

CLASS L SOIL SURVEY

**SISK MOUNTAIN
PROPOSED METEOROLOGICAL TOWER 3 ACCESS**

Prepared for:

TRANSCANADA



Prepared by:

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July 5, 2009

Dana Valleau
TRC Engineers, LLC
249 Western Avenue
Augusta, ME
04330

Sisk Mountain Project
Proposed Meteorological Tower
Kibby & Chain of Ponds Twp, ME

Dana,

We observed test pits in the areas for the proposed Access Road to the Meteorological (*Met*) Tower Location for the Sisk Mountain Project on June 16, 17, 18, 19, 22, 23, 24, and 25, 2009. The test pits were observed in the field to prepare a Class "L" Soil Survey for the route to the proposed met tower. We understand the soils information will be used in the route alignment in addition to augmenting the permit application for the Sisk Project with the Land Use Regulation Commission (*LURC*). It is also likely the soil survey will be reviewed by Mr. David Rocque's (*State Soil Scientist*) office.

The survey limits were established in the field using the plans and GIS background files provided by your office. We had the benefit of observing some soil profiles from "cuts" into the "banks" along the existing road for much of the proposed route. We documented the soil's morphology from thirteen (13) hand dug test pits and seven (7) hand borings within the approximate proposed access road corridor. Soil data was also recorded in each of the fourteen (14) wetlands delineated. The field data was referenced to the current Maine State Soil Catena and determined that for mapping purposes the following soils should react similarly to the Abram, Brayton, Burnham, Colonel, Dixfield, Lyman, Mahoosuc, Monarda, Naskeag, Peacham, and Udorthents soil series. It should be noted that these soils were not observed with profile depths suitable for classifications to the series level. It is not feasible to observe soil profiles to depths greater than 60" without any excavating equipment. However, sufficient data was collected to determine the underlying soils limitations for this Class "L" Soil Survey. Generally, we observed soils ranging from "very shallow" (<10"), "shallow"

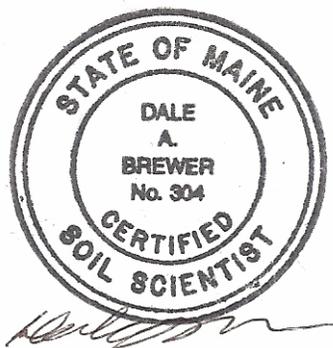
(10" to <20"), "moderately deep" (20" to <40") and "deep" (40" to <60") and deep depths over bedrock in the proposed access road corridor to the Met Tower site.

The proposed road will generally follow two existing woods roads to elevation \pm 2,700. The first road is drivable and begins near Mile 2.5 on the Gold Brook Road. A bridge spans over Gold Brook at the beginning of the improved road. The road continues for approximately 1,500 feet with both ditching and underlying culverts in place helping with overall conditions of the frequently used roadway. The proposed route alignment branches off the main roadway onto a generally "straight" existing woods road to the limit of tree harvesting. The woods road appears to have been a "major" road for the past timber harvesting operations in the area. It has a deep base of compacted native soils along with an intricate ditching network along the "uphill" side. The roadway and ditching has had all the culverts removed and the low-lying areas of the former culvert locations are currently functioning as "slope breaks" in many instances.

Natural conditions exist above 2,700' in elevation where the timber harvesting stopped. An existing foot trail continues up to the ridge top at elevation \pm 2,850'. In most areas the trail follows the "flatter" passages along the shallow soils and the base of rock cliffs to the summit. Some wetlands and a stream will need to be crossed to reach the ridgeline using the proposed access route. These areas may require control structures under the proposed route for access. The proposed alignment appears to be located in the best location within the 300' corridor studied. However some wetlands or steep slopes may need to be crossed or rerouted for avoidance depending on the equipment used for the Met Tower access.

We located the existing roads, ditching, culvert locations, seeps, bedrock outcrops, slope breaks, wetland areas, borings and the soil test pits with a Trimble® GEO-XH GPS unit on June 16, 17, 18, 19, 22, 23, 24, and 25 2009. Please see the following pages for more detailed soil information including the Soil Report, Soil Narratives, Soil Test Pit Logs and the attached Soil Map. Please feel free to contact us should questions arise or if further assistance is needed with the proposed met tower access.

Respectfully submitted,
STATEWIDE SOIL SURVEYS, INC



Dale A. Brewer CSS #304

CLASS "L" SOIL NARRATIVE REPORT

PROPOSED MET TOWER AND ACCESS ROAD SISK MOUNTAIN PROJECT

Date: Test pits observed June 16, 17, 18, 19, 22, 23, 24, 25, 2009.

Base Map: **TRC, USGS**
Twenty-foot (20') contour intervals (*Provided Survey Plan*).
Map Scale: 1 inch = 100 feet (1"=100').

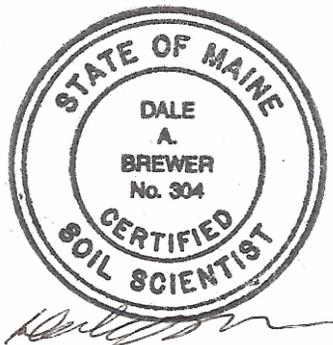
Ground Control: Test pits located by Trimble® GEO-XH GPS (*sub-foot to sub-meter*).

The Maine Association of Professional Soil Scientists (MAPSS) has adopted Standards for Class "L" Soil Surveys. This soil investigation has been prepared under remote and hand dug limitations as accepted for Class "L" Soil Surveys standards listed below.

Class L Soil Survey Minimum Standards

1. Map units are based on parent materials, slope, soil texture, soil depth to dense till or bedrock (*shallowest*) and soil wetness (*drainage class and/or oxyaquic conditions*) at the Class L High Intensity Map Unit size.
2. Scale of 1 inch = 100 feet (1"=100') or larger. 1"=100' for this project.
3. Ground Control and Test Pit locations accomplished using a Trimble GEO-XH GPS Unit, (*UTM 19 US Survey Feet*).
4. Base map with 5-foot contour intervals. USGS only data available (20' CI).

This Class L Soil Survey was prepared for proposed access to a proposed Meteorological Tower. The accompanying Soil Narratives (*Profile Descriptions*) and Soil Map were completed in general accordance with the standards adopted by the Maine Association of Soil Scientists and the Board of Certification of Geologists and Soil Scientists.



Dale A. Brewer, CSS #304

July 5, 2009

**CLASS "L" SOIL CONDITIONS SUMMARY TABLE
PROPOSED METEOROLOGICAL TOWER ACCESS
SISK MOUNTAIN PROJECT**

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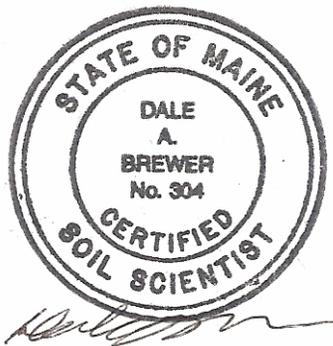
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SOIL CONDITIONS SUMMARY TABLE

For SUBSURFACE INVESTIGATIONS at DEP SITE LOCATION PROJECTS

Project Name: SISK MOUNTAIN	DEP Project #:
Applicant Name: TRANSCANADA TRC Engineers, LLC	Consultant Name: STATEWIDE SURVEYS, INC DALE BREWER, C.S.S. #304
Project Location (<i>municipality</i>): KIBBY, CHAIN OF PONDS TOWNSHIP	CLASS L LINEAR SOIL SURVEY FOR PROPOSED MET TOWER ACCESS

TEST PIT #	✓ or ✗ if at Field	● soil series name (C.S.S.) (as appropriate to the investigation)	Depths to (<i>check one</i>): ✓ inches □ cm			Ground Surface (%)
			Mottling Or Oxyaquic	Bedrock	Restrictive Layer	
TP-1	x	COLONEL "LIKE"	9"	>60"	20"	5-10
TP-2	x	DIXFIELD "LIKE"	>18"		18"	5-10
TP-3	x	DIXFIELD "LIKE"	>18"		18"	20-30
TP-4	x	BRAYTON "LIKE"	12"		14"	0-5
TP-5A	x	TUNBRIDGE VARIANT		20"		10-20
TP-5B	x	TUNBRIDGE VARIANT	12"	20"		10-20
TP-6	x	PEACHAM VARIANT	0"	14"	12"	0-5
TP-7	x	ABRAM		3"		5-10
TP-8	x	TUNBRIDGE "LIKE"	16"	21"		5-10
TP-9	x	PEACHHAM VARIANT	0"	9"		5-10
TP-10	x	PEACHHAM VARIANT	0"	12"	0"	5-10
TP-11	x	LYMAN VARIANT	8"	17"	9"	0-5
TP-12	x	NASKEAG "LIKE"	2"	12"	"	0-5
TP-13	x	ABRAM		7"		0-5



Dale A. Brewer, C.S.S. #304

July 5, 2009

**CLASS "L" SOIL LEGEND TABLE
PROPOSED METEOROLOGICAL TOWER ACCESS
SISK MOUNTAIN PROJECT**

SYMBOL	SERIES	TEXTURE	SLOPE	DRAINAGE	HSG
AbB	ABRAM	SL ¹	5-10%	ED ²	D
AbC	ABRAM	SL ¹	10-20%	ED ²	D
AbD	ABRAM	SL ¹	>20%	ED ²	D
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	C
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D
CoB	COLONEL	FSL	5-10%	SWPD	C
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	C
LtC	LYMAN TUNBRIDGE	FSL/L ⁸	10-20%	ED/WD ⁹	CD/C
LtD	LYMAN TUNBRIDGE	FSL/L	10-20%	ED/WD	CD/C
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	A
MoA	MONARDA	SIL ¹¹	0-5%	PD	D
NaA	NASKEAG	FSL	>25%	SWPD/PD	C
PeA	PEACHAM	MUCK	0-5%	VPD	D
PeB	PEACHAM	MUCK	5-10%	VPD	D
TuD	TUNBRIDGE	FSL	>20%	WD	C
UdA	UDORTHENTS	VARIABLE	0-5%	VARIABLE	D
UdB	UDORTHENTS	VARIABLE	5-10%	VARIABLE	D
UdC	UDORTHENTS	VARIABLE	10-20%	VARIABLE	D

SL¹ is Sandy Loam.

ED² is Excessively Drained.

FSL³ is Fine Sandy Loam.

SWPD⁴ is Somewhat Poorly Drained.

PD⁵ is Poorly Drained.

VPD⁶ is Very poorly Drained.

MWD⁷ is Moderately Well Drained.

L⁸ is Loam.

WD⁹ is Well Drained.

SWED¹⁰ is Somewhat Excessively Drained.

SIL¹¹ is Silt Loam.

ABRAM

(Frigid Lithic Udorthents)

SETTING

Parent Material:	Thin mantle of glacial till
Landform:	Bedrock controlled ridges
Position in Landscape:	Mountain tops, ridge tops, side slopes, shoulders, miscellaneous areas
Slope Gradient Ranges:	0 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Excessively drained soils

Typical Profile Description:

Surface Layer: Thin organic mat

Subsurface Layer: Pinkish gray sandy loam, 1 inch thick

Subsoil Layer: Very dusky red and brown sandy loam, 3 inches thick

Substratum: Bedrock is at 4 inches

Hydrologic Group:	Group D
Surface Run Off:	Rapid
Permeability:	Moderately rapid
Depth to Bedrock:	Very Shallow, 4 inches
Hazard to Flooding:	None

INCLUSIONS

(Within Mapping Unit)

Similar:	Saddleback
Contrasting:	Peacham

USE AND MANAGEMENT

Abram soils have limiting factors for building site development including steep slopes and shallow depth to bedrock (<4 inches). Blasting or ripping of the bedrock is necessary for deep excavation. Abram is typically below 2,500 feet in elevation, however the series best represented the soils found on the Sisk Mt ridgeline examined.

BEMIS

(Aeric Cryaquepts)

TYPICAL SETTING

Parent Material:	Dense glacial till
Landform:	Smooth, concave high elevation valleys
Position in Landscape:	Lower to intermediate positions
Slope Gradient Ranges:	0 to 15 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Poorly drained
Typical Profile Description:	
Surface Layer:	Highly decomposed organic materials, 0 to 5 inches
Subsoil Layer:	Mottled dark grayish brown gravelly fine sandy loam, 5 to 13 inches
Substratum:	Mottled olive and olive brown gravelly loam to 65 inches
Hydrologic Group:	Group C
Surface Run Off:	Slow
Permeability:	Moderately slow to moderately rapid in the organic and slow in the substratum.
Depth to Bedrock:	Very deep, greater than 60 inches
Hazard to Flooding:	May flood occasionally on lowest fringes during spring and periods of excessive precipitation.

INCLUSIONS

(Within Mapping Unit)

Potential inclusion underlying or intermixed with the Surplus and/or Mahoosuc soils.

USE AND MANAGEMENT

The limiting factor for building site development is wetness due to the presence of shallow water table throughout most of the year. The poorly drained Bemis soils frequently occur in wetland environments. Bemis soils were identified during this soil investigation, however they are expected in the concave sloping areas with the potential for seasonal wetness. Bemis soils may be deeper and underlying the Mahoosuc and/or the Surplus soils.

BRAYTON

(Frigid Aeris Haplaquepts)

TYPICAL SETTING

Parent Material: Dense glacial till.
Landform: Level or sloping lake plains.
Position in Landscape: Lower to intermediate positions.
Slope Gradient Ranges: 0 to 25%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly and poorly drained soils.

Typical Profile: Surface layer: Black organic matter, 0-4"
Subsurface layer: Gray fine sandy loam, 4-15"
Subsoil layer: Light olive brown sandy loam, 15 to 28"
Substratum: Olive sandy loam to 28-65".

Hydrologic Group: Group C
Surface Run Off: Slow
Permeability: Moderate or moderately slow in upper profile and very slow in dense substratum.

Depth to Bedrock: Very deep, greater than 60".
Hazard to Flooding: May flood occasionally.

INCLUSIONS

(Within Mapping Unit)

Similar: Colonel.
Contrasting: Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of a seasonal water table within 1.5 feet (1.5') of the soil surface for a significant portion of the year. Brayton soils are "hydric" and usually found in wetland habitats and may be subject to environmental regulations and environmental permits could be required to impact these areas.

BURNHAM

(Typic Haplaquepts)

TYPICAL SETTING

Parent Material:	Glacial till
Landform:	Level flat areas
Position in Landscape:	Lower to intermediate positions
Slope Gradient Ranges:	0 to 3 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Very poorly drained soils

Typical Profile Description:

Surface Layer: Very dark brown muck, 0 to 6 inches

Subsurface Layer: Mottled gray loam 12 inches thick

Subsoil layer: Mottled gray gravelly loam, 12 to 20 inches

Substratum: Very firm olive gravelly loam to 20 to 60 inches

Hydrologic Group: Group D

Surface Run Off: Slow

Permeability: Moderate or moderately slow in upper profile and very slow in dense substratum

Depth to Bedrock: Very deep, greater than 60 inches

Hazard to Flooding: Possible

INCLUSIONS

(Within Mapping Unit)

Similar: None

Contrasting: Brayton, Lyman, Monarda, Tunbridge

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to inundated or ponded areas on the surface for much of the year. Burnham soils are hydric and usually found in wetland environments and therefore may be subject to regulations. Wetland delineations are recommended prior to impacting these areas, as environmental permits could be required.

COLONEL

(Frigid Aquic Haplorthods)

TYPICAL SETTING

Parent Material: Compact glacial till.
Landform: Lower toe slopes, gently sloping crests of broad till ridges.
Position in Landscape: Lower to intermediate positions.
Slope Gradient Ranges: 0 to 35%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat poorly drained soils.

Typical Profile: Surface layer: Very dark grayish brown fine sandy loam, 0-6"
Subsoil layer: Dark brown and mottled dark yellowish brown fine sandy loam in the upper part and mottled olive brown gravelly fine sandy loam in the lower part, 11" thick.
Substratum: Mottled olive gravelly fine sandy loam to 65".

Hydrologic Group: Group C
Surface Run Off: Medium
Permeability: Moderate in the solum and moderately slow or slow in substratum.

Depth to Bedrock: Deep, greater than 60".
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Brayton.
Contrasting: Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A limiting factor for building site development is wetness due to the presence of a water table within 1.5 feet (1.5') of the soil surface for a significant portion of the year. Colonel soils generally require ditching to control hydrology once road cuts are made. Represented by Test Pit 1.

DIXFIELD

(Frigid Typic Haplorthods)

TYPICAL SETTING

Parent Material: Compact loamy glacial till.
Landform: Glaciated uplands.
Position in Landscape: Ridge tops and side slopes.
Slope Gradient Ranges: 0 to 50 percent

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well drained.

Typical Profile Description:
Surface layer: Dark brown fine sandy loam, 0-6"
Subsoil layer: The subsoil 15" thick is strong brown and dark yellowish brown fine sandy in the upper part and mottled light olive brown gravelly fine sandy loam in the lower part.
Substratum: The substratum to 65" is very firm and mottled light olive brown gravelly fine sandy loam.

Hydrologic Group: Group C
Surface Run Off: Medium
Permeability: Moderate in the solum and moderately slow or slow in substratum.
Depth to Bedrock: Deep, greater than 60".
Hazard to Flooding: None.

INCLUSIONS

(Within Mapping Unit)

Similar: Marlow, Colonel.
Contrasting: Lyman, Tunbridge.

USE AND MANAGEMENT

Seasonal high water tables and stoniness are principle limitations for Dixfield soils. Dixfield is represented by: Test Pits 3,4.

ENCHANTED

(Mixed, Thixotropic over Loamy-Skeletal Humic Cryorthods)

TYPICAL SETTING

Parent Material: Glacial till
Landform: Mountains
Position in Landscape: Mountainside slopes above 2,300 feet
Slope Gradient Ranges: 5 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well drained soils
Typical Profile Description:
Surface Layer: Organic layer, 6 inches thick
Subsurface Layer: Pinkish gray very stony very fine sandy loam, 3 inches thick
Subsoil layer: Dark reddish brown and yellowish red channery fine sandy loam over mostly olive brown very gravelly sandy loam, 33 inches thick
Substratum: Dark grayish brown extremely cobbly loamy sand to 46 inches. Bedrock is at 46 inches.

Hydrologic Group: Group B
Surface Run Off: Dependent upon slope gradient
Permeability: Moderate or moderately rapid in the solum and rapid or very rapid in the substratum
Depth to Bedrock: +46 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar:
Contrasting:

USE AND MANAGEMENT

The limiting factor for building site development is the typical depth to bedrock (<46 inches) and slopes. Blasting or ripping of the bedrock is necessary for deep excavations.

LYMAN

(Frigid Loamy Mixed Lithic Haplorthods)

TYPICAL SETTING

Parent Material: Glacial till.
Landform: Rocky hills and high plateaus.
Position in Landscape: Side-slopes, shoulders, crests of ridges, eroded areas and nearly all landscapes.
Slope Gradient Ranges: 3 to 80%.

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat excessively drained (*SWED*).

Typical Profile Description:
Surface layer: Black loam, 0-2"
Subsurface layer: Reddish gray fine sandy loam, 2 to 4"
Subsoil layer: Very dusky red 4 to 6", from 6" to 10" is dark red loam, and from 10" to 17" is dark brown loam.
Substratum: Bedrock is at 17".

Hydrologic Group: Group C/D.
Surface Run Off: Slow to rapid, depending upon slope and bedrock exposure.
Permeability: Moderately rapid.
Depth to Bedrock: Shallow 8 to 20".
Hazard to Flooding: None.

INCLUSIONS

(Within Mapping Unit)

Similar: Abram, Tunbridge.
Contrasting: Brayton, Dixfield.

USE AND MANAGEMENT

A principle limiting factor for building site development is the "shallow" depth to bedrock (<20"). Blasting or ripping of the bedrock is necessary for deep excavation.

MAHOOSUC

(Typic Borofolists, Dysic)

TYPICAL SETTING

Parent Material: Organic deposits over dense compact glacial till
Landform: Mountain side slopes and valleys at the base of these areas
Position in Landscape: Variable
Slope Gradient Ranges: 8 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Somewhat excessively drained
Typical Profile Description:
 Surface layer: Dusky red and black undecomposed and partially decomposed organic materials, 0 to 8 inches
 Substratum: Gravel, cobbles, stones and boulders with little organic materials to 65 inches

Hydrologic Group: Group A
Surface Run Off: Slow
Permeability: Very rapid
Depth to Bedrock: Very deep, greater than 60 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Rock outcrop
Contrasting: Saddleback

USE AND MANAGEMENT

Mahoosuc has severe limiting factors for building site development including steep slopes, large stones and seepage. Mahoosuc soils typically have an organic mat or loose boulders and stones. Wetter soils or "running" water may be underlying the boulder and stones.

MONARDA

(Frigid Aerice Haplaquepts)

TYPICAL SETTING

Parent Material: Dense glacial till.
Landform: Glaciated uplands.
Position in Landscape: Nearly level to strongly sloping.
Slope Gradient Ranges: 0 to 15%.

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Poorly drained soils.
Typical Profile
Description: Surface layer: 4" organic mat
Subsurface layer: Light brownish gray extremely
gravelly silt loam 5" thick
Subsoil layer: Mottled gray, gray and olive gravelly silt
loam and very gravelly loam to 24"
Substratum: The substratum to 65" is very dense
mottled olive gravelly loam.

Hydrologic Group: Group D
Surface Run Off: Medium
Permeability: Moderate to moderately rapid in the subsurface, moderate
to moderately slow in the lower part of the subsoil and
substratum.

Depth to Bedrock: Deep, greater than 60".
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Brayton, Colonel
Contrasting: Dixfield, Lyman, Tunbridge.

USE AND MANAGEMENT

A perched fluctuating water table is at or near the surface for 7 to 9 months of the year. Monarda soils have many limitations for site development. Monarda soils are "hydric" and typically found in wetland environments. This information was provided to augment the SCS Medium-Intensity Soil Map of this area.

PEACHAM

(Histic Humaquepts)

SETTING

Parent Material: Organic depositions underlain by compact loamy glacial till.
Landform: Depressions and drainageways on glaciated uplands.
Position in Landscape: Lowest positions and depressions on landform.
Slope Gradient Ranges: (A) 0-3% (B) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

Drainage Class: Very poorly drained, with an a perched water table within 0.5 feet of the soil surface from November through May.

Typical Profile Description:
Surface layer: Black organic material, 0-7"
Subsurface layer: Olive gray loam, 7-10"
Substratum: Dark greenish gray loam, 10-65"

Hydrologic Group: Group D
Surface Run Off: Moderately rapid to rapid.
Permeability: Moderate or moderately slow in upper layers, and slow or very slow in the dense substratum.
Depth to Bedrock: Deep, greater than 40".
Hazard to Flooding: None, although may be ponded during spring months time and periods of excessive precipitation.

INCLUSIONS

(Within Mapping Unit)

Similar: Brayton
Contrasting: Dixfield, Tunbridge.

USE AND MANAGEMENT

The limiting factor for building site development is wetness due to the presence of a shallow water table within 0.5 feet of the soil surface for a significant portion of the year. Peacham soils have severe limitations for construction due to wetness and thick organic cap. Peacham soil is usually classified as wetlands, based on the combined consideration of hydrology, hydric conditions, and vegetation.

RICKER

(Lithic Borofolists, Dysic)

TYPICAL SETTING

Parent Material: Organic deposits over bedrock
Landform: Mountains and hills
Position in Landscape: Variable
Slope Gradient Ranges: 3 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well to excessively drained
Typical Profile Description:
 Surface layer: Peat and Mucky peat organic materials, 0 to 4 inches
 Subsoil: 3" muck layer over a dark bluish gray channery silt loam 3" to 5"
 Bedrock is at 5"
Hydrologic Group: Group A
Surface Run Off: Dependent upon slope
Permeability: Very rapid
Depth to Bedrock: Very shallow, less than 10 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Rock outcrop
Contrasting: Saddleback

USE AND MANAGEMENT

Ricker soils have severe limiting factors for building site development including steep slopes, shallow depth to bedrock, deep organic materials and excess fine materials.

SADDLEBACK

(Cryic Thixotropic Humic Lithic Cryorthods)

TYPICAL SETTING

Parent Material: Thin veneer of glacial till
Landform: Glaciated uplands
Position in Landscape: Mountain ridges above 2,300 feet
Slope Gradient Ranges: 3 to 80 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well drained soils
Typical Profile Description:
 Surface Layer: Organic mat, 0 to 5 inches
 Subsurface Layer: Dark grayish brown fine sandy loam, 1 inch
 Subsoil Layer: Very dusky red, dark reddish brown and reddish
 brown fine sandy loam
 Substratum: Bedrock is at 20 inches

Hydrologic Group: Group C/D
Surface Run Off: Dependent upon slope gradient
Permeability: Moderate
Depth to Bedrock: 20 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Enchanted
Contrasting: Surplus, Rock outcrops

USE AND MANAGEMENT

The limiting factor for building site development is the depth to bedrock (<20") within this complex. Blasting or ripping of the bedrock is necessary for deep excavations. Filling areas in Saddleback is not limited; however, excavations can be costly and require large equipment and impacts for certain uses.

SISK

(Mixed Humic Cryorthods)

TYPICAL SETTING

Parent Material: Dense glacial till
Landform: Glaciated uplands and mountain ridges
Position in Landscape: Mountain side slopes above 2,300 feet
Slope Gradient Ranges: 12 to 60 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well drained soils
Typical Profile Description:
 Surface Layer: Organic mat, 0 to 2 inches
 Subsurface Layer: Weak red silt loam, 1 inch thick
 Subsoil Layer: Dusky red, reddish brown silt loam in the upper part and yellowish brown and light olive brown gravelly loam in the lower part, 19 inches thick
 Substratum: Firm, brown gravelly fine sandy loam to 65 inches

Hydrologic Group: Group C
Surface Run Off: Variable dependent upon slope gradient
Permeability: Moderate in the solum and moderately slow or very slow in the substratum
Depth to Bedrock: Very deep, greater than 60 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Surplus, Chesuncook
Contrasting: Enchanted Saddleback

USE AND MANAGEMENT

Sisk soils have limiting factors for building site development including severe slopes, stoniness, frost action and slow percolation rates.

SURPLUS

(Mixed Typic Cryorthods, Thixotropic)

TYPICAL SETTING

Parent Material: Dense glacial till
Landform: Glaciated uplands
Position in Landscape: Mountainside slopes above 2,300 feet
Slope Gradient Ranges: 3 to 45 percent

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Moderately well and somewhat poorly drained soils
Typical Profile

Surface Layer: Organic mat, 0 to 7 inches
Subsurface Layer: Brown sandy loam, 7 to 11 inches
Subsoil Layer: Dark reddish brown fine sandy loam in the upper part
and mottled yellowish red to brown gravelly fine sandy and sandy
loam, 11 to 33 inches
Substratum: Firm, mottled light olive brown sandy loam, 33 to 60"

Hydrologic Group: Group C
Surface Run Off: Dependent upon slope gradient
Permeability: Moderate in the solum and moderately slow to very slow
in the substratum
Depth to Bedrock: Greater than 60 inches
Hazard to Flooding: None

INCLUSIONS

(Within Mapping Unit)

Similar: Bemis
Contrasting: Enchanted, Saddleback, Rock Outcrop

USE AND MANAGEMENT

The Surplus Series limiting factor for building site development is the depth to seasonal perched water table (<24 inches), frost action and strong slopes. The hand dug Test Pits E and F represent surplus soils. The poorly drained Bemis may be underlying or intermixed within the Mahoosuc and/or the Surplus soils. Bemis soils were not identified however seasonally wetter soils are expected in the concave slopes.

TUNBRIDGE

(Frigid Typic Haplorthods)

TYPICAL SETTING

Parent Material: Loamy glacial till.
Landform: Glaciated uplands.
Position in Landscape: Uppermost locations on landform, side slopes, shoulders, and crests of ridges.
Slope Gradient Ranges: 8-15%.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Well drained soils.

Typical Profile Description:
Surface layer: Dark brown fine sandy loam, 0-2"
Subsurface layer: Grayish brown fine sandy loam, 1" thick.
Subsoil layer: Dark reddish brown in the upper part and yellowish brown silt loam in the lower part 11" thick.
Substratum: Dark grayish brown gravelly fine sandy loam, 14" thick.

Hydrologic Group: Group C.
Surface Run Off: Slow to rapid, depending upon slope gradient.
Permeability: Moderate to moderately rapid.
Depth to Bedrock: Moderately deep, 20 to 40" to bedrock surface.
Hazard to Flooding: None.

INCLUSIONS

(Within Mapping Unit)

Similar: Lyman.
Contrasting: Abram, Dixfield.

USE AND MANAGEMENT

The limiting factor for building site development is the "shallow" depth to bedrock (<40") for Tunbridge soils. Blasting or ripping of the bedrock is necessary for deep excavation.

ROCK OUTCROP

(No Taxonomy)

TYPICAL SETTING

Parent Material: Weathered/Unweathered volcanic, metamorphic, sedimentary or conglomerate materials.
Landform: Variable, bedrock controlled ridges.
Position in Landscape: Miscellaneous areas.
Slope Gradient Ranges: 0-100%.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class: Excessively drained.

Typical Profile Description:
Surface layer: Occasional thin organic mat.
Subsurface layer: None.
Subsoil layer: None.
Substratum: None.

Hydrologic Group: Group D.
Surface Run Off: Very rapid.
Permeability: Moderately rapid.
Depth to Bedrock: Very Shallow, < 4".
Hazard to Flooding: None.

INCLUSIONS

(Within Mapping Unit)

Similar: Lyman.
Contrasting: Tunbridge.

USE AND MANAGEMENT

Rock outcrops are limiting factors for building site development with steep slopes and shallow depth to bedrock (<4"). Blasting or ripping of the bedrock is necessary for deep excavation. Rock outcrops are shown as symbols on the soil map.

UDORTHENTS (UdA), (UdB), (UdD)

(Variable composition, no taxonomy given)

TYPICAL SETTING

Parent Material:	Variable, typically glacialfluvial sands and gravel.
Landform:	Variable, used in most landscapes.
Position in Landscape:	Variable.
Slope Gradient Ranges:	Variable.

COMPOSTION AND SOIL CHARACTERISTICS

Drainage Class:	Excessively drained to well drained soils.
Typical Profile:	Surface layer: Variable, usually sands, gravel and cobbles.
Hydrologic Group:	Variable, C/D with permeable underlying soils.
Surface Run Off:	Variable, dependent upon the fill composition and slope.
Permeability:	Variable, dependent upon the fill composition and slope.
Depth to Bedrock:	Variable.
Hazard to Flooding:	None.

INCLUSIONS

(Within Mapping Unit)

Similar:	None.
Contrasting:	Colonel, Lyman, Tunbridge.

USE AND MANAGEMENT

Environmental permits may be required to “fill” land areas. Udorthents are fill materials located within and around the existing Livermore Falls Substation perimeter. The fill materials observed consisted of compacted sands, gravels and crushed stone materials



Photograph One. TEST PIT 1 - Colonel "like" soils. Photograph taken 06/19/09.



Photograph Two. TEST PIT 2 -Dixfield"like" soils. Photograph taken 06/19/09.



Photograph Three. TEST PIT 3 -Dixfield “like” soils. Photograph taken June 19, 2009.



Photograph Four. TEST PIT 4 - Brayton “like” soils. Photograph taken on 06/19, 2009.



Photograph Five. TP 5B – Tunbridge “like” soils after a rain with bedrock @ 18”. 06/19/09.



Photograph Six. TP 10-Peacham “like” Variant very poorly drained soils in wetlands. These soils have a deep organic layer over sandy loam materials with bedrock @ 24”.

SOIL PROFILE/CLASSIFICATION INFORMATION <small>for subsurface investigations at DEP Site Location Projects</small>		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER TRANSCANADA	Project Location (municipality): KIBBY, CHAIN OF PONDS

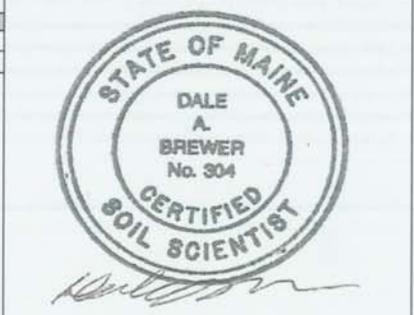
SOIL DESCRIPTION AND CLASSIFICATION			
Exploration Symbol: B-1		<input type="checkbox"/> Test Pit <input checked="" type="checkbox"/> Boring	
4 * Depth of Organic Horizon Above Mineral Soil			
Texture	Consistency	Color	Mottling
0			
1			
2	SANDY LOAM		
3		7.5YR 5/1	
4		VERY FRIABLE	
5			
6			
7	FSL	10YR 3/3	
8			
9			
10	ASSUMED	BEDROCK	8"
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<input type="checkbox"/> hydric <input checked="" type="checkbox"/> non-hydric	Slope % -5-10	Limiting factor -8"	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input checked="" type="checkbox"/> bedrock
C.S.S. Soil Series / phase name: ABRAM-LIKE SL Drainage: ED HSG: D			

SOIL DESCRIPTION AND CLASSIFICATION			
Exploration Symbol: B-2		<input type="checkbox"/> Test Pit <input checked="" type="checkbox"/> Boring	
2 * Depth of Organic Horizon Above Mineral Soil			
Texture	Consistency	Color	Mottling
0			
1			
2	FSL	V FRIABLE	10YR 5/1
3			
4			
5	ASSUMED	BEDROCK	4"
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100			
<input type="checkbox"/> hydric <input checked="" type="checkbox"/> non-hydric	Slope % -5-10	Limiting factor -4"	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input checked="" type="checkbox"/> bedrock
C.S.S. Soil Series / phase name: ABRAM-LIKE SL Drainage: ED HSG: D			

SOIL DESCRIPTION AND CLASSIFICATION			
Exploration Symbol: B-3		<input type="checkbox"/> Test Pit <input checked="" type="checkbox"/> Boring	
3 * Depth of Organic Horizon Above Mineral Soil			
Texture	Consistency	Color	Mottling
0			
1	VFSL	7.5YR 4/2	
2	FSL	5YR 2.5/2	
3			
4			
5	VFSL	7.5YR 2.5/3	
6		FRIABLE	
7			
8			
9		10YR 3/4	
10	FSL		
11			
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14			
15		5Y 6/1	
16			
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20	ASSUMED	BEDROCK	21"
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<input type="checkbox"/> hydric <input checked="" type="checkbox"/> non-hydric	Slope % ->20	Limiting factor -21"	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input checked="" type="checkbox"/> bedrock
C.S.S. Soil Series / phase name: LYMAN TUNBRIDGE FSL Drainage: WD HSG: C-D			

SOIL DESCRIPTION AND CLASSIFICATION			
Exploration Symbol: B-1		<input type="checkbox"/> Test Pit <input checked="" type="checkbox"/> Boring	
4 * Depth of Organic Horizon Above Mineral Soil			
Texture	Consistency	Color	Mottling
0			
1			
2	FSL	7.5YR 5/1	
3			
4			
5		5YR 2.5/2	
6			
7			
8	LOAM	FRIABLE	7.5YR 2.5/3
9			
10			
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15			
16			
17		10YR 4/4	
18			
19			
20		2.5Y 5/1	5YR 3/3
21	BEDROCK	AT	22"
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<input type="checkbox"/> hydric <input checked="" type="checkbox"/> non-hydric	Slope % ->20	Limiting factor -22"	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input checked="" type="checkbox"/> bedrock
C.S.S. Soil Series / phase name: TUNBRIDGE LIKE FSL Drainage: WD HSG: C			

Professional Endorsements (as applicable)	
C.S.S. signature: DALE A. BREWER	Date: 7/5/2009
C.S.S. name: DALE A. BREWER	Lic #: 304 #304



SOIL PROFILE/CLASSIFICATION INFORMATION <small>for subsurface investigations at DEP Site Location Projects</small>		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER	Project Location (municipality): KIBBY, CHAIN OF PONDS
TRANSCANADA		

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: B-5		<input type="checkbox"/> Test Pit		<input checked="" type="checkbox"/> Boring
<small>* Depth of Organic Horizon Above Mineral Soil</small>				
DEPTH BELOW MINERAL SOIL SURFACE (Inches)	Texture	Consistency	Color	Mottling
0				
1				
2				
3				
4				
5	SILT LOAM	FRIABLE	2.5Y 4/1	
6				
7	LOAM			
8				
9				
10				
11				2.5Y 4/3
12				
13				
14	SL	FIRM	5Y 3/2	
15	ASSUMED	BEDROCK	14"	
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<input type="checkbox"/> hydric	Slope %	Limiting factor	<input type="checkbox"/> ground water	
<input type="checkbox"/> non-hydric	>20	10"	<input type="checkbox"/> restrictive layer	
			<input type="checkbox"/> bedrock	
C.S.S.	Soil Series / phase name:		Drainage	HSG
	LYMAN	TUNBRIDGE VARIANT	SWPD	CD

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: B-6		<input type="checkbox"/> Test Pit		<input checked="" type="checkbox"/> Boring
<small>* Depth of Organic Horizon Above Mineral Soil</small>				
DEPTH BELOW MINERAL SOIL SURFACE (Inches)	Texture	Consistency	Color	Mottling
0				
1				
2				
3	FINE SANDY LOAM	FRIABLE	2.5Y 3/1	
4				
5				
6				
7				
8	SANDY LOAM	FIRM	5Y 3/1	
9				
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12				
13				2.5Y 3/2
14				
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20	REFUSAL	AT	18"	
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<input type="checkbox"/> hydric	Slope %	Limiting factor	<input type="checkbox"/> ground water	
<input type="checkbox"/> non-hydric	0-5	18"	<input type="checkbox"/> restrictive layer	
			<input type="checkbox"/> bedrock	
C.S.S.	Soil Series / phase name:		Drainage	HSG
	UDORTHENTS	SANDY LOAM	SWPD	D

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: B-7		<input type="checkbox"/> Test Pit		<input checked="" type="checkbox"/> Boring
<small>* Depth of Organic Horizon Above Mineral Soil</small>				
DEPTH BELOW MINERAL SOIL SURFACE (Inches)	Texture	Consistency	Color	Mottling
0				
1				
2	FILL		2.5Y 3/3	2.5Y 4/3
3				5Y 6/1
4	SANDY LOAM	FRIABLE		
5				
6				
7				
8			5Y 4/2	5YR 3/3
9				5Y 6/1
10				
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19	LIMIT			
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<input type="checkbox"/> hydric	Slope %	Limiting factor	<input type="checkbox"/> ground water	
<input type="checkbox"/> non-hydric	5-10	5"	<input type="checkbox"/> restrictive layer	
			<input type="checkbox"/> bedrock	
C.S.S.	Soil Series / phase name:		Drainage	HSG
	UDORTHENTS	FILL	PD	D

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol:		<input type="checkbox"/> Test Pit		<input type="checkbox"/> Boring
<small>* Depth of Organic Horizon Above Mineral Soil</small>				
DEPTH BELOW MINERAL SOIL SURFACE (Inches)	Texture	Consistency	Color	Mottling
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SOIL PROFILE/CLASSIFICATION INFORMATION for subsurface investigations at DEP Site Location Projects		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER	Project Location (municipality): KIBBY CHAIN OF PONDS
TRANSCANADA		

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 1 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
3 * Depth of Organic Horizon Above Mineral Soil				
Depth Below Mineral Soil Surface (Inches)	Texture	Consistency	Color	Mottling
0	SILT			
1	LOAM		10YR 5/3	
2				
3		VERY FRIABLE		
4			10YR 4/3	
5	FINE SANDY LOAM			
6			2.5Y 5/3	
7				5Y 5/2
8				
9				
10				
11	STONY GRAVELLY			5YR 2.5/2
12	FINE SANDY LOAM	FRIABLE	5Y 4/2	2.5Y 4/3
13				
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SOIL PROFILE/CLASSIFICATION INFORMATION for subsurface investigations at DEP Site Location Projects		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER	Project Location (municipality): KIBBY, CHAIN OF PONDS
TRANSCANADA		

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 5A <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
4 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1			7.5YR 4/2	
2				
3				
4	VERY FINE SANDY LOAM	VERY FRIABLE	7.5YR 3/3	
5				
6				
7				
8				
9				
10			10YR 3/4	
11				
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15				
16	SANDY LOAM	FRIABLE-LOOSE	2.5Y 3/3	
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<input type="checkbox"/> hydric <input type="checkbox"/> Slope % <input type="checkbox"/> Limiting factor <input type="checkbox"/> ground water <input checked="" type="checkbox"/> non-hydric <input type="checkbox"/> 10-20 <input type="checkbox"/> 18" <input type="checkbox"/> restrictive layer <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> bedrock				
C.S.S. Soil Series / phase name: TUNBRIDGE LIKE FSL-VARIANT Drainage: WD HSG: C				

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 5B <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
6 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1	VFSL		7.5YR 4/2	
2	LOAM			
3	VERY FINE SANDY LOAM		7.5YR 3/3	
4				
5				
6				
7				
8	VFSL		10YR 4/3	
9				
10				
11				
12				
13				
14	LOAM		2.5Y 4/3	10YR 4/4
15				2.5Y 5/2
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<input type="checkbox"/> hydric <input type="checkbox"/> Slope % <input type="checkbox"/> Limiting factor <input type="checkbox"/> ground water <input checked="" type="checkbox"/> non-hydric <input type="checkbox"/> 10-20 <input type="checkbox"/> 12" <input type="checkbox"/> restrictive layer <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> bedrock				
C.S.S. Soil Series / phase name: TUNBRIDGE LIKE FSL-VARIANT Drainage: SWPD HSG: C				

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 6 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
20 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1				
2				
3				
4	COARSE SANDY LOAM	FRIABLE	2.5Y 3/1	
5				
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14	SANDY LOAM ASSUMED	FIRM BEDROCK	5Y 4/2	14"
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<input checked="" type="checkbox"/> hydric <input type="checkbox"/> Slope % <input type="checkbox"/> Limiting factor <input type="checkbox"/> ground water <input type="checkbox"/> non-hydric <input type="checkbox"/> 0-5 <input type="checkbox"/> 0" <input type="checkbox"/> restrictive layer <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> bedrock				
C.S.S. Soil Series / phase name: PEACHAM LIKE-VARIANT Drainage: VPD HSG: D				

SOIL DESCRIPTION AND CLASSIFICATION				
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SOIL PROFILE/CLASSIFICATION INFORMATION for subsurface investigations at DEP Site Location Projects		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER	Project Location (municipality): KIBBY, CHAIN OF PONDS
TRANSCANADA		

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 8 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
3 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1			5YR 2.5/2	
2				
3	VFSL	VERY		
4		FRIABLE		
5				
6	LOAM			
7			7.5YR 2.5/2	
8				
9				
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11				
12				
13				
14				
15				10YR 4/4
16	SL	FRIABLE	2.5Y 4/3	
17				
18				
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21	CSL			
22	ASSUMED	BEDROCK	⊗	21"
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<input type="checkbox"/> hydric <input checked="" type="checkbox"/> non-hydric		Slope % 20	Limiting factor 15"	<input checked="" type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input type="checkbox"/> bedrock
C.S.S. Soil Series / phase name:		TUNBRIDGE LIKE	VARIANT	Drainage: SWPD HSG: C

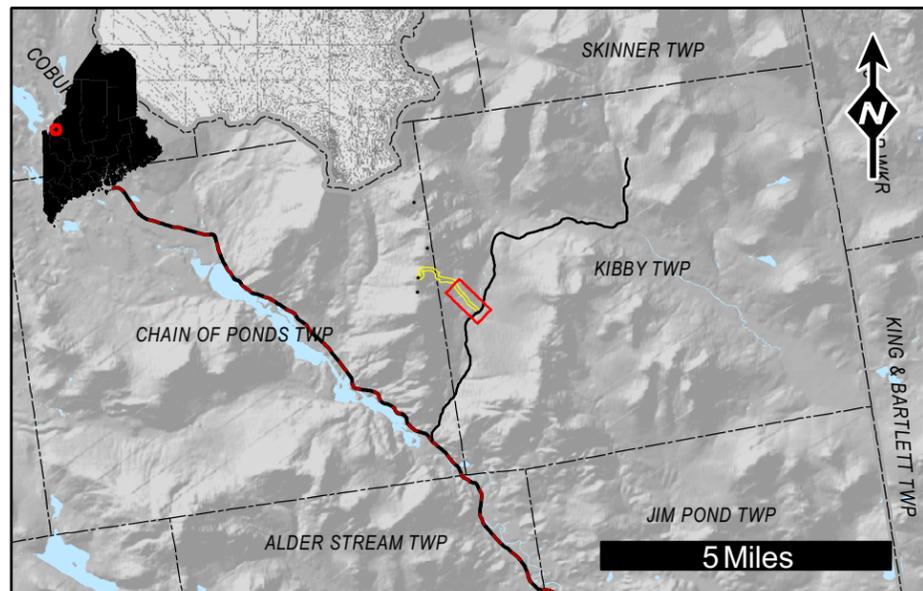
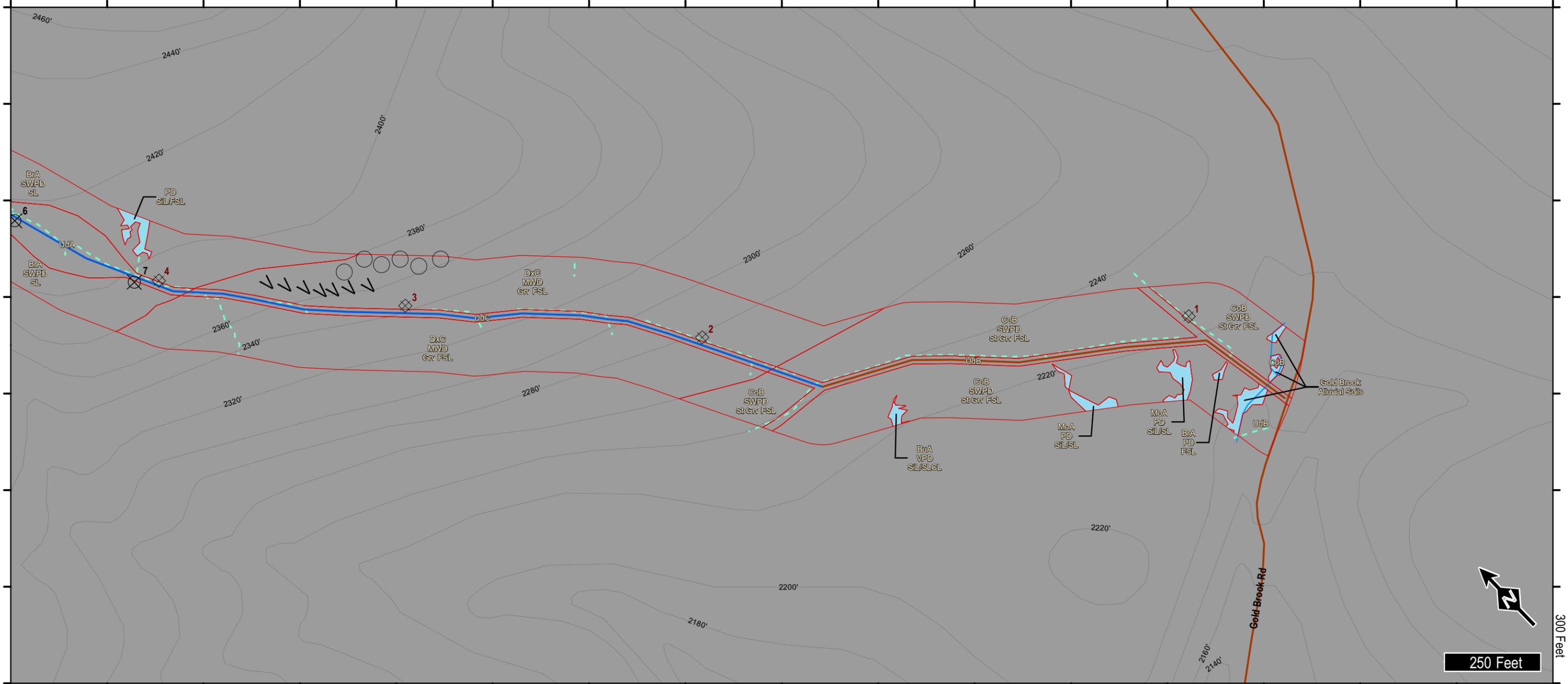
SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 9 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
20 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1	SANDY		5Y 3/2	
2	LOAM			
3				2.5Y 4/3
4	FINE	FRIABLE		
5	SANDY		5GY 4/1	
6	LOAM			
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<input checked="" type="checkbox"/> hydric <input type="checkbox"/> non-hydric		Slope % 10-20	Limiting factor 0"	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input type="checkbox"/> bedrock
C.S.S. Soil Series / phase name:		PEACHAM-LIKE	ORGANIC	Drainage: VPD HSG: D

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 10 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
10 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1			5Y 4/2	5YR 3/3
2				
3	SANDY			
4	LOAM	FIRM		
5				
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9			10Y4/1	10YR 4/4
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14	ASSUMED	BEDROCK	⊗	12"
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<input checked="" type="checkbox"/> hydric <input type="checkbox"/> non-hydric		Slope % 5-10	Limiting factor 0	<input type="checkbox"/> ground water <input type="checkbox"/> restrictive layer <input type="checkbox"/> bedrock
C.S.S. Soil Series / phase name:		PEACHAM LIKE	MUCK	Drainage: VPD HSG: D

SOIL DESCRIPTION AND CLASSIFICATION				
Exploration Symbol: TP 11 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring				
2 * Depth of Organic Horizon Above Mineral Soil				
0	Texture	Consistency	Color	Mottling
1				

SOIL PROFILE/CLASSIFICATION INFORMATION for subsurface investigations at DEP Site Location Projects		
Project Name: PROPOSED MET TOWER	Applicant Name: SISK WIND POWER	Project Location (municipality): KIBBY, CHAIN OF PONDS
TRANSCANADA		

SOIL DESCRIPTION AND CLASSIFICATION			
Exploration Symbol: TP 12 <input checked="" type="checkbox"/> Test Pit <input type="checkbox"/> Boring			
* Depth of Organic Horizon Above Mineral Soil			
6			
Texture	Consistency	Color	Mottling
1			
2	VERY	7.5YR 4/1	5Y 6/1
3	FINE	7.5YR 2.5/2	2.5Y 4/3
4	SANDY	FRIABLE	
5	LOAM		
6			
7		2.5Y 4/2	
8			
9			
10	ASSUMED	BEDROCK	A1 12"
11			
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CLASS "L" SOIL LEGEND TABLE

Symbol	Series	Texture	Slope	Drainage	HSG
AbB	ABRAM	SL ¹	5-10%	ED ²	D
AbC	ABRAM	SL ¹	10-20%	ED ²	D
AbD	ABRAM	SL ¹	>20%	ED ²	D
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	C
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D
CoB	COLONEL	FSL	5-10%	SWPD	C
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	C
LtC	LYMAN TUNBRIDGE	FSL ^L ⁸	10-20%	ED ⁹ /WD ⁹	CD/C
LtD	LYMAN TUNBRIDGE	FSL ^L	10-20%	ED ⁹ /WD ⁹	CD/C
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	A
MoA	MONARDA	SIL ¹¹	0-5%	PD	D
NaA	NASKEAG	FSL	>25%	SWPD/PD	C
PeA	PEACHAM	MUCK	0-5%	VPD	D
PeB	PEACHAM	MUCK	5-10%	VPD	D
TuD	TUNBRIDGE	FSL	>20%	WD	C
UdA	UDORTHENTS	VARIABLE	0-5%	VARIABLE	D
UdB	UDORTHENTS	VARIABLE	5-10%	VARIABLE	D
UdC	UDORTHENTS	VARIABLE	10-20%	VARIABLE	D

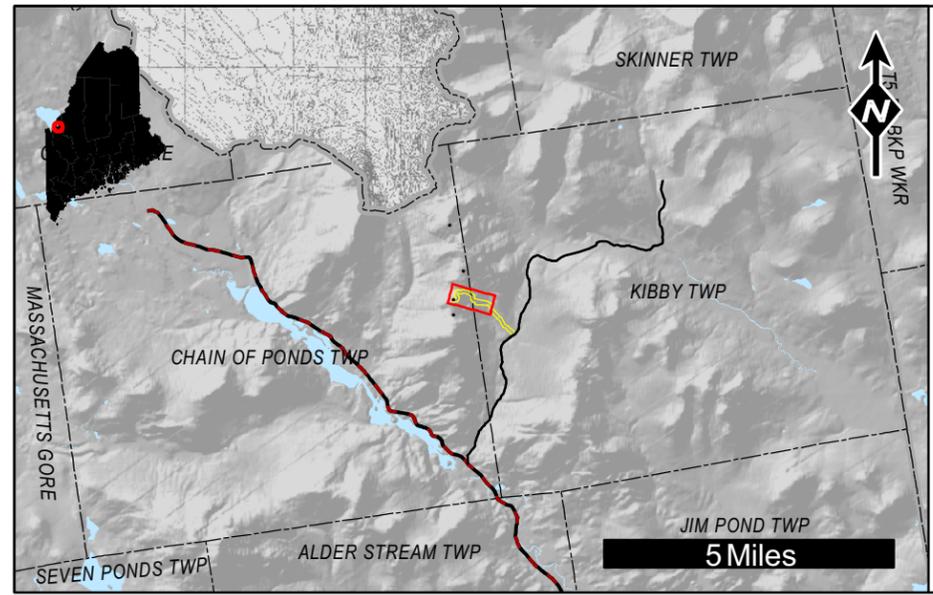
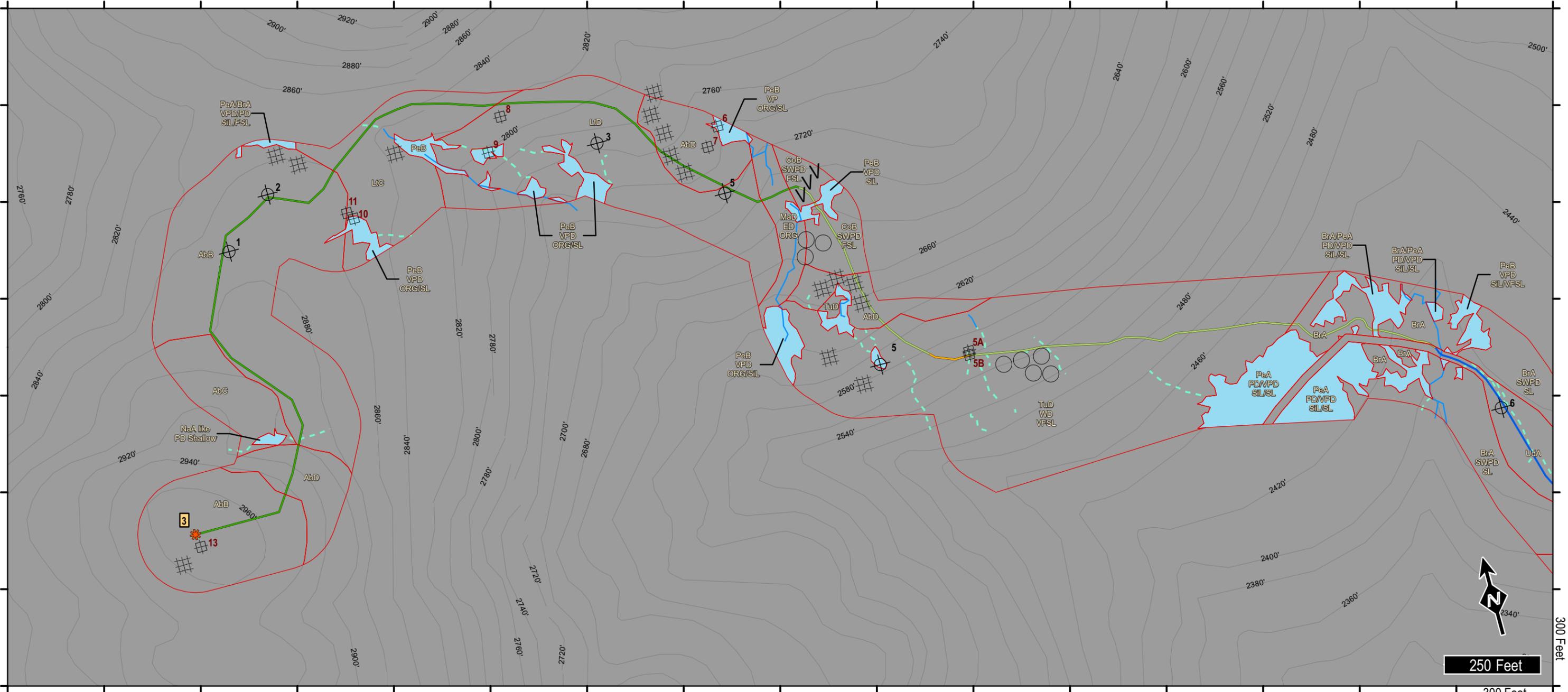
- Soils
- Wetlands
- V Steep Area
- Bouldery
- Bedrock
- Test Pit
- Boring
- * Met Site
- Gravel Road
- Winter Road
- Skid Trail
- New Trail in Cut
- New trail in forested
- 20' Contour
- Streams
- Drainage

Sources: Maine OGIS, TRC

Sisk Wind Power Project

Proposed Meteorological Tower Access Site 3 Soils Survey

Page 1



CLASS "L" SOIL LEGEND TABLE

Symbol	Series	Texture	Slope	Drainage	HSG
AbB	ABRAM	SL ¹	5-10%	ED ²	D
AbC	ABRAM	SL ¹	10-20%	ED ²	D
AbD	ABRAM	SL ¹	>20%	ED ²	D
BrA	BRAYTON	FSL ³	0-5%	SWPD ⁴ /PD ⁵	C
BuA	BURNHAM	MUCK	0-5%	VPD ⁶	D
CoB	COLONEL	FSL	5-10%	SWPD	C
DxC	DIXFIELD	FSL	10-20%	MWD ⁷	C
LtC	LYMAN TUNBRIDGE	FSL ^L ⁸	10-20%	ED/WD ⁹	CD/C
LtD	LYMAN TUNBRIDGE	FSL ^L	10-20%	ED/WD	CD/C
MaD	MAHOOSUC	PEAT	>20%	SWED ¹⁰	A
MoA	MONARDA	SIL ¹¹	0-5%	PD	D
NaA	NASKEAG	FSL	>25%	SWPD/PD	C
PeA	PEACHAM	MUCK	0-5%	VPD	D
PeB	PEACHAM	MUCK	5-10%	VPD	D
TuD	TUNBRIDGE	FSL	>20%	WD	C
UdA	UDORTHENTS	VARIABLE	0-5%	VARIABLE	D
UdB	UDORTHENTS	VARIABLE	5-10%	VARIABLE	D
UdC	UDORTHENTS	VARIABLE	10-20%	VARIABLE	D

- Soils
- Wetlands
- V Steep Area
- Bouldery
- Bedrock
- 1 Test Pit
- 1 Boring
- * Met Site
- Gravel Road
- Winter Road
- Skid Trail
- New Trail in Cut
- New trail in forested
- 20' Contour
- Streams
- Drainage

Sources: Maine OGIS, TRC

Sisk Wind Power Project

Proposed Meteorological Tower Access
Site 3 Soils Survey