _____	
<b>BOUNDARY</b>											% COBBLE 3" to 12" _____	% FINES < #200 _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS >12" _____	% GRAVEL 1/4" to 3" _____	
<b>BOUNDARY</b>											% COBBLE 3" to 12" _____	% FINES < #200 _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS >12" _____	% GRAVEL 1/4" to 3" _____	
<b>BOUNDARY</b>											% COBBLE 3" to 12" _____	% FINES < #200 _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
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<b>BOUNDARY</b>											% COBBLE 3" to 12" _____	% FINES < #200 _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
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<b>BOUNDARY</b>											% COBBLE 3" to 12" _____	% FINES < #200 _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OWNER: Jeff Sever  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 8  
DATE: 3/21/2019  
ELEVATION: 981.2  
LOGGED BY: D.M.H.

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126147.5 EASTING 162469.7  
COUNTY / STATE: Burnett Cty Wis

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Backslope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 / 12"	ML	Silt loam	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	0	1/4" to 3" 0
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								<b>% COBBLE</b>	<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		This layer was frozen, notes are from small sample brought back to office for notes								3" to 12" 0	< #200 7090

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
12" / 19"	ML	Silt loam	10YR 4/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	0	1/4" to 3" 0
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								<b>% COBBLE</b>	<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		like above, layer was frozen notes are from sample								3" to 12" 0	< #200 7090

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
19" / 5'6"	Ch	loam	5M 3/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	0	1/4" to 3" 1
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								<b>% COBBLE</b>	<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		a good Ch - has a few small gravel stones up to 3/8" in size								3" to 12" 0	< #200 5060

**OVERALL NOTES:**  
This was frozen to 24 inches plus. observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. no material was wet or saturated, no seeps observed. no black mottles seen

<b>SAMPLES TAKEN</b> YES/NO	<b>WATER OBSERVED:</b> YES/NO	<b>BEDROCK:</b> YES/NO
SAMPLE ID: <u>JS 8.1 6 1/2-8 1/2 ft</u> TYPE: _____ DEPTH: _____		DEPTH OF BEDROCK OR HOLE EXTENT: <u>13'-1"</u>
SAMPLE ID: <u>JS 8.2 12-13 ft</u> TYPE: _____ DEPTH: _____		<u>El. 968.1</u>
SAMPLE ID: _____ TYPE: _____ DEPTH: _____		<u>No Bedrock</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
5'-6" / 9'-6"	CL	clay loam	5YR 3/4	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						GRADE STRUCTURELESS WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
						>12" 0					
<b>DISTINCTIVENESS</b>						<b>% COBBLE</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						3" to 12" 0					
<b>TOPOGRAPHY</b>						<b>% FINES</b>					
SMOOTH WAVY IRREGULAR BROKEN						< #200 60-70					

NOTES: *The material stays the same color but material stronger CL, it was a lot harder to excavate by backhoe*

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
9'-6" / 13'-0"	CL	loam	7.5YR 100	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						GRADE STRUCTURELESS WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
						>12" 0					
<b>DISTINCTIVENESS</b>						<b>% COBBLE</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						3" to 12" 0					
<b>TOPOGRAPHY</b>						<b>% FINES</b>					
SMOOTH WAVY IRREGULAR BROKEN						< #200 45-60					

NOTES: *material is like in bottom of SB-6, 7 - if its not a CL its a very good SC, but to me it feels CL*

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						GRADE STRUCTURELESS WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
						>12" 0					
<b>DISTINCTIVENESS</b>						<b>% COBBLE</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						3" to 12" 0					
<b>TOPOGRAPHY</b>						<b>% FINES</b>					
SMOOTH WAVY IRREGULAR BROKEN						< #200 0					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						GRADE STRUCTURELESS WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
						>12" 0					
<b>DISTINCTIVENESS</b>						<b>% COBBLE</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						3" to 12" 0					
<b>TOPOGRAPHY</b>						<b>% FINES</b>					
SMOOTH WAVY IRREGULAR BROKEN						< #200 0					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED <u>HOMOGENEOUS</u>	GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE LOW RAPID						GRADE STRUCTURELESS WEAK MODERATE STRONG					
<b>PLASTICITY</b>						<b>SIZE</b>					
NONPLASTIC LOW MEDIUM HIGH						VERY FINE FINE MEDIUM COARSE VERY COARSE					
<b>MOISTURE</b>						<b>TYPE</b>					
DRY SLIGH. MOIST MOIST VERY MOIST WET						PLATY GRANULAR CRUMB ANGULAR					
<b>CONSISTENCY</b>						<b>LOCATION</b>					
VERY SOFT SOFT FIRM HARD VERY HARD						SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN					
<b>BOUNDARY</b>						<b>% BOULDERS</b>					
						>12" 0					
<b>DISTINCTIVENESS</b>						<b>% COBBLE</b>					
ABRUPT CLEAR GRADUAL DIFFUSE						3" to 12" 0					
<b>TOPOGRAPHY</b>						<b>% FINES</b>					
SMOOTH WAVY IRREGULAR BROKEN						< #200 0					

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 9  
DATE: 3/21/2019  
ELEVATION: 983.2  
LOGGED BY: D. Mithe

**SITE LOCATION: ADDRESS**

@ 12884 State Hwy 48 Grantsburg

NORTHING 126304.9 EASTING 161940.9

COUNTY / STATE: Burnett Cty Wis

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO (NO)

LANDSCAPE POSITION: Summit

LANDSCAPE GEOMETRY: Slightly Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0 9"	ML	5.1H 10cm	10YR 3/2	100	—	FEW COMMON MANY	MINIMUM COARSE	FAINT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>This layer was frozen, notes are from small sample brought back to office for notes, no structure observed because frozen</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
9" 17.9"	CL to SC	Heavy 10cm to 4/4	10YR 4/3 to 4/4	100	7.5YR 5/6	FEW COMMON MANY	MINIMUM COARSE	FAINT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>Material starts as a strong CL and slowly turns to a very good SC as material starts to increase in fine to coarse sand</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	MINIMUM COARSE	FAINT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>noticed mottles from sample taken</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

**OVERALL NOTES:**

frozen to 30 inches plus.  
observed material as it was excavated all material below the frozen material was slightly moist to moist by feel and visual inspection, no material was wet or saturated, no seeps observed

<b>SAMPLES TAKEN:</b> YES/NO <u>(YES)</u>	<b>WATER OBSERVED:</b> YES/NO <u>(NO)</u>	<b>BEDROCK:</b> YES/NO <u>(NO)</u>
SAMPLE ID: <u>JS 9.1 8 to 10ft</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK: <u>17'-9"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>965.45 E1</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											3" to 12" _____	< #200 _____
ABRUPT _____ CLEAR _____ GRADUAL _____ DIFFUSE _____											SMOOTH _____ WAVY _____ IRREGULAR _____ BROKEN _____	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											3" to 12" _____	< #200 _____
ABRUPT _____ CLEAR _____ GRADUAL _____ DIFFUSE _____											SMOOTH _____ WAVY _____ IRREGULAR _____ BROKEN _____	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											3" to 12" _____	< #200 _____
ABRUPT _____ CLEAR _____ GRADUAL _____ DIFFUSE _____											SMOOTH _____ WAVY _____ IRREGULAR _____ BROKEN _____	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											3" to 12" _____	< #200 _____
ABRUPT _____ CLEAR _____ GRADUAL _____ DIFFUSE _____											SMOOTH _____ WAVY _____ IRREGULAR _____ BROKEN _____	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>STRUCTURE</b>		<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" _____	1/4" to 3" _____
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											3" to 12" _____	< #200 _____
ABRUPT _____ CLEAR _____ GRADUAL _____ DIFFUSE _____											SMOOTH _____ WAVY _____ IRREGULAR _____ BROKEN _____	

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 10  
DATE: 3/25/19  
ELEVATION: 981.8  
LOGGED BY: D. Mittle

**SITE LOCATION: ADDRESS**

© 12884 State Rd 48, Grantsburg  
NORTHING 126373.2 EASTING 162069.2  
COUNTY / STATE: Burnett Co. WI

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Back slope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0" / 9"	ML	Silt 10cm	10YR2.5/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>0</u>
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12" <u>0</u>	< #200 <u>70-90</u>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		<b>NOTES:</b> <u>This layer was frozen, notes are from small sample brought back to office for notes, no structure observed because frozen</u>								

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
9" / 18"	ML	Silt 10cm	7.5YR 4/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>0</u>
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12" <u>0</u>	< #200 <u>70-80</u>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		<b>NOTES:</b> <u>like layer above, notes from small sample as layer was frozen</u>								

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
18" / 22"	ML	Silt 10cm	2.5Y 7/3 7.5YR 4/4	90	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" <u>0</u>	1/4" to 3" <u>0</u>
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12" <u>0</u>	< #200 <u>70-80</u>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		<b>NOTES:</b> <u>like layer above, notes from small sample as layer was frozen</u>								

**OVERALL NOTES:**

frozen to 30 inches plus, observed material as it was excavated, all material below the frozen material was slightly moist to moist by feel, no material was wet or saturated, no seeps observed.

**SAMPLES TAKEN: YES/NO** NO      **WATER OBSERVED: YES/NO** NO      **BEDROCK: YES/NO** NO

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
 SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
 SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

DEPTH OF BEDROCK OR HOLE EXTENT: 17.8"  
No Bedrock  
964.1 El.

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
<i>20' / 43'</i>	<i>CL</i>	<i>Heavy loam</i>	<i>2.5YR 4/4</i>	<i>9.5 2.5Y 3/1</i>	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<p>DILATANCY: NONE SLOW RAPID   PLASTICITY: NONPLASTIC LOW MEDIUM HIGH   MOISTURE: DRY SLIGH. MOIST MOIST VERY MOIST WET   CONSISTENCY: VERY SOFT SOFT FIRM HARD VERY HARD</p> <p>GRADE: WEAK MODERATE STRONG   STRUCTURE: STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE   TYPE: PLATY GRANULAR CRUMB ANGULAR   LOCATION: SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN</p> <p>% BOULDERS: <i>0</i>   % GRAVEL: <i>1/4" to 3" 0</i></p> <p>% COBBLE: <i>0</i>   % FINES: <i>0</i></p> <p>BOUNDARY: <i>ABRUPT</i></p> <p>DISTINCTIVENESS: <i>ABRUPT</i>   TOPOGRAPHY: <i>SMOOTH</i></p> <p>NOTES: <i>Has very small black mottles in it, also is a very good, strong CL material</i></p>										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
<i>43' / N.B.</i>	<i>CL</i>	<i>Loam</i>	<i>2.5YR 4/4</i>	<i>9.5 2.5Y 3/1</i>	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<p>DILATANCY: NONE SLOW RAPID   PLASTICITY: NONPLASTIC LOW MEDIUM HIGH   MOISTURE: DRY SLIGH. MOIST MOIST VERY MOIST WET   CONSISTENCY: VERY SOFT SOFT FIRM HARD VERY HARD</p> <p>GRADE: WEAK MODERATE STRONG   STRUCTURE: STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE   TYPE: PLATY GRANULAR CRUMB ANGULAR   LOCATION: SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN</p> <p>% BOULDERS: <i>0</i>   % GRAVEL: <i>1/4" to 3" 2-3</i></p> <p>% COBBLE: <i>0</i>   % FINES: <i>0</i></p> <p>BOUNDARY: <i>ABRUPT</i></p> <p>DISTINCTIVENESS: <i>ABRUPT</i>   TOPOGRAPHY: <i>SMOOTH</i></p> <p>NOTES: <i>the black mottles are still present and are very small, less than 1/16" in size, have red and some orange mottles</i></p>										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
					FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<p>DILATANCY: NONE SLOW RAPID   PLASTICITY: NONPLASTIC LOW MEDIUM HIGH   MOISTURE: DRY SLIGH. MOIST MOIST VERY MOIST WET   CONSISTENCY: VERY SOFT SOFT FIRM HARD VERY HARD</p> <p>GRADE: WEAK MODERATE STRONG   STRUCTURE: STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE   TYPE: PLATY GRANULAR CRUMB ANGULAR   LOCATION: SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN</p> <p>% BOULDERS: <i>0</i>   % GRAVEL: <i>1/4" to 3" 0</i></p> <p>% COBBLE: <i>0</i>   % FINES: <i>0</i></p> <p>BOUNDARY: <i>ABRUPT</i></p> <p>DISTINCTIVENESS: <i>ABRUPT</i>   TOPOGRAPHY: <i>SMOOTH</i></p> <p>NOTES: <i>Not are different than the black mottles. Mottles seem to end around 9 ft.</i></p>										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
					FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<p>DILATANCY: NONE SLOW RAPID   PLASTICITY: NONPLASTIC LOW MEDIUM HIGH   MOISTURE: DRY SLIGH. MOIST MOIST VERY MOIST WET   CONSISTENCY: VERY SOFT SOFT FIRM HARD VERY HARD</p> <p>GRADE: WEAK MODERATE STRONG   STRUCTURE: STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE   TYPE: PLATY GRANULAR CRUMB ANGULAR   LOCATION: SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN</p> <p>% BOULDERS: <i>0</i>   % GRAVEL: <i>1/4" to 3" 0</i></p> <p>% COBBLE: <i>0</i>   % FINES: <i>0</i></p> <p>BOUNDARY: <i>ABRUPT</i></p> <p>DISTINCTIVENESS: <i>ABRUPT</i>   TOPOGRAPHY: <i>SMOOTH</i></p> <p>NOTES: <i>have small gravels mixed in up to maybe half inch in size, no larger</i></p>										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
					FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED <u>HOMOGENEOUS</u>	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
<p>DILATANCY: NONE SLOW RAPID   PLASTICITY: NONPLASTIC LOW MEDIUM HIGH   MOISTURE: DRY SLIGH. MOIST MOIST VERY MOIST WET   CONSISTENCY: VERY SOFT SOFT FIRM HARD VERY HARD</p> <p>GRADE: WEAK MODERATE STRONG   STRUCTURE: STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE   TYPE: PLATY GRANULAR CRUMB ANGULAR   LOCATION: SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN</p> <p>% BOULDERS: <i>0</i>   % GRAVEL: <i>1/4" to 3" 0</i></p> <p>% COBBLE: <i>0</i>   % FINES: <i>0</i></p> <p>BOUNDARY: <i>ABRUPT</i></p> <p>DISTINCTIVENESS: <i>ABRUPT</i>   TOPOGRAPHY: <i>SMOOTH</i></p> <p>NOTES: <i>After @ 9ft have spots that the till has a greenish color also 5/5/3 about 25%</i></p>										

OWNER: Jeff Sever  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 11  
DATE: 3/22/2019  
ELEVATION: 979.5  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS

@ 12884 State Hwy 48 Grantsburg  
NORTHING 126424.7 EASTING 162161.8  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES  NO  
LANDSCAPE POSITION: Backslope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0 / 16"	ML	Silt loam	10YR 3/140	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK	VERY FINE	PLATY	>12"	
SLOW		LOW	SLIGH. MOIST	SOFT		WEAK		MODERATE	FINE	GRANULAR		1/4" to 3"
RAPID		MEDIUM	MOIST	FIRM		MODERATE		STRONG	MEDIUM COARSE	CRUMB ANGULAR		
		HIGH	VERY MOIST	VERY HARD					VERY COARSE			
			WET								% COBBLE	% FINES
											3" to 12"	< #200
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office</u>								
ABRUPT		SMOOTH										
CLEAR		WAVY										
GRADUAL		IRREGULAR										
DIFFUSE		BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
16" / 38"	ML	Silt loam	10YR 5/3	90	5YR 4/4	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK	VERY FINE	PLATY	>12"	
SLOW		LOW	SLIGH. MOIST	SOFT		WEAK		MODERATE	FINE	GRANULAR		1/4" to 3"
RAPID		MEDIUM	MOIST	FIRM		MODERATE		STRONG	MEDIUM COARSE	CRUMB ANGULAR		
		HIGH	VERY MOIST	VERY HARD					VERY COARSE			
			WET								% COBBLE	% FINES
											3" to 12"	< #200
DISTINCTIVENESS		TOPOGRAPHY		NOTES:								
ABRUPT		SMOOTH										
CLEAR		WAVY										
GRADUAL		IRREGULAR										
DIFFUSE		BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
38" / 18.6"	CL	loam	10YR 5/3	30	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE		NONPLASTIC	DRY	VERY SOFT		STRUCTURELESS		WEAK	VERY FINE	PLATY	>12"	
SLOW		LOW	SLIGH. MOIST	SOFT		WEAK		MODERATE	FINE	GRANULAR		1/4" to 3"
RAPID		MEDIUM	MOIST	FIRM		MODERATE		STRONG	MEDIUM COARSE	CRUMB ANGULAR		
		HIGH	VERY MOIST	VERY HARD					VERY COARSE			
			WET								% COBBLE	% FINES
											3" to 12"	< #200
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>Could be a very good SC con feel a few sand grains in it but it ribbons well, after @ 6-7 ft it is mostly 5YR 4/4</u>								
ABRUPT		SMOOTH										
CLEAR		WAVY										
GRADUAL		IRREGULAR										
DIFFUSE		BROKEN										

OVERALL NOTES:

This was frozen hard to 40 inches plus.  
Material was observed during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed.  
Black mottles only in upper half of CL layer

SAMPLES TAKEN: YES  NO

WATER OBSERVED: YES  NO

BEDROCK: YES  NO

SAMPLE ID: JS 11.1 / 16-38 inches TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

DEPTH OF BEDROCK  
OR HOLE EXTENT: 18.6"  
No Bedrock  
El. 966.0

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OWNER: Jeff Sever  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 12  
DATE: 3/21/2019  
ELEVATION: 980.1  
LOGGED BY: D.M.H.

**SITE LOCATION: ADDRESS**

@ 12884 State Hwy 48, Grantsburg

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO

NORTHING 166267.9 EASTING 162245.4

LANDSCAPE POSITION: Toe slope

COUNTY / STATE: Burnett Co WI

LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0" / 16"	ML	Silt Loam	10YR 3/2	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>This layer is frozen, notes are from small sample brought back to office for notes. Material is like SB 15</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
16" / 49"	ML	Silt Loam	7.5YR 5/3	80	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>is ML silt material with the fine black mottles. This was ML material by checking small chiseled out chunks.</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
49" / 177"	CL	Loam	5YR 4/4 to 7.5YR 4/4	100	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>is like material of SB 15 starts as 5YR 4/4 and slowly goes to 7.5YR 4/4. Has the black mottles in the upper part.</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

**OVERALL NOTES:**  
This was frozen super hard to 4/5 inches plus. Observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed

<b>SAMPLES TAKEN:</b> YES / NO	<b>WATER OBSERVED:</b> YES (NO)	<b>BEDROCK:</b> YES (NO)
SAMPLE ID: <u>JS 12.1 3-4ft</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>177"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 962.5</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDIUM LOESS BEDROCK	
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES	
<u>BOUNDARY</u>											7" to 12"	< #200
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES	
<u>BOUNDARY</u>											3" to 12"	< #200
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES	
<u>BOUNDARY</u>											3" to 12"	< #200
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES	
<u>BOUNDARY</u>											3" to 12"	< #200
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

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<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES	
<u>BOUNDARY</u>											3" to 12"	< #200
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OWNER: Jeff Sauer  
 PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 13  
 DATE: 3/22/2019  
 ELEVATION: 979.3  
 LOGGED BY: D. M. He

SITE LOCATION: ADDRESS @ 12884 State Hwy 48 Grantsburg  
 ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
 NORTHING 126344.8 EASTING 162255.9 LANDSCAPE POSITION: Toe slope  
 COUNTY / STATE: Burnett City WI LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 / 16"	ML	Silt loam	10YR 3/2	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes.</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
16" / 55"	ML	Silt loam	7.5YR 5/2 to 5/3 to 7.5YR 5/4	70	5YR 3/4	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u></u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
55" / 16.6'	ML	loam	7.5YR 4/3 to 4/4	100	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG		VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>The material has more coarse grains than materials yesterday but dont see any gravels or clays (1)</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

OVERALL NOTES: This was frozen super hard to 40 inches plus. Observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed (1) Material could be a very good SC because of the coarse grains but also has some clays within it as it ribbons well

SAMPLES TAKEN: YES (NO)	WATER OBSERVED: YES (NO)	BEDROCK: YES (NO)
SAMPLE ID: <u>JS 13.1 15-16ft</u>	DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16' 6"</u>
SAMPLE ID: _____	DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	DEPTH: _____	<u>Et. 96208</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

OWNER: Jeff Souer  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 14  
DATE: 3/22/2019  
ELEVATION: 978.5  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126428.2 EASTING 162317.8  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Tue slope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 / 15"	ML	Silt Loam	10YR 3/2	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" <u>0</u>	1/4" to 3" <u>0</u>
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes for this was done by small sample brought back to office</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
15" / 50"	ML	Silt Loam	7.5YR 5/2 to 5/3	70	5YR 3/4	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" <u>0</u>	1/4" to 3" <u>0</u>
DISTINCTIVENESS		TOPOGRAPHY		NOTES: _____									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
50" / 16'6"	CL	Loam	7.5YR 4/3 to 4/4	100	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" <u>0</u>	1/4" to 3" <u>0</u>
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>Material is like SB 13 could be a very good SC because of the coarse grains in it</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

OVERALL NOTES: This was frozen super hard to 40 inches plus. Observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed

SAMPLES TAKEN: YES (NO)	WATER OBSERVED: YES (NO)	BEDROCK: YES (NO)
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16'6"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 962.0</u>



**Oakridge**  
ENGINEERING

OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTINUED  
SHEET 2 OF 2

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % GRAVEL	% BOULDERS % GRAVEL	
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>												
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % GRAVEL	% BOULDERS % GRAVEL	
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>												
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % GRAVEL	% BOULDERS % GRAVEL	
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>												
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % GRAVEL	% BOULDERS % GRAVEL	
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>												
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % GRAVEL	% BOULDERS % GRAVEL	
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>												
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN											

OWNER: Jeff Sever  
PROJECT: Hay Facility

TEST PIT / BORING NUMBER: 15  
DATE: 3/21/2019  
ELEVATION: 980.1  
LOGGED BY: D. M. He

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126277.6 EASTING 162388.0  
COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Toe slope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0 / 16"	ML	Silt loam	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY	NOTES: <u>This layer was frozen, notes are from small sample brought back to office for notes. This top soil not as silty ①</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
16" / 16'2"	CL	loam	5YR 4/4	—	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY	NOTES: <u>Starts as 5YR 4/4 and sticky, turns to 7.5YR 4/4, has the fine black mottles in the upper part. ②</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		GRADE	SIZE	TYPE	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY	NOTES: <u>② It look like there is ML silt cap to 45-50 inches but I chiseled out small chunks and brought back, all are ②</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OVERALL NOTES: This was frozen super hard ① as pits before to 42 inches plus. Observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed. ② continued - brownish/red Ch tills. at the office.

SAMPLES TAKEN: <u>YES (NO)</u>	WATER OBSERVED: <u>YES (NO)</u>	BEDROCK: <u>YES (NO)</u>
SAMPLE ID: <u>JS 15.1 5 to 6 ft</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK: <u>16'2"</u>
SAMPLE ID: <u>JS 15.2 13 to 15 ft</u>	TYPE: _____ DEPTH: _____	OR HOLE EXTENT: <u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>E1. 963.9</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
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BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

OWNER: Jeff Sauer  
 PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 16  
 DATE: 3/28/2019  
 ELEVATION: 979.6  
 LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
 NORTHING 126348.0 EASTING 162399.4  
 COUNTY/STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
 LANDSCAPE POSITION: Toe slope  
 LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 16"	ML	Silt loam	10YR 3/2	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLOVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
DILATANCY: NONE PLASTICITY: NONPLASTIC MOISTURE: DRY CONSISTENCY: VERY SOFT GRADE: WEAK STRUCTURE: STRUCTURELESS SIZE: VERY FINE TYPE: PLATY LOCATION: SUBANGULAR STRUCTURE: COLUMNAR GEOLOGY: % BOULDERS >12" 0, % GRAVEL 1/4" to 3" 0, % COBBLE 3" to 12" 0, % FINES < #200 70-80											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT TOPOGRAPHY: SMOOTH NOTES: <u>This layer was frozen, notes are from a small sample brought back to the office</u>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
16" / 43"	ML	Silt loam	7.5YR 4/3	80	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLOVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
DILATANCY: NONE PLASTICITY: NONPLASTIC MOISTURE: DRY CONSISTENCY: VERY SOFT GRADE: WEAK STRUCTURE: STRUCTURELESS SIZE: VERY FINE TYPE: PLATY LOCATION: SUBANGULAR STRUCTURE: COLUMNAR GEOLOGY: % BOULDERS >12" 0, % GRAVEL 1/4" to 3" 0, % COBBLE 3" to 12" 0, % FINES < #200 70-80											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT TOPOGRAPHY: SMOOTH NOTES: <u>the typical silt cap</u>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
43" / 16.9"	CL	loam	5YR 4/3 to 4/4	99	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLOVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
DILATANCY: NONE PLASTICITY: NONPLASTIC MOISTURE: DRY CONSISTENCY: VERY SOFT GRADE: WEAK STRUCTURE: STRUCTURELESS SIZE: VERY FINE TYPE: PLATY LOCATION: SUBANGULAR STRUCTURE: COLUMNAR GEOLOGY: % BOULDERS >12" 0, % GRAVEL 1/4" to 3" 0, % COBBLE 3" to 12" 0, % FINES < #200 50-60											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT TOPOGRAPHY: SMOOTH NOTES: <u>Has a few areas of brownish red shades, could be a strong SC but it ribbons well</u>											

OVERALL NOTES:  
This was frozen hard to 45 inches plus. Observed material during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed.

SAMPLES TAKEN: <u>YES/NO</u>	WATER OBSERVED: <u>YES/NO</u>	BEDROCK: <u>YES/NO</u>
SAMPLE ID: <u>JS 16.1 20-40 inches</u>	DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16.9"</u>
SAMPLE ID: <u>JS 16.2 11-14 ft</u>	DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	DEPTH: _____	<u>El. 962.85</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM			WEAK	FINE	GRANULAR	COLUMNAR		
	HIGH	VERY MOIST	HARD			MODERATE	MEDIUM	CRUMB	PRISMATIC		
		WET	VERY HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
							VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM			WEAK	FINE	GRANULAR	COLUMNAR		
	HIGH	VERY MOIST	HARD			MODERATE	MEDIUM	CRUMB	PRISMATIC		
		WET	VERY HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
							VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM			WEAK	FINE	GRANULAR	COLUMNAR		
	HIGH	VERY MOIST	HARD			MODERATE	MEDIUM	CRUMB	PRISMATIC		
		WET	VERY HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
							VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM			WEAK	FINE	GRANULAR	COLUMNAR		
	HIGH	VERY MOIST	HARD			MODERATE	MEDIUM	CRUMB	PRISMATIC		
		WET	VERY HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
							VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK
<b>DILATANCY</b>						<b>STRUCTURE</b>					
NONE	NONPLASTIC	DRY	VERY SOFT			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
SLOW	LOW	SLIGH. MOIST	SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
RAPID	MEDIUM	MOIST	FIRM			WEAK	FINE	GRANULAR	COLUMNAR		
	HIGH	VERY MOIST	HARD			MODERATE	MEDIUM	CRUMB	PRISMATIC		
		WET	VERY HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
							VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
<b>BOUNDARY</b>										3" to 12"	< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

OWNER: Jeff Sover  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 17  
DATE: 3/22/2019  
ELEVATION: 978.7  
LOGGED BY: D. Mittle

SITE LOCATION: ADDRESS  
C 12884 State Hwy 48 Grantsburg  
NORTHING 126419.1 EASTING 162463.0  
COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Toe slope  
LANDSCAPE GEOMETRY: uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 12"	ML	silt 10cm	10YR 3/2	100	---	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% GRAVEL					
TOPOGRAPHY						% COBBLE					
NOTES:						% FINES					
ABRUPT						3" to 12" <u>0</u>					
CLEAR						< #200 <u>70-90</u>					
GRADUAL											
DIFFUSE											

NOTES: This layer was frozen, notes are from small sample brought back to the office

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
12" / 48"	ML	silt 10cm	7.5YR 5/3 7.5YR 3/6	85	2.5Y 3.1 7.5YR 4/6	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% GRAVEL					
TOPOGRAPHY						% COBBLE					
NOTES:						% FINES					
ABRUPT						3" to 12" <u>0</u>					
CLEAR						< #200 <u>70-90</u>					
GRADUAL											
DIFFUSE											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
48" / 15-11"	CL	loam	5YR 4/4	100	---	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% GRAVEL					
TOPOGRAPHY						% COBBLE					
NOTES:						% FINES					
ABRUPT						3" to 12" <u>0</u>					
CLEAR						< #200 <u>50-60</u>					
GRADUAL											
DIFFUSE											

NOTES: Do not see the coarse grains in this material, like the last two bedrock pits - material is more like SBS and SBS

OVERALL NOTES: This was frozen to 35 inches plus. observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated. no seeps observed. didnt see the black mottles

SAMPLES TAKEN: <u>YES (NO)</u>	WATER OBSERVED: <u>YES (NO)</u>	BEDROCK: <u>YES (NO)</u>
SAMPLE ID: <u>JS 17.1 8-10ft</u>	DEPTH: _____	DEPTH OF BEDROCK: <u>15.11"</u>
SAMPLE ID: _____	DEPTH: _____	OR HOLE EXTENT: <u>No Bedrock</u>
SAMPLE ID: _____	DEPTH: _____	<u>El. 962.8</u>



**Oakridge**  
ENGINEERING

OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTINUED  
SHEET 2 OF 2

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<u>BOUNDARY</u>													
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<u>BOUNDARY</u>													
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<u>BOUNDARY</u>													
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<u>BOUNDARY</u>													
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<u>DILATANCY</u>	<u>PLASTICITY</u>	<u>MOISTURE</u>	<u>CONSISTENCY</u>			<u>GRADE</u>	<u>SIZE</u>	<u>TYPE</u>	<u>LOCATION</u>	<u>STRUCTURE</u>	<u>GEOLOGY</u>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<u>BOUNDARY</u>													
<u>DISTINCTIVENESS</u>		<u>TOPOGRAPHY</u>		<u>NOTES:</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

OWNER: Jeff Sover  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 18  
DATE: 3/22/2019  
ELEVATION: 979.3  
LOGGED BY: D.M.H.

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126348.0 EASTING 162399.4  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Toe slope  
LANDSCAPE GEOMETRY: uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0" / 17"	ML	Silt loam	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE LOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	VERY FINE FINE MEDIUM COARSE ANGULAR	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12"	1/4" to 3"
BOUNDARY													
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
17" / 48"	ML	Silt loam	7.5YR 5/3	85	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE LOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	VERY FINE FINE MEDIUM COARSE ANGULAR	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12"	1/4" to 3"
BOUNDARY													
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>Material is very similar to SB17</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
48" / 16.1"	CL	loam	5YR 4/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE LOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE	VERY FINE FINE MEDIUM COARSE ANGULAR	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12"	1/4" to 3"
BOUNDARY													
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>Material is very similar to SB17</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

OVERALL NOTES:  
This was frozen to 40 inches plus, observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed  
This Backhoe pit is very similar to SB17

SAMPLES TAKEN: <u>YES/NO</u>	WATER OBSERVED: <u>YES/NO</u>	BEDROCK: <u>YES/NO</u>
SAMPLE ID: <u>JS 18.1 6/6/9A</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16.1"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 963.2</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		
<b>BOUNDARY</b>										<b>% BOULDERS</b>	<b>% GRAVEL</b>
<b>DISTINCTIVENESS</b>										3" to 12"	< #200
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>							
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		
<b>BOUNDARY</b>										<b>% BOULDERS</b>	<b>% GRAVEL</b>
<b>DISTINCTIVENESS</b>										3" to 12"	< #200
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>							
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		
<b>BOUNDARY</b>										<b>% BOULDERS</b>	<b>% GRAVEL</b>
<b>DISTINCTIVENESS</b>										3" to 12"	< #200
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>							
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		
<b>BOUNDARY</b>										<b>% BOULDERS</b>	<b>% GRAVEL</b>
<b>DISTINCTIVENESS</b>										3" to 12"	< #200
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>							
CLEAR		WAVY									
GRADUAL		IRREGULAR									
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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		
<b>BOUNDARY</b>										<b>% BOULDERS</b>	<b>% GRAVEL</b>
<b>DISTINCTIVENESS</b>										3" to 12"	< #200
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>							
CLEAR		WAVY									
GRADUAL		IRREGULAR									
DIFFUSE		BROKEN									

OWNER: Jeff Sauer  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 19  
DATE: 3/22/2019  
ELEVATION: 977.7  
LOGGED BY: D. Miller

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126377.7 EASTING 162628.9  
COUNTY / STATE: Burnett Co WI

ANY KARST FEATURES WITHIN 1000 FEET: YES/NO  
LANDSCAPE POSITION: Toe slope  
LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 / 14"	ML	Silt cap	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" 0	1/4" to 3" 0
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from small sample brought back to office very similar to SB 17 Top soil</u>						3" to 12" 0	< #200 70-90
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
14" / 33"	ML	Silt loam	7.5YR 5/4	95	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" 0	1/4" to 3" 0
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>is a ML but can feel a little medium grain sand in it but it ribbons very well from sample brought back</u>						3" to 12" 0	< #200 690
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
33" / 16.4"	CL	loam	5YR 4/4	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	SIZE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	PED SURFACE IN-MATRIX ROOT HAIR	>12" 0	1/4" to 3" 0
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>Very similar to SB 17 and SB 18</u>						3" to 12" 0	< #200 240
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											

OVERALL NOTES:  
This was frozen to 35 inches plus. observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed

SAMPLES TAKEN: YES/NO <u>(NO)</u>	WATER OBSERVED: YES/NO <u>(NO)</u>	BEDROCK: YES/NO <u>(NO)</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16.4"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 961.4</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN										

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<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN										

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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12" 3" to 12"	1/4" to 3" < #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN										

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<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT CLEAR GRADUAL DIFFUSE	SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
<i>13"</i>	<i>CL</i>	<i>loam</i>	<i>5YR 4/4</i>	<i>100</i>	<i>-</i>	FEW COMMON MANY	FINE MINIMUM COARSE	PLATY FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL	
<i>14.2"</i>						FEW COMMON MANY	FINE MINIMUM COARSE	PLATY FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>			<b>LOCATION</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		GRADE STRUCTURELESS WEAK MODERATE STRONG			SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		<i>Material is very similar to SB 17 and SB 18</i>						3" to 12"		< #200

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	PLATY FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL	
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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>			<b>LOCATION</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
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ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN								3" to 12"		< #200

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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>			<b>LOCATION</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
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<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN								3" to 12"		< #200

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<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>			<b>LOCATION</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
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<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN								3" to 12"		< #200

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	PLATY FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL	
						FEW COMMON MANY	FINE MINIMUM COARSE	PLATY FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>STRUCTURE</b>			<b>LOCATION</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		GRADE STRUCTURELESS WEAK MODERATE STRONG			SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						3" to 12"		< #200
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN								3" to 12"		< #200

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 20  
DATE: 3/22/2019  
ELEVATION: 978.5  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS

@ 12884 State Hwy 48 Grantsburg

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)

NORTHING 126265.2 EASTING 162652.9

LANDSCAPE POSITION: Toe slope

COUNTY / STATE: Burnett Cty, WI

LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 17"	ML	Silt 100m	10YR 8/1	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK
<p><b>DILATANCY</b> <u>NONE</u> <b>PLASTICITY</b> <u>LOW</u> <b>MOISTURE</b> <u>DRY</u> <b>CONSISTENCY</b> <u>VERY SOFT</u></p> <p><b>GRADE</b> <u>STRUCTURELESS</u> <b>SIZE</b> <u>VERY FINE</u> <b>TYPE</b> <u>PLATY</u> <b>% BOULDERS</b> <u>&gt;12"</u> <b>% GRAVEL</b> <u>1/4" to 3"</u></p> <p><b>BOUNDARY</b> <u>ABRUPT</u> <b>TOPOGRAPHY</b> <u>SMOOTH</u> <b>NOTES:</b> <u>This layer was frozen, notes are from small sample brought back to office. Material is blacker and more silty than other pits.</u></p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
17" / 37"	ML	Silt 100m	7.5YR 5/3 7.5YR 5/6	90 10	5YR 4/6	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK
<p><b>DILATANCY</b> <u>NONE</u> <b>PLASTICITY</b> <u>LOW</u> <b>MOISTURE</b> <u>DRY</u> <b>CONSISTENCY</b> <u>VERY SOFT</u></p> <p><b>GRADE</b> <u>STRUCTURELESS</u> <b>SIZE</b> <u>VERY FINE</u> <b>TYPE</b> <u>PLATY</u> <b>% BOULDERS</b> <u>&gt;12"</u> <b>% GRAVEL</b> <u>1/4" to 3"</u></p> <p><b>BOUNDARY</b> <u>ABRUPT</u> <b>TOPOGRAPHY</b> <u>SMOOTH</u> <b>NOTES:</b> <u>Still a good ML - 100sm, the silts slightly from above but picked a little clay. Is like most of the silt cap previously seen.</u></p>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
37" / 63"	ML	Silt 100m	5YR 4/4 7.5YR 5/3	60 30	5YR 3/3	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM <del>LOESS</del> BEDROCK
<p><b>DILATANCY</b> <u>NONE</u> <b>PLASTICITY</b> <u>LOW</u> <b>MOISTURE</b> <u>DRY</u> <b>CONSISTENCY</b> <u>VERY SOFT</u></p> <p><b>GRADE</b> <u>STRUCTURELESS</u> <b>SIZE</b> <u>VERY FINE</u> <b>TYPE</b> <u>PLATY</u> <b>% BOULDERS</b> <u>&gt;12"</u> <b>% GRAVEL</b> <u>1/4" to 3"</u></p> <p><b>BOUNDARY</b> <u>ABRUPT</u> <b>TOPOGRAPHY</b> <u>SMOOTH</u> <b>NOTES:</b> <u>This layer has more clay than above. Could be a CL but it's silt cap, not till. Have a few other brownish/red streaks in it.</u></p>											

**OVERALL NOTES:**  
This was frozen to about 20 inches plus. observed material as it was excavated, all material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed. did not see the black mottles

<b>SAMPLES TAKEN</b> <u>YES</u> <b>NO</b>	<b>WATER OBSERVED:</b> <u>YES</u> <b>NO</b>	<b>BEDROCK:</b> <u>YES</u> <b>NO</b>
SAMPLE ID: <u>JS 20.1 2-5ft</u>	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>14' 2"</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>El. 964.3</u>

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 21  
DATE: 3/28/2019  
ELEVATION: 983.0  
LOGGED BY: D. Mithe

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126474.3 EASTING 161900.3  
COUNTY / STATE: Burnett Cty, WI

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Summit  
LANDSCAPE GEOMETRY: uniform

DEPTH	USCS	SOIL TYPE & OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0 / 17"	ML	Silt loam	10YR 3/1	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						<b>% COBBLE</b>		<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		This layer was frozen, notes are from a small sample brought back to the office						3" to 12" 0		< #200 70-90

DEPTH	USCS	SOIL TYPE & OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
17" / 19.1"	Ch	loam	7.5YR 4/4	95	7.5YR 5/1B	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						<b>% COBBLE</b>		<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		This till is slightly different color than the last few holes done before it, does ribbon well						3" to 12" 0		< #200 40-60

DEPTH	USCS	SOIL TYPE & OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>						<b>% COBBLE</b>		<b>% FINES</b>
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN		mottles continue all the way down, did not see any of the black mottles						3" to 12" 0		< #200 0

**OVERALL NOTES:**  
This was frozen hard to 45 inches plus. Observed material during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed. Ch layer could be a very good SC

SAMPLES TAKEN: YES / NO  
WATER OBSERVED: YES / NO  
BEDROCK: YES / NO  
SAMPLE ID: JS 21.1 15-18ft TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
DEPTH OF BEDROCK OR HOLE EXTENT: 19'-11"  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
No Bedrock  
El. 963.1  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200	
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>									
<b>CLEAR</b>		<b>WAVY</b>											
<b>GRADUAL</b>		<b>IRREGULAR</b>											
<b>DIFFUSE</b>		<b>BROKEN</b>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200	
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>									
<b>CLEAR</b>		<b>WAVY</b>											
<b>GRADUAL</b>		<b>IRREGULAR</b>											
<b>DIFFUSE</b>		<b>BROKEN</b>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200	
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>									
<b>CLEAR</b>		<b>WAVY</b>											
<b>GRADUAL</b>		<b>IRREGULAR</b>											
<b>DIFFUSE</b>		<b>BROKEN</b>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200	
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>									
<b>CLEAR</b>		<b>WAVY</b>											
<b>GRADUAL</b>		<b>IRREGULAR</b>											
<b>DIFFUSE</b>		<b>BROKEN</b>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN		>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200	
<b>ABRUPT</b>		<b>SMOOTH</b>		<b>NOTES:</b>									
<b>CLEAR</b>		<b>WAVY</b>											
<b>GRADUAL</b>		<b>IRREGULAR</b>											
<b>DIFFUSE</b>		<b>BROKEN</b>											

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 22  
DATE: 3/22/2019  
ELEVATION: 981.9  
LOGGED BY: D. M. He

**SITE LOCATION: ADDRESS**

@ 12884 State Hwy 48 Grantsburg

NORTHING 126 552.1 EASTING 162 003.2

COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES / NO

LANDSCAPE POSITION: Shoulder

LANDSCAPE GEOMETRY: convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0" 19"	ML	Silt loam	10YR 3/1 to 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>This layer was frozen, notes are from a small sample brought back to the office</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
19" 18.0	CL	loam	10YR 5/3 5YR 4/4	30	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>again could be a very good SC can feel the sand grains but it ribbons very well, after a few feet it is mostly 5YR 4/4</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
<b>BOUNDARY</b>												
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>CL layer is very similar to test SB at 23 and 11</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

**OVERALL NOTES:**

This was frozen hard to 40 inches plus. Observed material during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated. no seeps observed. Black mottles only in the upper part of the CL layer

<b>SAMPLES TAKEN:</b> YES <input checked="" type="checkbox"/> NO	<b>WATER OBSERVED:</b> YES <input checked="" type="checkbox"/> NO	<b>BEDROCK:</b> YES <input checked="" type="checkbox"/> NO
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>18.0</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	TYPE: _____ DEPTH: _____	<u>E1. 963.9</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											3" to 12" _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											3" to 12" _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											3" to 12" _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											3" to 12" _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

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						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES
<b>BOUNDARY</b>											3" to 12" _____
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>							
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

OWNER: Jeff Sover  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 23  
DATE: 3/22/2019  
ELEVATION: 982.1  
LOGGED BY: D. Mitto

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126465.6 EASTING 162055.9  
COUNTY / STATE: Burnett Cty, WI

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Shoulder  
LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
0 / 18"	ML	5 1/4 loam	10YR 3/1	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>This layer was frozen, notes are from a small sample brought back to the office</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											
												3" to 12" 0	< #200 70-80

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
18" / 18.1"	CL	10cm	10YR 5/3	30	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>Could be a very good SC material is very similar to CL layer of SB11 after a few feet, it is mostly 5YR 4/4</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											
												3" to 12" 0	< #200 45-60

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK		
<b>DILATANCY</b>		<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>		<b>STRUCTURE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGHT MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0	
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b> <u>checked edge to see if silt cap was deeper but all my little pieces I chiseled out were till, not silt cap</u>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN											
												3" to 12" 0	< #200

**OVERALL NOTES:**  
This was frozen hard to 40 inches plus. Observed material during execution. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed. Black mottles only in the upper part of the CL layer.

SAMPLES TAKEN: YES NO  
WATER OBSERVED: YES NO  
BEDROCK: YES NO

SAMPLE ID: JS 23.1 8-10ft TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
DEPTH OF BEDROCK OR HOLE EXTENT: 18.1"

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
No Bedrock

SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
El. 963.2

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>		<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>											<b>NOTES:</b>	
ABRUPT CLEAR GRADUAL DIFFUSE											SMOOTH WAVY IRREGULAR BROKEN	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>		<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>											<b>NOTES:</b>	
ABRUPT CLEAR GRADUAL DIFFUSE											SMOOTH WAVY IRREGULAR BROKEN	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
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						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>		<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>											<b>NOTES:</b>	
ABRUPT CLEAR GRADUAL DIFFUSE											SMOOTH WAVY IRREGULAR BROKEN	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>		<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>											<b>NOTES:</b>	
ABRUPT CLEAR GRADUAL DIFFUSE											SMOOTH WAVY IRREGULAR BROKEN	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						ABUNDANCE FEW COMMON MANY	SIZE FINE MINIMUM COARSE	TYPE FAINT DISTINCT PROMINENT	LOCATION PED SURFACE IN-MATRIX ROOT HAIR	STRUCTURE PRISMATIC LENSED HOMOGENEOUS	GEOLOGY OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>		<b>GRADE</b>	<b>STRUCTURE</b>		<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG	STRUCTURELESS VERY FINE FINE MEDIUM COARSE VERY COARSE		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% COBBLE</b>	<b>% FINES</b>
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>											<b>NOTES:</b>	
ABRUPT CLEAR GRADUAL DIFFUSE											SMOOTH WAVY IRREGULAR BROKEN	

OWNER: Jeff Sever  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 24  
DATE: 3/22/2019  
ELEVATION: 980.2  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@12884 State Hwy 48 Grantsburg  
NORTHING 126538.7 EASTING 162199.4  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Footslope  
LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
0" / 12"	ML	Silt loam	7.5YR 3/1 to 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL BLOCKY LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer was frozen, notes are from a small sample brought back to the office</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
12" / 16"	ML	Silt loam	10YR 5/2 to 5/3	90	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL BLOCKY LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>This layer is very similar to second layer in SB25 but not very thick</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
16" / 16.7"	Ch	loam	7.5YR 4/4	100	2.5Y 3/1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL BLOCKY LAKE SED OUTWASH RESIDUUM LOESS BEDROCK	
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		GRADE		STRUCTURE	TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		WEAK MODERATE STRONG		STRUCTURELESS FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
DISTINCTIVENESS		TOPOGRAPHY		NOTES: <u>could be a very good SC very similar to SB25, don't see the whitish mottles, mottles only in upper half of layer</u>								
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN										

OVERALL NOTES: This was frozen hard to 40 inches plus observed material during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, No seeps observed.

SAMPLES TAKEN: YES NO  
WATER OBSERVED: YES NO  
BEDROCK: YES NO  
SAMPLE ID: JS 24.1 15-16ft TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
DEPTH OF BEDROCK: 11"  
OR HOLE EXTENT: 16.7'  
No Bedrock  
El. 963.6



**Oakridge**  
ENGINEERING OWNER: \_\_\_\_\_

TEST PIT / BORING NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

CONTINUED  
SHEET 2 OF 2

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED		
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>STRUCTURE</b>	<b>GEOLOGY</b>		
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	% BOULDERS % COBBLE	% GRAVEL % FINES		
<b>BOUNDARY</b>													
<b>DISTINCTIVENESS</b>		<b>TOPOGRAPHY</b>		<b>NOTES:</b>									
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									3" to 12"	< #200	

OWNER: Jeff Saver  
 PROJECT: Hwy Facility

TEST PIT / BORING NUMBER: 25  
 DATE: 3/22/2019  
 ELEVATION: 978.9  
 LOGGED BY: D. Mittle

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
 NORTHING 126487.6 EASTING 162242.4  
 COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES  NO   
 LANDSCAPE POSITION: Footslope  
 LANDSCAPE GEOMETRY: Convex

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0" / 27"	ML	Silt 100m	10YR 3/1	100	-	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
DILATANCY: NONE <input checked="" type="checkbox"/> SLOW <input type="checkbox"/> RAPID <input type="checkbox"/> PLASTICITY: NONPLASTIC <input type="checkbox"/> LOW <input checked="" type="checkbox"/> MEDIUM <input type="checkbox"/> HIGH <input type="checkbox"/> MOISTURE: DRY <input type="checkbox"/> SLIGH. MOIST <input type="checkbox"/> MOIST <input type="checkbox"/> VERY MOIST <input type="checkbox"/> WET <input type="checkbox"/> CONSISTENCY: VERY SOFT <input type="checkbox"/> SOFT <input type="checkbox"/> FIRM <input type="checkbox"/> HARD <input type="checkbox"/> VERY HARD <input type="checkbox"/> GRADE: STRUCTURELESS <input type="checkbox"/> WEAK <input type="checkbox"/> MODERATE <input type="checkbox"/> STRONG <input type="checkbox"/> STRUCTURE: VERY FINE <input type="checkbox"/> FINE <input type="checkbox"/> MEDIUM <input type="checkbox"/> COARSE <input type="checkbox"/> VERY COARSE <input type="checkbox"/> TYPE: PLATY <input type="checkbox"/> GRANULAR <input type="checkbox"/> CRUMB <input type="checkbox"/> ANGULAR <input type="checkbox"/> LOCATION: SUBANGULAR <input type="checkbox"/> COLUMNAR <input type="checkbox"/> PRISMATIC <input type="checkbox"/> SINGLE GRAIN <input type="checkbox"/> % BOULDERS: >12" <input type="checkbox"/> 3" to 12" <input type="checkbox"/> < #200 <input type="checkbox"/> % GRAVEL: 1/4" to 3" <input type="checkbox"/> % COBBLE: <input type="checkbox"/> % FINES: <input type="checkbox"/>											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT <input type="checkbox"/> CLEAR <input type="checkbox"/> GRADUAL <input type="checkbox"/> DIFFUSE <input type="checkbox"/> TOPOGRAPHY: SMOOTH <input type="checkbox"/> WAVY <input type="checkbox"/> IRREGULAR <input type="checkbox"/> BROKEN <input type="checkbox"/> NOTES: <u>This layer was frozen, notes are from small sample brought back to office very deep top soil layer</u>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
27" / 73"	ML	Silt 100m	10YR 5/3 to 5/3	90	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
DILATANCY: NONE <input type="checkbox"/> SLOW <input type="checkbox"/> RAPID <input type="checkbox"/> PLASTICITY: NONPLASTIC <input type="checkbox"/> LOW <input checked="" type="checkbox"/> MEDIUM <input type="checkbox"/> HIGH <input type="checkbox"/> MOISTURE: DRY <input type="checkbox"/> SLIGH. MOIST <input type="checkbox"/> MOIST <input checked="" type="checkbox"/> VERY MOIST <input type="checkbox"/> WET <input type="checkbox"/> CONSISTENCY: VERY SOFT <input type="checkbox"/> SOFT <input type="checkbox"/> FIRM <input type="checkbox"/> HARD <input type="checkbox"/> VERY HARD <input type="checkbox"/> GRADE: STRUCTURELESS <input type="checkbox"/> WEAK <input type="checkbox"/> MODERATE <input type="checkbox"/> STRONG <input type="checkbox"/> STRUCTURE: VERY FINE <input type="checkbox"/> FINE <input type="checkbox"/> MEDIUM <input type="checkbox"/> COARSE <input type="checkbox"/> VERY COARSE <input type="checkbox"/> TYPE: PLATY <input type="checkbox"/> GRANULAR <input type="checkbox"/> CRUMB <input type="checkbox"/> ANGULAR <input type="checkbox"/> LOCATION: SUBANGULAR <input type="checkbox"/> COLUMNAR <input type="checkbox"/> PRISMATIC <input type="checkbox"/> SINGLE GRAIN <input type="checkbox"/> % BOULDERS: >12" <input type="checkbox"/> 3" to 12" <input type="checkbox"/> < #200 <input type="checkbox"/> % GRAVEL: 1/4" to 3" <input type="checkbox"/> % COBBLE: <input type="checkbox"/> % FINES: <input type="checkbox"/>											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT <input type="checkbox"/> CLEAR <input type="checkbox"/> GRADUAL <input type="checkbox"/> DIFFUSE <input type="checkbox"/> TOPOGRAPHY: SMOOTH <input type="checkbox"/> WAVY <input type="checkbox"/> IRREGULAR <input type="checkbox"/> BROKEN <input type="checkbox"/> NOTES: <u>layer picks up a little clay from above - typical silt cap</u>											

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
73" / 16.3"	CL	100m	7.5YR 4/4	100	2.5Y 5YR 4/6	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM
DILATANCY: NONE <input type="checkbox"/> SLOW <input type="checkbox"/> RAPID <input type="checkbox"/> PLASTICITY: NONPLASTIC <input type="checkbox"/> LOW <input type="checkbox"/> MEDIUM <input checked="" type="checkbox"/> HIGH <input type="checkbox"/> MOISTURE: DRY <input type="checkbox"/> SLIGH. MOIST <input type="checkbox"/> MOIST <input type="checkbox"/> VERY MOIST <input type="checkbox"/> WET <input type="checkbox"/> CONSISTENCY: VERY SOFT <input type="checkbox"/> SOFT <input type="checkbox"/> FIRM <input type="checkbox"/> HARD <input type="checkbox"/> VERY HARD <input type="checkbox"/> GRADE: STRUCTURELESS <input type="checkbox"/> WEAK <input type="checkbox"/> MODERATE <input type="checkbox"/> STRONG <input type="checkbox"/> STRUCTURE: VERY FINE <input type="checkbox"/> FINE <input type="checkbox"/> MEDIUM <input type="checkbox"/> COARSE <input type="checkbox"/> VERY COARSE <input type="checkbox"/> TYPE: PLATY <input type="checkbox"/> GRANULAR <input type="checkbox"/> CRUMB <input type="checkbox"/> ANGULAR <input type="checkbox"/> LOCATION: SUBANGULAR <input type="checkbox"/> COLUMNAR <input type="checkbox"/> PRISMATIC <input type="checkbox"/> SINGLE GRAIN <input type="checkbox"/> % BOULDERS: >12" <input type="checkbox"/> 3" to 12" <input type="checkbox"/> < #200 <input type="checkbox"/> % GRAVEL: 1/4" to 3" <input type="checkbox"/> % COBBLE: <input type="checkbox"/> % FINES: <input type="checkbox"/>											
BOUNDARY: _____ DISTINCTIVENESS: ABRUPT <input type="checkbox"/> CLEAR <input type="checkbox"/> GRADUAL <input type="checkbox"/> DIFFUSE <input type="checkbox"/> TOPOGRAPHY: SMOOTH <input type="checkbox"/> WAVY <input type="checkbox"/> IRREGULAR <input type="checkbox"/> BROKEN <input type="checkbox"/> NOTES: <u>could be a very good SC, can see and feel a few sand grains but again it ribbons well, also see a few whiteish fine</u>											

OVERALL NOTES:  
This was frozen to 40 inches plus of the layer and froze hard. Material was observed during excavation and was slightly moist to moist by touch and visual inspection. No Material was wet or saturated, no seeps observed. nothing only in the upper part of the Cl layer

SAMPLES TAKEN: YES  NO   
 WATER OBSERVED: YES  NO   
 BEDROCK: YES  NO   
 SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
 SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
 SAMPLE ID: \_\_\_\_\_ TYPE: \_\_\_\_\_ DEPTH: \_\_\_\_\_  
 No Bedrock  
 El. 962.3

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED	
						FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	PRISMATIC LENSED HOMOGENEOUS	OUTWASH RESIDUUM LOESS BEDROCK	
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
<b>BOUNDARY</b>											<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
GRADUAL												
DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
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<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>		<b>% BOULDERS</b>	<b>% GRAVEL</b>	
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<b>BOUNDARY</b>											<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
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<b>BOUNDARY</b>											<b>% FINES</b>	
<b>DISTINCTIVENESS</b>											3" to 12"	< #200
<b>TOPOGRAPHY</b>												
<b>NOTES:</b>												
ABRUPT												
CLEAR												
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DIFFUSE												
SMOOTH												
WAVY												
IRREGULAR												
BROKEN												

OWNER: Jeff Saver  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 26  
DATE: 3/22/2019  
ELEVATION: 980.5  
LOGGED BY: D. Miller

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126119.1 EASTING 162579.8  
COUNTY / STATE: Burnett Cty Wi

ANY KARST FEATURES WITHIN 1000 FEET: YES (NO)  
LANDSCAPE POSITION: Foot slope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 17"	ML	Silt loam	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL BLOCKY PRISMATIC LENSED HOMOGENEOUS
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% COBBLE					
TOPOGRAPHY						% FINES					
NOTES: <u>This layer was frozen, notes are from a small sample brought by to the office</u>						3" to 12" <u>0</u> < #200 <u>70-80</u>					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
17" / 21"	ML	Silt loam	10YR 4/3	95	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% COBBLE					
TOPOGRAPHY						% FINES					
NOTES: <u>do lose some fines from upper layer but is still a ML silt loam</u>						3" to 12" <u>0</u> < #200 <u>60-70</u>					

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
21" / 15.8"	Ch	loam	5YR 4/4	100	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY						STRUCTURE					
PLASTICITY						GRADE					
MOISTURE						SIZE					
CONSISTENCY						TYPE					
BOUNDARY						% BOULDERS					
DISTINCTIVENESS						% COBBLE					
TOPOGRAPHY						% FINES					
NOTES: <u>A good Ch red till, can't feel any sand grains, block mottles in the upper half of the layer only</u>						3" to 12" <u>0</u> < #200 <u>50-60</u>					

OVERALL NOTES:  
This was frozen to 40 inches plus. Observed material during excavation. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed

SAMPLES TAKEN: YES (NO)  
WATER OBSERVED: YES (NO)  
BEDROCK: YES (NO)  
DEPTH OF BEDROCK: 15.8"  
OR HOLE EXTENT: No Bedrock El. 964.8

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NONE SLOW RAPID	NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD			STRUCTURELESS WEAK MODERATE STRONG	VERY FINE FINE MEDIUM COARSE VERY COARSE	PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12"	1/4" to 3"	
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<u>DISTINCTIVENESS</u>											3" to 12"	< #200
<u>ABRUPT</u>		<u>SMOOTH</u>		<u>NOTES:</u>								
<u>CLEAR</u>		<u>WAVY</u>										
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<u>CLEAR</u>		<u>WAVY</u>										
<u>GRADUAL</u>		<u>IRREGULAR</u>										
<u>DIFFUSE</u>		<u>BROKEN</u>										

OWNER: Jeff Sauer  
PROJECT: Hog Facility

TEST PIT / BORING NUMBER: 27  
DATE: 3/02/2019  
ELEVATION: 980.7  
LOGGED BY: D. Mitte

SITE LOCATION: ADDRESS  
@ 12884 State Hwy 48 Grantsburg  
NORTHING 126014.8 EASTING 162649.5  
COUNTY / STATE: Burnett Cty WI

ANY KARST FEATURES WITHIN 1000 FEET: YES /  NO  
LANDSCAPE POSITION: Footslope  
LANDSCAPE GEOMETRY: Uniform

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
0 / 16"	ML	Silt loam	10YR 3/2	100	—	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		GRADE STRUCTURELESS WEAK MODERATE STRONG		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:				3" to 12" 0 < #200 70-80	
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
16" / 24"	ML	Silt loam	10YR 4/3 10YR 5/4	95	5	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
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BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:				3" to 12" 0 < #200 60-70	
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
24" / 16.4"	CL	loam	5YR 4/4	100	2.5Y 3.1	FEW COMMON MANY	FINE MINIMUM COARSE	FAINT DISTINCT PROMINENT	PED SURFACE IN-MATRIX ROOT HAIR	STRATIFIED LAMINATED FISSURED SLICKEN-SIDED BLOCKY PRISMATIC LENSED HOMOGENEOUS	ALLUVIUM SLOPE ALLUV. COLLUVIUM GLACIAL TILL GLAC. LAKE SED OUTWASH RESIDUUM LOESS BEDROCK
DILATANCY		PLASTICITY	MOISTURE	CONSISTENCY		STRUCTURE		TYPE	LOCATION	% BOULDERS	% GRAVEL
NONE SLOW RAPID		NONPLASTIC LOW MEDIUM HIGH	DRY SLIGH. MOIST MOIST VERY MOIST WET	VERY SOFT SOFT FIRM HARD VERY HARD		GRADE STRUCTURELESS WEAK MODERATE STRONG		PLATY GRANULAR CRUMB ANGULAR	SUBANGULAR COLUMNAR PRISMATIC SINGLE GRAIN	>12" 0	1/4" to 3" 0
BOUNDARY		DISTINCTIVENESS		TOPOGRAPHY		NOTES:				3" to 12" 0 < #200 50-60	
ABRUPT CLEAR GRADUAL DIFFUSE		SMOOTH WAVY IRREGULAR BROKEN									

OVERALL NOTES:  
This was frozen to 40 inches plus.  
Observed material as it was excavated. Material below the frozen material was slightly moist to moist by touch and visual inspection. No material was wet or saturated, no seeps observed.  
This Backhoe is very similar to SB 26

SAMPLES TAKEN: YES / <input checked="" type="checkbox"/> NO	WATER OBSERVED: YES / <input checked="" type="checkbox"/> NO	BEDROCK: YES / <input checked="" type="checkbox"/> NO
SAMPLE ID: <u>JS 27.1 12-16ft</u>	DEPTH: _____	DEPTH OF BEDROCK OR HOLE EXTENT: <u>16.4"</u>
SAMPLE ID: _____	DEPTH: _____	<u>No Bedrock</u>
SAMPLE ID: _____	DEPTH: _____	<u>El. 964.4</u>

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW	FINE	FAINT	PED SURFACE	STRATIFIED	ALLUVIUM
						COMMON	MINIMUM	DISTINCT	IN-MATRIX	LAMINATED	SLOPE ALLUV.
						MANY	COARSE	PROMINENT	ROOT HAIR	FISSURED	COLLUVIUM
										SLICKEN-SIDED	GLACIAL TILL
										BLOCKY	GLAC. LAKE SED
										PRISMATIC	OUTWASH
										LENSED	RESIDUUM
										HOMOGENEOUS	LOESS
											BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE	NONPLASTIC	DRY	VERY SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
SLOW	LOW	SLIGH. MOIST	SOFT			WEAK	FINE	GRANULAR	COLUMNAR		
RAPID	MEDIUM	MOIST	FIRM			MODERATE	MEDIUM	CRUMB	PRISMATIC		
	HIGH	VERY MOIST	HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
		WET	VERY HARD				VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
										3" to 12"	< #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW	FINE	FAINT	PED SURFACE	STRATIFIED	ALLUVIUM
						COMMON	MINIMUM	DISTINCT	IN-MATRIX	LAMINATED	SLOPE ALLUV.
						MANY	COARSE	PROMINENT	ROOT HAIR	FISSURED	COLLUVIUM
										SLICKEN-SIDED	GLACIAL TILL
										BLOCKY	GLAC. LAKE SED
										PRISMATIC	OUTWASH
										LENSED	RESIDUUM
										HOMOGENEOUS	LOESS
											BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE	NONPLASTIC	DRY	VERY SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
SLOW	LOW	SLIGH. MOIST	SOFT			WEAK	FINE	GRANULAR	COLUMNAR		
RAPID	MEDIUM	MOIST	FIRM			MODERATE	MEDIUM	CRUMB	PRISMATIC		
	HIGH	VERY MOIST	HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
		WET	VERY HARD				VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
										3" to 12"	< #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW	FINE	FAINT	PED SURFACE	STRATIFIED	ALLUVIUM
						COMMON	MINIMUM	DISTINCT	IN-MATRIX	LAMINATED	SLOPE ALLUV.
						MANY	COARSE	PROMINENT	ROOT HAIR	FISSURED	COLLUVIUM
										SLICKEN-SIDED	GLACIAL TILL
										BLOCKY	GLAC. LAKE SED
										PRISMATIC	OUTWASH
										LENSED	RESIDUUM
										HOMOGENEOUS	LOESS
											BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE	NONPLASTIC	DRY	VERY SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
SLOW	LOW	SLIGH. MOIST	SOFT			WEAK	FINE	GRANULAR	COLUMNAR		
RAPID	MEDIUM	MOIST	FIRM			MODERATE	MEDIUM	CRUMB	PRISMATIC		
	HIGH	VERY MOIST	HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
		WET	VERY HARD				VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
										3" to 12"	< #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW	FINE	FAINT	PED SURFACE	STRATIFIED	ALLUVIUM
						COMMON	MINIMUM	DISTINCT	IN-MATRIX	LAMINATED	SLOPE ALLUV.
						MANY	COARSE	PROMINENT	ROOT HAIR	FISSURED	COLLUVIUM
										SLICKEN-SIDED	GLACIAL TILL
										BLOCKY	GLAC. LAKE SED
										PRISMATIC	OUTWASH
										LENSED	RESIDUUM
										HOMOGENEOUS	LOESS
											BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE	NONPLASTIC	DRY	VERY SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
SLOW	LOW	SLIGH. MOIST	SOFT			WEAK	FINE	GRANULAR	COLUMNAR		
RAPID	MEDIUM	MOIST	FIRM			MODERATE	MEDIUM	CRUMB	PRISMATIC		
	HIGH	VERY MOIST	HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
		WET	VERY HARD				VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
										3" to 12"	< #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

DEPTH	USCS	SOIL TYPE &/OR USDA	MUNCELL COLORS	%	MOTTLES COLORS	ABUNDANCE	SIZE	TYPE	LOCATION	STRUCTURE	GEOLOGY
						FEW	FINE	FAINT	PED SURFACE	STRATIFIED	ALLUVIUM
						COMMON	MINIMUM	DISTINCT	IN-MATRIX	LAMINATED	SLOPE ALLUV.
						MANY	COARSE	PROMINENT	ROOT HAIR	FISSURED	COLLUVIUM
										SLICKEN-SIDED	GLACIAL TILL
										BLOCKY	GLAC. LAKE SED
										PRISMATIC	OUTWASH
										LENSED	RESIDUUM
										HOMOGENEOUS	LOESS
											BEDROCK
<b>DILATANCY</b>	<b>PLASTICITY</b>	<b>MOISTURE</b>	<b>CONSISTENCY</b>			<b>GRADE</b>	<b>SIZE</b>	<b>TYPE</b>	<b>LOCATION</b>	<b>% BOULDERS</b>	<b>% GRAVEL</b>
NONE	NONPLASTIC	DRY	VERY SOFT			STRUCTURELESS	VERY FINE	PLATY	SUBANGULAR	>12"	1/4" to 3"
SLOW	LOW	SLIGH. MOIST	SOFT			WEAK	FINE	GRANULAR	COLUMNAR		
RAPID	MEDIUM	MOIST	FIRM			MODERATE	MEDIUM	CRUMB	PRISMATIC		
	HIGH	VERY MOIST	HARD			STRONG	COARSE	ANGULAR	SINGLE GRAIN		
		WET	VERY HARD				VERY COARSE			<b>% COBBLE</b>	<b>% FINES</b>
										3" to 12"	< #200
<b>BOUNDARY</b>											
<b>DISTINCTIVENESS TOPOGRAPHY NOTES:</b>											
ABRUPT	SMOOTH										
CLEAR	WAVY										
GRADUAL	IRREGULAR										
DIFFUSE	BROKEN										

**TABLE**  
**SUMMARY OF LABORATORY TEST RESULTS**  
**FOR**  
**MATERIAL CHECK (SOURCE)**  
  
**OAKRIDGE ENGINEERING**  
**SUIDAE HEALTH (SUIDA-01-19)**  
  
**JANUARY 2020**

ASTM No.		D6913	D4318	D2216			D2487					
Date Sampled	Sample Number	Sample Location	Grain Size Analysis		Atterberg Limits			Sampled Water Content (%)	Proctor Density		Coefficient Permeability (cm/sec)	U.S.C.S.
			%Fines <#200	%Clay <.005	Liquid Limit	Plastic Limit	Plasticity Index		Max. Dry Density (pcf)	Optimum Water (%)		
3/21/19	TP-7 S-1	Test Pit 7	55.2				NP	3.9				ML
3/21/19	TP-8 S-2	Test Pit 8	45.6		26.9	17.5	9.4	14.6				SC
3/21/19	TP-9 S-1	Test Pit 9	47.4		26.5	16.9	9.6	1.4				SC
3/22/19	TP-13 S-1	Test Pit 13	45.3		25.1	15.8	9.3	1.0				SC
3/21/19	TP-15 S-2	Test Pit 15	43.1		23.8	15.1	8.7	0.8				SC
3/22/19	TP-16 S-2	Test Pit 16	44.0		26.7	15.9	10.8	1.2				SC
3/22/19	TP-17 S-1	Test Pit 17	44.6		29.8	16.1	13.7	1.3				SC
3/22/19	TP-18 S-1	Test Pit 18	46.5		32.0	16.2	15.8	1.3				SC
3/22/19	TP-21 S-1	Test Pit 21	40.2		24.9	16.9	8.0	0.9				SC
3/22/19	TP-23 S-1	Test Pit 23	63.9		30.4	16.4	14.0	0.8				CL
3/22/19	TP-24 S-1	Test Pit 24	44.6		28.3	20.8	7.5	1.2				SC
3/22/19	TP-27 S-1	Test Pit 27	54.0		27.4	14.2	13.2	1.1				CL

**TABLE**  
**SUMMARY OF LABORATORY TEST RESULTS**  
**FOR**  
**MATERIAL CHECK (SOURCE)**  
  
**OAKRIDGE ENGINEERING**  
**SUIDAE HEALTH (SUIDA-01-19)**  
  
**JANUARY 2020**

ASTM No.		D6913	D4318	D2216	D2487						
Date Sampled	Sample Number	Sample Location	Grain Size Analysis		Atterberg Limits			Sampled Water Content (%)	Proctor Density		Coefficient Permeability (cm/sec) U.S.C.S.
			%Fines <#200	%Clay <.005	Liquid Limit	Plastic Limit	Plasticity Index		Max. Dry Density (pcf)	Optimum Water (%)	
<b>Minimum:</b>			40.2		23.8	14.2	7.5	0.8			
<b>Maximum:</b>			63.9		32.0	20.8	15.8	14.6			
<b>Average:</b>			47.9		26.9	17.5	9.4	9.3			
<b>Project Requirements:</b>											

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

### GENERAL DATA:

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 7
Sample No:	TP-7 S-1
Depth of Sample:	12'-19'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/21/19

### LABORATORY DATA:

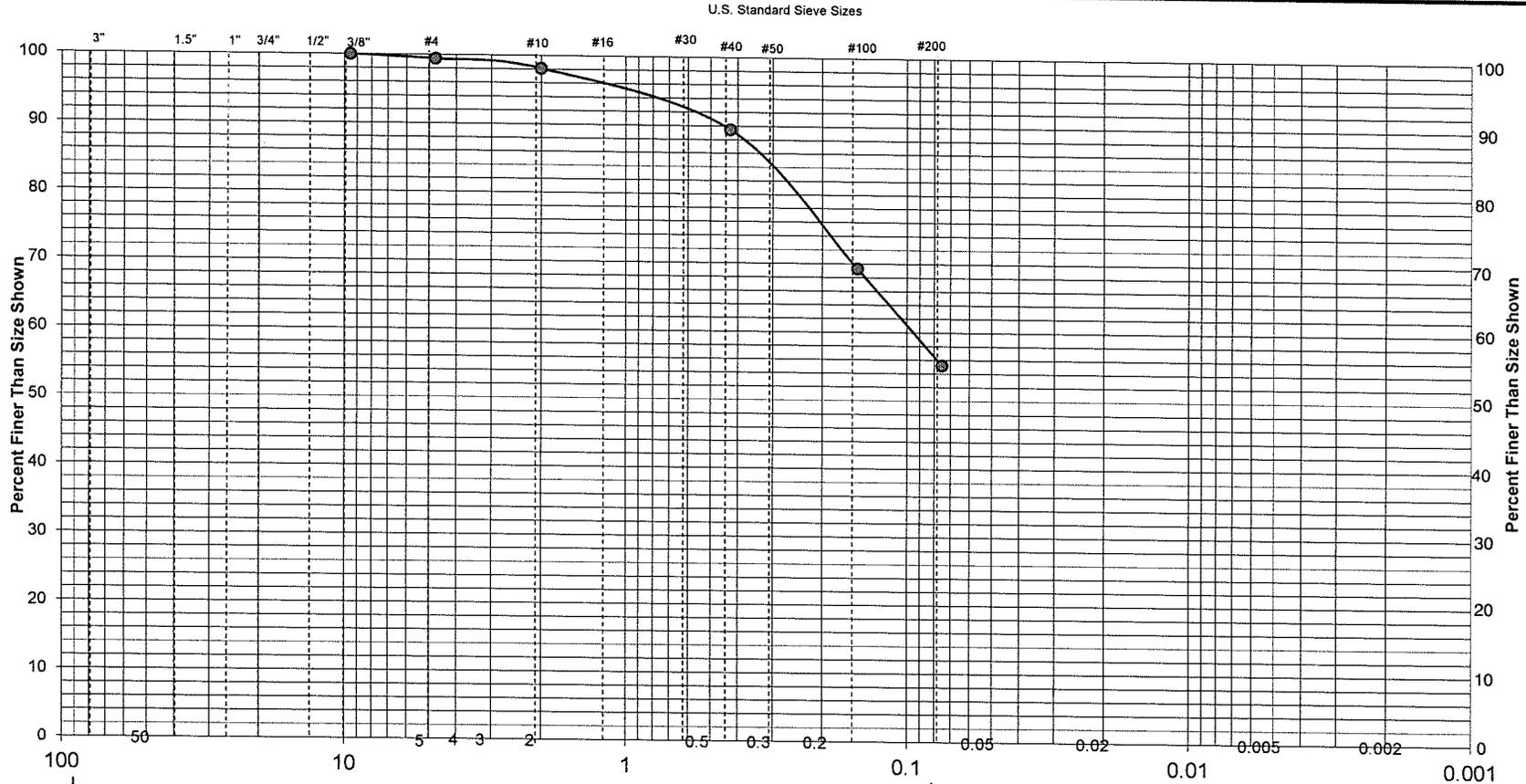
Date Tested:	December 27-31 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	578.8

Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"					
1/2"					
3/8"	0.0	0.0	100.0		
#4	3.5	0.6	99.4		
#10	7.8	1.3	98.1		
#40	49.7	8.6	89.5		
#100	116.8	20.2	69.3		
#200	81.4	14.1	55.2		

REVIEWED BY: *Robert A. Brown*  
DATE REVIEWED: 1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	0.6%	1.3%	8.6%	34.3%	55.2%

Soil Classification: SANDY SILT, light yellowish brown (ML)

Location Sampled: Test Pit 7

Elevation or Depth: 12'-19'

Date Sampled: 3/21/19

Sample Number: TP-7 S-1

Sampled Moisture Content (%): 3.9

Report No.: TP7 S-1

Sample Source:

**CQM, INC.**

Atterberg Limits:

LL=

PL=

PI= NP

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=

Cu=

Checked by:

*Robert J. Peeters*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

### GENERAL DATA:

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 8
Sample No:	TP-8 S-2
Depth of Sample:	12'-13'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/21/19

### LABORATORY DATA:

Date Tested:	December 27-30, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	543.7

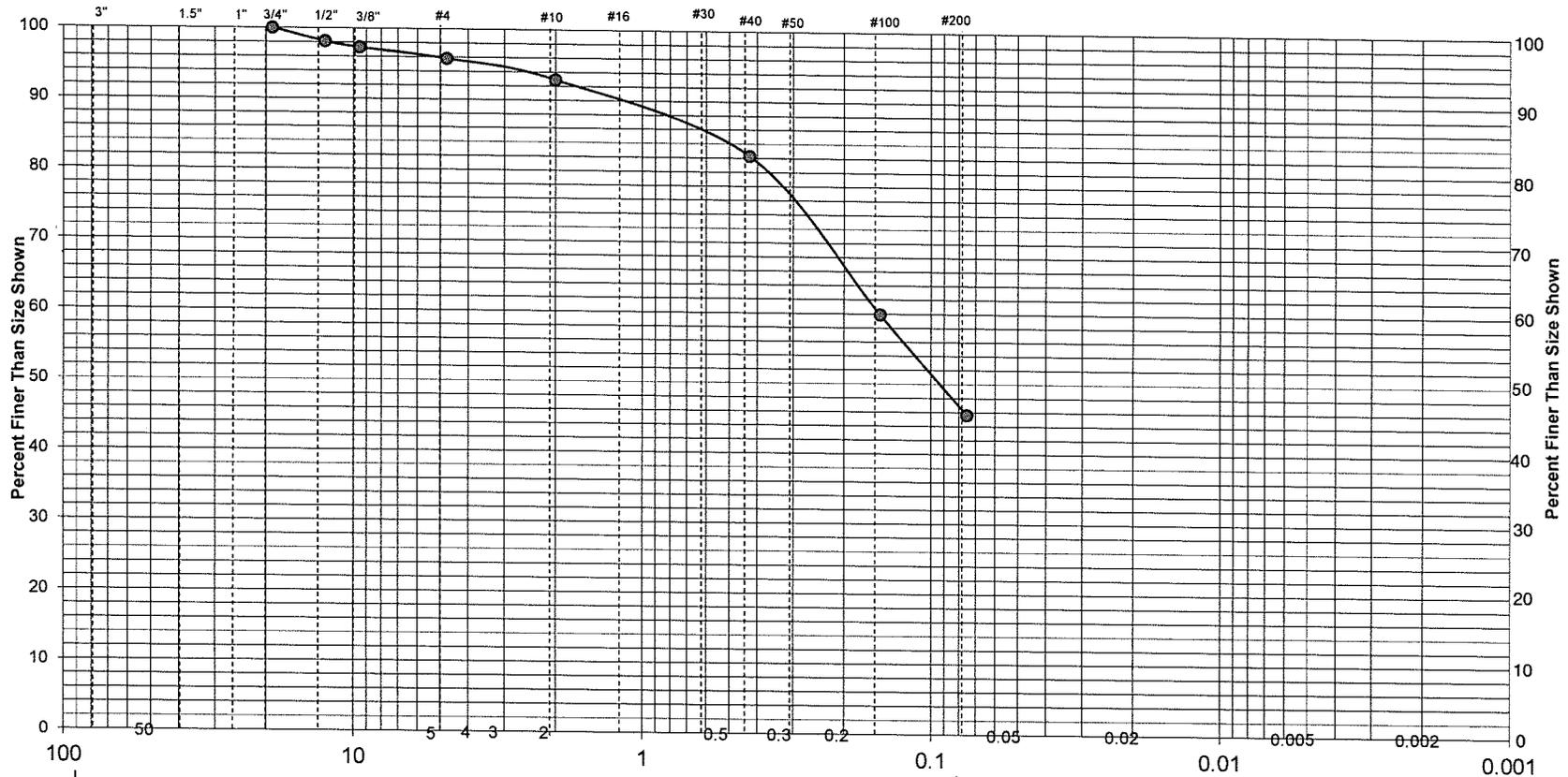
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	10.2	1.9	98.1		
3/8"	4.2	0.8	97.3		
#4	8.0	1.5	95.8		
#10	15.5	2.9	92.9		
#40	57.9	10.6	82.3		
#100	121.6	22.4	59.9		
#200	78.0	14.3	45.6		

REVIEWED BY:	<i>Robert A. Rouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	4.2%	2.9%	10.6%	36.7%	45.6%

Soil Classification: CLAYEY SAND, fine to medium grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 8

Elevation or Depth: 12'-13'

Date Sampled: 3/21/19

Sample Number: TP-8 S-2

Sampled Moisture Content (%): 14.6

Report No.: TP8 S-2

Sample Source:

**CQM, INC.**

Atterberg Limits: LL= 26.9      PL= 17.5      PI= 9.4

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=      Cu=

Checked by: *Robert R. Arnes*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 9
Sample No:	TP-9 S-1
Depth of Sample:	8'-10'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/21/19

**LABORATORY DATA:**

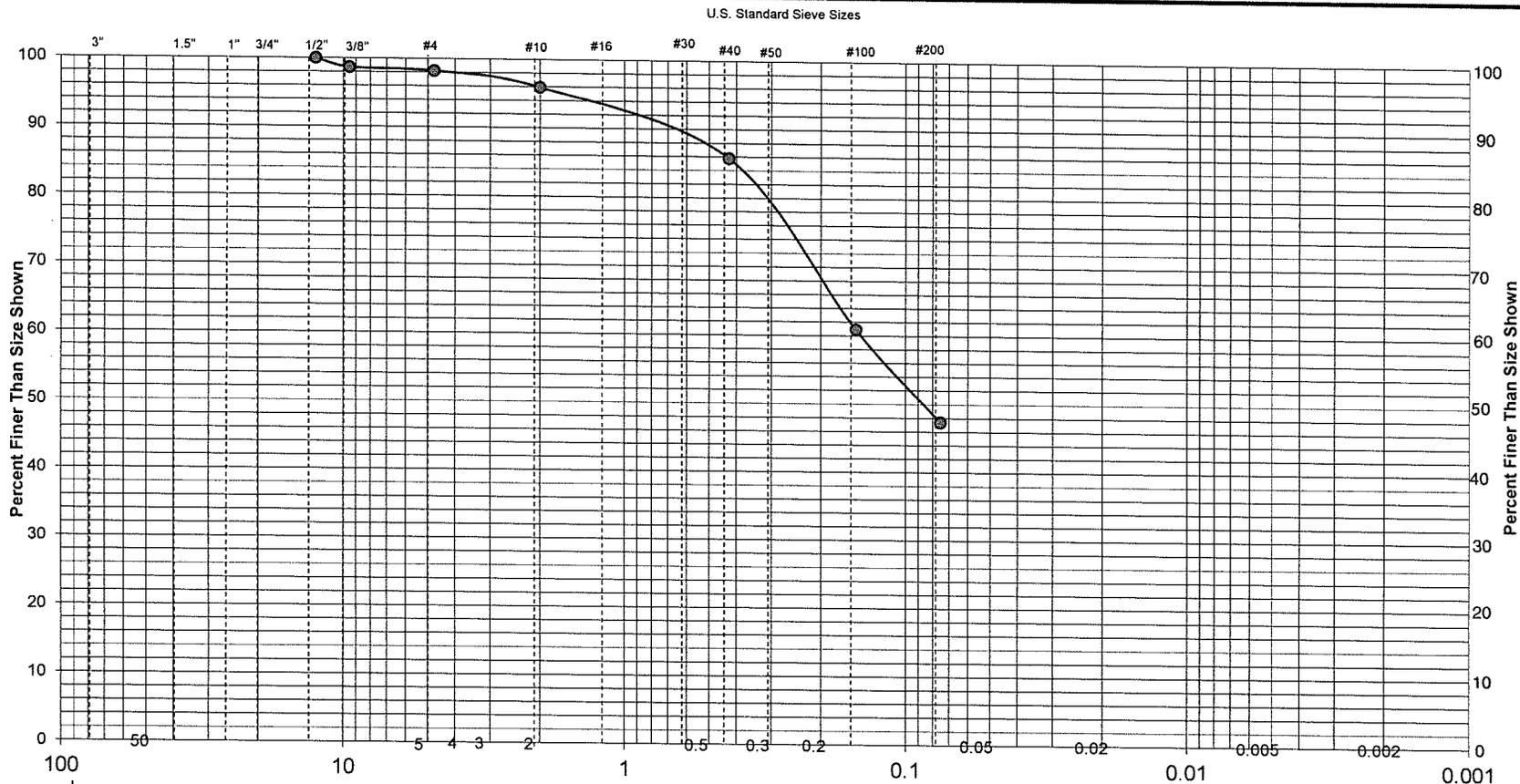
Date Tested:	December 27-31, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	601.6

Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"					
1/2"	0.0	0.0	100.0		
3/8"	8.0	1.3	98.7		
#4	3.3	0.5	98.2		
#10	13.9	2.3	95.9		
#40	60.6	10.1	85.8		
#100	150.0	24.9	60.9		
#200	81.5	13.5	47.4		

REVIEWED BY:	<i>Robert R. Brown</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE



Gravel		Sand				
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay	
	1.8%	2.3%	10.1%	38.4%	47.4%	

Soil Classification: CLAYEY SAND, fine to medium grained, light yellowish brown (SC)

Location Sampled: Test Pit 9			Elevation or Depth: 8'-10'		Date Sampled: 3/21/19	
Sample Number: TP-9 S-1			Sampled Moisture Content (%): 1.4		Report No.: TP9 S-1	
Sample Source:			<b>CQM, INC.</b>			
Atterberg Limits:	LL= 26.5	PL= 16.9	PI= 9.6	Client:	Oakridge Engineering	
Munsell Color Code: 10YR 6/4			Project:	Suidae Health Suida-01-19		Page: 2
Date Received: 12/26/19			Prepared by:	Robert J. Peeters		Date: 1/15/20
Coefficients: Cc=			Cu=	Checked by:	<i>Robert R. Peeters</i>	
					Date: 1/16/20	

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

### GENERAL DATA:

Client:	Oakridge Engineering
Project:	Suida Health Suida-01-19
Location Sampled:	Test Pit 13
Sample No:	TP-13 S-1
Depth of Sample:	15'-16'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

### LABORATORY DATA:

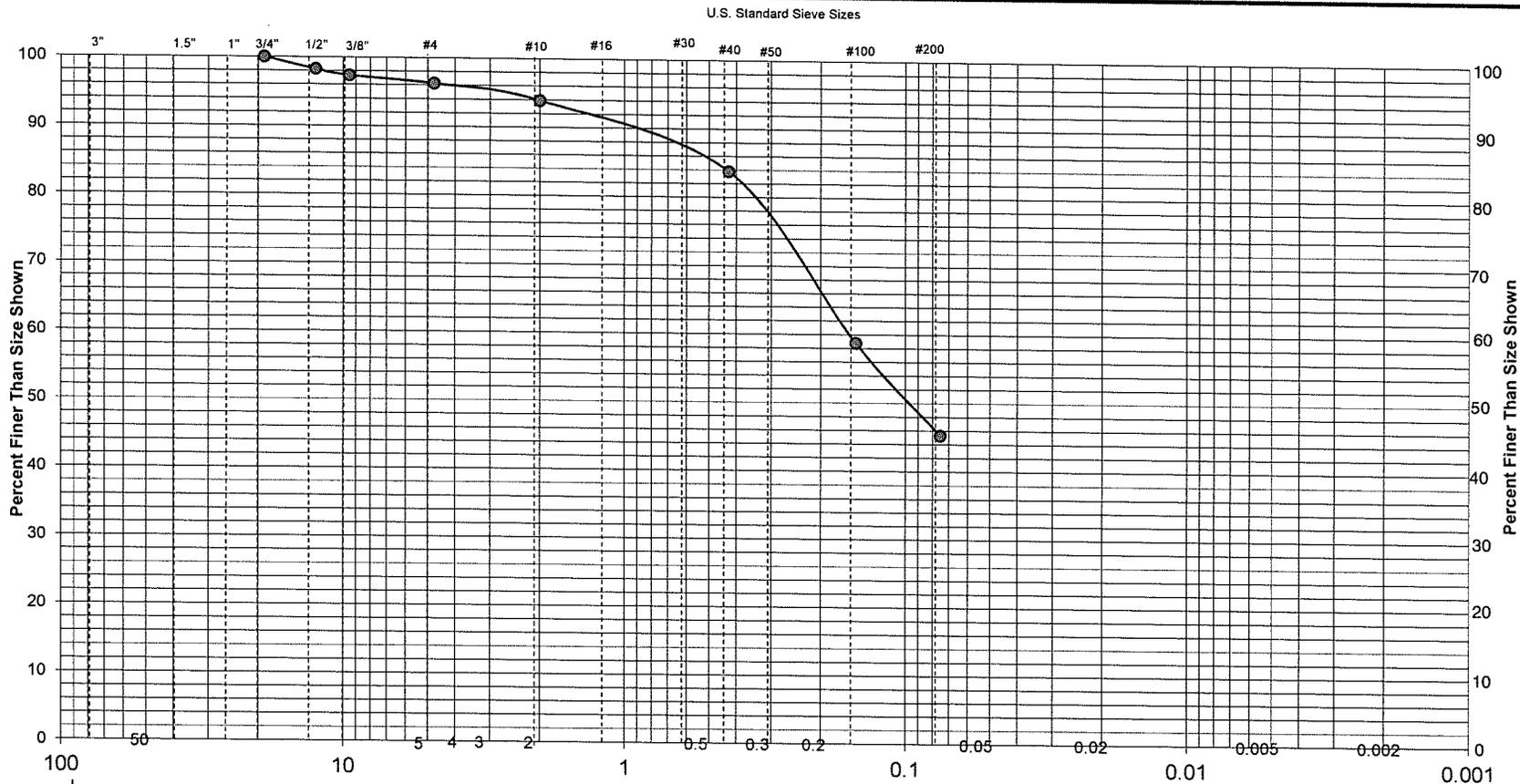
Date Tested:	December 27-31, 2019	
Test Performed By:	AES	
24 Hrs. Turn Around:	NO	
Washed Gradation:	YES	
Dry Weight of Soil (gms):	668.4	

Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	11.8	1.8	98.2		
3/8"	6.0	0.9	97.3		
#4	7.4	1.1	96.2		
#10	15.7	2.3	93.9		
#40	67.8	10.1	83.8		
#100	166.8	25.0	58.8		
#200	90.5	13.5	45.3		

REVIEWED BY:	<i>Robert R. Pomeroy</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	3.8%	2.3%	10.1%	38.5%	45.3%

Soil Classification: CLAYEY SAND, fine to medium grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 13

Elevation or Depth: 15'-16'

Date Sampled: 3/22/19

Sample Number: TP-13 S-1

Sampled Moisture Content (%): 1.0

Report No.: TP13 S1

Sample Source:

**CQM, INC.**

Atterberg Limits:

LL= 25.1

PL= 15.8

PI= 9.3

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=

Cu=

Checked by:

*Robert J. Peeters*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 15
Sample No:	TP-15 S-2
Depth of Sample:	13'-15'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/21/19

**LABORATORY DATA:**

Date Tested:	December 27-31, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	694.3

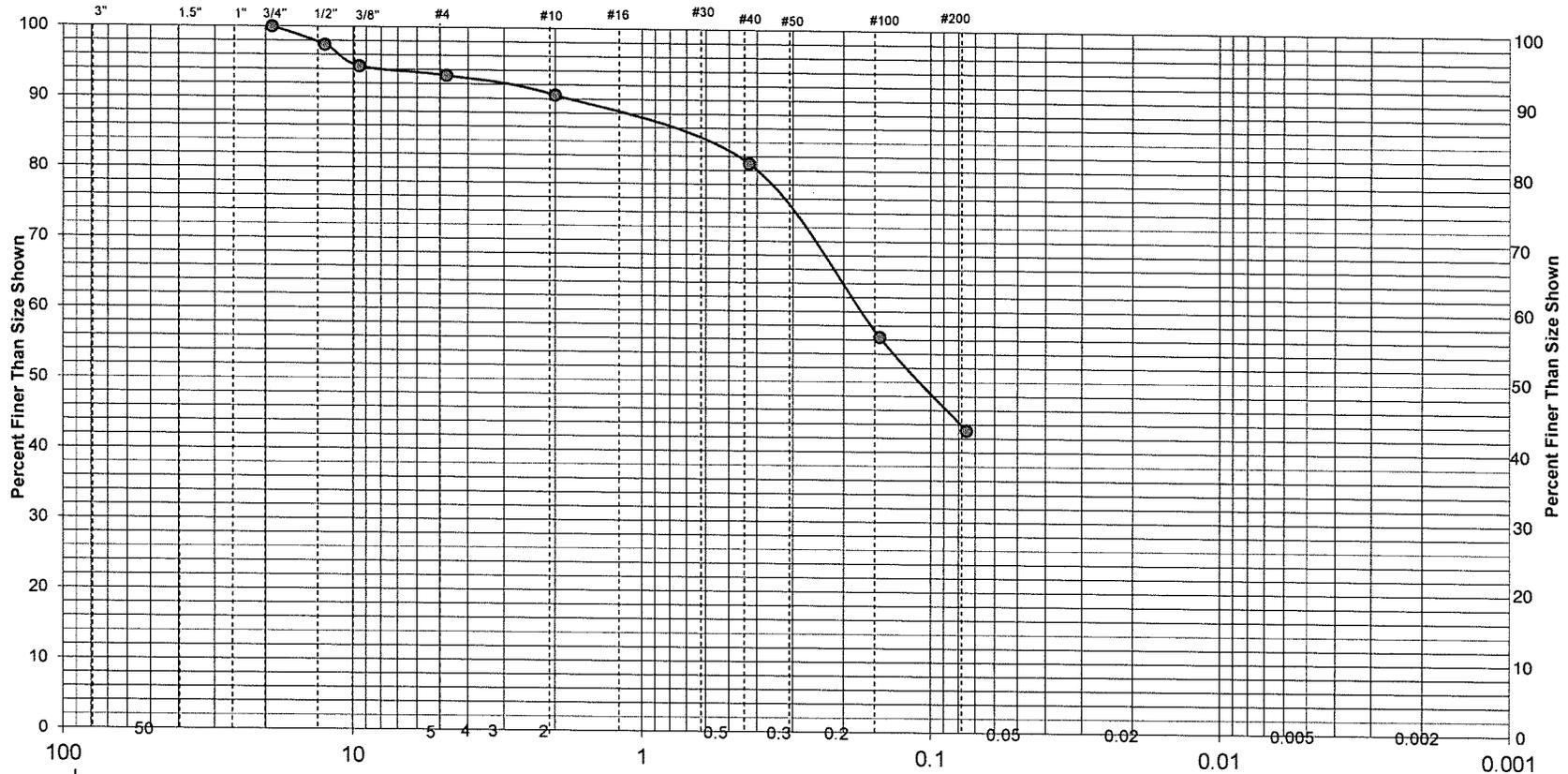
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	17.8	2.6	97.4		
3/8"	21.0	3.0	94.4		
#4	8.8	1.3	93.1		
#10	18.2	2.6	90.5		
#40	66.2	9.5	81.0		
#100	170.8	24.6	56.4		
#200	92.0	13.3	43.1		

REVIEWED BY:	<i>Robert R. Bouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	6.9%	2.6%	9.5%	37.9%	43.1%

Soil Classification: CLAYEY SAND, fine grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 15			Elevation or Depth: 13'-15'		Date Sampled: 3/21/19	
Sample Number: TP-15 S-2			Sampled Moisture Content (%): 0.8		Report No.: TP15 S-2	
Sample Source:			<b>CQM, INC.</b>			
Atterberg Limits:		LL= 23.8	PL= 15.1	PI= 8.7	Client: Oakridge Engineering	
Munsell Color Code: 10YR 6/4				Project: Suidae Health Suida-01-19		Page: 2
Date Received: 12/26/19			Prepared by: Robert J. Peeters		Date: 1/15/20	
Coefficients: Cc=		Cu=	Checked by: Robert R. Rouse		Date: 1/16/20	

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 16
Sample No:	TP-16 S-2
Depth of Sample:	11'-14'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

Date Tested:	December 27-31, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	528.7

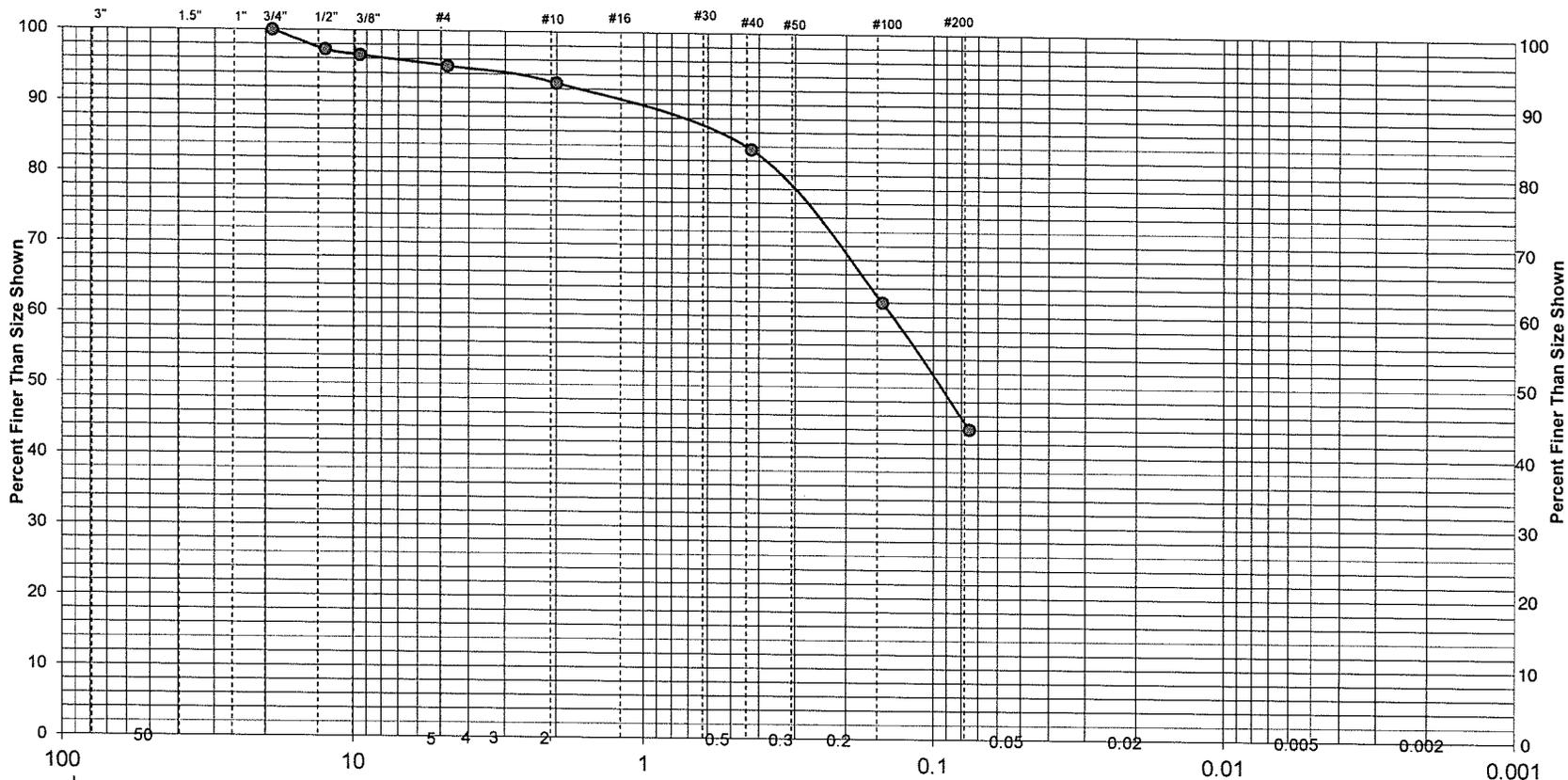
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	14.5	2.7	97.3		
3/8"	4.0	0.8	96.5		
#4	7.8	1.5	95.0		
#10	12.1	2.3	92.7		
#40	48.7	9.2	83.5		
#100	114.4	21.6	61.9		
#200	94.7	17.9	44.0		

REVIEWED BY:	<i>Robert R. Rouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	5.0%	2.3%	9.2%	39.5%	44.0%

Soil Classification: CLAYEY SAND, fine grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 16

Elevation or Depth: 11'-14'

Date Sampled: 3/22/19

Sample Number: TP-16 S-2

Sampled Moisture Content (%): 1.2

Report No.: TP16 S-2

Sample Source:

**CQM, INC.**

Atterberg Limits:

LL= 26.7

PL= 15.9

PI= 10.8

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=

Cu=

Checked by:

*Robert R. Rouse*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 17
Sample No:	TP-17 S-1
Depth of Sample:	8'-10'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

Date Tested:	December 27-31, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	572.5

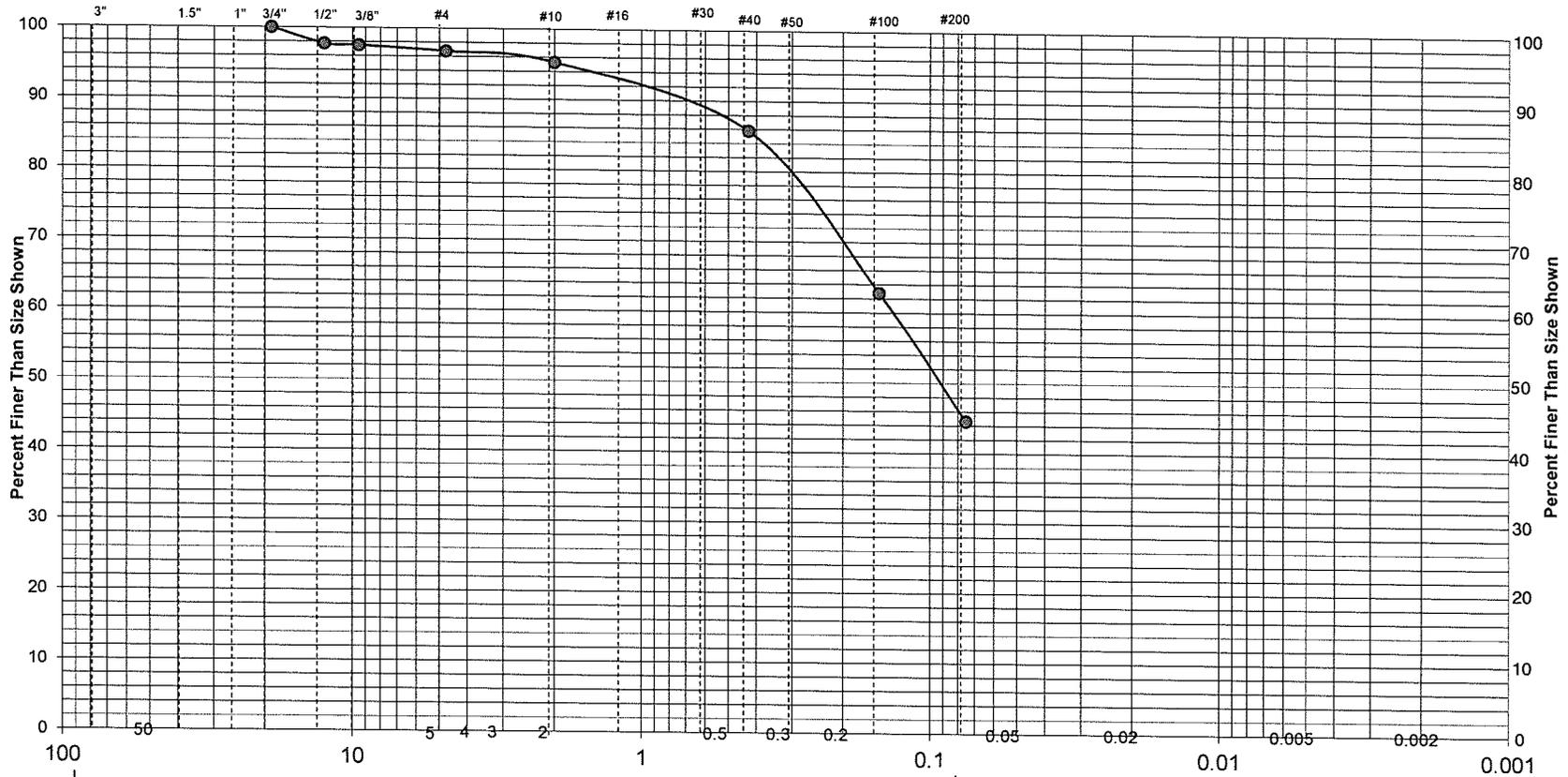
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	13.1	2.3	97.7		
3/8"	1.2	0.2	97.5		
#4	4.4	0.8	96.7		
#10	8.3	1.4	95.3		
#40	54.4	9.5	85.8		
#100	131.5	23.0	62.8		
#200	104.3	18.2	44.6		

REVIEWED BY:	<i>Robert R. Power</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	3.3%	1.4%	9.5%	41.2%	44.6%

Soil Classification: CLAYEY SAND, fine grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 17			Elevation or Depth: 8'-10'		Date Sampled: 3/22/19	
Sample Number: TP-17 S-1			Sampled Moisture Content (%): 1.3		Report No.: TP17 S1	
Sample Source:			<b>CQM, INC.</b>			
Atterberg Limits:	LL= 29.8	PL= 16.1	PI= 13.7	Client:	Oakridge Engineering	
Munsell Color Code: 10YR 6/4			Project:	Suidae Health Suida-01-19		Page: 2
Date Received: 12/26/19			Prepared by:	Robert J. Peeters		Date: 1/15/20
Coefficients: Cc=			Cu=	Checked by:	<i>Robert R. Peeters</i>	
					Date: 1/16/20	

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 18
Sample No:	TP-18 S-1
Depth of Sample:	6'-7'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

Date Tested:	December 27-31, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	637.5

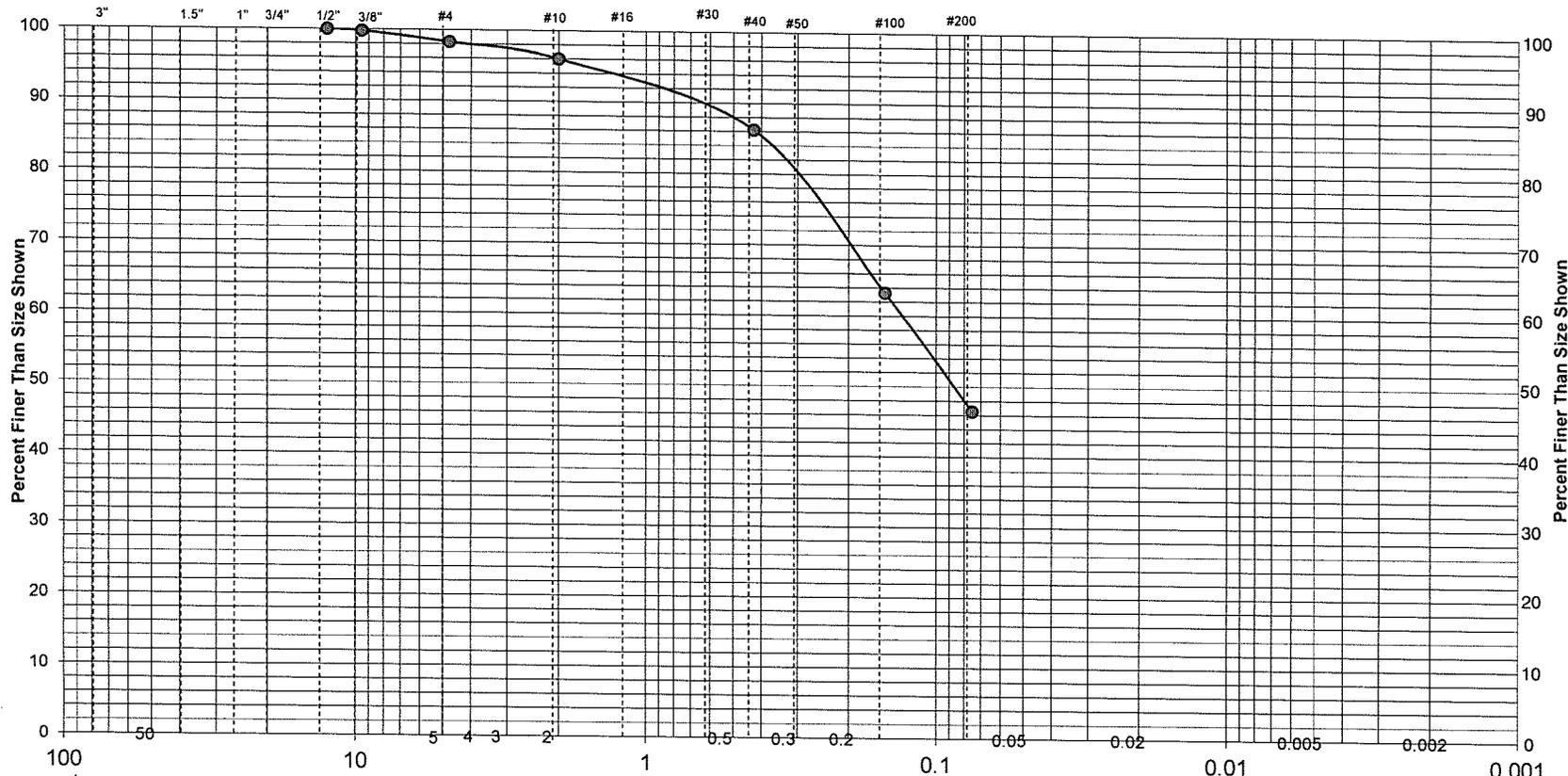
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"					
1/2"	0.0	0.0	100.0		
3/8"	1.5	0.2	99.8		
#4	9.5	1.5	98.3		
#10	14.6	2.3	96.0		
#40	62.2	9.8	86.2		
#100	146.2	22.9	63.3		
#200	106.8	16.8	46.5		

REVIEWED BY:	<i>Robert R. Rouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	1.7%	2.3%	9.8%	39.7%	46.5%

Soil Classification: CLAYEY SAND, fine grained, light yellowish brown (SC)

Location Sampled: Test Pit 18			Elevation or Depth: 6'-7'		Date Sampled: 3/22/19	
Sample Number: TP-18 S-1			Sampled Moisture Content (%): 1.3		Report No.: TP18 S-1	
Sample Source:			<b>CQM, INC.</b>			
Atterberg Limits:	LL= 32.0	PL= 16.2	PI= 15.8	Client: Oakridge Engineering		
Munsell Color Code: 10YR 6/4			Project: Suidae Health Suida-01-19		Page: 2	
Date Received: 12/26/19			Prepared by: Robert J. Peeters		Date: 1/15/20	
Coefficients: Cc=			Cu=	Checked by: <i>Robert A. Roosa</i>		Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 21
Sample No:	TP-21 S-1
Depth of Sample:	15'-18'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

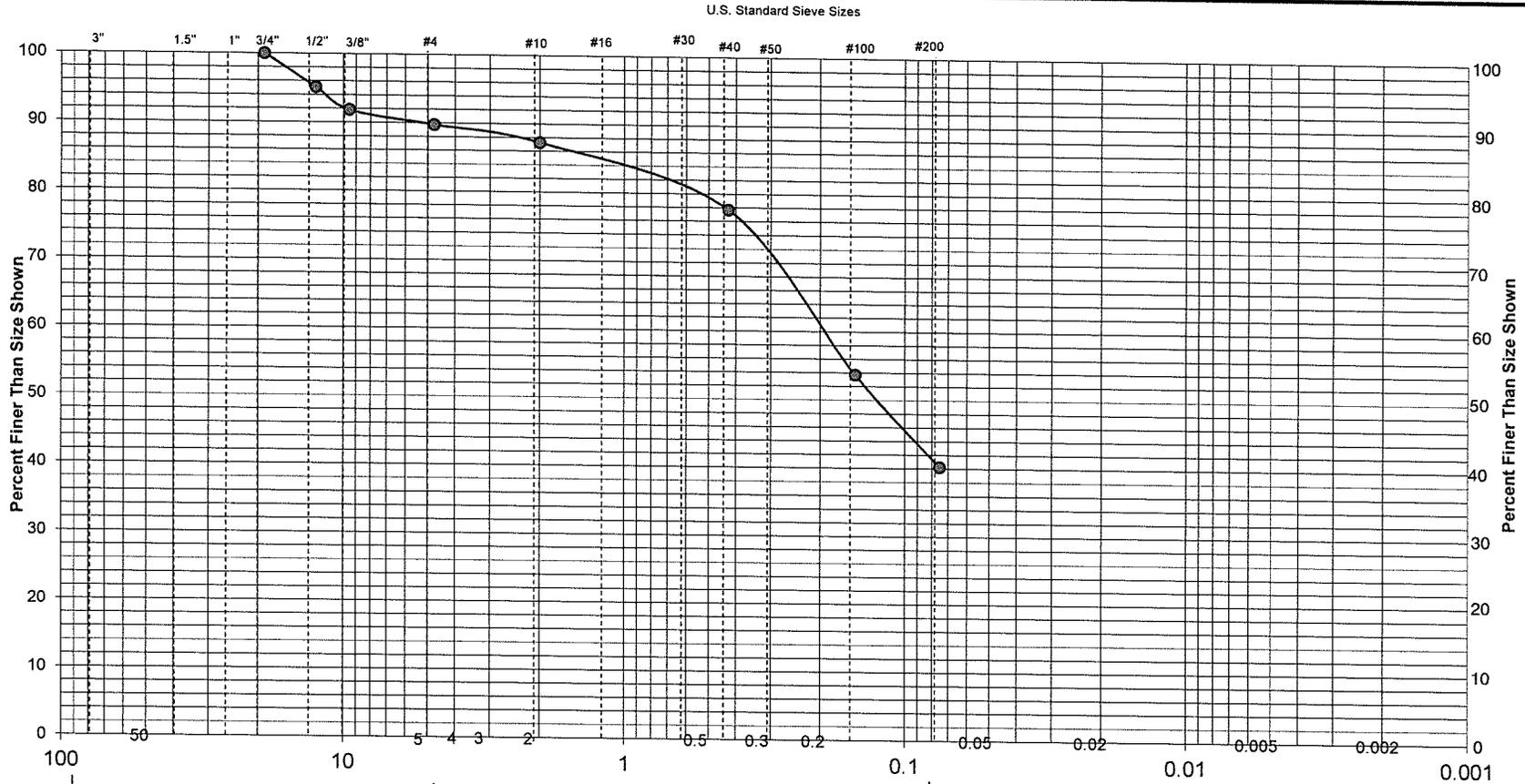
Date Tested:	December 27-31, 2019	
Test Performed By:	AES	
24 Hrs. Turn Around:	NO	
Washed Gradation:	YES	
Dry Weight of Soil (gms):	632.8	

Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	31.2	4.9	95.1		
3/8"	20.8	3.3	91.8		
#4	13.0	2.1	89.7		
#10	15.5	2.4	87.3		
#40	60.7	9.6	77.7		
#100	151.7	24.0	53.7		
#200	85.4	13.5	40.2		

REVIEWED BY:	<i>Robert A. Pouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	10.3%	2.4%	9.6%	37.5%	40.2%

Soil Classification: CLAYEY SAND, fine grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 21

Elevation or Depth: 15'-18'

Date Sampled: 3/22/19

Sample Number: TP-21 S-1

Sampled Moisture Content (%): 0.9

Report No.: TP21 S-1

Sample Source:

**CQM, INC.**

Atterberg Limits:

LL= 24.9

PL= 16.9

PI= 8.0

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=      Cu=

Checked by:

*Robert A. Rose*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 23
Sample No:	TP-23 S-1
Depth of Sample:	8'-10'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

Date Tested:	December 27-30, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	920.6

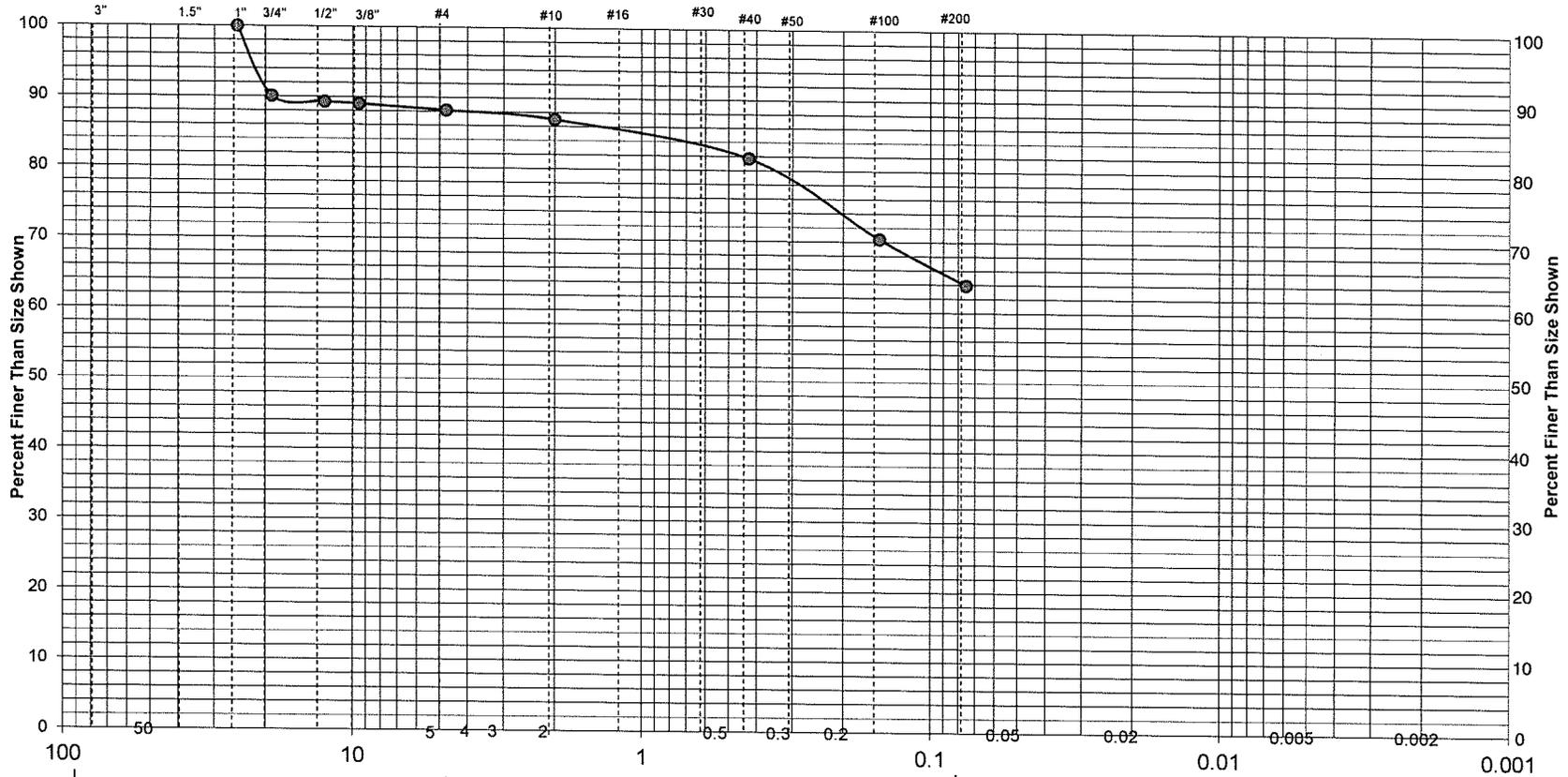
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"	0.0	0.0	100.0		
3/4"	91.9	10.0	90.0		
1/2"	6.8	0.7	89.3		
3/8"	3.2	0.3	89.0		
#4	7.1	0.8	88.2		
#10	11.2	1.2	87.0		
#40	49.0	5.3	81.7		
#100	104.2	11.3	70.4		
#200	59.7	6.5	63.9		

REVIEWED BY:	<i>Robert R. Rouse</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
10.0%	1.8%	1.2%	5.3%	17.8%	63.9%

Soil Classification: SANDY LEAN CLAY, a little gravel, light yellowish brown (CL)

Location Sampled: Test Pit 23

Elevation or Depth: 8'-10'

Date Sampled: 3/22/19

Sample Number: TP-23 S-1

Sampled Moisture Content (%): 0.8

Report No.: TP23 S-1

Sample Source:

**CQM, INC.**

Atterberg Limits:

LL= 30.4

PL= 16.4

PI= 14.0

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=

Cu=

Checked by:

*Robert R. Peeters*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 24
Sample No:	TP-24 S-1
Depth of Sample:	15'-16'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

Date Tested:	December 27-30, 2019
Test Performed By:	AES
24 Hrs. Turn Around:	NO
Washed Gradation:	YES
Dry Weight of Soil (gms):	640.2

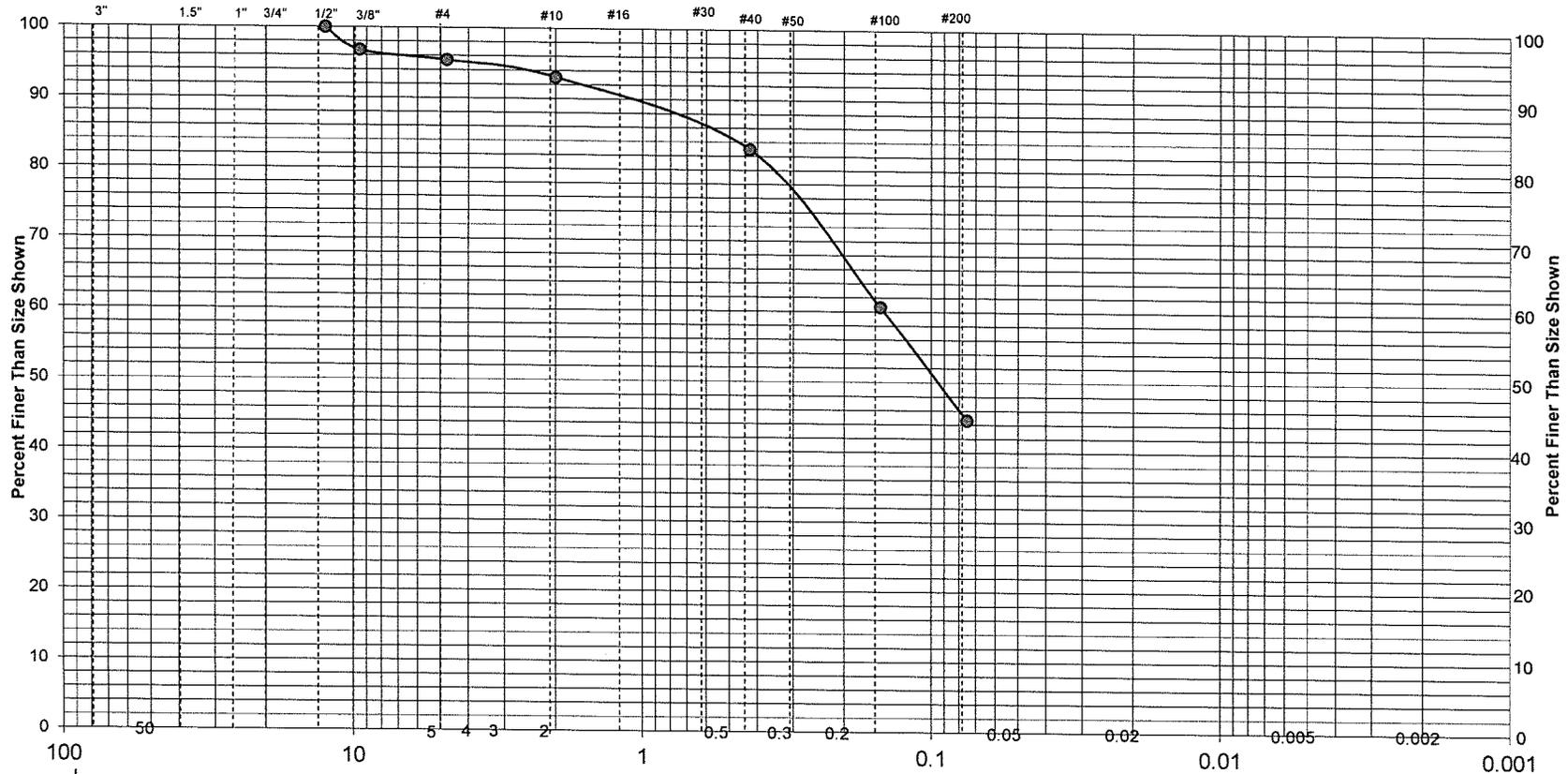
Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"					
1/2"	0.0	0.0	100.0		
3/8"	21.0	3.3	96.7		
#4	8.6	1.3	95.4		
#10	15.1	2.4	93.0		
#40	64.3	10.0	83.0		
#100	142.9	22.3	60.7		
#200	103.3	16.1	44.6		

REVIEWED BY:	<i>Robert A. Deane</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE

U.S. Standard Sieve Sizes



Gravel		Sand				
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay	
	4.6%	2.4%	10.0%	38.4%	44.6%	

Soil Classification: CLAYEY SAND, fine to medium grained, a little gravel, light yellowish brown (SC)

Location Sampled: Test Pit 24

Elevation or Depth: 15'-16'

Date Sampled: 3/22/19

Sample Number: TP-24 S-1

Sampled Moisture Content (%): 1.2

Report No.: TP24 S-1

Sample Source:

**CQM, INC.**

Atterberg Limits: LL= 28.3      PL= 20.8      PI= 7.5

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

Coefficients: Cc=

Cu=

Checked by: *Robert R. Peeters*

Date: 1/16/20

# CQM, INC.

## SIEVE ANALYSIS OF COARSE TO FINE AGGREGATES (ASTM D6913)

**GENERAL DATA:**

Client:	Oakridge Engineering
Project:	Suidae Health Suida-01-19
Location Sampled:	Test Pit 27
Sample No:	TP-27 S-1
Depth of Sample:	12'-16'
Date Received:	12/26/19
Sample Designated For:	Soil Classification
Source of Sample:	
Munsell Color Code:	10YR 6/4
Date Sampled:	3/22/19

**LABORATORY DATA:**

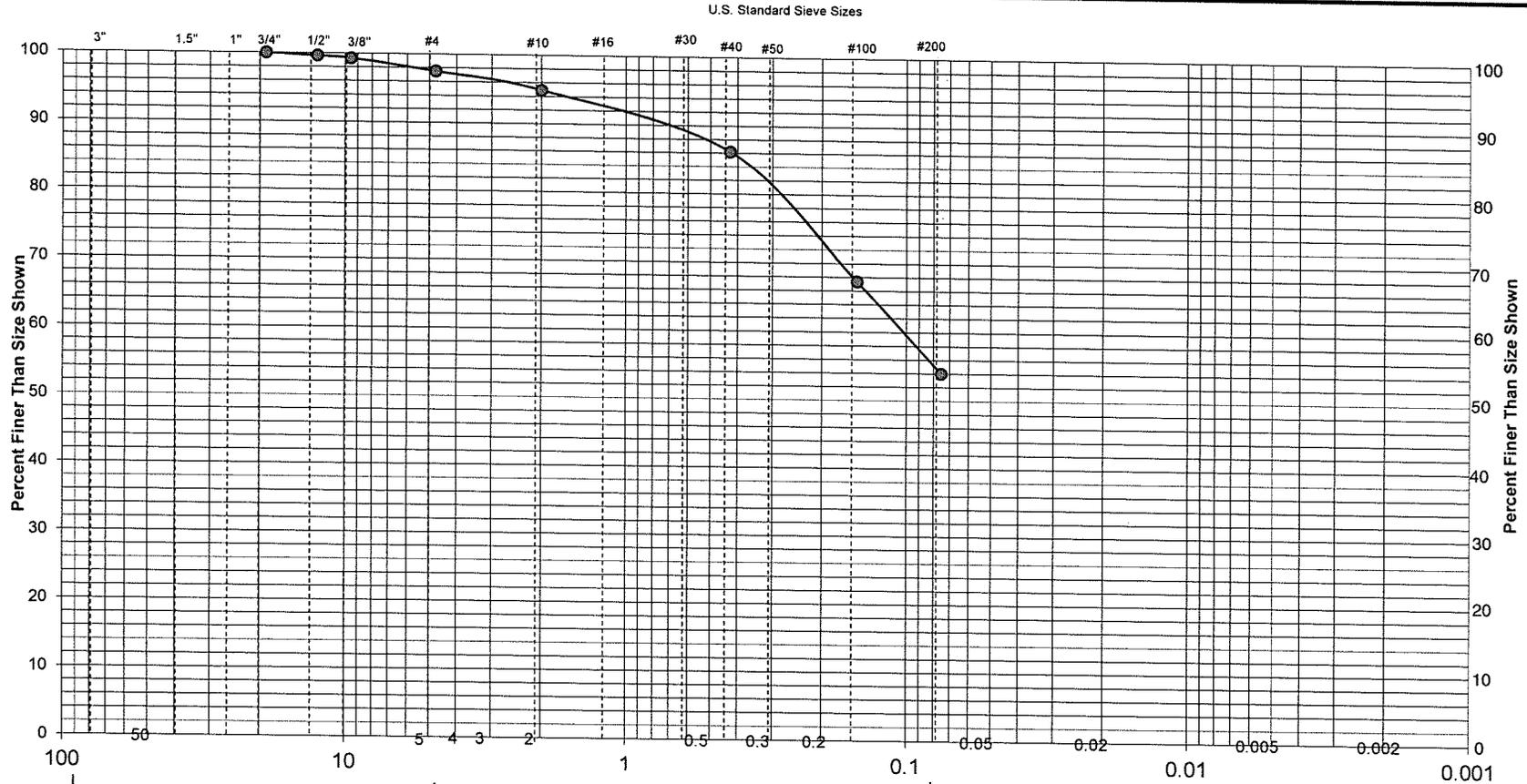
Date Tested:	December 27-31, 2019	
Test Performed By:	AES	
24 Hrs. Turn Around:	NO	
Washed Gradation:	YES	
Dry Weight of Soil (gms):	708.3	

Sieve Size	Weight Retained	% Retained	% Passing	Project Specification % Passing by Weight	Source of Specification
3"					
1 1/2"					
1"					
3/4"	0.0	0.0	100.0		
1/2"	2.9	0.4	99.6		
3/8"	2.2	0.3	99.3		
#4	12.7	1.8	97.5		
#10	18.3	2.6	94.9		
#40	61.6	8.7	86.2		
#100	133.4	18.8	67.4		
#200	94.6	13.4	54.0		

REVIEWED BY:	<i>Robert R. Poore</i>
DATE REVIEWED:	1/16/20

Remarks:

# GRAIN SIZE DISTRIBUTION CURVE



Gravel		Sand			
Coarse	Fine	Coarse	Medium	Fine	Silt - Clay
	2.5%	2.6%	8.7%	32.2%	54.0%

Soil Classification: SANDY LEAN CLAY, light yellowish brown (CL)

Location Sampled: Test Pit 27

Elevation or Depth: 12'-16'

Date Sampled: 3/22/19

Sample Number: TP-27 S-1

Sampled Moisture Content (%): 1.1

Report No.: TP27 S-1

Sample Source:

**CQM, INC.**

Atterberg Limits: LL= 27.4      PL= 14.2      PI= 13.2

Client: Oakridge Engineering

Munsell Color Code: 10YR 6/4

Project: Suidae Health Suida-01-19

Page: 2

Date Received: 12/26/19

Prepared by: Robert J. Peeters

Date: 1/15/20

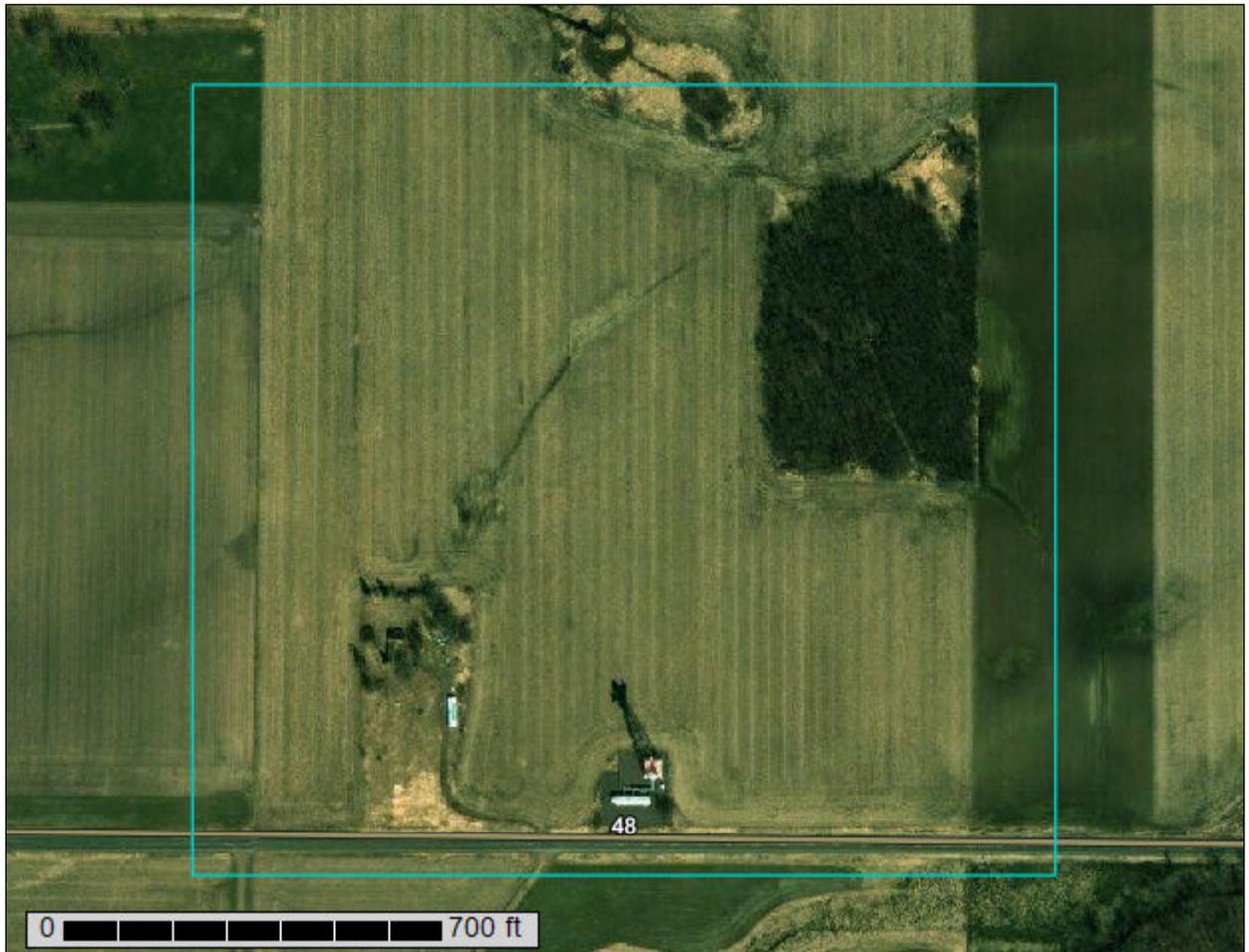
Coefficients: Cc=      Cu=

Checked by: *Robert R. Rouss*

Date: 1/16/20

# Custom Soil Resource Report for **Burnett County, Wisconsin**

**Cumberland LLC - Melin Site**



# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# Soil Map

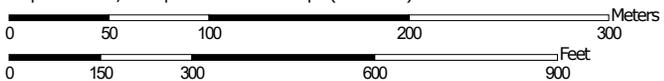
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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



Map Scale: 1:3,760 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 15N WGS84

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Burnett County, Wisconsin  
 Survey Area Data: Version 18, Sep 10, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 9, 2013—Sep 8, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
152A	Alstad loam, 0 to 3 percent slopes	19.7	36.9%
422A	Seelyeville, Cathro, and Rondeau soils, 0 to 1 percent slopes	0.7	1.3%
553B	Branstad fine sandy loam, 2 to 6 percent slopes	30.5	57.0%
553C	Branstad fine sandy loam, 6 to 12 percent slopes	2.6	4.8%
<b>Totals for Area of Interest</b>		<b>53.5</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

## Custom Soil Resource Report

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Burnett County, Wisconsin

### 152A—Alstad loam, 0 to 3 percent slopes

#### Map Unit Setting

*National map unit symbol:* h1cx  
*Elevation:* 800 to 2,000 feet  
*Mean annual precipitation:* 28 to 33 inches  
*Mean annual air temperature:* 39 to 45 degrees F  
*Frost-free period:* 90 to 140 days  
*Farmland classification:* Prime farmland if drained

#### Map Unit Composition

*Alstad and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Alstad

##### Setting

*Landform:* Moraines  
*Landform position (two-dimensional):* Footslope  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Parent material:* Loamy calcareous till

##### Typical profile

*Ap - 0 to 9 inches:* loam  
*E - 9 to 15 inches:* fine sandy loam  
*E/B - 15 to 18 inches:* fine sandy loam  
*B/E - 18 to 24 inches:* sandy clay loam  
*Bt - 24 to 49 inches:* sandy clay loam  
*C - 49 to 60 inches:* fine sandy loam

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Somewhat poorly drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)  
*Depth to water table:* About 6 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Available water storage in profile:* High (about 9.0 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2w  
*Hydrologic Soil Group:* B/D  
*Forage suitability group:* Mod AWC, high water table (G090AY004WI)  
*Hydric soil rating:* No

**Minor Components**

**Bluffton**

*Percent of map unit:* 10 percent

*Landform:* Drainageways on moraines, depressions on moraines

*Hydric soil rating:* Yes

**Branstad**

*Percent of map unit:* 5 percent

*Hydric soil rating:* No

**422A—Seelyeville, Cathro, and Rondeau soils, 0 to 1 percent slopes**

**Map Unit Setting**

*National map unit symbol:* h1kt

*Elevation:* 600 to 1,950 feet

*Mean annual precipitation:* 25 to 33 inches

*Mean annual air temperature:* 36 to 45 degrees F

*Frost-free period:* 90 to 135 days

*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Seelyeville and similar soils:* 50 percent

*Cathro and similar soils:* 25 percent

*Rondeau and similar soils:* 20 percent

*Minor components:* 5 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Seelyeville**

**Setting**

*Landform:* Depressions, depressions, drainageways

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Dip

*Down-slope shape:* Concave, linear

*Across-slope shape:* Concave

*Parent material:* Herbaceous organic material more than 51 inches thick

**Typical profile**

*Oa1 - 0 to 19 inches:* muck

*Oa2 - 19 to 80 inches:* muck

**Properties and qualities**

*Slope:* 0 to 1 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Very poorly drained

*Runoff class:* Negligible

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 6.00 in/hr)

*Depth to water table:* About 0 inches

## Custom Soil Resource Report

*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Available water storage in profile:* Very high (about 23.9 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* A/D  
*Forage suitability group:* Frequently flooded, organics (G090AY010WI)  
*Hydric soil rating:* Yes

### Description of Cathro

#### Setting

*Landform:* Depressions on disintegration moraines, drainageways on disintegration moraines  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, convex  
*Parent material:* Herbaceous organic material 16 to 51 inches thick over loamy or silty deposits

#### Typical profile

*Oa - 0 to 28 inches:* muck  
*Cg1 - 28 to 49 inches:* loam  
*Cg2 - 49 to 60 inches:* sandy loam

#### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 25 percent  
*Available water storage in profile:* Very high (about 16.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* B/D  
*Forage suitability group:* Frequently flooded, organics (G090AY010WI)  
*Hydric soil rating:* Yes

### Description of Rondeau

#### Setting

*Landform:* Depressions on moraines, drainageways on moraines  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Concave, linear  
*Across-slope shape:* Concave, convex  
*Parent material:* Herbaceous organic material 16 to 51 inches thick over limnic materials which are mostly marl

## Custom Soil Resource Report

### Typical profile

*Oa - 0 to 44 inches:* muck  
*Cg - 44 to 60 inches:* marly silt loam

### Properties and qualities

*Slope:* 0 to 1 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Very poorly drained  
*Runoff class:* Negligible  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)  
*Depth to water table:* About 0 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* Frequent  
*Calcium carbonate, maximum in profile:* 90 percent  
*Available water storage in profile:* Very high (about 20.6 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 7w  
*Hydrologic Soil Group:* A/D  
*Forage suitability group:* Frequently flooded, organics (G090AY010WI)  
*Hydric soil rating:* Yes

### Minor Components

#### Lupton

*Percent of map unit:* 5 percent  
*Landform:* Drainageways  
*Landform position (three-dimensional):* Dip  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave  
*Hydric soil rating:* Yes

## 553B—Branstad fine sandy loam, 2 to 6 percent slopes

### Map Unit Setting

*National map unit symbol:* h211  
*Elevation:* 790 to 1,640 feet  
*Mean annual precipitation:* 25 to 33 inches  
*Mean annual air temperature:* 36 to 45 degrees F  
*Frost-free period:* 90 to 140 days  
*Farmland classification:* All areas are prime farmland

### Map Unit Composition

*Branstad and similar soils:* 95 percent  
*Minor components:* 5 percent

## Custom Soil Resource Report

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Branstad

#### Setting

*Landform:* Moraines  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Loamy calcareous till

#### Typical profile

*Ap - 0 to 9 inches:* fine sandy loam  
*E - 9 to 14 inches:* fine sandy loam  
*E/B - 14 to 20 inches:* fine sandy loam  
*B/E - 20 to 45 inches:* sandy clay loam  
*Bt1 - 45 to 55 inches:* sandy clay loam  
*Bt2 - 55 to 68 inches:* fine sandy loam  
*Btk - 68 to 80 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 2 to 6 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)  
*Depth to water table:* About 24 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 10 percent  
*Available water storage in profile:* High (about 9.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 2e  
*Hydrologic Soil Group:* C  
*Forage suitability group:* Mod AWC, adequately drained (G090AY005WI)  
*Hydric soil rating:* No

### Minor Components

#### Alstad

*Percent of map unit:* 5 percent  
*Landform:* Moraines  
*Landform position (three-dimensional):* Rise  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Hydric soil rating:* No

## 553C—Branstad fine sandy loam, 6 to 12 percent slopes

### Map Unit Setting

*National map unit symbol:* h212

*Elevation:* 790 to 1,640 feet

*Mean annual precipitation:* 25 to 33 inches

*Mean annual air temperature:* 36 to 45 degrees F

*Frost-free period:* 90 to 140 days

*Farmland classification:* Farmland of statewide importance

### Map Unit Composition

*Branstad and similar soils:* 90 percent

*Minor components:* 10 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Branstad

#### Setting

*Landform:* Moraines

*Landform position (two-dimensional):* Toeslope

*Landform position (three-dimensional):* Side slope

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Loamy calcareous till

#### Typical profile

*Ap - 0 to 9 inches:* fine sandy loam

*E - 9 to 14 inches:* fine sandy loam

*E/B - 14 to 20 inches:* fine sandy loam

*B/E - 20 to 45 inches:* sandy clay loam

*Bt1 - 45 to 55 inches:* sandy clay loam

*Bt2 - 55 to 68 inches:* fine sandy loam

*Btk - 68 to 80 inches:* fine sandy loam

#### Properties and qualities

*Slope:* 6 to 12 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Moderately well drained

*Runoff class:* Medium

*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high (0.20 to 2.00 in/hr)

*Depth to water table:* About 24 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Calcium carbonate, maximum in profile:* 10 percent

*Available water storage in profile:* High (about 9.8 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 3e

## Custom Soil Resource Report

*Hydrologic Soil Group: C*

*Forage suitability group: Mod AWC, adequately drained (G090AY005WI)*

*Hydric soil rating: No*

### **Minor Components**

#### **Alstad**

*Percent of map unit: 5 percent*

*Landform: Moraines*

*Landform position (two-dimensional): Footslope*

*Landform position (three-dimensional): Side slope*

*Down-slope shape: Linear*

*Across-slope shape: Concave*

*Hydric soil rating: No*

#### **Cushing**

*Percent of map unit: 5 percent*

*Landform: Moraines*

*Landform position (two-dimensional): Toeslope*

*Landform position (three-dimensional): Side slope*

*Down-slope shape: Linear*

*Across-slope shape: Concave*

*Hydric soil rating: No*