Project Proposal for Executive Committee Review

Pursuant to the Yukon Environmental and Socio-economic Assessment Act

Appendix 6: Environmental Baseline Report: Surficial Geology, Terrain, and Soils

# **APPENDIX 6**

**Environmental Baseline Report:** Surficial Geology, Terrain, and Soils





# **EAGLE GOLD PROJECT**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils

## FINAL REPORT



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Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report Executive Summary

## **EXECUTIVE SUMMARY**

This report presents background information, methods, and results for the baseline surficial geology, terrain, and soils studies conducted during 2009 for Victoria Gold's Eagle Gold Project (the Project). This report also summarizes relevant historical studies that have been conducted in the Project area, and provides updated mapping and additional laboratory analysis to better characterize terrain and soil conditions. In addition, this report presents detailed geohazard identification and terrain stability analysis, which have been developed to aid in mine design and proposed road upgrades. Finally, this report provides information on soil physical and chemical properties, to identify suitable materials for use in reclamation, and to support the development of a site soil-handling plan.

Three study areas were established for the baseline report: (1) the local study area (LSA), defined by the Dublin Gulch watershed, which encompasses the area of proposed development; (2) the regional study area (RSA), defined by an expanded area around the Dublin Gulch watershed, to provide a broader context for the LSA; and (3) the road corridor study area (RCSA), which encompasses the area potentially affected by proposed upgrades to the mine site access road.

The surficial material of the LSA is primarily weathered bedrock; of the RSA primarily colluvium, and of the RCSA largely fluvial deposits. Terrain in all three study areas is generally stable with limited and isolated potentially unstable and unstable sites

Permafrost is present in large areas of the LSA, resulting in Cryosols and inclusions of Brunisols. Despite over 200,000 years of soil development, pedogenic processes have been slow due to the cold climate and short growing season for vegetation.

Soil in the LSA is limited for reclamation suitability primarily by high coarse-fragment content, due to development of soils from weathered bedrock. Rooting depths are on average 50 cm, but can reach depths of over 120 cm. Baseline arsenic levels are naturally high in the soil, but do not limit soil reclamation suitability.

# **ABBREVIATIONS AND ACRONYMS**

asl	above sea leve
BC	British Columbia
DDH	diamond drill hole
DEM	digital elevation mode
f asl	feet above sea leve
na	hectares
HCAR	Haggart Creek Access Road
HD-MAPP	high definition mapping and applications
EE	Initial Environmental Evaluation
ka BP	thousand years before presen
Ma BP	Million years before presen
LIDAR	Light Detection and Ranging
LSA	local study area
m asl	metres above sea leve
PAG	Potential Acid Generation
QA/QC	quality assurance/quality contro
RCSA	road corridor study area
RISC	Resource Information Standards Committee
RSA	regional study area
SIL	survey intensity leve
SMR	South McQuesten Road
TEM	Terrestrial Ecosystem Mapping
TDR	Technical Data Repor



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## 1 INTRODUCTION

This report presents background information, methods, and results for the baseline surficial geology, terrain, and soils studies conducted during 2009 for Victoria Gold's Eagle Gold Project (the Project). This report also summarizes relevant studies that were conducted in the Project area in the past - of particular importance are an Initial Environmental Evaluation (IEE - Hallam Knight Piésold Ltd. 1996a); and a detailed geotechnical test hole program (SITKA Corp. 1996). In addition, two analyses of gaps in the existing data were conducted and were instrumental in shaping the current baseline study—a gap analysis completed during 2007 by Jacques Whitford AXYS (now Stantec) for StrataGold in support of their Dublin Gulch Gold Project, and an analysis completed by Madrone in 1996.

The gap analyses identified data deficiencies in the surficial geology mapping, terrain stability, and soils information required for a project proposal submission under the *Yukon Environmental and Socio-Economic Assessment Act*. Primary identified deficiencies were that the pre-existing data were not digital, did not identify standards followed, and required updating to the standards of the Resource Information Standards Committee (RISC) (1998, 2000). It was further determined that to assist with soil mapping and reclamation planning for the mine site, greater detail in terrain mapping was required. Some spatially limited soil information exists from 1995 (Hallam Knight Piésold 1996a), and meets current standards for soil classification. However, this soil information was insufficient to support environmental assessment, decommissioning, and reclamation planning. Table 1 summarizes gaps identified by the 2007 analysis, and how these gaps are addressed in this baseline report.

Table 1: Terrain and Soil Gap Analysis

2007 Gap Analysis Topics	2009 Baseline Update Analysis
Surficial Geology Maps	Mapped surficial geology of the mine site, regional study area, and proposed road upgrade corridor following BC RISC standards (1998, 2000)
Terrain Stability Hazards	Updated geomorphic processes, geohazards, and slope analysis of the mine site, the regional study area, and the proposed road upgrade corridor.
Soil Map	Created soil-map units to characterize the mine site.
Soil Laboratory Analysis	Completed soil analyses focused on metals in soils (rather than nutrients) due to the mineralized nature of the mine site.
Soil Characterization for Reclamation	Rated soil for reclamation suitability and topsoil depths. Although not identified in the gap analysis, overburden materials were also included in this baseline study, due to their potential use in site reclamation.

A glossary of terms specific to surficial geology, terrain, and soils, including key abbreviations used in the data collection, is contained in Appendix A.

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report Section 2: Methods

# 2 METHODS

Surficial geology, terrain and soils resources have been characterized through a combination of research techniques including a literature review, field inventory programs, and detailed mapping of terrain and soils.

# 2.1 Review of Existing Literature

Literature review focused on existing mapping of the study area, and on regional mapping. Historical data specific to the Dublin Gulch watershed was incorporated into the current baseline dataset, and included information from trench sites, auger holes, drill logs, and soil survey sites.

## 2.1.1 Mapping Review

Review of existing mapping focused on surficial geology mapping, biophysical mapping that incorporated terrain attributes, and regional soil mapping. This review was divided into two broad categories:

- A review of existing mapping in the Yukon and British Columbia, to establish a repeatable mapping approach that meets existing inventory and mapping standards and is compatible with previous studies in the Project area.
- A review of background geology and surficial geology information of the Project area. This
  information was compiled primarily from regional studies. As a result, background data were
  obtained from a much larger area and scale, which provides general context rather than
  detailed information for the study area.

Several sources provided background information related to surficial geology and bioterrain mapping:

- Regional-scale (1:250,000), digital surficial geology mapping for the Project area (Bond 1998a, b)
- Digital geology mapping of the Project area (Gordey and Makepease 2003)
- Surficial geology mapping of the Watson Lake area; used as background information for surficial geology mapping and as an example of the bioterrain mapping approach in the Yukon (Lipovsky, et al. 2005; Lipovsky and McKenna 2005)
- Regional-scale (1:253,440) surficial geology of Larsen Creek; also used for background information (Vernon and Hughes 1965).

Regional soil mapping was used to create soil map legends and descriptions of soil map units in the Mayo area, and also provided context on soil types and soil suitability for various land uses (Rostad, et al. 1977). Pedogenic processes that occur both in unglaciated soils, permafrost, and soils developed from the Reid glaciations were also reviewed to aid in developing soil map units (Bond and Sanborn 2006; Dampier et al. 2009; and Smith et al. 1986).

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Section 2: Methods

In the absence of Yukon Territory terrain-mapping standards, the baseline Project-area mapping used the following:

- Terrain Classification System for British Columbia (Howes and Kenk 1997)
- Standards for Terrestrial Ecosystem Mapping in British Columbia (Resource Inventory Standards Committee 1998, 2000)
- Mapping and Assessing Terrain Stability Guidebook, 2<sup>nd</sup> Edition (BC Forest Service and BC Environment 1999)
- Guidelines and Standards to Terrain Mapping in British Columbia (RISC 1996)
- Guidelines for Terrain Stability Assessments in the Forest Sector (Association of Professional Engineers and Geoscientists of British Columbia 2003)
- Ecoregions of the Yukon Territory and the Yukon Ecological Land Classification and Mapping
   Strategic Framework, Yukon Department of Environment and Department of Energy.

## 2.1.2 Historical Site Data Review

As stated earlier, a number of relevant environmental studies have been completed in the Dublin Gulch watershed prior to the current baseline work. An Initial Environmental Evaluation (IEE - Hallam Knight Piésold Ltd. 1996a; and b), and a detailed geotechnical test hole program (SITKA Corp. 1996) were both completed in 1996.

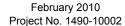
The 1996 IEE involved 1:25,000 terrain mapping (Appendix B), which identified areas affected by debris flow, avalanche, and solifluction. In addition, the IEE presented information on soil physical and chemical properties (including soil nutrients, salinity and baseline metals) from analyses of soil samples collected at 18 sites. The 1996 test hole program included completion of 251 test pits and auger holes, which provide map-attribute information on depth of topsoil and overburden, and on geoprocesses such as presence of permafrost. In addition, 203 diamond-drill holes provided information on depth to bedrock.

## 2.1.3 Recent Yukon Mining Projects Review

Methods from other recent Yukon mining projects (e.g., Yukon Zinc's Wolverine Project 2005) were reviewed for field and mapping methods, and baseline descriptions for surficial geology, terrain, and soils.

# 2.2 Study Area Boundaries

The Project area was divided into three study areas defined by the proposed development footprint and by terrain features. These three areas are defined below.



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## 2.2.1 Local Study Area

The local study area (LSA) encompasses the proposed development area, and is 1,606 hectares in size. The LSA is the Dublin Gulch watershed, with extensions to capture proposed development footprint outside the watershed at the northwestern corner (near Ann Gulch), and north of the confluence of Dublin Gulch and Haggart Creek (Figure 2-1). The LSA is the only study area applicable to the soil baseline.

## 2.2.2 Regional Study Area

The regional study area (RSA) encompasses the 1,606 ha LSA plus an additional 5,932 ha surrounding the LSA, for a total of 7,538 ha. The RSA provides broader context for the LSA, and provides baseline information for the vegetation and wildlife disciplines. The RSA is defined by the heights of land to the west and east of the Dublin Gulch watershed, and by Haggart Creek to the north and Lynx Creek to the south (Figure 2-2).

## 2.2.3 Road Corridor Study Area

The road corridor study area (RCSA) encompasses the proposed road upgrade corridor for the South McQuesten Road (SMR) and the Haggart Creek Access Road (HCAR). This corridor is approximately 44.8 km long and 1 km wide (500 m either side of the road centreline), or 4,579 ha. (Figure 2-3).

# 2.3 Field Programs

Three separate field programs were completed for the baseline study in 2009. They are described below.

## Reconnaissance Program (July 2009)

An initial helicopter over-flight was conducted to gain an overview of the project area, to collect preparatory information for the biophysical field program, to identify landform features of importance, and to identify areas where potentially unstable and unstable terrain may exist. The flight was also used to confirm pre-site selection for the terrain and vegetation joint field program, and to broadly identify the type and extent of mass wasting for the LSA and RSA.

## **Biophysical Field Program (August 2009)**

The biophysical field program was a shared survey program between the vegetation, terrain, and soils disciplines. The field team included a senior vegetation ecologist and a terrestrial scientist with skill in surficial geology, terrain, and soils. The survey was conducted within the LSA, RSA, and RCSA. Soil data and sample collection were confined primarily to the LSA.

The objectives of the program within the LSA and RSA were to describe the surficial geology, characterize terrain conditions and identify any natural geohazards. Within the LSA, full soil profile descriptions – including soil sampling and characterization for reclamation suitability – were completed, in addition to the surficial geology, terrain and geohazard survey.

Surficial Geology, Terrain, and Soils

Three types of inspections were conducted during the biophysical program:

- 1. **Detailed ground plots** included excavation of a soil pit at each site; a comprehensive description of soil, terrain, and surficial material conditions; and collection of soil samples (in the LSA).
- 2. **Reconnaissance ground inspections** included characterization of surficial geology, terrain, and soils, but in less detail than for the plots described above.
- 3. **Visual inspections** conducted by ground or air, and used to confirm landscape units and provide general information required to support bioterrain mapping.

## **Trenching Program (July to August 2009)**

The trenching program carried out by the geotechnical team from BGC Engineering Inc. characterized surficial materials (overburden) that may be stripped during mining activities and thus be available for reclamation use. This program was confined to proposed development areas related to mining activities within the LSA. The information gathered from this program supports reclamation suitability ratings, development of soil handling plans, and mine design.

## 2.3.1 Survey Intensity Level

The precision required and delivered by biophysical mapping is defined by the Survey Intensity Level (SIL). For the LSA, the field program was designed to meet a SIL 2, assuming at least one inspection per 20 ha. Reconnaissance and exploratory-level SILs of 3 and 5 were met for the RSA and RCSA, respectively. The designed level of survey detail is reduced for these study areas, as ground disturbance will be limited and reclamation is not required. Table 2 provides the type and number of survey sites in each study area, and Table 3 summarizes the SIL for the LSA, RSA, and RCSA.

Table 2: Survey Sites within the Local Study Area

Plot Type and Year	Number of Field Plots in the LSA	Number of Samples Analyzed in LSA	Number of Field Plots in the RSA	Number of Samples Analyzed in RSA	Number of Field Plots in the RCSA
Soil and Terrain Plots 2009	72	16	47	0	23
BGC Trench Sites 2009	69	18	0	0	0
Sitka Soil Sites 1995	14	14	4	4	0
Sitka Auger Holes 1996	19	0	0	0	0
Sitka Test Pits 1996	203	0	29	0	0
Diamond Drill Holes 1995	203	0	0	0	0
TOTAL	580	48	80	4	23

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Table 3: Survey Sites contributing to Terrain and Soil Survey Intensity Level

Study Area	Number of Sites	Total Area (Ha)	Inspection per Hectares <sup>b</sup>
Local Study Area	86 <sup>a</sup>	1606	19
Regional Study Area	80	5932 <sup>c</sup>	74
RCSA Study Area	23	4579	199

### NOTES:

## 2.3.2 Data Collection

Objectives were to:

- Collect data to verify the preliminary terrain, terrain stability, and soil classifications
- Close data gaps in the existing literature and verify published baseline data
- Collect sufficient data for the assessment of potential Project effects on surficial geology, terrain and soils, for mitigation (reclamation) planning, and to support mine design.

## **Surficial Geology and Terrain Information**

Surficial geology and terrain data were collected for the following parameters:

- Slope gradient and length
- Topographic position
- Surficial material
- Surface expression
- Texture of surface material
- Surface stoniness
- Percentage of coarse fragments and coarse fragment description
- Drainage
- Geomorphic processes and qualifiers including presence of permafrost
- Slope position
- Terrain stability
- Erosion at site
- Aspect
- Drainage
- Surface stoniness
- Land use.

<sup>&</sup>lt;sup>a</sup> Contributing sites include 2009 plots and 1995 Sitka soil sites. Sitka auger holes, test pits, and diamond drill holes were not counted as sites due to the limited information on terrain and soil conditions available from the drill logs.

<sup>&</sup>lt;sup>b</sup> Plots per hectare, used for survey intensity level (SIL), is calculated in accordance with CANSIS and BC standards.

<sup>&</sup>lt;sup>c</sup> Excludes total area of the LSA

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## Soil Information

For the soil pit at each inspection site, soil horizons were described using criteria established by the Soil Classification Working Group (1998) and according to national standards established by the Expert Committee on Soil Survey (1983). The following information was collected for each horizon at detailed ground plots:

- Horizon depth
- Horizon boundaries
- Texture
- Colour
- Structure
- pH
- Coarse fragment content
- Carbonates
- Extent of mottling
- Rooting depth, size and abundance, and root restrictions
- Cryoturbation and depth to permafrost
- Presence and depth of seepage
- Presence and depth of bedrock.

## Soil Sampling

Soil samples were collected from various horizons within a soil profile at a select number of plots dispersed throughout the LSA (collected samples are listed in Appendix B). Samples were analyzed in laboratory for the following properties:

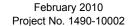
- Particle size (texture and coarse fragments)
- nH
- Metals and trace element concentrations (completed for soil and overburden).

Ten percent of analyzed samples were blind duplicates, as an assurance on analytical quality and consistency. Soil sampling methods and results from 2009 are contained in Appendix C.

In addition to the above analyses, soil nutrient and metals data from analyses completed during the 1995 soil survey were utilized, where possible, to reduce duplication of effort.

## 2.3.3 Data Collection Quality Assurance and Quality Control

The first step in data-collection quality assurance and quality control was field correlation, which occurred at the onset of the field program. The leader of the study worked with other field staff to ensure a shared understanding of the purpose of the program and the use of standardized data



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collection methods. Geology, parent materials, soil catena, soil horizon sequences, geomorphic processes, and soil subgroups common in the area were discussed prior to field work. During the field program, field plot cards and site survey/sampling locations were reviewed nightly. After the field program, the compiled database was scanned for errors and omissions, and a select number of sites were checked by the discipline lead.

A professional geoscientist also reviewed existing baseline data and compared it to mapping to verify accuracy of mapped surficial material, surface expressions, geohazards, geoprocesses, and terrain stability. Sign-off from the reviewing professional is attached in Appendix D.

# 2.4 Data Analysis

The methods used to prepare surficial geology and terrain mapping, and soil mapping interpretations are described in the following section.

## 2.4.1 Surficial Geology and Terrain Mapping

Surficial geology and terrain mapping, and subsequent stratification into ecosystem units, form the basis of biophysical mapping. Bioterrain mapping integrates surficial geology and terrain conditions (slope, landscape position, drainage, and geomorphic processes) with ecological factors (vegetation community and structure, and soil moisture and nutrient regimes). This mapping approach has been shown to be effective in providing biophysical information for integrated resource management and land-use planning activities, and for cumulative effects management (Lipovsky and McKenna 2005).

The design of the spatial mapping approach for terrain drew upon several sources including Yukon Territory manuals, existing Territorial mapping (e.g., Watson Lake), and precedents from other recent Yukon mining projects (e.g., Wolverine). The mapping approach also adopts relevant portions of the British Columbia provincial standard manuals as per Yukon surficial mapping (Lipovsky and Bond, 2008).

Mapping was based on both black-and-white and colour aerial photographs of the study areas. The LSA and the RSA had 1:40,000 colour and 1:10,000 black-and-white aerial photographs, both captured in 1995. Mapping for the RCSA was completed on 1:20,000 black-and-white aerial photographs captured in 1996.

Surficial geology and terrain mapping were completed at 1:20,000 within the RSA and the RCSA. More detailed 1:10,000 mapping was undertaken within the LSA. The mapping was completed using softcopy HD-MAPP system for the LSA and RSA. Stereoscope methods were used for the RCSA.

The landscape was subdivided into terrain polygons. These polygons were based on attributes such as surficial material(s), surface expression, slope, geomorphic processes, drainage and terrain stability. Within each polygon there were a minimum of one to a maximum of three labels that could be applied.

The key terrain attributes identified in the delineation and classification process are outlined below.

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Section 2: Methods

## 2.4.1.1 Surficial Materials

Surficial materials are defined as non-lithified, unconsolidated sediments. They form by weathering of local bedrock materials; deposition of sediments by ice, water; and wind; biological accumulation; volcanic activity; and human activity. Surficial materials are classified according to their mode of formation, transport, and deposition (Howes and Kenk, 1997). Table 4 lists the surficial materials mapped for the study areas.

Table 4: Surficial Material Types

Symbol	Surficial Material <sup>1</sup>	Description
А	Anthropogenic	Artificial materials, man-made disturbed areas
С	Colluvium	Material moved downslope as a result of gravity. Large-scale landslides are generally mapped on the basis of parent materials, but are indicated on the alignment sheets by an on-site symbol.
D	Weathered Bedrock	Debris produced by mechanical weathering typically consists of angular fragments, although plutonic rock fragments may be converted in situ to subrounded forms by spheroidal weathering. Also includes bedrock that has been altered by chemical weathering that usually contains a high proportion of residual silts and clays.
F	Fluvial	Materials transported and deposited by streams and rivers
FG	Glaciofluvial	Materials that exhibit clear evidence of having been deposited by glacial meltwater rivers
LG	Glaciolacustrine	Lacustrine materials deposited in or along the margins of temporary glacial lakes
М	Moraine	Material deposited directly by glacier ice without modification by any other agent of transportation, either through basal lodgement or melting/ablation of ice.
N	Water	Water (e.g., lakes, rivers)
0	Organic	Sediments composed largely of organic material resulting from the accumulation of vegetative matter; contain at least 30 percent organic matter by weight
R	Rock	Bedrock outcrops and rock covered by thin mantle (up to 10cm thick) of unconsolidated or organic material

## NOTE:

## 2.4.1.2 Surface Expression

Surface expression refers to the form (assemblage of slopes) and pattern of forms expressed by the land surface (landforms and geomorphology). Surface expression symbols may also describe how unconsolidated surficial materials relate to the underlying unit (Howes and Kenk 1997). Table 5 lists the surface expressions used for terrain mapping.



<sup>&</sup>lt;sup>1</sup>Defined in Terrain Classification System for British Columbia (Howes and Kenk 1997)

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Table 5: Surface Expression Classes

Symbol	Surface Expression <sup>1</sup>	Definition
а	Moderate slope	Slope 27–49 percent
b	Blanket	Surface material >1m thick
С	Cone	Fan-shaped, slope >26 percent
d	Depression	Hollow
f	Fan	Fan-shaped, slope <26 percent
h	Hummocky	Non-linear rises and hollows, most slopes >26 percent
j	Gentle slope	Slope 6–26 percent
k	Moderately steep slope	Slope 50–70 percent
m	Rolling	Elongate rises and hollows
р	Plain	Slope 0–5 percent
r	Ridged	Elongate rises
S	Steep slope	Slope >70 percent
t	Terrace	Stepped topography
u	Undulating	Non-linear rises and hollows, most slopes <26 percent
V	Veneer	Surface material > 20cm but <1 m thick
W	Mantle of variable thickness	Surface material of variable thickness ranging from 2cm to >1m
х	Thin veneer	Surface material <20cm thick

## NOTE:

## 2.4.1.3 Slope Analysis

Slope analysis was based on nine slope classes (Table 6). The purpose of the slope classes is to combine both important soil-erosion breaks and terrain-stability breaks. For example, at slope gradients of 2%, water flows along a surface, and at 60%, most terrain features are potentially unstable.

The slope analysis was based on Light Detection and Ranging (LiDAR) contour intervals within the LSA. The 10-metre contour intervals were converted into slope classes within the bioterrain mapping and assigned a primary, secondary, and tertiary slope within each polygon. For both the RSA and RCSA, less precision and accuracy is required, allowing for a simpler procedure in which the 20-foot contour interval from the Digital Elevation Model (DEM) was subdivided into the slope classes.

<sup>&</sup>lt;sup>1</sup>Defined in Terrain Classification System for British Columbia (Howes and Kenk 1997)

Table 6: **Slope Classes** 

Slope Class	Slope Range (%)	Slope Description
1	0-2	Level
2	>2-5	Nearly Level Slopes
3	>5-9	Very Gentle Slopes
4	>9-15	Gentle Slopes
5	>15-30	Moderate Slopes
6	>30-45	Strong Slopes
7	>45-60	Very Strong Slopes
8	>60-85	Extreme slopes
9	>85	Steep Slopes

### 2.4.1.4 **Geomorphic Processes**

Geomorphic processes are natural mechanisms of weathering, erosion and deposition that result in the modification of surficial materials and terrain features (Howes and Kenk 1997). Table 7 lists the geomorphic modifying process classes commonly used in terrain mapping. Permafrost was identified by photo interpretation, soil pits, and trench-log data from 2009.

Table 7: **Geomorphic Processes** 

Label	Geomorphic Modifying Process <sup>1</sup>
E	Channelled by meltwater
F	Slow mass movement
Н	Kettled
L	Surface seepage
M	Meandering channel
N	Nivation
Р	Piping
R	Rapid mass movement
S	Solifluction
U	Inundation
V	Gully erosion
X	General permafrost processes
Z	Periglacial processes
_	Denotes initiation zone

NOTE:

<sup>&</sup>lt;sup>1</sup>Defined in Terrain Classification System for British Columbia (Howes and Kenk, 1997)

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## 2.4.1.5 Terrain Stability Classification

The LSA and RSA were classified for terrain stability during bioterrain mapping. This classification was adapted from British Columbia terrain-stability mapping standards (BC Ministry of Forests and BC Ministry of Environment 1999). The terrain-stability classification was designed to address specific conditions encountered in the study areas (Table 8).

Table 8: Terrain Stability Classification

Table 6. Te	Fram Stability Classification
Terrain Stability Class	Definition
	Unstable terrain:
V	<ul> <li>Contains existing rapid mass movement initiation zones</li> </ul>
	Solifluction may occur
	Potentially unstable terrain:
	<ul> <li>Contains areas where fine-textured colluvium, or weathered bedrock &gt;70 percent</li> </ul>
IV	<ul> <li>May apply to glaciofluvial and fine-textured colluvium and weathered bedrock regions with slopes of 50–70 percent, typically rapid to well drained. Contains areas where rubbly and/or blocky colluvial slopes &gt;80 percent</li> </ul>
	<ul> <li>Contains areas where rockfall initiation is ongoing</li> </ul>
	<ul> <li>May contain areas where shallow surface landslides occur</li> </ul>
	Solifluction may occur
	Moderately stable terrain:
	<ul> <li>Contains areas of slopes 40–60 percent with moderate to poor drainage</li> </ul>
III	<ul> <li>Contains areas of slopes 20–40 percent with poor drainage and/or north-facing slopes where piping/water saturation may occur</li> </ul>
	<ul> <li>There is a potential for mass movement, though occurrences are infrequent</li> </ul>
	Solifluction may occur
	Generally stable terrain:
	<ul> <li>Contains areas of slopes 40–60 percent that are well to rapidly drained</li> </ul>
II	<ul> <li>Contains areas of slopes 15–40 percent that are imperfect to moderately-well drained</li> </ul>
	<ul> <li>Mass movement is unlikely to occur, with the exception of solifluction on north- facing slopes</li> </ul>
	Stable terrain:
	<ul> <li>Contains areas of slopes 0–26 percent that are well to rapidly drained</li> </ul>
I	<ul> <li>Contains slopes &lt;15 percent that are very poor to moderately-well drained</li> </ul>
	<ul> <li>Potential for mass movement is negligible, though solifluction may occur on north- facing slopes, or slopes in the alpine</li> </ul>
Solifluction	<ul> <li>Refers to the creep of unfrozen unconsolidated material, on moderately gentle to steep slopes</li> </ul>

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## 2.4.2 Soil Mapping Interpretations

The purpose of the soil mapping was to characterize the type of soils that occur (e.g. frozen soils, well-developed soils, wet soils) and these in turn were used to generalize the amount of topsoil available by soil type, and provide a basis for rating the soils for reclamation suitability.

For the soil baseline study, soil map units were developed based on field data and terrain conditions. A soil map unit is a -defined and named repetitive grouping of soil bodies occurring together in an individual and characteristic pattern over the soil landscape" (Gregorich, et al. 2001). Soil map units for the Project area were based on the dominant terrain characteristics in a bioterrain polygon. In some instances, the soil map unit may consist of a single soil type, but more commonly consists of a compound unit comprised of a dominant soil type with the inclusion of other soil types. Soil types are listed in Table 9. The soil map units were also used in conjunction with plot data to determine estimates for topsoil depths (Table 10).

Soil map units were developed for the LSA. No soil map units were developed for the RSA and RCSA because either soil disturbance from the Project will be non-existent or minimal in these areas, or any road upgrades that result in soil disturbance within the RCSA can be readily managed by best management practices.

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Table 9: Soil Map Unit Symbol Descriptions for the Local Study Area

Parent	Soil Map	Surface			Drainage				ge			
Material	Unit			Geoprocess	Х	X R W M I P V		٧	Soil Subgroup			
Colluvial	C1	X,V,W,S	-		х	х	х	х	_	-	-	Orthic Dystric Brunisol/Orthic Regosol (Orthic Eutric Brunisol)
	C2	a,b,j,k	-		х	х	х	-	_	-	-	Orthic Dystric Brunisol (Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol)
	C3x	all	-	X, S, Z	_	-	_	х	х	х	-	Orthic DystricTurbic Cryosol/Brunisolic Dystric Turbic Cryosol (Brunisolic Eutric Turbic Cryosol, Regosolic Turbic Cryosol)
	C4	all							х	х		Gleyed Brunisols and Rego Gleysols
Residuum	D1	all	Granodiorite		х	х	х	х	_	_	-	Orthic Dystric Brunisol
(Weathered Bedrock)	D2	all				х	х	х				Orthic Eutric Brunisol
	D3x	all	Granodiorite	X, S, Z	_	_	_	х	х	х	-	Histic Dystric Turbic Cryosol/Histic Dystric Static Cryosol
	D4x	all		X,S,Z	_	_	_	х	х	х	-	Histic Eutric Turbic Cryosol/Histic Eutric Static Cryosol
Fluvial	F1	f,t,v			-	х	х	х	-	-	-	Orthic Dystric Brunisol/Brunisolic Gray Luvisol (Orthic Eutric Brunisol)
	F2	j,p,v			-	-	_	-	х	х	-	Orthic Humic Gleysol/Rego Humic Gleysol (Gleyed Cumulic Humic Regosol)
Morainal (Till)	M1	V,W,X			_	х	х	х	_	_	-	Orthic Dystric Brunisol/Orthic Eutric Brunisol (Brunisolic Gray Luvisol)
	M3	a,b,j,m,p,u			_	х	х	х	-	-	-	Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol (Orthic Dystric Brunisol)
	M4	b,j,p,t,u			_	_	-	_	х	х	-	Rego Humic Gleysol/Orthic Humic Gleysol/Orthic Gleysol
	M5x	all		X,S,C				х	х	х		Turbic Histic Dystric Cryosol/Turbic Histic Eutric Cryosol (Orthic Dystric Static Cryosol, Orthic Eutric Static Cryosol)
Organic	O2	v (b,p with poor drainage)	-	-	-	-	_	_	_	х	х	Terric Fibrisol/Terric Mesisol
Bedrock	R1	all	-	-	_	_	-	_	-	-	-	Rock
Anthropogenic	DL											Disturbed Land

NOTE:

Definitions for surface expression, drainage and geoprocess are contained in Appendix A

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Table 10: Topsoil Depth by Soil Map Unit for the Local Study Area

Parent Material	Soil Map Unit	Soil Subgroup	Topsoil Depth (cm) <sup>1</sup>
Colluvial	C1	Orthic Dystric Brunisol/Orthic Regosol (Orthic Eutric Brunisol)	10
	C2	Orthic Dystric Brunisol (Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol)	10
	C3x	Orthic DystricTurbic Cryosol/Brunisolic Dystric Turbic Cryosol (Brunisolic Eutric Turbic Cryosol, Regosolic Turbic Cryosol)	15
	C4	Gleyed Brunisols and Rego Gleysols	10
Residuum	D1	Orthic Dystric Brunisol	10
(Weathered Bedrock)	D2	Orthic Eutric Brunisol	10
Dedrock)	D3x	Histic Dystric Turbic Cryosol/ Histic Dystric Static Cryosol	15
	D4x	Histic Eutric Turbic Cryosol/ Histic Eutric Static Cryosol	15
Fluvial	F1	Orthic Dystric Brunisol/Brunisolic Gray Luvisol (Orthic Eutric Brunisol)	10
	F2	Orthic Humic Gleysol/Rego Humic Gleysol (Gleyed Cumulic Humic Regosol)	10
Morainal (Till) M1		Orthic Dystric Brunisol/Orthic Eutric Brunisol (Brunisolic Gray Luvisol)	10
	M3	Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol (Orthic Dystric Brunisol)	10
	M4	Rego Humic Gleysol/Orthic Humic Gleysol/Orthic Gleysol	10
	M5x	Turbic Histic Dystric Cryosol/Turbic Histic Eutric Cryosol (Orthic Dystric Static Cryosol, Orthic Eutric Static Cryosol)	20
Organic	O2	Terric Fibrisol/ Terric Mesisol	70
Bedrock	R1	Rock	0
Anthropogenic	DL	Disturbed Land	0

## NOTE:

## 2.4.3 Soil Metal Analysis

Soil metal analyses were completed to provide pre-disturbance soil information, and to contribute to the evaluation of reclamation suitability. Areas that contain ore bodies often have mineralized soil associated with them, and thus have naturally elevated concentrations of some metals associated with the ore bodies. In order to assess if baseline soil conditions are affecting vegetation growth, both vegetation tissue and soil samples are collected. The baseline metals will also assist in determining whether mining activities may affect baseline soil quality.

Total recoverable concentrations of 30 elements were determined for 15 overburden samples collected during geological trenching, and 19 surface soil samples collected from soil pits and three

<sup>&</sup>lt;sup>1</sup>Topsoil depths include A, AB and LFH/O horizons

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trenches. Overburden samples were collected at depths between 0.5 and 6 meters, and surface-soil samples were collected at depths between 0 and 0.5 m.

Laboratory analytical methods are outlined in Appendix C. Analytical results were checked for exceedance of the Soil Quality Guidelines of the Canadian Council of Ministers of the Environment (CCME - CCME 1999) and Yukon Contaminated Sites Regulation (Yukon CSR - Yukon O.I.C.2002/171) for Agricultural and Parkland soils (Table 11)<sup>1</sup>.

Table 11: CCME and Yukon Agriculture and Parkland Guidelines for Soil Metals

Element		CME ng/kg)	Yukon (mg/	
	Agriculture	Parkland	Agriculture	Parkland
Antimony (Sb)	20	20	20	20
Arsenic (As)	12	12	15	15
Barium (Ba)	750	500	750	500
Beryllium (Be)	4	4	4	4
Cadmium (Cd)	1.4	10	1.5	1.5
Chromium (Cr)	64	64	50	60
Cobalt (Co)	40	50	40	50
Copper (Cu)	63	63	90	90
Lead (Pb)	70	140	100	100
Mercury (Hg)	6.6	6.6	0.6	15
Molybdenum (Mo)	5	10	5	10
Nickel (Ni)	50	50	150	100
Selenium (Se)	1	1	2	3
Silver (Ag)	20	20	20	20
Thallium (TI)	1	1	2	-
Tin (Sn)	5	50	5	50
Vanadium (V)	130	130	200	200
Zinc (Zn)	200	200	150	150

concentration for each land use category.

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<sup>&</sup>lt;sup>1</sup> Parkland guidelines are set for land uses that include wildlife and recreational use by humans, and are most applicable to the expected land uses at this site. Agricultural guidelines are set for land uses including growing food for human consumption and grazing by livestock. The Agricultural guidelines are the most stringent guidelines; metals below this guideline are within acceptable limits for all possible land uses. The most sensitive receptor listed under each land use (e.g., accidental soil ingestion by livestock, groundwater drainage, etc.) was used to establish the maximum allowable

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## 2.4.4 Soil Reclamation Suitability

Reclamation suitability is an assessment of the value of soil materials for salvage prior to disturbance and replacement as growth media in the post-disturbance landscape. The availability of suitable reclamation material is an important factor affecting the capability of a site to return to its former productivity following disturbance. Reclamation suitability ratings are used in conjunction with soil-pit and trench-log depth data to provide an estimate of suitable materials available for soil salvage and replacement. Reclamation suitability ratings of -good" or -fair" indicate materials that can be used for reclamation with no or minimal preparation. Soils rated as -poor" can be used for reclamation only after more intensive management, or possibly as a supplement if sufficient volumes of better quality soils are not available to meet reclamation specifications. The reclamation suitability ratings also provide a measure of soil quality, which helps to quantify Project effects on soil resources.

The rating system for reclamation suitability utilized in both British Columbia and Alberta was originally developed by Alberta Agriculture, Food and Rural Development in the *Soil Quality Criteria Relative to Disturbance and Reclamation* document for Alberta's Eastern Slopes (AAFRD 1987 – see also *Guide to Preparing a Mine Permit Application under the British Columbia Mines Act* [Ministry of Energy, Mines, and Petroleum Resources 2006]). This rating system indexes many characteristics that affect soil suitability for reclamation purposes, including texture, structure, coarse-fragment content, available water storage capacity, nutrient-holding capacity, salt and sodium content. The assessment of mineral soil suitability as reclamation material for this Project is based on the structure of the AAFRD rating system, but has been adapted to be specific to the pre-mining soils of the LSA, as summarized in Table 12, and described below.

## 2.4.4.1 Site-specific Soil Reclamation Suitability Rating

Site-specific reclamation suitability ratings were created to account for the soil conditions within the LSA, based on soil profile information collected in July and August 2009 by Stantec and BGC Engineering Inc.

The primary limitation for reclamation suitability for Project area soils is coarse-fragment content: many of the soils present in the LSA have high cobble and boulder contents and, while these soils have the capability to support sparse spruce and scrub brush vegetation communities, they are not suitable for salvage due to the mechanical difficulty they present, nor are they appreciably different from projected properties of mine waste materials.

Chemical properties such as reaction (pH), salinity, sodicity, and calcium carbonate (CaCO<sub>3</sub>) were not considered as affecting reclamation suitability ratings for soils in the Project area, because the parent material and site-use history do not suggest they would be limiting factors (i.e., salinity tests on soils in 1996 did not show limitations to vegetation growth). Field testing for carbonates in soil showed absent to weak reaction in the surface soil (one strong reaction was recorded in till beneath permafrost at one trench site), and pH was found to be within normal forest soil range (tending toward neutral).

Moisture and nutrient-holding capacities, and soil consistency were also not considered explicitly in the suitability ratings, because each of those properties is subject to substantial changes from

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salvage and handling procedures, and can be qualitatively approximated by soil texture and amount of organic matter in the salvaged materials.

As chemical properties were not deemed to be the most limiting factors, the reclamation suitability for Project soils was based on the most limiting soil physical properties of soil texture, coarse-fragment content, and stoniness.

Table 12: Soil Reclamation Suitability in the Local Study Area

Rating/Property	Good (G)	Fair (F)	Poor (P)	Unsuitable (U)
Coarse Fragments <sup>1</sup> (percent Volume)	<30 <sup>2</sup> ; <15 <sup>3</sup>	30–50 <sup>2</sup> ; 15–30 <sup>3</sup>	50–70 <sup>2</sup> ; 30–50 <sup>3</sup>	>70 <sup>2</sup> ; >50 <sup>3</sup>
Stoniness (percent Volume) <sup>4</sup>	<15 <sup>5</sup>	<15 <sup>6</sup>	15–30	>30
Matrix Texture	L, SiCL, SCL, SL	CL, SiL, SC, SiC, LS, S	Fractured bedrock	Consolidated bedrock

## NOTES:

Adapted from: Criteria for Evaluating the Suitability of Root Zone Material in the Eastern Slopes Region of Alberta (Soil quality criteria relative to disturbance and reclamation (revised), 2004, Alberta Soils Advisory Committee, Alberta Agriculture, Food and Rural development, Edmonton, Alberta).

Soils rated —god" or -fair" for reclamation are those soils present on the site that contain less than 15% by volume cobbles or boulders (but may have up to 50% total coarse-fragment content where gravel is the remainder of the fragment volume). Soils were given ratings of -poor" or -unsuitable" based primarily on stoniness. Organic materials overlying mineral materials were not rated for suitability, but were occasionally classified as -unsuitable" for salvage where boulders were present at the surface.

## 3 RESULTS

The following sections begin with a description of RSA and LSA physiography, and then present results for surficial material, slopes, geohazards and geoprocesses, terrain stability, soil map units, topsoil depths, and reclamation suitability for each study area.

<sup>1&</sup>gt; 0.2 to 25 cm diameter fragments in the soil material

<sup>&</sup>lt;sup>2</sup> Matrix texture finer than sandy loam

<sup>&</sup>lt;sup>3</sup> Matrix texture sandy loam and coarser

<sup>&</sup>lt;sup>4</sup> Fragments of cobble size or greater (>8 cm in diameter)

<sup>&</sup>lt;sup>5</sup> Fragments 8 – 25 cm in diameter

<sup>&</sup>lt;sup>6</sup> Fragments >25 cm in diameter

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# 3.1 Physiography

## 3.1.1 Regional Physiography

The Eagle Gold Property lies within the Yukon Plateau North Ecoregion, which encompasses the Stewart, Macmillan and Pelly plateaus, (Government of Canada 2002). The Yukon Plateau drains to the southwest by several prominent watercourses, including the Pelly, Ross, North and South McMillan, Hess, Stewart, and North and South McQuesten rivers (Bostock 1965) Nearly all the terrain in this ecoregion lies above 900 m asl, mostly ranging between 1,200 and 1,700 m asl.

The terrain dominantly consists of rolling upland plateaus and small mountain groups with nearly level tablelands dissected by deeply cut, broad U-shaped valleys. The topography of the glaciated and unglaciated portions of the Yukon Plateau is strikingly different. The unglaciated portion in the west of the Plateau has deep, narrow, V-shaped valleys and rounded upland surfaces, a type of dissection that is much less common in the glaciated areas.

The Project is within the Stewart Plateau subdivision, between two physiographically prominent, parallel northwest-southeast trending lineaments—the Ogilvie Mountain Range to the north and the steep sided Tintina Trench to the south.

All of the Stewart Plateau is broken into tablelands by a network of deeply cut broad valleys. While some of these tablelands are remarkably level and little dissected, with streams flowing at relatively gentle gradients in open valleys, the areas north of the McQuesten River, which are mainly unglaciated, are deeply and intricately dissected (Bostock 1965). The plateau itself is represented mainly by long connected ridges, with very even, though narrow, summits. The valleys are deep and narrow to the head of the stream, where they rise steeply and end abruptly. This type of dissection is typical of the unglaciated regions of the Stewart Plateau, but is lacking in the glaciated areas.

# 3.1.2 Local Study Area Physiography

The LSA, which encompasses the Dublin Gulch watershed, was not glaciated during the most recent glaciation, approximately 20,000 years ago. The watershed has not been glaciated for more than 200,000 years and has since been modified by freeze-thaw action, gravity, and water. Despite the extensive time since glaciations, evidence of glacial-ice action is still visible. In the Dublin Gulch watershed there is evidence of former cirques still recognizable in the northwest portion of the study area. However, many of these historical cirques have been subject to mass-movement processes such that the original -armchair" cirque shape is no longer recognizable. Cloverleaf patterns are visible in the headscarps of landslides, particularly in the eastern portion of the LSA. The large landslides that have modified the cirques appear to be geologically old features.

The landforms created through over-steepening of the cirques by landslides are now identified as gulches within the LSA. These gulches have been modified by rockslide, debris-slide, and ongoing rockfall activity on the sides of many of the historic landslides. Smaller landslide scarps within larger ones are likely more recent. A few show modern activity, most readily visible in Olive and Dublin Gulches.

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# 3.2 Surficial Geology

Two major episodes of glaciation in the Quaternary Period have affected the geomorphology and sedimentary record of the LSA. These glaciation episodes are: the pre-Reid (~2.5 Ma-400 Ka BP) and the Reid (~200 Ka BP) (Bond 1997; 1998a; b). In each case, ice likely originated from the Ogilvie and Wernecke mountains, and glaciation was most extensive during the pre-Reid. Thus, Quaternary deposits in the LSA consist of glacial and interglacial sediments of various ages and origins. Ice from the latest glaciation, the McConnell, which occurred approximately 20,000 years ago, did not enter the LSA, but did enter the Lynx Creek Valley (Bond 1997; 1998a; b; 1999) that lies within the RSA.

Preservation of pre-Reid glacial deposits and landforms is rare, and, aside from a few intact deposit sequences, diorite erratics at high elevation are the only record left (Bond 1998a). Landforms and sediment from the Reid glaciation are moderately preserved. Cordilleran ice advanced from the northeast, attaining a maximum height of 4400 f asl. (Bond 1998a). Ice flowed southeast down the Lynx/Haggart Creek valley, and north up the Haggart Creek valley to its headwaters (Bond 1999). Wisconsinan to Holocene organics, and alluvial and colluvial sediments drape glacial and interglacial sediments throughout the area.

## 3.2.1 Surficial Material Descriptions

Table 13 provides a summary of the surficial materials found within the LSA, RSA and RCSA; these are described in detail below. The percent coverage is derived from up to three parent material types per polygon (e.g., 60 percent Colluvium, 30 percent Organic, and 10 percent Bedrock) and is based on mapping completed at 1:20,000 scale within the RSA and RCSA, and 1:10,000 for the LSA.

The majority of the LSA is characterized as weathered bedrock and colluviums. The morainal, fluvial and glaciofluvial materials are confined to the lower sections of the gulches. The area of anthropogenic material is mostly a result of placer mining in Dublin Gulch and Haggart Creek. Figure 3-1 shows the distribution of surficial material within the LSA.

The RSA, which extends north to Haggart Creek and south to Lynx Creek, is mostly colluviums (Figure 3-2).

Glaciofluvial and fluvial material become more apparent in the RCSA, where the access road follows along Haggart Creek and the McQuesten River (Figure 3-3). Here, a series of alluvial (fluvial) fans occur along the meandering channel. These waterways also have active fluvial plains, and areas of organic material can accumulate in backwater channels and low-lying areas where drainage is impeded.

Organic material makes up very little of the surficial material in all study areas, likely due to the steep terrain conditions (which limit accumulation) and cold climate (which limits vegetation growth). Bedrock outcrops are rare. Sufficient geologic time has passed that surficial bedrock has weathered or has been moved by gravity, forming veneers and blankets over underlying bedrock.

Detailed descriptions of all surficial materials in the study areas are presented in the sections that follow.

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Table 13: Summary of Surficial Materials

LSA					
Surficial Material	Area (ha)	Percent (%)			
Anthropogenic	247.2	15.4			
Colluvium	538.0	33.5			
Weathered Bedrock	623.7	38.8			
Fluvial	31.7	1.9			
Glaciofluvial	0.9	0.1			
Moraine	123.2	7.7			
Organic	1.1	0.1			
Bedrock	40.2	2.5			
Water	0.04	0			
TOTAL	1,606.0	100.0			

RSA					
Surficial Material	Area (ha)	Percent (%)			
Anthropogenic	338.1	4.5			
Colluvium	4018.6	53.3			
Weathered Bedrock	1683.8	22.3			
Fluvial	736.3	9.8			
Glaciofluvial	138.3	1.8			
Moraine	237.6	3.2			
Organic	138.5	1.8			
Bedrock	246.8	3.3			
Water	0.1	0			
TOTAL	7,538.1	100.0			

RCSA						
Surficial Material	Area (ha)	Percent (%)				
Anthropogenic	232.2	5.1				
Colluvium	543.5	11.8				
Weathered Bedrock	50.7	1.1				
Fluvial	1321.3	28.8				
Glaciofluvial	1109.5	24.2				
Moraine	930.1	20.3				
Organic	315.1	6.9				
Bedrock	13.7	0.3				
Water	70.7	1.5				
TOTAL	4,586.1	100.0				

## 3.2.1.1 Weathered Bedrock

Weathered bedrock is mapped in 38% of the LSA, 22% of the RSA, and 1% of the RCSA. Because most of these study areas have not been glaciated in the last 200,000 years, bedrock has been exposed to the elements (wind and water) for a very long time. This chemical and mechanical erosion has resulted in the formation of weathered bedrock, or residuum. Properties of this material depend on the underlying bedrock source. In metasedimentary regions, the weathered bedrock typically has a silty clay loam matrix, and contains 20-60% angular to subangular pebble- to boulder-sized clasts. Mica is usually a component of the matrix. In granitic regions, the weathered bedrock tends to have a silty sand matrix, with 20 – 60% subangular to angular pebble- to boulder-sized clasts. Mineral grains are often present in the matrix. These sediments are generally moderately to well-drained, though drainage can be rapid on steeper slopes.

## 3.2.1.2 Colluvial deposits

Colluvial deposits are mapped in 33% of the LSA, 53% of the RSA, and 12% of the RCSA. Colluvium is formed when rock or other surficial materials such as moraine (till) move downslope. This downslope movement is caused by gravity, and water may be a factor. Colluvial deposits consist predominately of massive to crudely stratified sandy-silt to silty-sand with 0-70% angular to subangular granule- to boulder-sized clasts. In some areas, colluvial deposits consist of only angular to subangular pebble- to boulder-sized clasts, with no matrix. The clast lithologies are local, meaning that they are derived from the bedrock found within the study areas. Colluvial deposits are likely derived from weathered bedrock or bedrock, and tend to lie on slopes >30%. There are a few isolated deposits within the LSA and RSA where historic moraine (till) has moved downslope. Areas

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of colluviated till can be found, for example, in the lower reaches of Anne and Stuttle Gulches. Drainage is generally moderate to well-drained, though it can be rapid on steeper slopes.

## 3.2.1.3 Fluvial Sediments

Fluvial sediments have been mapped in 2% of the LSA, 10% of the RSA, and 30% of the RCSA. Since most of the region was not glaciated during the McConnell Glaciation, fluvial sediments have been depositing in most of the valleys for approximately 200,000 years and longer (i.e., prior to and following the Reid Glaciation). The deposition has occurred primarily during the last interglacial period (between the Reid and the pre-Reid), and these fluvial systems are mostly inactive now. The fluvial sediments commonly consist of a cap of very fine sand to silt, overlying silty-sandy gravel with 10-50% rounded to subrounded pebbles to boulders. Sediments are usually bedded, and well to moderately sorted.

Fluvial fans form at the junction of steeper slopes and flat areas, when water draining the steeper areas flows in channels during low-flow periods or as sheet floods during high-flow periods. Erosion and deposition on the fan surface thus vary with time and space. Fluvial fans are commonly affected by debris flows that interfinger with the fluvial sediments. Debris-flow deposits tend to be poorly sorted, containing a wide range of clast sizes, and most are generally massive. Over time, fluvial and/or debris-flow channels migrate laterally across the fan surface, resulting in some areas becoming inactive, while others are undergoing active erosive and depositional processes. As a result, buried organic horizons are common within the fluvial fan deposits. Lateral channel migration later buries the organics or soils and preserves them.

The fluvial fans have a low slope gradient, typically 5 - 25%. Drainage on fluvial fans ranges from well-drained to imperfect, reflecting the dominant particle sizes of the sediments.

Fluvial sediments were also deposited in the Holocene epoch. These fluvial sediments are situated along and within the modern creeks and streams. The RCSA, which follows Haggart Creek and McQuesten River, consists mainly of this type of fluvial sediments.

## 3.2.1.4 Moraine (Till) Sediments

Moraine (till) sediments have been mapped in 8% of the LSA, 3% of the RSA, and 20% of the RCSA. Moraine refers to sediment that has been deposited directly by a glacier. Morainal sediment in the study area was deposited during the Reid glaciation. These moraine (till) sediments are usually found at lower elevations, often below 3,400 feet or 1,040 m asl, and consist of poorly sorted silt, sand, clay, and gravels.

Morainal sediments are particularly common along the upper HCAR portion of the RCSA. These sediments exhibit moderate to imperfect drainage, due to fine-textured sediment and landscape position. Slow mass-movement slumps and slides are very common. These sediments can also contain permafrost and experience soil creep and solifluction, particularly on north slopes and sheltered areas.

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## 3.2.1.5 Bedrock

Bedrock outcrops occur in 2% of the RSA, 3% of the LSA, and less than 1% of the RCSA. In the LSA, bedrock can be comprised of granodiorites, and metasedimentary rock. Most of the bedrock exposures occur at higher elevations along ridges or over-steepened slopes, but most often shallow bedrock is covered by thin veneers of weathered bedrock and colluvium.

## 3.2.1.6 Glaciofluvial Sediments

Glaciofluvial sediments have been mapped in less than 1% of the LSA, 2% of the RSA, and 24% of the RCSA. These sediments were deposited by glacial meltwater during the Reid Glaciation. The sediments are typically poorly to very poorly sorted and crudely stratified, due to the rapid debris flows at the time of deposition. They occur mainly as terraces along Haggart Creek. The sediments consist of 30 – 50% subangular to subrounded pebble- to boulder-sized clasts in a silty sand matrix.

## 3.2.1.7 Organic Deposits

Organic materials were mapped in less than 1% of the LSA, 2% of the RSA and 7% of the RCSA. These deposits form by vegetation growth, decay, and accumulation in and around closed basins or on gentle slopes where the rate of accumulation exceeds that of decay. These materials are generally fibric to mesic (weakly to moderately decomposed) and tend to be less than 1 m thick. Drainage in areas of organic accumulation is generally poor to very poor. In most areas, permafrost and/or ice granules were found within deep, black spruce bog organic deposits.

## 3.2.1.8 Anthropogenic Deposits

Anthropogenic deposits are mapped in 15% of the LSA, 4% of the RSA, and 5% of the RCSA. These are sediments that have been disturbed primarily by placer mining activity, as well as mining exploration trails and trenches, and road construction.

# 3.3 Slope Analysis

Table 14 identifies the slope classes found within the LSA, RSA, and RCSA. The LSA has some of the most extreme slopes, although they are limited in extent. Gentle slopes are associated with the higher-elevation plateau on the eastern side of the LSA (Figure 3-4). The RSA has very gentle to level slopes along Lynx Creek. The steeper slopes are at higher elevations in the incised narrow valleys that feed into Haggart Creek (Figure 3-5). Along the RCSA, the slopes are steeper at the HCAR section of the access road and are gentle to nearly level for most of the SMR section where the road follows along the river (Figure 3-6).

Within the LSA, most of the slopes are moderate, between 15 and 30%, or slope class 5. Gentle slopes (slope class 4) generally occur in the Potato Hills area along the broad plateau in the eastern portion of the LSA. Very strong slopes and extreme slopes are at a higher risk of mass movement and are inherently less stable. These slopes comprise just over 10% of the LSA. These steeper slopes are associated with gulch side-walls and are found within the upper reaches of Dublin Gulch, Bawn-Boy Gulch, and Eagle Gulch.

Most of the RSA is comprised of slope classes 5 and 6, or moderate to strong slopes. The very gentle to gentle slopes are primarily confined to the creek bottoms and are concentrated in the southern portion of the RSA.

The RCSA is largely comprised of level to gentle slopes with 45% of the area at 0-2% slope where the road follows along the McQuesten River. Extreme slopes (>60 to 85%) are also common at just under half of the RCSA (45.3%) and mostly occur on the northern end and western side of the HCAR.

Table 14: Summary of Slope Classes

LSA						
Slope Class and (%)	Area (ha)	Percent (%)				
1 (0-2%)	13.8	0.9				
2 (2-5%)	0	0				
3 (>5-9%)	13.6	0.8				
4 (>9-15%)	386.1	24.0				
5 (>15-30%)	695.0	43.3				
6 (>30-45%)	321.2	20.0				
7 (>45-60%)	149.2	9.3				
8 (>60-85%)	27.2	1.7				
9 (>85%)	0	0				
TOTAL	1,606.1	100.0				

RSA						
Slope Class and (%)	Area (ha)	Percent (%)				
1 (0-2%)	15.3	0.2				
2 (2-5%)	769.4	10.2				
3 (>5-9%)	205.4	2.7				
4 (>9-15%)	686.0	9.1				
5 (>15-30%)	2685.1	35.6				
6 (>30-45%)	2329.6	30.9				
7 (>45-60%)	756.4	10.0				
8 (>60-85%)	91.0	1.2				
9 (>85%)	15.3	0.2				
TOTAL	7,538.1	100.0				

RCSA		
Slope Class and (%)	Area (ha)	Percent (%)
1 (0-2%)	2079.3	45.3
2 (2-5%)	448.1	9.8
3 (>5-9%)	653.6	14.2
4 (>9-15%)	291.6	6.4
5 (>15-30%)	910.7	19.9
6 (>30-45%)	200.5	4.4
7 (>45-60%)	3.1	0.1
8 (>60-85%)	2079.3	45.3
9 (>85%)	448.1	9.8
TOTAL	4,586.9	100.0

# 3.4 Geomorphic Modifying Processes

Geomporphic processes modify the landscape by erosion, deposition, and movement of surficial material and rock. Some of these processes pose additional stability concerns and are termed geohazards. Geomorphic processes such as seepage and rock fall are considered geohazards.

# 3.4.1 Previous Terrain Study

As part of the IEE in 1996, the previous project study area was assessed for debris flow, avalanches, and solifluction (Hallam Knight Piésold Ltd. 1996a). The authors determined that:

- There were very few ancient debris flows with no evidence of recent occurrences
- Only one rock slump was identified, at the confluence of Haggart and Lynx Creeks
- Only one avalanche track was observed, NE and outside of their study area
- Solifluction was not particularly evident in their study area; only minor areas along the north and south slopes of Lynx Creek were identified.

#### 3.4.2 Current Terrain Study

All geomorphic modifying processes, both active and inactive, were identified during terrain mapping. This classification was based on British Columbia terrain stability mapping standards. Processes identified include slow and rapid mass movements (slide, debris flow, rock fall, slump, tension cracks) as well as permafrost (including solifluction and nivation), gullying, seepage and inundation. Table 15, 16 and 17 provide summaries for the LSA, RSA and RCSA, respectively. The tables identify each process that has been mapped. Note that this assessment is an overestimate of total geomorphic processes, because the entire polygon area has been counted, rather than the specific area within the polygon that is directly affected. Additionally, some polygons where multiple processes occur have been counted twice.

Table 15: Geomorphic Processes within the Local Study Area

Geomorphic Process		Area (ha)	Percent
Rapid Mass Movement	Rapid Mass Movement Total Rapid Mass Movement		12.6
	<ul> <li>debris flow</li> </ul>	0.6	0.1
	<ul> <li>rock fall</li> </ul>	48.5	4.7
	<ul> <li>rock slide</li> </ul>	81.6	7.9
Seepage		87.2	8.4
Piping		12.3	1.2
Inundation		6.8	0.7
Permafrost processes		707.0	68.0
Solifluction		63.7	6.1
Nivation		14.1	1.4
Gullying		15.8	1.5
Meandering stream		2.0	0.2
TOTAL		1,039.6	100.0

#### NOTE:

The remaining area of the study area has no observable (mappable) geomorphic processes.

Table 16: Geomorphic Processes within the Regional Study Area

Geomorphic Process		Area (ha)	Percent
Rapid mass movement		424.3	15.6
	<ul> <li>debris flow</li> </ul>	97.1	3.6
	<ul> <li>rock fall</li> </ul>	129.3	4.8
	<ul> <li>rock slide</li> </ul>	197.9	7.3
Seepage		351.6	12.9
Piping		12.3	0.5
Inundation		172.5	6.3
Permafrost processes	Permafrost processes		46.3

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Geomorphic Process	Area (ha)	Percent
Solifluction	89.0	3.3
Nivation	14.1	0.5
Gullying	236.4	8. 7
Meandering stream	161.7	5.9
TOTAL	2,723.2	100.0

#### NOTE:

The remaining area of the study area has no observable (mappable) geomorphic processes.

Table 17: Geomorphic Processes within the Road Corridor Study Area

Geomorphic Process		Area (ha)	Percent
Slow mass movement	Total slow mass movement	189.9	9.2
Olow mass movement	Total slow mass movement  surficial slump surficial slide creep tension cracks  Total rapid mass movement debris flow rock fall rock slide bedrock slump multiple		
		57.0	2.8
		75.6	3.687
	<ul><li>creep</li></ul>	43.8	2.1
	<ul><li>tension cracks</li></ul>	13.6	0.7
Rapid mass movement	Total rapid mass movement  debris flow	222.9	10.9
	<ul><li>debris flow</li></ul>	15.1	0.7
	■ rock fall	43.8	2.1
	<ul><li>rock slide</li></ul>	42.2	2.1
	<ul> <li>bedrock slump</li> </ul>	52.7	2.56
	<ul><li>multiple</li></ul>	69.2	3.4
Seepage		173.3	8.4
Inundation		655.7	31.9
Permafrost processes		103.253	5.1
Gullying		327.7	15.9
Meandering stream		382.9	18.6
TOTAL		2,055.7	100.0

#### NOTE:

The remaining area of the study area has no observable (mappable) geomorphic processes.

#### 3.4.2.1 Geomorphic Processes within the Local Study Area

Of the observed (mapped) geomorphic processes, the dominant one within the LSA is permafrost, including solifluction and nivation (75% of mapped geomorphic processes) (Figure 3-7). Permafrost is primarily concentrated in three locations: south of the confluence of Dublin Gulch and Haggart Creek, the plateau to the east, and a small area at the head of Anne Gulch.

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Eight percent of the area of geomorphic processes is subject to seepage. Seepage occurs mostly along Haggart Creek and the lower reaches of Gulches, particularly Stuttle and Platinum. The least amount of noted geomorphic processes was within Stuttle Gulch, which contains both permafrost and seepage in the lower reaches. Platinum Gulch contains some gully erosion and permafrost, but no evidence of rapid mass movements.

Almost 13% of the observed geomorphic processes within the LSA is rapid mass movements such as rock slides and rock falls. Eagle Gulch is the most active in terms of modifying processes. Eagle Gulch contains both rock falls and rock slides, gully erosion, landslides, solifluction at the higher elevations, and permafrost and seepage in the lower reaches.

Only 2% of the geomorphic processes are gullies. These areas are at risk for small failures, as well as variable periods and intensity of water flow in ephemeral stream channels. Notable gullies were mapped within Cascallen, Stewart, Anne, and Platinum Gulch. Eagle Gulch contains the highest concentration of gullies.

#### 3.4.2.2 Geomorphic Processes within the Regional Study Area

The dominant geomorphic process within the RSA is permafrost, including solifluction and nivation, which comprises half of the mapped geomorphic processes (Figure 3-8). Approximately 13% of the geomorphic processes within the RSA is seepage, which is often associated with mid and lower slopes.

Approximately 16% of the mapped geomorphic processes within the RSA is subject to active rapid mass movements. These rapid mass movements occur as debris flows mostly in the Lynx Valley. However, they are found also as landslides and rockslides throughout the RSA.

Nine percent of the mapped geomorphic processes within the RSA is gullies. These areas are at risk for small failures, as well as variable periods and intensity of water flow. Gil Gulch has a high density of gullies and there are gullies to the north that flow into Haggart Creek.

Six percent of the mapped geomorphic processes within the RSA are areas of flooding. Inundation, or flooding, occurs along the creek and stream beds. The areas are small and are most commonly found along stretches of Lynx and Haggart Creek.

#### 3.4.2.3 Geomorphic Processes within the Road Corridor Study Area

The dominant geomorphic process within the RCSA is inundation, which represents 31% of the mapped geomorphic processes (Figure 3-9). This geomorphic process refers to potential flooding of the Haggart Creek and McQuesten River floodplains. Inundation becomes a geohazard when development occurs within the floodplain.

Sixteen percent of geomorphic processes within the RCSA are mapped as gullies. These areas are at risk for small failures, as well as variable periods and intensity of water flow.

The RCSA currently experiences active mass wasting. Eleven percent of the mapped geomorphic processes within the RCSA are subject to active rapid mass movements. The rapid mass movements are absent from the southern portion of the access road and are highly concentrated to

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the North and northwest side of the current access road between Lynx Creek and just south of Secret Creek. Nine percent of the mapped geomorphic processes within the RCSA are subject to active slow mass movements. These occur again in a similar location to the rapid mass movements but occur primarily on the south and southwest side of the current access road where there are more alluvial fans. Eight percent of the RCSA is subject to seepage, mostly in regions of slow mass movement. Additional seepage is found in the southern portions of the RCSA, and areas adjacent to creeks and the McQuesten River.

# 3.5 Terrain Stability

The study areas were classified for terrain stability (TSM) using a 5-class system that is assigned to mapped terrain polygons. The purpose of terrain stability mapping in land-use and development planning is to interpret the stability of terrain polygons where existing and/or anticipated land development may be affected by landslide hazards, and where land development may affect slope stability. These areas include land on steeper slopes, at breaks in slope, along the base of slopes, and land on colluvial and alluvial fans. Table 18 denotes the area and percentage of each class (I-V) in the study areas.

Table 18: Summary of Terrain Stability Classes

LSA			
TSM Class	Area (ha)	Percent (%)	
I	144.3	9.0	
II	942.4	58.7	
III	375.1	23.3	
IV	95.2	5.9	
V	49.0	3.1	
Total	1606.0	100.0	

RSA				
TSM Class	Area (ha)	Percent (%)		
I	1,125.9	14.9		
II	3,631.3	48.2		
III	1,890.4	25.2		
IV	671.2	8.9		
V	209.0	2.8		
Total	7,527.8	100.0		

RCSA				
TSM Class	Area (ha)	Percent (%)		
I	1,988.9	43.5		
II	1,590.5	34.8		
III	641.0	14.0		
IV	184.3	4.0		
V	164.1	3.6		
Total	4,568.8	100.0		

#### 3.5.1 Terrain Stability in the Local Study Area

Almost 60% of the LSA is classified as generally stable terrain (TSM class II terrain) (Figure 10). This terrain typically consists of slopes with a gradient between 20 – 60%, depending on drainage and aspect. Almost a quarter of the LSA is mapped as TSM class III. These moderately stable areas generally exhibit poorer drainage, and are commonly found on valley walls of the many small drainages within the LSA. Class I terrain occurs within 8% of the LSA. This stable terrain is generally flat-lying, and is situated on the plateau, as well as along parts of Platinum Gulch and Haggart Creek.

Six percent of the LSA is mapped as TSM class IV, defined as potentially unstable terrain. This terrain usually consists of slopes with a gradient between 50 - 70%, although sometimes it can be greater than 70% if draped by thin, well to rapidly drained material. Three percent of the LSA is

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mapped as TSM class V. This unstable terrain includes very steep slopes, as well as all rapid mass movement initiation regions of class IV and class V terrain. This unstable terrain occurs mainly along the upper reaches of Eagle Gulch, Stewart Gulch, Olive Gulch, Bawn-Boy Gulch, and a lower section of Anne Gulch, with the largest unstable areas occurring within Dublin Gulch.

#### 3.5.2 Terrain Stability in the Regional Study Area

The RSA is dominated by TSM class II terrain (48%) (Figure 3-11). This terrain generally consists of slopes with a gradient between 20 – 60%, depending on drainage and aspect. One quarter of the RSA is mapped as TSM class III. These moderately stable areas generally exhibit poorer drainage, and are commonly found on mid and upper slopes, and adjacent to side-slope drainage channels. Class I terrain occurs within 15% of the RSA. This stable terrain is generally flat-lying, and is situated on the plateau, as well as a large section along the bottom of Lynx Creek. Nearly ten percent of the RSA is mapped as TSM class IV, and 3% as class V. This potentially unstable and unstable terrain is on upper sloptes of Haggart and Lynx Creek valley walls. Gulches, such as Ray Gulch and Lynx Creek, which feed into Lynx and Haggart Creeks, respectively, also contain unstable terrain.

## 3.5.3 Terrain Stability in the Road Corridor Study Area

Class I terrain comprises 43% of the RCSA (Figure 3-12). This stable terrain is typically flat-lying, consisting of fluvial sediments, and situated along parts of Haggart Creek and McQuesten River. Generally stable terrain (TSM class II) makes up 35% of the RCSA. This terrain typically consists of slopes with a gradient between 20 and 60%, depending on drainage and aspect.

Fourteen percent of the RCSA is mapped as TSM class III. These moderately stable areas generally exhibit poorer drainage, and are commonly found on the south and west side of Haggart Creek opposite Secret Creek. Four percent of the RCSA is mapped as TSM class IV – potentially unstable terrain. This terrain usually consists of slopes with a gradient between 50 – 70%, with slopes greater than 70% possible if draped by thin, well to rapidly drained material. Regions of TSM class IV mainly occur along Haggart Creek on either side of Secret Creek and are sensitive to ground disturbance.

Four percent of the RCSA is mapped as TSM class V. This unstable terrain includes very steep slopes, as well as all rapid mass movement initiation zones and areas exhibiting recent mass movement activity. Regions of TSM class V occur between Secret Creek and Lynx Creek on the north and west side of the road. These areas are very sensitive to ground disturbance.

#### 3.6 Soil

In the LSA, soils have developed on a variety of surficial materials. Although the relatively cold climate has limited soil development, the last glaciations have occurred over 200,000 years BP and that time has allowed soil to develop, particularly on weathered bedrock. This section presents both the historic soil information from the Hallam Knight Piésold IEE (1996a) and the 2009 soil interpretations.

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#### 3.6.1 1995/1996 Soil Survey

The 1996 IEE from Hallam Knight Piésold classified soils in the Dublin Gulch area as Turbic Cryosols with a sandy loam texture. In general, the soils were described as being of colluvial nature on slopes averaging from 16 to 32%. This soil classification was based on a compilation of soil survey mapping of aerial photography and LANDSAT (satellite) imagery. This mapping was conducted at a scale of approximately 1:50,000 on topographic base maps, using a recognized terrain classification system and data obtained from field studies, soil samples and laboratory analyses. Generally, Eutric and Dystric Brunisols, and Turbic Cryosols, occurred on various materials from lowland to alpine environments. Podzols occurred in the alpine, though they were infrequent. Minor areas of Luvisols occurred on fine-textured glaciolacustrine deposits. Chernozemic soils and soils transitional to Chernozems occurred on steep south-facing slopes at lower elevations, but were rare.

Specifically, soils in the Dublin Gulch area were comprised of Orthic Eutric Brunisols and Dystric Brunisols, and were characterized by weak to very weak soil development. In all cases, soil profiles were characterized as consisting of thin dark-brown to black organic layers (Om Layer) overlying a shallow, moderately wet grey-brown to reddish-brown Bf Horizon, consisting of broken or angular rock fragments and gravel within a sandy-silt to silty-sand loam matrix. Described soils in the Dublin Gulch area contained little or no A Horizon. Rooting depths were observed to be between 0.2 and 0.3 m in depth.

#### 3.6.2 2009 Soil Survey

Soil map units were derived using the bioterrain mapping and geology mapping, with soil subgroups selected for map units based on plot data. Details of the plot data used in developing the soil map units are contained in Appendix E.

Within the LSA, permafrost is present in the plateau and in the lower valley bottoms adjacent to Haggart Creek and Dublin Gulch (Figure 3-13). As a result, the areas mapped as permafrost had soil within the LSA classified as Cryosolic (Table 19), as was found in the 1996 IEE. Permafrost was at times encountered within the upper 50 cm of the profile; however, in many instances, the presence of ice was not detected and the presence of permafrost relied heavily on evidence of cryoturbation, tilted trees, and trench logs that contained data to 2 m depth.

Brunisols were encountered that had a very well developed Bm horizon that could potentially develop into a Bf horizon over time. The distinction between Eutric and Dystric Brunisols is difficult to make due to the complexity of the mineral material that the soils have formed on. The soil map units formed on weathered bedrock were determined with greater accuracy using detailed geology mapping available for Dublin Gulch. Brunisols that form from weathered granodiorites can be distinguished from the finer textured soils formed on metasedimentary weathered bedrock. Minor areas of Luvisols occurred on the finer textured moraine. Fluvial material varied from silt to sand material formed from reworked coarse-textured debris flows. Areas of poorly and imperfectly drained soils were classified as Gleysols, but they comprise less than one percent of the LSA. Like the 1996 study, the majority of the soil textures in the LSA were sandy-silt to silty-sand loam matrix with angular or tabular (flat lying) coarse fragments ranging from gravel to boulders.

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Table 19: Soil Map Units with the Local Study Area

Soil Map Unit	Soil Subgroups	Area (ha)	Percent (%)
C1	Orthic Dystric Brunisol/Orthic Regosol (Orthic Eutric Brunisol)	272.4	17.0
C2	Orthic Dystric Brunisol (Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol)	235.9	14.7
С3х	Orthic DystricTurbic Cryosol/Brunisolic Dystric Turbic Cryosol (Brunisolic Eutric Turbic Cryosol, Regosolic Turbic Cryosol)	75.2	4.7
C4	Gleyed Brunisols and Rego Gleysols	9.8	0.6
D1	Orthic Dystric Brunisol	38.1	2.4
D2	Orthic Eutric Brunisol	92.0	5.7
D3x	Histic Dystric Turbic Cryosol/ Histic Dystric Static Cryosol	312.9	19.5
D4x	Histic Eutric Turbic Cryosol/ Histic Eutric Static Cryosol	161.0	10.0
F1	Orthic Dystric Brunisol/Brunisolic Gray Luvisol (Orthic Eutric Brunisol)	18.8	1.2
F2	Orthic Humic Gleysol/Rego Humic Gleysol (Gleyed Cumulic Humic Regosol)	0.2	0.0
M1	Orthic Dystric Brunisol/Orthic Eutric Brunisol (Brunisolic Gray Luvisol)	0.0	0.0
M3	Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol (Orthic Dystric Brunisol)	10.3	0.6
M4	Rego Humic Gleysol/Orthic Humic Gleysol/Orthic Gleysol	2.2	0.1
M5x	Turbic Histic Dystric Cryosol/Turbic Histic Eutric Cryosol (Orthic Dystric Static Cryosol, Orthic Eutric Static Cryosol)	102.9	6.4
O2	Terric Fibrisol/ Terric Mesisol	1.2	0.1
R1	Rock	26.1	1.6
DL	Disturbed Land	247.2	15.4
Total		1,606.0	100.0

Topsoil depths, within the LSA, are predominantly between 10 to 15 cm, which includes the A (mineral), and LFH or O (organic) horizons (Table 20). The shallower soils are generally at higher elevation and on steeper slopes (Figure 3-14). Average organic-horizon thickness is 8 cm, with correspondingly thin A horizons. In the LSA the average depth of salvageable soil material (including both topsoil and subsoil) is approximately 50 cm, which corresponds to a similar average rooting depth (although the maximum measured depth of root penetration was 120 cm). Though most rooting was concentrated in the organic materials and organic-enriched mineral soil horizons in the top 10 to 30 cm, plant roots frequently penetrated past the organic and developed mineral soil layers into the parent materials beneath.

Table 20: Topsoil Depths within the Local Study Area

Topsoil Depths (cm)	Area (ha)	Percent (%)
0 (mostly disturbed)	273.3	17.0
10	679.6	42.3
15	549.1	34.2
20	102.9	6.4
70 (organic soil)	1.2	0.1
Total	1,606.0	100.0

#### 3.6.3 Soil Baseline Element Concentrations

The results of the soil elemental analyses are summarized in Tables 21 to 24, below (see Appendix F for soil exceedeence results). Arsenic was above all guidelines in almost all soil and overburden samples. The significance of the arsenic results will be discussed separately below. For the remainder of the analyzed elements, three soil samples, and four overburden samples, had Cd, Cu, Pb, Mo, Ni, or Se concentrations which met or exceeded the lowest of the soil quality guidelines, which was often the CCME agriculture guideline limit (Tables 22 and 23).

Table 21: Surface Soil Sample Metal Exceedances

Sample	Depth (m)	Element	Concentration (mg/kg)	Guideline Limit (mg/kg)	Guideline
EGL8 NT-1	0 – 0.04	Cd	1.4	1.4	CCME Agriculture
EGL17 NT-1	0 – 0.06	Ni	54	50	CCME Agriculture, Parkland
HL6-8 S1	0.3	Se	1.3	1	CCME Agriculture, Parkland

Table 22: Overburden Sample Metal Exceedances

Sample	Depth (m)	Element	Concentration (mg/kg)	Guideline Limit (mg/kg)	Guideline
P4 S2	1.8 – 2	Cu	81	63	CCME Agriculture, Parkland
P4 52	1.8 – 2	Se	1	1	CCME Agriculture, Parkland
WR3 S1	2	Мо	5.7	5	CCME and Yukon CSR Agriculture
HL5-7 S3	2.2 – 2.5	Pb	85.8	70	CCME Agriculture
пLЭ-/ SS	2.2 – 2.5	Мо	7.8	5	CCME and Yukon CSR Agriculture
HL6 -1 S3	5 – 5.5	Ni	57	50	CCME Agriculture, Parkland
WD4 C2		Cu	84	63	CCME Agriculture, Parkland
WR1 S3	6	Se	1.2	1	CCME Agriculture, Parkland

A set of 18 historic soil samples from 1995 were also collected and analyzed for total Cu, Fe, Pb, Zn, Mo, and Hg; and evaluated against the above guidelines (full soil analysis results, see Appendix B). All samples were found to be below guideline limits for the assessed elements.

#### **Arsenic**

The soil and overburden of the LSA are highly enriched with arsenic (As), and most baseline samples collected have arsenic concentrations well above the CCME and Yukon CSR guidelines for Agriculture and Parkland soils. Only 2 of the soil samples, and none of the overburden samples, had a total arsenic concentration below CCME and Yukon CSR summary guidelines (12 and 15 mg/kg, respectively). The mean concentration of As in soils (0 – 50 cm depth) was 193 mg/kg, with a range of 2.4 to 880 mg/kg. In overburden, the mean As concentration was 320 mg/kg, ranging from 23.7 to 1350 mg/kg.

When compared to the receptor-specific guidelines provided in the Yukon CSR (Tables 23 and 24, respectively), the natural arsenic content of the soils and overburdens in the footprint are above the values considered to pose a risk to livestock, soil invertebrates, plants, and even humans. More than half of the soil samples collected are above the 50-mg/kg guideline recommended to prevent toxicity to soil invertebrates and plants, and all but one are above the limit recommended to prevent illness in livestock ingesting soil while grazing.

Table 23: Soil Arsenic Values Compared to Yukon Contaminated Sites Regulation Receptor-Specific Guidelines

Number that Exceed Guideline	Guideline Limit	Receptor
9	25	Livestock ingesting soil or fodder
7	50	Toxicity to soil invertebrates or plants
5	100	Human ingestion of soil

Table 24: Overburden Arsenic Values Compared to Yukon Contaminated Sites Regulation Receptor-Specific Guidelines

Number that Exceed Guideline	Guideline Limit	Receptor
13	25	Livestock ingesting soil or fodder
11	50	Toxicity to soil invertebrates or plants
8	100	Human ingestion of soil

The total As concentration in the soils exceeds the thresholds recommended for the protection of soil biota and vegetation by orders of magnitude (see Figure 3-15 Soil Baseline Metals and Appendix F). It is important to document these elevated pre-disturbance soil arsenic levels, so that post-closure soils analyses do not erroneously attribute elevated arsenic levels to the effects of Project development. These elevated As levels will also require consideration in planning soil handling for reclamation, and for post-closure assessment of reclamation success.

### 3.6.4 Soil Reclamation Suitability

Soil reclamation suitability ratings were calculated for plot data using the upper soil, and excluding overburden. The plot reclamation ratings are contained in Appendix E. The plot-specific ratings were developed for soil map units by looking at plot-specific soil types and parent material, and by assigning the rating to equivalent map units. The ratings for soil map units are listed in Table 25.

Table 25: Reclamation Suitability by Soil Map Unit for the Local Study Area

Parent Material	Soil Map Unit	Soil Subgroup	Reclamation Suitability <sup>1</sup>
	C1	Orthic Dystric Brunisol/Orthic Regosol (Orthic Eutric Brunisol)	U
Oallandal	C2	Orthic Dystric Brunisol (Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol)	Р
Colluvial	С3х	Orthic DystricTurbic Cryosol/Brunisolic Dystric Turbic Cryosol (Brunisolic Eutric Turbic Cryosol, Regosolic Turbic Cryosol)	G
	C4	Gleyed Brunisols and Rego Gleysols	Р
	D1	Orthic Dystric Brunisol	U
Residuum	D2	Orthic Eutric Brunisol	U
(Weathered Bedrock)	D3x	Histic Dystric Turbic Cryosol/ Histic Dystric Static Cryosol	U
,	D4x	Histic Eutric Turbic Cryosol/ Histic Eutric Static Cryosol	U
	F1	Orthic Dystric Brunisol/Brunisolic Gray Luvisol (Orthic Eutric Brunisol)	G
Fluvial	F2	Orthic Humic Gleysol/Rego Humic Gleysol (Gleyed Cumulic Humic Regosol)	G
	M1	Orthic Dystric Brunisol/Orthic Eutric Brunisol (Brunisolic Gray Luvisol)	F-G
March at (TII)	МЗ	Orthic Eutric Brunisol/Brunisolic Gray Luvisol/Orthic Gray Luvisol (Orthic Dystric Brunisol)	F-G
Morainal (Till)	M4	Rego Humic Gleysol/Orthic Humic Gleysol/Orthic Gleysol	F-G
	M5x	Turbic Histic Dystric Cryosol/Turbic Histic Eutric Cryosol (Orthic Dystric Static Cryosol, Orthic Eutric Static Cryosol)	G-F
Organic	O2	Terric Fibrisol/ Terric Mesisol	NRO
Bedrock	R1	Rock	U
Anthropogenic	DL	Disturbed Land	NRA

#### NOTE:

<sup>1</sup>Reclamation Suitability Categories: U= Unsuitable, P=Poor, F= Fair, G= Good, NRO= Not Rated Organic, NRA= Not Rated Anthropogenic

The majority of the LSA is comprised of soil unsuitable for reclamation (Table 26). The reason for the unsuitable rating is excessive stoniness, due to soil development from weathered bedrock. Broken and weathered cobbles and boulders in these materials have limited the quality of available soils. The soil that has developed in the fine fraction of these materials is suitable for reclamation use, and reclamation suitability of these materials could be improved by sorting/screening. The good and fair

ratings within the LSA comprise just over 12% of the Project area, and are from fluvial and morainal materials found in the lower gulches and valleys (Figure 3-16).

The unrated soil map units could possibly be acceptable as reclamation material. The anthropogenic or disturbed material is mostly related to placer mining, and may be usable for reclamation, but is limited in quality by coarse textures. Organic material is less than 1% within the LSA, but is also acceptable material for reclamation purposes. During salvage operations, overburden may prove essential as reclamation material due to the limited availability of suitable soil as reclamation material, and due to the accessibility of this material during pit stripping operations.

Table 26: Soil Reclamation Suitability for the Local Study Area

Reclamation Suitability <sup>1</sup>	Area (ha)	Percent (%)
F-G	12.4	0.8
G	94.2	5.9
G-F	102.9	6.4
NRA	247.2	15.4
NRO	1.2	0.1
Р	245.7	15.3
U	902.4	56.2
Total	1,606.0	100.0

#### NOTE:

Arsenic concentrations were not considered in the reclamation suitability ratings because high arsenic levels were ubiquitous. All soils with high As content were considered salvageable, as the purpose of reclamation is not to <u>improve</u> site conditions, but to ensure that the average baseline land capability is not reduced in the post-closure landscape.

#### 4 CLOSURE

Stantec has prepared this report for the sole benefit of Victoria Gold, for the purpose of documenting baseline conditions in anticipation of an environmental assessment under the Yukon Territory *Environmental and Socio-Economic Assessment Act*. The report may not be relied upon by any other person or entity, other than for its intended purposes, without the express written consent of Stantec and Victoria Gold. Any use of this report by a third party, or any reliance on decisions made based upon it, are the responsibility of such third parties.

The information provided in this report was compiled from existing documents and data provided by Victoria Gold, field data compiled by Stantec (formerly Jacques Whitford AXYS Ltd.). This report represents the best professional judgment of our personnel available at the time of its preparation.

<sup>&</sup>lt;sup>1</sup>Reclamation Suitability Categories: U= Unsuitable, P=Poor, F= Fair, G= Good, NRO= Not Rated Organic, NRA= Not Rated Anthropogenic

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report Section 5: References

Stantec reserves the right to modify the contents of this report, in whole or in part, to reflect any new information that becomes available. If any conditions become apparent that differ significantly from our understanding of conditions as presented in this report, we request that we be notified immediately to reassess the conclusions provided herein.

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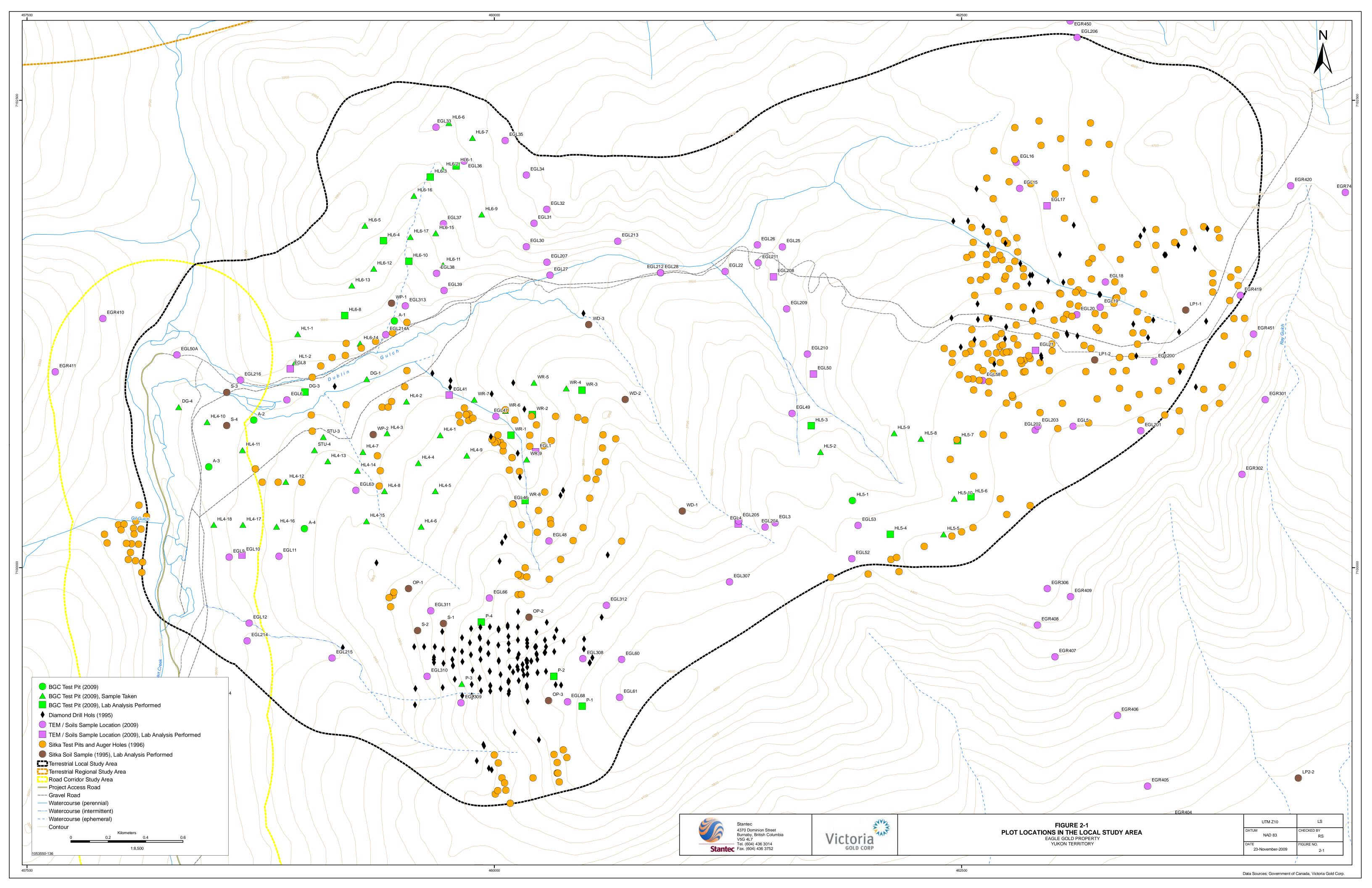
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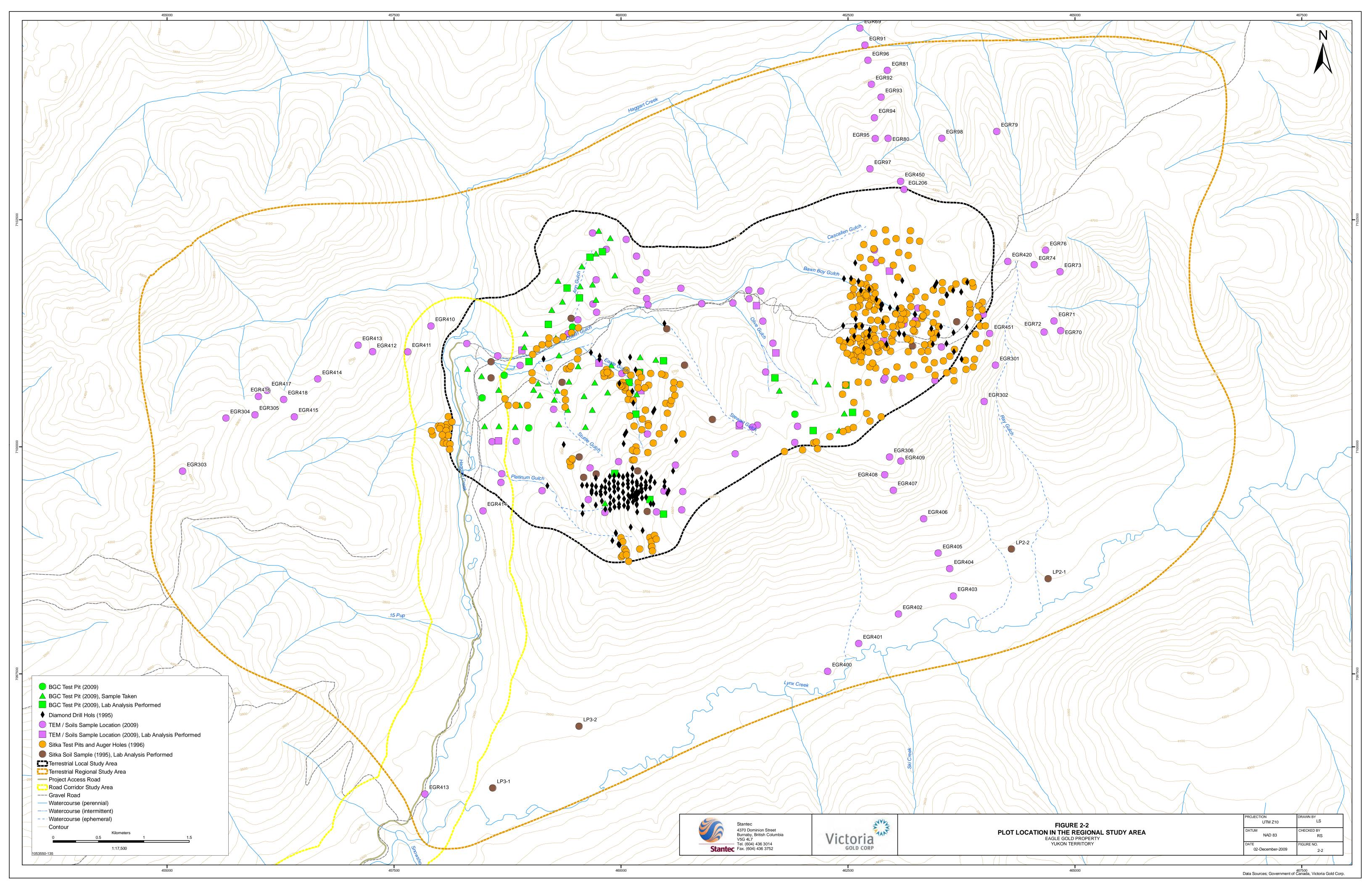
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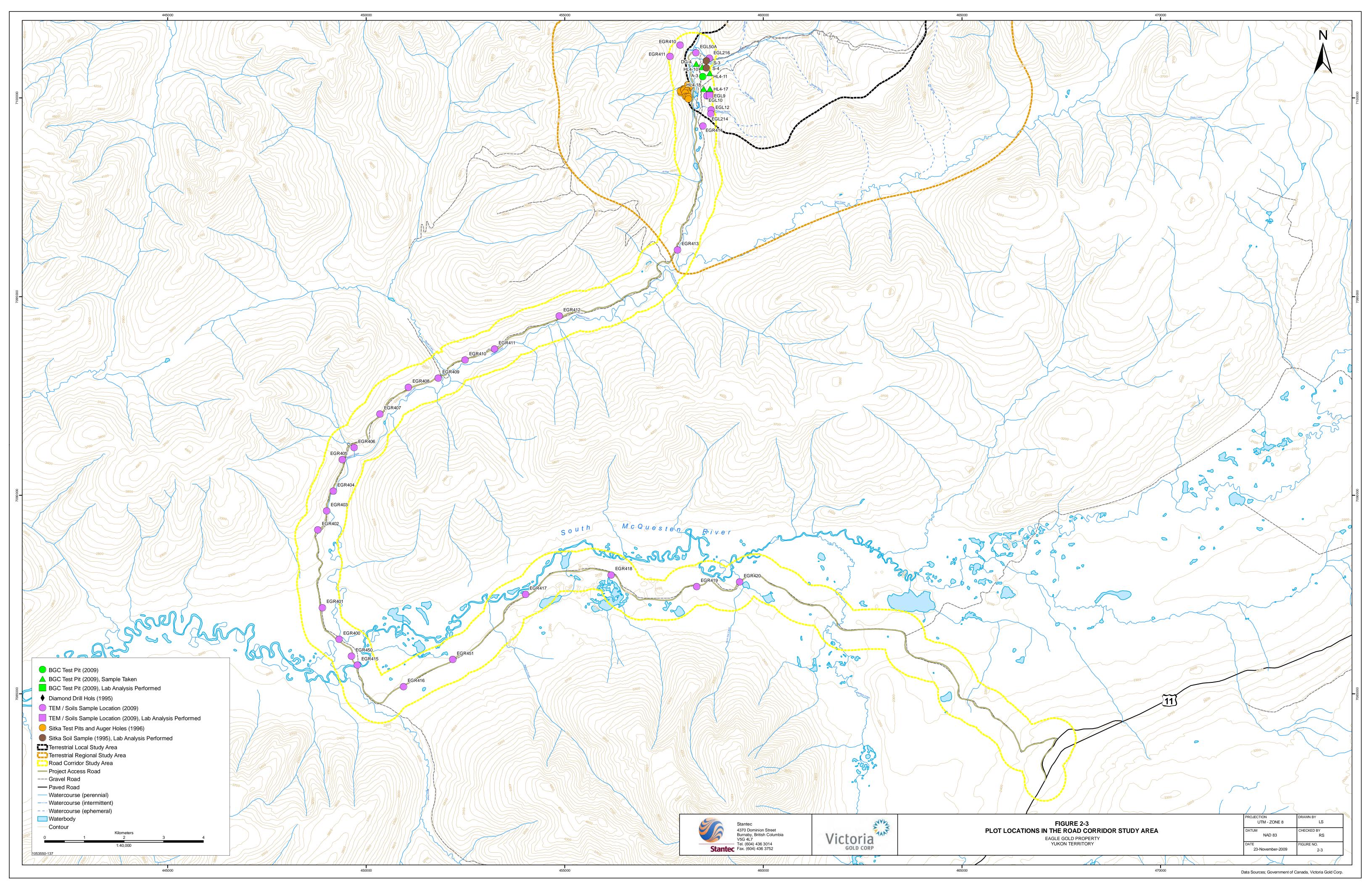
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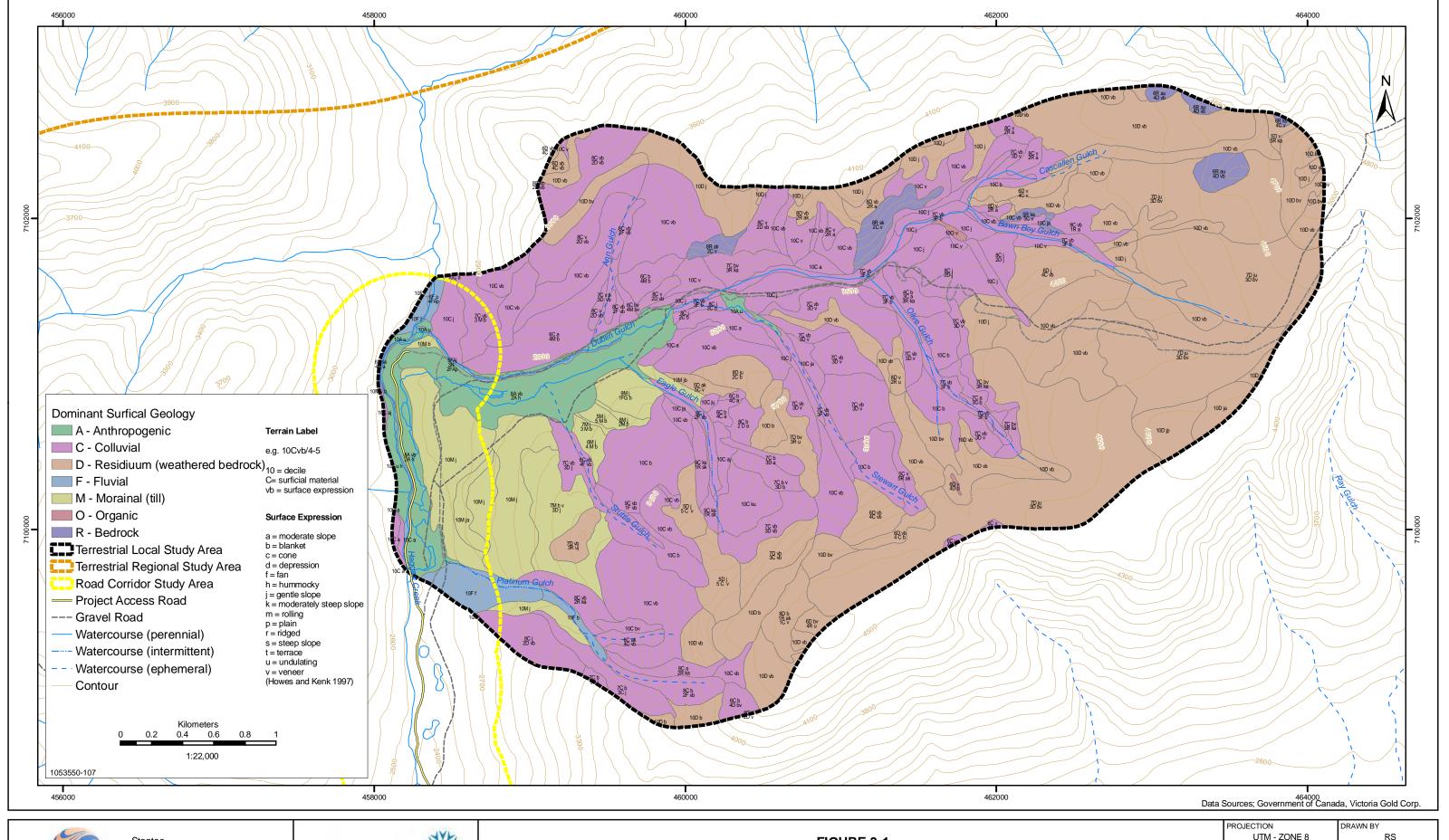
## 6 FIGURES

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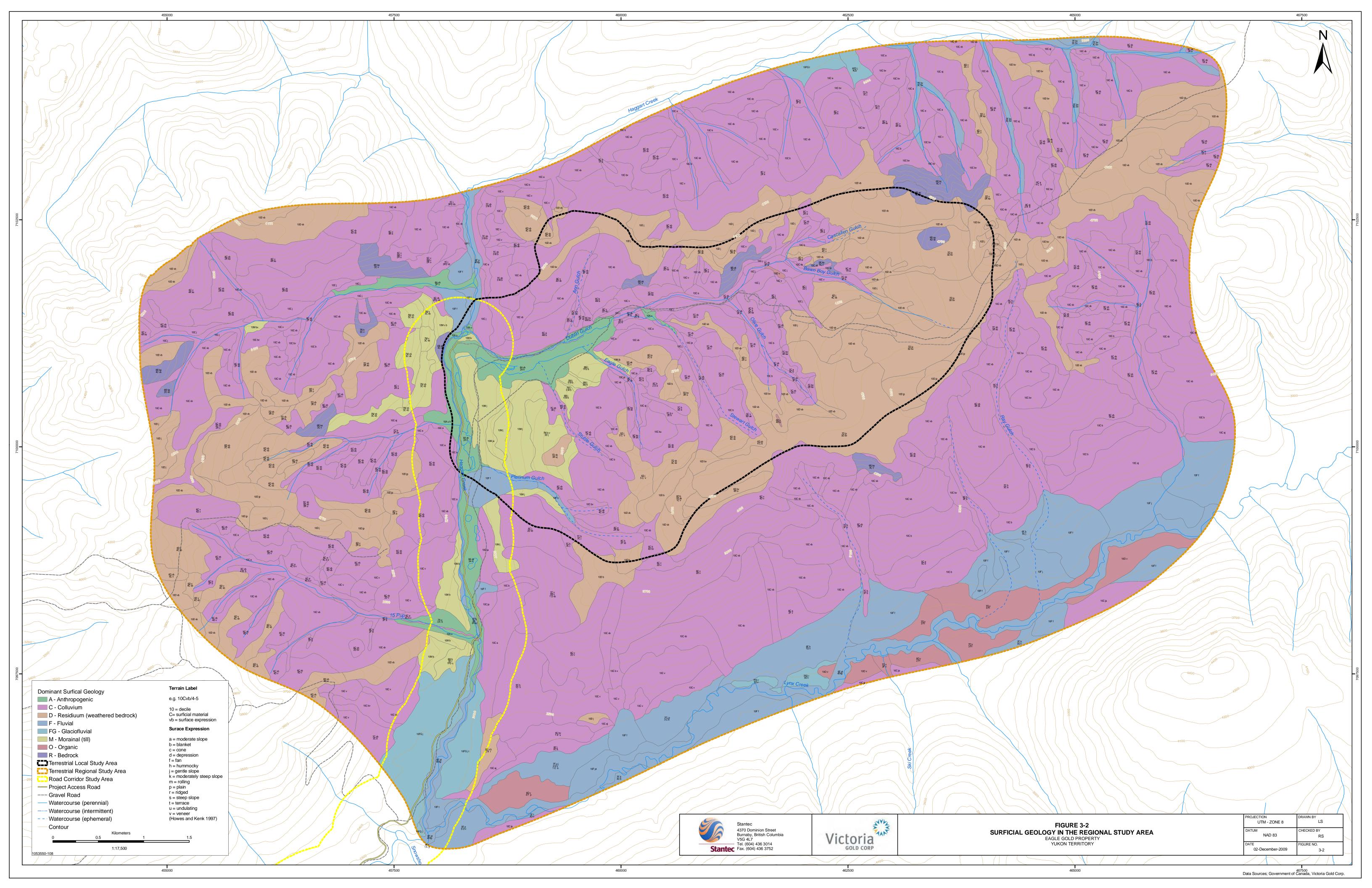


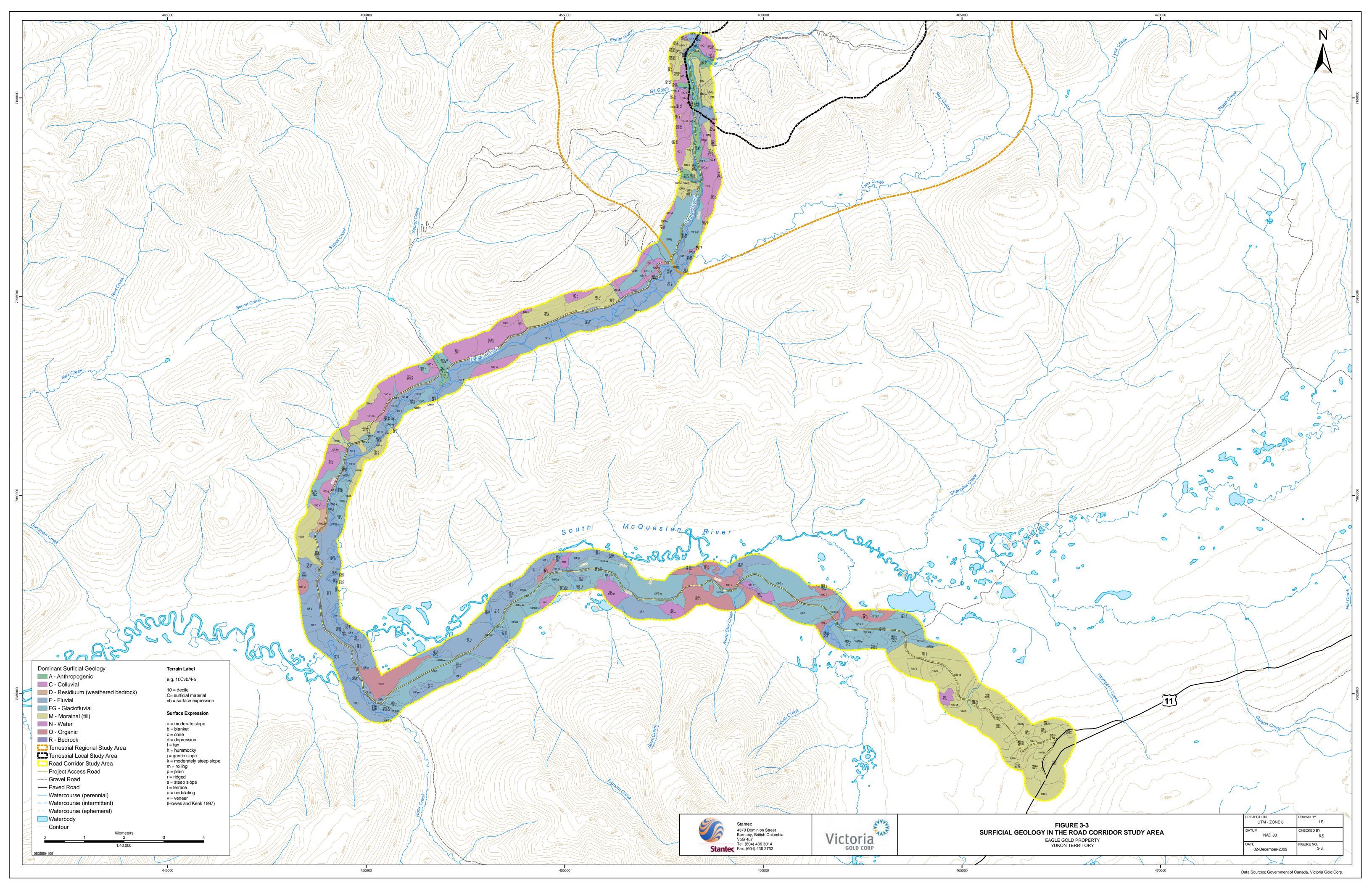


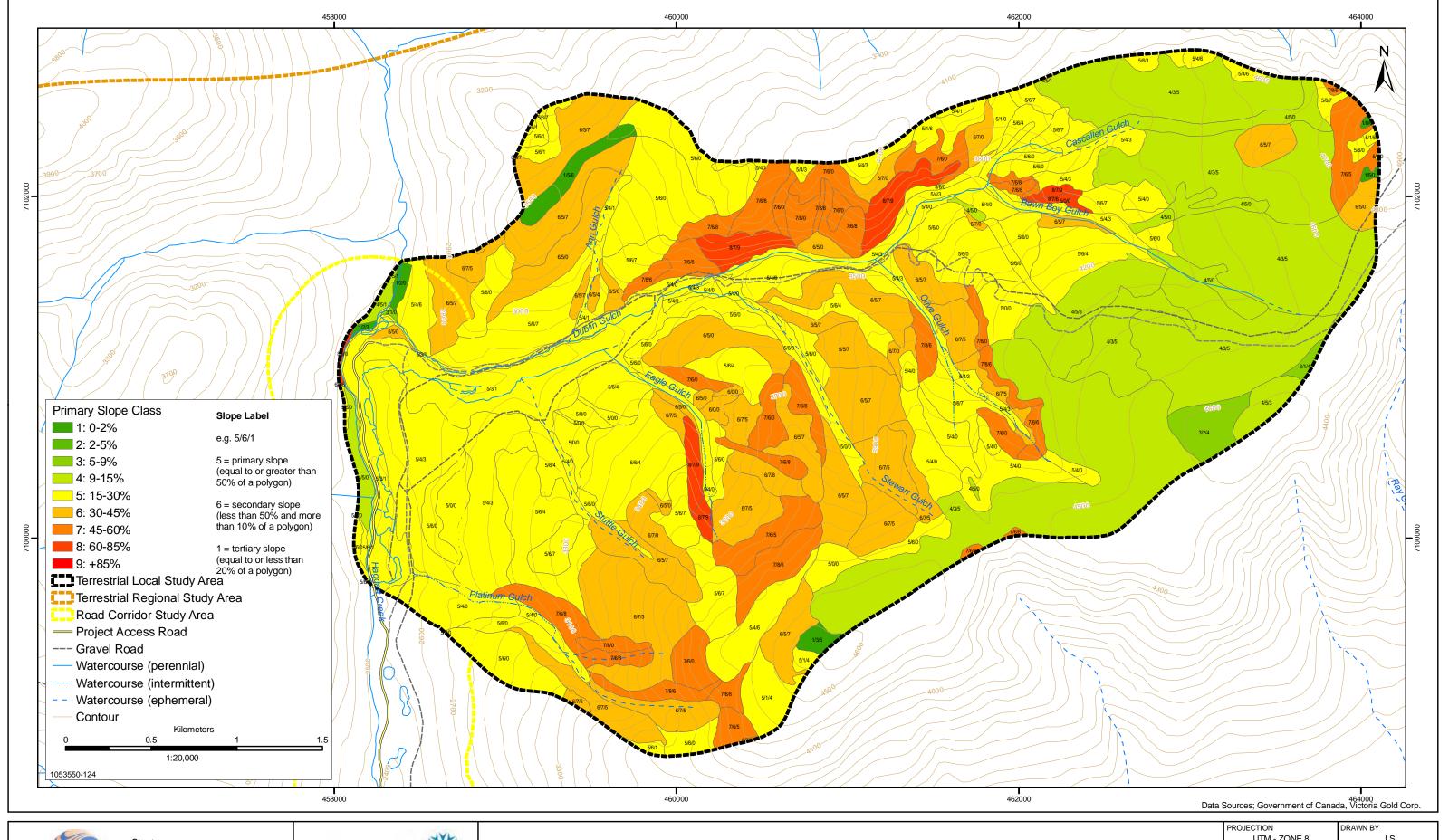
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# FIGURE 3-1 SURFICIAL GEOLOGY IN THE LOCAL STUDY AREA

PROJECTION UTM - ZONE 8	DRAWN BY RS
DATUM NAD 83	CHECKED BY
DATE 23-November-2009	FIGURE NO. 3-1





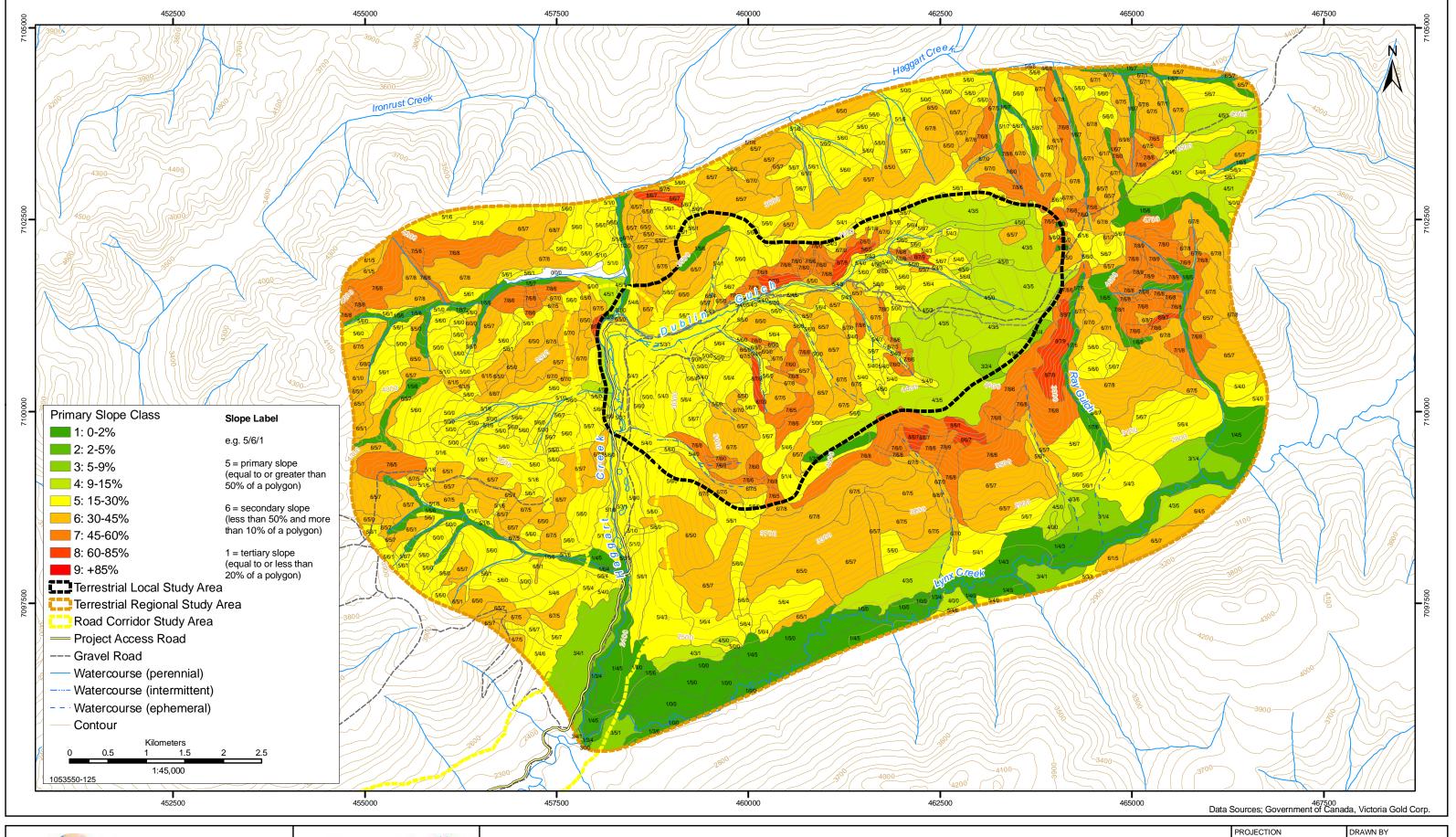






# FIGURE 3-4 PRIMARY SLOPES IN THE LOCAL STUDY AREA EAGLE GOLD PROPERTY YUKON TERRITORY

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UTM - ZONE 8	LS
DATUM	CHECKED BY
NAD 83	RS
DATE	FIGURE NO.
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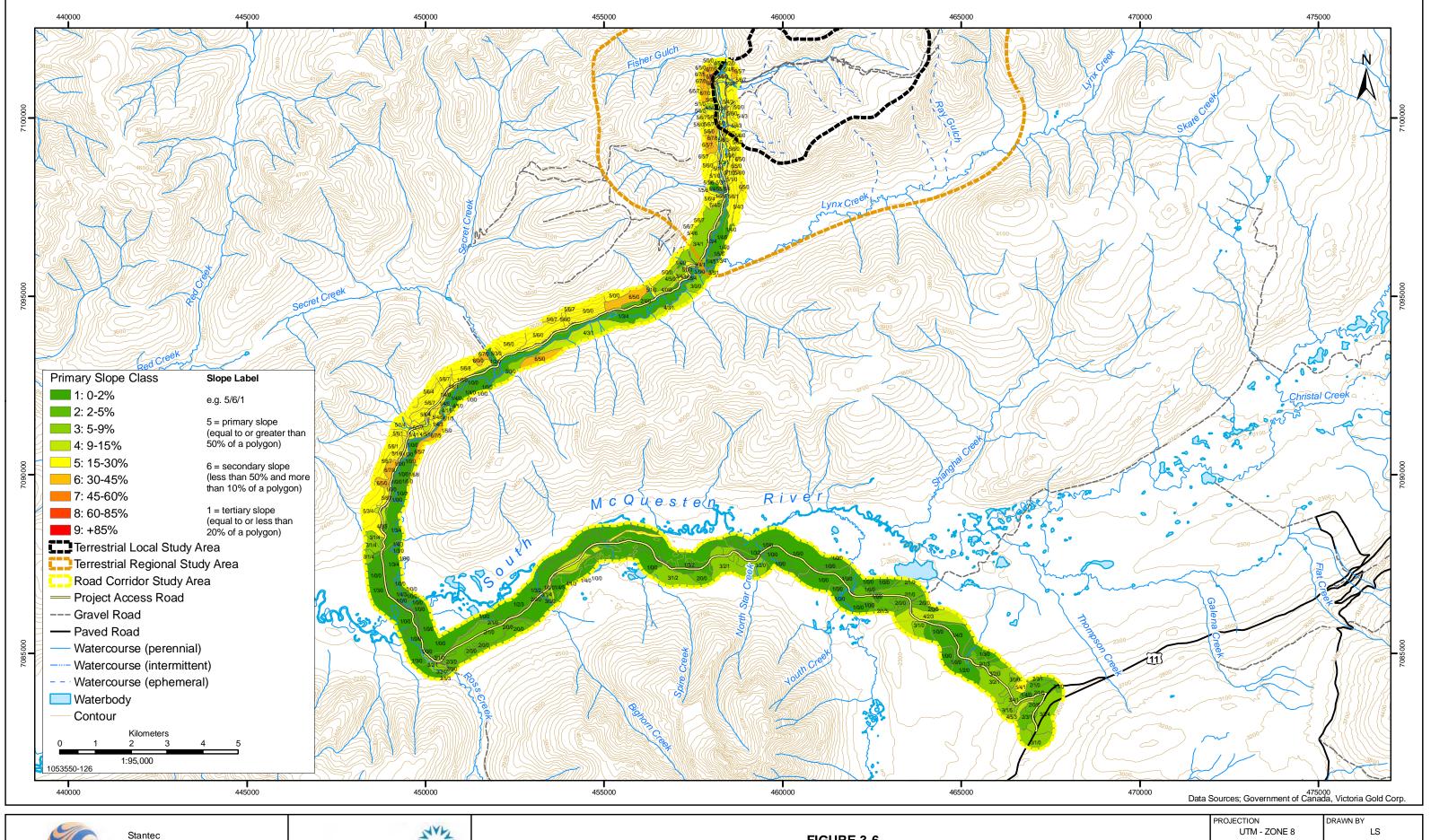






## FIGURE 3-5 PRIMARY SLOPES IN THE REGIONAL STUDY AREA

PROJECTION	DRAWN BY
UTM - ZONE 8	LS
-	CHECKED BY
NAD 83	RS
DATE	FIGURE NO.
02-December-2009	3-5

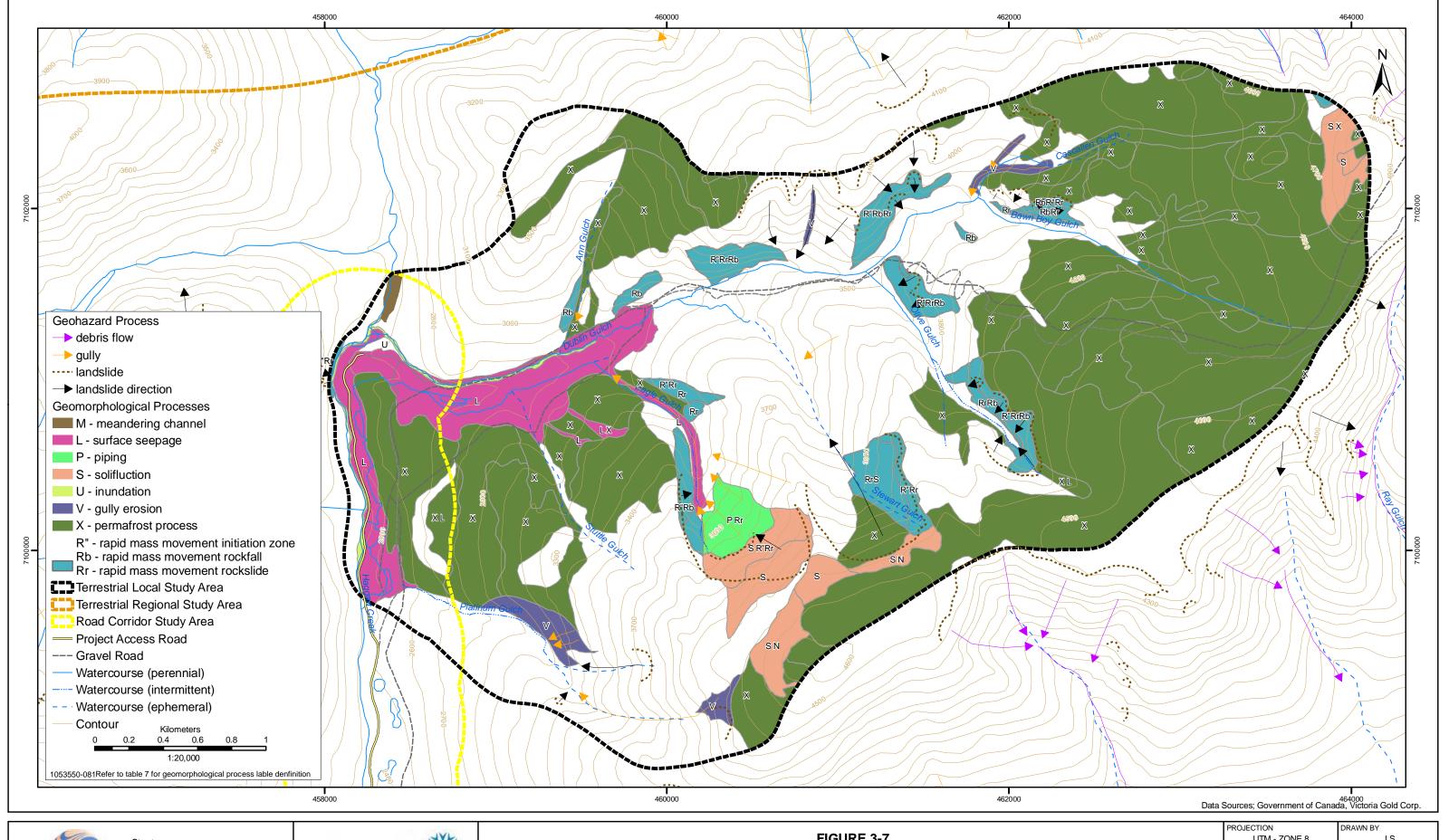






# FIGURE 3-6 PRIMARY SLOPES IN THE ROAD CORRIDOR STUDY AREA EAGLE GOLD PROPERTY YUKON TERRITORY

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DATUM	CHECKED BY
NAD 83	RS
DATE	FIGURE NO.
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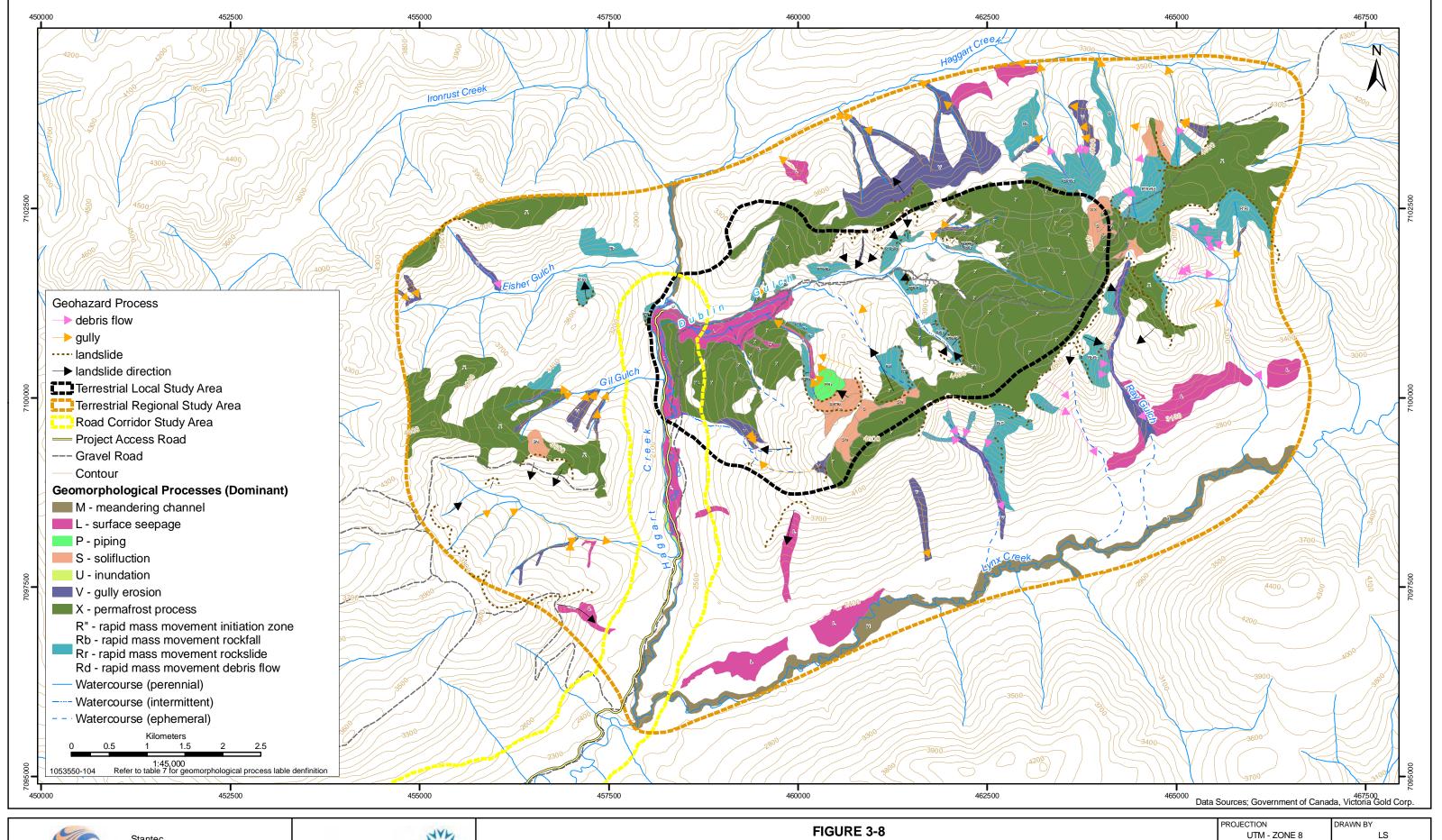




# FIGURE 3-7 **GEOHAZARDS AND GEOMORPHOLOGICAL PROCESSES** IN THE LOCAL STUDY AREA EAGLE GOLD PROPERTY

YUKON TERRITORY

DRAWN BY
LS
CHECKED BY RS
FIGURE NO. 3-7





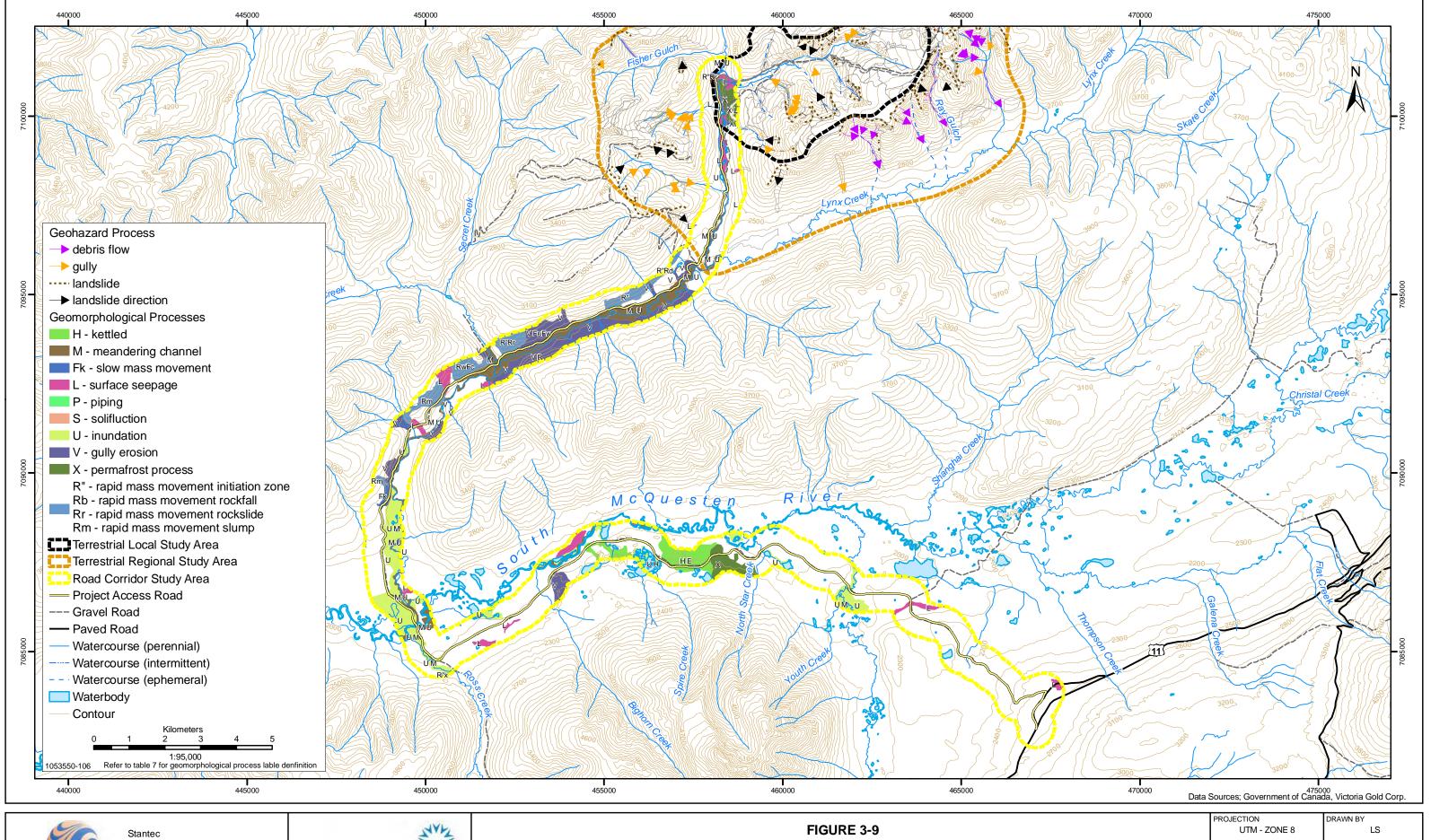
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# FIGURE 3-8 GEOHAZARDS AND GEOMORPHOLOGICAL PROCESSES IN THE REGIONAL STUDY AREA EAGLE GOLD PROPERTY

YUKON TERRITORY

PROJECTION	DRAWN BY
UTM - ZONE 8	LS
DATUM NAD 83	CHECKED BY RS
DATE 02-December-2009	FIGURE NO. 3-8



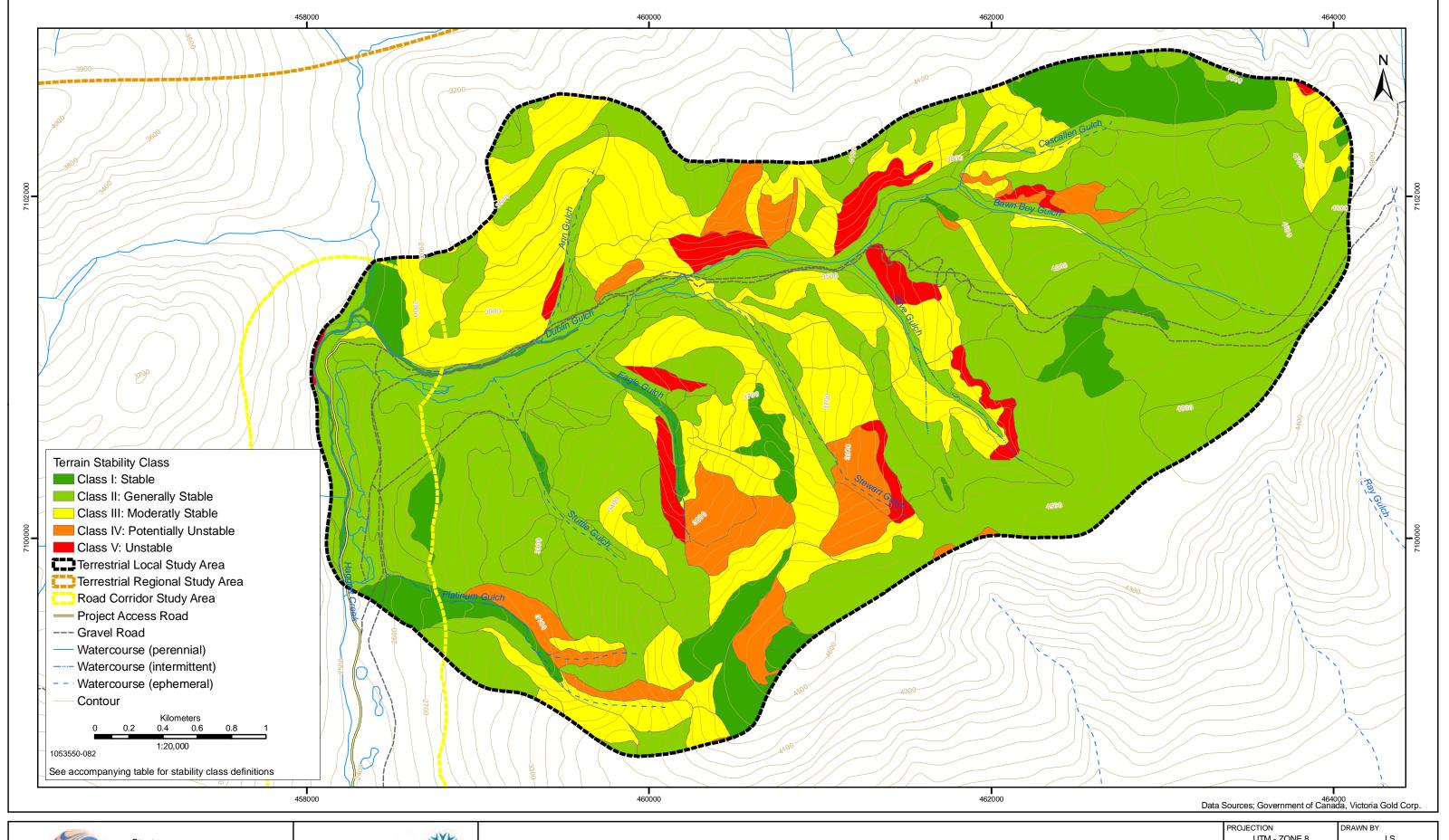


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# FIGURE 3-9 GEOHAZARDS AND GEOMORPHOLOGICAL PROCESSES IN THE ROAD CORRIDOR STUDY AREA

EAGLE GOLD PROPERTY
YUKON TERRITORY

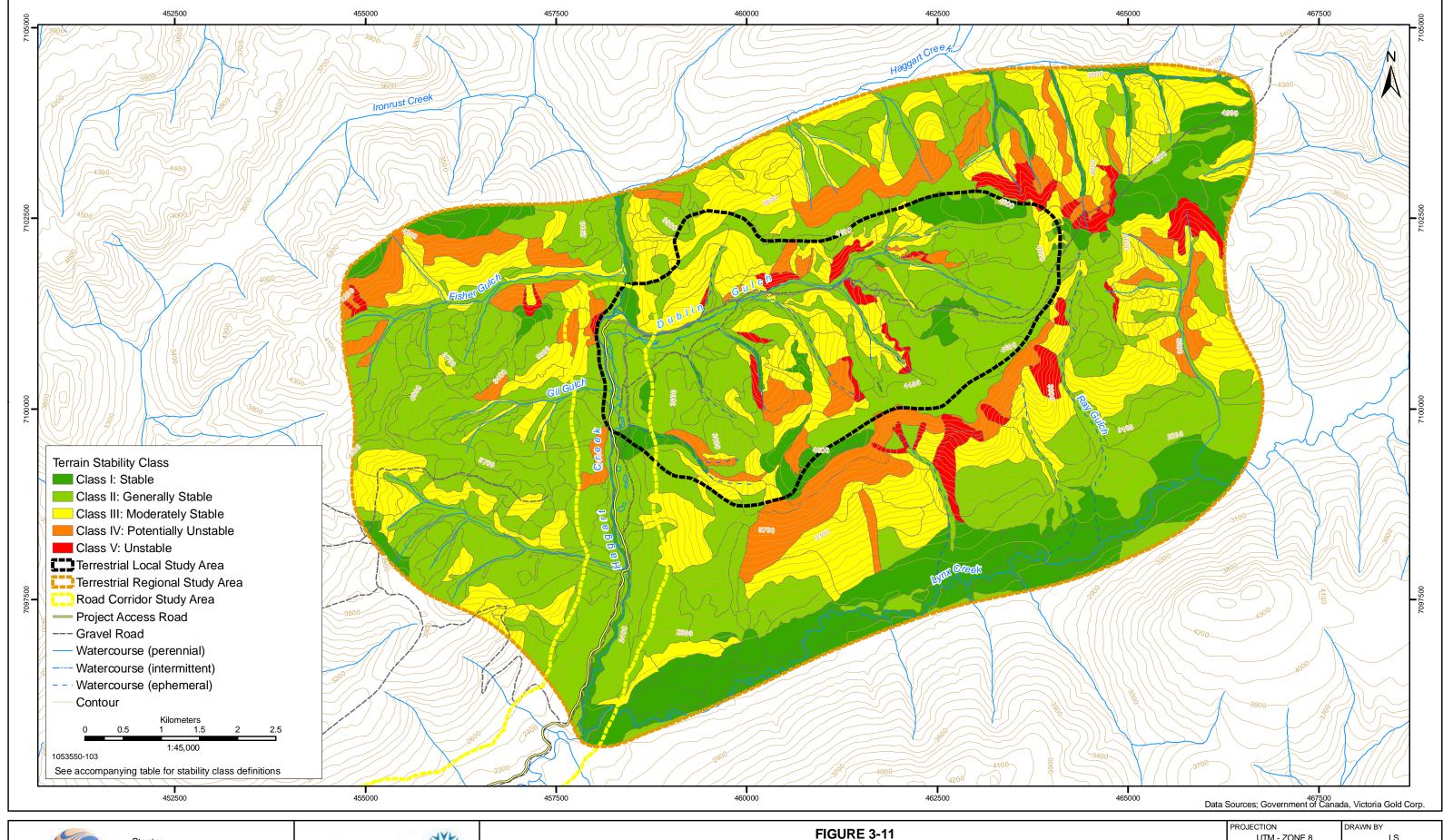






# **FIGURE 3-10:** TERRAIN STABILITY IN THE LOCAL STUDY AREA

UTM - ZONE 8 CHECKED BY RS DATUM NAD 83 EAGLE GOLD PROPERTY YUKON TERRITORY DATE FIGURE NO. 23-November-2009 3-10

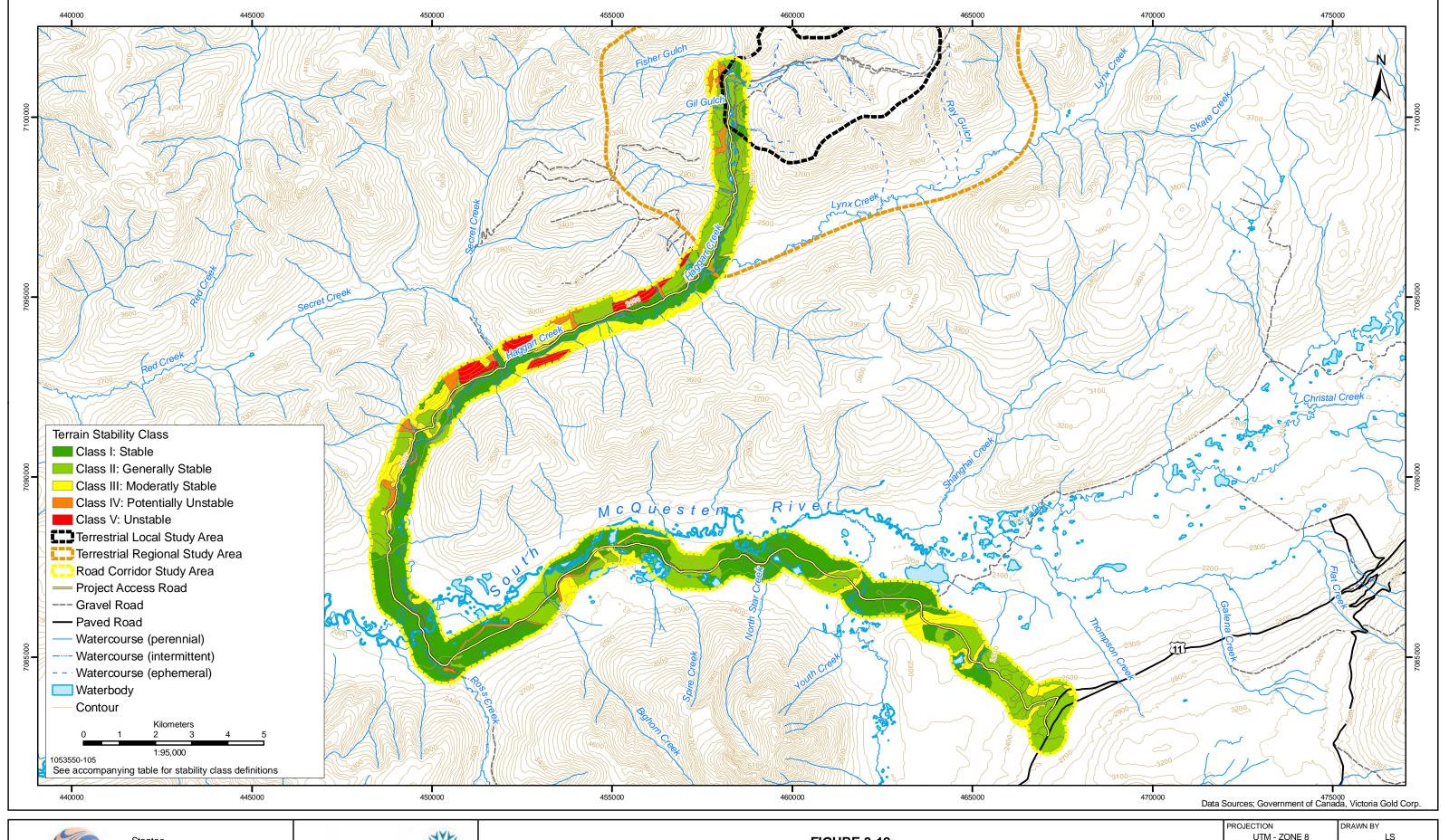






# TERRAIN STABILITY IN THE REGIONAL STUDY AREA

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DATUM	CHECKED BY
NAD 83	RS
DATE	FIGURE NO.
02-December-2009	3-11



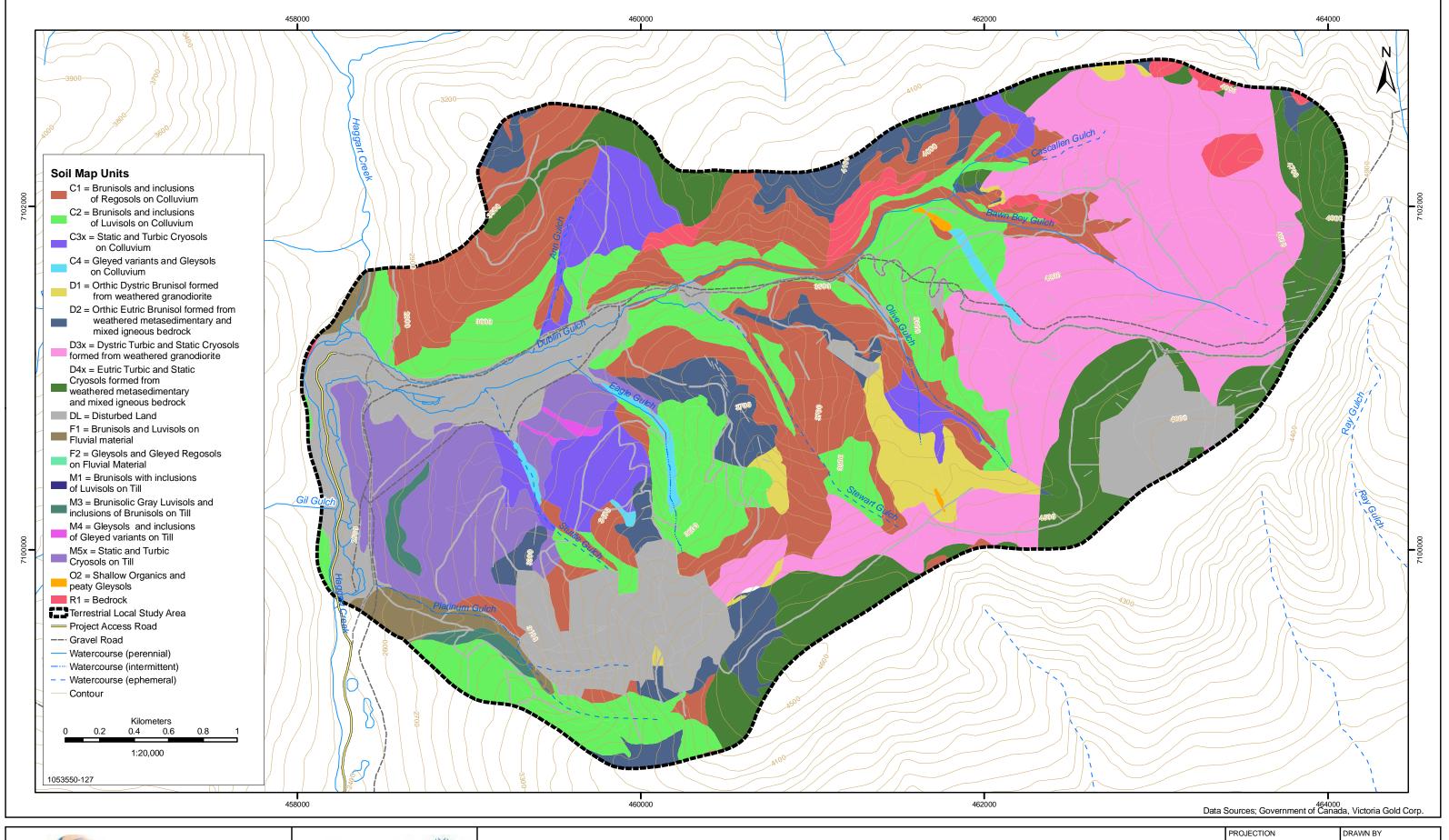


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# **FIGURE 3-12:** TERRAIN STABILITY IN THE ROAD CORRIDOR STUDY AREA

PROJECTION UTM - ZONE 8	DRAWN BY LS
DATUM NAD 83	CHECKED BY RS
DATE 02-December-2009	FIGURE NO. 3-12

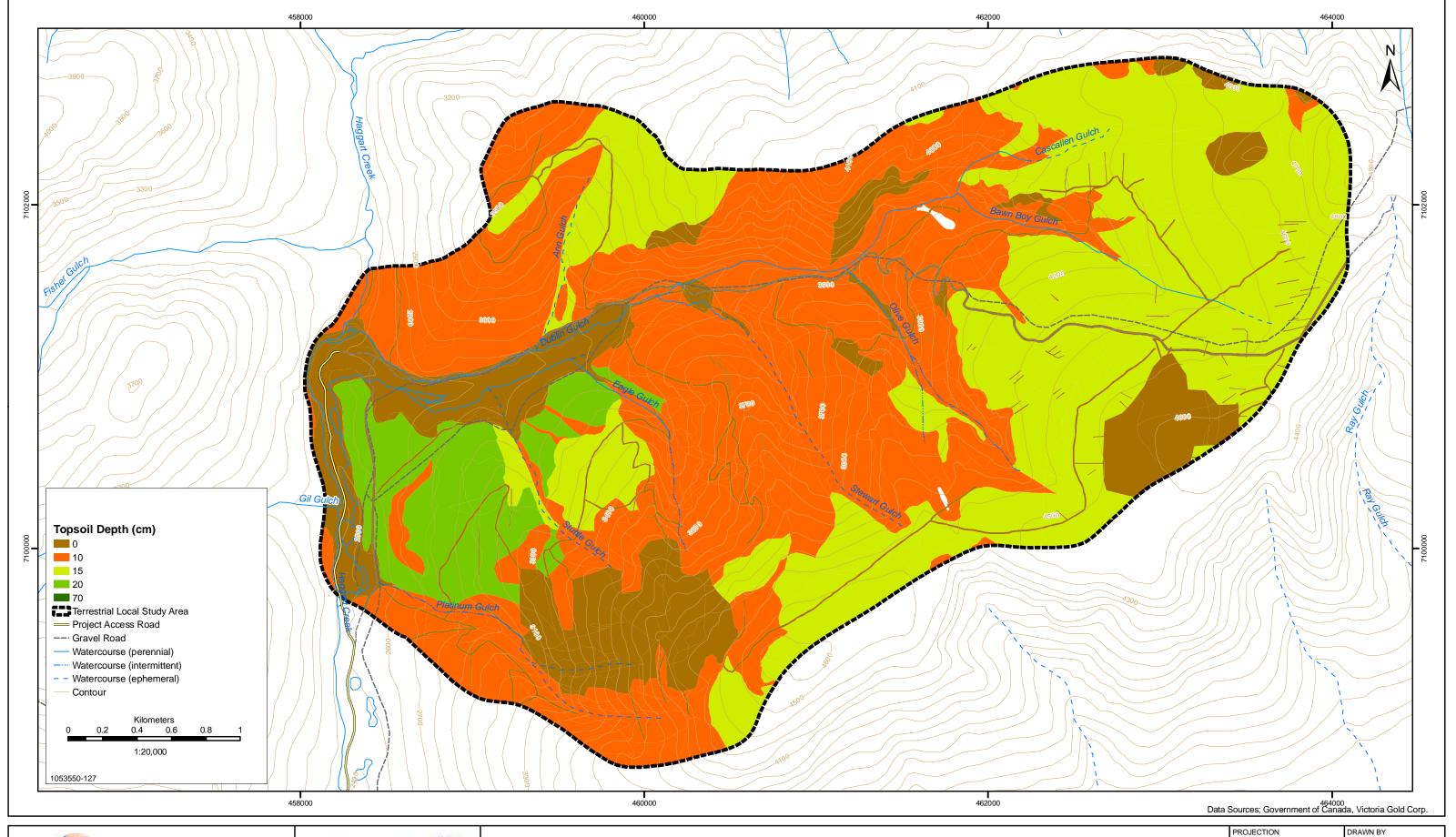






## **FIGURE 3-13:** SOIL MAP UNITS IN THE LOCAL STUDY AREA

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	DATUM	CHECKED BY	
	NAD 83	LS	
	DATE 02-December-2009	FIGURE NO. 3-13	



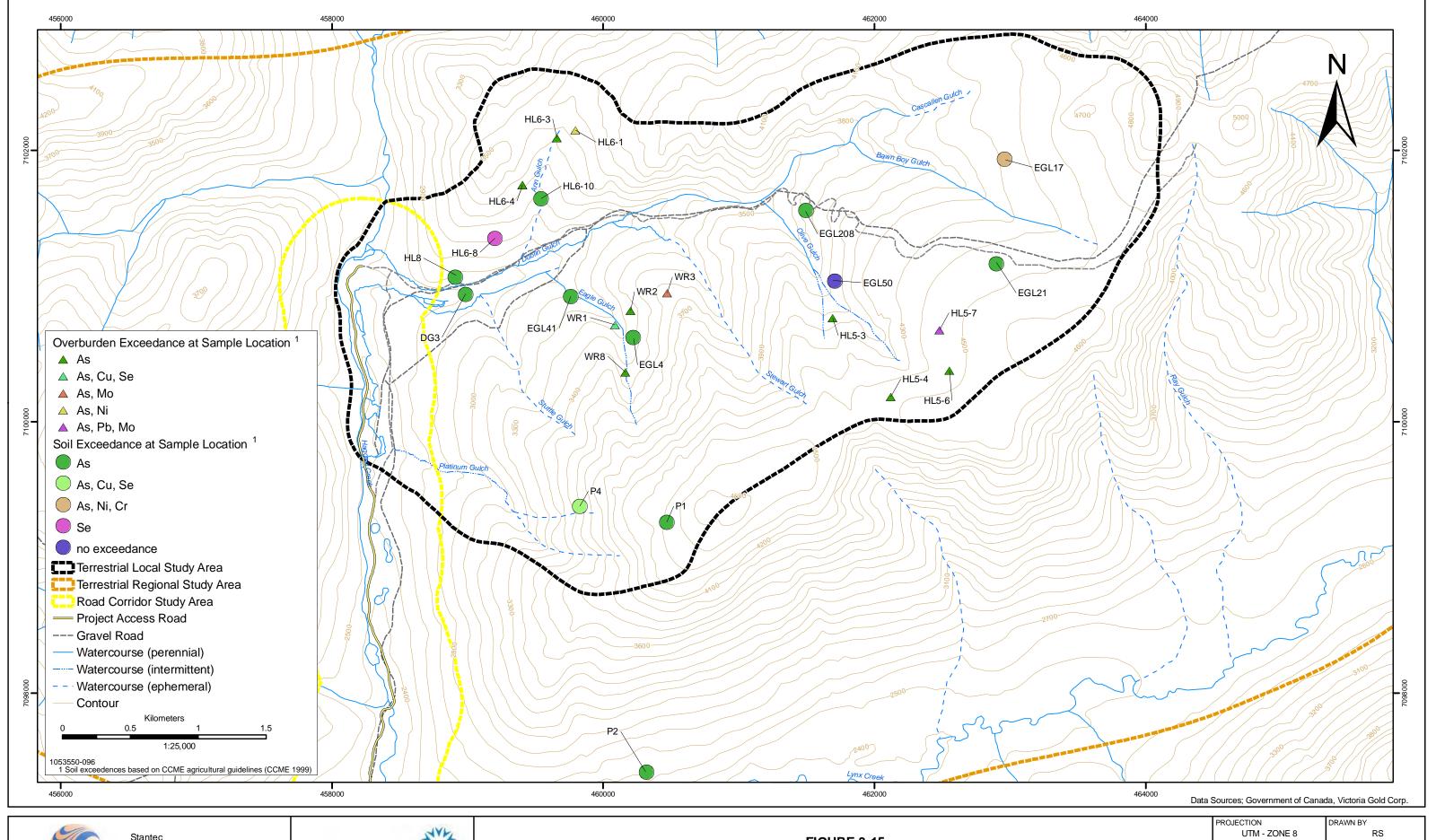


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# FIGURE 3-14: TOPSOIL DEPTHS IN THE LOCAL STUDY AREA

	PROJECTION	DRAWN BY	
	UTM - ZONE 8	NP	
	DATUM	CHECKED BY	
	NAD 83	LS	
	DATE 02-December-2009	FIGURE NO. 3-14	





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# FIGURE 3-15 SOIL BASELINE METALS IN THE LOCAL STUDY AREA EAGLE GOLD PROPERTY YUKON TERRITORY

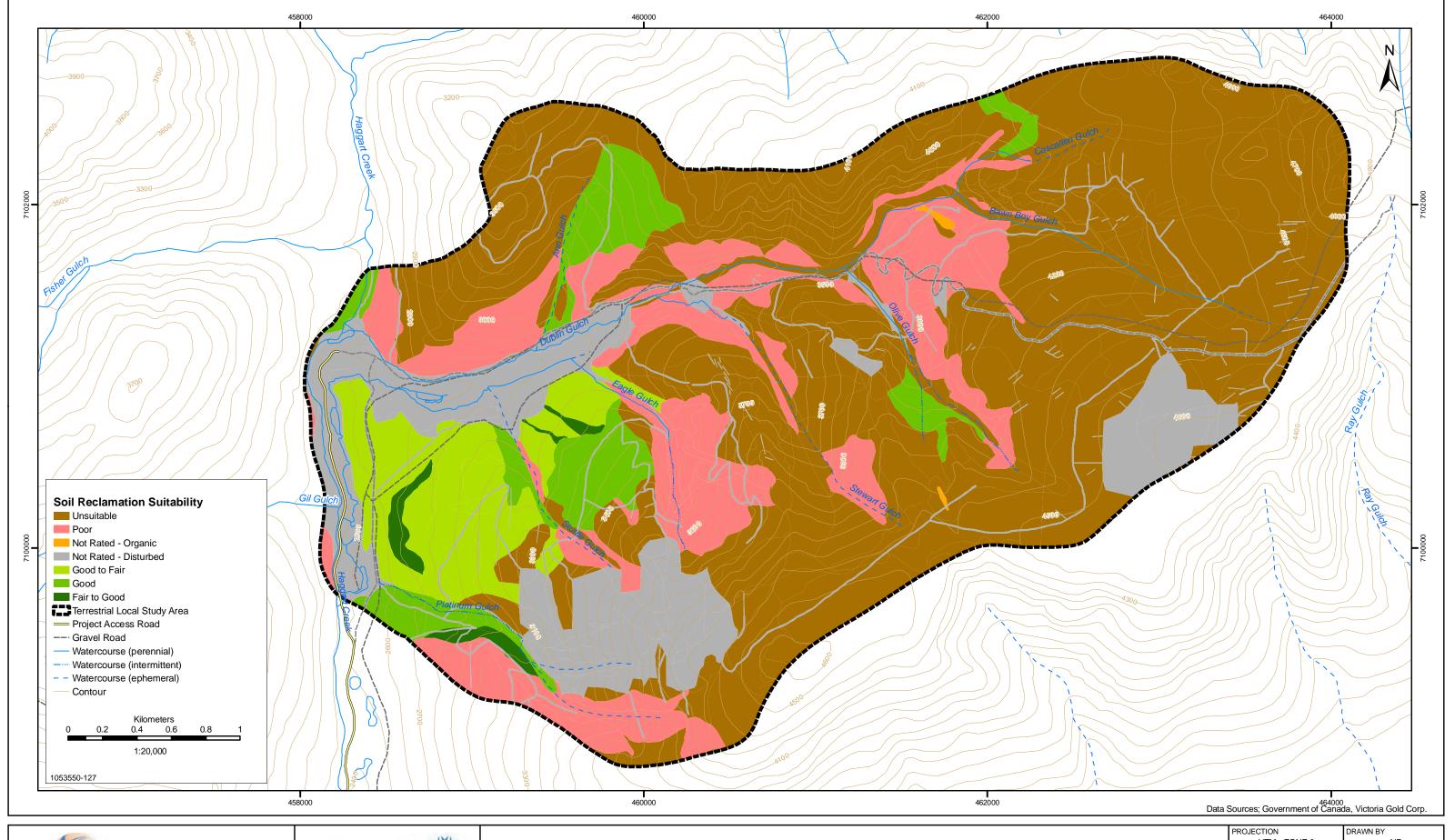
PROJECTION
UTM - ZONE 8

DATUM
NAD 83

DATE
06-January-2010

DRAWN BY
RS

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FIGURE NO.
3-15





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## FIGURE 3-16: **RECLAMATION SUITABILITY IN THE LOCAL STUDY AREA**

	PROJECTION	DRAWN BY	
	UTM - ZONE 8	NP	
	DATUM	CHECKED BY	
	NAD 83	LS	
	DATE 02-December-2009	FIGURE NO. 3-16	

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Appendix A – Terrain and Soil Glossary



# **APPENDIX A**

**Terrain and Soil Glossary** 

# Glossary<sup>1</sup>

## **Terrain Glossary**

**Alluvial fan:** A fan-shaped deposit of sand and gravel, usually located at the mouth of a tributary valley. Material is transported and deposited by concentrated running water. Typically formed by a combination of stream flood and debris flow activity.

**Anthropogenic:** Relating to, or resulting from, the influence of human beings on nature.

**Bedrock:** Bedrock outcrops and bedrock covered by a thin mantle (up to 10 cm thick) of unconsolidated or organic material.

**Bog:** An area with an acidic substrate covered or filled with wet, spongy, peat material, sphagnum mosses and stunted spruce trees. The groundwater table is usually near the surface and the drainage is characterized as very poor.

**Blanket:** A layer of unconsolidated material thick enough to mask minor irregularities of the surface of the underlying material, but still conforms to the general underlying topography. A blanket is greater than 1 m thick and possesses no constructional landforms indicative of the material's genesis; outcrops of the underlying units are rare.

**Cirque:** A steep-walled, half bowl-like recess, horseshoe-shaped or semi-circular in plan view, situated high on the side of a mountain and produced by the erosive activity of an alpine glacier.

**Clast**: An individual constituent or fragment of a sediment or rock, produced by the weathering of a larger rock mass. Synonyms include stone and fragment.

**Clay:** A detrital particle having a diameter of less than 0.002 mm. Also used to describe the clay minerals, such as bentonite and montmorillonite.

**Colluvium, colluvial materials:** Materials deposited as a result of downslope movements due to gravity, such as rockfall, landslides, and debris flows, including talus slopes and mantles of weathered bedrock.

**Cone:** A cone-shaped landform or a sector of one with a relatively smooth surface, mostly steeper than 26 percent and displaying a longitudinal profile that is straight, slightly concave or convex.

**Debris flow:** Rapid flow of slurry of saturated debris, including some or all of soil, surficial materials, bedrock, and plant debris. A general designation for all types of rapid downslope flow, including mudflows, rapid earthflows and debris torrents. Whether saturated or dry, behaves much as a viscous fluid when moving.

**Debris slide:** Downslope sliding of a mass of soil or surficial material; initial displacement is along one or several surfaces of rupture. Composed of comparatively dry and largely unconsolidated earthy material and producing an irregular, hummocky deposit.

**Debris torrent:** Rapid flow of a mixture of water, earth and vegetation debris down a steep, well-defined channel.

**Deep-seated landslide:** An area where a large amount of landslide material has moved downslope either as a relatively cohesive mass (rotational slides and translational block slides) or as an irregular,

<sup>&</sup>lt;sup>1</sup> Definitions are from Howes and Kenk (1997), Leet (1982) or Whittow (1984)

hummocky mass (earthflow). The failure surface is generally deeper than about 2 m and is usually well exposed at the head scarp. Vegetation on rotational and translational slides is relatively undisturbed. Tension cracks, scarps and shallow slides may be superimposed throughout the slide mass.

**Delta:** A landform that is commonly flat-topped and triangular or fan-shaped, made up of gravel, sand and/or finer sediments that are deposited by a river discharging into a lake or the ocean.

**Depression:** Circular or irregular area of lower elevation (hollow) than the surrounding terrain and delimited by an abrupt break in slope; side slopes within the depression are steeper than the surrounding terrain; generally are two or more metres in depth.

**Diamicton:** Very poorly sorted sediment, composed of a particle sizes ranging from silt/clay to boulders. Coarse fragments are contained within a fine-grained matrix.

**Digital Elevation Model (DEM)**: Digital representation of the ground surface topography, commonly built using remote sensing techniques to produce a relief map.

**Drainage**: Refers to the speed and extent of water removal from the soil by runoff (surface drainage) and downward flow through the soil profile (internal drainage).

**Earthflow:** The process, associated sediments or resultant landforms characterized by slow to rapid types of flow, dominated by downslope movement of soil, rock, and mud and behaving as a viscous fluid when moving.

**Escarpment:** A steep slope that is usually much wider than it is high, such as the risers of river terraces and steep faces associated with eroded stratified rocks. Escarpments are produced by erosion and faulting and topographically interrupt or break the general continuity of more gently sloping land surfaces.

**Fan:** A relatively smooth section of a cone with a slope gradient from apex to toe up to and including 26 percent, and a longitudinal profile that is either straight, or slightly concave or convex.

**Floodplain:** Flat land that is subject to flooding bordering a river; consists primarily of unconsolidated depositional material derived from sediments being transported by the river.

**Fluvial deposits:** Sediments transported by streams and rivers, and deposited as landforms such as floodplains, fluvial terraces, fans and deltas; synonymous with alluvial.

**Geomorphological process:** Natural mechanisms of weathering, erosion and deposition that result in the modification of surficial materials and landforms at the earth's surface.

**Glaciofluvial deposits:** Material moved by glaciers and subsequently sorted and deposited by streams flowing from the melting ice. The deposits are stratified and may occur in the form of outwash plains, deltas, kames, eskers, and kame terraces.

**Glaciolacustrine deposits:** Sediments transported by glacial meltwater streams and deposited in or along the margins of glacial lakes. Also includes the sediments that were released by the melting of floating ice.

**Gully erosion:** The modification of unconsolidated and consolidated surfaces by various processes such as running water, mass movement and snow avalanche, resulting in the formation of parallel and subparallel long, narrow ravines or depressions.

**HD-MAPP (High Definition Mapping and APPlications) System:** Mapping system that allows visualization of aerial photography in three dimensions on a computer monitor with the aid of specialized 3D glasses. Digital terrain mapping can be done very accurately using this system.

**Holocene:** The epoch of the Quaternary Period of geologic time following the Pleistocene Epoch (from present to about 10 to 12 thousand years ago).

**Hummocky:** The surficial expression of an area with steep-sided hillocks and hollows with multidirectional slopes dominantly between 26 and 70%. Local relief is greater than a meter.

**Interbedding:** Beds lying between or alternating with others of different character; especially rock material or sediments laid down in sequence between other beds, such as "interbedded" sand and gravel.

**Kettle:** Steep-sided depressions formed by ice melt beneath sediments (most commonly beneath glaciofluvial sediments). A kettle with water in it is a kettle lake.

**Landslide (mass wasting):** A general term for the downslope movement of large masses of earth material and the resulting landforms, caused by gravitational forces and which may or may not involve saturated materials.

Massive: A homogeneous structure, without stratification, flow-banding, foliation, or bedding.

**Matrix:** The fine-grained part of a sedimentary or glacial deposit in which the coarser material is embedded.

**Meander:** One of a series of regular, freely developing sinuous curves, bends or loops in the course of a stream.

Meltwater channel: A channel eroded by glacial meltwater either under the glacier or along its side.

**Moraine:** Poorly sorted diamicton deposited by directly from glacier ice (synonymous with till). The mineralogical, textural, structural and topographic characteristics of till deposits are highly variable and depend upon both the source of material incorporated into the glacier and the mode of deposition.

**Outwash:** Glaciofluvial sediments transported and deposited by meltwater streams beyond the margins of glaciers and ice sheets.

**Organic deposits:** Sediments composed largely of organic materials resulting from the accumulation of vegetative matter. They contain at least 30 percent organic matter by weight (17 percent or more organic carbon).

**Palaeozoic:** The era of geologic time from 570 to 225 million years ago, from the end of the Precambrian to the beginning of the Mesozoic.

**Parent material:** The original source from which a soil is chiefly derived, generally consisting of bedrock or sediment.

**Piping:** Subterranean erosion of surficial materials by flowing water that results in the formation of tubular conduits because of the removal of particulate matter.

**Plain:** A comparatively flat, level or slightly undulating tract of land, bedrock features commonly are masked by overlying sediments.

**Polygon:** A mapped area whose size and boundaries are determined by the occurrence of similar attributes or characteristics.

**Quaternary Period:** The younger of the two Cenozoic era Periods. It comprises two epochs, the Pleistocene and the Holocene (Recent).

**Ridge:** A long narrow elevation of the surface, usually sharp crested with steep sides. Ridges may be parallel, subparallel or intersecting.

**Rockfall:** The process, associated sediments or resultant landform characterized by a very rapid type of fall dominated by downslope movement of detached rock bodies which fall freely through the air.

**Sand:** A detrital particle having a diameter in the range of 0.06 to 2 mm.

**Seepage:** Water passing laterally and downslope through the soil.

**Silt:** A detrital particle having a diameter in the range of 0.002 to 0.06 mm.

**Slope:** An inclined surface, where the gradient is measured in percent by the amount of its inclination from the horizontal, and the length of which is determined by the inclined distance between its crest and its foot.

**Sorting**: Refers to the variation of particle sizes within a sedimentary unit; statistically it is a measure of the spread of the particle size distribution of either side of the mean. Well-sorted particles have a uniform size while poorly sorted ones display a wide variation of particle size.

**Slump:** The downward slipping of a mass of rock or unconsolidated material of any size, moving as a unit or as several subsidiary units, usually with backward rotation on a more or less horizontal axis parallel to the cliff or slope from which it descends.

**Surface expression**: Refers to the form (assemblage of slopes) and pattern of forms expressed by a surficial material at the land surface. This three-dimensional shape of the material is equivalent to "landform" used in a non-genetic sense.

**Surficial geology**: A category of geology concerned with the description of the types and distributions of unconsolidated sediments across the landscape; includes the study of material textures, stratification, geomorphology (surface expression), geomorphic processes, genetic interpretation, Quaternary history, etc.

**Talus:** An accumulation of sharp, angular rock fragments at the base of a cliff, produced by frost action and other processes from an exposed bedrock slope.

**Terrace:** Any relatively level or gently inclined surface, generally less broad than a plain, and bounded on one side by a steep descending slope or scarp and along the other by a steep ascending slope or scarp.

**Terrain**: The physical characteristics of the natural features of an area, e.g. its landforms.

**Terrain mapping**: The graphic representation of the physical characteristics of an area on a plane surface, showing the distribution of surficial materials, landforms and geomorphic processes on the earth surface.

Texture: Pertains to the grain sizes, shape, and arrangement of particles in a sedimentary unit.

Till: See moraine.

**Topographic position**: Refers to where a site is located relative to a slope/elevation. Examples include midslope, toeslope, etc.

**Undulating:** A very regular sequence of gentle slopes that extend from rounded, sometimes confined concavities to broad, rounded convexities producing a wave like pattern of local relief.

**Universal transverse mercator (UTM)**: A map projection system commonly used for global mapping in North America. The UTM projection divides the world into 60 zones, each of 6 degrees longitude wide, extending from 80 degrees latitude south to 84 degrees latitude North.

**Veneer:** A mantle of unconsolidated sediment too thin to mask the minor irregularities of the surface of the underlying material; between about 10 cm to 1 m thick and possessing no constructional form indicative of the deposit's genesis.

**Wisconsinan**: The last glacial period was the most recent glacial period within the current ice age, occurring in the Pleistocene epoch. It began about 110,000 years ago and ended about 9,600 - 9,700 BC. During this period there were several changes between glacier advance and retreat. The maximum extent of glaciation was approximately 18,000 years ago.

## Soil Abbreviations from Field Site Data

The following abbreviations are used in the project soils database to describe site, terrain and soil characteristics.

Horizontal and vertical curvature: CC – concave; L – level; CV – convex

**Land use**: WL – woodland; HL – hayland; NP – native pasture; Ur – urban; IP – improved pasture; Ab – abandoned land; GP – gravel pit; Wt – wetland; DL – disturbed land; CB – cutblock; Cr – Crop; NR – not rated; Lk – Lake

**Landscape slope class (%)**: 1 - <0.05; 2 - 0.06-2; 3 - 3-5; 4 - 6-10; 5 - 11-15; 6 - 16-26; 7 - 27-49; 8 - 50-70; 9 - 70-100; 10 - >100

**Moisture regime**: VX – very xeric; X – xeric; SX – subxeric; SM – submesic; M – mesic; SH – subhygric; H – hygric; SD – subhydric; HD – hydric

**Nutrient regime**: VP – very poor; P – poor; M – medium; R – rich; VR – very rich

Site drainage: X – very rapid; R – rapid; M – moderately well; I – imperfect; P – poor; VP – very poor

Slope length (m): 1 - 0-25; 2 - 25-50; 3 - 50-100; 4 - 100-500; 5 - 500-1000; 6 - >1000

Slope position: C - crest; D - depression; E - level; L - lower; M - mid; T- toe; U - upper

**Soil horizon**: Horizon types include Ah, Ae, Ahe, Bt, Btg, Btj, Bm, Bhf, Bf, Bfgj, Bmgj, Btgj, Btjgj, Ck, Csa, Cs, Cg, Cgj, Of, and Om as defined by the Soil Classification Working Group (1998). See horizon, soil below.

**Soil structure**: Grade: W – weak; M – moderate; S – strong.

Class: F – fine; M – medium; C – coarse

Kind: BL – angular blocky; CO - columnar, GR - granular, MA – massive; PL – platy; PR

- prismatic; SB - subangular blocky; SG - single grain.

See structure, soil for definitions.

Soil texture: S – sand; LS – loamy sand; SL – sandy loam; SCL – sandy clay loam; SC – sandy clay; Si – silt; SiL – silt loam; L – loam; CL – clay loam; SiCL – silty clay loam; C – clay; SiC – silty clay C – clay; HC – heavy clay

FSCL - fine sandy clay loam; GCL - gravelly clay loam.

VP refers to the von Post degree of humification as described by Soil Classification Working Group (1998). See texture, soil and von Post for details.

**Surface expression**: F -fluted; L - level; I - inclined; Ro - rolling; Ri - ridged; S - steep; T - terraced; U - undulating; H - hummocky

**Surface stoniness (%)**: 0 - <0.01; 1 - 0.01 - 0.1; 2 - 0.1 - 3; 3 - 3 - 15; 4 - 15 - 50; 5 - > 50

#### Soil Definitions of Terms

Most of the definitions are taken directly or adapted from *Soil and Environmental Science Dictionary* (Gregorich et al. 2001).

Acid soil: A soil having a pH of less than 7.0.

**Acidity:** Amount of weak and strong acids expressed as millimoles of a strong base necessary to neutralize those acids.

Alkaline soil: A soil having a pH greater than 7.0.

**Alluvium, alluvial deposit:** A general term for all detrital material deposited or in transit by streams, including gravel, sand, silt, clay and organic debris, and all variations and mixtures of these.

**Aspect:** The compass direction toward which a slope faces (expressed in units of degrees with zero degrees indicating north).

**Available nutrients:** That portion of any element or compound in the soil that can readily be absorbed and assimilated by growing plants.

B, Bt, Bm, Bg, Btg: See horizon, soil.

**Bedrock:** The solid rock (harder than 3 on Moh's scale of hardness) underlying soils and the regolith in depths ranging from zero (where exposed to erosion) to several hundred metres.

**Block field:** A surficial layer of angular shattered rocks formed in either modern or Pleistocene periglacial environments.

**Brunisolic:** A soil order of sufficient development to exclude it from the Regosolic order, but without sufficient development to include it in any other order. These soils develop under various climates and vegetation and are often characterized by a reddish colour.

C, Ck, Cg, Ckg: See horizon, soil.

**calcareous soil:** Soil containing sufficient calcium carbonate, often with magnesium carbonate, to effervesce visibly when treated with cold 0.1N hydrochloric acid.

Calcareousness: The degree to which carbonates occur in the soil.

**Cation exchange:** The interchange between a cation in solution and another on the surface of any surface-active material in the soil such as clay or organic matter.

**Cation exchange capacity:** The total amount of exchangeable cations that a soil can adsorb, expressed in centimoles (positive charge) per kg of soil (cmol<sub>c</sub>/kg).

**Classification, soil:** The systematic arrangement of soils into categories according to their inherent characteristics, or on some interpretation of those properties for various uses. Broad groupings are made based on general characteristics and subdivisions are made according to more detailed differences in specific properties. The Canadian system describes soils hierarchically, using five categories: order, great group, subgroup, family and series.

**Clay:** (i) As a particle size term: a size fraction less than 0.002 mm equivalent diameter, or some other limit (geology or engineering). (ii) As a rock term: a natural, earthy, fine grained material that develops plasticity with a small amount of water. (iii) As a soil term: a textural class. See also 'texture, soil'. (iv) As a

soil separate: a material usually consisting largely of clay minerals but commonly also of amorphous free oxides (sesquioxides) and primary minerals.

**coarse fragments (CF):** Rock or mineral particles (harder than 3 on Moh's scale of hardness) larger than 2 mm in diameter. Coarse fragments in soils are: gravels or channers (up to 0.08 m in diameter or 0.15 m in length), cobbles or flags (0.08-0.25 m diameter or 0.15-0.38 m length), and stones (greater than 0.25 m diameter or 0.38 m length).

Colour: See Munsell colour system.

**Compaction:** Increase in soil bulk density because of mechanical forces, involving the translocation and resorting of textural components in the soil (sand, silt, and clay particles), destruction of soil aggregates, and collapse of aeration pores. Compaction is assisted by high moisture contents. The effects of compaction and rutting are manifested by changes in water infiltration rates, soil heat flux, root penetration and oxygen supply in the soil. All of these conditions may influence soil quality and, ultimately, soil productivity. The extent of the effect on the soils depends on soil wetness, applied stress and number of passes with machinery.

**Conservation practices factor:** Applicable to the calculation of water erosion risk. Accounts for the reduction in soil loss achieved by good conservation practices. Specifically defined as the ratio of soil loss with specific support practices to the loss from a field with up-and-down slope cultivation. Conservation practices such as contour tillage, mulching and terracing slow runoff of water and reduce soil transport.

**Consistence:** (i) The resistance of a material to deformation or rupture. (ii) The degree of cohesion or adhesion of the soil mass. Terms used for describing consistence at various soil moisture contents are:

wet soil - nonsticky, slightly sticky, sticky, and very sticky
moist soil - loose, very friable, friable, firm, and very firm
dry soil - loose, soft, slightly hard, hard, very hard and extremely hard

**Cryosolic:** An order of soils in the Canadian taxonomic system. Cryosolic soils are mineral or organic soils that have perennially frozen material within 1 m of the surface in some part of the soil body. The mean annual soil temperature is less than 0°C. They may or may not be markedly affected by

cryoturbation (q.v.).

**Cryoturbation:** Frost action that causes churning, heaving, and considerable structural modification of the soil and subsoil.

Deglaciation: The uncovering of an area from beneath glacier ice because of melting.

**Deposition, deposit:** The accumulation of material left in a new position by a natural transporting agent such as water, wind, ice or gravity; or by human activity.

**Depressional:** Describing an area with elevation lower than that of the surrounding area; any hollow, basin, or flat, low-lying area in the landscape.

Disturbed area: See disturbed land.

**Disturbed land:** Area where vegetation, topsoil, or overburden is removed, or where topsoil, spoil, and processed waste are placed (as in mining).

**Drainage:** The removal of excess surface water or groundwater from land by natural runoff and percolation, or by surface or subsurface drains.

**Drainage class:** The conditions of water movement, over the surface of the land and in the soil (surface drainage and internal drainage). Surface drainage conditions are described in terms such as "excessive", where a large percentage of precipitation is shed at the soil surface, to "slight", where very little runoff occurs. Seven drainage classes of internal soil drainage consider the duration of soil moisture contents above field capacity following additions of water.

Very rapidly drained – water is removed from the soil very rapidly in relation to supply. Excess water flows downward very rapidly if underlying material is pervious.

Rapidly drained – remains only immediately after water additions.

Well drained – remains for a minor part of the year.

Moderately well drained – remains for a small but substantial period of the year.

Imperfectly drained – remains in subsurface horizons for moderately long periods during the year.

Poorly drained – remains in all horizons for a large part of the year.

Very poorly drained – free water remains at or within 0.3 m of the surface most of the year.

Drift, glacial: All material moved by glaciers and by the action of meltwater streams and associated lakes

**Electrical conductivity:** The ability of water to conduct an electric current, measured as current per unit area divided by the voltage drop per unit length. Commonly used as an index of salinity, and usually measured as deciSiemens per metre (dS/m).

**Eluvial horizon:** A soil horizon that has been formed by the process of eluviation.

**Eluviation:** The transportation of soil material in suspension or in solution in the soil by the downward or lateral movement of water.

**Erosion:** (i) The wearing away of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitational creep. (ii) Detachment and movement of soil or rock by water, wind, ice or gravity.

**Erosion hazard:** Infiltration capacity and structural stability are regarded as the most important factors in controlling water erosion. Soil erosion hazard decreases as clay, sand or silt content increases. As organic matter depth and vegetation cover increase, erosion hazard decreases.

**Fen:** A peat-covered or peat-filled wetland with a high water table which is usually at or above the surface. The peat materials are derived primarily from sedges and brown mosses with inclusions of partially decayed stems of shrubs formed in a eutrophic environment because of the close association of the material with mineral-rich waters.

**Fen peat:** Peat material constituting fens, composed of the partially decayed remains of sedges, brown mosses, and small amounts of leaves, stems and trunks of trees and shrubs such as black spruce and tamarack.

**Fertility, soil:** The status of a soil with respect to the amount and availability to plants of elements necessary for plant growth. Also *nutrient regime*.

**Fibric:** Organic materials containing large amounts of weakly decomposed fibres whose botanical origins are readily identifiable; fibric material has 40% or more of rubbed fibre by volume (or weight of rubbed fibre retained on a 100-mesh sieve) and is classified in the von Post scale of decomposition as class 1 to class 4. See also *horizon*, *soil*.

**Floodplain:** The land bordering a stream, comprising sediments from overflow of the stream and subject to inundation when the stream is at flood stage.

Fluvial (alluvial) material: All sediments deposited by flowing water.

**Forest peat:** Peat materials derived mainly from trees such as black spruce, ericaceous shrubs and feathermosses.

**Glacial:** (i) Of or relating to the presence and activities of ice or glaciers, such as glacial erosion. (ii) Pertaining to distinctive features and materials produced by or derived from glaciers and ice sheets, such as glacial lakes. (iii) Pertaining to an ice age or region of glaciation. (Gary et al. 1972.)

**Glaciofluvial** Material moved by glaciers and subsequently deposited by streams flowing from the melting ice. The deposits may be unsorted or sorted. Sorted deposits are stratified and may be in the form of outwash plains, deltas, kames, eskers and kame terraces.

**Glaciolacustrine:** Fine-grained sediment deposited in proglacial lake environments. It is composed of suspended material brought by meltwater streams flowing into lakes bordering glaciers.

**Gley, gleying:** A chemical reduction process that takes place in soils that are saturated with water for long periods of time. The horizon of most intense reduction is characterized by a gray, commonly mottled appearance, which (on drying) shows numerous rusty brown iron stains or streaks.

**Gleysolic soil:** Soil developed under wet conditions resulting in reduction of iron (i.e., rust) and other elements and in gray colours and mottles. An order in the Canadian system of soil classification.

**Gravel:** (i) As a deposit term: it refers to glaciofluvial or fluvial materials with 60 percent or more coarse fragments, usually sub-rounded to rounded and of variable size. (ii) As a particle size term: it refers to a size fraction between 2 and 75 mm diameter with rounded, sub-rounded, angular or irregular shapes.

**Gravelly:** Containing appreciable amounts of rounded or sub-rounded rock or mineral fragments 0.002 m to 0.08 m in diameter. Angular gravelly refers to fragments that are less rounded.

**Great group:** A category in the Canadian system of soil classification. It is a taxonomic grouping of soils having certain morphological features in common and a similar pedogenic environment.

**Ground inspection:** Detailed survey conducted at specific sites within a project area. Used to gather in depth information on soil characteristics at a small spatial scale.

**Groundwater:** Water that is passing through or standing in the soil and the underlying strata in the zone of saturation. Gravity governs its motion.

**Horizon, soil:** A layer of soil or soil material nearly parallel to the land surface; it differs from adjacent genetically related layers in properties such as colour, structure, texture, consistence and chemical, biological and mineralogical composition. A list of the designations and some of the properties of soil horizons and layers follows. More detailed definitions of some horizons and layers may be found in The System of Soil Classification for Canada (Agriculture Canada Expert Committee on Soil Survey 1987).

#### Mineral horizons and layers

Mineral horizons and layers contain less than 17 percent organic carbon. Four main horizons are recognized:

- A A mineral horizon formed at or near the surface in the zone of removal of materials in solution and suspension, or maximum in situ accumulation of organic carbon, or both.
- B A mineral horizon characterized by one or more of the following:
- (i) An enrichment in silicate clay, iron, aluminum or humus.

- (ii) A prismatic or columnar structure that exhibits pronounced coatings or stainings associated with substantial amounts of exchangeable sodium.
- (iii) An alteration of hydrolysis, reduction, or oxidation to give a change in colour or structure from the horizons above or below, or both.
- C A mineral horizon comparatively unaffected by the pedogenic processes operative in A and B, except gleying, and the accumulation of carbonates and more soluble salts.
- R Underlying consolidated bedrock that is too hard to break with the hands or to dig when moist. Roman numerals are prefixed to horizon designations to show unconsolidated lithologic discontinuities in the profile. Roman numeral "I" is understood for the uppermost material and usually is not written. Subsequent contrasting materials are numbered consecutively in the order in which they are encountered downward; that is, II, III, and so on.

#### **Lowercase Suffixes**

- ca A horizon of secondary carbonate enrichment in which the concentration of lime exceeds that in the unenriched parent material.
- e A horizon characterized by removal of clay, iron, aluminum or organic matter alone or in combination and higher in colour value by one or more units when dry than an underlying B horizon. It is used with A (Ae).
- f A horizon
- g A horizon characterized by gray colours, or prominent mottling indicative of permanent or periodic intense reduction, or both; for example, Aeg, Btg, Bg or Cg.
- h A horizon enriched with organic matter.
- Ah An A horizon of organic matter accumulation. It contains less than 17 percent organic carbon. It is one Munsell unit of colour value darker than the layer immediately below, or it has at least 0.5 percent more organic carbon than the IC, or both.
- Ahe This horizon has been degraded, as evidenced by streaks and splotches of light and dark gray material and often by platy structure.
- j This is used as a modifier of suffixes (e.g., n, e and t) to denote an expression of, but failure to meet, the specified limits of the suffix it modifies; for example, Aej is an eluvial horizon that is thin, discontinuous, or faintly discernible.
- k Presence of carbonate.
- m A horizon slightly altered by hydrolysis, oxidation, or solution, or all three, to give a change in colour, or structure, or both.
- t A horizon enriched with silicate clay, as shown by a higher clay content (by specified amounts) than the overlying eluvial horizon, a thickness of at least 0.05 m, oriented clay in some pores, or on ped surfaces, or both, and usually a higher ratio of fine (less than 0.2  $\mu$ m) to total clay than in the IC horizon.
- z A perennially frozen layer.

#### **Organic horizons**

Organic layers possess 17 percent or more organic carbon. Two groups of these layers are recognized:

- O An organic layer developed mainly from mosses, rushes and woody materials.
- Of The least decomposed organic layer, containing large amounts of well-preserved fibre, and called the fibric layer.
- Om An intermediately decomposed organic layer containing less fibre than an Of layer and called the mesic layer.

Oh - The most decomposed organic layer, containing only small amounts of raw fibre and called the humic layer.

L,F,H - Organic layers developed primarily from leaves, twigs, and woody materials, with a minor component of mosses.

- L The original structures of the organic material are easily recognized.
- F The accumulated organic material is partly decomposed.
- H The original structures of the organic material are unrecognizable.

**Horizontal:** A type of surface expression of peatland terrain consisting of a flat peat surface not broken by any marked elevations or depressions.

**Humic:** Organic material that is at an advanced stage of decomposition. It has the lowest amount of fibre, the highest bulk density and the lowest saturated water-holding capacity of the organic materials; it is physically and chemically stable over time, unless it is drained; the rubbed fibre content is less than 10 percent by volume and the material usually is classified in the von Post scale of decomposition as class 7 or higher. See also horizon, soil.

**Humification:** The processes by which organic matter decomposes to form humus.

**Hummocky:** A complex sequence of slopes extending from somewhat rounded depressions or kettles of various sizes to irregular to conical knolls or knobs. There is a lack of concordance between knolls and depressions. Slopes are generally 9 to 70 percent.

**Hummocky moraine:** Ridge or mound like feature formed by deposition of glacial till with a surface covered in smaller low mounds or knolls.

**Humus:** (i) The fraction of the soil organic matter that remains after most of the added plant and animal residues have decomposed. It is usually dark coloured. (ii) Humus is also used in a broader sense to designate the humus forms referred to as forest humus. (iii) All the dead organic material on and in the soil that undergoes continuous breakdown, change and synthesis.

**Illuvial horizon:** A soil horizon in which material carried from an overlying layer has been precipitated from solution or deposited from suspension as a layer of accumulation.

**Illuviation:** The process of depositing material that has been transported in suspension or solution from one horizon in the soil to another, usually from an upper to a lower horizon in the profile. Illuviated substances include silicate clay, hydrous iron and aluminum oxides and organic matter.

**Impeded drainage:** A condition which hinders the movement of water through soils under the influence of gravity.

**Impeding horizon:** A horizon that hinders the movement of water by the influence of gravity through soils.

**Inclined:** A sloping, unidirectional surface of at least 300 metres in length and not broken by marked irregularities. Slopes can be 2 to 70%.

**Inclusion:** In natural resources mapping, a soil, terrain or other feature that constitutes up to 15 or 20% of a unit. Some map units contain several inclusions that together add up to a substantial percentage

Infiltration: The downward entry of water into the soil.

**Kame:** A depositional feature, an irregularly shaped hill or mound composed chiefly of poorly sorted sand and gravel deposited by a sub-glacial stream.

**Lacustrine:** Material deposited in lake water and later exposed either by lowering the water table or by uplift of the land. The sediments range in texture from sands to clays.

**Landforms:** The various shapes of the land surface resulting from a variety of actions such as deposition or sedimentation (eskers, lacustrine basins), erosion (gullies, canyons), and earth crust movements (mountains). Landforms are considered to have two basic attributes, genetic material and surface expression.

**Leaching:** The downward movement in the soil of materials in solution.

**Level:** A flat or very gently sloping, unidirectional surface with a generally constant slope not broken by marked elevations and depressions. It refers to slopes generally less than 2%.

LFH: See horizon, soil.

Lithic: A general term referring to soils with consolidated bedrock within 1 m.

Litter: Accumulation of leaves, needles, twigs and other woody materials on the surface of a site.

**Lowland:** Land that is saturated with water long enough to promote wetland or aquatic processes, shown by poorly drained soils and hydrophytic vegetation.

**Luvisolic:** An order of soils that have eluvial (Ae) horizons, and illuvial (Bt) horizons in which silicate clay is the main accumulation product. It refers generally to soils developed under forest or forest-grassland transition in a moderate to cool climate. The Gray Luvisol great group is the most common in western Canada.

**Map unit:** A combination of kinds of soil, terrain, or other feature that can be shown at a specified scale on a map, for the defined purpose and objectives of a particular survey.

Marsh: A marsh is a mineral or a peat-filled wetland which is periodically inundated by standing or slowly moving, nutrient-rich water. Water levels may fluctuate seasonally, with declining levels exposing drawdown zones of matted vegetation or mud flats. The substratum usually consists dominantly of mineral material, although some marshes are associated with peat deposits. The associated soils are dominantly Gleysols with some Humisols and Mesisols. Marshes characteristically show a zonal or mosaic surface pattern of vegetation comprising unconsolidated grass and sedge sods, often interspersed with channels or pools of open water. Marshes may be bordered by bands of trees and shrubs, but the predominant vegetation consists of emergent non-woody plants such as rushes, reeds, reed-grasses and sedges. Where open water areas occur, a variety of submerged and floating aquatic plants flourish.

**Meltwater channel:** A large channel formed by water derived from melting of glacial ice. In the prairie region, these channels are often referred to as coulees.

**Mesic:** Organic materials at a stage of decomposition between that of fibric and humic materials; peat soil material with greater than 10% and less than 40% rubbed fibres; mesic peat usually is classified in the von Post scale as class 5 or 6.

**Mineral soil:** A soil consisting predominantly of, and having its properties determined predominantly by, mineral matter. Usually contains less than 30% organic matter, but may contain an organic surface layer up to 0.3 m thick.

**Morainal:** Of or pertaining to moraine.

**Moraine:** A mound, ridge, or other distinct accumulation of unsorted, unstratified drift, predominantly till, deposited chiefly by direct action of glacier ice in a variety of topographic landforms that are independent of control by the surface on which the drift lies (Gary et al. 1972). It is now commonly used as a geomorphologic name for a landform composed mainly of till that has been deposited by a glacier.

**Morphology, soil:** (i) This term refers to the physical constitution, particularly the structural properties, of a soil profile as exhibited by the kinds, thickness, and arrangement of the horizons in the profile, and by the texture, structure, consistence, and porosity of each horizon. (ii) It also refers to the structural characteristics of the soil or any of its parts.

**Moss:** A small leafy plant lacking any true vascular system or roots.

**Mottles, mottling:** Spots or blotches of different colour or shades of colour interspersed with the dominant colour of a soil; formed mainly by the effects of impeded drainage.

**Munsell colour system:** A colour designation system specifying the relative degrees of the three simple variables of colour: hue, value and chroma. For example, 10YR6/4 is the colour of a soil having a hue of 10YR, value of 6, and chroma of 4. These notations can be translated into several different systems of colour names.

**Muskeg:** This is a North American term often employed for peatland. The word is of Algonquin Indian origin and is applied in ordinary speech to natural and undisturbed areas covered more or less with *Sphagnum* mosses, tussocky sedges, and an open growth of scrubby trees. (In this report, the words *peatland* and *muskeg* are used interchangeably).

**Nutrient regime:** Amount of essential nutrients that are available for plant growth. The determination of nutrient regime requires the integration of many environmental and biotic parameters. Soil nutrient regime is rated on a relative scale ranging from very poor to very rich. Nutrient regime classes are: very poor, poor, medium, rich and very rich.

Of: See horizon, soil.

Om: See horizon, soil.

Oh: See horizon, soil.

**Order, soil:** A category in the Canadian system of soil classification. All the soils within an order have one or more characteristics in common.

**Organic soil:** An order of soils that have developed dominantly from organic deposits. The majority of Organic soils are saturated for most of the year, unless artificially drained, but some of them are not usually saturated for more than a few days. They contain 17% or more organic carbon, and: (i) if the surface layer consists of fibric organic material and the bulk density is less than 0.1 [with or without a mesic or humic Op less than 0.15 m thick], the organic material must extend to a depth of at least 0.6 m; or (ii) if the surface layer consists of organic material with a bulk density of 0.1 or more, the organic material must extend to a depth of at least 0.4 m; or if a lithic contact occurs at a depth shallower than stated in 1) or 2) above, the organic material must extend to a depth of at least 0.1 m.

**Organic carbon, soil:** The percent by weight of soil carbon in organic forms determined by the difference between total carbon and inorganic carbon.

**Organic cryosol:** An organic soil having a surface layer containing more than 17% organic carbon by weight, with permafrost within 1 m below the surface. In the Canadian system of soil classification,

Organic Cryosol is more than 0.4 m thick, or more than 0.1 m thick over a *lithic* contact, or more than 0.1 m thick over an ice layer that is at least 0.3 m thick.

**Organic matter, soil:** The organic fraction of the soil; included are plant and animal residues at various stages of decomposition, cells and tissues of soil organisms and substances synthesized by the soil organism population.

**Organic soil:** An order in the Canadian system of soil classification consisting of soils that have developed dominantly from organic deposits. The majority of Organic soils are saturated for most of the year. They contain 17% or more organic carbon, and consist of at least 0.4 m peat if it is mesic or humic, at least 0.6 m peat if it is fibric, or at least 0.1 m peat if it overlies bedrock.

**Orthic:** A subgroup referring to the modal or central concept of various great groups in the Brunisolic, Chernozemic, Cryosolic, Gleysolic, Luvisolic, Podzolic and Regosolic orders of the Canadian system of soil classification.

**Outcrop:** That part of a geologic formation or structure that appears at the surface of the earth.

**Outwash:** Stratified sediments (chiefly sand and gravel) deposited by meltwater streams in front of the end moraine or the margin of an active glacier.

**Overburden:** Materials of any nature, consolidated or unconsolidated, that overlie a deposit of useful, generally mineable, materials.

**Parent material:** The unconsolidated and more or less chemically weathered mineral or organic matter from which the solum of a soil has developed by pedogenic processes.

**Particle size:** The effective diameter (grain size) of a particle measured by sedimentation, sieving or micrometric methods.

**Particle-size distribution:** The amounts of the various soil separates in a soil sample, usually expressed as percentage of sand, silt and clay.

**Peat:** Material constituting peatlands, exclusive of live plant cover, consisting largely of organic residues accumulated because of incomplete decomposition of dead plant constituents under conditions of excessive moisture.

**Peatland:** A general term for any tract of land covered with a layer of soil containing a high percentage of peat.

**pH, soil:** The negative logarithm of the hydrogen-ion activity of a soil solution. The degree of acidity or alkalinity of a soil, as determined by a suitable electrode or indicator at a specified moisture content or soil-water (or CaCl<sub>2</sub> solution) ratio and expressed in terms of the pH scale.

**Phase, soil:** A subdivision of a soil type, based on a variation in a property or characteristic such as depth of lime, degree of erosion, content of stones and peat surface.

**Physiography:** The physical nature of the land; it includes topography (the relief and contours of the land), elevation, aspect, slope, surface pattern of landforms and drainage.

Plain: An extensive tract of flat land or an undulating terrain without prominent hills or depressions

**Platy:** Consisting of soil aggregates that have developed predominantly along the horizontal axis; laminated; flaky.

**Polygon, map:** A map delineation that represents a tract of land with certain landform, soil, hydrologic, vegetation or other features.

**Poor fen:** An ecosite that is transitional between fen and bog. A poor fen is intermediate in nutrient regime and is similar floristically to the fen and bog. Sedges and peat moss, golden and brown mosses compose the majority of the organic matter content. See also rich fen.

**Pore:** A void or space in a soil or rock not occupied by solid mineral material.

**Porosity, soil:** The volume percentage of the total bulk not occupied by solid particles.

**Productivity, soil:** The capacity of a soil, in its normal environment, to produce a specified plant or sequence of plants under a specified system of management.

**Quaternary:** The second period of the *Cenozoic* era. The latest period of geologic time, covering the most- recent 2,000,000 years of the Earth's history, and divided into two epochs: the Pleistocene - 2 million years ago to about 10,000 years ago - and the Holocene - the period from about 10,000 years ago to the present.

**Reaction, soil:** The degree of acidity or alkalinity of a soil, usually expressed as a pH value. Descriptive terms used here with certain ranges in pH are: acid, less than 5.5; neutral, 5.5-7.4; alkaline, greater than 7.4.

**Recent (deposits):** Surficial deposits of late post-glacial age, i.e., within the last few hundred to few thousand years.

**Recharge:** The process by which water is absorbed and added to the subsurface zone of saturation (groundwater).

**Regosolic:** An order of soils having no horizon development or development of the A and B horizons is insufficient to meet the requirements of the other orders.

Relief: The topographical difference in elevation between the high and low points in a landscape.

**Residual material (Residuum):** Unconsolidated and partly weathered (physically and chemically) mineral materials formed by the disintegration of consolidated rock in place. Includes *saprolite*.

**Rich fen:** A peatland with moderate to well-decomposed sedge, grass, reed and brown moss peat material formed in eutrophic environments. Mineral-rich waters are at or just above the fen surface. *Sphagnum* is usually absent or subordinate to other mosses.

**Ridged:** A type of surface expression of mineral landforms, characterized by a long, narrow elevation of the surface, usually sharp crested with steep sides. Ridges may be parallel, subparallel or intersecting.

**Rock:** Any naturally formed, consolidated or unconsolidated material, other than soil, composed of two or more minerals, or occasionally of one mineral, and having some degree of chemical and mineralogical constancy.

Rutting hazard: See compaction hazard

**Salinity, soil:** The amount of soluble salts in a soil, expressed as electrical conductivity in deciSiemens per meter (dS/m) and measured by the saturated paste method or equivalent.

**Sand:** (i) As a particle size term: a size fraction between 0.05 and 2.0 mm equivalent diameter, or some other limit (geology or engineering). (ii) As a soil term: a textural class with abundant sand-sized particles.

**Scour:** Erosion by moving water or ice.

**Sedge:** A grass-like herb that grows in marshy places.

**Sediment:** Solid particles of material that have been derived from rock weathering. They are transported and deposited from water, ice or air as layers at the earth's surface.

**Seep:** An area, generally small, where water percolates slowly to the land surface. Synonymous with spring where the flow of water is substantial but includes flows that are very small (Gary et al. 1972).

**Series, soil:** A category (or level) in the Canadian system of soil classification. A subdivision of soil subgroup classification level, this is the basic unit of soil classification, and consists of soils that are essentially alike in all major profile characteristics except the surface texture.

**Shrub:** A woody perennial plant differing from a tree by its low stature and by generally producing several basal shoots instead of a single trunk.

**Silt:** (i) As a particle size term: a size fraction between 0.002 and 0.05 mm equivalent diameter, or some other limit (geology or engineering). (ii) As a soil term: a textural class with abundant silt sized particles.

**Slope:** The degree of deviation of a surface from horizontal, measured in a numerical ratio, percent and degree.

**Sloping:** A type of surface expression associated with peatlands, consisting of a peat surface with a generally constant slope not broken by marked irregularities.

**Soil:** The naturally occurring, unconsolidated mineral or organic material at least 0.1 m thick that occurs at the earth's surface and is capable of supporting plant growth. Soil extends from the earth's surface through the genetic horizons, if present, into the underlying material to the depth of the control section (normally about 1 to 2 m). Soil development involves climatic factors and organisms, conditioned by relief and water regime, acting through time on geological materials, and thus modifying the properties of the parent material (Agriculture Canada Expert Committee on Soil Survey 1987).

**Soil map:** A map showing the distribution of soil types, classes, or other soil mapping units in relation to the prominent physical and cultural features of the earth's surface.

**Soil drainage classes:** Seven classes that describe the overall natural drainage of soils, taking into account factors of external (surface runoff) and internal (perviousness) soil drainage in relation to supply of water. The classes from driest to wettest are very rapidly, rapidly, well, moderately well, imperfectly, poorly, and very poorly drained. Each describes water removal from the soil in relation to supply and can be equated with a range in available water storage capacity (Agriculture Canada Expert Committee on Soil Survey 1983).

Soil horizon: See horizon, soil.

Soil landscape models: Predictive models that assign soil characteristics to sites within the project area.

**Soil temperature limitations:** Soil temperature is related to seedling growth and survival. In cold soils, the rate of root development and the ability of plants to uptake water is considerably reduced. Opportunities exist to increase soil temperatures using various site preparation methods that loosen and expose mineral soil to the sun.

**Steep:** A type of surface expression of mineral landforms, consisting of erosional slopes, greater than 70% (35°), occurring on consolidated and unconsolidated materials.

**Stones:** Rock fragments greater than 0.25 m in diameter, if rounded, and greater than 0.38 m along the greater axis, if flat.

Stoniness/gravel classes: Categories of density of coarse fragments (q.v.) in surface soil.

- 0 non-stony (coarse fragments greater than 30 m apart)
- 1 slightly stony (coarse fragments 10 to 30 m apart)
- 2 moderately stony (coarse fragments 2 to 10 m apart)
- 3 very stony (coarse fragments 1 to 2 m apart)
- 4 exceedingly stony (coarse fragments 0.1 m to 1 m apart)
- 5 gravelly (coarse fragments 0.05 to 0.1 m apart)
- 6 very gravelly (coarse fragments less than 0.05 m apart).

**Stratification:** The arrangement of sediments in layers or strata marked by a change in colour, texture, size of particles and composition.

**Structure, soil:** The combination or arrangement of primary soil particles into secondary particles, units or peds. These peds may be, but usually are not, arranged in the profile in such a manner as to give a distinctive characteristic pattern. The peds are characterized and classified based on size, shape, and degree of distinctness into classes, types, and grades. The soil structure classes are described below (from The System of Soil Classification for Canada, Agriculture Canada Expert Committee on Soil Survey 1987).

Types, Kinds and Classes of Soil Structure

Type	Kind	Class	Size (mm)	
Structureless - no     observable aggregation or     no definite orderly	A. Single grain - loose, incoherent mass of individual particles as in sands.			
arrangement around natural lines of weakness	B. Amorphous (massive) - a coherent mass showing no evidence of any distinct arrangement of soil particles.			
2. Blocklike - soil particles	Blocky (angular blocky) - faces	Fine blocky	<10	
arranged around a point	rectangular and flattened, vertices	Medium blocky	10 - 20	
and bounded by flat or rounded surfaces.	sharply angular.	Coarse blocky	20 - 50	
	B. Subangular blocky - faces subrectangular, vertices mostly	Very coarse blocky	>50	
	oblique, or subrounded.	Fine subangular blocky	<10	
	C. Granular-spheroidal - characterized	Medium subangular blocky	10 - 20	
	by rounded vertices	Coarse subangular blocky	20 - 50	
		Very coarse subangular blocky	>50	
		Fine granular	<2	
		Medium granular	2 - 5	
		Coarse granular	5 – 10	
3. Platelike - soil particles	A. Platy - horizontal planes more or	Fine platy	<2	
arranged around a	less developed.	Medium platy	2 - 5	
horizontal plane and generally bounded by		Coarse platy	>5	
relatively flat horizontal surfaces				
4. Prismlike - soil particles	A. Prismatic - vertical faces well	Fine prismatic	<20	
arranged around a vertical	defined and edges sharp.	Medium prismatic	20 - 50	
axis and bounded by relatively flat vertical	B. Columnar - vertical edges near top	Coarse prismatic	50 - 100	
surfaces.	of columns not sharp. (Columns may be flat-topped, round-topped, or	Very coarse prismatic	>100	
	irregular).	Fine columnar	<20	

Туре	Kind	Class	Size (mm)
		Medium columnar	20 - 50
		Coarse columnar	50 - 100
		Very coarse columnar	>100

**Subgroup, soil:** A category in the Canadian system of soil classification. These soils are subdivisions of the great groups and, therefore are defined more specifically.

**Subsoil:** The B horizons of soils with distinct profiles. In soils with weak profile development, the subsoil can be defined as the soil below the plowed soil (or its equivalent of surface soil) in which roots normally grow.

**Surface expression:** The form (assemblage of slopes) and pattern of forms of parent genetic materials **Surface stoniness:** See stoniness/gravel classes.

**Terrace:** A nearly level, usually narrow plain bordering a river or lake. Rivers sometimes are bordered by a number of terraces at different levels.

**Terrain:** The landscape, or lay of the land. The physical features of a tract of land; e.g., landform (or surface expression), active and inactive processes that modify material and form, slope, aspect and drainage conditions. Terrain analysis is the identification of the above land surface features, to a more or less defined depth and determining their areal extent. The identification of special features such as permafrost, erosion, and landforms indicating subsurface structures are included in such analyses.

**Texture, soil:** The relative proportions of the various soil separates in a soil, as described by the classes of soil texture. The limits of the various classes and subclasses are given below:

**S-sand** Soil material that contains 85% or more sand.

**LS-loamy sand** Soil material that usually contains 70 to 85% sand but may contain as much as 90% sand depending upon the amount of clay present.

**SL-sandy loam** Soil material that usually contains 52 to 70% sand but may contain as much as 85% and as little as 43% sand, depending upon the content of clay.

*L*–*loam* Soil material that contains 7 to 27% clay, 28 to 50% silt, and less than 52% sand.

**SiL-silt loam** Soil material that contains 50% or more silt and 12 to 27% clay, or 50 to 80% silt and less than 12% clay.

Si-silt Soil material that contains 80% or more silt and less than 12% clay.

**SCL-sandy clay loam** Soil material than contains 20 to 35% clay, less than 28% silt, and 45% or more sand.

**CL-clay loam** Soil material that contains 27 to 40% clay and 20 to 45% sand.

SiCL-silty clay loam Soil material that contains 27 to 40% clay and less than 20% sand.

SC-sandy clay Soil material that contains 35% or more clay and 45% or more sand.

SiC-silty clay Soil material that contains 40% or more clay and 40% or more silt.

C-clay Soil material that contains 40% or more clay, less than 45% sand, and less than 40% silt.

HC-heavy clay Soil material that contains more than 60% clay.

**Till:** Unsorted and unstratified drift (morainal material), consisting of clay, silt, sand, gravel and boulders intermingled in any proportion, deposited by and underneath a glacier without subsequent reworking by glacial meltwater.

**Topography:** The physical features of a district or region, such as those represented on a map, taken collectively; especially the relief and contours of the land. On most soil maps topography may also mean topography classes that describe slopes according to standard ranges of percent gradient.

**Topsoil:** (i) The layer of soil that includes the LFH horizon and the .A or AB horizon. The topsoil represents the most fertile portion of the soil profile and has often been organic enriched and may be a zone of eluviation.

**Undulating:** A wave-like pattern of very gentle slopes with low local relief. Slope length is generally less than 0.5 km and slope gradients are commonly 2-5%.

**Upper lift:** A surface soil layer of specified thickness that is selectively removed, stored, and replaced as topsoil in the reclamation process.

**Von post:** Humification scale describing peat moss in varying stages of decomposition ranging from H1, which is completely undecomposed, to H10, which is completely decomposed. It is determined by squeezing a peat sample in the hand; criteria are described below.

Decomposition Degree (VP)	Colour of Water After Squeezing	Peat Amount Extruded Between Fingers	Nature of Residue
1	Clear, colourless	None	Unaltered, fibrous
2	Clear, yellow brown	None	Almost unaltered
3	Turbid, slight brown	None	Slightly altered, plant remains distinct
4	Turbid, brown	Almost none	Somewhat mushy, plant remains easily identifiable
5	Very turbid, dark	Very little	Very mushy, plant remains difficult to identify
6	Muddy, dark	about 1/3	Strongly mushy, plant remains indistinct, scarcely identifiable
7	Very muddy, dark	About 1/2	Very soupy, plant remains scarcely identifiable
8	Little free water, very dark and muddy	About 2/3	Very soupy, very few identifiable plant remains
9	No free water	Almost all	Homogeneous, little or no plant remains
10	No free water	All	Completely amorphous, no plant remains

**Water holding capacity:** The percentage of water remaining in the soil material after having been saturated and after drainage of free water has practically ceased.

Water logged: Saturated with water.

**Water table:** (i) The upper surface of groundwater or that level below which the soil is saturated with water. (ii) groundwater surface or elevation at which the pressure in the water is zero with respect to atmospheric pressure.

Weakly developed: Refers to calcareous profiles, rego profiles, and profiles that are thinner than normal.

**Weathering:** The physical and chemical disintegration, alteration and decomposition of rocks and minerals at or near the earth's surface by atmospheric agents.

**Wetland:** Land having the water table at, near, or above the land surface or which is saturated for a long enough period to promote wetland or aquatic processes as shown by hydric soils, hydrophytic vegetation and various kinds of biological activity which are adapted to the wet environment.

# **Eagle Gold Project**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report

Appendix B - Historical Terrain and Soil Data



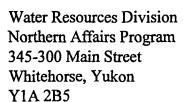
# **APPENDIX B**

**Historical Terrain and Soil Data** 

# Soil Samples Collected and Analyzed from 1995

Site	Vegetative Cover	Cover Depth	A horizon Depth	A Color	B Depth	B color	Coarse Frags	B texture	рН	buffered pH	salts (mmhos/cm)	Cu (ppm)	Zn (ppm)	Fe (ppm)	Lead (ug/g)	Molybdenum (ug/g)	Mercury (ug/g)
OP1	moss	5.1	1.3	brown	22.5	brown	80	SZ	4.8	6	0.18	1.5	1.2	130	12	<4	0.025
OP2	moss	3.8	1.3	black	25	red-brown	74.9	s with z	4.6	5.8	0.18	1.9	0.9	240	9	<4	0.016
OP3	moss	5.1	5.1	black	25	gray-brown	39.7	ZS	4.7	6.1	0.22	1.6	1.1	240	23	<4	0.023
LP1-1	moss/lichen	7.6	5.1	black	17.5	gray-brown	0	SZ	4.7	5.9	0.2	1.5	0.4	130	13	<4	0.037
LP1-2	moss	5.1	2.5	black	30	gray-brown	47.4	SZ	5.5	6.7	0.2	2.9	1.9	100	34	<4	0.035
LP2-1	moss	11.4	3.8	black	20	gray-brown	0	ZS	5.3	6.6	0.2	4.1	2.1	250	14	<4	0.024
LP2-2	moss/lichen	5.1	2.5	black	22.5	red-brown	60.1	SZ	5.3	6.7	0.18	1.2	0.4	70	9	<4	0.014
LP3-1	moss/litter	12.7	2.5	brown	25	light brown	41.4	SZ	5.3	6.4	0.24	2.4	1.9	120	12	<4	0.023
LP3-2	moss/lichen	8.9	5.1	black	25	light brown	42.8	SZ	5.4	6.8	0.18	1.8	1.5	170	12	<4	0.025
WP1	lichen	2.5	5.1	black	20	gray-brown	58.9	ZS	5.3	6.7	0.2	4.3	1.6	170	6	<4	0.014
WP2	lichen/moss	6.4	5.1	black	15	red-brown	42.6	SZ	5.3	6.4	0.16	5.2	3.7	300	37	<4	0.057
WD1	moss/lichen	7.6	1.3	black	25	brown-gray	36.9	SZ	5.1	6.4	0.16	3.2	1.4	160	20	<4	0.054
WD2	moss	5.1	8.9	black	20	brown-gray	24	sz with c	5.0	6.2	0.16	4	2.9	205	20	<4	0.055
WD3	moss/lichen	7.6	1.3	black	20	gray-brown	68.9	SZ	5.0	6.3	0.2	2.2	1.9	115	8	<4	0.022
95-S-1	disturbed	-	-	-	-	-	58.8	-	-	6.2	0.34	3.9	3.8	170	30	<4	0.033
95-S-2	disturbed	-	-	-	-	-	65.9	-	-	6	0.34	2.8	2.1	80	27	<4	0.027
95-S-3	disturbed	-	-	-	-	-	34.3	-	-	6.1	0.22	2	1.9	95	18	<4	0.025
95-S-4	disturbed	-	-	-	-	-	54.9	-	-	6.9	6.6	6.7	3.6	390	16	<4	0.048







Your file Votre référence

Our tile Notre référence

October 25, 1995

To: Distribution List

Re: Compilation of Baseline Environmental Information - McQuesten River Watershed.

Attached, for your information, is a draft version of a compilation of baseline environmental information about the McQuesten River Watershed. Water Resources Division commissioned this report as the first step in an ecosystem based watershed planning project for the McQuesten watershed.

We recognize that the information compiled may be useful for other planning and environmental assessment purposes. In order to make the report available as soon as possible, we are circulating the draft version of the report now. We expect to finalize the report in the next six weeks and we will circulate the final report when it is available. You will note that the current draft is missing the appendices. These are complete but I will circulate them with the final draft. The contractor is currently completing an annotated bibliography for inclusion with the final report.

In the meantime, I hope that you find the information in the report useful. If you identify any concerns with the report, please forward them to me (phone: 667-3234) and I will try to address them in the final version.

Sincerely,

Bill Slater

Water Resources Planner

#### **EXECUTIVE SUMMARY**

The McQuesten River and its tributaries drain an area of about 4,800 kilometres<sup>2</sup> in the central Yukon. From its headwaters in the Ogilvie Mountains and McQuesten Lake, the McQuesten River flows southwest until it joins the Stewart River. The Stewart River flows into the Yukon River.

This report is a compilation of environmental information pertaining to the McQuesten River watershed. Information on the quality of existing data, the need to fill identified gaps and the next steps in management planning is also reported.

Water Resources Branch, Northern Affairs Program commissioned this project as the first step in an ecosystem management planning approach that the department intends to apply to the watershed. In the past, research and planning in the watershed has occurred in reaction to land use and water licence applications and development projects. Water Resources Division is now planning a more proactive approach that will include the Nacho Nyak Dun First Nation, Mayo Renewable Resources Council, and other stakeholders.

The Nacho Nyak Dun First Nation has title to about 865 kilomtres<sup>2</sup> contained in 19 parcels within the study area. This means that the First Nation will have an increased role as a land owner, resource user and developer in the watershed.

The First Nation of Nacho Nyak Dun Final Agreement is important to future activities in the McQuesten River watershed. Under this agreement, the water quality and rate of flow must remain substantially unaltered on settlement land. This right is subject to laws of general application and compensation.

Mining activity has had measurable impacts on several resources including land, water, forests, fish, and wildlife. As water uses and waste discharge for placer mining and the discharge of water from hard rock mining activity have the biggest impact on the watershed, these uses have so far predominated management discussions and been the cause for most research projects.

Mining activity in the area began in the late 1800s, continues today, and is expected to increase in the future. The area is heavily mineralized, and gold and silver showings continue to attract the interest of small and large mining companies.

The existing United Keno Hill Mines Limited mill at Elsa is now closed, but the company expects to reopen in 1996. The future of other major projects depends on several factors including exploration results and feasibility studies.

The largest proposed project is the First Dynasty Limited project at Dublin Gulch. If it proceeds, it has the potential to have significant effects on the area.

Most research on the area's water resources is site specific and relates to mining activity, though the McQuesten was included in the 1983 Water Quality, Yukon River Basin study. There is limited information on wildlife and fish.

There are many data gaps to fill for successful watershed management planning to occur. Resource managers and planners must solicit public participation in establishing goals and objectives and identifying indicators of ecosystem health.

The McQuesten River watershed supports many uses including mining, fishing, hunting, recreation, residential, forestry, and transportation. As activities associated with each use increase, land and water use conflicts may also increase.

This report also identifies twelve key data gaps.

These relate to baseline data on water quantity and quality, traditional ecological knowledge, waterrock/sediment interactions, the cumulative impacts of mining and related activity, utilization by salmon, utilization by the Clear Creek Caribou Herd, locating heritage sites, the cumulative effects of contaminants, vegetation and habitat information, the effects of permafrost, and the availability of an annotated bibliography.

#### 2.0 DESCRIPTION OF THE STUDY AREA

First Nation people have engaged in subsistence activities in the study area for countless generations.

Area rivers were important travel corridors. The impact of these activities on the environment was minimal.

The study area is contained within one of the Yukon's 23 ecoregions, the Yukon Plateau North. This ecoregion is within the Boreal Cordillera ecozone.

The McQuesten River was named after Leroy (Napoleon) Jack McQuesten, an explorer, trader, trapper, and prospector who travelled through parts of the study area in the late 1800s. In 1884, McQuesten travelled to the area with Thomas Boswell and operated a trading post at Steamboat Bar for several years. Steamboat Bar is on the Stewart downstream from the McQuesten River. The miners working on Steamboat Bar named the river the McQuesten and Frederick Schwatka later confirmed the naming.

The study area is heavily mineralized and the presence of silver, gold, and zinc have attracted prospectors and mining companies to the area. Mining activity and supporting development have had major impacts on the McQuesten River watershed.

Mining activity began in the area in the late 1800s and continues today. Exploration activities, operating open pit and underground hard rock mines, and placer mining have occurred mostly in the southern half of the area. However, the impacts of associated road and trail construction, logging and milling, and discharges into area rivers and creeks mean the impacts of mining activity are evident far from the point source.

The Selwyn Mountains, a high seismic zone, lies to the northeast of the study area. The study area has a moderate risk of experiencing a major earthquake and lies within acceleration and velocity zones 3 or 4 (Basham et al, 1985).

There are five named lakes in the study area:

- McQuesten Lake
- Hanson Lakes

- Steamboat Lake
- Eagle Lake
- John Lake.



McQuesten Lake, about 19 kilometres north of Elsa, has been a popular hunting and fishing area for Elsa residents. Canada geese and other waterfowl are present seasonally on the lake. McQuesten Lake contains Arctic grayling, northern pike and at one time, may have supported lake trout.

Hanson Lakes are a chain of lakes on the northeast side of the study area just south of McQuesten Lake. There were efforts in the early 1960s to stock Hanson Lake with rainbow trout. The stocking program included poisoning existing fish populations with toxaphene. Only northern pike survived the poisoning and the stocking effort failed.

The federal government established cottage lots on Hanson Lake to meet the recreational needs of people in Elsa. The lake also has a territorial campground with a boat launch.

Information available on Eagle and Steamboat Lakes is from Rick Furniss whose outfitting concession includes the northeast part of the study area. He says the area is accessible only by float plane and is part of a wetland area that supports healthy wildlife populations.

John Lake is a small lake with a high recreational features rating.

Much of the study area provides good moose, caribou, Black Bear, and grizzly bear habitat. Moose are present in greater abundance and regularity than caribou and their presence creates good hunting opportunities, particularly to the north.

Outfitter Rick Furniss reports seeing a 40-member group of caribou in the area, though sightings are intermittent. The Mayo Renewable Resources Council reports that these caribou are part of the distinct Clear Creek herd, not the Hart River herd as reported by Yukon Renewable Resources.

## 2.1 Watershed Description

The study area is the McQuesten River watershed as shown on map 1. The watershed drains an area of about 4,800 kilomtres<sup>2</sup> and has a perimeter of about 485 kilometres.

The study area consists of mostly upland areas with elevations that range from 1,200 to 1,500 metres. These upland areas form part of the Stewart Plateau, a division of the Yukon Plateau. Within the study area, there are several mountain peaks and ranges divided by river valleys 500 metres or more below the plateau.

The main tributaries of the McQuesten River are the North McQuesten, East McQuesten, and South McQuesten Rivers. The East McQuesten flows into the North McQuesten and the North and South McQuesten combine to form the McQuesten River.

The East McQuesten flows south from the edge of the Ogilvie Mountains, by Eagle Lake, and then west to join the North McQuesten. The North McQuesten River flows southeast from the Ogilvie Mountains, then south to join the McQuesten mainstem.

The South McQuesten River flows from McQuesten Lake, the largest in a series of lakes surrounded by mountain ranges to the north and south. Some of the smaller lakes near McQuesten Lake and Hanson Lakes are thermokarst lakes, and the area is underlain with permafrost.

The South McQuesten flows southeasterly until it joins with the North McQuesten to form the McQuesten River. The McQuesten River flows east southwest until it reaches the Stewart River at the Tintina Trench.

The study area contains many creeks. However, indicative of its upland character, there are only four larger lakes in the area and only two of these cover more than 25 hectares.

# 2.2 Climate and Vegetation

The study area has a continental climate with low precipitation and wide temperature range. Deep river valleys within the area create local weather patterns. Winters are generally long and cold with short, cooler summers in which there are sudden changes in temperature and weather. Frost may occur at any time during the summer.

Showers are frequent and largely confined to areas around the higher peaks. Plateaus in the area are generally snow free by mid-June. In late August and early September, rainstorms with snow at higher elevations are common. Due to the influence of the Tintina Trench on local weather patterns, lightning frequently strikes in the study area.

Black spruce, white spruce, alpine fir and willows are common in the study area. Aspen poplar, balsam poplar, white birch, and alder are less common. The treeline is about 1,200 metres.

White spruce, aspen and balsam poplar dominate on southfacing slopes and gravel terraces in the larger valleys. Because much of the area has a fire history and has been extensively logged to supply mines with timber, few stands of spruce larger than 24 inches in diameter now exist.

On the northfacing slopes and in areas underlain with permafrost, there is a thick moss covering with small, stunted black spruce. With the thawing of the permafrost in the larger valleys, trees have tilted creating patches of drunken forest.

Approaching the treeline, alpine fir mixes with spruce, then becomes the dominant species at higher elevations. In the smaller valleys, dense willow thickets are common. Moss and lichen with scattered dwarf birch are present in the higher uplands.

# 2.2.1 Fire History

Part of the study area, near the Tintina Trench in the southwest, is the most active fire area in the Mayo Forest District (Leary, personal communication). The

Tintina Trench creates a local area weather pattern for much of the study area that generates frequent thunder-storms. Lightning strikes starting spot fires less than five hectares commonly occur. Despite the frequency of fire, other factors combined to cause the development of a good forest inventory, most of which was logged in the second half of this century.

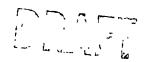
Bostock (1979) reports a raging forest fire in 1947 up the North McQuesten. DIAND Forest Resources in Whitehorse mapped only six fires since 1971. However, the Mayo District office reports many more fires; for the five year period ending in 1994, 13 large and 14 spot fires. This is cause for believing that there have been many more fires than Forest Resources has mapped. The large fires were:

- 1971, a 485 hectare fire in the upper reaches of Morrison Creek, a tributary of Seattle Creek
- 1972, a 4,312 hectare fire west of Seattle Creek on the hillside of the South McQuesten
- May 14, 1989, a 1,500 hectare fire in the upper reaches of Morrison Creek
- May 18, 1989, a 3,500 hectare fire on the north end of McQuesten Lake
- July 11, 1989, Rodin Creek, 450 hectares, lightning strike
- July 13, 1989, McQuesten River, 10 kilometres upstream from the Stewart River, 450 hectares, lightning strike
- July 13, 1989, on mountain north of McQuesten Lake, 3,500 hectares, lightning strike
- 1990, no large fires
- 1991, no large fires
- 1992, no large fires
- June 16, 1993, Ballard Creek, 150 hectares, lightning strike
- June 17, 1993, Eagle Creek 10 kilometres upstream from North McQuesten, 700 hectares, lightning strike
- June 17, 1993, Ballard Creek, 600 hectares, lightning strike

- July to December 1994, a major fire on the west side of McQuesten Lake, about 1,000 hectares
- July 12, 1994, near mouth of North McQuesten River, 1,250 hectares, lightning strike
- July 13, 1994, on mountain north of McQuesten Lake, 300 hectares, lightning strike
- July 31, 1994, on the north side of the North McQuesten River, about 10 kilometres downstream from the East McQuesten, 3,600 hectares, lightning strike
- August 1, 1994, north side of South McQuesten River downstream from and near Shanghai Creek, 150 hectares, lightning strike.

The spot fires were:

- 1963, on the North McQuesten, near the fork of the East McQuesten
- 1966, on the upper reaches of Flat Creek
- 1989, Christal Creek, 1.5 hectares, lightning strike
- 1989, Fisher Creek, 68 hectares, lightning strike
- 1989, McQuesten River upstream from Shanghai Creek, 2 hectares, lightning strike
- 1989, Castnor Creek, 2 hectares, lightning strike
- 1989, north side of South McQuesten downstream from Shanghai Creek, 2 hectares, lightning strike
- 1990, McQuesten River, 10 kilometres upstream from the Stewart River, 22 hectares, lightning strike
- 1991, Field Hill, 0.1 hectare, lightning strike
- 1992, no spot fires
- 1993, Tintina Trench near Stewart River, 3 hectares, lightning strike
- 1993, East McQuesten on ridge near Eagle Lake, 10 hectares, lightning strike
- 1993, South Bear Creek, 1.0 hectare, lightning strike
- 1993, Christie Creek, 2.5 hectares, lightning strike
- 1993, Corky Creek, 1 hectare, human caused
- 1994, south side of McQuesten River opposite Vancouver Creek, 0.2 hectares.





# 2.3 Physiography and Glaciation

The McQuesten watershed is within the Stewart Plateau, a subdivision of the Yukon Plateau (Green, 1971). Plateau elevations range between 1,200 and 1,500 metres and the plateau surface is characterized by broad, smooth uplands from which higher mountains rise.

The Tintina Trench, a fault in the earth's crust and one of the Yukon's main geographic features, extends from the Yukon River basin in Alaska to Washington State. It crosses the study area on the southwest.

The area is part of the Omineca belt, comprised of "a series of northwesterly aligned structural culminations and depressions which give a discontinuous character to the trend of its surface expression" (Gabrielse et al, page 21).

On the west side of the Tintina Trench, the Omineca Belt thrust sheets plates have shifted, causing movement in a northeasterly direction estimated at 450 kilometres (Don Murphy, personal communication).

To the east of the Tintina Trench, landforms were created by a series of plate movements causing folds in the earth's surface. The folds created the mountain ranges to the north and east of the study area. Thrust faults, named from north to south, the Dawson, Tombstone and Robert Service, are structurally complex and south-dipping (Gordey and Thompson, 1992). The area is mostly underlain with Precambrian rock of sandstone and shale.

Glaciation, which postdates development of the plateau surface, produced most of the steeper slopes. Drainage in the watershed is in wide, flat-bottomed valleys dividing the plateau surface into isolated blocks. A Ushaped cross section is characteristic of the main valleys that have been altered by glaciation (Green, 1971).

There is evidence of four progressively less extensive glaciations in the study area; from oldest to youngest, the preReid, Reid and McConnel glaciations (Hughes et al, 1989). The preReid glaciation was thought to consist of two glaciations, but new evidence suggests there were

actually four. The earliest glaciation is believed to have been the most extensive, but little evidence of it remains (Bostock 1948).

Highly subdued surface morphology make differentiation of the oldest glacial periods difficult and so they are grouped as the preReid glaciations. These glaciations are more than 800,000 years before present (BP). The most extensive of the preReid glaciations reached elevations ranging from about 1,200 to 1,400 metres. Local cirque glaciers developed in the Syenite Range west of the study area, in the West and East Ranges, and on Red Mountain within the study area.

Ice in the Reid glaciation, about 200,000 years BP, was confined to the largest river valleys. Termination of McQuesten Valley ice was near the mouth of the McQuesten River. The outwash terraces forming bluffs along the McQuesten River are examples of the Reid glacial landforms well preserved in the study area.

The McConnell glaciation, about 20,000 years BP, was the least extensive glaciation recorded in the Yukon. During that glaciation, the ice terminated in the Stewart River Valley to the south of the study area. Only a small portion of surficial deposits in the area are related to the McConnell advance.

The study area is within a zone of discontinuous permafrost. Features associated with permafrost have had a marked effect on the physiographic development of the area. In lowland riparian areas, black muck and moss cover the surficial deposits and "extensive areas of muskeg are common in the valley bottoms." (Green, 1971)

Where vegetation cover has been removed or disturbed by human activity or fire in areas of ice-rich permafrost, the permafrost begins to thaw and becomes unstable. This instability may cause thaw slumping, destroying vegetation and increase stream loading. Thaw slumps may enlarge for many years or stabilize within a few thaw seasons (Burn and Lewkowicz, 1990).

Some of the small lakes north of McQuesten Lake and in the South McQuesten River valley are

thermokarst lakes. (Chris Burn, personal communication). For a report on area thermokarst lakes, see Burn and Smith, 1990). Characteristic of thermokarst lakes in areas of ice-rich permafrost, are collapsing shorelines and drunken forests around the shoreline. Hanson Lake has these characteristics.

The Selwyn Mountains, a high seismic zone, lies to the northeast of the study area. The study area has a moderate risk of experiencing a major earthquake and lies within acceleration and velocity zones 3 or 4 (Basham et al, 1985).

# 2.4 Geology

The oldest known rocks in the McQuesten area belong to the Yukon group (Bostock 1948). The eastern portion of the study area around Hanson Lakes is largely covered with overburden, except on the northerly slopes and mountain summits (Geological Survey of Canada, 1960). Mineralization in the study area has been primarily associated with the Keno Hill Quartzite.

The study area is heavily mineralized with silver, zinc, gold, and lead. A search of the Yukon Minfile revealed about 80 reports in the study area.

#### 2.5 Biophysical Resources

Most faunal species present in the central Yukon are present in the study area, but populations are low except in the area around McQuesten Lake. That area provides good habitat for moose and is an important wetland that provides a staging area for migratory waterfowl.

There is a long history of trapping for small furbearers in the watershed (Green, 1971). Spruce grouse and ptarmigan are common. Less common are blue grouse, ruffed grouse and sharp-tailed grouse. Ducks and geese are present in the lake and wetland areas in the northeastern portion of the study area during the summer, and Hanson Lake is a staging areas for geese.

The study area contains part of one of the Yukon's 47 wetlands of significance which has a wetland notation. A

wetland notation is an indicator of interest considered by the federal and territorial government staff when they review land use applications.

The wetland area stretches from the south end of McQuesten Lake through to Clark Lakes outside the study area on the east. Appendix 7 contains a list of avian species in the study area.

Rick Furniss who operates an outfitting concession in the northeast of the study area reports signs that the area once supported a higher population of caribou than at present. Small numbers of caribou now mostly use the river valleys and lowland areas in the winter. Caribou populations are higher to the north and west of the study area.

Fish resources in the McQuesten watershed closely resemble most other tributaries of the Yukon Stewart River. The only anomaly is the now extirpated Squanga whitefish.

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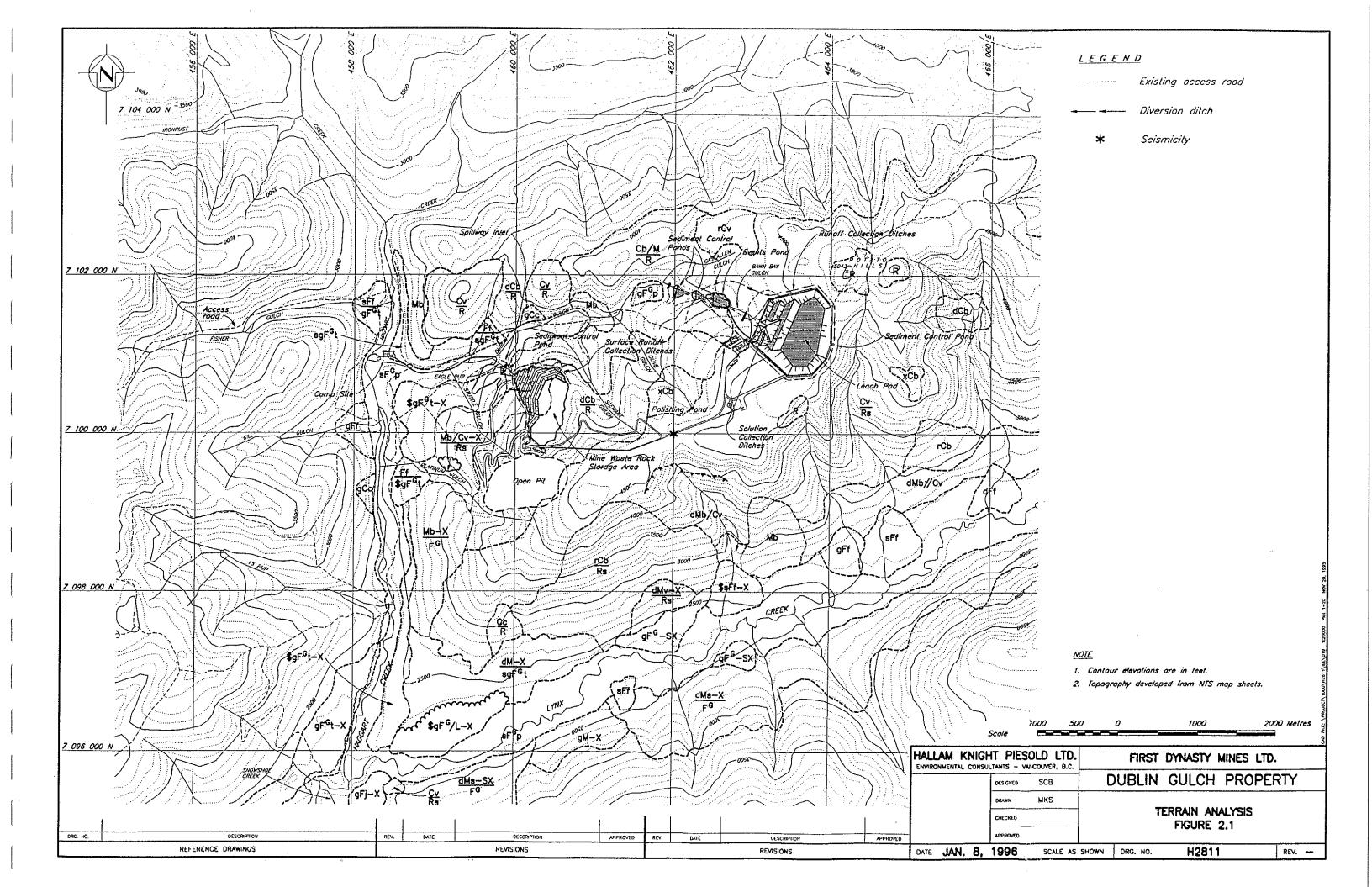
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TEXTURE						
Symbol	Name	Size(mm)	Other Characteristics			
a	blacks	>256	angular particles			
ь	boulders	> 256	rounded & subrounded particles			
k	cobbles	64-256	rounded & suarounded particles			
р	pebbles	2-64	rounded & subrounded particles			
5	sand	.062-2	a sociodinaco particles			
\$	silt	.002062				
Ġ	cloy	<.002				
d	mixed fragments	>2	mix of rounded and angular particles			
9	grovel	>2	mix of boulders, cabbles and pebbles			
×	angular fragments	>2	mix of rubble and blocks			
r	rubble	2-256	ongular particles			
m	mud	<.062	mix of clay and silt			
У	shells	7	shell or shell fragments			
e	libric .	well-preserved	f libre; (40%) identified after rubbing			
u	mesic	intermediate d	fecomposition between libric and mesic			
h	humic	decomposed of	organic material; (10%) identified after rubbing			

	SURFICIAL MATERIALS						
Symbol	Nome	(Assumed Status of Formative Process)	Description				
<b>€</b> <<=30€717#060>	onthropogenic colluvial weathered bedrack edian fluvial glaciofluvial ice lacustrine marainal organic bedrack undifferentialed valcanic marine glaciomanne	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA	Man-mode or man-modified materials Products of mass wastage In situ, decompased bedrock Materials deposited by wind action River deposits Ice contact fluvial materials Permanent snow, glaciers and icefields Lake sediments; includes wave deposits Ice contact lacustrine materials Material deposited directly by glaciers Accumulation/decay of vegetative matter Outcrops/rock covered by less than 10cm Layered sequence; three materials or more Unconsolidated pyraclastic sediments Marine sediments; includes wave deposits Ice contact morine sediments				

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drumlin crog and tail raches mautenees striae undifferintiated lineations maraine ridge (major) maraine ridge (minar) esker meltwater channel (large) meltwater channel (small) cirques blackfield rock glaciers tars gravel ocurrence observation site (frazen ground) stratigraphic site anthropagenic site	0+4@oloc    000    000	snow avalanches landslide headwall (large) landslide headwall (small) landslide headwall (small) landslide scar/track (small) lensian cracks sackung (sagging slopes) dunes (active/inactive) escarpment strandline piping depression karst depression gully spring gravel pit Quaternary lassil site Observation sita (ground/oir) HC site mine/quarry cinder cone	6x+@@x*[(00)]}*x00+x0

DESCRIPTION

REFERENCE DRAWINGS

SURFACE EXPRESSION				
Symbol	Name	Description		
٥	moderate slope	Unidirectional surface; >15' to \$26		
ь	blonkel	A mantle of unconsolidated material; > 1m thick		
C	cone	A cone or segment of a cone: >15'		
d	depression	A lower grea enclosed by higher surrounding terroin		
f	lon	A segment of a cone; up to 15'		
þ	hummocky	Hillocks and hollows, irregular in plan; 15-35'		
j	gentle slope	Unidirectional surface; >3" and ≤15"		
k	maderately steep	Unidirectional surface; >26' and <35'		
m	rolling	Elangote hillocks; J to 15'; parallel forms in plan		
P	plain	Unidirectional surface; up to J		
r	ridged	Elongate hillocks; 15 to 35'; porallel forms in plan		
3	sleep	Steep slopes; >35'		
t	terraced	Step-like topography		
u	undulating	Hillocks and hollows; up to <15'; irregular in plan		
٧	veneer	Months of unconsolidated material; 10cm to 1m thic		

	GEOLOGICAL PROCESSES						
Symbol	Nome	(Assumed Process Status)	Description				
Α	ovalanches	(4)	Terrain madified by snow avalanches				
8	broiding	(A)	Diversing Conversion at an allow				
С	cryoturbation	(Å)	Diverging/converging channels; unvegelated bars				
Ο Ο Ε	deflation	(ž)	Sediments modified by Irast heaving and churning				
Ε	channelled	Ű	Removal of sand and sill by wind action				
F	slow mass	(A)	Channel formation by meltwater				
	movement	(^/	Slow downslape movement of masses of conesive or				
H	kettled	(I)	non-cohesive material and/ar bedrack				
!	irregular	(V) (A)	Depressions due to the melting of buried glacier ice				
	channel	177	A single, clearly defined main channel displaying irregular turns and bends				
J	anastamasing	(A)					
	chonnel	1.5	A channel zone where channels diverge and converge				
ĸ	karst	(A)	converge around many vegalated islands				
М	meonderina	(A)	Processes associated with the solution of carbonates				
	channel .	(7)	Chonnel characterized by a regular pattern of bends				
N	nivation	(d)	with uniform amplitude and wave length				
P	piping	Ä	Erasion beneath and along the margin of snow patch				
R	rapid mass	Ã	Subterranean erosian by flawing water				
	movement	(2)	Rapid dawnslape movement of dry, moist or saturated debris				
S	solifluction	W					
	,	(2)	Slow dawnslope mavement of solurated overburden				
U	inundation	(A)	ocross a frozen or otherwise impermeable substrate				
Ý	gully erasian	(A)	Seasonally under water due to high watertable				
₩	washing	(A)	Parallel/subparallel ravines due to running water				
X	permafrast	(A)	Madification by wave action				
Z	periglacial	(A)	Processes controlled by the presence of permofrost				
-	processes	(~)	Solifluction, cryoturbation and nivation processes occurring within a single unit				

QUALIFYING DESCRIPTORS						
Symbol	Name	Description				
G	glacial	Used la quolify surficial materials where there is evidence that glacier ice affected the mode of deposition of materials				
A I	octive inactive	Used to qualify surficial materials and geological processes with regard to their current state of activity				

DESCRIPTION

REVISIONS

APPROVED REV. DATE

REVISIONS

#### MAP UNIT LETTER NOTATION

A terrain map unit symbol is composed of a combination of letters which designate different characteristics of the terrain. The relative position of letters within the symbol indicates the characteristics that they represent.

#### SAMPLE TERRAIN UNIT SYMBOL

qualifying descriptor	surface expression
surficial material —	qualitying descriptar
texture 9 FGt	- Y <sup>I</sup>
surficial material	geological process

This map unit consists of a gravelly glaciofluvial terrace that overlies sandy locustrine materials and is modified by gullies that are no langer active.

#### Explanatory Notes

 Units consisting af two or more types of terrain are designated by two or more groups of letters separated by slashes and/or dats

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REV. A

#### **Eagle Gold Project**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report

Appendix C – Soil Laboratory Data



# **APPENDIX C**

**Soil Laboratory Data** 

# **Analysis Report**

REPORT ON:

Analysis of Soil Samples

REPORTED TO:

Stantec

11-2042 Mills Rd Sidney, BC V8L 5X4

Att'n: Natalie Tashe

PROJECT NAME:

Eagle Gold

**NUMBER OF SAMPLES: 20** 

REPORT DATE: October 8, 2009

DATE SUBMITTED: September 14, 2009

**GROUP NUMBER: 100915028** 

SAMPLE TYPE: Soil

**NOTE:** Results contained in this report refer only to the testing of samples as submitted. Other information is available on request.

#### **TEST METHODS:**

pH in Soil or Solid - analysis was performed based on procedures described in the "Manual on Soil Sampling and Methods of Analysis" (1993) published by the Canadian Society of Soil Science. The test was performed using a deionized water leach with measurement by pH meter.

Particle Size Analysis - The particle size distribution is determined in accordance with Methods of Soil Analysis Part 1-Physical and Mineralogical Methods(2nd Ed), UBC Methods Manual for Soil Analysis(1981) and Soil Sampling and Methods of Analysis(1993). The % gravel, sand, silt and clay are determined by a combination of a standard dry sieve, wet sieve and pipetting techiques. Particle size limits used to define size fractions are based according to Canadian Soil Survey Committee(CSSC) and U.S. Department of Agriculture(USDA) classification scheme. Winnipeg Lab D-675 Berry St. Wpg, MB R3H1A7

CSSC Textural Category - C = Clay, S = Sand, SI = Silt, L = Loam, CL = Clay Loam, SC = Sandy Clay, SIL = Silt Loam, SIC = Silty Clay, LS = Loamy Sand, SL = Sandy Loam, HC = Heavy Clay, SCL = Sandy Clay Loam, SICL = Silty Clay Loam. Performed at Cantest Ltd Winnipeg, Unit-D Berry St, Winnipeg, Manitoba R3H 1A7.

Silver in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Arsenic in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Cadmium in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Mercury in Soil - analysis was performed using Cold Vapour Atomic Fluorescence.

(Continued)

CANTEST LTD.

Anna Becalska, PhD Trace Metals Coordinator Page 1 of 22

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



Molybdenum in Soil - analysis was performed using an acid digestion followed by determination using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Strong Acid Leachable Metals in Soil - analysis was performed using B.C. MOELP Method "Strong Acid Leachable Metals in Soil, Version 1.0". The method involves drying the sample at 60 C, sieving using a 2 mm (10 mesh) sieve and digestion using a mixture of hydrochloric and nitric acids. Analysis was performed using Inductively Coupled Argon Plasma Spectroscopy (ICAP) or by specific techniques as described.

Selenium in Soil - analysis was using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Thallium in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Particle Size Analysis - Standard - This analysis is appropriate for most samples. These particle size limits are used to define the size fractions; gravel, coarse to medium sand, fine sand, silt and clay, according to the CSSC and USDA Classification schemes. Soil testure is determined according to CSSC definition of texture. The size fractions that are analyzed are 2.0, 0.250, 0.125, 0.053 and 0.002 mm. The % Sand, % Silt and % Clay are based on the <2mm fraction of the sample by weight. Analysis was performed at CANTEST LTD., Unit "D" 675 Berry Steet, Winnipeg, Manitoba R3H 1A7.

#### COMMENTS:

The samples submitted were received at a temperature of 22.9 degrees Celsius. Temperature related changes may mean that the samples as analyzed do not reflect the samples at the time of collection, kdd - Sept 15, 2009

#### **TEST RESULTS:**

(See following pages)

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REPORT DATE: October 8, 2009

GROUP NUMBER: 100915028



#### Conventional Parameters in Soil

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	рН
WR1-S3	Jul 21/09	909150085	7.8
WR2-S2		909150088	7.1
WR3-S1	Jul 21/09	909150090	7.3
WR8-S2			7.0
P4-S2	Aug 4/09	909150092	7.2
P2-S2		909150093	6.5
P1-S2	Aug 4/09	909150095	6.6
HL5-6 S3		909150096	6.5
HL5-4 S3	Jul 26/09	909150097	7.0
HL5-7 S3	Jul 27/09	909150098	6.8
HL5-3 S3	Jul 20/09	909150100	6.6
HL6-4 S3	Jul 28/09	909150103	7.8
HL6-8 S1	N/A	909150108	8.2
HL6-1 S3	Jul 28/09	909150110	7.1
HL6-10 S1	Jul 31/09	909150111	4.8
HL6-4 S4	Jul 28/09	909150112	7.8
HL6-3 S4	Jul 28/09	909150113	7.1
DG3 S1	Aug 8/09	909150115	5.9
HL5-6 S3 BLND	N/A	909150118	6.6
HL6-1 S3 BLND	N/A	909150121	7.0
REPORTING LIMIT			0.1 pH units

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October 8, 2009

**GROUP NUMBER: 100915028** 



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		WR1-S3	WR2-S2	WR3-S1	WR8-S2	
DATE SAMPLED:		Jul 21/09 Jul 21/09	Jul 21/09	Jul 21/09	Jul 23/09	REPORTING
CANTEST ID:		909150085	909150088	909150090	909150091	LIMIT
Antimony	Sb	11.4	3.8	5.8	2.4	0.1
Arsenic	As	212	170	189	241	0.1
Barium	Ва	67	248	10	131	1
Beryllium	Be	1	<	<	<	1
Cadmium	Cd	<	0.4	<	0.7	0.2
Chromium	Cr	8	23	4	19	2
Cobalt	Co	30	12	14	8	1
Copper	Cu	84	30	21	17	1
Lead	Pb	18.1	31.2	12.1	37.7	0.2
Mercury	Hg	0.33	0.03	0.06	0.05	0.01
Molybdenum	Mo	1.6	1.0	5.7	1.7	0.1
Nickel	Ni	42	28	43	19	2
Selenium	Se	1.2	0.4	0.5	0.6	0.2
Silver	Ag	0.2	0.1	<	0.2	0.1
Thallium	TI	0.3	0.3	<	0.3	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	87	27	3	24	1
Zinc	Zn	93	102	95	113	1
Aluminum	Al	4100	13900	3590	7440	10
Boron	В	1	1	1	1	1
Calcium	Ca	3920	2370	1740	2830	1
Iron	Fe	62500	29300	24300	21800	2
Magnesium	Mg	2250	4710	1660	3900	1
Manganese	Mn	924	487	94	298	1
Phosphorus	Р	630	560	190	599	20
Potassium	K	1210	3330	891	1290	10
Sodium	Na	31	63	25	95	5
Strontium	Sr	33	20	22	28	1
Titanium	Ti	16	563	3	726	1
Zirconium	Zr	9	9	3	2	1

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October 8, 2009

**GROUP NUMBER: 100915028** 



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		P4-S2	P2-S2	P1-S2	HL5-6 S3	
DATE SAMPLED:	DATE SAMPLED:		Aug 4/09	Aug 4/09	Jul 27/09	
CANTEST ID:		909150092	909150093	909150095	909150096	REPORTING LIMIT
Antimony	Sb	8.1	10.5	5.4	0.9	0.1
Arsenic	As	903	78.3	148	49.3	0.1
Barium	Ba	376	374	155	272	1
Beryllium	Be	<	<	1	<	1
Cadmium	Cd	0.3	0.5	<	<	0.2
Chromium	Cr	26	26	46	40	2
Cobalt	Co	14	13	29	10	1
Copper	Cu	81	27	46	10	1
Lead	Pb	13.7	14.5	11.5	9.0	0.2
Mercury	Hg	0.02	0.02	0.01	<	0.01
Molybdenum	Mo	1.5	1.0	0.9	0.4	0.1
Nickel	Ni	21	29	42	20	2
Selenium	Se	1.0	0.6	0.4	0.4	0.2
Silver	Ag	0.2	0.1	<	<	0.1
Thallium	TI	0.4	0.2	0.6	0.6	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	29	36	49	40	1
Zinc	Zn	46	75	92	63	1
Aluminum	Al	13900	11000	20400	17500	10
Boron	В	1	1	<	<	1
Calcium	Ca	4230	2600	3400	2820	1
Iron	Fe	23900	25300	32900	27900	2
Magnesium	Mg	8160	4740	7560	8460	1
Manganese	Mn	228	461	947	419	1
Phosphorus	P	577	733	314	791	20
Potassium	K	4840	1940	8980	7630	10
Sodium	Na	94	85	91	85	5
Strontium	Sr	24	23	25	20	1
Titanium	Ti	869	561	639	2090	1
Zirconium	Zr	5	3	2	3	1

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GROUP NUMBER: 100915028



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		HL5-4 S3	HL5-7 S3	HL5-3 S3	HL6-4 S3	
DATE SAMPLED:		Jul 26/09	Jul 27/09	Jul 20/09	Jul 28/09	REPORTING
CANTEST ID:		909150097	909150098	909150100	909150103	LIMIT
Antimony	Sb	0.5	17.6	5.9	5.5	0.1
Arsenic	As	45.4	777	486	1350	0.1
Barium	Ва	338	68	163	69	1
Beryllium	Be	<	<	<	<	1
Cadmium	Cd	<	1.0	0.9	<	0.2
Chromium	Cr	30	8	28	22	2
Cobalt	Co	9	10	9	14	1
Copper	Cu	3	18	12	51	1
Lead	Pb	5.7	85.8	41.3	13.3	0.2
Mercury	Hg	<	0.22	0.02	0.02	0.01
Molybdenum	Mo	1.1	7.8	3.2	0.4	0.1
Nickel	Ni	25	23	18	30	2
Selenium	Se	0.5	0.4	0.6	0.8	0.2
Silver	Ag	<	0.4	0.2	0.1	0.1
Thallium	TI	0.5	0.2	0.2	0.4	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	35	7	33	28	1
Zinc	Zn	40	144	125	54	1
Aluminum	Al	14200	2520	8410	8070	10
Boron	В	<	1	<	<	1
Calcium	Ca	3410	1040	3080	2250	1
Iron	Fe	23300	25000	22500	32800	2
Magnesium	Mg	8060	957	5250	3720	1
Manganese	Mn	300	560	571	483	1
Phosphorus	P	827	280	674	332	20
Potassium	K	6980	1180	1680	2990	10
Sodium	Na	93	17	86	85	5
Strontium	Sr	17	40	20	19	1
Titanium	Ti	1620	49	996	221	1
Zirconium	Zr	2	7	2	10	1

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# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		HL6-8 S1	HL6-1 S3	HL6-10 S1	HL6-4 S4	
DATE SAMPLED:			Jul 28/09		Jul 28/09	REPORTING
CANTEST ID:		909150108	909150110	909150111	909150112	LIMIT
Antimony	Sb	2.4	2.4	16.7	0.7	0.1
Arsenic	As	9.4	42.3	226	23.7	0.1
Barium	Ba	107	120	114	69	1
Beryllium	Be	<	1	<	2	1
Cadmium	Cd	0.3	0.3	<	<	0.2
Chromium	Cr	9	27	15	26	2
Cobalt	Co	6	20	9	15	1
Copper	Cu	21	45	25	50	1
Lead	Pb	8.2	9.6	26.9	10.8	0.2
Mercury	Hg	0.06	0.01	0.02	<	0.01
Molybdenum	Mo	0.3	0.9	0.9	1.3	0.1
Nickel	Ni	17	57	20	30	2
Selenium	Se	1.3	0.6	0.7	0.5	0.2
Silver	Ag	0.2	<	0.1	<	0.1
Thallium	TI	0.1	0.5	0.1	0.4	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	10	29	25	27	1
Zinc	Zn	44	97	53	90	1
Aluminum	Al	5650	15900	7060	14800	10
Boron	В	3	<	<	<	1
Calcium	Ca	34700	1630	956	1760	1
Iron	Fe	15000	49600	25800	48000	2
Magnesium	Mg	5090	5940	2340	6540	1
Manganese	Mn	658	658	294	261	1
Phosphorus	Р	411	303	340	296	20
Potassium	K	1110	5960	748	5310	10
Sodium	Na	32	126	33	77	5
Strontium	Sr	176	16	12	12	1
Titanium	Ti	35	443	175	302	1
Zirconium	Zr	4	9	<	24	1

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**GROUP NUMBER: 100915028** 



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		HL6-3 S4	DG3 S1	HL5-6 S3 BLND	HL6-1 S3 BLND	
DATE SAMPLED:		Jul 28/09	Aug 8/09			REPORTING
CANTEST ID:		909150113	909150115	909150118	909150121	LIMIT
Antimony	Sb	4.6	10.1	1.0	2.3	0.1
Arsenic	As	97.4	438	45.9	42.6	0.1
Barium	Ba	74	128	264	128	1
Beryllium	Be	1	<	<	2	1
Cadmium	Cd	<	0.4	<	0.3	0.2
Chromium	Cr	34	20	39	29	2
Cobalt	Co	19	15	11	19	1
Copper	Cu	57	39	10	49	1
Lead	Pb	11.9	38.4	8.5	10.5	0.2
Mercury	Hg	0.02	0.02	<	0.01	0.01
Molybdenum	Mo	0.9	0.8	0.3	0.9	0.1
Nickel	Ni	48	35	21	58	2
Selenium	Se	0.7	0.7	0.4	0.6	0.2
Silver	Ag	0.1	0.2	<	0.1	0.1
Thallium	TI	0.5	0.3	0.6	0.6	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	25	26	38	30	1
Zinc	Zn	81	108	63	98	1
Aluminum	Al	11500	7430	17100	18100	10
Boron	В	<	1	<	<	1
Calcium	Ca	1730	2070	2800	1820	1
Iron	Fe	43200	31400	26900	51700	2
Magnesium	Mg	5050	3530	8400	6730	1
Manganese	Mn	390	286	411	668	1
Phosphorus	P	363	494	732	306	20
Potassium	K	4550	1970	7500	6400	10
Sodium	Na	86	64	88	154	5
Strontium	Sr	19	22	20	18	1
Titanium	Ti	370	342	2040	492	1
Zirconium	Zr	11	13	2	9	1

REPORTED TO: Stantec

REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Type of Particle Size Analysis in Soil

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	PSA Standard
WR1-S3	Jul 21/09	909150085	COMPLETE
P4-S2	Aug 4/09	909150092	COMPLETE
HL5-6 S3	Jul 27/09	909150096	COMPLETE
HL5-4 S3	Jul 26/09	909150097	COMPLETE
HL6-4 S3	Jul 28/09	909150103	COMPLETE
HL6-1 S3	Jul 28/09	909150110	COMPLETE
REPORTING LIMIT UNITS			-

<sup>- =</sup> text or without units

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	WR1-S3	P4-S2	HL5-6 S3	HL5-4 S3	
DATE SAMPLED:	Jul 21/09	Aug 4/09	Jul 27/09	Jul 26/09	REPORTING
CANTEST ID:	909150085	909150092	909150096	909150097	LIMIT
Pipette Size 0.053 mm	17.17	7.64	10.78	9.00	-
Pipette Size 0.002 mm	3.83	1.75	1.49	1.94	
Sieve 2 mm, ASTM #10	32.55	23.57	48.82	39.87	+
Sieve 0.250mm, 250um, #60	22.77	12.55	24.72	18.96	-
Sieve 0.125mm, 125um, #120	19.75	10.11	17.39	13.56	9

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	HL6-4 S3	HL6-1 S3		
DATE SAMPLED:	Jul 28/09	Jul 28/09	REPORTING	
CANTEST ID:	909150103	909150110	LIMIT	
Pipette Size 0.053 mm	24.44	13.64		
Pipette Size 0.002 mm	5.34	2.12		
Sieve 2 mm, ASTM #10	50.21	35.17	-	
Sieve 0.250mm, 250um, #60	33.06	21.29	-	
Sieve 0.125mm, 125um, #120	29.66	17.98	· -	

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October 8, 2009

**GROUP NUMBER: 100915028** 

CANTEST

# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	WR1-S3	P4-S2	HL5-6 S3	HL5-4 \$3		
DATE SAMPLED:	Jul 21/09	Aug 4/09	Jul 27/09	Jul 26/09	REPORTING	
CANTEST ID:	909150085	909150092	909150096	909150097	LIMIT	
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm	67.45 15.39 13.34	76.43 15.93 5.88	51.18 38.04 9.29	60.13 30.86 7.06		
<0.002 mm	3.83	1.75	1.49	1.94	-	

Results expressed as percent, on a weight basis (%)

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October 8, 2009

**GROUP NUMBER: 100915028** 



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	HL6-4 S3	HL6-1 S3	
DATE SAMPLED:	Jul 28/09	Jul 28/09	REPORTING
CANTEST ID:	909150103	909150110	LIMIT
>2.00 mm	49.79	64.83	
<2.00 mm & >0.053 mm	25.76	21.53	
<0.053 mm & >0.002 mm	19.10	11.52	2
<0.002 mm	5.34	2.12	

Results expressed as percent, on a weight basis (%)

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October 8, 2009

**GROUP NUMBER: 100915028** 



# %Sand, %Silt and %Clay in Soil

CLIENT SAMPLE IDENTIFICATION:	WR1-S3	P4-S2	HL5-6 S3	HL5-4 S3		
DATE SAMPLED:	Jul 21/09	Aug 4/09	Jul 27/09	Jul 26/09	REPORTING	UNITS
CANTEST ID:	909150085	909150092	909150096	909150097	LIMIT	01.01.00
CSSC Textural Category %Sand <2.00 mm & >0.053 mm %Silt <0.053 mm & >0.002 mm	L 47.27 40.97	SL 67.60 24.97	LS 77.92 19.03	LS 77.42 17.71		- % %
%Clay <0.002 mm	11.77	7.43	3.05	4.87	•	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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# %Sand, %Silt and %Clay in Soil

CLIENT SAMPLE IDENTIFICATION:	HL6-4 S3	HL6-1 S3			
DATE SAMPLED:	Jul 28/09	Jul 28/09	REPORTING	UNITS	
CANTEST ID:	909150103	909150110	LIMIT		
CSSC Textural Category %Sand <2.00 mm & >0.053 mm %Silt <0.053 mm & >0.002 mm %Clay <0.002 mm	L 51.32 38.04 10.64	SL 61.22 32.75 6.03	-	- % %	

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127711)

Parameter	Soil Pipette Verif %<53um (% Recovery) 909150085	Verif %<53um	Soil Pipette Verif %<53um (% Recovery) 909150092		Soil Pipette Verif %<53um (% Recovery) 909150096	
Pipette Size 0.053 mm	99	95 - 105	100	95 - 105	99	95 - 105

PCTP = percent passing

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127711)

Parameter	Soil Pipette Verif %<53um (% Recovery) 909150097	CALLER TO THE STATE OF THE STAT	Soil Pipette Verif %<53um (% Recovery) 909150103	Verif %<53um		
Pipette Size 0.053 mm	99	95 - 105	100	95 - 105	100	95 - 105

PCTP = percent passing

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126835)

Parameter		Blank (ug/g)	Blank Limits	CAN MET Till-1 (% Recovery)	CAN MET Till-1 Limits	Duplicate (R.P.D.) 909150092	Duplicate Limits
Antimony	Sb	< 0.1	10				-
Arsenic	As	-	-	-		0.1	30
Barium	Ва	< 1	1	92	74 - 120	0.5	30
Beryllium	Be	< 1	1	20	10.4 - 30.4	NC	30
Cadmium	Cd	< 0.2	0.2	61	3 - 197	PASS	30
Chromium	Cr	< 2	0.2	83	73 - 113	7.7	30
Cobalt	Co	< 1	1	92	70 - 142	22.2	30
Copper	Cu	< 1	0.2	88	75 - 113	8.7	30
Lead	Pb	< 0.2	5	108	65 - 171	6.6	30
Mercury	Hg	-	-	88	33 - 174	0	30
Molybdenum	Mo	< 0.1	4	30	5 - 90	20.7	30
Nickel	Ni	< 2	2	89	49 - 149	9.5	30
Selenium	Se	< 0.2	0.2	20	-	20	30
Silver	Ag	-	-	-	-	PASS	30
Thallium	TI	< 0.1	0.001	4	-	PASS	30
Tin	Sn	< 5	5	-		NC	30
Vanadium	V	< 1	1	104	69 - 152	3.4	30
Zinc	Zn	< 1	1	84	79 - 114	2.2	30
Aluminum	Al	< 10	10	-	-	0	30
Boron	В	< 1	1	-	14	PASS	30
Calcium	Ca	< 1	1	65	51 - 106	5.7	30
Iron	Fe	< 2	2	-		0.4	30
Magnesium	Mg	< 1	1	-		1.7	30
Manganese	Mn	< 1	1			13.6	30
Phosphorus	P	< 20	20	-		3.6	30
Potassium	K	< 10	10	-	-	1.2	30
Sodium	Na	< 5	5	-	-	2.1	30
Strontium	Sr	< 1	1	-	-	4.3	30
Titanium	Ti	< 1	1	-		4.8	30
Zirconium	Zr	< 1	1	-	-	PASS	30

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

NC = Not Calculated. Duplicate sample results were less than the detection limit. Relative Percent Difference calculation is not defined for analyte levels of less than detection limit.

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



### Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126835)

Parameter		Duplicate (R.P.D.) 909150111	Duplicate Limits	Duplicate (R.P.D.) 909150355	Duplicate Limits	Duplicate (R.P.D.) 909150559	Duplicate Limits
Arsenic	As	7.1	30	1.			
Barium	Ba	3.5	30	-			-
Beryllium	Be	NC	30	-	-		
Cadmium	Cd	NC	30	-		-	-
Chromium	Cr	0	30	-	-		
Cobalt	Co	10.5	30	-	-		_
Copper	Cu	3.9	30	-		-	
Lead	Pb	6.3	30			-	4.
Mercury	Hg	0	30	0	30	1.1	30
Molybdenum	Mo	10.5	30	-	(=)	-	-0
Nickel	Ni	5.1	30	-	2	-	-
Selenium	Se	PASS	30	-	-		-
Silver	Ag	PASS	30	-	(-	-	-
Thallium	TI	PASS	30	4	-	+	-
Tin	Sn	NC	30	-	-		-
Vanadium	V	4.1	30	-	14	-	-
Zinc	Zn	1.9	30	-	-	-	-
Aluminum	Al	0.1	30	-	-	-	-
Boron	В	NC	30	+	-	-	1.0
Calcium	Ca	3.7	30	-	-	-	
Iron	Fe	0.8	30	2			
Magnesium	Mg	0.4	30	-	-	-	+
Manganese	Mn	5.1	30	-	-	-	-
Phosphorus	P	0.6	30	-	-	-	-
Potassium	K	1.5	30		-	7	
Sodium	Na	0	30	-	-	-	
Strontium	Sr	0	30	-	-	-	- /
Titanium	Ti	7.4	30	-	-	-	-
Zirconium	Zr	NC	30	-	-	-	9

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

NC = Not Calculated. Duplicate sample results were less than the detection limit. Relative Percent Difference calculation is not defined for analyte levels of less than detection limit.

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October 8, 2009

**GROUP NUMBER: 100915028** 



# Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126835)

Parameter		Duplicate (R.P.D.) 909160030	Duplicate Limits	Duplicate (R.P.D.) 909160450	Duplicate Limits	Duplicate (R.P.D.) 909160474	Duplicate Limits
Mercury	Hg	0	30	0	30	NC	30

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

NC = Not Calculated. Duplicate sample results were less than the detection limit. Relative Percent Difference calculation is not defined for analyte levels of less than detection limit.

REPORTED TO: Stantec

REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



# Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126835)

Parameter		Duplicate (R.P.D.) 909160487	Duplicate Limits	Duplicate (R.P.D.) 909160503	Duplicate Limits
Mercury	Hg	22.2	30	NC	30

ug/g = micrograms per gram R.P.D. = Relative Percent Difference

NC = Not Calculated. Duplicate sample results were less than the detection limit. Relative Percent Difference calculation is not defined for analyte levels of less than detection limit.

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REPORT DATE:

October 8, 2009

**GROUP NUMBER: 100915028** 



#### **Batch Quality Control Frequency Summary**

### SALM in Soil Digestion (Batch# 126835)

QC Type	No. Samples
CAN MET Till-1	1
Blank	3
Duplicate	10

#### Particle Size Prep - Winnipeg (Batch# 127711)

QC Type	No. Samples		
Soil Pipette Verif %<53um	6		

#### SALM Metals in Soil Sieve (Batch# 126824)

QC Type	No. Samples
Batch Size	103

### SALM in Soil Digestion (Batch# 126835)

QC Type	No. Samples
Batch Size	103

### Particle Size Prep - Winnipeg (Batch# 127711)

QC Type	No. Samples
Batch Size	6

### **Analysis Report**

REPORT ON:

Analysis of Soil, Tissue Samples

REPORTED TO:

Stantec

11-2042 Mills Rd Sidney, BC V8L 5X4

Att'n: Natalie Tashe

PROJECT NAME:

Eagle Gold

PROJECT NUMBER:

153550.03

**NUMBER OF SAMPLES: 39** 

REPORT DATE: October 7, 2009

DATE SUBMITTED: September 4, 2009

**GROUP NUMBER: 100905040** 

SAMPLE TYPE: Tissue, Soil

**NOTE:** Results contained in this report refer only to the testing of samples as submitted. Other information is available on request.

#### **TEST METHODS:**

pH in Soil or Solid - analysis was performed based on procedures described in the "Manual on Soil Sampling and Methods of Analysis" (1993) published by the Canadian Society of Soil Science. The test was performed using a deionized water leach with measurement by pH meter.

**Mercury in Tissue** - samples were digested using a nitric acid-hydrogen peroxide digestion procedure based on EPA Method 200.3. Analysis was performed using Cold Vapour Atomic Absorption Spectrophotometry or Cold Vapour Atomic Fluorescence Spectrophotometry.

Metals in Tissue - samples were digested using a nitric acid-hydrogen peroxide digestion procedure based on EPA Method 200.3. Analysis was performed using Inductively Coupled Argon Plasma Spectroscopy (ICP), or ICP Mass Spectrometry (ICP/MS).

Particle Size Analysis - The particle size distribution is determined in accordance with Methods of Soil Analysis Part 1-Physical and Mineralogical Methods(2nd Ed), UBC Methods Manual for Soil Analysis(1981) and Soil Sampling and Methods of Analysis(1993). The % gravel, sand, silt and clay are determined by a combination of a standard dry sieve, wet sieve and pipetting techiques. Particle size limits used to define size fractions are based according to Canadian Soil Survey Committee(CSSC) and U.S. Department of Agriculture(USDA) classification scheme. Winnipeg Lab D-675 Berry St. Wpg, MB R3H1A7

CSSC Textural Category - C = Clay, S = Sand, SI = Silt, L = Loam, CL = Clay Loam, SC = Sandy Clay, SIL = Silt Loam, SIC = Silty Clay, LS = Loamy Sand, SL = Sandy Loam, HC = Heavy Clay, SCL = Sandy Clay Loam, SICL = Silty Clay Loam, Performed at Cantest Ltd Winnipeg, Unit-D Berry St, Winnipeg, Manitoba R3H 1A7.

(Continued)

CANTEST LTD.

Anna Becalska, PhD Trace Metals Coordinator Page 1 of 44

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



Silver in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Arsenic in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Cadmium in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Mercury in Soil - analysis was performed using Cold Vapour Atomic Fluorescence.

Molybdenum in Soil - analysis was performed using an acid digestion followed by determination using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Strong Acid Leachable Metals in Soil - analysis was performed using B.C. MOELP Method "Strong Acid Leachable Metals in Soil, Version 1.0". The method involves drying the sample at 60 C, sieving using a 2 mm (10 mesh) sieve and digestion using a mixture of hydrochloric and nitric acids. Analysis was performed using Inductively Coupled Argon Plasma Spectroscopy (ICAP) or by specific techniques as described.

Selenium in Soil - analysis was using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Thallium in Soil - analysis was performed using Inductively Coupled Plasma Mass Spectrometry (ICP/MS).

Particle Size Analysis - Standard - This analysis is appropriate for most samples. These particle size limits are used to define the size fractions: gravel, coarse to medium sand, fine sand, silt and clay, according to the CSSC and USDA Classification schemes. Soil testure is determined according to CSSC definition of texture. The size fractions that are analyzed are 2.0, 0.250, 0.125, 0.053 and 0.002 mm. The % Sand, % Silt and % Clay are based on the <2mm fraction of the sample by weight. Analysis was performed at CANTEST LTD., Unit "D" 675 Berry Steet, Winnipeg, Manitoba R3H 1A7.

#### TEST RESULTS:

(See following pages)

REPORTED TO: Stantec

REPORT DATE: October 7, 2009

**GROUP NUMBER: 100905040** 



# Conventional Parameters in Soil

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST ID	рН
EGL17-NT-1	Aug 11/09	909050225	3.9
EGL8-NT-1		909050226	5.1
EGL4-NT-2	Aug 12/09	909050227	4.8
EGL1-MT-2	Aug 14/09	909050229	5.7
EGL41-NT-1	Aug 16/09	909050230	4.7
EGL17-NT-2	Aug 11/09	909050233	4.2
EGL8-NT-2	Aug 16/09	909050234	5.6
EGL41-NT-2	Aug 16/09	909050235	4.6
EGL10-MT-2		909050236	4.6
EGL50-NT-1	Aug 15/09	909050238	3.7
EGL208-NT-2	Aug 15/09	909050239	4.4
EGL21-NT-1	Aug 11/09	909050240	3.8
EGL50-NT-2	Aug 15/09	909050243	4.6
EGL21-NT-2	Aug 11/09	909050244	4.4
EGL208-NT-1		909050245	4.0
EGL41-NT-1B	Aug 16/09	909050246	4.8
EGL4-NT-2B	Aug 12/09		4.9
EGL4-NT-1?	Aug 12/09	909050248	4.4
REPORTING LIMIT UNITS			0.1 pH units

REPORTED TO: Stantec

REPORT DATE: October 7, 2009

GROUP NUMBER: 100905040



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		EGL17-NT-1	EGL8-NT-1	EGL41-NT-1	EGL50-NT-1	
DATE SAMPLED:  CANTEST ID:		Aug 11/09	Aug 16/09	Aug 16/09 Aug 16/09	Aug 15/09	REPORTING
		909050225	909050226	909050230	909050238	LIMIT
Antimony	Sb	1.4	6.0	7.6	<	0.1
Arsenic	As	43.7	34.0	148	2.4	0.1
Barium	Ba	98	209	135	58	1
Beryllium	Be	<	<	<	<	1
Cadmium	Cd	<	1.4	<	0.8	0.2
Chromium	Cr	105	31	31	14	2
Cobalt	Co	4	16	10	1	1
Copper	Cu	9	33	23	4	1
Lead	Pb	9.6	25.9	31.5	2.1	0.2
Mercury	Hg	0.10	0.15	0.04	0.16	0.01
Molybdenum	Mo	2.1	0.7	0.9	3.1	0.1
Nickel	Ni	54	35	26	8	2
Selenium	Se	0.3	0.5	0.4	0.3	0.2
Silver	Ag	0.2	2.0	0.2	0.2	0.1
Thallium	TI	0.1	<	0.1	<	0.1
Tin	Sn	<	<	<	<	5
Vanadium	V	24	13	24	4	1
Zinc	Zn	34	72	66	55	1
Aluminum	Al	6000	7300	8080	1720	10
Boron	В	2	1	<	<	1
Calcium	Ca	1310	11200	1570	1850	Ť
ron	Fe	11500	22000	21100	2560	2
Magnesium	Mg	1240	2510	2990	257	i
Manganese	Mn	155	2040	234	24	1
Phosphorus	P	1010	819	504	700	20
otassium	K	749	890	633	383	10
Sodium	Na	50	34	41	37	5
Strontium	Sr	15	83	13	14	1
itanium	Ti	56	38	230	96	1
Zirconium	Zr	<	1	2	<	1

REPORTED TO: Stantec

REPORT DATE: October 7, 2009

**GROUP NUMBER: 100905040** 



# Strong Acid Soluble Metals in Soil

CLIENT SAMPLE IDENTIFICATION:		EGL21-NT-1	EGL208-NT- 1	EGL41-NT-1 B	EGL4-NT-1?	
DATE SAMPLED:		Aug 11/09	Aug 15/09	Aug 16/09	Aug 12/09	DEBORTING
CANTEST ID:		909050240	909050245	909050246	909050248	REPORTING LIMIT
Antimony	Sb	1.4	8.3	5.3	3.1	0.1
Arsenic	As	88.9	75.3	182	880	0.1
Barium	Ba	76	103	163	196	1
Beryllium	Be	<	<	<	<	1 .
Cadmium	Cd	<	0.2	<	0.8	0.2
Chromium	Cr	17	22	22	28	2
Cobalt	Co	4	7	10	10	1
Copper	Cu	9	16	27	18	1
Lead	Pb	11.5	37.8	35.3	53.7	0.2
Mercury	Hg	0.06	0.08	0.05	0.03	0.01
Molybdenum	Mo	1.1	1.6	0.9	1.0	0.1
Nickel	Ni	10	16	22	26	2
Selenium	Se	0.3	0.4	0.6	0.2	0.2
Silver	Ag	0.1	0.2	0.2	0.2	0.1
Thallium	TI	0.1	0.2	0.2	0.2	0.1
Tin	Sn	<	<	<	<	
Vanadium	V	31	40	30	28	5
Zinc	Zn	35	60	77	147	1
Aluminum	Al	8110	10600	9630	12500	10
Boron	В	<	<	<	<	10
Calcium	Ca	562	1410	1810	3430	
ron	Fe	16400	26400	24600	25100	1
Magnesium	Mg	1790	3080	3640	4690	2
Manganese	Mn	122	266	262	471	
hosphorus	Р	632	617	545	667	1
otassium	K	389	1090	741	549	20
Sodium	Na	33	47	46	46	10
Strontium	Sr	7	16	15	29	5
itanium	Ti	80	202	256		1
Zirconium	Zr	<	<	2	193	1

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REPORT DATE:

October 7, 2009

GROUP NUMBER: 100905040



# Type of Particle Size Analysis in Soil

CLIENT SAMPLE IDENTIFICATION:	SAMPLE DATE	CANTEST	PSA Standard
EGL17-NT-1	Aug 11/09	909050225	COMPLETE
EGL8-NT-1		909050226	COMPLETE
EGL4-NT-2		909050227	COMPLETE
EGL8-NT-3		909050228	COMPLETE
EGL1-MT-2		909050229	COMPLETE
EGL41-NT-1		909050230	COMPLETE
EGL21-NT-3		909050232	COMPLETE
EGL17-NT-2	Aug 11/09		COMPLETE
EGL8-NT-2		909050234	COMPLETE
EGL41-NT-2	Aug 16/09		COMPLETE
EGL10-MT-2	Aug 16/09		COMPLETE
EGL21-NT-4	Aug 11/09		COMPLETE
EGL50-NT-1	Aug 15/09		COMPLETE
EGL208-NT-2	Aug 15/09		COMPLETE
EGL21-NT-1	Aug 11/09		COMPLETE
EGL1-MT-3	Aug 14/09		COMPLETE
EGL208-NT-3	Aug 15/09		COMPLETE
EGL50-NT-2	Aug 15/09		COMPLETE
EGL21-NT-2	Aug 11/09		COMPLETE
EGL208-NT-1	Aug 15/09		COMPLETE
EGL41-NT-1B	Aug 16/09		COMPLETE
EGL4-NT-2B	Aug 12/09		COMPLETE
EGL4-NT-1?	Aug 12/09		COMPETE

<sup>- =</sup> text or without units

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REPORT DATE:

October 7, 2009

GROUP NUMBER: 100905040



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL17-NT-1	EGL8-NT-1	EGL4-NT-2	EGL8-NT-3	
DATE SAMPLED:	Aug 11/09	Aug 16/09	Aug 12/09	Aug 16/09	REPORTING LIMIT
CANTEST ID:	909050225	909050226	909050227	909050228	
Pipette Size 0.053 mm	47.77	70.09	16.19	26.05	
Pipette Size 0.002 mm	9.25	21.99	4.51	3.79	
Sieve 2 mm, ASTM #10	72.57	87.59	49.65	59.46	-
Sieve 0.250mm, 250um, #60	57.70	78.41	24.80	36.60	
Sieve 0.125mm, 125um, #120	54.15	75.00	20.75	31.73	

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REPORT DATE:

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**GROUP NUMBER: 100905040** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL1-MT-2	EGL41-NT-1	EGL21-NT-3	EGL17-NT-2	
DATE SAMPLED:	Aug 14/09	Aug 16/09	Aug 11/09	Aug 11/09	REPORTING
CANTEST ID:	909050229	909050230	909050232	909050233	LIMIT
Pipette Size 0.053 mm	58.73	49.92	66.96	20.33	
Pipette Size 0.002 mm	21.33	7.16	10.37	2.54	-
Sieve 2 mm, ASTM #10	66.75	80.20	82.90	51.43	1
Sieve 0.250mm, 250um, #60	64.50	66.39	77.39	30.38	
Sieve 0.125mm, 125um, #120	63,28	60.76	75.91	27.26	

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REPORT DATE:

October 7, 2009

**GROUP NUMBER:** 100905040



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL8-NT-2	EGL41-NT-2	EGL10-MT-2	EGL21-NT-4	
DATE SAMPLED:	Aug 16/09	Aug 16/09	Aug 16/09	Aug 11/09	REPORTING
CANTEST ID:	909050234	909050235	909050236	909050237	LIMIT
Pipette Size 0.053 mm	24.05	69.75	39.25	43.04	
Pipette Size 0.002 mm	3.68	9.57	6.08	5.11	
Sieve 2 mm, ASTM #10	59.35	95.37	64.23	85.57	
Sieve 0.250mm, 250um, #60	34.03	86.44	51.86	60.86	-
Sieve 0.125mm, 125um, #120	29.25	81.48	48.94	54.38	

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL50-NT-1	EGL208-NT- 2	EGL21-NT-1	EGL1-MT-3	
DATE SAMPLED:	Aug 15/09	Aug 15/09	Aug 11/09	Aug 14/09	REPORTING
CANTEST ID:	909050238	909050239	909050240	909050241	LIMIT
Pipette Size 0.053 mm	70.35	56.35	34.22	20.17	4
Pipette Size 0.002 mm	23.93	10.87	7.52	5.38	-
Sieve 2 mm, ASTM #10	81.82	77.45	46.86	36.30	1 -
Sieve 0.250mm, 250um, #60	78.12	68.41	40.37	26.04	
Sieve 0.125mm, 125um, #120	75.15	65.75	38.06	23.95	

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL208-NT- 3	EGL50-NT-2	EGL21-NT-2	EGL208-NT- 1	
DATE SAMPLED:	Aug 15/09	Aug 15/09	Aug 11/09	Aug 15/09	REPORTING
CANTEST ID:	909050242	909050243	909050244	909050245	LIMIT
Pipette Size 0.053 mm	22.52	31.44	64.56	83.12	-
Pipette Size 0.002 mm	3.98	6.65	10.03	17.79	-
Sieve 2 mm, ASTM #10	35.58	73.63	90.34	97.62	-
Sieve 0.250mm, 250um, #60	28.12	43.87	80.80	93.58	-
Sieve 0.125mm, 125um, #120	26.63	38.96	77.93	91.53	

Results expressed as percent passing (PCTP)

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



# Percent Passing on Sieves and Pipettes in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL41-NT-1 B	EGL4-NT-2B	EGL4-NT-1?	
DATE SAMPLED:	Aug 16/09	Aug 12/09	Aug 12/09	REPORTING
CANTEST ID:	909050246	909050247	909050248	LIMIT
Pipette Size 0.053 mm	51.30	15.99	35.58	-
Pipette Size 0.002 mm	7.04	4.16	10.22	-
Sieve 2 mm, ASTM #10	80.93	47.05	69.55	-
Sieve 0.250mm, 250um, #60	67.34	24.52	46.12	-
Sieve 0.125mm, 125um, #120	62.10	20.53	41.72	

Results expressed as percent passing (PCTP)

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REPORT DATE:

October 7, 2009

GROUP NUMBER: 100905040



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL17-NT-1	EGL8-NT-1	EGL4-NT-2	EGL8-NT-3	
DATE SAMPLED:	Aug 11/09	Aug 16/09	Aug 12/09	Aug 16/09	REPORTING
CANTEST ID:	909050225	909050226	909050227	909050228	LIMIT
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm <0.002 mm	27.43 24.81 38.51 9.25	12.41 17.50 48.11 21.99	50.35 33.46 11.68 4.51	40.54 33.41 22.25 3.79	-

REPORTED TO: Stantec

REPORT DATE: October 7, 2009

**GROUP NUMBER: 100905040** 



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL1-MT-2	EGL41-NT-1	EGL21-NT-3	EGL17-NT-2	
DATE SAMPLED:	Aug 14/09	Aug 16/09	Aug 11/09	Aug 11/09	REPORTING
CANTEST ID:	909050229	909050230	909050232	909050233	LIMIT
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm <0.002 mm	33.25 8.02 37.40 21.33	19.80 30.28 42.75 7.16	17.10 15.94 56.59 10.37	48.57 31.10 17.79 2.54	•

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**GROUP NUMBER: 100905040** 



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL8-NT-2	EGL41-NT-2	EGL10-MT-2	EGL21-NT-4	
DATE SAMPLED:	Aug 16/09	Aug 16/09	Aug 16/09	Aug 11/09	REPORTING
CANTEST ID:	909050234	909050235	909050236	909050237	LIMIT
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm <0.002 mm	40.65 35.30 20.37 3.68	4.63 25.62 60.18 9.57	35.77 24.98 33.18 6.08	14.43 42.53 37.93 5.11	

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**GROUP NUMBER: 100905040** 



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL50-NT-1	EGL208-NT- 2	EGL21-NT-1	EGL1-MT-3	
DATE SAMPLED;	Aug 15/09	Aug 15/09	Aug 11/09	Aug 14/09	REPORTING
CANTEST ID:	909050238	909050239	909050240	909050241	LIMIT
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm	18.18 19.91 37.99	22.55 21.10 45.48	53.14 12.64 26.70	63.70 16.14 14.78	
<0.002 mm	23.93	10.87	7.52	5.38	

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# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL208-NT- 3	EGL50-NT-2	EGL21-NT-2	EGL208-NT-	
DATE SAMPLED:	Aug 15/09	Aug 15/09	Aug 11/09	Aug 15/09	REPORTING
CANTEST ID:	909050242	909050243	909050244	909050245	LIMIT
>2.00 mm <2.00 mm & >0.053 mm <0.053 mm & >0.002 mm <0.002 mm	64.42 13.05 18.54 3.98	26.37 42.20 24.79 6.65	9.66 25.78 54.53 10.03	2.38 14.50 65.33 17.79	

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**GROUP NUMBER: 100905040** 



# Percent Retained on Sieves - % By Weight in Soil

CLIENT SAMPLE IDENTIFICATION:	EGL41-NT-1 B	EGL4-NT-2B	EGL4-NT-1?	
DATE SAMPLED:	Aug 16/09	Aug 12/09	Aug 12/09	REPORTING
CANTEST ID:	909050246	909050247	909050248	LIMIT
>2.00 mm <2.00 mm & >0.053 mm	19.07 29.63	52.95 31.06	30.45 33.97	*
<0.053 mm & >0.002 mm <0.002 mm	44.26 7.04	11.83 4.16	25.36 10.22	-

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CLIENT SAMPLE IDENTIFICATION:	EGL17-NT-1	EGL8-NT-1	EGL4-NT-2	EGL8-NT-3		
DATE SAMPLED:	Aug 11/09	Aug 16/09	Aug 12/09	Aug 16/09	REPORTING	UNITS
CANTEST ID:	909050225	909050226	909050227	909050228	LIMIT	
CSSC Textural Category %Sand <2.00 mm & >0.053 mm	SIL 34.18	SIL 19.98	SL 67.39	SL 56.19	(÷	%
%Silt <0.053 mm & >0.002 mm %Clay <0.002 mm	53.07 12.75	54.92 25.10	23.53 9.08	37.43 6.38	-	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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CLIENT SAMPLE IDENTIFICATION:	EGL1-MT-2	EGL41-NT-1	EGL21-NT-3	EGL17-NT-2		
DATE SAMPLED:	Aug 14/09	Aug 16/09	Aug 11/09	Aug 11/09	REPORTING	UNITS
CANTEST ID:	909050229	909050230	909050232	909050233	LIMIT	011110
CSSC Textural Category	SICL	SIL	SIL	SL	-	-
%Sand < 2.00 mm & > 0.053 mm	12.01	37.76	19.23	60.47	-	%
%Silt < 0.053 mm & > 0.002 mm	56.03	53.31	68.26	34.60	-	%
%Clay < 0.002 mm	31.96	8.93	12.51	4.93	-	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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CLIENT SAMPLE IDENTIFICATION:	EGL8-NT-2	EGL41-NT-2	EGL10-MT-2	EGL21-NT-4		
DATE SAMPLED:	Aug 16/09	Aug 16/09	Aug 16/09	Aug 11/09	REPORTING	UNITS
CANTEST ID:	909050234	909050235	909050236	909050237	LIMIT	
CSSC Textural Category %Sand <2.00 mm & >0.053 mm %Silt <0.053 mm & >0.002 mm	SL 59.48 34.32	SIL 26.86 63.10	SIL 38.89 51.65	SL 49.71 44.33		- % %
%Clay < 0.002 mm	6.21	10.04	9.46	5.97	-	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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CLIENT SAMPLE IDENTIFICATION:	EGL50-NT-1	EGL208-NT- 2	EGL21-NT-1	EGL1-MT-3		
DATE SAMPLED:	Aug 15/09	Aug 15/09	Aug 11/09	Aug 14/09	REPORTING	UNITS
CANTEST ID:	909050238	909050239	909050240	909050241	LIMIT	
CSSC Textural Category %Sand <2.00 mm & >0.053 mm	CL 24.33	SIL 27.24	SIL 26.97	L 44.45	*	%
%Silt <0.053 mm & >0.002 mm %Clay <0.002 mm	46.42 29.24	58.72 14.04	56.97 16.06	40.73 14.83	1	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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CLIENT SAMPLE IDENTIFICATION:	EGL208-NT- 3	EGL50-NT-2	EGL21-NT-2	EGL208-NT- 1		
DATE SAMPLED:	Aug 15/09	Aug 15/09	Aug 11/09	Aug 15/09	REPORTING	UNITS
CANTEST ID:	909050242	909050243	909050244	909050245	LIMIT	
CSSC Textural Category %Sand <2.00 mm & >0.053 mm %Silt <0.053 mm & >0.002 mm	SIL 36.69 52.12	SL 57.31 33.66	SIL 28.54 60.36	SIL 14.86 66.92		- % %
%Clay < 0.002 mm	11.19	9.03	11.10	18.22	4	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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CLIENT SAMPLE IDENTIFICATION:	EGL41-NT-1 B	EGL4-NT-2B	EGL4-NT-1?		
DATE SAMPLED:	Aug 16/09	Aug 12/09	Aug 12/09	REPORTING	UNITS
CANTEST ID:	909050246	909050247	909050248	LIMIT	
CSSC Textural Category %Sand <2.00 mm & >0.053 mm	SIL 36.61	SL 66.02	L 48.84	-	- %
%Silt <0.053 mm & >0.002 mm %Clay <0.002 mm	54.69 8.70	25.14 8.84	36.46 14.70	-	%

<sup>- =</sup> text or without units

<sup>% =</sup> percent, on a weight basis

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**GROUP NUMBER: 100905040** 



#### Metals Analysis in Tissue

CLIENT SAMPLE IDENTIFICATION:		EGL8-Salix	EGL208-Sal	EGL41-Gras s	EGL10-Sali x		
DATE SAMPLED:  CANTEST ID:		Aug 16/09 Aug 15/09		Aug 16/09	Aug 16/09	DEDODTING	
		909050199	909050210	909050211	909050212	REPORTING LIMIT	
Aluminum	Al	5.6	13.5	8.4	12.7	0.5	
Antimony	Sb	<	<	0.1	<	0.1	
Arsenic	As	0.1	<	0.1	0.2	0.1	
Barium	Ba	3.1	9.4	11.9	14.5	0.1	
Beryllium	Be	<	<	<	<	0.02	
Boron	В	2	<	<	3	2	
Cadmium	Cd	0.52	0.39	<	1.46	0.02	
Calcium	Ca	2790	2000	950	2160	1	
Chromium	Cr	<	<	<	<	0.1	
Cobalt	Co	0.1	1	<	1	0.1	
Copper	Cu	0.9	1	1.6	1.4	0.1	
Iron	Fe	22	28	12	42	5	
Lead	Pb	<	<	0.1	<	0.1	
Magnesium	Mg	1190	405	485	903	0.5	
Manganese	Mn	92.5	223	84.6	418	0.1	
Mercury	Hg	<	<	<	<	0.01	
Molybdenum	Mo	<	<	<	0.1	0.1	
Nickel	Ni	0.6	1.3	0.5	1	0.1	
Phosphorus	Р	220	996	200	485	0.5	
Potassium	K	1960	5600	3000	2560	1	
Selenium	Se	<	<	<	<	0.2	
Silicon	Si	20	28	331	26	10	
Silver	Ag	<	<	<	<	0.01	
Sodium	Na	4	2	7	13	1	
Strontium	Sr	16.6	15	5.11	18.4	0.05	
Tellurium	Te	<	<	<	<	0.1	
Thallium	TI	<	<	<	<	0.02	
Tin	Sn	<	<	0.1	<	0.1	
Titanium	Ti	0.4	0.8	0.6	0.5	0.3	
Uranium	Ü	<	<	<	<	0.04	
Vanadium	V	<	<	<	<	0.5	
Zinc	Zn	34.9	33.4	16.6	78.9	0.5	
Zirconium	Zr	<	<	<	<	3	

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#### Metals Analysis in Tissue

CLIENT SAMPLE IDENTIFICATION:		EGL10-Gras s	EGL21-Fest	EGL4-Grass	EGL25-Gras s	
DATE SAMPLED:  CANTEST ID:		Aug 16/09	Aug 11/09	ig 11/09 Aug 12/09		
		909050213	909050214	909050215	909050216	REPORTING LIMIT
Aluminum	Al	14.3	11.3	3.7	4	0.5
Antimony	Sb	0.2	<	0.1	<	0.1
Arsenic	As	0.4	<	0.2	0.1	0.1
Barium	Ba	24.4	12.6	15	11.2	0.1
Beryllium	Be	<	<	<	<	0.02
Boron	В	<	<	<	<	2
Cadmium	Cd	0.04	<	0.03	<	0.02
Calcium	Ca	1090	752	1230	1110	1
Chromium	Cr	<	<	<	<	0.1
Cobalt	Co	<	<	<	<	0.1
Copper	Cu	1.7	0.7	1.1	1.2	0.1
Iron	Fe	30	15	9	14	5
Lead	Pb	<	<	0.2	0.1	0.1
Magnesium	Mg	463	341	258	392	0.5
Manganese	Mn	144	459	92.8	128	0.1
Mercury	Hg	<	<	<	<	0.01
Molybdenum	Mo	0.1	<	<	0.2	0.1
Nickel	Ni	0.4	0.1	0.2	0.5	0.1
Phosphorus	Р	268	384	225	302	0.5
Potassium	K	3650	4640	5040	3270	1
Selenium	Se	<	<	<	<	0.2
Silicon	Si	242	384	153	329	10
Silver	Ag	<	<	0.01	<	0.01
Sodium	Na	10	3	5	6	1
Strontium	Sr	9.72	4.88	7.39	6.2	0.05
Tellurium	Te	<	<	<	<	0.1
Thallium	TI	<	<	<	<	0.02
Tin	Sn	<	<	0.1	<	0.1
Titanium	Ti	0.7	0.5	0.3	0.4	0.3
Uranium	U	<	<	<	<	0.04
Vanadium	V	<	<	<	<	0.5
Zinc	Zn	15.6	7.8	19.5	16.3	0.5
Zirconium	Zr	<	<	<	<	3

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#### Metals Analysis in Tissue

CLIENT SAMPLE IDENTIFICATION:		EGL208-Gra	EGL25-SP	EGL21-Sali x	EGL8-Carex	
DATE SAMPLED:  CANTEST ID:		Aug 15/09	Aug 15/09 Aug 11/09		Aug 16/09	
		909050217	909050218	909050219	909050220	REPORTING LIMIT
Aluminum	Al	5.7	5.2	43.2	9.4	0.5
Antimony	Sb	0.2	<	<	0.3	0.1
Arsenic	As	<	<	<	0.1	0.1
Barium	Ba	10.7	14.5	18.1	8.3	0.1
Beryllium	Be	<	<	<	<	0.02
Boron	В	<	<	<	<	2
Cadmium	Cd	<	1.23	0.26	0.03	0.02
Calcium	Ca	512	4840	2030	1380	1
Chromium	Cr	<	<	<	<	0.1
Cobalt	Co	<	0.5	1.1	<	0.1
Copper	Cu	0.7	0.9	2	1.1	0.1
Iron	Fe	17	26	32	29	5
Lead	Pb	<	<	<	<	0.1
Magnesium	Mg	253	1230	649	559	0.5
Manganese	Mn	280	316	222	162	0.1
Mercury	Hg	<	<	<	<	0.01
Molybdenum	Mo	<	0.1	<	0.1	0.1
Nickel	Ni	0.1	1.5	1.5	0.7	0.1
Phosphorus	P	322	825	728	270	0.5
Potassium	K	4030	3280	3210	3590	1
Selenium	Se	<	<	<	<	0.2
Silicon	Si	306	29	26	293	10
Silver	Ag	<	<	<		0.01
Sodium	Na	11	6	1	7	1
Strontium	Sr	2.92	26.8	25.7	7.81	0.05
Tellurium	Te	<	<	<	<	0.1
Thallium	TI	<	<	<	<	0.02
Tin	Sn	<	<	<	<	0.1
Titanium	Ti	0.5	0.8	0.6	0.6	0.3
Uranium	U	<	<	<	<	0.04
Vanadium	V	<	<	<	<	0.5
Zinc	Zn	6.2	50	17.9	21.9	0.5
Zirconium	Zr	<	<	<	<	3

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#### Metals Analysis in Tissue

CLIENT SAMPLE IDENTIFICATION:		EGL1-Salix	EGL41-SP	EGL50-Sali x	EGL4-Salix		
DATE SAMPLED:		Aug 14/09 Aug 16/09		Aug 15/09	Aug 12/09		
CANTEST ID:		909050221	909050222	909050223	909050224	REPORTING LIMIT	
Aluminum	Al	7.3	10.8	9.3	5	0.5	
Antimony	Sb	<	<	<	<	0.1	
Arsenic	As	0.2	0.2	<	0.1	0.1	
Barium	Ba	11.4	8.5	23.7	7.6	0.1	
Beryllium	Be	<	<	<	<	0.02	
Boron	В	3	2	<	3	2	
Cadmium	Cd	2.67	0.81	0.33	3	0.02	
Calcium	Ca	4000	2420	3210	2940	1	
Chromium	Cr	<	<	<	<	0.1	
Cobalt	Co	0.1	0.6	0.2	0.3	0.1	
Copper	Cu	1.1	1.1	0.9	1.3	0.1	
Iron	Fe	24	35	13	19	5	
Lead	Pb	<	<	<	<	0.1	
Magnesium	Mg	804	996	873	425	0.5	
Manganese	Mn	121	237	65.5	240	0.1	
Mercury	Hg	<	<	<	<	0.01	
Molybdenum	Mo	<	<	0.4	<	0.1	
Nickel	Ni	0.4	1.1	0.7	0.9	0.1	
Phosphorus	P	227	336	349	746	0.5	
Potassium	K	3210	2180	4320	5860	1	
Selenium	Se	<	<	<	<	0.2	
Silicon	Si	27	26	21	18	10	
Silver	Ag	<	<	<	<	0.01	
Sodium	Na	7	6	4	5	1	
Strontium	Sr	16.9	13.3	22	15.4	0.05	
Tellurium	Te	<	<	<	<	0.1	
Thallium	TI	<	<	<	<	0.02	
Tin	Sn	<	<	<	<	0.1	
Titanium	Ti	0.6	0.7	0.4	0.5	0.3	
Uranium	U	<	<	<	<	0.04	
Vanadium	V	<	<	<	<	0.5	
Zinc	Zn	98.8	46.7	15.2	117	0.5	
Zirconium	Zr	<	<	<	<	3	

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Duplicate (R.P.D.) 909050225	Duplicate Limits	Duplicate (R.P.D.) 909050236	Duplicate Limits	Duplicate (R.P.D.) 909050247	Duplicate Limits
Pipette Size 0.053 mm	0.5	20	0.3	20	2	20
Pipette Size 0.002 mm	4.1	20	0.5	20	2.7	20
Sieve 0.250mm, 250um, #60	1.2	20	0.6	20	1.4	20
Sieve 0.125mm, 125um, #120	1.8	20	0.6	20	1.4	20

PCTP = percent passing

R.P.D. = Relative Percent Difference

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif % < 53um (% Recovery) 909050225	Verif %<53um	Soil Pipette Verif %<53um (% Recovery) 909050227	Soil Pipette Verif %<53um Limits	Soil Pipette Verif %<53um (% Recovery) 909050228	
Pipette Size 0.053 mm	100	95 - 105	100	95 - 105	100	95 - 105

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**GROUP NUMBER: 100905040** 



# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif % < 53um (% Recovery) 909050229	Soil Pipette Verif %<53um Limits	Soil Pipette Verif %<53um (% Recovery) 909050230	The Court of the C	Soil Pipette Verif %<53um (% Recovery) 909050232	A STATE OF THE PARTY OF THE PAR
Pipette Size 0.053 mm	100	95 - 105	99	95 - 105	99	95 - 105

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif %<53um (% Recovery) 909050233	Verif %<53um	Soil Pipette Verif %<53um (% Recovery) 909050234	The state of the s	Soil Pipette Verif %<53um (% Recovery) 909050235	
Pipette Size 0.053 mm	100	95 - 105	100	95 - 105	99	95 - 105

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#### Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif % < 53um (% Recovery) 909050236	Verif %<53um	Soil Pipette Verif %<53um (% Recovery) 909050237		Soil Pipette Verif %<53um (% Recovery) 909050239	
Pipette Size 0.053 mm	100	95 - 105	99	95 - 105	99	95 - 105

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif %<53um (% Recovery) 909050240		Soil Pipette Verif %<53um (% Recovery) 909050241		Soil Pipette Verif %<53um (% Recovery) 909050242	
Pipette Size 0.053 mm	97	95 - 105	100	95 - 105	100	95 - 105

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif % < 53um (% Recovery) 909050243		Soil Pipette Verif %<53um (% Recovery) 909050244		Soil Pipette Verif %<53um (% Recovery) 909050245	
Pipette Size 0.053 mm	100	95 - 105	100	95 - 105	97	95 - 105

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# Batch Quality Control for Percent Passing on Sieves and Pipettes in Soil (QC# 127662)

Parameter	Soil Pipette Verif %<53um (% Recovery) 909050246		Soil Pipette Verif %<53um (% Recovery) 909050247	Soil Pipette Verif %<53um Limits	Soil Pipette Verif %<53um (% Recovery) 909050248	
Pipette Size 0.053 mm	100	95 - 105	100	95 - 105	99	95 - 105

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**GROUP NUMBER: 100905040** 



#### Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126444)

Parameter		Blank (ug/g)	Blank Limits	CAN MET Till-1 (% Recovery)	CAN MET Till-1 Limits	Duplicate (R.P.D.) 909040165	Duplicate Limits
Antimony	Sb	< 0.1	10	-	(4)		1.
Arsenic	As		-	-		5.8	30
Barium	Ва	< 1	1	95	74 - 120	6.1	30
Beryllium	Be	< 1	1	17	10.4 - 30.4	NC	30
Cadmium	Cd	< 0.2	0.2	61	3 - 197	PASS	30
Chromium	Cr	< 2	0.2	90	73 - 113	11.5	30
Cobalt	Co	< 1	1	100	70 - 142	8.7	30
Copper	Cu	< 1	0.2	90	75 - 113	4.7	30
Lead	Pb	< 0.2	5	123	65 - 171	21.4	30
Mercury	Hg	< 0.01	0.001	93	33 - 174	3.4	30
Molybdenum	Mo	< 0.1	4	35	5 - 90	6.3	30
Nickel	Ni	< 2	2	94	49 - 149	9	30
Selenium	Se	< 0.2	0.2	-	-	PASS	30
Silver	Ag		-	-	-	PASS	30
Thallium	TI	< 0.1	0.001		-	NC	30
Tin	Sn	< 5	5	-		NC	30
√anadium	V	< 1	1	110	69 - 152	6.6	30
Zinc	Zn	< 1	1	86	79 - 114	11.9	30
Aluminum	Al	< 10	10	-	-	3	30
Boron	В	< 1	1	-		14.7	30
Calcium	Ca	< 1	1	73	51 - 106	7.1	30
ron	Fe	< 2	2		-	5.6	30
Magnesium	Mg	< 1	1	4	-	2.7	30
Manganese	Mn	< 1	1	-		3.9	30
hosphorus	P	< 20	20	-		11	30
otassium	K	< 10	10	-	2	9.2	30
Sodium	Na	< 5	5	-	1	6.4	30
Strontium	Sr	< 1	1	-	1	12.7	30
litanium	Ti	< 1	1	-	-	14.1	30
Zirconium	Zr	< 1	1	-		0	30

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



# Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126444)

Parameter		Duplicate (R.P.D.) 909040176	Duplicate Limits	Duplicate (R.P.D.) 909040201	Duplicate Limits	Duplicate (R.P.D.) 909040247	Duplicate Limits
Arsenic	As	11.4	30	8,7	30		
Barium	Ва	6.4	30	9.8	30		
Beryllium	Be	NC	30	NC	30		1
Cadmium	Cd	NC	30	NC	30		12
Chromium	Cr	18.5	30	11	30		
Cobalt	Co	6.1	30	6.5	30	1	1
Copper	Cu	0	30	8.3	30		1
Lead	Pb	0.7	30	9	30	-	
Mercury	Hg	0	30	0	30	4.4	30
Molybdenum	Mo	PASS	30	0	30		-
Nickel	Ni	11.5	30	9.8	30		-
Selenium	Se	PASS	30	NC	30	-	-
Silver	Ag	NC	30	NC	30	-	-
Thallium	TI	NC	30	NC	30	_	2
Tin	Sn	NC	30	NC	30		-
Vanadium	V	4.1	30	9.2	30	-	4
Zinc	Zn	1.4	30	8	30		
Aluminum	Al	2.8	30	10.8	30	4	-
Boron	В	11.8	30	PASS	30	-	-
Calcium	Ca	3.2	30	12.3	30		-
ron	Fe	2.5	30	8.7	30	-	2
Magnesium	Mg	5.2	30	6.7	30		
Manganese	Mn	5.6	30	8.6	30	-	1
Phosphorus	P	6	30	6.8	30	-	4
otassium	K	4.5	30	12.2	30		-
Sodium	Na	7.4	30	13.6	30	-	-
Strontium	Sr	7.4	30	12.3	30	2	2
<b>Fitanium</b>	Ti	2.3	30	20.4	30	2	
Zirconium	Zr	13.3	30	15.4	30		2

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



#### Batch Quality Control for Strong Acid Soluble Metals in Soil (QC# 126444)

Parameter		Duplicate (R.P.D.) 909040389	Duplicate Limits	Duplicate (R.P.D.) 909050240	Duplicate Limits
Arsenic	As	1-	-	1.9	30
Barium	Ba	-	-	2.6	30
Beryllium	Be	-	-	NC	30
Cadmium	Cd	14	2	NC	30
Chromium	Cr		4	11.8	30
Cobalt	Co	-	4	PASS	30
Copper	Cu	2.		0	30
Lead	Pb	-	-	3.5	30
Mercury	Hg	0	30	0	30
Molybdenum	Mo	-	-	0	30
Nickel	Ni	6.00	-	PASS	30
Selenium	Se			PASS	30
Silver	Ag	-	-	PASS	30
Thallium	TI	-	-	PASS	30
Tin	Sn	+	4	NC	30
Vanadium	V	-		3.3	30
Zinc	Zn	-	+	0	30
Aluminum	Al	÷	-	2	30
Boron	В	54		NC	30
Calcium	Ca	-		2.3	30
Iron	Fe	-	+	0.6	30
Magnesium	Mg		-	9.5	30
Manganese	Mn	+	-	4.9	30
Phosphorus	P	=	-	0.3	30
Potassium	K		7	8	30
Sodium	Na	13	2	0	30
Strontium	Sr	7	-	0	30
Γitanium	Ti	-	*	10	30
Zirconium	Zr		-	NC	30

ug/g = micrograms per gram

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

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#### Batch Quality Control for Dissolved Metals Analysis in Tissue (QC# 126868)

Parameter		Blank (ug/g)	Blank Limits	Duplicate (R.P.D.) 909050199	Duplicate Limits	Duplicate (R.P.D.) 909050219	Duplicate Limits
Aluminum	Al	< 0.5	0.2	14.3	20	12	20
Antimony	Sb	< 0.1	0.001	NC	20	NC	20
Arsenic	As	< 0.1	0.002	PASS	20	NC	20
Barium	Ва	< 0.1	0.001	0	20	8.8	20
Beryllium	Be	< 0.02	0.001	NC	20	NC	20
Boron	В	< 2	0.02	PASS	20	NC	20
Cadmium	Cd	< 0.02	0.0004	1.9	20	3.9	20
Calcium	Ca	< 1	0.3	2.2	20	7.9	20
Chromium	Cr	< 0.1	0.001	NC	20	NC	20
Cobalt	Co	< 0.1	0.001	PASS	20	8.7	20
Copper	Cu	< 0.1	0.001	0	20	PASS	20
Iron	Fe	< 5	0.05	PASS	20	18.8	20
Lead	Pb	< 0.1	0.002	NC	20	NC	20
Magnesium	Mg	< 0.5	0.2	5	20	1.8	20
Manganese	Mn	< 0.1	0.01	2.3	20	8.5	20
Mercury	Hg	< 0.01	0.01	NC	20	NC	20
Molybdenum	Mo	< 0.1	0.002	NC	20	NC	20
Nickel	Ni	< 0.1	0.003	0	20	13.3	20
Phosphorus	P	< 0.5	0.1	2.7	20	10.4	20
Potassium	K	< 1	0.3	3.6	20	4.7	20
Selenium	Se	< 0.2	0.004	NC	20	NC	20
Silver	Ag	< 0.01	0.001	NC	20	NC	20
Sodium	Na	< 1	0.5	PASS	20	PASS	20
Strontium	Sr	< 0.05	0.002	0	20	2.3	20
Tellurium	Te	< 0.1	0.002	NC	20	NC	20
Thallium	TI	< 0.02	0.002	NC	20	NC	20
Tin	Sn	< 0.1	0.01	NC	20	NC	20
Titanium	Ti	< 0.3	0.01	PASS	20	PASS	20
Uranium	U	< 0.04	0.002	NC	20	NC	20
Vanadium	V	< 0.5	0.002	NC	20	NC	20
Zinc	Zn	< 0.5	0.04	2	20	8.9	20
Zirconium	Zr	< 3	0.04	NC	20	NC	20

ug/g = micrograms per gram, dry basis

R.P.D. = Relative Percent Difference

PASS = Duplicate sample results were in the range of one to five times the detection limit. R.P.D. calculation is not applicable in this range. Acceptance criteria is a maximum difference between the duplicates equivalent to the value of the detection limit.

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**GROUP NUMBER: 100905040** 

CAVIEST

# Batch Quality Control for Dissolved Metals Analysis in Tissue (QC# 126868)

Parameter		NIST1570a Spinach Leaves (% Recovery)	NIST1570a Spinach Leaves Limits	NIST1573a Tomato Leaves (% Recovery)	NIST1573a Tomato Leaves Limits
Aluminum	Al	36	17 - 93	31	7 - 91
Arsenic	As	-	+	179	80 - 283
Boron	В	101	63 - 143	96	62 - 142
Cadmium	Cd	84	39 - 114	82	30 - 124
Calcium	Ca	88	60 - 120	93	60 - 120
Chromium	Cr	4	-	50	28 - 97
Cobalt	Co	103	50 - 150	105	50 - 150
Copper	Cu	90	62 - 124	81	59 - 125
Iron	Fe			78	52 - 167
Manganese	Mn	92	53 - 134	89	62 - 131
Mercury	Hg	97	59 - 119	94	88.24 - 111.8
Nickel	Ni	84	58 - 126	63	28 - 143
Phosphorus	P	89	60 - 120	89	60 - 120
Potassium	K	96	60 - 120	85	60 - 120
Sodium	Na	97	60 - 120	88	60 - 120
Strontium	Sr	108	60 - 120	5	
Vanadium	V	70	50 - 150	55	50 - 150
Zinc	Zn	81	48 - 110	77	49 - 109

ug/g = micrograms per gram, dry basis

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# Instrument Quality Control for the Mercury Monitor (QC# 246428)

QC Type: Calibration Verification

Parameter		% Recovery	Limits	
Mercury	Hq	108	90 - 110	

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#### **Batch Quality Control Frequency Summary**

#### SALM in Soil Digestion (Batch# 126444)

QC Type	No. Samples
CAN MET Till-1	1
Blank	3
Duplicate	6

#### Metals Plant Tissue Digestion (Batch# 126868)

QC Type	No. Samples
NIST1570a Spinach Leaves	1
NIST1573a Tomato Leaves	1
Blank	2
Duplicate	2

#### Particle Size Prep - Winnipeg (Batch# 127662)

QC Type	No. Samples
Duplicate	3
Soil Pipette Verif %<53um	21

#### SALM Metals in Soil Sieve (Batch# 126426)

QC Type	No. Samples
Batch Size	67

#### SALM in Soil Digestion (Batch# 126444)

QC Type	No. Samples		
Batch Size	67		

(Continued on next page)

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REPORT DATE:

October 7, 2009

**GROUP NUMBER: 100905040** 



# **Batch Quality Control Frequency Summary**

Metals Plant Tissue Digestion (Batch# 126868)

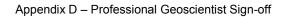
QC Type	No. Samples	
Batch Size	16	

Particle Size Prep - Winnipeg (Batch# 127662)

QC Type	No. Samples		
Batch Size	23		

#### **Eagle Gold Project**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report





# **APPENDIX D**

**Professional Geoscientist Sign-off** 

## Memo



To: Natalie Tashe From: Anne Sommerville, Shirley

McCuaig and Dennis O'Leary

Sidney Edmonton

File: 1053550 Date: Nov. 24, 2009

Reference: Dublin Gulch Geohazard Assessment

A geohazard assessment of the Dublin Gulch area has been completed using HD-MAPP. HD-MAPP allows surficial geologists to zoom down from original air photo scales such as 1:30,000 to scales as large as 1:2,000, thereby enabling the geologist to identify and delineate features relevant to slope stability. The aim of the assessment was to identify any areas which are currently unstable, areas which may have been unstable in the past but are now stable, and any areas that may be potentially unstable. Although the assessment concentrated on the six heap leach options, the entire regional study area (RSA) was reviewed.

In general, the area is relatively stable, with shallow surficial deposits and bedrock exposed at the surface near the tops of the hills. During the last glaciation, the Dublin Gulch area was unaffected by glacial ice. It is thought that the last time this area was glaciated was sometime between 80,000 and 300,000 years ago and it has been subjected to landscape modification processes ever since. There is evidence of former cirques in the area, and some of these are still fairly recognizable (in the northwest). However, many circues have experienced mass movement, with the result that the original cirque is no longer recognizable (typical landslide cloverleaf patterns visible in the landslide headscarps that have been mapped in the east). The large landslides that have modified the cirgues appear to be old features, but the oversteepening of the cirques (gulches) by landslides has led to rockslide, debris slide and possibly some rockfall activity that is younger than the larger landslides and is ongoing on the sides of many of the landslides. Smaller landslide scarps within larger ones are thus likely more recent and a few show modern activity. The rockfall/rockslide debris mixes with sediment, vegetation and creek water at the base of some of the larger features, forming debris flows that feed alluvial fans (map unit Ff) in the south. The rockslide gullies are mapped as debris flow to keep things simple, and as they feed the debris flows, it makes sense to do so. It's important to keep in mind that much of the alluvial fan material is likely debris flow material, and although the fans themselves are not considered unstable in the BCTS mapping classification system, they can experience creek flood and more likely debris flow conditions at any time. The alluvial fans and the debris flows feeding them are outside of the local study area [LSA].

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November 24, 2009 Natalie Tashe Page 2 of 3

Reference: Dublin Gulch Geohazard Assessment

Surficial deposits in the area are dominated by colluvium, weathered material (likely weathered bedrock and colluvium) and bedrock. Glacial till and glaciofluvial sediments comprise the older deposits in the valleys, while alluvial fan, fluvial and organic units in the valleys and colluvial deposits on the slopes make up the younger ones.

The colluvium and weathered material in the project area are both moving slowly downslope as a result of natural processes; however, there are some areas, especially on steeper slopes and those landslide areas described above, where mass movement has been identified. These areas are classified as unstable. Potentially unstable areas have been identified where there are moderately steep or steep slopes without evidence of mass movement, or where there are gullies with steep slopes present. Snow avalanches are associated with the steeper entrenched gullies.

The geohazard assessment of the heap leach areas has identified two potential location options. Options 3 and 5 have been identified as the most stable areas with the lowest amount of geohazards. Both areas are relatively flat but they do contain the headwaters of Bawn Boy Gulch (Option 3) and Olive Gulch (Option 5). Option 3 is the preferred location for the heap leach operation as there is a larger area of flatter land within this location and Bawn Boy Gulch is less entrenched. Although Ann Gulch (Option 6) is much closer to the mine site, the southeast facing slope of the gully is moderately steep and any failure of this slope or of the retaining wall that would be required to contain the material could contaminate Dublin Gulch, Haggart Creek and areas downstream of the project area.

The open pit site was also assessed for geohazards as it has been suggested that this slope may have collapsed in the past. Geotechnical and hydrogeological investigations in the open pit area were completed by Knight Piésold Ltd. in 1996. They identified a thin veneer of heavily weathered and decomposed rock. The weathered material is described as cohesionless silty sand to sand-like material, between one and two metres thick and overlying coarser heavily fractured bedrock. The open pit slope is steep and given the texture of the weathered material, Knight Piésold Ltd. (1996) suggest that shallower slopes will be required in this material to maintain the long-term stability of the slope. In addition, at the top of the slope, there is a large northeast-southwest trending normal fault, which dips northwest. There is a possibility of failure along this fault if the toe of the slope to the west and northwest of it is excavated. From a geomorphology perspective, the current open pit slope does not appear to have failed in the past; however, it is suggested that further terrain work be undertaken to determine the surficial material within this area, as well as geotechnical studies to determine the dip of the bedrock layers and associated faults/joints and their susceptibility to failure.

Permafrost was identified in areas northwest and southwest of the open pit site (Knight Piésold Ltd., 1996). The aerial photograph interpretation did not identify any areas with permafrost issues; however, some permafrost features such as solifluction lobes can only be seen on the ground. Further fieldwork is suggested for these areas, in order to

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Reference: Dublin Gulch Geohazard Assessment

determine if the permafrost would have any bearing on slope stability, or if melting of the permafrost might occur due to infrastructure development.

Reference:

Knight Piésold Ltd. (1996) Dublin Gulch Project. Initial Environmental Evaluation, Volume II, Environmental Setting. Prepared for First Dynasty Mines Ltd.

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## **Eagle Gold Project**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report

Appendix E - 2009 Terrain and Soil Field Data



# **APPENDIX E**

2009 Terrain and Soil Field Data

SiteNO	Survey Type	Province	Zone	Slope %	Surveyors	Survey Date	Easting	Northing	Elevation	Surf.Stone		n Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag
EGL63	D	ВС	8	35	NT/JS	8/16/2009	459259	7100415	933	<0.01%	U	30 - 45%	100-500	LN	CV	Fo			0		0
EGL216	V	ВС	8	30	NT, JS	8/16/2009	458642	7101004	811		Т	30 - 45%	50-100	LN	LV	Fo	W	moderate	0		0
EGR94	D	ВС	8	55	NT/JS	9/13/2009	462791	7103626	1147	0.1 - 3%	M	45-70%		LN	LN	Fo	W	moderate	0	13	0
EGR93	D	ВС	8	60	NT/JS	8/13/2009	462866	7103852	1096	15 - 50%	М	45-70%	100-500	LN	LN	Fo			0		0
EGR92 EGR69	D V	BC BC	8	25 2	NT/JS NT/JS	8/13/2009 8/13/2009	462758 462632	7103994 7104613	1028 921	<0.01%	L L	15 - 30% 2 - 5%	100-500	CC	LN	Fo	W	moderate	0	22	0
EGL8	D	ВС	8	15	NT/JS	8/16/2009	458909	7101065	846	0.01 - 0.1%	L	9 -15%				Fo			0		0
EGL6	V	ВС	8	0	NT/JS	8/16/2009	458890	7100898	831			9 -15%				DL	W	moderate	0		0
EGL41	D	ВС	8	30	NT/JS	8/16/2009	459759	7100924	925	<0.01%	L			LN	LV	Fo			0	19	0
EGL200	D	ВС	8	8	NT/SW	8/11/2009	463530	7101102	0	<0.01%	М	5 - 9%	100-500	LN	LN	SA	W	slight	0		0
EGR96	D	ВС	8	25	NT, JS	8/13/2009	462720	7104258	981	<0.01%			100-500	СС	LN	Fo			1	10	1
EGL16	D	ВС	8	10	NT/SW	8/11/2009	462792	7102169	1316	15 - 50%	M	9 -15%	100-500	LN	LN	SA	W	slight	0		0
EGR91 EGR79	D D	BC BC	8	18 0	NT, JS NT, JS	8/13/2009 8/13/2009	462687 464138	7104425 7103475	944 0		L	15 - 30%		CV	LN	Fo	W	moderate	0		0
EGR98	V	ВС	8	65	NT, JS	8/13/2009	463534	7103399											0		0
EGL15	D	ВС	8	27	NT/SW	8/11/2009	462811	7102030	0	3 - 15%	М	15 - 30%	100-500	LN	LN	Fo	W	moderate	0		0
EGL17	D	ВС	8	17	NT/SW	8/11/2009	462958	7101937	1329	3 - 15%	L	15 - 30%	25-50	LN	CN	Fo	W	slight	0		0
EGL39	D	ВС	8	70	NT, JS	8/14/2009	459731	7101483	0	0.1 - 3%	U	45-70%		LN	LV	Fo			0		0
EGL38	D	ВС	8	18	NT, JS	8/14/2009	459691	7101575	954	<0.01%	М	15 - 30%	50-100	LN	LN	Fo	W	slight	0		0
EGL37	D	ВС	8	28	NT, JS	8/14/2009	459728	7101841	989	0.01 - 0.1%	М	15 - 30%	100-500	LN	LN	Fo			0		0
EGL36	D	ВС	8	18	NT, JS	8/14/2009	459838	7102176	1053	<0.01%	М	9 -15%	100-500	LN	LN	Fo			0		0
EGL207	V	ВС	8	80	NT, JS	8/14/2009	460282	7101635	1013	15 - 50%				LN	LN	Fo	W	moderate	0		0
EGL18	D	ВС	8	18	NT/SW	8/11/2009	463270	7101529	1356	0.1 - 3%	М	15 - 30%	50-100	LN	LN	Fo	W	slight	0		0
EGL33	D	ВС	8	8	NT, JS	8/14/2009	459688	7102357	1062		U	5 - 9%	50-100	LN	LV				0		0
EGL19	D	ВС	8	18	NT/SW	8/11/2009	463242	7101394	1351	0.01 - 0.1%	Т	15 - 30%	50-100			Sc	W	slight	0	37	0
EGL20	D	ВС	8	22	NT/SW	8/11/2009	463116	7101354	1352	3 - 15%	М	15 - 30%	50-100	LN	LN				0		0
EGL201	D	ВС	8	14	NT/SW	8/11/2009	463459	7100733	1433	15 - 50%	U	15 - 30%	50-100	LN	LV	SA			0		0
EGL5	D	ВС	8	8	NT/SW	8/11/2009	463097	7100757	1411	15 - 50%	L	9 -15%	100-500	LN	LN	Sc			0		0
EGL202	V	ВС	8	7	NT/SW	8/11/2009	462894	7100736	1405	3 - 15%	L	5 - 9%		LN	LN	Sc			0		0
EGL203	V	ВС	8	4	NT/SW	8/11/2009	462908	7100758	1402		L		50-100	LN	LN	DL			0		0
EGL58	D	ВС	8	0	NT/SW	8/11/2009	462612	7101002	1363	3 - 15%	D	2 - 5%	50-100	CN	CN	Wt	W	slight	0	10	0
EGL52	D	ВС	8	10	NT/JS	8/12/2009	461913	7100049	1359	3 - 15%	U	9 -15%	25-50	CV	LN	DL	W	slight	0		0
EGL53	D	ВС	8	10	NT/JS	8/12/2009	461946	7100227	1356	3 - 15%	U	9 -15%	100-500	CV	LN	Sc	W	slight	0		0

SiteNO	Survey Type	Province	Zone	Slope %	Surveyors	Survey Date	Easting	Northing	Elevation	Surf.Stone	Slope Position (site)	n Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag
EGL3	D	ВС	8	15	NT/JS	8/12/2009	461502	7100241	1333	3 - 15%	U	15 - 30%	25-50	CV	LN	Fo	W	slight	0		0
EGL204	D	ВС	8	60	NT/JS	8/12/2009	461449	7100218	1310	3 - 15%	М	45-70%	50-100	LN	LN	Fo	W	moderate	0		0
EGL4	D	ВС	8	25	NT/JS	8/12/2009	461305	7100234	1261	3 - 15%	L	15 - 30%	50-100			Fo	W	slight	0		0
EGL205	D	ВС	8	25	NT/JS	8/12/2009	461307	7100251	1261	3 - 15%	Т	15 - 30%	100-500	LN	CN	Fo	W	severe	0	60	0
EGL60	D	ВС	8	35	NT/JS	8/12/2009	460681	7099510	1389	15 - 50%	U	30 - 45%	100-500	LN	LV	Sc			0		0
EGL61	D	ВС	8	35	NT/JS	8/12/2009	460670	7099307	1403	15 - 50%	U	30 - 45%	100-500	CV	LN	Sc	W	moderate	0		0
EGL68	D	ВС	8	20	NT/JS	8/12/2009	460392	7099284	1329	3 - 15%	М	15 - 30%	100-500	LN	LN	Fo	W	slight	0		0
EGL206	D	ВС	8	2	NT/JS	8/13/2009	463119	7102837	1361	15 - 50%	С	2 - 5%	25-50	CV	LV	Sc			0		0
EGR206	D	ВС	8	50	NT/JS	8/13/2009	463081	7102926	1337	15 - 50%	U	45-70%	50-100			Al	W	moderate	0		0
EGR97	D	ВС	8	10	NT/JS	8/13/2009	462742	7103063	1281	0.1 - 3%	Т	9 -15%	50-100	CN	LN	Fo	W	moderate	1	43	1
EGR95	D	ВС	8	35	NT/JS	8/13/2009	462800	7103396	1215	3 - 15%	M	30 - 45%	100-500	LN	LN	Fo	W	slight	0		0
EGR80	D	ВС	8	45	NT/JS	8/13/2009	462942	7103398	1213	0.1 - 3%	M	45-70%	50-100	LN	LN	Fo	W	slight	0		0
EGL27	V	BC	8	5	NT/JS	8/14/2009	460298	7101566	965	>50%	L	5 - 9%	>1000	LN	LN	Rp		oligiti	1	0	0
	<u> </u>					G. 1 2000	.00200				<u>_</u>	0 0,0							·		
EGL12	D	ВС	8	9	NT/JS	8/15/2009	458688	7099705	828	0.1 - 3%				CN	CN	Rp			1	45	0
EGL215	D	ВС	8	35	NT/JS	8/15/2009	459132	7099518			M	30 - 45%		LN	LV	Fo			0		1
EGL22	D	ВС	8	15	NT/JS	8/15/2009	461235	7101585	1075	0.1 - 3%	L	9 -15%	>1000	LN	LN	Rp	W	moderate	0		0
EGL211	V	ВС	8	0	NT/JS	8/15/2009	461412	7101631	1127							Sc			0		0
EGL26	D	ВС	8	30	NT/JS	8/15/2009	461407	7101728	1109	0.1 - 3%	M	30 - 45%	100-500	CN	LN	Fo	W	moderate	0		1
EGL49	V	ВС	8		NT/JS	8/15/2009	461593	7100826	0			30 - 45%	500-1000			Fo	W	slight	0		0
EGL25	D	BC	8	30	NT/JS	8/15/2009		7101717	1140	0.1 - 3%	M	30 - 45%	100-500	LN	LV	Fo			0		0
EGL210	D	BC	8	0	NT/JS	8/15/2008		7101144	1192		U					Fo			0		0
EGL208 EGL209	D D	BC BC	8 8	28 35	NT/JS NT/JS	8/15/2009 8/15/2009	461494 461564	7101557 7101385	1153 1160	0.01 - 0.1% 0.1 - 3%	M	30 - 45%		LN LN	LV LN	Sc Fo	W	slight slight	0		0
EGL50	D	ВС	8	35	NT/JS	8/15/2009	461708	7101037	1213		М			LN	LN	Sc			0		0
EGL28	D	ВС	8	0	NT/JS	8/15/2009	460889	7101578	1041		U					Sc			0		0
EGL212	D	ВС	8	35	NT/JS	8/15/2009	460889	7101578	1011	<0.01%	M	30 - 45%	100-500	LN	CN	Fo			0		0
EGL213	V	ВС	8	55	NT/JS	8/15/2009	460660	7101747			M	45-70%	500-1000			Fo			0		0
EGL214	D	ВС	8	10	NT/JS	8/15/2009	458678	7099609	836	<0.01%	L	9 -15%	500-1000	CN	LN	Fo	W	moderate	1	15	1
EGL214A	V	ВС	8	0	NT/JS	8/15/2009	459419	7101247								DL			0		0
EGL50A	V	ВС	8	0	NT/JS	8/15/2009	458302	7101139			L		100-500			Sc			0		0
EGL35	D	ВС	8	20	NT/JS	8/14/2009	460058	7102286	1116		U	15 - 30%	100-500	CV	LV	Fo	W	slight	0		0

SiteNO	Survey Type	Province	Zone	Slope %	Surveyors	Survey Date	Easting	Northing	Elevation	Surf.Stone		n Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag
EGL34	D	ВС	8	20	NT/JS	8/14/2009	460172	7102101	1142		U	15 - 30%		CV	LV	Fo	W	slight	0		0
EGL32	D	вс	8	30	NT/JS	8/14/2009	460281	7101918	1146		U	30 - 45%	100-500	LN	LN	Sc	W	moderate	0		0
EGL31	D	ВС	8	45	NT/JS	8/14/2009	460212		1107	3 - 15%	M	45-70%	100-500	LN	LN	Fo			0		0
EGL30 EGR81	D D	BC BC	8	65 30	NT/JS NT/JS	8/14/2009 8/13/2009	460171 462935	7101718 7104148	1053 1016	3 - 15%	M	45-70% 15 - 30%	100-500	LN LN	LN LN	Fo Fo			0 1	12	1
EGR73	R	ВС	8	40	MT/BF	8/11/2009	464837	7101929			U	30 - 45%	50-100			Fo			0		0
ERG115	R	ВС	8	30	MT/BF	8/12/2009	457906	7101333	0		M	30 - 45%	50-100			Fo			0		0
EGL9	R	ВС	8	35	NT/BF	8/16/2009	458581	7100058	799	<0.01%	M	30 - 45%	25-Jan	LN	LV	Fo			0		0
EGR306	V	ВС	8	8	MT/BF	8/13/2009	462959	7099889	1383		M	5 - 9%	25-50			Fo			0		0
ERG114	R	ВС	8	55	MT/BF	8/13/2009	463083	7099846	0		U	45-70%	50-100			Fo			0		0
EGR76	R	ВС	8	24	MT/BF	8/11/2009	464676	7102168	1530			15 - 30%	50-100			Fo			0		0
EGR113		ВС	8	EE	MT/BF	8/13/2009	462906	7099694	0			45-70%	50-100			Fo			0		0
EGRIIS		ВС	0	55	WII/DF	6/13/2009	402900	7099094	0			45-70%	50-100			FU			0		
EGL10	R	ВС	8	10	MT/BF	8/16/2009	458651	7100068	850	<0.01%	Е	9 -15%	25-50	LN	LN	Fo			0		1
EGR14	R	ВС	8	38	MT/BF	8/11/2009	464261	7102044			M	30 - 45%	50-100			Fo			0		0
EGR112	R	ВС	8	65	MT/BF	8/13/2009	463000	7099524	0			45-70%	50-100			Fo			0		0
EGL11 EGR13	R V	BC BC	8	18 5	MT/BF MT/BF	8/16/2009 8/11/2009	458848 463992	7100062 7101458	864 0	<0.01%	L M	15 - 30% 5 - 9%	50-100 100-500	LN	LV	Fo Fo			0		0 0
EGL307	V	ВС	8	33	MT/BF	8/14/2009	461259	7099925	1357		M	30 - 45%	25-50			Fo			0		0
EGR111		ВС	8	45	MT/BF	8/12/2009	463334	7099210	0		L	30 - 45%	50-100			Fo			0		0
EGR304	R	ВС	8	40	MT/BF	8/12/2009	455649	7100318	1213		U	30 - 45%	50-100			Fo			0		0
EGL309	R	ВС	8	50	MT/BF	8/14/2009	459822	7099278	1167		L	45-70%	50-100			Fo			0		0
EGR110	D	ВС	8	26	MT/BF	8/13/2009	463495	7098832	0		M	15 - 30%	50-100						0		0
EGL46	V	ВС	8		MT/BF	8/14/2009	460101	7100342				45-70%	50-100			Fo			0		0
EGR305	R	ВС	8	18	MT/BF	8/12/2009	455968	7100355	1118		M	15 - 30%	50-100			Fo			0		0
EGR412	R	ВС	8	60	MT/BF	8/15/2009	454863	7094515	693		М	45-70%	50-100			Fo	W	slight	0		0
EGR124	R	ВС	8	28	MT/BF	8/12/2009	456006	7100557	1135		U	15 - 30%	50-100			Fo			0		0
EGR109	R	ВС	8	30	MT/BF	8/13/2009	463620	7098660	0		M	30 - 45%	50-100			Fo			0		0
EGR414	R R	BC BC	8	30 18	MT/BF MT/BF	8/16/2009 8/12/2009	458480	7099297 7100623	783 1124		L M	15 - 30%	50-100			Fo			0		0
EGR125	П	ВС	0	10	IVI I / DF	0/12/2009	430103	1 100023	1124		IVI	10 - 30%	50-100			ΓU			U		

No.	SiteNO EGR415	Survey Type R	Province BC	Zone S	Slope %	Surveyors MT/BF	<b>Survey Date</b> 8/16/2009	<b>Easting</b> 449778		Elevation 612	Surf.Stone	Slope Position (site) E	Landscape Slope 0.05 - 2%	Slope Length 50-100	Horizon Curvature	Vertical Curvature	Land Use Wt	Erosion	Erosion Severity	Seepage Depth Flag 0	Seepage Depth	Permafrost Depth Flag 0
ESTITION   R	EGR107	R	ВС	8	5	MT/BF	8/13/2009	463661	7098359	0		E	2 - 5%	500-1000			Wt			0		0
Kingston   V	EGR416	R	ВС	8		MT/BF	8/16/2009	450943	7085182	687	<0.01%	E	0.05 - 2%	100-500	LN	LN	Fo			0		0
Michael   Mich	EGR106																_					
Control   Cont																						
EGRESS R SC 8 7 MIRES 0190209 459197 7097995 940 T 5 5-9% 25-50 Po 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	LOICHIT		ВО			WIII	0/10/2000	101012	7007000	0+1		<u> </u>	0.00 270	00 100			10					
Fig.	EGR105																					
Fig.	EGR418	K	BC	8		MII/BF	8/16/2009	456167	7087995	640		l l	5 - 9%	25-50			FO			0		0
EGR410   V   EC   8 0   MTREF   815/2009   459/32   709/840   685   L   15 -30%   56 -100   Fo   0   0	EGR123	R	ВС	8	35	MT/BF	8/12/2009	456402	7100333	1087		U	30 - 45%	50-100			Fo			0		0
EGR410   V   EC   8 0   MTREF   815/2009   459/32   709/840   685   L   15 -30%   56 -100   Fo   0   0	ECD410	Р	DC.	0	2	MT/DE	9/46/2000	450000	7007705	506		_	0.05 20/	E0 100			\ <b>\</b> /+			0		0
EGR112 R BC 8 22 MT/8F 8162000 45902 7093881 985 L 16-30% 60-100 F6 0 0  EGR122 R BC 8 28 MT/8F 8162000 45901 7100749 1012 U 15-30% 50-100 0  EGR132 R BC 8 28 MT/8F 8162000 45904 7093499 670 F6 0 0 0  EGR140 V BC 8 2 MT/8F 8152000 45904 7093499 670 F6 0 0 0  EGR140 R BC 8 2 MT/8F 8152000 45904 7101122 1120 C 5-998 100-500 W1 0 0  EGR140 R BC 8 38 MT/8F 8152000 45904 7101122 1120 C 5-998 100-500 F7 0 0 0  EGR140 R BC 8 38 MT/8F 8152000 45904 709218 724 M 30-45% 25-40 F6 0 0 0  EGR140 R BC 8 38 MT/8F 8152000 45904 709218 724 M 30-45% 50-100 F6 0 0  EGR140 R BC 8 38 MT/8F 8152000 45904 709218 724 M 30-45% 50-100 F6 0 0  EGR130 R BC 8 38 MT/8F 8152000 45904 7099514 1330 M 9-15% 25-50 F6 0 0 0  EGR130 R BC 8 38 MT/8F 8142000 45914 7099518 1154 M 30-45% 50-100 IN IV F6 W 81gN 0 0  EGR130 R BC 8 35 MT/8F 8122000 45917 7099638 1154 M 30-45% 50-100 IN IV F6 0 0 0  EGR130 R BC 8 35 MT/8F 8142000 45917 709973 -0.01% C 9-16% 25-50 CV LV F6 0 0  EGR330 R BC 8 50 MT/8F 8142000 45907 7099638 1154 M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709973 -0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709973 -0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709973 -0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709973 -0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1155 M 0-0.05% 25-30 CV IV F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR331 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN IN F6 0 0  EGR333 R BC 8 50 MT/8F 8142000 45907 709981 1150 0.01% M 15-30% 50-100 IN IN														50-100								
EGRI-10 V BC 8 MT/BF 8192009 45984 7093409 870 F0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EGR411	R		8	22							L		50-100			Fo			0		0
EGRI-10 V BC 8 MT/BF 8192009 45984 7093409 870 F0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																						
EGR408 R BC 8 2 MT/BF 8/15/2009 457104 71011/22 11/20 C 5 - 9% 100-500 W1 0 0  EGR408 R BC 8 7 MT/BF 8/15/2009 457104 71011/22 11/20 C 5 - 9% 100-500	EGR122	R	ВС	8	28	MT/BF	8/12/2009	456661	7100749	1012		U	15 - 30%	50-100						0		0
EGR408 R BC 8 2 MT/BF 8/15/2009 457104 71011/22 11/20 C 5 - 9% 100-500 W1 0 0  EGR408 R BC 8 7 MT/BF 8/15/2009 457104 71011/22 11/20 C 5 - 9% 100-500	EGR410	V	ВС	8		MT/BF	8/15/2009	452489	7093409	670							Fo			0		0
EGR408 R BC 8 35 MT/BF 8/15/2009 45/108 7092718 724 M 30 - 45% 25-50 Fo 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EGR409				2							E	0.05 - 2%	50-100								0
EGR119 R BC 8 28 MT/BF 8/12/2009 457/265 7101049 1084 M 30 -45% 50-100 Fo 0 0  EGL308 V BC 8 15 MT/BF 8/14/2009 46047 7099514 1330 M 9 -15% 25-50 Fo 0 0  EGR118 R BC 8 38 MT/BF 8/14/2009 457/651 7101048 936 M 30 -45% Fo 0 0  EGR118 R BC 8 38 MT/BF 8/14/2009 45961 7101048 936 M 30 -45% Fo 0 0  EGL46 R BC 8 35 MT/BF 8/14/2009 459974 7099838 1154 M 30 -45% 50 -100 LN LV Fo W slight 0 0  EGR303 D BC 8 10 MT/BF 8/14/2009 459171 7099733 <0.01% C 9 -15% 25-50 CV LV Fo 0 0 0  EGL310 R BC 8 50 MT/BF 8/14/2009 459860 7099870 1067 M 15 30% 50 -100 LN LN FO 0 0  EGL311 V BC 8 25 MT/BF 8/14/2009 459860 7099870 1067 M 15 30% 50 -100 LN LN FO 0 0  EGL312 V BC 8 25 MT/BF 8/14/2009 460832 710144 1115 M 0 -0.05% 25-Jan FO 0 0  EGL312 V BC 8 25 MT/BF 8/14/2009 460832 710144 1115 M 0 -0.05% 25-Jan FO 0 0  EGL313 R BC 8 30 MT/BF 8/14/2009 460000 7098800 M 46570% 25-50 CV LV FO 0 0  EGL313 R BC 8 30 MT/BF 8/14/2008 460000 7098800 M 155 30% 85-50 CV LV FO 0 0  EGL313 R BC 8 30 MT/BF 8/14/2008 460000 7098800 M 155 30% 85-50 CV LV FO 0 0  EGL313 R BC 8 30 MT/BF 8/14/2008 460000 7098800 M 155 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7098800 M 155 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7098800 M 156 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7098800 M 156 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7098800 M 156 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2008 460021 7100621 0 <0.01% M 156 30% 25-50 CV LN FO 0 0  EGR440 R BC 8 3 MT/BF 8/14/2	EGR120	R	ВС	8	7	MT/BF	8/12/2009	457104	7101122	1120		С	5 - 9%	100-500						0		0
EGR118 R BC 8 38 MT/BF 8/12/2009 457651 7101048 936 M 30-45% 50-100 LN LV Fo W slight 0 0 0  EGL66 R BC 8 35 MT/BF 8/14/2009 459974 7099838 1154 M 30-45% 50-100 LN LV Fo W slight 0 0 0  EGR303 D BC 8 10 MT/BF 8/12/2009 45917 7099733 < 0.01% C 9-15% 25-50 CV LV Fo 0 0 0  EGL310 R BC 8 50 MT/BF 8/14/2009 459640 7099420 1051 <0.01% M 15-30% 50-100 LN LN Fo 0 0 0  EGL311 V BC 8 25 MT/BF 8/14/2009 459640 7099421 1051 <0.01% M 15-30% 50-100 LN LN Fo 0 0 0  EGL312 V BC 8 25 MT/BF 8/14/2009 459600 709970 1067 M 15-30% 50-100 LN LN FO 0 0  EGL312 V BC 8 0 MT/BF 8/14/2009 459600 7099800 M 15-30% 25-3bn FO 0 0  EGL312 V BC 8 MT/BF 8/14/2009 460600 7099800 M 45-70% 25-50 DL 0 0  EGL312 V BC 8 MT/BF 8/14/2008 460600 7099800 M 15-30% 25-50 DL 0 0  EGL313 R BC 8 30 MT/BF 8/14/2008 460000 7100810 1080 <0.01% M 15-30% 25-50 UN FO 0 0  EGL313 R BC 8 35 MT/BF 8/14/2008 460000 7100810 1080 <0.01% M 15-30% 25-50 UN FO 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7100810 1080 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 3 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EGL313 R BC 8 5 MT/BF 8/14/2008 460000 7100810 10 0 <0.01% M 15-30% 25-50 UN FO W slight 0 0  EG	EGR408 EGR119	R	ВС			MT/BF	8/12/2009	457265	7101049	1084		М	30 - 45%	50-100			Fo					0
EGL66 R BC 8 35 MT/BF 8/14/2009 459974 7099838 1154 M 30 - 45% 50 - 100 LN LV Fo W slight 0 0  EGR303 D BC 8 10 MT/BF 8/12/2009 455171 7099733 < 0.01% C 9 - 15% 25 - 50 CV LV Fo D O O  EGL310 R BC 8 50 MT/BF 8/14/2009 459640 7099420 1051 < 0.01% M 15 - 30% 50 - 100 LN LN Fo D O O  EGL311 V BC 8 25 MT/BF 8/14/2009 4596640 7099770 1067 M 16 - 30% 50 - 100 LN LN Fo D O O  EGL341 R BC 8 0 MT/BF 8/14/2009 459660 7099770 1067 M 16 - 30% 50 - 100 LN LN Fo D O O  EGL312 V BC 8 25 MT/BF 8/14/2009 469660 7099770 1067 M 10 - 30 - 30 D  EGL312 V BC 8 MT/BF 8/14/2009 460600 7099770 1067 M 15 - 30% 25 - 30 D D D O D  EGL312 V BC 8 MT/BF 8/14/2009 460600 709970 M 15 - 30% 25 - 50 D D D O D  EGL312 D BC 8 30 MT/BF 8/14/2008 460621 7100621 O < 0.01% M 15 - 30% 25 - 50 LN Fo D O O  EGL313 R BC 35 MT/BF 8/14/2008 459524 7101401 O 3 - 15% U 30 - 45% 25 - 30 LN Fo W slight O  EGL313 R BC 8 3 MT/BF 8/14/2008 459524 7101401 O 3 - 15% U 30 - 45% 25 - 30 LN Fo W slight O  EGR313 R BC 8 3 MT/BF 8/14/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/14/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN Fo D O  EGR313 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 < 0.01% E 2 - 5% 50 - 100 LN LN	EGL308	V	BC	8	15	MT/BF	8/14/2009	460474	7099514	1330		M	9 -15%	25-50			Fo			0		0
EGR303 D BC 8 10 MT/BF 8/12/2009 455171 7099733 <0.01% C 9-15% 25-50 CV LV Fo 0 0 0  EGL310 R BC 8 50 MT/BF 8/14/2009 459640 7099420 1051 <0.01% M 15-30% 50-100 LN LN Fo 0 0 0  EGL311 V BC 8 25 MT/BF 8/14/2009 459660 7099770 1067 M 15-30% 50-100 Fo 0 0  EGL312 V BC 8 0 MT/BF 8/14/2009 460292 7100144 1115 M 0-0.05% 25-Jan Fo 0 0  EGL312 V BC 8 8 MT/BF 8/14/2009 460600 7099800 M 45-70% 25-50 DL 0 0  EGL312 V BC 8 25 MT/BF 8/14/2009 460600 7099800 M 45-70% 25-50 CV LN Fo 0 0  EGL312 V BC 8 30 MT/BF 8/14/2009 460600 7099800 M 15-30% 25-50 CV LN Fo 0 0  EGL313 R BC 3 35 MT/BF 8/14/2008 460221 7100621 0 <0.01% M 15-30% 25-50 LN Fo W slight 0  EGL313 R BC 35 MT/BF 8/14/2008 459524 7101401 0 3-15% U 30-45% 25-Jan CV LV Fo 0 0  EGR400 R BC 8 3 MT/BF 8/14/2008 449319 7086377 621 <0.01% E 2-5% 50-100 LN LN Fo 0 0	EGR118	R	ВС	8	38	MT/BF	8/12/2009	457651	7101048	936		M	30 - 45%				Fo			0		0
EGL310 R BC 8 50 MT/BF 8/14/2009 459640 7099420 1051 <0.01% M 15-30% 50-100 LN LN FO 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EGL66	R	ВС	8	35	MT/BF	8/14/2009	459974	7099838	1154		М	30 - 45%	50-100	LN	LV	Fo	W	slight	0		0
EGL311         V         BC         8         25         MT/BF         8/14/2009         459660         7099770         1067         M         15 - 30%         50-100         Fo         0         0           EGL48         R         BC         8         0         MT/BF         8/14/2009         460292         7100144         1115         M         0 - 0.05%         25-Jan         Fo         0         0         0           EGL312         V         BC         8         MT/BF         8/14/2009         460600         7099800         M         45-70%         25-50         DL         0         0         0           EGL47         R         BC         8         25         MT/BF         8/14/2009         460009         7100810         1080         <0.01%	EGR303	D	ВС	8	10	MT/BF	8/12/2009	455171	7099733		<0.01%	С	9 -15%	25-50	CV	LV	Fo			0		0
EGL311         V         BC         8         25         MT/BF         8/14/2009         459660         7099770         1067         M         15 - 30%         50-100         Fo         0         0           EGL48         R         BC         8         0         MT/BF         8/14/2009         460292         7100144         1115         M         0 - 0.05%         25-Jan         Fo         0         0         0           EGL312         V         BC         8         MT/BF         8/14/2009         460600         7099800         M         45-70%         25-50         DL         0         0         0           EGL47         R         BC         8         25         MT/BF         8/14/2009         460009         7100810         1080         <0.01%	EGL310	R	ВС	8	50	MT/BF	8/14/2009	459640	7099420	1051	<0.01%	М	15 - 30%	50-100	LN	LN	Fo			0		0
EGL312 V BC 8 MT/BF 8/14/2009 460600 7099800 M 45-70% 25-50 DL 0 0 0 EGL47 R BC 8 25 MT/BF 8/14/2009 460009 7100810 1080 <0.01% M 15-30% 25-50 CV LN F0 0 0 EGL1 D BC 8 30 MT/BF 8/14/2008 460221 7100621 0 <0.01% M 15-30% 25-50 LN F0 W slight 0 0 0 EGL313 R BC 35 MT/BF 8/14/2008 459524 7101401 0 3-15% U 30-45% 25-Jan CV LV F0 0 0 0 EGR400 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 <0.01% E 2-5% 50-100 LN F0 D  0 0	EGL311	V	BC	8	25	MT/BF	8/14/2009	459660	7099770	1067		M	15 - 30%	50-100			Fo			0		0
EGL47         R         BC         8         25         MT/BF         8/14/2009         460009         7100810         1080         <0.01%         M         15 - 30%         25 - 50         CV         LN         Fo         0         0           EGL1         D         BC         8         30         MT/BF         8/14/2008         460221         7100621         0         <0.01%	EGL48	R	ВС	8	0	MT/BF	8/14/2009	460292	7100144	1115		M	0 - 0.05%	25-Jan			Fo			0		0
EGL47         R         BC         8         25         MT/BF         8/14/2009         460009         7100810         1080         <0.01%         M         15 - 30%         25 - 50         CV         LN         Fo         0         0           EGL1         D         BC         8         30         MT/BF         8/14/2008         460221         7100621         0         <0.01%	EGL312	V	ВС	8		MT/BF	8/14/2009	460600	7099800			М	45-70%	25-50			DL			0		0
EGL313 R BC 35 MT/BF 8/14/2008 459524 7101401 0 3 - 15% U 30 - 45% 25-Jan CV LV Fo 0 0  EGR400 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 <0.01% E 2 - 5% 50-100 LN LN Fo 0 0	EGL47	R	BC	8		MT/BF	8/14/2009	460009	7100810			M	15 - 30%	25-50	CV		Fo			0		0
EGR400 R BC 8 3 MT/BF 8/15/2008 449319 7086377 621 <0.01% E 2 - 5% 50-100 LN LN Fo 0 0	EGL1	D	ВС	8	30	MT/BF	8/14/2008	460221	7100621	0	<0.01%	M	15 - 30%	25-50		LN	Fo	W	slight	0		0
	EGL313	R	ВС		35	MT/BF	8/14/2008	459524	7101401	0	3 - 15%	U	30 - 45%	25-Jan	CV	LV	Fo			0		0
EGR70 R BC 8 48 MT/BF 8/11/2009 464843 7101282 0 U 45-70% 25-50 Fo 0 0	EGR400	R	ВС	8	3	MT/BF	8/15/2008	449319	7086377	621	<0.01%	E	2 - 5%	50-100	LN	LN	Fo			0		0
	EGR70	R	ВС	8	48	MT/BF	8/11/2009	464843	7101282	0		U	45-70%	25-50			Fo			0		0

SiteNO	Survey Type		Zone	Slope %	Surveyors	Survey Date	Easting	Northing	Elevation	Surf.Stone	Slope Position (site)	Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag
EGR72	R	ВС	8	30	MT/BF	8/11/2009	464660	7101266	0		U	30 - 45%	50-100			Fo			0		0
EGR401	R	ВС	8	2	MT/BF	8/15/2008	448898	7087172	630		Е	2 - 5%	25-50			Fo			0		0
EGR74	R	ВС	8	28	MT/BF	8/11/2009	464553	7102008	1469		M	15 - 30%	50-100			Fo			0		0
EGR102	V	ВС	8	0	MT/BF	8/13/2009	462277	7097530	742		Е	0.05 - 2%	500-1000			Wt			0		0
EGR405	R	ВС	8	50	MT/BF	8/15/2009	449399	7090898	685		L					Fo			0		0
EGR406	R	ВС	8	10	MT/BF	8/15/2008	449694	7091202	662	<0.01%				CV	LV	Fo			0		0
EGR404	R	ВС	8	0	MT/BF	8/15/2009	449171	7090107	643	<0.01%	E			LN	LN	Fo			0		0
EGR403	R	ВС	8	50	MT/BF	8/15/2009	449007	7089609	672		L	45-70%	25-50			Fo			0		0
EGR407	R	ВС	8	45	MT/BF	8/15/2008	450348	7092047	720	<0.01%	L	30 - 45%	25-50	CN	LN	Fo			0		0
EGR300	V	ВС	8	70	MT/BF	8/11/2009	464062	7101250	0		U	45-70%	50-100			Fo			0		0
EGR402 EGR413	R R	BC BC	8	67 3	MT/BF MT/BF	8/15/2009 8/15/2008	448780 457840	7089130 7096179	692 727		<u>L</u> E	45-70% 2 - 5%	25-50 25-50			Fo			0		0
			0																-		
EGR301	V	ВС	8	50	MT/BF	8/11/2009	464125	7100900	0		M	30 - 45%	50-100			Fo			0		0
EGL21	D	ВС	8	14	MT/BF/NT/S	8/11/2009	462896	7101163	1372	<0.01%	M	9 -15%	50-100	LN	LV	Fo			0		0
EGR302 EGR71	R	BC BC	<u>8</u> 8	70 8	MT/BF MT/BF	8/11/2009 8/11/2009	464000 464771	7100500 7101387	0		С	45-70% 5 - 9%	50-100 25-50			Fo Fo			0		0
	R	BC	8	9	Straker		459464		0			5 - 9%	500-1000			Fo			0		
TPA1	K	ВС	0	9	Straker	7/18/2009	459464	7101321			L	5 - 9%	500-1000			FU			0		
TPA3	R	ВС	8	7	Straker	7/19/2009	458474	7100551			Т	5 - 9%				Fo			0		1
TPA4	R	BC	8	20	Straker	7/19/2009	458978	7100215	620		M	15 - 30%	100-500			Fo			0		1
EGR451	Q	BC	8	5	JS/NT	9/16/2009	452180	7085869	639		U					Fo			<del>-</del>		0
EGR450	Q	BC	8		JS/NT	9/16/2009	449630	7085952	614		D								0		0

	Permafrost	Organic Soil	Depth to	Depth to					
SiteNO	Depth	Drainage Drainage	Bedrock	Water	TSM	EP	Site Note	Vegetation Note Open Lichen Spruce, woodland. Lichen (Clad ste) dominant ground co er.	Mass Movement Indicator Tension Cracks and Soil Creep.
EGL63			0	0			Cut in road adjacent to Dublin Creek, Placer Mining distrbance exposes fractured	Thin band of S! different colour than matrix?	TSC = III to IV
EGL216			0	0			bedrock.	Aspen stand DV/R / CV/R	
			_		_		site_deep, steep + wet_high failure risk_L = subsurface seepage_soils are gra elly, not		
EGR94 EGR93			0	13 0	<u>Р</u> Р	High	rubble or boulders open lichen fir forest frost hea e		rock slides apparent IV
LOITOO					•		•		surface seepage + shallow eroded
EGR92	60		0	0			Site in acti e seepage track at surface and at depth outside of rock	Picemar, Alnucri, Salix, Spharub, Rubucha, Hierspl, Rhizonmium	drainage
EGR69			0	0			Acti e stream tributary to Haggart Creek		
EGL8			0	0			SR pebbles to cobbles mostly pebble size	Sb, Hylo, Cladina, Ledum, Equisyl, Petasag, Mert, Empenig, Vacoli, Vacc it	
E01.0			•	0	0	1	averaged with a game has a been contact to financial as	Calify Delegan negles Asses fragged dendelies DEVEC all 2 as beight	Rill erosion along cutslopes
EGL6			0	0	S	LOW	exposed piles, some ha e been sorted to finer piles	Salix, Balsam poplar, Aspen, fireweed, dandelion REVEG all 2 m height	adjacent to Placer
EGL41	100		0	0			soil like pudding where seepage drier below		TSC=III
EGL200			200	0			No rocks at surface	Abieslas, Betugla, Poly, Pleur, Cladina, ground co er Heath egetation	
EGR96	30		0	0	P	Medium	Permafrost sllapse scars w/ standing water	Open drunken forest, lichen and sphagnum dominant understory. Pice mar, Ledu gro, Ledu dec, Erio, Clad stel, sphag, Empi nig, Betu gla, salix	Melting Permafrost
LGN90	30		0	U	'	Medium	Large boulders at surface coarse grained igneous intrusi e Fc microscale in plot bare	Ledu gro, Ledu dec, Erro, Ciad stei, spriag, Erripi riig, Detu gia, saiix	Weiting Fermanost
EGL16			200	0	Р	Low	mineral soil mo ing downslope	Betugla, Abieslas	~ 10 cm wide in areas of soil creep
EGR91 EGR79		Imperfect	0	0	S	Low	Frost hea e bedrock ridge abo e site some	Open lichen fir woodland.	
EGR98			0	0			Small rock slides shallow bedrock isible	Fir/Lichen open forest	
							E idence of water flowing through stand originating on road isible water upslope from	·	
EGL15			0	0	Р	Medium	site L <12% of polygon	Abieslas, trees, Empenig, Pleusch	drainage channels
EGL17			0	0		Low	Seepage flowing water downslope ~10 m (out of plot) toe slope	Betugla, Abieslas, Empenig	FC
			-	-		-		Aspen/Birch o erstory, White Spruce subcanopy forb & litter understorey.	Slumps in profile > historic eg
EGL39			0	0	Р	Medium	e idence of charcoal in profile. Some subrounded gra el cobbles. Check extent of	Geocaulon, acc it, Rosaaci, Ledugro, Empinig	reestablished. Class IV
EGL38			0	0	S	Low	Minarea.	Open lichen woodland Picemar, Cladina, Cladonia, Vacc it, Ledugro	TS Class II
								-	
EGL37			0	0			Bedrock isible > ery weathered & broken from cut upslope in road	Fir / B. Spruce forest, Pleursch, Cladinastel, Vacc it, Ledugro	
EGL36			0	0	S	Low	SA to SR clasts photo taken plus mica flakes pea size. M likely o er D or R	open abies las forest, ledugro, betugla, accolig, empinig, cladstel, pleursch	
			_	_	_				
EGL207			0	0	Р	Medium	boulders at surface rock slides lichen co ered in stand	Sw, Abies las, Shepcan, Birch, Aspen, Vacc it,	Rocks piled at tree trunks
								Betugla, Abielas, Anemone, Cladina, Cladonia, Pleusch, Polytrichum,	
EGL18			0	0			Ingenous intrusi e and meta sed rocks.	Lazulapar, Juncbal	exposed mineral + soil creep
EGL33			0	0	S	Low		Open fir forest, Betugla, Ledugro, Lycopod, Vaccoli, Cladina, Vacc it	TSM II
20200									- TOM II
EGL19			0	0		Medium	Site appears to be near small test pit site (blue flagging). Can hear water downslope.	Salixpul, Betugla, Salixret, di erse understory.	
EGL20			0	0		Medium	Boulder field isible on surface. Coarse sand contains pea size gra el in C horizon.		
						Woodan	Bouldor Hold Tollow of Surfaces. Source surface Source for Surface Pour Size gra of the Charles.		
E01 004			•	•	0		highly disturbed area need updated disturbance layer for LSA portion of the polygon		
EGL201			0	0	S		Angular rubble at surface + throughout site Frost hea e at site.		
EGL5			0	0			highly disturbed polygon could be split out from main large polygon		
EQ1 000				^			Dort of Wish Foldered County of the state of	Debugle Abiales Disusab Clading Cladesia	
EGL202			0	U			Part of Krich Feldspar/Granite coarse grained  Some foliated rock theat clea es into flat sheets. C material intact but A & B buried some	Betugla, Abielas, Pleusch, Cladina, Cladonia	
EGL203			0	0			C remo ed & pushed / windrowed.	No egetation at site	
F.C. 50							Collapse scars from ice meltout exposed soil in areas. Bedrock residual material	Oalimad Datumb Abiadas C	
EGL58			0	0			closer to bedrock texture gets coarser.	Salixpal, Betugla, Abieslas, Carex spp.	
							head water of gulch adjacent to boulder/bedrock outcrop. Slope steepens o er short		downward mo ement fc. from frost
EGL52			200	0	Р	Medium	distance. Burn site Should break out bedrock from polygon	Salix, Betugla, Calamagrostis, burned spruce, Abies las	boils class III
EGL53			0	0	Р	Low	Boulder field some exposed granite boulders at surface Frost shatter & boils on site	Betugla, Salixpul, Cladina, Pleusch, Polytrichum, Festuca, acc it, Casstet	soil creep FC Class II
			<u> </u>	<u> </u>			20110 Como oripodos granito bouldero di odridoc i rost sinditici di bollo Oli site	2003.0, Campai, Ciaama, Floadon, Forythonam, Footada, add it, Cassici	55 5155p 1 5 61666 II

	Permafrost	Organic Soil	Depth to	Depth to					
SiteNO	Depth	Drainage Drainage	Bedrock	Water	TSM	EP	Site Note Vegetation	on Note	Mass Movement Indicator
EGL3			200	0	Р	Medium	Some boulders at surface site adjacent to steep gully sharp drop off ~30 m Abieslas, E	Empinig, Cladina, Betugla, Salipul, Pleusch, Polyjun	soil creep FC class III
EGL204			0	0	Р	High	Pull polygon out as a unit No buried horizon tonguing in soil horizon boundaries Mo ement in profile e ident exposed mineral soil from shallow micro slumps Abieslas, E	Empinig, Epilang, Cass (heather) lichen dominant co er, Spir bea	FC Class IV
EGL4			0	0	Р	Medium	Abieslas, P	Picegla, Hylospl, Lupialp, heather, Betugla, Salipal, Saliret	bare soil minor slump Fc
EGL205			0	0	U	High	eroded surface in gully bottom Stewart Gulch areas of ponding deposition of sand occurs		eroded soil, dislodged boulders
EGL60			100	0	Р		1 1	Salipal, Vaccoli, Abieslas Salipal, Abieslas, Empenig, Casstet, Vacc it, Cladina, Cladonia,	rock slide from road patterned rocks
EGL61			0	0		Medium	D with some C mo ement of boulders in areas Polyjun		soil creep
EGL68			0	0		Low	position er on groun		none noted
EGL206			100	0	U	Low		edudec, Cladina, Salixarc, Vacc it, Salixgla, Arctrub is shrubs + lichen community Salix gla, Ledu dec, Betu gla, Cass	
EGR206			100	0	U	High	Frost hea e + rock slide tet, Cladina Abies las, drunken forst collapse areas + drainage channels e ident of standing water	na, Cladonia, Dryas ala	rock slide initiating from frost hea e Meltout channels throughout stand
EGR97	200		0	0		Medium	high gra el content as well Hylospl, Ple	Pleusch, Nephroma, Cladstel, Cladarb, Vacc it, Ledudec, Sphag, en forest e idence of snow loading Abies las, cladina, Cladonia,	erosion feature
EGR95			0	0	Р	Medium	Gra els, cobbles, boulders at site Empe nig	<del>-</del>	
EGR80			100	0	Р	High	recent slide and slump ~ 10 m across dominant	, 0, 1 , 0 1	recent shallow slump + 2nd rock slide ~ 200 m upslope of plot
EGL27			0	0		Medium	clast supported matrix Coarse sand photos taken acti e flowing channel disturbed by Placer mining Salix, Alnus	us	Shoreline erosion
EGL12			0	0	S	Medium	Sb forest, S broken horizons tipping/dying top spruce likely due to permafrost check drill logs in	Salix, Betugla, Cared pod	eroded stream channel TSM II
EGL215	200		0	0				open moss/lichen understory Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla,	
EGL22			0	0		Medium	Rubus arc,		TSM II
EGL211			0	0	Р			Vacc it, Ledu gro, Cladina.	TSM III
EGL26	31		0	0	Р	Medium	Some tilted trees not many May be due to snow loading Some surface drainage Equi syl	e (Pice mar) forest, sphagnum, Hylo spl, Rubus cham, Empe nig,	cut trail shows instability slumps
EGL49			0	0	Р		upslope from bedrock outcrops mature spri	oruce/fir forest	trees on site but adjacent to rock slide
EGL25			0	0		Medium		Pice mar, Pice gla, Hylo spl, Vacc oli, Ledu gro, Equi syl, a, Clad stel, Betu gla Main shrub is Salix pau	TSM III
EGL210			0	0			fir/spruce fo	forest	TSM II
EGL208			0	0		Low	broken horixon profile slow downward mo ement of material historically Cobbles to stones mostly with gra el		
EGL209			0	0	U		Meta sed on 45 degree angle Two lithologies may be near bedrock contact Abies, Betu		Rock & Debris slides photos
EGL50			0	0	U		bedrock cliffs abo e site pull out rock cliffs separate from boulder slides Ledu, Salix	Hylo spl, Cladina, Cladonia, Crustose lichen, Salix gla, Betu gla, ix pau, Empe nig ees, mostly shrub dominant Betu gla, Abies las, Cladina ste,	exposed bedrock cliff/bolder slides
EGL28			0	0			exposed rock slide but historic as lichen co er on rocks Vacc it, Le	edu dec	TSC III
EGL212			0	0	s		mixed lithology of gra els flat, angular, subangular, arious shapes due to lithology more old growth than transport Vacc it + N	n forest of Abies las, Ledu gro, Pleu sch, mostly Clad stel. some Nephroma	TSM II Piping
EGL213			0	0	U	High		est Aspen, spruce, birch	4 shallow slides slumps o er bedrock
EGL214	100		0	0	Р		deep & wet soil consistency of pudding hole collapsing as digging tilled forest circular collapse scars ( egetated) in site open Sb for	orest Ledu gro, Cladina, Cladonia dominant	TSM III
EGL214A			0	0			Silt appears as rock flower likely part of high energy deposition short distance tra el due	cidous Salix, Birch	
EGL50A			0	0			rock slides filling bottom of Oli e Gulch shallow slides bedrock isible upslope shrub rest	stricted trees due to boulders recei ing slide area	rock slide tracks upslope
EGL35			0	0			Open fir for No rocks at surface some channel surface flow, but egetation relati ely intact Cladonia, F	orest. Abies las, Betugra, Clad ste, Nephroma, Ledu gro, Poly tri	

	Danmafuact Oursuis Co	:1	Donath to	Danish to					
SiteNO	Permafrost Organic So Depth Drainage		Depth to Bedrock	Depth to Water	TSM	EP	Site Note	Vegetation Note	Mass Movement Indicator
EGL34			0	0		Low	M likely o er D or R	Abies las, Vacc oli, Vacc it, Ledu gro, Nephroma, Empi nig	
EGL32			0	0	Р	Medium		Open Betu gla shrubland	microtopography indicators historic slumps shallow / small
EGL31			200	0	U	High	Historic + shallow recent slides exposed mineral soil ~ 5 x 3 m	Aspen fir + Sw. In understory Juni com, Ledu gro, Vacc it, Arct u a, Vacc uli	Exposed mineral soil trending downslope
EGL30			200	0			Large boulders protruding at surface	Mature old fir/white spruce Geoc li , Hylo spl, Linn bor, Vacc it	boulders
EGR81	30		0	0	P	Medium	subsurface seepage abo e ice	open forst lichen dominant	melting, permafrost
EGR73			0	0	P	Low	Just started to get in clump of trees, open forest/parkland Patches of frost shattered R, possibly due to permafrost sorting, SE aspect though. TSM III		
EGRIS			U	0	<u> </u>	LOW	Walked down slope from last, onto a bench (~30m wide), with a steep scarp to NE, then slightly up and off a ways to the side. Hole ~50 60% peb sml cob, SR A SA TSM = 11		
ERG115			0	0	S	Low	111 dep. how thick, no e id. of mo ement.		
EGL9			0	0	Р	Low	matrix FSL, . poorly sorted, few poorly sorted areas (MS cs)		
EGR306			0	0	S	Low	L matrix, with 20 35%. Any blocky gr to sm cobble, all psammites(or arenites) TSM=II Unsure Re: permafrost		
2011000						LOW	a few rocks oc around. probably see on airphotos EP med high watch channeled		
							water old burn, all the way down this slope; not alley/slope to NE/E TSM=III IV check		
ERG114			0	0	Р	Medium	slope model fire didn't cause slides; dry likely thin.		
EGR76		Well	0	0	S	Low	Slope undulates a lot. TSM II Separate 74 and 76 by aspect instead of how now?		
_01(70		vven	0	0		LOW	walked ~ along contour to this site, Mix of stuff. Once cross into this one, way more		
							actual rock at surface. Most somewhat frost hea e of shatter. are just NW (~8m) of		
EGR113			0	0	Р	Medium	what looks like an old R"r, about 5m deep, with ra @ bottom of slope		
							Poorly sorted, massi e diamict; afs matrix, occationally areas that are a bit more sorted		
							(more mc sand). Clasta area A SA, minor SR. Mostly granule to pebble, only ~ 15 Y.,		
EGL10	57		0	0	S	Low	ablation till or poss. debris flow (btw alley + glacier).		
							Abundant frost shattered A peb 5m boulder in ery rough solifluction lobes. Only 5% 20 30 cm wide mud boils. Practically R, just frost shattered. TSM = II b.c thin shattered R, r		
EGR14		Rapid	0	0	S	Low	drained		
LOITIT		Ιταρία		U	- 0	LOW	burnt, steepish slope. fire didn't cause slide; TSM IVR (too steep for road) but dry,		
EGR112			0	0	Р	Medium	seems stable other than minor creep.		
EGL11			0	0	S		Is there a source for C abo e? Not a good till, but a small possibility		TSM=II
EGR13		Moderate W€	0	0	S	Low	TSM = II		
							see notes for BGE on separate sheet. They thin may be scarp of ery old slide but		
EGL307			0	0	9	Madium	nothing ob ious to support that. There is a it of a conca ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top debuttress during melt =		iust Soli
LOLSO1				U	- 0	Medium	pretty steep all the way down to this site site just upslope (sideways) from small treed		Just 3011
EGR111			0	0	S	Low	gully. TSM II		
			-	-		-	Since last site, walking on ridge. Pull out as separate poly, with arying amounts of		
							shattered R. TSM = II as decent slope, dry, somewhat undulating ertical rather than		
EGR304		Rapid	0	0	S	Medium	straight (could be III on opposite aspect)		
									small amounts of piping causing small failures TSM IV R; their fill
							Few Fk e edge of fill Area x cut by roads, etc. Shows ~ 5 10 m of C. Competant R		slopes are/ha e failed. No major
EGL309			0	0	Р	High	isible in few areas		landslide due to disturbance.
							abundant moss/peat/burnt duff eg + soil samples taken check photos to see if		
EGR110			0	0	S		drape or if material makes slope TSM=II		
EGL46			0	0	U	Low	check photos if R old (R"r)		Talus
EGR305		Moderate We	0	0	S	Lave	Hole is 30cm deep; then too rocky, but rocks break easily. No idea how thick. No rocks on surface, just moss/lichen. TSM = II (low slope, ok drainage)		
EGR303		Moderate WE	U	U	<u> </u>	LOW	small areas with a tiny bit of piping, tiny bit of trees leaning e er so slightly. Not enough		
							to include in map label though. Rocks poke out in a few spots. Other spots moss is up		TSM= IV (slope, wetter) Minor soil
EGR412			0	0	S	Medium	to 30 cm thick		creep
							Open forest, mostly shrub birch, lichen/moss. SiL matrix with 20% friable tabular phyllite		•
							granules to 5m pebbles, plus 15% more competant, tabular, ang clasts. TSM III. Unsure		
EGR124		Well	0	0	S	Medium	D or C, going D and C. Unsure thickness.		
							hole = 0 21 or w 2fs with ~2%gr sm pebble, SA SR, almost magic mud 21 35+		
ECD400			0	^		1	dirty m es matrix with ~ 30 40% granule sm cobble. Most A SA, few SR inc 1 med		
EGR109 EGR414			0	0	S		cobble @ surface LG o er FG o er Till		minor flows
			U	U		wealum			HIHIOI HOWS
EGR414							Slope has minor lindiliations, propably relict solitilication, Permatrost likely still here, but		
EGR125		Moderate We	0	0	S	Low	Slope has minor undulations, probably relict solifluction. Permafrost likely still here, but not acti ely creating landforms. TSM = II.		

Permafrost	•	Depth to	Depth to				
SiteNO Depth EGR415	Drainage Drainage	Bedrock 0	Water 0	TSM S		Site Note Vegetation Note minor sed in patches on tops Horsetails + trees	Mass Movement Indicator
EGR413		0		3		TSM = I 0.8m peat hummock H2O ~ 0.9m depth then = grey, cold SiCL with ~15%	
EGR107		0	0	S		grit(granules only)wet, dense	
EGR416		0	0	S	Low	20 cm fs, no clasts o er ~ 1.5 m + z fs with ~ 40% R pebble to cobble	
EGR106		0	0	S		TSM = II due to slope, could be I	
EGR126		0	0	S		TSM = II. Basically same as 125 for terrain.	
EGR417		0	0	S		surface has minor undulations matrix = SL	TSM= 1
ECD405				0		gully walls are ~ 35% peat in bottom now, tiny bit of possible effemeral H20 right e	TSM=II
EGR105 EGR418		0	0	S S		bottom Poss merge poly c rest of fan, or at least tighten to draw side slopes ~ 20 35% kettle hole in terrace	I SIVI=II
LON410					LOW	side siopes 1 20 00 % Rettie Hole III terrace	
						EP Could erode quickly if slope mat as LSA where gullied from off of road. Is a zd, with	
						30 35% gr sm pebble. More diam like than before. Clasts are A SA mix of green pelite,	
EGR123		0	0	Р		orange pelite, some qtz, bit granite. Unsure if all could be D. Poss C. or e en	
EGR419		0	0	S		permafrost @ 60 cm depth May be mineral e base, but no auger and it's frozen solid	TSM=1
EGR420		0	0	S		check photos/polygon for deciles	CH. L. L.
FOD444		0	0	U		toe slope has a few piping holes whole hillside seems to be satureated + slowly	numerous tilted , leaning spruce
EGR411		U	0	U	LOW	slumping/creeping	TSM= III IV
						Open spruce forest, lichen/ moss. Magic mud@20cm depth seepage. Sed is a zfsd,	
						med brown, 20 25% gr lg pebble, A mostly, but some SA. Mostly tabular phyllite, some	
EGR122		0	0	S		blockier harder rock. Till or could be V weathered C. TSM = III due to H20.	
						section ~ 15 20 m of crude stratified sz with some gra el beds older fan? much steeper	
EGR410		0	0			thicker than alley	
EGR409		0	0	S		f= fsz, no clasts, interbeddedw buried humic to mesic beds 2 5 cm thick	TSM=1
505400				_		20cm of SiL matrix with 40% A peb. small cobble, all tabular and same lithology (not	TOM
EGR120		0	0	S	Low	sure, but strong elongated fabric).	TSM = I II
							titled trees (up+down slope) undulating slope unsure where
						slope has se eral small (0.5m) scarps. Didn't walk up to top. Small gully just R of site (~	scarp is Roadcut failed more
EGR408		0	0	ш		1 m wide) eg says trees ~ 100 yrs old	recently
EGR119	Well	0	0			Open spruce forest, lichen and moss. TSM = II III	100011119
							roads ha e caused some seds to
EGL308		0	0	S	Medium	check drill logs for depth matrix is zfs (L)	run into forest TSM = I II
						Open forest, walked past one open area (lichen o er rock) that could be an old (small)	
ECD440	\A/all			_		slide runout check photos. Hole = grey brown SiCL matrix, dry and loose with 30 40%	
EGR118	Well					A SA SR (sm lg) peb and granules. Unsure depth, Slope so may just be a d??? (b ).	
				Р	ivieaium		
				Р	ivieaium		minor rill (~ 50 cm wide > 5 m
				Р	ivieaium		minor rill (~ 50 cm wide, > 5 m
				Р	ivieaium		minor rill (~ 50 cm wide, > 5 m long), likely due to water erosion (runoff from road abo e TSM= II III
EGL66		0	0		Medium	Check drill logs for depth	long), likely due to water erosion
EGL66		0	0		Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med	long), likely due to water erosion (runoff from road abo e TSM= II III
			-		Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)
	Moderate W		0		Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med	long), likely due to water erosion (runoff from road abo e TSM= II III
EGR303	Moderate W	/e 0	0	S	Medium Low	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)
EGR303 EGL310	Moderate W		-	S	Medium  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)
EGR303 EGL310 EGL311	Moderate W	/e 0	0	S P S	Medium  Low  Medium  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III
EGR303 EGL310 EGL311	Moderate W	0	0	S P S	Medium  Low  Medium  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.
EGR303 EGL310 EGL311 EGL48	Moderate W	0	0	S P S	Medium  Low  Medium  Medium  Medium  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47		0 0	0	S P S S P S	Medium  Low  Medium  Medium  Medium  Low  Low  Low	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  TSM = I
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47	Moderate W	0 0	0 0	S P S S P S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut, Gully 20m downslope, only 1 2m wide.	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  TSM = I  S Old scarp TSM = IV
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47		0 0	0 0 0	S P S S P S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,  Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @	Iong), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  S Old scarp TSM = IV
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47 EGL1		0 0	0 0 0	S P S S S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,  Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @ 20cm depth, with few intact pieces. SL matrix. Crest (old road) co ered by numerous	Iong), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  S Old scarp TSM = IV
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47 EGL1		0 0	0 0 0	S P S S P S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,  Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @	Iong), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  S Old scarp TSM = IV
EGR303 EGL310 EGL311 EGL48 EGL312 EGL47 EGL1		0 0	0 0 0	S P S S S	Medium  Low  Medium  Medium  Medium  Low  Low  Medium  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,  Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @ 20cm depth, with few intact pieces. SL matrix. Crest (old road) co ered by numerous frost shattered pebbles (square, flat)	Iong), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  TSM = I  S Old scarp TSM = IV
EGR303  EGL310  EGL311  EGL48  EGL312  EGL47  EGL1  EGL313	Imperfect	0 0 0 0 0 0	0 0 0 0 0	S P S S S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut, Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @ 20cm depth, with few intact pieces. SL matrix. Crest (old road) co ered by numerous frost shattered pebbles (square, flat)  +60cm of SL, mottled grey and brown, unsure if laminated. Are a few Fs beds therefore	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  S Old scarp TSM = IV TSM = II
EGR303  EGL310  EGL311  EGL48  EGL312  EGL47  EGL1  EGL313		0 0 0 0 0 0	0 0 0	S P S S S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut,  Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @ 20cm depth, with few intact pieces. SL matrix. Crest (old road) co ered by numerous frost shattered pebbles (square, flat)	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  TSM = I  S Old scarp TSM = IV
EGL66  EGR303  EGL310  EGL311  EGL48  EGL312  EGL47  EGL1  EGL313  EGR400	Imperfect	0 0 0 0 0 0	0 0 0 0 0	S P S S S	Medium  Low  Medium  Medium  Medium  Low  Low  Low  Medium	all clasts are ery angular, all appear to be granitic, up with depth, granules to med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed from. No idea how thick.  mixed mostly deciduous forest Is a small rock oc/frost head ~ 10 m to NW unsure of spatial extent und to humm topo landslide runout material?  mostly talus (shattered R) mo ed a bit by solif Scarp must be quite old o ergrowan road cut, Gully 20m downslope, only 1 2m wide.  Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite pieces @ 20cm depth, with few intact pieces. SL matrix. Crest (old road) co ered by numerous frost shattered pebbles (square, flat)  +60cm of SL, mottled grey and brown, unsure if laminated. Are a few Fs beds therefore	long), likely due to water erosion (runoff from road abo e TSM= II III (depends on thickness)  TSM = II.  TSM = III  S Old scarp TSM = IV TSM = II

OV. 110	Permafrost	Organic Soil		Depth to	Depth to				
SiteNO	Depth	Drainage	Drainage	Bedrock	Water	TSM	EP	Site Note Vegetation Note	Mass Movement Indicator
								slope is ~ 70 80%, egetated with patches of tabular rock near surface. All clasts	
EGR72				0	0	Р		oriented II to slope. TSM II III > R not that competant; unsure how deep to solid.	bit of collu ium
				-	-			C1 20cm of z fs, appears massi e, no clasts. C2 30cm+ of (sm lg) pebble gra el (35	
EGR401				0	0	S	Low	45%) in a m cs granule poorly sorted matrix. Clasts are R, mix of litho	TSM = 1
								At least on N NW facing side, are some rudimentary sorted circles/mud boild with A	
								cobbles . Few solifluction lobes Cant tell D or C is soliflucted D now C/ Some slope to	
EGR74						S		pro ice C	TSM=II (but solifluction)
EGR102						S	Low	O g 50 80 cm o er SL grey, no clasts	TSM = I
								road cut is partially weathered R, o er 3 m of mostly competant R Phyllite to slate c	
EGR405								some qtc_eins_Minor road cut Rsr	_
								Old placer acti ity. One large roadcut exposes 5m of dk grey SL, inerbedded with f ms.	
E0D400				0	0	0	NA - disco-	Contains 2 3 peat beds with some large root pieces for Lisa (paleo). Lots of old wood in	
EGR406 EGR404			Imperfect	0	0	S	Mediur	n placer stuff.  Recent flooding/thin silt co er o er eg  Alder, Equi sp.	
EGR404						5	LOW	Recent flooding/thin silt co er o er eg Alder, Equi sp.	
									small Fk, Fc (likely due to road
								rock exposed in road cut. Estimate D is 1 3 m thick Hole = 60% A phyllite pieces in a	undercutting toe slope. Could cause
EGR403						Р	Low	SL matrix. Mica in matrix too	surface slide) TSM = IV
2011100							2011	Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2	canade chae) Telli TV
								3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees	
EGR407				0	0	Р	Low	are happy and upright looks stable now.	
EGR300				0	0	U	Mediur	n TSM = V Slides likely old, but as fill sed could fail again	looks like old R"r
								where site is, road cuts show > 3 m of FG to west and 4 20 of FG/R to east at site hillis	
EGR402						S		all stg. Is this a terrace scarp? looks like a large bump  Veg is open aspen; likely outlines feature	TSM = III (slope but dry/stable)
EGR413						S	Low	2.5m up from ri er base. TSM=1	
						_			
EGR301				0	0	Р	Low	TSM = III split from upper as more egetated eg co ered poss few R outcrops	
								1m high shrub birch, scattered spruce, moss. Gentle slope, some mud boils therefore	
EQ1.04			NAl 4 - NA/.	0	0	0		permafrost. Not C, as no source area or dif material. Small depression below site has	
EGL21 EGR302			Moderate We	0	0	S U		scattered A boulders.  TSM V Same as ERG300, old slides, but may fill + slide again	
EGR302 EGR71				0	0	S	Low		
EGR/ I				0	- 0	3	LOW	alpine, moss scattered sni. bodiders 13w-ii	
TPA1	52							3rd sample is "OS" org. soft want part size + O.M. content	Cb
11 / 1	- JZ							ord sample is 600 org. soft - want part size + 6.10. Content	<u> </u>
TPA3	50			0	0				
TPA4	53			0	0				solifluction, maybe inacti e
EGR451			Well					by road	
		_	_					fen sedge on periphery horsetail in centre surrounded by bog water at	
EGR450		peraquic	Very Poor					surface all egetated	

SiteNO	QC By	QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase Soil Notes	Landscape Topsoil Drainage Constraints Depth	Site Location
EGL63		0	0		CHER-DB-		Fining upward sequence broken horizons from soil creep	12	Eagle Gold, YK, Abo e Stuttle Gulch
EGL216	nTashe	1	20		BRUN-DYB-O		likely mix of Regosols and thin Brunisols on site. Silty Sand seepage flowing through pit Dissected landscape start of gentle drainage	6	Eagle Gold, YK, Abo e Dublin Gulch
EGR94		0			REGOO	O.R.	to creek		Eagle Gold, Yukon
EGR93		0	30	L	BRUN-DYB-O	O.DB	o er half the profile is rock no alignment	6	Eagle Gold, Yukon
							phase: pt Lenses of silt + sand Do not appear as layers Bands of silt +		
EGR92	Tb	0	60	Z	CRYO-SC-HR	Cryosol	sand found in Of layer Some flat pans rocks in profile	17	Eagle Gold, Yukon
EGR69	nTashe	1							Eagle Gold, Yukon Eagle Gold, YK, adjacent to Dublin
EGL8	nTashe	1			GLEY-G-O		likely R.G + GL.R in polygon + GL.OB Ah too thin to sample	14	Gulch
EGL6	nTashe	1			REGO-R-O		Some depressions w water but o erall dry site	0	Eagle Gold, YK Dublin Placer
EGL41	nTashe	1	100	Z	GLEYR	R.G.	phase: pt likely roots restricted by ice some tilted trees, ery stunted, cold soil likely Cryosol at site check drill logs for permafrost	25	Eagle Gold YK, SW side of Eagle Gulch
EGL200		0			BRUN-EB-E	E.EB	C too coarse to dig cannot cho el or auger Flat lying rocks Mine material	2	Eagle Gold, YK
EGR96		0	30	Z	CRYO-TC-HR		discontinuous Ah <2cm. Strongly cryoturbated layer of. Phase modifier = p pt	20	Eagle Gold, YK
		_					Augered holes BC structure indicati e of former ice contact causing		
EGL16 EGR91	nTashe	<u> </u>			BRUN-EB-O REGO-R-CU	O.EB	dessication resulting in structure	10	Eagle Gold YK
EGR91	masne	0						12	Eagle Gold, YK Eagle Gold, YK
EGR98		0							Eagle Gold, YK
EGL15	nTashe	1			BRUN-DYB-GL	GL.DB	Moist area, some parts of polygon e idence of surface drainage	10	Eagle Gold, Yukon
EGL17	nTashe	1			BRUN-DYB-E	E.DB	Verify texture's pH to determine if Brunisol s. Lu isol Heap leach option 3	11	Eagle Gold, YK
EGL39	nTashe	1			LUV-GL-BR		Rocks and unstable slope angle limit soil depth. ariety of fragments gra el to cobbles	14	Eagle Gold, YK, Anne Gulch Mouth
EGL38		0			CHER-DB-		mica like shads of glass difficult to texture Almost a lu isoil	10	Eagle Gold, YK, Base of Anne Gulch
EGL37	nTashe	1			BRUN-DYB-O		Soil shows pre ious ice contact by granulated structure at depth in C. Charcoal in profile	14	TSM II
EGL36		0					some gra el is SA to SR		Eagle Gold, YK, Upper Anne Gulch
EGL207		0			ORG		weak Ae may some E.DB in more stable areas	5	Eagle Gold, YK, Abo e Dublin Gulch
							Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle		<u> </u>
EGL18	nTashe	1			BRUN-EB-O	O.EB	colours	10	Eagle Gold, YK
EGL33		0			ORG		Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el refusal large stone. Some SA gra el at depth	4	Eagle Gold, YK, Headwaters of Anne Gulch
EGL19	nTashe	1			BRUN-EB-GL			10	Eagle Gold, Yukon
<b>=</b> 0									
EGL20		0			BRUN-DYB-O	O.DB	C.F. content, but nice fine matrix for reclamation  High coarse fragment makes unsuitable reclamation material. Well de	14	Eagle Gold Yukon
							eloped fines as noted by organic enrichment. C? Cannot dig or auger		
EGL201		0	25	L	BRUN-DYB-O	O.DB	Organic enrichment old soil.	7	Eagle Gold, Yukon
EGL5	nTashe	1	100	Х	BRUN-DYB-O	O.DB	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.	12	Eagle Gold Yukon
EGL202		0		Х	BRUN-DYB-O	O.DB	BC some colour imparted based on what is isible from disturbed areas	7	Eagle Gold YK
EGL203		0				ZDL	Compacted all subsoil & topsoil pushed (unidirectional but mixed)	0	Eagle Gold YK
EGL58	nTashe	11	20	W	GLEYO	O.G	past e idence of permafrost no longer present in soil profile. boulders at surface	3	Eagle Gold YK
EGL52	nTashe	1			BRUN-DYB-O	O.DB	gentle then steepens to gulch/gully mottles from bedrock weathering not water table. frost boils exposed soil trends downward	7	Eagle Gold YK
EGL53		0	45	X	BRUN-DYB-O	O.DB	Ah thin & discontinuous ~ 3 cm	3	Eagle Gold YK

SiteNO	QC By Q	C Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase Soil Notes  Mottles from wathering rock only Mix of coarse fragments from pea gra el	Landscape Tops Drainage Constraints Dep	oil th Site Location
EGL3		0			BRUN-DYB-O	O.DB	to boulders in silt loam matrix. Auger/sho el refusal at 50 3rd pit attempt due to rocks	10	Eagle Gold, YK
EGL204		0			BRUN-DYB-E	E.DB	High degree of mixing in soil profile No 'C' horizon	33	Eagle Gold, YK
EGL4		0		X	BRUN-DYB-O	O.DB		11	Eagle Gold, YK
EGL205	nTashe	1	60	L	REGOO	O.R		8	Eagle Gold, YK
EGL60		0		L	BRUN-DYB-O	O.DB	x shallow cannot assess C horizon depth is estimate	3	Eagle Gold, YK
EGL61	nTashe	1			BRUN-DYB-O	O.DB	x shallow Ahe 0 2 Too high C.F. to fully assess soil Some soil is just rock to surface flat lying rocks	6	Eagle Gold, YK
EGL68		0			BRUN-DYB-O	O.DB	lots of deadfall on ground no charcoal in soil may be O.R weak structure mostly held together by roots	8	Eagle Gold, YK
EGL206		0			BRUN-DYB-O	O.DB	too many C.F. to sho el C horiz skeletal soil flat lying planar rock	7	Eagle Gold, YK
EGR206		0	100	L	BRUN-DYB-O		skeletal soil	4	Eagle Gold YK
EGR97		0	65	W	CRYO-TC-GL		sample of water taken pH 6.3 limited cryoturbation Ice within 2 metres will also be root restricting.	10	-
EGR95	nTashe	1	60	1	REGOO	O.R	Boulders at surface	6	
LONGO	muone	<u> </u>			NEGO O	O.IX	Bouldero de odridos		Lagic Cola, TT
EGR80		0			BRUN-DYB-O	O.DB	Ahe discontinuous + bedrock outcrop upslope ~ 20 m	6	
EGL27		0			REGOO	O.R	ariable clast size May be some Cu.R	2	Eagle Gold YK (stream of Dublin Gulch)
							Cg is filled in with water from seepage Ahe 2 cm but too thin to sample.		Eagle Gold,YK Drainage channel of
EGL12		0	56	W	GLEY-HG-O		May be some Hu. Lu ic Gleysols on site. Humic Gleysol.  Sequence of silts o er gra els likely continues at depth Broken horizons	11	Platinum Gulch Eagle Gold, YK S side of Plantinum
EGL215	nTashe	1	200	X	CRYO-TC-HD	O.DB	likely influenced by ice in past	14	Gulch
EGL22		0			GLEYR	R.G	flood sequence	7	Eagle Gold, YK, Oli e Gulch
EGL211		0							Eagle Gold, YK, Dublin Gulch
EGL26		0		Z	CRYO	Cryosol	p Bedrock noted near side trail Phyllite highly weathered & fractured	17	Eagle Gold, YK side of Dublin Gulch
EGL49		0					ist and the second of the seco	0	Eagle Gold S side Oli e Gulch
EGL25		0			BRUN-DYB-O	O.DB	mid to upper slope difficult to texture as high broken rock fragments May be Lu osols in polygon	8	Eagle Gold, YK side of Dublin Gulch
EGL210		0			LUV-GL-O	O.GL	likely O.DB in polygon as well Some met. sed in profile, mostly granodronite		Eagle Gold, YK Oli e Gulch
EGL208		0			BRUN-DYB-E		skeletal soil	10	Eagle Gold, Oli e Gulch
EGL209		0			BRUN-DYB-E	E.DB/O.DB	meta sed SiL / igneous SL/LS	7	Eagle Gold, YK Oli e Gulch Eagle Gold, YK NE side of Oli e
EGL50		0					coarse sand w gra el	15	
EGL28		0							Gulch Eagle Gold, YK N side of Dublin
EGL212	nTashe	1			BRUN-DYB-O	O.DB	1 cobble near surface, all else is consistently gra el in the profile	7	Gulch
EGL213		0							Eagle Gold, YK N side of Dublin Gulch
EGL214		0	100	Z	CRYO	Cryosol, R.HG		10	
EGL214A		0							Eagle Gold YK N side of Dublin Placer Mines
EGL50A		0			-				Eagle Gold, YK Oli e Gulch
	nTrommele	1			BRUN-DYB-O	O.DB	high amount of gra el & mica in profile	4	Eagle Gold, Yk headwater of Anne Gulch
		•			2	0.55	O G. a. c. c p. o	7	

SiteNO	QC By QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type		Series Code Phas	e Soil Notes	Landscape Drainage Constraints	Topsoil Depth	Site Location
EGL34	nTashe 1			LUV-GL-O		likely O.GL/E.DB both in polygons		11	Eagle Gold, YK headwaters of Anne Gulch
EGL32	0			BRUN-DYB-E	E.DB	may be Lu isols in more stable areas			Eagle Gold, YK Anne Gulch
EGL31	0			REGOO	O.R	cannot dig deeper than 40 cm due to high CF Some exposed stones/boulders on site Gra el in matrix		2	Eagle Gold, YK Anne Gulch
EGL30	0				O.R O.DB	bare soil under trees downslope only tonguing horizons		9	Eagle Gold YK Heapleach 4
EGR81	nTashe 1	30	Z	CRYO-SC-HE	р	phase modifiers pt if Brunisols in area			Eagle Gold, YK
EGR73	0								Upper Slope
ERG115	0			<del></del>					Abo e camp on a hill somewhere
EGL9	0		N	BRUN-DYB-O		no auger, can't check for ice O.EB or O.DYB		12	Scarp of kame terrace
EGR306	0								
ERG114	0								SE facing upper slope
EGR76	0								near top of bump
EGR113	0								Rocky broken outcrop, not burnt
EGL10	0	42	Z	CRYO				18	gently sloping bench (kame terrace)
EGR14	0								mid of potato hill
EGR112	0								burnt slope, mostly straight + minor undulations
EGL11	0		N	BRUN-DYB-O ).El	B or O.DYB	O.EB or O.DYB		15	down from road in forest
EGR13	0			<del></del>					On flat just off road
EGL307	0								on slope just off road (alpine)
EGR111	0								Sm treed patch a small gully
EGR304	0								Upper slope of ridge
EGL309	0			<u></u>					on slope just NW of Platinum Gulch
EGR110	0		N	BRUN-MB-O		or O.SB			midslope, burnt a while ago
EGL46	0								steep, rockfall geo site F
EGR305	0								off crest poly, in start of forest
EGR412	0								on steep slope abo e road
EGR124	0								Upper slope, straight, N facing
EGR109	0								burnt slope
EGR414	0								quick peak at sections near road
EGR125	0								Just a bit lower in more prod. forest

SiteNO EGR415	QC By QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase Soil Notes some buried horizons		Landscape Drainage	Constraints	Topsoil Depth	Site Location just off road onto terrace
EGR107	0			GLEYO		O.G or R.G					Valley Bottom, Lynz creek
EGR416	0		N	BRUN-DYB-O		O.DYB or O.EB				11	high terrace For F6 see relati e ele s
EGR106	0										burnt fen, Lynx Valley
EGR126	0										gentle slope
EGR417	0										terrace off road
EGR105	0										small mostly inacti e draw
EGR418	0										hole in terrace
EGR123	0										undulating side slope
EGR419	0										peat tussocks, spruce bog
EGR420	0										beside road
	<u> </u>										
EGR411	0										just up from road
EGR122	0										upper side slope
EGR410	0										road out
EGR409	0 			 						72	road cut spruce bog, off road
2011100											oprado bog, on roda
EGR120	0										ridge top, flat to gently undulating
EGR408	0										just up from road ut in forest, Haggart Valley
EGR119	0										forested upper slope
EGL308	0										bench, somewhat forested, lots of roads/drill
EGR118	0										lower slope, aspen, birch, white spruce
EGL66	0			BRUN-DYB-O		O.DYB to O.EB Ae thicker upslope than downslope				12	just below road pit face, forest top of ridge, forested (open
EGR303	0			BRUN						7	lichen/moss)
											on a forested slope, some roads
EGL310	0		N	BRUN-DYB-O		O.DYB or O.EB				7	nearby
EGL311 EGL48	0		N	BRUN		basially same as M, C, D parent materials				19	road cut; eg plot in forest abo e near alley head of Eagle Gulch
LGL40	U										near alley head of Eagle Guich
EGL312	0										head of eagle gulch (upper)
EGL47	0									18	just up from road
EGL1	0					IIC hard to texture due to clast content. Ah too thin to	sample.			12	bottom(ish) of Eagle Gulch
EGL313	0	20	L	BRUN-DYB-O		Rock at 20cm. Soil code O.EB or O.DYB				4	Ridge, lichen co ered
EGR400	0		N	REGOGLCU		Soil Code GLCU.R (likely)				12	Off road, egetated floodplain
EGR70	0										forest slide slope, upper gully

SiteNO	QC By QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase Soil Notes	Landscape Drainage	Constraints	Topsoil Depth	Site Location
EGR72	0									forest, side slope, RSA
EGR401	0			REGOCU		Soil code CU.R	Moderate Well		6	Off road, egetated ft
EGR74 EGR102	0									Undulating slope, up from road alley bottom, barely burnt
EGR405	0									road cut, eg plot abo e
EGR406	0			REGOGLCU		Soil Code GLCU.R			21	Fan/in forest
EGR404	0		N	REGOCU						just up from creek, off road
EGR403	0	10	L	REGOO						abo e roadcut
EGR407	0		L	REGOO		Soil code O.R Root restricting layer: rock at some unknown depth.			4	Abo e road
EGR300	0									across gully to other side, from 72
EGR402 EGR413	0			 						road cut 3.5 m high In RSA, terrace of Haggart Creek
EGR301	0									across alley from 72
EGL21	0			BRUN-EB-O	O.EB	Soil code O.EB Structure and clour due (partially?) to weathering of R			13	Subalpine
EGR302	0				O.LB	Soil code O.EB. Structure and clour due (partially!) to weathering of K			13	across from alley 72
EGR71	0									upper flat, near road
TPA1	0	52	Z			wood in underlying till total hole depth ~ 6 ft all sal agable mix of clay masses + collu ium				NS Dublin Gulch Rd
						silt till, low c.f. interbedded w 30 cm gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples samples PM3+ PM4 both strangely effer esent, esp				
TPA3	0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2  All sal eageable underlying material is Cb w slope wash C o erlying pre				off pit road bottom of HL0PT4 wrap
TPA4	0	53	Z			ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m				Below pit, upper HLOPT4 wrap
EGR451	0			BRUN-DYB-O						
EGR450	0	20		GLEYR	Rego Gleyso	likely lenses of silt not isible due to high water table				

SiteID SiteNo	Decile	SMCode			E SSM SSMQu SSMTxt SSE de Code a Code Code Code		roS Dra	lasts centage Cl	asts Size	Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3		Survey Type I	Province
4 EGL63	8	FG	zs	g b			3	50	P	flat blocky	SR	Metased local source	silt over gravel	4	1	EGL63	ВС	D	ВС
4 EGL03	0	FG	25	g b			<u> </u>	50	<u> </u>	liat blocky	SK	Metaseu local source	shallow surface	4	<u>'</u>	EGLOS	ВС	<u> </u>	
4 EGL63	2	С		V			2						move, no angular frgmnts, mix lyrs	4	1	EGL63	ВС	D	ВС
4 EGL63	0													4	1	EGL63	ВС	D	BC
5 EGL216	6	D	sx	ır v			2	65		tabular and blocky	Α	Metased with quartzile phyllites		5	1	EGL216	ВС	V	ВС
										·									
5 EGL216	3	С	b	r v			2							5	1	EGL216	ВС	V	ВС
5 EGL216	1	R	,	а			1							5	1	EGL216	B.C	V	ВС
3 LGL210	<u> </u>	N	1	a			1_					maissa al lida a la ass				LGLZ10	ВС	V	
6 EGR94	10	М	zs	g m,v	N	L		25	G	flat + square		mixed lithology, metamorphic sed		6	1	EGR94	ВС	D	ВС
6 EGR94	0													6	1	EGR94	ВС	D	BC
6 EGR94	0													6	1	EGR94	ВС	D	ВС
												metamorphic sedimentary w quartz							
7 EGR93 7 EGR93	10 0	С	ZX	b v		R s	s 2	55	b	irregular	Α	intrusions		7	1	EGR93 EGR93	BC BC	D D	BC BC
7 EGR93	0													7	1	EGR93	BC	D	BC
0.50500	•	•														E0000	<b>D</b> O		D.O.
8 EGR92	6	С		b		<u>L</u>								8	1	EGR92	BC	D	BC
8 EGR92	4	F		V		V	6	15	G	SA	SR	mixed		8	1	EGR92	ВС	D	ВС
8 EGR92	0					X								8	1	EGR92	ВС	D	BC
9 EGR69	10	F		v,b	) FG			60	SR	R		metamprphic igneous		9	11	EGR69	ВС	V	BC
9 EGR69	0													9	1	EGR69	ВС	V	BC
9 EGR69	0											mixed igneous, phyllite,		9	11	EGR69	ВС	V	ВС
10 EGL8	6	F	zs	d j			5	 35	Р	mixed	SA	mica mica		10	1	EGL8	ВС	D	ВС
10 EGL8	4	F		v,b	)		4							10	1	EGL8	вс	D	ВС
10 EGL8	0							 						10	1	EGL8	ВС	D	ВС
11 EGL6	10	А	rt	o h			2	75	P-B	variable Round-Blcky	Rounded-Angular	Granodiarite Metamorphic mix		11	1	EGL6	ВС	V	ВС
11 EGL6	0							 			-				1	EGL6	ВС	V	ВС
11 EGL6	0													11	1	EGL6			BC
2320	<u> </u>														•			•	
12 EGL41	10	F	SZ	g j		L :	x 5	25	Р	flat to sub-blocky	A-SA	meta sed mica	no obviious sorting	12	1	EGL41	ВС	D	ВС
40 50/ //	•					V								40	_	F01 : :	<b>D</b> O	-	D.C.
12 EGL41	0					X								12	1	EGL41	ВС	D	BC

iteID SiteNo	Dooilo			SE SSM SS Code Code a C		t SSE Pro		Drai	olono B	Clasts	Clasta Si	iza Clasta Sha		Clasta Boundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No	Prov	Survey	Province
	Decile	SWCode (	soue coue	Code Code a C	code code	Code Cod	ie code	א עווו	siope r	ercentage	Clasts 3	ize Clasis Sila	ipe	Clasis Roundless	Clasis Littlology	bedding Sorting	Siterba	ID	Site No.	Coue	Туре	FTOVIIICE
12 EGL41	0																12	1	EGL41	ВС	D	BC
13 EGL200	10	D	zr	j				3		30		С		Ax	Igneous intrusive		13	1	EGL200	ВС	D	BC
13 EGL200	0																13	1	EGL200	ВС	D	ВС
13 EGL200	0																13	1	EGL200	ВС	D	ВС
14 EGR96	10	F	sgz	f		Х		6		10	g	SR		g	Mica grains visible in gravel	gravels sand overthick silt	14	11	EGR96	ВС	D	ВС
14 EGR96	0																14	1	EGR96	ВС	D	ВС
14 EGR96	0																14	1	EGR96	ВС	D	ВС
15 EGL16	6	D	zb	j		F	С	3		50	В			A	igneous intrusive		15	1	EGL16	ВС	D	ВС
15 EGL16	4	D	zr	j				3									15	1	EGL16	ВС	D	ВС
15 EGL16	0																15	1	EGL16	ВС	D	ВС
16 EGR91	10	F	gsz	f		А		5		10	a	sr		mixed	light/dark bands of silt	layers of sand & fine gravel	16	1	EGR91		D	ВС
16 EGR91 16 EGR91	0		9	·							<u> </u>	<u> </u>				g. s	16 16	1	EGR91 EGR91	ВС	D D	BC BC
17 EGR79	7	D	xb	V		R	s	3									17	 1	EGR79		D	BC
17 EGR79	2	R	, AD														17	 1	EGR79		D	BC
17 EGR79	1	С	b	V,:				2									17	1	EGR79		D	BC
18 EGR98	7	С	xb			R	s									frost heave	18	 1	EGR98		V	BC
18 EGR98	3	R		k,s		- IX	3	1								nostricave	18	<u>'</u> 1	EGR98		V	BC
18 EGR98	0	TX.	, , , , , , , , , , , , , , , , , , ,	κ,3				'									18	<u>'</u> 1	EGR98		V	BC
10 LONSO															igneous intrusive,		10		LONSO	ВС	V	
19 EGL15	9	D	rzs	a,j						40	С	SA - A			quartz/granite		19	1	EGL15	ВС	D	ВС
19 EGL15	1	D	rzs	a,j		L		5		40	S	SA-A			igneous intr.		19	1	EGL15	ВС	D	ВС
19 EGL15	0																19	1	EGL15	ВС	D	ВС
20 EGL17	9	D	szr	j		F	С	3		40	G-S	Α			igneous granite		20	1	EGL17	ВС	D	ВС
20 EGL17	1	D	zsr	j		L		5		40	G-C	Α			igneous intrusive		20	1	EGL17	ВС	D	ВС
20 EGL17	0																20	1	EGL17	ВС	D	ВС
21 EGL39	9	С		v,b		R	m,w	3		40	С	tabular		A	meta sedimentary	biotite flakes and quartzite	21	1_	EGL39	ВС	D	ВС

					SE SSM SSMQ		SSE Pro		S Drai		asts								Project		Prov	Survey	
SiteID SiteNo	Decile	SMCode	Code C	ode C	ode Code a Code	e Code	Code Cod	de Code	e n ID slop	oe Perce	entage	Clasts Siz	ze Clasts Sh	nape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	ID	Site No3	Code	Туре	Province
21 EGL39	1	D		\\	v				2									21	1	EGL39	ВС	D	ВС
21 EGL39	0																	21	1	EGL39	ВС	D	ВС
22 EGL38	10	M	C	dsz v,	s,d				3	2	25	g	SR		mixed stripes	mica shads, quartzite	metasedimentary	22	1	EGL38	ВС	D	ВС
22 EGL38	0																	22	1	EGL38	ВС	D	ВС
22 EGL38	0															Meta sed with quartzite		22	1	EGL38	ВС	D	ВС
23 EGL37	10	D	Z	zxd \	/,b				3	;	30	С	tabular		A	& micas	mica flakes in fines	23	1	EGL37	ВС	D	ВС
23 EGL37	0																	23	1	EGL37	ВС	D	ВС
23 EGL37	0															Mixed both igneous and	1	23	1	EGL37	ВС	D	ВС
24 EGL36	10	М	Z	zgs	b				3		15	C-G	varied		SR-SA	metased		24	11	EGL36	ВС	D	ВС
24 EGL36	0																	24	1	EGL36	ВС	D	ВС
24 EGL36	0																	24	1	EGL36	ВС	D	ВС
25 EGL207	8	С		rb	V		R	\",s,r	1	(	60	С	Α		Tabular	mixed meta and sed		25	1	EGL207	ВС	V	ВС
25 EGL207	2	С	ŀ	ozr v	v,b				2									25	1	EGL207	ВС	V	ВС
25 EGL207	0																	25	1	EGL207	ВС	V	ВС
26 EGL18	10	D	\$	szr	j		F	С	3	;	35	С			Α	igneous intusive & meta sed	al	26	1	EGL18	ВС	D	ВС
26 EGL18	0																	26	1	EGL18	ВС	D	ВС
26 EGL18	0																	26	1	EGL18	BC	D	ВС
27 EGL33	10	D	Z	zxd \	/.b				3		40	p-c	like shard	s	A	metased with mica and quartzite		27	1	EGL33		D	ВС
27 EGL33	0				,,-											4		27	1	EGL33	ВС	D	ВС
27 EGL33	0																	27	1	EGL33		D	BC
27 EGEGG																k rich, feldspar, phyllite		<u> </u>		LOLOO			
28 EGL19	9	D		szr	j		L		5		40	С			SA	rich granite		28	1	EGL19	ВС	D	ВС
28 EGL19	4	D	_	27r	i				4									28	1	EGL19	P.C	D	ВС
20 EGL19	ı	U		szr	J				4									20	ı	EGLIS	BC	D	DC
28 EGL19	0																	28	1	EGL19	ВС	D	ВС
20 75: 55	_	_										_								=0:	D.C.	_	
29 EGL20	8	D		zsb	b				3		40	В			SA	granite, ign. int.		29	1	EGL20	BC	D	BC
29 EGL20	2	D	2	zsr	b				3									29	1	EGL20	ВС	D	ВС

SiteID SiteNo	Decile	SMCode		SE SSM SSMC				Clasts Percentage	Clasts Size	e Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov Code	Survey Type	Province
29 EGL20	0													29	1	EGL20	ВС	D	ВС
20 20220														20	'	LOLLO			
30 EGL201	6	D	zr				2	60	S	flat	angular	Igneous intr.		30	1	EGL201	ВС	D	ВС
30 EGL201	3	D	zb	v,b			1	45	boulders		SA			30	1	EGL201	ВС	D	ВС
30 EGL201	1	Α												30	1	EGL201		D	BC
31 EGL5	6	D	zbr	b,v				45	S		A	Ign. Int.		31	1	EGL5	ВС	D	BC
31 EGL5 31 EGL5	0	A						45	S		Α	Ign. Int.		31 31	1	EGL5	BC BC	D D	BC BC
31 EGL3 32 EGL202	6	Α		b			3	45	С		Α	Ign. Int. slow cooling		32	1	EGL202		<u></u> У	ВС
32 EGL202	4	D	szr	b			3	45	С		A	Ign. Int. slow cooling		32	1	EGL202		V	ВС
32 EGL202	0													32	1	EGL202	ВС	V	ВС
33 EGL203	6	Α	szr					50	С		A	ign. int.		33	1	EGL203	ВС	V	ВС
33 EGL203	4	D												33	1	EGL203	ВС	V	ВС
33 EGL203	0													33	1	EGL203	ВС	V	BC
34 EGL58	9	D	7r	v,b		L	6	30	S		Α	feldspar rich granite		34	1	EGL58	BC.	D	ВС
34 LGL30	9	D	ZI	V,D		<u> </u>	0	30				reiuspai ricii granite		34	<u> </u>	LGL30	ВС	D	
34 EGL58	1	0	e	v D	zr		7	30	S		Α	feldspar rich granite		34	1	EGL58	ВС	D	ВС
34 EGL58	0													34	1	EGL58	ВС	D	ВС
35 EGL52	10	D	szr	b,v		F c	3	35	С		SA	granite		35	1	EGL52	ВС	D	ВС
35 EGL52	0													35	1	EGL52	ВС	D	ВС
																		_	
35 EGL52	0											Cronita Falderer		35	1	EGL52	BC	D	ВС
36 EGL53	8	D	zrb	b		F c	3	40	b		SA	Granite, Feldspar, Quartz		36	1	EGL53	ВС	D	ВС

SiteID SiteNo	Decile				Geo E SSM SSMQu SSMTxt SSE Pro le Code a Code Code Cod			Clasts	Claste Siza Clasts	s Shane	Clasts Roundness	Clasts Lithology	Bedding Sorting Site		Project	Site No3		Survey	Province
Oncid Oncido	Decile	Omoduc	oode oc	ac oou	de code a code code code	o oodc	пъ зюре	rereemage	Siasis Olze Glasis	з опаре	Olasis Roundiness	Olasis Elitiology	bedding oorting One	DZ	, U	One Nos	Ocac	турс	TOVINCE
36 EGL53	2	D	S	<u>r</u> b			3						3	6	1	EGL53	ВС	D	ВС
36 EGL53	0												3	6	1	EGL53	ВС	D	ВС
37 EGL3	7	D	SZ	zr v,b	F.	С	2						3	7	1	EGL3	ВС	D	ВС
37 EGL3	3	С	ZI	b v			2						3	7	1	EGL3	вс	D	ВС
37 EGL3	0												3	7	1	EGL3	вс	D	ВС
38 EGL204	10	С	S	zr v,b	V		2	45	С		A	granite	3	8	1	EGL204	ВС	D	ВС
38 EGL204	0				F	С							3	8	1	EGL204	ВС	D	ВС
38 EGL204	0												2	8	1	EGL204	P.C	D	ВС
39 EGL4	10	С		r b	V						A	granite		9	1	EGL204		D D	ВС
39 EGL4	0											gramo		9	1	EGL4		D	BC
39 EGL4	0												3	9	1	EGL4	вс	D	ВС
40 EGL205	9	С		v,b	V		4	35	b		SA	granite (limited layers of sand in ponded areas)		0	1	EGL205	ВС	D	ВС
40 EGL205	1	F		V			5	25	G		SR	granite, igneous	4	0	1	EGL205	ВС	D	ВС
40 EGL205	0												4	0	1	EGL205	ВС	D	ВС
41 EGL60	7	С	ri	o v,b	R	r	2	60	b		А	Granite	none 4	1	1	EGL60	ВС	D	ВС
41 EGL60	3	С	ZI	b b	N		2						4	1	1	EGL60	вс	D	ВС
41 EGL60	0												4	1	1	EGL60	ВС	D	ВС
42 EGL61	6	D	ZI	b b,v	,		2	60	c-b		Α	mixed igneous intrusiv	e 4	2	1	EGL61	ВС	D	ВС
42 EGL61	4	С	ZI	b v			2						4	2	1	EGL61	вс	D	ВС

SiteID SiteNo	Decile				SE SSM SSMQu SS ode Code a Code C	MTxt SSE Pro			Clasts Percentage	Clasts Siz	ze Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3		Survey Type	Province
42 EGL61	0														42	1	EGL61	ВС	D	ВС
43 EGL68	10	D	\$	szr	b			3	50	С		A	igneous intrusive		43	1	EGL68	вс	D	ВС
43 EGL68	0														43	1	EGL68	вс	D	ВС
43 EGL68	0														43	1	EGL68	ВС	D	ВС
44 EGL206	10	D	Z	zbx	v	N		2	60	S	planar	А	metadedimentary until quartz veins		44	1	EGL206	ВС	D	ВС
44 EGL206	0					Z									44	1	EGL206	вс	D	ВС
44 EGL206	0												metamorphic bands		44	1	EGL206	ВС	D	ВС
45 EGR206	10	С	Z	zbr	V	R	r	1	60	S	square + planar	A	evident w igneous intrusions		45	1	EGR206	вс	D	ВС
45 EGR206	0					Z									45	1	EGR206	ВС	D	ВС
45 EGR206	0														45	1	EGR206	ВС	D	ВС
46 EGR97	10	M	5	src	b	L		6	30	С		SR	Mixed met & igneous		46	1	EGR97	ВС	D	ВС
46 EGR97	0					Х									46	1	EGR97	ВС	D	ВС
46 EGR97	0														46	1	EGR97	ВС	D	ВС
47 EGR95	10	С	S	sxd	b			2		С	mostly planar	Α	mixed metamorphic		47	1	EGR95	ВС	D	ВС
47 EGR95	0														47	1	EGR95	ВС	D	ВС
47 EGR95	0														47	11	EGR95	ВС	D	ВС
48 EGR80	10	С	Z	zxd v	,b	R	s,x		45	С	planar, rod	A	metamorphic iron rich		48	1	EGR80	ВС	D	ВС
48 EGR80	0														48	1	EGR80	ВС	D	ВС
48 EGR80	0														48	1	EGR80	ВС	D	BC
49 EGL27	10	F	Α :	sb p	),j	1		4	65	b		SR-SA	chaners, mixed to boulders		49	1	EGL27	ВС	V	ВС
49 EGL27	0														49	11	EGL27	ВС	V	ВС
49 EGL27	0													manulo to 1 20	49	11	EGL27	ВС	V	ВС
50 EGL12	10	F	Z	zgs	j	V		6	25	Р		SR	Mixed lithology	poorly sorted silts, clays - not readily visible	50	1	EGL12	ВС	D	ВС

			SMOus	CMTv4	SE SSM	SSMOU SSM	ITv4 CCE	Geo		rai	Clasts								Project		Prov	Survey	
SiteID SiteNo	Decile	SMCode										ge Clast	s Size	Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2		Site No3	Code	Type	Province
50 EGL12	0																	50	1	EGL12	ВС	D	ВС
50 EGL12	0																	50	1	EGL12	BC	D	ВС
00 20212																mixed metamorphic +				LOLIL			
51 EGL215	8	F		zsg	b			F	С 4	4	30	F	Р	block	SR	igneous	silt over sandy grave	51	1	EGL215	ВС	D	ВС
51 EGL215	2	F	I		b			Х										51	1	EGL215	ВС	D	ВС
51 EGL215	0																	51	11	EGL215	ВС	D	ВС
52 EGL22	10	F	Α	gs	v,b			U		5	40	F	Р	round	SR-SA	mixed	coarse/fine flood sequence	52	1	EGL22	ВС	D	ВС
52 EGL22	0							I										52	1	EGL22	ВС	D	ВС
52 EGL22	0																	52	1	EGL22	ВС	D	ВС
53 EGL211	6	D		xza	V				:	2	65			tabular to blocky	Α	met. sed.		53	1	EGL211	ВС	V	ВС
53 EGL211	4	С		r	V				;	3								53	1	EGL211	ВС	V	ВС
53 EGL211	0																	53	1	EGL211	ВС	V	ВС
54 EGL26	10	С		zsg				Х			45	var.	size	var. shape	SA	quartsite, phyllite, meta sed.	A.	54	1	EGL26	ВС	D	ВС
54 50100	0																	5.4	4	F01.00	<b>D</b> O	<b>D</b>	DO
54 EGL26	0																	54	1	EGL26	ВС	D	BC
54 EGL26	0																	54	1	EGL26	ВС	D	ВС
55 EGL49 55 EGL49	10 0	С		zb			b		:	2	80	Boul	lders		A			55 55	1	EGL49		V V	BC BC
55 EGL49	0																	55	1	EGL49	BC	V	BC
56 EGL25	10	С		zsr	v,b						25	(	С	flat, planar	A	meta. sed		56	1	EGL25	ВС	D	ВС
56 EGL25	0																	56	1	EGL25	ВС	D	ВС
56 EGL25	0																	56	1	FGI 25	R∩	n	ВС
57 EGL210		C		25	V					3								57					ВС
	0				v				· · · · · · · · · · · · · · · · · · ·														ВС
57 EGL210	0																			EGL210			
58 EGL208	10	С		zxd	v,b				;	3	35	(	C					58	1	EGL208	вс	D	ВС
58 EGL208	0																	58	1	EGL208	ВС	D	ВС

					SSM SSMQu SSMTxt SSE		ProS D		Clasts							Project		Prov	Survey	
SiteID SiteNo	Decile	SMCode	e Code Code	e Code	Code a Code Code Code	Code	Code n	ID slope F	Percentage C	lasts Siz	e Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	ID	Site No3	Code	Туре	Province
58 EGL208	0														58	1	EGL208	ВС	D	ВС
59 EGL209	6	С	zxr	b		R	m,r	3	60	С	blocky, tabular	Α	mixed both ign + meta sed, slate + granodiorit		59	1	EGL209	ВС	D	ВС
59 EGL209	4	С	sgb			R		2	70	В	blocky	A	igneous		59	1	EGL209		D	BC
59 EGL209	0		-9-					_			<u>,</u>		gnood		59	1	EGL209		D	ВС
60 EGL50	6	С	xb		v,b	R	r	2	85	b	blocky	angular	granodiorite		60	1	EGL50	ВС	D	ВС
60 EGL50	4	R			a,k			1			•				60	1	EGL50	ВС	D	ВС
60 EGL50	0														60	1	EGL50	ВС	D	ВС
61 EGL28	10	С	xr	V		R	r	2	65		tabular to blocky	A	meta sed		61	1	EGL28	ВС	D	ВС
61 EGL28	0														61	1	EGL28	ВС	D	ВС
61 EGL28	0														61	1	EGL28	ВС	D	ВС
62 EGL212	10	F	zsg	v,b				3	35	Р	various - flat to bl	SA	mixed quartite + meta. sed.		62	1	EGL212	ВС	D	ВС
62 EGL212	0														62	1	EGL212	ВС	D	ВС
62 EGL212	0														62	1	EGL212	ВС	D	ВС
63 EGL213	9	С		v,b		R	x,s	2					meta. sed.		63	1	EGL213	ВС	V	вс
															00				.,	
63 EGL213	11	R				R	m								63	1	EGL213	BC	V	BC
63 EGL213	0														63	1	EGL213	ВС	V	ВС
64 EGL214	10	F	cgz	j		L		5							64	11	EGL214	ВС	D	ВС
64 EGL214	0					Х									64	11	EGL214	ВС	D	ВС
64 EGL214	0														64	1	EGL214	ВС	D	ВС
														weakly banded SA gravels inter bedded						
65 EGL214A	10	F	sg	b		F		3	60	G	flat to blocky	SA	mixed met. + igneous	w silt	65	1	EGL214A	BC	V	BC
65 EGL214A	0														65	1	EGL214A	ВС	V	ВС
65 EGL214A	0														65	1	EGL214A	ВС	V	ВС
66 EGL50A	10	С	b	b		R	s	3		b	blocky		granitic intrusive visible	)	66	1	EGL50A		V	ВС
66 EGL50A	0														66	1	EGL50A	ВС	V	ВС

SiteID SiteNo	Decile				Geo Geo SSM SSMQu SSMTxt SSE Pro ProS Code a Code Code Code Code	Drai	Clasts e Percentage	Clasts Siz	e Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov S	Survey Type	Province
66 EGL50A	0												66	11	EGL50A	ВС	V	ВС
67 EGL35	8	D	ZſX	b		2	45	C-S		A-SA	mixed meta. sed.		67	1	EGL35	ВС	D	ВС
67 EGL35	2	D		b		3							67	1	EGL35	вс	D	ВС
67 EGL35	0										mixed meta. sed. +		67	1	EGL35	ВС	D	ВС
68 EGL34	10	М	sdz	v,b		3	30	Р	var. shape	SA - SR	igneous		68	1	EGL34	ВС	D	ВС
68 EGL34	0												68	1	EGL34	ВС	D	ВС
68 EGL34	0										mixed metased +		68	1	EGL34	ВС	D	ВС
69 EGL32 69 EGL32	10 0	С	g	v,b	R \",x	3 27-499	% 45	L	Pebbles	SA	igneous		69 69	<u>1</u>	EGL32 EGL32	BC BC	D D	BC BC
69 EGL32	0												69	1	EGL32	ВС	D	ВС
70 EGL31	10	С	szr	v,b	R e,r	2	40	С	tabular	A	metased w quartzite		70	1	EGL31	вс	D	ВС
70 EGL31	0												70	1	EGL31	вс	D	ВС
70 EGL31	0												70	1	EGL31	ВС	D	ВС
71 EGL30	10	С		b,v		2	40	G-C	tabular - angular		meta sed + igneous intrusive		71	1	EGL30	ВС	D	ВС
71 EGL30	0												71	1	EGL30	ВС	D	ВС
71 EGL30 72 EGR81	0	M	sgz	v h	X	5	20	G-C					71 72	1	EGL30 EGR81	BC BC	D D	BC BC
72 EGR81 72 EGR81	2	M	392	b,v	L	4	20	0-0					72 72	1 1	EGR81 EGR81	BC BC	D D	BC BC
12 EGROT	0												12		EGROT	ВС	_ ט	<u> </u>
73 EGR73	10	С	zr	v,b		2	30-40	Α	Cob - Peb, few rocks				73	1	EGR73	ВС	R	ВС
73 EGR73	0												73	1	EGR73	ВС	R	ВС
73 EGR73	0												73	1	EGR73	ВС	R	ВС
																		_
74 ERG115	10	FG	zsd	b,v		4						matrix with dirty gravel tones	74	1	ERG115	ВС	R	BC
74 ERG115	0												74	1	ERG115	BC	R	BC:

SiteID SiteNo	Decile	SMC SMCode Co	Qua SMTxt de Code	SE SSM SSMQu SSMTxt SSE Code Code a Code Code Code	Geo Geo Pro ProS Code Code	Drai n ID slope	Clasts Percentage	Clasts Size C	Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov S Code	urvey Type	Province
74 ERG115	0												74	1	ERG115	ВС	R	ВС
75 EGL9	10	FG	zsg	а		4	40	gr - m peb bl	locky	SR most (some SA)		crude	75	1	EGL9	ВС	R	ВС
75 EGL9	0					3							75	1	EGL9	ВС	R	ВС
75 EGL9	0												75	1	EGL9	ВС	R	ВС
76 EGR306	10	D	rz	v,b		4							76	1	EGR306	ВС	V	ВС
76 EGR306	0												76	1	EGR306	вс	V	ВС
76 EGR306	0												76	1	EGR306	вс	V	ВС
77 ERG114	10	С	zsr	v,b		2	35%	A	a-SA blocky		arenites	most 11 to slope	77	1	ERG114	ВС	R	BC
77 ERG114	0												77	1	ERG114	ВС	R	ВС
77 ERG114	0												77	1	ERG114	ВС	R	ВС
78 EGR76	10	D	zr	v,b	X	3	60% rock	peb to 5m					78	1	EGR76	ВС	R	ВС
78 EGR76	0												78	1	EGR76	ВС	R	ВС
78 EGR76	0												78	1	EGR76	ВС	R	ВС
79 EGR113	5	С	sr	V	R r	2					psannite	bedded, some sillminite	79	11	EGR113	ВС		BC
79 EGR113	5	R		a,k									79	11	EGR113	ВС		ВС

SiteID SiteNo	Decile			SE SSM SSM0 Code Code a Cod			Clasts Percentage	Clasts Size Clasts S	Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov S Code	Survey Type F	Province
79 EGR113	0												79	1	EGR113	ВС		ВС
80 EGL10	10	FG	zds	j	X	5		G-P		A-SA, minor SR		poor sorting	80	1	EGL10	BC	R	BC_
80 EGL10	0				Z								80	1	EGL10	ВС	R	ВС
80 EGL10	0												80	1	EGL10	ВС	R	ВС
81 EGR14	8	D	Ab	V	Х	2	60-70	0-5m bld				z matrix (SiL)	81	1	EGR14	ВС	R	ВС
81 EGR14	2	D	zr	٧		2							81	1	EGR14	ВС	R	ВС
81 EGR14	0												81	1	EGR14	ВС	R	ВС
82 EGR112	10	С	rs	v,b		2	40	peb-boulde A-SA blo	ocky		metaseds	some kyamite and mica	82	1	EGR112	ВС	R	ВС
82 EGR112	0												82	1	EGR112	ВС	R	ВС
82 EGR112	0						00.07			4.04.05				11	EGR112			BC
83 EGL11 83 EGL11	10 0	M	zds			4	20-25	G-P blocky		A-SA, SR	meta sed quartzite	massive	83 83	<u>1</u> 1	EGL11 EGL11		R R	BC BC
83 EGL11 84 EGR13 84 EGR13	0 10 0	D		v,b	X	4							83 84 84	1 1 1	EGL11 EGR13 EGR13	BC BC	R V V	BC BC BC
84 EGR13	0												84	1	EGR13	ВС	V	ВС

SiteID SiteNo	Decile S			SE SSM SSMQu SSMTxt SS Code Code a Code Code Code		Drai	Clasts Percentage	Clasts Size	Clasts Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov Sur Code Ty	vey pe Province
85 EGL307	10	D	zsr	v,b	S	3			blocky to tabular	A-SA	metased	L matrix	85	1	EGL307	BC \	/ BC
85 EGL307	0												85	1	EGL307	BC \	/ BC
85 EGL307	0												85	1	EGL307	BC \	/ BC
86 EGR111	10	С	rzs	b		3							86		EGR111		ВС
86 EGR111	0												86	1	EGR111	ВС	ВС
86 EGR111	0												86	1	EGR111	ВС	ВС
87 EGR304	6	С	zr	v,b		2	30-40	peb to cob				SiL matrix	87	11	EGR304	BC F	R BC
87 EGR304	4	D		v,b		3							87	1	EGR304	BC F	R BC
																	R BC
88 EGL309		С		a,k										1	EGL309	BC F	R BC
88 EGL309	4	С	rz	v,b		2							88	1	EGL309	BC F	R BC
88 EGL309	0												88	1	EGL309	BC F	R BC
89 EGR110	10	С	zds	a		5							89	1	EGR110	BC [	D BC
89 EGR110	0												89	11	EGR110	BC [	D BC

SiteID SiteNo	Decile	SMQu SMCode Code	a SMTxt	SE SSM Code Code	SSMQu S	SSMTxt SS Code Co	SE Pro	Geo ProS • Code	Drai n ID slope	Clasts e Percenta		lasts Size Clasts Shap	)e	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov Code	Survey Type	Province
89 EGR110	0																89	1	EGR110	ВС	D	ВС
90 EGL46	9	C	r						2								90	1	EGL46	ВС	V	ВС
90 EGL46 90 EGL46	<u>1</u> 0	R		k,s					1								90 90	<u>1</u> 1	EGL46 EGL46	BC BC	V	BC BC
30 20240																						
91 EGR305	10	D	XZ	v,b					4	40		sm peb tabular				matrix = SiL	91	11	EGR305	ВС	R	BC
91 EGR305	0																91	1	EGR305	вс	R	ВС
91 EGR305	0																91	1	EGR305	ВС	R	BC
92 EGR412	10	M	cds	v D		r			3			pebble		A-R			92	1	EGR412	ВС	R	ВС
92 EGR412	0								2								92	1	EGR412	ВС	R	ВС
92 EGR412	0																92	1	EGR412	BC	R	вс
32 232	J																	·			••	
93 EGR124	10	D	XZ	v,b			Х		3	35-40	A	A, tabular gran to peb		Phyllite to slate		n/a	93	1	EGR124	ВС	R	ВС
93 EGR124	0																93	1	EGR124	вс	R	ВС
93 EGR124	0																93	1_	EGR124	ВС	R	ВС
94 EGR109	10	С	zgs	а					5								94	1	EGR109	ВС	R	BC
94 FGR100	n																94	1	EGR109	BC	R	BC
5. EGI(100																	<b>5</b> -7				- • •	

SiteID SiteNo	Decile	SMCod				SSM SSMQu Code a Code		SSE F		5 Drai	Clasts e Percentag	je Clasts S	iize Clasts Shar	oe	Clasts Roundne	ss Clasts Lithe	ology Bedding Sorting	SiteID2	Project ID	Site No3	Prov Code	Survey Type	Province
94 EGR109	0																	94	1	EGR109	вс	R	ВС
95 EGR414	10	FG		sg	b	M	dcz	k										95	1	EGR414	ВС	R	ВС
95 EGR414 95 EGR414	0																	95 95	1	EGR414 EGR414		R R	BC BC
96 EGR125	10	D		XZ	v,b				X	4	35	gr to pe	eb A, tabular		phyllite to pelite		SiL matrix abunda mica	nt 96	1	EGR125	ВС	R	ВС
96 EGR125	0																	96	1	EGR125	ВС	R	ВС
96 EGR125	0																	96	1	EGR125	ВС	R	ВС
97 EGR415	10	F	Α	ZS	t,p				U	6								97	1	EGR415	ВС	R	ВС
97 EGR415	0																	97	1	EGR415	ВС	R	ВС
97 EGR415	0																	97	1	EGR415		R	ВС
98 EGR107	10	0		е	V					7								98	1	EGR107	ВС	R	ВС
98 EGR107	0																	98	1	EGR107	ВС	R	ВС
98 EGR107	0																	98	1	EGR107	вс	R	ВС
99 EGR416	10	FG		sg	t					4	40-30	peb to c	ob					99	11	EGR416	ВС	R	ВС
99 EGR416	0																	99	1	EGR416	ВС	R	ВС
99 EGR416	0																	99	1	EGR416	вс	R	ВС
100 EGR106 100 EGR106	10 0	F		rzs	f					4	5	peb-sm.o	cob A-SA blocky	<u> </u>			APD ears massive	100	<u>1</u> 1	EGR106 EGR106	BC BC	R R	BC BC
100 EGR106	0																	100	1	EGR106	ВС	R	BC
101 EGR126	10	D		XZ	v,b					4								101	1	EGR126	ВС	V	ВС
101 EGR126	0																	101	1	EGR126	ВС	V	ВС
101 EGR126	0																	101	1	EGR126	ВС	V	ВС
102 EGR417	10	FG		zgs	t,p					4	20-30		blocky to eg	g	R-SR	mixed		102	1	EGR417	ВС	R	ВС
102 EGR417	0									3								102	1	EGR417	ВС	R	ВС
102 EGR417	0																	102	1	EGR417	ВС	R	ВС
103 EGR105	10	F			а	С				3								103	1	EGR105	ВС	V	ВС
103 EGR105	0																	103	1	EGR105	ВС	V	ВС

SiteID SiteNo	Decile	SM SMCode C	IQua SMTxt ode Code	SE SSM SSM Code Code a Co	IQu SSMTxt SSE ode Code Code	Geo Geo Pro ProS Code Code	Drai	Clasts Percentage	Clasts Size C	Clasts Shape	Clasts Roundnes	s Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov Code	Survey Type	Province
103 EGR105	0													103	1	EGR105	вс	V	ВС
104 EGR418	10	FG	zgs	t		Н	4	15-20	peb-cob		R			104	1	EGR418	вс	R	ВС
104 EGR418	0													104	1	EGR418	вс	R	ВС
104 EGR418	0													104	1	EGR418	ВС	R	ВС
105 EGR123	10	М	dz				3		A-SA g	gran to peb			z coating some clasts	105	1	EGR123	BC	<u>R</u>	ВС
105 EGR123	0													105	1	EGR123	BC	R	BC_
105 EGR123	0	0	e	v FG	t	X	6							105 106	1	EGR123 EGR419		R R	BC BC
106 EGR419	0													106	1	EGR419			ВС
106 EGR419 107 EGR420 107 EGR420 107 EGR420	0 10 0	N O		V		U								106 107 107 107	1 1 1	EGR419 EGR420 EGR420 EGR420	BC BC	R V V	BC BC BC
108 EGR411	10	M	dcz	j,u		F w	5	15-20			A-R	mixed		108	1	EGR411	ВС	R	ВС
108 EGR411	0													108	1	EGR411	ВС	R	ВС
108 EGR411	0													108	1	EGR411	вс	R	BC
109 EGR122	10	М	dzs				4	20-25	gr to peb A	A, SA				109	1	EGR122	ВС	R	BC
109 EGR122	0													109	1	EGR122	вс	R	ВС

SiteID SiteNo	Decile			SE SSM SSMQ			ProS Drai	Clasts		e Clasts Shane	Clasts Round	dness Clasts Lithology	Bedding Sorting	SiteID2	Project ID	t Site No3	Prov S	Survey	Province
Oncid Oncido	Decile	omoode ood	ic oouc	Code Code a Code	oue ou	de Oode O	ode IIID Sio	oc refeema	ge Glasts GIZ	o Glasts Gliape	Olasis Round	oness olasis Entitlogy	bedding Corting	Oiteib2	טו	One Nos	Oode	Турс	TTOVITICE
400 505400	•													100	,	E00400	D.O.	_	<b>D</b> O
109 EGR122	0													109	1	EGR122	BC_	R	BC
110 EGR410	10	F	gsz				3							110	1	EGR410	ВС	V	ВС
110 EGR410	0						2							110	1	EGR410	ВС	V	ВС
110 EGR410	0													110	1	EGR410	ВС	V	ВС
111 EGR409	10	0	е	v F	sz f		6							111	1	EGR409	ВС	R	ВС
111 EGR409	0													111	1	EGR409	ВС	R	ВС
111 EGR409	0													111	1	EGR409	ВС	R	ВС
112 EGR120	10	D	zr	v,b			3							112	1	EGR120	BC	R	ВС
112 EGR120	0													112	11	EGR120	BC	R	BC
112 EGR120	0													112	4	EGR120	DC.	В	D.C.
112 EGR120	<u> </u>												poorly sorted/ can\'t		<u> </u>	EGR120	ВС	R	BC
113 EGR408	10	M	zds	a,u			4	20	pebble		SA-SR	mixed	tell if bedded	113	1	EGR408	ВС	R	ВС
113 EGR408	0						3							113	1	EGR408	ВС	R	ВС
113 EGR408	0													113	1	EGR408		R	ВС
114 EGR119	10	D	zr	V,b			3	40-50	peb to cob	A	tabular	blocky rocks	L matrix	114	1	EGR119		R	BC
114 EGR119 114 EGR119	0													114 114	1	EGR119 EGR119		R R	BC BC
115 EGL308	10	D	zr	v h			4	30-40		blocky-tabular	ang-SA	metased		115	1	EGL308		V	ВС
115 EGL308	0		<u> </u>	-,~				00 40		Stoony tubulai	ung Ort	motadou		115	1	EGL308		V	BC
115 EGL308	0													115	1	EGL308		V	ВС
116 EGR118	10	M	dze	h			3							116	1	EGR118	B.C	D	ВС
TIU EURITO	10	M	dzs	υ			J							110		LGK110		г	DC

SiteID SiteNo	Dooile (			SE SSM SSMQu SSMTxt ode Code a Code Code		roS Drai	Clasts	Clasta Sia	Clasta Chana	Clasts Roundness	Closta Lithala m	Bedding Sorting	SiteID2	Project	Site No3	Prov S	Survey	Duovinos
SiteID SiteNo	Decile	SIMCOde Code	e Code C	ode Code a Code Code	Code Code Co	ode ii ib siope	Percentage	Clasts Size	Clasts Snape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	ID	Site Nos	Code	Туре	Province
116 EGR118	0												116	1	EGR118	DC.	D	ВС
110 EGR116	0												110	<u> </u>	EGRIIO	ВС	K	<u> </u>
440 500440	0												440	4	E00440	DO.	Б	D.O.
116 EGR118 117 EGL66	10	С	srz			3	30-40	gr-cob	blocky-tabular lamin	A-SA	metased to qutzite		116 117	1 1	EGR118 EGL66	ВС	R R	BC BC
117 EGL66	0												117	1	EGL66	BC	R	BC
117 EGL66	0												117	1	EGL66	ВС	R	ВС
118 EGR303	10	D	rz v	, h		4	15-May	Gr-Peb		Α	granitic		118	1	EGR303	DC.	D	ВС
116 EGR303	10	D	12 V	7,0		4	15-May	GI-Peb		A	granitic		110	<u>'</u>	EGR303	ВС	D .	<u> </u>
118 EGR303	0												118	1	EGR303	DC.	D	D.C.
116 EGR303	U												110	<u> </u>	EGRSUS	ВС	ט	BC
118 EGR303	0												118	1	EGR303	BC.	D	ВС
														'				
119 EGL310	10	С	rs v	v,b		2	15-May	p - cob		SA-A	granite	appears massive	119	1	EGL310	ВС	R	ВС
119 EGL310	0					3							119	1	EGL310	ВС	R	ВС
119 EGL310	0												119	1	EGL310		R	ВС
120 EGL311 120 EGL311	10 0	М	zds v	v,b		3	30-40		blocky to tabular	A-SA	qtzite		120 120	<u>1</u> 1	EGL311 EGL311	BC BC	V	BC BC
120 EGL311	0												120	1	EGL311	ВС	V	BC
121 EGL48	10	С	rz u	ı,h	Rı	m 3		p-b		A-SA			121	1	EGL48	вс	R	ВС
121 EGL48	0				Р								121	1	EGL48		R	ВС
121 EGL48	0													1	EGL48		R	ВС
121 LGL40	0												121	<u> </u>	LGL40	ВС	K	ВС
122 EGL312	10	D	r v	v,b	S	2							122	1	EGL312	ВС	V	ВС
122 EGL312	0				Rı	m							122	1	EGL312	ВС	V	ВС
122 EGL312 123 EGL47	0 10	<u> </u>	I.			4	30-40	Daahhia	tabular ta blaslar	۸ ۲۸	atzito	nono obviova	122 123	11	EGL312	BC BC	V	BC BC
123 EGL47 123 EGL47	0	D	zr b	J, V		4	30-40	K CODDIE	tabular to blocky	A - SA	qtzite	none obvious	123	1	EGL47 EGL47	BC	R R	BC
123 EGL47	0												123	1	EGL47	ВС	R	ВС
124 EGL1	10	F	zsg	a	Р	5	40	pebbles	SA-A	tabular		not obvious	124	1	EGL1	вс	D	ВС
124 EGL1	0												124	1	EGL1	вс	D	ВС
124 EGL1	0													1				
124 EULI	U												124	ı	EGLI	ъС	ט	ВС

SiteID SiteNo	Decile S	SM( MCode Co	Qua SMTx ode Code	t SE	SSM SSMQu SSMTX	xt SSE Pro	eo Geo o ProS D de Code n	rai ID slope	Clasts Percentage	e Clasts Size Clasts Shape	Clasts Rour	ndness Clasts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov S	Survey Type I	Province
								·	J			G,						, , , , , , , , , , , , , , , , , , ,	
125 EGL313	10	FG	zgs	r				3						125	1	EGL313	ВС	R	ВС
125 EGL313	0													125	1	EGL313	ВС	R	ВС
125 EGL313	0													125	1	EGL313	ВС	R	ВС
													Can\'t tell, too many						
126 EGR400	10	F	zfs	р				5	0				roots	126	1	EGR400	ВС	R	ВС
126 EGR400	0													126	11	EGR400	ВС	R	ВС
126 EGR400	0													126	1	EGR400	ВС	R	ВС
127 EGR70	10	С	rz	v,b	R	r		3	40-50	cob-bould A		metasediments		127	1	EGR70	ВС	R	ВС
127 EGR70	0													127	1	EGR70	ВС	R	ВС
127 EGR70	0													127	11	EGR70	ВС	R	ВС
128 EGR72	9	С	zr	v,b				3	50%	peb-sm. bo Tabular A		slate to phyllite		128	1	EGR72	ВС	R	ВС
128 EGR72	1	R		u				1						128	1	EGR72	ВС	R	ВС
128 EGR72	0													128	1	EGR72	ВС	R	ВС
129 EGR401	10	F	sg	t				4						129	11	EGR401	ВС	R	ВС

SiteID SiteNo	Decile	SMCode	SMQua Code	SMTxt Code	SE Code	SSM SSM Code aC	MQu SS ode C	MTxt Stode Co	SE P	eo Ge ro Pro ode Co	S Drai	slope	Clas Percen	its itage	Clasts Size Clasts	s Shape	Clasts Ro	oundness	s Clasts Litl	hology	Bedding So	orting	SiteID2	Projec ID	Site No3	Prov Code	Survey Type	Province
129 EGR401	0																						129	1	EGR401	ВС	R	ВС
129 EGR401	0																						129	1	EGR401	ВС	R	ВС
130 EGR74	10	D		zr	v,b	С			>	X	3												130	1	EGR74	ВС	R	ВС
130 EGR74	0								S	3													130	1	EGR74	ВС	R	ВС
130 EGR74 131 EGR102 131 EGR102	0 10 0	0		е	V						7		0										130 131 131	1 1 1	EGR74 EGR102 EGR102	ВС	R V V	BC BC BC
131 EGR102	0																				poorly sorte = 1 m on top		131	1	EGR102	BC	V	ВС
132 EGR405	0	FG		sgz	V	D		<u>r v</u>	V		3		30	<u> </u>	P-C		A-R mixed	d			crdely stat		132	1	EGR405		R R	BC BC
132 EGR405	0																						132	1	EGR405		R	ВС
133 EGR406	10	F		zs							5										finely lamina	ated	133	1	EGR406	ВС	R	вс
133 EGR406	0																						133	1	EGR406	ВС	R	вс
																								•				
133 EGR406 134 EGR404 134 EGR404 134 EGR404	0 10 0 0	F	Α	sg	р				L	J	5		40		Р						poorly sorte	d	133 134 134 134	1 1 1	EGR406 EGR404 EGR404	BC BC	R R R R	BC BC BC BC
135 EGR403	10 0	D		ZSſ	v,b	R		ļ	k F	= k,	w 2		60	<u> </u>					phyllite to	schiztose ro	ock		135 135	1	EGR403 EGR403		R R	BC BC
135 EGR403	0																						135	1	EGR403		R	BC

SiteID SiteNo	Decile SMC			E SSM SSMQu SSMTxt SSE de Code a Code Code Code			Clasts Percentage	Clasts Size Clasts Shape	e Clasts Roundness Cla	asts Lithology	Bedding Sorting	SiteID2	Project ID	Site No3	Prov Code	Survey Type	Province
136 EGR407	10 C		zr a,	ı	R	3	30-40	peb-sm cob A			zfs matrix	136	1	EGR407	ВС	R	ВС
136 EGR407	0											136	1	EGR407	вс	R	ВС
136 EGR407	0											136	1	EGR407	ВС	R	ВС
137 EGR300	7 C	;	٧,١	0		2						137	1	EGR300	вс	V	ВС
137 EGR300	3 R	1	k,	8		1						137	1	EGR300	ВС	V	ВС
137 EGR300	0											137	1	EGR300	ВС	V	ВС
138 EGR402	10 FG	<b>3</b>	zgs k			2	Oct-50	R-P-MC			crude horz stratification	138	1	EGR402	ВС	R	ВС
138 EGR402	0											138	1	EGR402	ВС	R	ВС
138 EGR402 139 EGR413	0 10 F		zfs t			4	na				can\'t tell	138 139	<u>1</u> 1	EGR402 EGR413	BC BC	R R	BC BC
139 EGR413 139 EGR413	0											139 139	1	EGR413 EGR413	ВС	R R	BC BC
140 EGR301	10 C	;	V,l	0		2						140	1	EGR301	ВС	V	ВС
140 EGR301	0											140	1	EGR301	ВС	V	ВС
140 EGR301	0											140	1	EGR301	ВС	V	BC
141 EGL21	10 D	<u> </u>	rz v,	0		4	10-May	gr-sm peb A-SA	Mid	ca in matrix	60cm depth	141	1	EGL21	BC	D	<u>BC</u>
141 EGL21	0											141	11	EGL21	ВС	D	BC_
141 EGL21	0											141	1	EGL21	ВС	D	ВС

			SMQua SMT	xt SE	SSM SSMQu SSMTxt SSE	Geo Geo Pro ProS Di	rai	Clasts							Project		Prov S	urvev	
SiteID SiteNo	Decile	SMCode			Code a Code Code Code (				Clasts Size Clasts	Shape	Clasts Roundness	Clasts Lithology	Bedding Sorting	SiteID2	ID	Site No3	Code	Гуре	Province
142 EGR302	6	С		v,b		2	2							142	1	EGR302	ВС		ВС
142 EGR302	4	R		s,k			1							142	1	EGR302	ВС		ВС
142 EGR302	0													142	1	EGR302	ВС		ВС
143 EGR71	10	D	zr	v,b		4	4	50%	cob-boulde A			slate to phyllite		143	11	EGR71	ВС	R	ВС
143 EGR71	0													143	1	EGR71	ВС	R	ВС
143 EGR71	0													143	1	EGR71	ВС	R	ВС
144 TPA1	10	С	rsz	b,j			3				angular, foliated			144	1	TPA1	ВС	R	ВС
144 TPA1	0													144	1	TPA1	ВС	R	ВС
144 TPA1	0													144	1	TPA1	ВС	R	ВС
145 TPA3	10	M	z	b,j		4	4		small		subrounded			145	1	TPA3	вс	R	вс
145 TPA3	0													145	1	TPA3	вс	R	вс
145 TPA3	0													145	11	TPA3	ВС	R	BC
146 TPA4	10	С	rm	b,j		S 4	4				angular, foliated			146	1	TPA4	ВС	R	ВС
146 TPA4	0													146	1	TPA4	вс	R	ВС
146 TPA4 147 EGR451 147 EGR451 147 EGR451	0 10 0	FG	zsg	t			3	35-70						146 147 147 147	1 1 1	TPA4 EGR451 EGR451 EGR451		R Q Q	BC BC BC
148 EGR450	10	0	e	V	F zgs p	U	7							148	1	EGR450		Q	ВС
148 EGR450	0				· ·									148	1	EGR450		Q	ВС
148 EGR450	0													148	1	EGR450		Q	ВС

SiteID SiteNo		Soil Corr Area Slope %	Surveyors	Survey Date	e Easting Northing	Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion Erosion Severity	Seepage Depth Flag	Seepage	Permafrost Depth Flag	Permafrost Depth
oneib oneito	20110	Alea Siope 70	Guiveyors	our vey bute	Lasting Northing		Expression cumotone	(3110)	(1 ==)	оюрс	Longin	Gurvatare	Garvatare	030	Liesion deventy	riag	Борин	Dopm Flag	Бори
4 EGL63	8	35	nt, js	8/16/2009	459259 7100415	933	<0.01%	U		30 - 45%	100-500	LN	CV	Fo		0		0	
4 EGL63	8	35	nt, js	8/16/2009	459259 7100415	933	<0.01%	U		30 - 45%	100-500	LN	CV	Fo		0		0	
4 EGL63	8	35	nt io	8/16/2009	459259 7100415	933	<0.01%	U		30 - 45%	100-500	LN	CV	Fo		0		0	
4 EGL03	0		nt, js	8/10/2009	459259 7100415	933	<0.01%			30 - 43%	100-500	LIN	CV	FU		0		0	
5 EGL216	8	30	NT, JS	8/16/2009	458642 7101004	811		Т		30 - 45%	50-100	LN	LV	Fo	W moderate	0		0	
5 EGL216	8	30	NT, JS	8/16/2009	458642 7101004	811		Т		30 - 45%	50-100	LN	LV	Fo	W moderate	0		0	
5 EGL216	8	30	NT, JS	8/16/2009	458642 7101004	811		Т		30 - 45%	50-100	LN	LV	Fo	W moderate	0		0	
	-		,										<del></del>			<del>-</del>			
6 EGR94	8	55	NT/JS	9/13/2009	462791 7103626	1147	0.1 - 3%	M		45-70%		LN	LN	Fo	W moderate	0	13	0	
6 EGR94	8	55	NT/JS	9/13/2009	462791 7103626	1147	0.1 - 3%	М		45-70%		LN	LN	Fo	W moderate	0	13	0	
6 EGR94	8	55	NT/JS	9/13/2009	462791 7103626	1147	0.1 - 3%	N 4		45-70%		LN	LN	Fo	W moderate	0	13	0	
0 EGR94	0		N1/J5	9/13/2009	402791 7103020	1147	0.1 - 3%	IVI		45-70%		LIN	LIN	FU	vv moderate	0	13	0	
7 EGR93	8	60	NT/JS	8/13/2009	462866 7103852	1096	15 - 50%	М		45-70%	100-500	LN	LN	Fo		0		0	
7 EGR93 7 EGR93	<u>8</u> 8	60 60	NT/JS NT/JS	8/13/2009 8/13/2009	462866 7103852 462866 7103852	1096 1096	15 - 50% 15 - 50%	M M		45-70% 45-70%	100-500 100-500	LN LN	LN LN	Fo Fo		0		0	
7 20100			111700	0/10/2000	102000 1100002	1000	10 0070			10 10 70	100 000								
8 EGR92	8	25	NT/JS	8/13/2009	462758 7103994	1028	<0.01%	L		15 - 30%	100-500	CC	LN	Fo	W moderate	0	22	0	60
8 EGR92	8	25	NT/JS	8/13/2009	462758 7103994	1028	<0.01%	L		15 - 30%	100-500	CC	LN	Fo	W moderate	0	22	0	60
0 EGN02		23	141700	0/13/2003	402700 7100004	1020	10.0170			10 - 00 /0	100-300		LIV	10	William	<u> </u>	22	<u> </u>	
8 EGR92	8	25	NT/JS	8/13/2009	462758 7103994	1028	<0.01%	L		15 - 30%	100-500	CC	LN	Fo	W moderate	0	22	0	60
9 EGR69	8	2	NT/JS	8/13/2009		921		L		2 - 5%						0		0	
9 EGR69	8	2	NT/JS	8/13/2009		921		<u>L</u>		2 - 5%						0		0	
9 EGR69	8	2	NT/JS		462632 7104613	921	0.04 0.4%	L		2 - 5%						0		0	
10 EGL8 10 EGL8	8 8	15 15	NT/JS NT/JS	8/16/2009 8/16/2009		846 846	0.01 - 0.1% 0.01 - 0.1%			9 -15% 9 -15%				Fo Fo		0		0	
10 EGL8	8	15	NT/JS	8/16/2009		846	0.01 - 0.1%			9 -15%				Fo		0		0	
11 EGL6	8	0	NT/JS	8/16/2009		831	5.51 5.170			9 -15%				DL	W moderate	0		0	
11 EGL6	8	0	NT/JS	8/16/2009		831				9 -15%				DL	W moderate	0		0	
11 EGL6	8	0	NT/JS		458890 7100898	831				9 -15%				DL	W moderate	0		0	
12 EGL41	8	30	NT/JS	8/16/2000	459759 7100924	925	~0.019/	ı				LN	LV	Fo		0	19	0	100
12 LGL41	U	30	IN1/JO	6/10/2009	738138 1100824	920	<b>\U.U17</b> 0	L				LIN	LV	1-0		<u> </u>	18	U	100
12 EGL41	8	30	NT/JS	8/16/2009	459759 7100924	925	<0.01%	L				LN	LV	Fo		0	19	0	100

SiteID SiteNo	Soil Co Zone Area		Surveyors	Survey Date	Easting Northing	Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position L (PEL)	.andscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosior	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
12 EGL41	8	30	NT/JS	8/16/2009	459759 7100924	925	<0.01%	L	,	•		LN	LV	Fo		·	0	19	0	100
13 EGL200	8	8	NT/SW	8/11/2009	463530 7101102	0	<0.01%	M		5 - 9%	100-500	LN	LN	SA	W	slight	0		0	
13 EGL200	8	8	NT/SW	8/11/2009	463530 7101102	0	<0.01%	М		5 - 9%	100-500	LN	LN	SA	W	slight	0		0	
13 EGL200	8	8	NT/SW	8/11/2009	463530 7101102	0	<0.01%	M		5 - 9%	100-500	LN	LN	SA	W	slight	0		0	
14 EGR96	8	25	NT, JS	8/13/2009	462720 7104258	981	<0.01%				100-500	CC	LN	Fo			1	10	1	30
14 EGR96	8	25	NT, JS	8/13/2009	462720 7104258	981	<0.01%				100-500	CC	LN	Fo			1	10	1	30
14 EGR96	8	25	NT, JS	8/13/2009	462720 7104258	981	<0.01%				100-500	CC	LN	Fo			1	10	1	30
15 EGL16	8	10	NT/SW	8/11/2009	462792 7102169	1316	15 - 50%	M		9 -15%	100-500	LN	LN	SA	W	slight	0		0	
15 EGL16	8	10	NT/SW	8/11/2009	462792 7102169	1316	15 - 50%	М		9 -15%	100-500	LN	LN	SA	W	slight	0		0	
15 EGL16	8	10	NT/SW	8/11/2009	462792 7102169	1316	15 - 50%	M		9 -15%	100-500	LN	LN	SA	W	slight	0		0	
16 EGR91 16 EGR91 16 EGR91	8 8 8	18 18 18	NT, JS NT, JS NT, JS	8/13/2009 8/13/2009 8/13/2009	462687 7104425 462687 7104425 462687 7104425	944 944 944		L L L		15 - 30% 15 - 30% 15 - 30%		CV CV	LN LN LN	Fo Fo	W W W	moderate moderate	1 1 1		0 0 0	
17 EGR79	8	0	NT, JS	8/13/2009	464138 7103475	0											0		0	
17 EGR79	8	0	NT, JS	8/13/2009	464138 7103475	0											0		0	
17 EGR79	8	0	NT, JS	8/13/2009	464138 7103475	0											0		0	
18 EGR98	8	65	NT, JS	8/13/2009	463534 7103399												0		0	
18 EGR98	8	65	NT, JS	8/13/2009	463534 7103399												0		0	
18 EGR98	8	65	NT, JS	8/13/2009	463534 7103399												0		0	
19 EGL15	8	27	NT/SW	8/11/2009	462811 7102030	0	3 - 15%	M		15 - 30%	100-500	LN	LN	Fo	W	moderate	0		0	
19 EGL15	8	27	NT/SW	8/11/2009	462811 7102030	0	3 - 15%	M		15 - 30%	100-500	LN	LN	Fo	W	moderate	0		0	
19 EGL15	8	27	NT/SW	8/11/2009	462811 7102030	0	3 - 15%	М		15 - 30%	100-500	LN	LN	Fo	W	moderate	0		0	
20 EGL17	8	17	NT/SW	8/11/2009	462958 7101937	1329	3 - 15%	L		15 - 30%	25-50	LN	CN	Fo	W	slight	0		0	
20 EGL17	8	17	NT/SW	8/11/2009	462958 7101937	1329	3 - 15%	L		15 - 30%	25-50	LN	CN	Fo	W	slight	0		0	
20 EGL17	8	17	NT/SW	8/11/2009	462958 7101937	1329	3 - 15%	L		15 - 30%	25-50	LN	CN	Fo	W	slight	0		0	
21 EGL39	8	70	NT, JS	8/14/2009	459731 7101483	0	0.1 - 3%	U		45-70%		LN	LV	Fo			0		0	

	Soil Corr						Surface	Slope Position	Slope Position	Landscape	Slope	Horizon	Vertical	Land	Erosion	Seepage Depth	Seenage	Permafrost	Permafrost
SiteID SiteNo		Slope %	Surveyors	Survey Date	Easting Northing	Elevation	Expression Surf.Stone	(site)	(PEL)	Slope	Length	Curvature	Curvature		Erosion Severity	Flag		Depth Flag	Depth
21 EGL39	8	70	NT, JS	8/14/2009	459731 7101483	0	0.1 - 3%	U		45-70%		LN	LV	Fo		0		0	
24 52122				0/4.4/0000						4= =004				_				_	
21 EGL39	8	70	NT, JS	8/14/2009	459731 7101483	0	0.1 - 3%	U		45-70%		LN	LV	Fo		0		0	
22 EGL38	8	18	NT, JS	8/14/2009	459691 7101575	954	<0.01%	М		15 - 30%	50-100	LN	LN	Fo	W slight	0		0	
22 EGL38	8	18	NT, JS	8/14/2009	459691 7101575	954	<0.01%	М		15 - 30%	50-100	LN	LN	Fo	W slight	0		0	
	-	-	,											-	- 3			-	
22 EGL38	8	18	NT, JS	8/14/2009	459691 7101575	954	<0.01%	M		15 - 30%	50-100	LN	LN	Fo	W slight	0		0	
23 EGL37	8	28	NT, JS	8/14/2009	459728 7101841	989	0.01 - 0.1%	M		15 - 30%	100-500	LN	LN	Fo		0		0	
23 EGL37 23 EGL37	8	28 28	NT, JS NT, JS	8/14/2009 8/14/2009	459728 7101841 459728 7101841	989 989	0.01 - 0.1% 0.01 - 0.1%	<u>М</u> М		15 - 30% 15 - 30%	100-500	LN LN	LN LN	Fo Fo		0		0	
24 EGL36	8	18	NT, JS	8/14/2009	459838 7102176	1053	<0.01%	M		9 -15%	100-500	LN	LN	Fo Fo		0		0	
24 EGL36	8	18	NT, JS	8/14/2009	459838 7102176	1053	<0.01%	M		9 -15%	100-500	LN	LN	Fo		0		0	
24 EGL36	8	18	NT, JS	8/14/2009	459838 7102176	1053	<0.01%	М		9 -15%	100-500	LN	LN	Fo		0		0	
25 EGL207	8	80	NT, JS	8/14/2009	460282 7101635	1013	15 - 50%					LN	LN	Fo	W moderate	0		0	
25 EGL207	8	80	NT, JS	8/14/2009	460282 7101635	1013	15 - 50%					LN	LN	Fo	W moderate	0		0	
25 EGL207	8	80	NT, JS	8/14/2009	460282 7101635	1013	15 - 50%					LN	LN	Fo	W moderate	0		0	
26 EGL18	8	18	NT/SW	8/11/2009	463270 7101529	1356	0.1 - 3%	М		15 - 30%	50-100	LN	LN	Fo	W slight	0		0	
26 EGL18	8	18	NT/SW	8/11/2009	463270 7101529	1356	0.1 - 3%	M		15 - 30%	50-100	LN	LN	Fo	W slight	0		0	
00 50140	0	40	NECOM	0/44/0000	400070 7404500	4050	0.4 00/			45 000/	50.400		1.51	<b>5</b> -	VA/ -1:	•		0	
26 EGL18 27 EGL33	8	18 8	NT/SW NT, JS	8/11/2009	463270 7101529 459688 7102357	1356 1062	0.1 - 3%	<u>М</u> U		15 - 30% 5 - 9%	50-100 50-100	LN LN	LN LV	FO	W slight	0		0	
27 EGL33	8	8	NT, JS	8/14/2009	459688 7102357	1062		U		5 - 9%	50-100	LN	LV			0		0	
27 EGL33	8	8	NT, JS	8/14/2009		1062		U		5 - 9%	50-100	LN	LV			0		0	
28 EGL19	8	18	NT/SW	8/11/2009	463242 7101394	1351	0.01 - 0.1%	<u> </u>		15 - 30%	50-100			Sc	W slight	0	37	0	
28 EGL19	8	18	NT/SW	8/11/2009	463242 7101394	1351	0.01 - 0.1%	Т		15 - 30%	50-100			Sc	W slight	0	37	0	
28 EGL19	8	18	NT/SW	8/11/2009	463242 7101394	1351	0.01 - 0.1%	Т		15 - 30%	50-100			Sc	W slight	0	37	0	
	-														g/	<del>-</del>		<del>-</del>	
29 EGL20	8	22	NT/SW	8/11/2009	463116 7101354	1352	3 - 15%	М		15 - 30%	50-100	LN	LN			0		0	
29 EGL20	8	22	NT/SW	8/11/2009	463116 7101354	1352	3 - 15%	М		15 - 30%	50-100	LN	LN			0		0	

SiteID SiteNo	Soil Corr Zone Area	Slope %	Surveyors	Survey Date	Easting Northing I		Surface xpression Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use Eros	Erosion ion Severity	Seepage Depth Flag	Seepage	Permafrost Permafrost Depth Flag Depth
29 EGL20	8	22	NT/SW	8/11/2009	463116 7101354	1352	3 - 15%	М		15 - 30%	50-100	LN	LN			0		0
30 EGL201	8	14	NT/SW	8/11/2009	463459 7100733	1433	15 - 50%	U		15 - 30%	50-100	LN	LV	SA		0		0
30 EGL201	8	14	NT/SW	8/11/2009	463459 7100733	1433	15 - 50%	U		15 - 30%	50-100	LN	LV	SA		0		0
30 EGL201	8	14	NT/SW	8/11/2009	463459 7100733	1433	15 - 50%	U		15 - 30%	50-100	LN	LV	SA		0		0
31 EGL5	8	8	NT/SW	8/11/2009	463097 7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0
31 EGL5	8	8	NT/SW	8/11/2009	463097 7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0
31 EGL5	8	8	NT/SW	8/11/2009	463097 7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0
32 EGL202	8	7	NT/SW	8/11/2009	462894 7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0
32 EGL202	8	7	NT/SW	8/11/2009	462894 7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0
32 EGL202	8	7	NT/SW	8/11/2009	462894 7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0
33 EGL203	8	4	NT/SW	8/11/2009	462908 7100758	1402		L			50-100	LN	LN	DL		0		0
33 EGL203	8	4	NT/SW	8/11/2009	462908 7100758	1402		L			50-100	LN	LN	DL		0		0
33 EGL203	8	4	NT/SW	8/11/2009	462908 7100758	1402		L			50-100	LN	LN	DL		0		0
34 EGL58	8	0	NT/SW	8/11/2009	462612 7101002	1363	3 - 15%	D		2 - 5%	50-100	CN	CN	Wt W	slight	0	10	0
34 EGL58	8	0	NT/SW	8/11/2009	462612 7101002	1363	3 - 15%	D		2 - 5%	50-100	CN	CN	Wt W	slight	0	10	0
34 EGL58	8	0	NT/SW	8/11/2009	462612 7101002	1363	3 - 15%	D		2 - 5%	50-100	CN	CN	Wt W	slight	0	10	0
35 EGL52	8	10	NT/JS	8/12/2009	461913 7100049	1359	3 - 15%	U		9 -15%	25-50	CV	LN	DL W	slight	0		0
35 EGL52	8	10	NT/JS	8/12/2009	461913 7100049	1359	3 - 15%	U		9 -15%	25-50	CV	LN	DL W	′ slight	0		0
35 EGL52	8	10	NT/JS		461913 7100049		3 - 15%	U		9 -15%	25-50	CV	LN		slight	0		0
36 EGL53	8	10	NT/JS	8/12/2009	461946 7100227	1356	3 - 15%	U		9 -15%	100-500	CV	LN	Sc W	slight	0		0

SiteID SiteNo	Soil Cor		Surveyors	Survey Date	Fasting Northing	Surface Elevation Expression		Slope Position (site)	Slope Position (PEL)	Landscape Slope		Horizon Curvature	Vertical Curvature	Land Use	Frosion	Erosion Severity	Seepage Depth Flag	Seepage Depth	Permafrost Permafrost Depth Flag Depth
	Zone Area	Giope 70		ourvey bate	Lasting Northing			(Site)	(r ==)			Ourvalure	Gurvature	030		-	riag	Берин	Depair lag Depair
36 EGL53	8	10	NT/JS	8/12/2009	461946 7100227	1356	3 - 15%	U		9 -15%	100-500	CV	LN	Sc	W	slight	0		0
36 EGL53	8	10	NT/JS	8/12/2009	461946 7100227	1356	3 - 15%	U		9 -15%	100-500	CV	LN	Sc	W	slight	0		0
37 EGL3	8	15	NT/JS	8/12/2009	461502 7100241	1333	3 - 15%	U		15 - 30%	25-50	CV	LN	Fo	W	slight	0		0
37 EGL3	8	15	NT/JS	8/12/2009	461502 7100241	1333	3 - 15%	U		15 - 30%	25-50	CV	LN	Fo	W	slight	0		0
37 EGL3	8	15	NT/JS	8/12/2009	461502 7100241	1333	3 - 15%	U		15 - 30%	25-50	CV	LN	Fo	W	slight	0		0
38 EGL204	8	60	NT/JS	8/12/2009	461449 7100218	1310	3 - 15%	M		45-70%	50-100	LN	LN	Fo	W	moderate	0		0
38 EGL204	8	60	NT/JS	8/12/2009	461449 7100218	1310	3 - 15%	M		45-70%	50-100	LN	LN	Fo	W	moderate	0		0
38 EGL204	8	60	NT/JS	8/12/2009	461449 7100218	1310	3 - 15%	M		45-70%	50-100	LN	LN	Fo	W	moderate	0		0
39 EGL4	8	25	NT/JS	8/12/2009	461305 7100234	1261	3 - 15%	L		15 - 30%	50-100			Fo	W	slight	0		0
39 EGL4	8	25	NT/JS	8/12/2009	461305 7100234	1261	3 - 15%	L		15 - 30%	50-100			Fo	W	slight	0		0
39 EGL4	8	25	NT/JS	8/12/2009	461305 7100234	1261	3 - 15%	L		15 - 30%	50-100			Fo	W	slight	0		0
40 EGL205	8	25	NT/JS	8/12/2009	461307 7100251	1261	3 - 15%	Т		15 - 30%	100-500	LN	CN	Fo	W	severe	0	60	0
40 EGL205	8	25	NT/JS	8/12/2000	461307 7100251	1261	3 - 15%	Т		15 - 30%	100-500	LN	CN	Fo	۱۸/	severe	0	60	0
40 LGL203		25	111/33	8/12/2009	401307 7100231	1201	3 - 1376	·		15 - 50 /6	100-300	LIN	ON	10	V V	Severe	0	00	U
40 EGL205	8	25	NT/JS	8/12/2009	461307 7100251	1261	3 - 15%	T		15 - 30%	100-500	LN	CN	Fo	W	severe	0	60	0
41 EGL60	8	35	NT/JS	8/12/2009	460681 7099510	1389	15 - 50%	U		30 - 45%	100-500	LN	LV	Sc			0		0
23200	<del>-</del>			22.2000		· <del></del>	.0 00/0	<u> </u>		5/0							<u> </u>		
41 EGL60	8	35	NT/JS	8/12/2009	460681 7099510	1389	15 - 50%	U		30 - 45%	100-500	LN	LV	Sc			0		0
41 EGL60	8	35	NT/JS	8/12/2009	460681 7099510	1389	15 - 50%	U		30 - 45%	100-500	LN	LV	Sc			0		0
42 EGL61	8	35	NT/JS	8/12/2009	460670 7099307	1403	15 - 50%	U		30 - 45%	100-500	CV	LN	Sc	W	moderate	0		0
42 EGL61	8	35	NT/JS	8/12/2009	460670 7099307	1403	15 - 50%	U		30 - 45%	100-500	CV	LN	Sc	W	moderate	0		0

SiteID SiteNo	Soil Corr Zone Area		Survevors	Survey Date	Easting Northing	Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position Landso (PEL) Slop		Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion n Severity	Seepage Depth Flag	Seepage Pe	ermafrost	Permafrost Depth
42 EGL61	8	35	NT/JS	8/12/2009		1403	15 - 50%	U	30 - 4	J		LN	Sc		moderate	0	•	0	
42 EGL01	0		N1/JS	8/12/2009	400070 7099307	1403	15 - 50%		30 - 43	76 100-300	CV	LIN	30	VV	moderate	0		<u> </u>	
43 EGL68	8	20	NT/JS	8/12/2009	460392 7099284	1329	3 - 15%	M	15 - 30	% 100-500	LN	LN	Fo	W	slight	0		0	
43 EGL68	8	20	NT/JS	8/12/2009	460392 7099284	1329	3 - 15%	М	15 - 30	% 100-500	LN	LN	Fo	W	slight	0		0	
43 EGL68	8	20	NT/JS	8/12/2009	460392 7099284	1329	3 - 15%	M	15 - 30	% 100-500	LN	LN	Fo	W	slight	0		0	
44 EGL206	8	2	NT/JS	8/13/2009	463119 7102837	1361	15 - 50%	С	2 - 59	25-50	CV	LV	Sc			0		0	
44 EGL206	8	2	NT/JS	8/13/2009	463119 7102837	1361	15 - 50%	С	2 - 59	25-50	CV	LV	Sc			0		0	
44 EGL206	8	2	NT/JS	8/13/2009	463119 7102837	1361	15 - 50%	С	2 - 59	25-50	CV	LV	Sc			0		0	
45 EGR206	8	50	NT/JS	8/13/2009	463081 7102926	1337	15 - 50%	U	45-70	6 50-100			Al	W	moderate	0		0	
45 EGR206	8	50	NT/JS	8/13/2009	463081 7102926	1337	15 - 50%	U	45-70	6 50-100			Al	W	moderate	0		0	
45 EGR206	8	50	NT/JS	8/13/2009	463081 7102926	1337	15 - 50%	U	45-70	6 50-100			Al	W	moderate	0		0	
46 EGR97	8	10	NT/JS	8/13/2009	462742 7103063	1281	0.1 - 3%	Т	9 -15	50-100	CN	LN	Fo	W	moderate	1	43	1	200
46 EGR97	8	10	NT/JS	8/13/2009	462742 7103063	1281	0.1 - 3%	Т	9 -15	50-100	CN	LN	Fo	W	moderate	1	43	1	200
46 EGR97	8	10	NT/JS	8/13/2009	462742 7103063	1281	0.1 - 3%	Т	9 -15	6 50-100	CN	LN	Fo	W	moderate	1	43	1	200
47 EGR95	8	35	NT/JS	8/13/2009	462800 7103396	1215	3 - 15%	М	30 - 49	% 100-500	LN	LN	Fo	W	slight	0		0	
47 EGR95	8	35	NT/JS	8/13/2009	462800 7103396	1215	3 - 15%	М	30 - 4	% 100-500	LN	LN	Fo	W	slight	0		0	
47 EGR95	8	35	NT/JS	8/13/2009	462800 7103396	1215	3 - 15%	М	30 - 49	% 100-500	LN	LN	Fo	W	slight	0		0	
48 EGR80	8	45	NT/JS	8/13/2009	462942 7103398	1213	0.1 - 3%	M	45-70	6 50-100	LN	LN	Fo	W	slight	0		0	
48 EGR80	8	45	NT/JS	8/13/2009	462942 7103398	1213	0.1 - 3%	M	45-70	6 50-100	LN	LN	Fo	W	slight	0		0	
49 FCD90	8	45	NIT/ IC	9/42/2000	462042 7402200	1010	0.1 - 3%	M	45-70	/ 50.100	LNI	LNI	Γο.	<b>\</b> \\	aliabt	0		0	
48 EGR80	0	45	NT/JS	0/13/2009	462942 7103398	1213	U.1 - 3%	IVI	45-70	6 50-100	LN	LN	Γ0	W	Silgrit	0		0	
49 EGL27	8	5	NT/JS	8/14/2009	460298 7101566	965	>50%	L	5 - 9 <sup>o</sup>	>1000	LN	LN	Rp			1	0	0	
49 EGL27	8	5	NT/JS	8/14/2009	460298 7101566	965	>50%	L	5 - 99	>1000	LN	LN	Rp			1	0	0	
49 EGL27	8	5	NT/JS	8/14/2009	460298 7101566	965	>50%	L	5 - 9º	>1000	LN	LN	Rp			1	0	0	

	Soil Cor							Slope Position	Slope Position	Landscape	Slope	Horizon	Vertical	Land	Erosion	Seepage Depth	Seepage	Permafrost	Permafrost
SiteID SiteNo	Zone Area	Slope %	Surveyors	Survey Date	Easting Northing	Elevation	Expression Surf.Stone	(site)	(PEL)	Slope	Length	Curvature	Curvature	Use	Erosion Severity	Flag	Depth	Depth Flag	Depth
50 EGL12	8	9	NT/JS	8/15/2009	458688 7099705	828	0.1 - 3%					CN	CN	Rp		1	45	0	
50 EGL12	8	9	NT/JS	8/15/2009	458688 7099705	828	0.1 - 3%					CN	CN	Rp		1	45	0	
51 EGL215	8	35	NT/JS	8/15/2009	459132 7099518			M		30 - 45%		LN	LV	Fo		0		1	200
51 EGL215	8	35	NT/JS	8/15/2009	459132 7099518	1		М		30 - 45%		LN	LV	Fo		0		1	200
51 EGL215	8	35	NT/JS	8/15/2009	459132 7099518	1		М		30 - 45%		LN	LV	Fo		0		1	200
52 EGL22	8	15	NT/JS	8/15/2009	461235 7101585	1075	0.1 - 3%	L		9 -15%	>1000	LN	LN	Rp	W moderate	0		0	
52 EGL22	8	15	NT/JS	8/15/2009	461235 7101585	1075	0.1 - 3%	L		9 -15%	>1000	LN	LN	Rp	W moderate	0		0	
52 EGL22	8	15	NT/JS	8/15/2009	461235 7101585	1075	0.1 - 3%	L		9 -15%	>1000	LN	LN	Rp	W moderate	0		0	
53 EGL211	8	0	NT/JS	8/15/2009	461412 7101631	1127								Sc		0		0	
53 EGL211	8	0	NT/JS	8/15/2009	461412 7101631	1127								Sc		0		0	
JJ LOLLIT		<u> </u>	141700	0/10/2000	401412 7101001	1121													
53 EGL211	8	0	NT/JS	8/15/2009	461412 7101631	1127								Sc		0		0	
54 EGL26	8	30	NT/JS	8/15/2009	461407 7101728	1100	0.1 - 3%	М		30 - 45%	100-500	CN	LN	Fo	W moderate	0		1	31
04 LOL20			141700	0/13/2003	401407 7101720	1100	0.1 - 370	IVI		30 - 43 /0	100-300	OIV	LIV	10	vv moderate	<u> </u>			
54 EGL26	8	30	NT/JS	8/15/2009	461407 7101728	1109	0.1 - 3%	М		30 - 45%	100-500	CN	LN	Fo	W moderate	0		1	31
54 EGL26		30			461407 7101728		0.1 - 3%	М				CN	LN		W moderate				31
55 EGL49 55 EGL49	<u>8</u> 8		NT/JS NT/JS	8/15/2009 8/15/2009	461593 7100826 461593 7100826					30 - 45% 30 - 45%				Fo Fo	W slight W slight	0		0	
55 EGL49	8		NT/JS	8/15/2009	461593 7100826					30 - 45%	500-1000			Fo	W slight	0		0	
56 EGL25	8	30	NT/JS	8/15/2009	461541 7101717	1140	0.1 - 3%	М		30 - 45%	100-500	LN	LV	Fo		0		0	
56 EGL25	8	30	NT/IO	Q/4E/2000	461541 7101717	1140	0.1 - 3%	N 4		30 - 45%	100 500	1 61	117	Eo		0		0	
JU EGLZO	U	30	NT/JS	0/13/2009	401041 /101/1/	1 1 <del>4</del> U	U.1 - 370	IVÍ		JU - <del>4</del> 0%	100-000	LN	LV	Fo		U		U	
56 EGL25	8	30	NT/JS	8/15/2009	461541 7101717	1140	0.1 - 3%	М		30 - 45%	100-500	LN	LV	Fo		0		0	
57 EGL210	8	0	NT/JS		461675 7101144			U						Fo		0		0	
57 EGL210	8	0	NT/JS		461675 7101144			U						Fo		0		0	
57 EGL210	8	0	NT/JS	8/15/2008	461675 7101144	1192		U						Fo		0		0	
58 EGL208	8	28	NT/JS	8/15/2009	461494 7101557	1153	0.01 - 0.1%					LN	LV	Sc	W slight	0		0	
58 EGL208	8	28	NT/JS	8/15/2009	461494 7101557	1153	0.01 - 0.1%					LN	LV	Sc	W slight	0		0	
															<u> </u>				

SiteID SiteNo	Soil Cor Zone Area		Surveyors	Survey Date	Easting Northing	Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position Landscape (PEL) Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosio	Erosion n Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
58 EGL208	8	28	NT/JS	8/15/2009	461494 7101557	1153	0.01 - 0.1%				LN	LV	Sc	W	slight	0	·	0	
59 EGL209	8	35	NT/JS	8/15/2009	461564 7101385	1160	0.1 - 3%	M	30 - 45%		LN	LN	Fo	W	slight	0		0	
59 EGL209	8	35	NT/JS	8/15/2009	461564 7101385	1160	0.1 - 3%	М	30 - 45%		LN	LN	Fo	W	slight	0		0	
59 EGL209	8	35	NT/JS	8/15/2009	461564 7101385	1160	0.1 - 3%	М	30 - 45%		LN	LN	Fo	W	slight	0		0	
60 EGL50	8	35	NT/JS	8/15/2009	461708 7101037	1213		M			LN	LN	Sc			0		0	
60 EGL50	8	35	NT/JS	8/15/2009	461708 7101037	1213		M			LN	LN	Sc			0		0	
60 EGL50	8	35	NT/JS	8/15/2009	461708 7101037	1213		М			LN	LN	Sc			0		0	
61 EGL28	8	0	NT/JS	8/15/2009	460889 7101578	1041		U					Sc			0		0	
61 EGL28	8	0	NT/JS	8/15/2009	460889 7101578	1041		U					Sc			0		0	
61 EGL28	8	0	NT/JS	8/15/2009	460889 7101578	1041		U					Sc			0		0	
62 EGL212	8	35	NT/JS	8/15/2009	460889 7101578	1011	<0.01%	М	30 - 45%	100-500	LN	CN	Fo			0		0	
62 EGL212	8	35	NT/JS	8/15/2009	460889 7101578	1011	<0.01%	M	30 - 45%	100-500	LN	CN	Fo			0		0	
62 EGL212	8	35	NT/JS	8/15/2009	460889 7101578	1011	<0.01%	М	30 - 45%	100-500	LN	CN	Fo			0		0	
63 EGL213	8	55	NT/JS	8/15/2009	460660 7101747			M	45-70%	500-1000			Fo			0		0	
63 EGL213	8	55	NT/JS	8/15/2009	460660 7101747			M	45-70%	500-1000			Fo			0		0	
63 EGL213	8	55	NT/JS	8/15/2009	460660 7101747			M	45-70%	500-1000			Fo			0		0	
64 EGL214	8	10	NT/JS	8/15/2009	458678 7099609	836	<0.01%	L	9 -15%	500-1000	CN	LN	Fo	W	moderate	1	15	1	100
64 EGL214	8	10	NT/JS	8/15/2009	458678 7099609	836	<0.01%	L	9 -15%	500-1000	CN	LN	Fo	W	moderate	1	15	1	100
64 EGL214	8	10	NT/JS	8/15/2009	458678 7099609	836	<0.01%	L	9 -15%	500-1000	CN	LN	Fo	W	moderate	1	15	1	100
65 EGL214A	8	0	NT/JS	8/15/2009	459419 7101247								DL			0		0	
65 EGL214A	8	0	NT/JS	8/15/2009	459419 7101247								DL			0		0	
65 EGL214A	8	0	NT/JS	8/15/2009	459419 7101247								DL			0		0	
66 EGL50A	8	0	NT/JS	8/15/2009	458302 7101139			L		100-500			Sc			0		0	
66 EGL50A	8	0	NT/JS	8/15/2009	458302 7101139			L		100-500			Sc			0		0	

SiteID SiteNo		Soil Corr Area Slope %	Surveyors	Survey Date	Easting Northing	Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion n Severity	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
66 EGL50A	8	0	NT/JS	8/15/2009	458302 7101139			L			100-500			Sc			0		0	
67 EGL35	8	20	NT/JS	8/14/2009	460058 7102286	1116		U		15 - 30%	100-500	CV	LV	Fo	W	slight	0		0	
67 EGL35	8	20	NT/JS	8/14/2009	460058 7102286	1116		U		15 - 30%	100-500	CV	LV	Fo	W	slight	0		0	
67 EGL35	8	20	NT/JS	8/14/2009	460058 7102286	1116		U		15 - 30%	100-500	CV	LV	Fo	W	slight	0		0	
68 EGL34	8	20	NT/JS	8/14/2009	460172 7102101	1142		U		15 - 30%		CV	LV	Fo	W	slight	0		0	
68 EGL34	8	20	NT/JS	8/14/2009	460172 7102101	1142		U		15 - 30%		CV	LV	Fo	W	slight	0		0	
68 EGL34	8	20	NT/JS	8/14/2009	460172 7102101	1142		U		15 - 30%		CV	LV	Fo	W	slight	0		0	
69 EGL32 69 EGL32	<u>8</u> 8	30 30	NT/JS NT/JS	8/14/2009 8/14/2009	460281 7101918 460281 7101918	1146 1146		U U		30 - 45% 30 - 45%	100-500 100-500	LN LN	LN LN	Sc Sc	W	moderate moderate	0		0	
69 EGL32	8	30	NT/JS	8/14/2009	460281 7101918	1146		U		30 - 45% 30 - 45%	100-500	LN	LN	Sc Sc	W	moderate	0		0	
70 EGL31	8	45	NT/JS	8/14/2009		1107	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
70 EGL31	8	45	NT/JS	8/14/2009	460212 7101843	1107	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
70 EGL31	8	45	NT/JS	8/14/2009	460212 7101843	1107	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
71 EGL30	8	65	NT/JS	8/14/2009	460171 7101718	1053	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
71 EGL30	8	65	NT/JS	8/14/2009	460171 7101718	1053	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
71 EGL30	8	65	NT/JS	8/14/2009	460171 7101718	1053	3 - 15%	М		45-70%	100-500	LN	LN	Fo			0		0	
72 EGR81	8	30	NT/JS	8/13/2009	462935 7104148	1016				15 - 30%		LN	LN	Fo			1	12	1	30
72 EGR81 72 EGR81	<u>8</u> 8	30 30	NT/JS NT/JS	8/13/2009 8/13/2009	462935 7104148 462935 7104148	1016 1016				15 - 30% 15 - 30%		LN LN	LN LN	Fo Fo			1 1	12 12	1 1	30 30
12 EGROT	0	30	N1/35			1010				13 - 30%		LIN	LIN	FU			·	12		
73 EGR73	8	40	MT/BF	8/11/2009	464837 7101929			U		30 - 45%	50-100			Fo			0		0	
73 EGR73	8	40	MT/BF	8/11/2009	464837 7101929			U		30 - 45%	50-100			Fo			0		0	
72 ECD72	o	40	MT/DE	9/11/2000	464927 7104020					20 459/	E0 100			Fo			0		0	
73 EGR73	8	40	MT/BF	6/11/2009	464837 7101929			U		30 - 45%	50-100			Fo			U		U	
74 ERG115	8	30	MT/BF	8/12/2009	457906 7101333	0		М		30 - 45%	50-100			Fo			0		0	
74 ERG115	8	30	MT/BF	8/12/2009	457906 7101333	0		М		30 - 45%	50-100			Fo			0		0	

SiteID SiteNo	Soil Corr Zone Area		Surveyors	Survey Date	Easting Nort	hing Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position Landscape (PEL) Slope	Slope Length	Horizon Vertical Curvature Curvatur		Seepage Depth Flag	Seepage Permafrost Permafrost Depth Depth Flag Depth
74 ERG115	8	30	MT/BF	8/12/2009	457906 710°	1333 0		М	30 - 45%	50-100		Fo	0	0
75 EGL9	8	35	NT/BF	8/16/2009	458581 7100	0058 799	<0.01%	М	30 - 45%	25-Jan	LN LV	Fo	0	0
75 EGL9	8	35	NT/BF	8/16/2009	458581 7100	0058 799	<0.01%	M	30 - 45%	25-Jan	LN LV	Fo	0	0
75 EGL9	8	35	NT/BF	8/16/2009	458581 7100	0058 799	<0.01%	М	30 - 45%	25-Jan	LN LV	Fo	0	0
76 EGR306	8	8	MT/BF	8/13/2009	462959 7099	9889 1383		М	5 - 9%	25-50		Fo	0	0
76 EGR306	8	8	MT/BF	8/13/2009	462959 7099	9889 1383		M	5 - 9%	25-50		Fo	0	0
76 EGR306	8	8	MT/BF	8/13/2009	462959 7099	9889 1383		М	5 - 9%	25-50		Fo	0	0
77 ERG114	8	55	MT/BF	8/13/2009	463083 7099	9846 0		U	45-70%	50-100		Fo	0	0
77 ERG114	8	55	MT/BF	8/13/2009	463083 7099	9846 0		U	45-70%	50-100		Fo	0	0
77 ERG114	8	EE	MT/BF	9/4.2/2000	462092 7000	0046			45-70%	<b>50.100</b>		Fo	0	0
77 ERG114	0	55	WII/DF	8/13/2009	463083 7099	9846 0		U	45-70%	50-100		FU	0	0
78 EGR76	8	24	MT/BF	8/11/2009	464676 7102	2168 1530			15 - 30%	50-100		Fo	0	0
78 EGR76	8	24	MT/BF	8/11/2009	464676 7102	2168 1530			15 - 30%	50-100		Fo	0	0
78 EGR76	8	24	MT/BF	8/11/2009	464676 7102	2168 1530			15 - 30%	50-100		Fo	0	0
79 EGR113	8	55	MT/BF	8/13/2009	462906 7099	9694 0			45-70%	50-100		Fo	0	0
79 EGR113	8	55	MT/BF	8/13/2009	462906 7099	9694 0			45-70%	50-100		Fo	0	0

	Soil Corr	r						Surface	Slope Position	Slope Position	Landscape	Slope	Horizon	Vertical	Land Erosio	Seepage n Depth	Seepage Perma	rost Permafrost
SiteID SiteNo	Zone Area	Slope %	Surveyors	Survey Date	Easting	Northing	Elevation	Expression Surf.St	one (site)	(PEL)	Slope	Length	Curvature	Curvature	Use Erosion Severi	ty Flag	Depth Depth	
79 EGR113	8	55	MT/BF	8/13/2009	462906	7099694	0				45-70%	50-100			Fo	0	0	
80 EGL10	8	10	MT/BF	8/16/2009	458651	7100068	850	<0.01	% E		9 -15%	25-50	LN	LN	Fo	0	1	57
80 EGL10	8	10	MT/BF	8/16/2009	458651	7100068	850	<0.01	% E		9 -15%	25-50	LN	LN	Fo	0	1	57
00 50140	0	40	MT/DE	0/40/2000	450054	7400000	050	-0.04	0/ -		0.450/	25.50	1.51	LNI	F-	0	4	F7
80 EGL10	8	10	MT/BF	8/16/2009	458651	7100068	850	<0.01	<u>% E</u>		9 -15%	25-50	LN	LN	Fo	0	1	57
81 EGR14	8	38	MT/BF	8/11/2009	464261	7102044			M		30 - 45%	50-100			Fo	0	0	
81 EGR14	8	38	MT/BF	8/11/2009	464261	7102044			М		30 - 45%	50-100			Fo	0	0	
04 50544	0	00	MT/DE	0/44/0000	404004	7400044					00 450/	50.400			F-	0	0	
81 EGR14	8	38	MT/BF	8/11/2009	464261	7102044			M		30 - 45%	50-100			Fo	0	0	
82 FGR112	8	65	MT/BF	8/13/2009	463000	7099524	0				45-70%	50-100			Fo	0	0	
32 LOI(112				3, 10,2003	.00000	, 555524					.0 1070	50 100				<u> </u>	0	
82 EGR112	8	65	MT/BF	8/13/2009	463000	7099524	0				45-70%	50-100			Fo	0	0	
82 EGR112	8	65	MT/BF	8/13/2009	463000	7099524	0				45-70%	50-100			Fo	0	0	
83 EGL11	8	18	MT/BF	8/16/2009	458848	7100062	864	<0.01	% L		15 - 30%	50-100	LN	LV	Fo	0	0	
83 EGL11	8	18	MT/BF	8/16/2009	458848	7100062	864	<0.01	% L		15 - 30%	50-100	LN	LV	Fo	0	0	
83 EGL11 84 EGR13	8	18 5	MT/BF MT/BF	8/16/2009 8/11/2009		7100062 7101458	864 0	<0.01	% L M		15 - 30% 5 - 9%	50-100 100-500	LN	LV	Fo Fo	0	0	
84 EGR13	8	5	MT/BF	8/11/2009	463992	7101458	0		M		5 - 9%	100-500			Fo	0	0	
84 EGR13	8	5	MT/BF	8/11/2009	463992	7101458	0		M		5 - 9%	100-500			Fo	0	0	

SiteID SiteNo		l Corr ırea Slope %	Surveyors	Survey Date Easting	Northing Elevation	Surface on Expression Surf.Stone	Slope Slope Position Position (site) (PEL)	Landscape Slope	Slope Horiz Length Curvat	Land Erosion Use Erosion Severity	Seepage Depth Seepag Flag Depth	ge Permafrost Permafrost n Depth Flag Depth
85 EGL307	8	33	MT/BF	8/14/2009 461259	7099925 1357		М	30 - 45%	25-50	Fo	0	0
85 EGL307	8	33	MT/BF	8/14/2009 461259	7099925 1357		M	30 - 45%	25-50	Fo	0	0
85 EGL307	8	33	MT/BF	8/14/2009 461259	7099925 1357		М	30 - 45%	25-50	Fo	0	0
86 EGR111 86 EGR111		45 45	MT/BF	8/12/2009 463334 8/12/2009 463334			L L	30 - 45% 30 - 45%	50-100 50-100	Fo	0	0
86 EGR111	8	45	MT/BF	8/12/2009 463334	7099210 0		L	30 - 45%	50-100	Fo	0	0
87 EGR304	8	40	MT/BF	8/12/2009 455649	7100318 1213		U	30 - 45%	50-100	Fo	0	0
87 EGR304	8	40	MT/BF	8/12/2009 455649	7100318 1213		U	30 - 45%	50-100	Fo	0	0
87 EGR304	8	40	MT/BF	8/12/2009 455649	7100318 1213		U	30 - 45%	50-100	Fo	0	0
88 EGL309		50	MT/BF	8/14/2009 459822			<u>L</u>	45-70%	50-100	Fo	0	0
88 EGL309 88 EGL309	8	50 50	MT/BF	8/14/2009     459822       8/14/2009     459822	7099278 1167 7099278 1167		L L	45-70% 45-70%	50-100 50-100	Fo Fo	0	0
89 EGR110	8	26	MT/BF	8/13/2009 463495	7098832 0		M	15 - 30%	50-100		0	0
89 EGR110	8	26	MT/BF	8/13/2009 463495	7098832 0		M	15 - 30%	50-100		0	0

SiteID SiteNo	Soil Co Zone Area		Surveyors	Survey Date	Easting N	Northing El	Surface evation Expression Surf.Stone	Slope Position (site)		ndscape Slope	Slope Length	Horizon Vertical Curvature Curvature	Land Use E	Erosion osion Severity	Seepage Depth Flag	Seepage Permafrost P Depth Depth Flag	ermafrost Depth
89 EGR110	8	26	MT/BF	8/13/2009	463495		0	М		5 - 30%	50-100				0	0	
90 EGL46 90 EGL46 90 EGL46	8 8 8		MT/BF MT/BF MT/BF	8/14/2009 8/14/2009 8/14/2009	460101 460101 460101	7100342			4	45-70% 45-70% 45-70%	50-100 50-100 50-100		Fo Fo		0 0 0	0 0 0	
91 EGR305	8	18	MT/BF	8/12/2009	455968	7100355	1118	М	1:	5 - 30%	50-100		Fo		0	0	
91 EGR305	8	18	MT/BF	8/12/2009	455968	7100355	1118	M	1:	5 - 30%	50-100		Fo		0	0	
91 EGR305	8	18	MT/BF	8/12/2009	455968	7100355	1118	M	1:	5 - 30%	50-100		Fo		0	0	
92 EGR412	8	60	MT/BF	8/15/2009	454863	7004515	693	M	4	45-70%	50-100		Fo	W slight	0	0	
92 EGR412	0	60	WII/BF	6/15/2009	454663	7094515	693	IVI	4	+9-70%	50-100		<u> </u>	vv siigrit	0	U	
92 EGR412	8	60	MT/BF	8/15/2009	454863	7094515	693	М	4	45-70%	50-100		Fo	W slight	0	0	
92 EGR412	8	60	MT/BF	8/15/2009	454863	7094515	693	М	4	45-70%	50-100		Fo	W slight	0	0	
93 EGR124	8	28	MT/BF	8/12/2009	456006	7100557	1135	U	1:	5 - 30%	50-100		Fo		0	0	
93 EGR124	8	28	MT/BF	8/12/2009	456006	7100557	1135	U	1:	5 - 30%	50-100		Fo		0	0	
93 EGR124	8	28	MT/BF	8/12/2009	456006	7100557	1135	U	1:	5 - 30%	50-100		Fo		0	0	
94 EGR109	8	30	MT/BF	8/13/2009	463620	7098660	0	М	3	0 - 45%	50-100		Fo		0	0	
94 EGR109	8	30	MT/BF	8/13/2009	463620	7098660	0	М	3	0 - 45%	50-100		Fo		0	0	

SiteID SiteNo	Soil Corr Zone Area		Surveyors	Survey Date	Fasting Northin	ng Elevation	Surface Expression Surf.Stone	Slope Position (site)	Slope Position Landscape (PEL) Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Erosion Use Erosion Severity	Seepage Depth Flag	Seepage Permafrost Permafrost Depth Depth Flag Depth
Sitero Siterio	Zone Area	Slope 78	Surveyors	Survey Date	Easting North	ig Lievation	Expression Jun.Stone	(Site)	(i EE) Slope	Lengin	Curvature	Guivature	Ose Closion Seventy	Tiag	Deput Pag Deput
94 EGR109	8	30	MT/BF	8/13/2009				M	30 - 45%	50-100			Fo	0	0
95 EGR414 95 EGR414	<u>8</u> 8	30 30	MT/BF MT/BF	8/16/2009 8/16/2009	458480 709929 458480 709929			L L						0	0
95 EGR414	8	30	MT/BF	8/16/2009	458480 709929			L						0	0
96 EGR125	8	18	MT/BF	8/12/2009	456103 710062	23 1124		M	15 - 30%	50-100			Fo	0	0
96 EGR125	8	18	MT/BF	8/12/2009	456103 710062	23 1124		M	15 - 30%	50-100			Fo	0	0
96 EGR125	8	18	MT/BF	8/12/2009	456103 710062	23 1124		M	15 - 30%	50-100			Fo	0	0
97 EGR415	8	1	MT/BF	8/16/2009	449778 708572	27 612		Е	0.05 - 2%	50-100			Wt	0	0
97 EGR415	8	1	MT/BF	8/16/2009	449778 708572	27 612		E	0.05 - 2%	50-100			Wt	0	0
97 EGR415	8	1	MT/BF	8/16/2009	449778 708572	27 612		E	0.05 - 2%	50-100			Wt	0	0
98 EGR107	8	5	MT/BF	8/13/2009	463661 709835	59 0		E	2 - 5%	500-1000			Wt	0	0
98 EGR107	8	5	MT/BF	8/13/2009	463661 709835	59 0		E	2 - 5%	500-1000			Wt	0	0
98 EGR107	8	5	MT/BF	8/13/2009	463661 709835	59 0		E	2 - 5%	500-1000			Wt	0	0
99 EGR416	8	1	MT/BF	8/16/2009	450943 708518	32 687	<0.01%	E	0.05 - 2%	100-500	LN	LN	Fo	0	0
99 EGR416	8	11	MT/BF	8/16/2009	450943 708518	32 687	<0.01%	E	0.05 - 2%	100-500	LN	LN	Fo	0	0
99 EGR416	8	1	MT/BF	8/16/2009			<0.01%	E	0.05 - 2%	100-500	LN	LN	Fo	0	0
100 EGR106 100 EGR106	8	20 20	MT/BF MT/BF	8/13/2009 8/13/2009	463057 709816 463057 709816			M M	15 - 30% 15 - 30%	25-50 25-50				0	<u> </u>
100 EGR106	8	20	MT/BF	8/13/2009				M	15 - 30%	25-50				0	0
101 EGR126	8	9	MT/BF	8/12/2009	456284 710052	24 1105		М	5 - 9%	25-50			Fo	0	0
101 EGR126	8	9	MT/BF	8/12/2009	456284 710052	24 1105		М	5 - 9%	25-50			Fo	0	0
101 EGR126	8	9	MT/BF	8/12/2009	456284 710052	24 1105		M	5 - 9%	25-50			Fo	0	0
102 EGR417	8	0	MT/BF		454012 708750			E	0.05 - 2%	50-100			Fo	0	0
102 EGR417	8	0	MT/BF	8/16/2009	454012 708750	05 641		E	0.05 - 2%	50-100			Fo	0	0
102 EGR417	8	0	MT/BF	8/16/2009	454012 708750	05 641		E	0.05 - 2%	50-100			Fo	0	0
103 EGR105	8		MT/BF	8/13/2009	462619 709783	35 777			30 - 45%	25-Jan			Fo	0	0
103 EGR105	8		MT/BF	8/13/2009	462619 709783	35 777			30 - 45%	25-Jan			Fo	0	0

SiteID SiteNo	Soil Corr Zone Area		Surveyors S	Survey Date	Easting Northing E	Surface Elevation Expression Surf.Stone		Landscape Slope	Slope Horizon Vertical Length Curvature Curvature	Land Erosion Use Erosion Severity	Seepage Depth Seepa Flag Dept	age Permafrost Permafrost th Depth Flag Depth
103 EGR105	8		MT/BF	8/13/2009	462619 7097835	777		30 - 45%	25-Jan	Fo	0	0
							т				-	0
104 EGR418	8			8/16/2009	456167 7087995	640		5 - 9%	25-50	Fo	0	
104 EGR418	8			8/16/2009	456167 7087995	640	Т	5 - 9%	25-50	Fo	0	0
104 EGR418	8	7	MT/BF	8/16/2009	456167 7087995	640	T	5 - 9%	25-50	Fo	0	0
105 EGR123	8	35	MT/BF	8/12/2009	456402 7100333	1087	U	30 - 45%	50-100	Fo	0	0
105 EGR123	8	35	MT/BF	8/12/2009	456402 7100333	1087	U	30 - 45%	50-100	Fo	0	0
105 EGR123	8	35	MT/BF	8/12/2009	456402 7100333	1087	U	30 - 45%	50-100	Fo	0	0
106 EGR419	8	2	MT/BF	8/16/2009	458323 7087705	596	E	0.05 - 2%	50-100	Wt	0	0
100 201410		<u></u>	WIII	0/10/2000	400020 1001100	000		0.00 270	30 100	***		
106 EGR419	8	2	MT/BF	8/16/2009	458323 7087705	596	E	0.05 - 2%	50-100	Wt	0	0
106 EGR419	8			8/16/2009	458323 7087705 459402 7087820	596	E	0.05 - 2%	50-100	Wt	0	0
107 EGR420 107 EGR420	<u>8</u> 8				459402 7087820 459402 7087820	629 629	D D	0 - 0.05% 0 - 0.05%		Wt Wt	0	0
107 EGR420	8				459402 7087820	629	D	0 - 0.05%		Wt	0	0
108 EGR411	8	22	MT/BF	8/15/2009	453232 7093681	685	L	15 - 30%	50-100	Fo	0	0
108 EGR411	8	22	MT/BF	8/15/2009	453232 7093681	685	L	15 - 30%	50-100	Fo	0	0
108 EGR411	8	22	MT/BF	8/15/2009	453232 7093681	685	L	15 - 30%	50-100	Fo	0	0
109 EGR122	8	28	MT/BF	8/12/2009	456661 7100749	1012	U	15 - 30%	50-100		0	0
400 500400		00	MT/DF	0/40/0000	450004 3400340	4040		45 000/	50.400			
109 EGR122	8	28	MT/BF	8/12/2009	450007 /100/49	1012	U	15 - 30%	<b>5</b> 0-100		0	0

CitalD CitaNa	Soil Co		Commence	Cumum Data	Fasting Nanthing	Surface	Slope Position	Slope Position Lands		lope	Horizon Vertical	Land Erosion	Seepage Depth	Seepage Permafros	
SiteID SiteNo	Zone Area	Slope %	Surveyors	Survey Date	Easting Northing	Elevation Expression Surf.Stor	ne (site)	(PEL) Slop	e Le	ength	Curvature Curvature	Use Erosion Severity	Flag	Depth Depth Fla	g Depth
109 EGR122	0	28	MT/BF	8/12/2000	456661 7100749	1012	U	15 - 3	09/ E0	0-100			0	0	
109 LGK122	0	20	IVIT/DI	8/12/2009	430001 7100749	1012	<u> </u>	13 - 3	<i>57</i> 6 50	J-100			0	0	
110 EGR410	8		MT/BF	8/15/2009	452489 7093409	670						Fo	0	0	
110 EGR410	8		MT/BF	8/15/2009	452489 7093409	670						Fo	0	0	
110 EGR410	8		MT/BF	8/15/2009	452489 7093409	670						Fo	0	0	
111 EGR409	8	2	MT/BF	8/15/2009	451814 7092951	676	E	0.05 -	2% 50	0-100		Wt	0		
111 EGR409	8	2	MT/BF	8/15/2009	451814 7092951	676	E	0.05 -		0-100		Wt	0	0	
111 EGR409	8	2	MT/BF	8/15/2009	451814 7092951	676	E	0.05 -		0-100		Wt	0	0	
112 EGR120	8	7	MT/BF	8/12/2009	457104 7101122	1120	С	5 - 9	% 100	0-500			0	0	
112 EGR120	8	7	MT/BF	8/12/2009	457104 7101122	1120	С	5 - 9	% 100	0-500			0	0	
112 EGR120	8	7	MT/BF	8/12/2009	457104 7101122	1120	С	5 - 9	% 100	0-500			0	0	
113 EGR408	8	35	MT/BF	8/15/2009	451063 7092718	724	М	30 - 4	5% 2	25-50		Fo	0	0	
113 EGR408	8	35	MT/BF	8/15/2009	451063 7092718	724	M	30 - 4	50/ 2/	25-50		Fo	0	0	
113 LGR400	0	33	WII/DI	8/13/2009	431003 7092710	124	IVI	30 - 4	J /0 Z	.5-50		10	0	0	
113 EGR408	8	35	MT/BF	8/15/2009	451063 7092718	724	М	30 - 4	5% 2	25-50		Fo	0	0	
114 EGR119		28	MT/BF	8/12/2009	457265 7101049		M	30 - 4		0-100		Fo	0	0	
114 EGR119		28	MT/BF	8/12/2009	457265 7101049		M	30 - 4		0-100		Fo	0	0	
114 EGR119		28	MT/BF	8/12/2009	457265 7101049	1084	M	30 - 4		0-100		Fo	0	0	
115 EGL308 115 EGL308	8 8	15 15	MT/BF	8/14/2009 8/14/2009	460474 7099514 460474 7099514	1330 1330	<u>М</u> М	9 -15 9 -15		25-50 25-50		Fo Fo	0	0	
115 EGL308	<u> </u>	15	MT/BF	8/14/2009	460474 7099514	1330	M	9 - 15		.5-50 .5-50		Fo	0	0	
110 202000		10	/	G. 1 11 2000	.00111 7000014	.550	IVI	0-10	<u>,,                                    </u>			. 5	<u>_</u>		
= -	_											_	_		
116 EGR118	8	38	MT/BF	8/12/2009	457651 7101048	936	M	30 - 4	5%			Fo	0	0	

SiteID SiteNo		Soil Corr Area Slope %	Surveyors	Survey Date	Easting No	orthing Eleva	Surface ation Expression Surf.Stone		Slope Position Landsca (PEL) Slope	e Slope Length		Vertical Curvature	Land Erosion Use Erosion Severity	Seepage Depth Flag	Seepage Permafrost Permafrost Depth Depth Flag Depth
116 EGR118	8	38	MT/BF	8/12/2009	457651 71	01048 93	36	M	30 - 45%				Fo	0	0
116 EGR118 117 EGL66	8	38 35	MT/BF MT/BF	8/12/2009 8/14/2009	457651 710 459974 709			M M	30 - 45% 30 - 45%		LN	LV	Fo W slight	0	0
117 EGL66	8	35	MT/BF	8/14/2009	459974 709		54	М	30 - 45%	50-100	LN	LV	Fo W slight	0	0
117 EGL66	8	35	MT/BF		459974 709			М	30 - 45%			LV	Fo W slight	0	0
118 EGR303	8	10	MT/BF		455171 70		<0.01%	C	9 -15%		CV	LV	Fo	0	0
116 EGR303	0	10	WII/BF	6/12/2009	455171 70	99733	<0.01%	<u> </u>	9-15%	25-50	CV	LV	FU	U	U
118 EGR303	8	10	MT/BF	8/12/2009	455171 709	99733	<0.01%	С	9 -15%	25-50	CV	LV	Fo	0	0
118 EGR303	8	10	MT/BF		455171 70		<0.01%	С	9 -15%	25-50	CV	LV	Fo	0	0
119 EGL310 119 EGL310	<u>8</u> 8	50 50	MT/BF MT/BF	8/14/2009	459640 709			M	15 - 30%			LN LN	Fo	0	0
119 EGL310	<u> </u>	50	MT/BF	8/14/2009 8/14/2009	459640 709 459640 709			<u>М</u> М	15 - 30% 15 - 30%			LN	Fo Fo	0	0
120 EGL311	8	25	MT/BF	8/14/2009		99770 10		M	15 - 30%				Fo	0	0
120 EGL311	8	25	MT/BF	8/14/2009		99770 10		M	15 - 30%				Fo	0	0
120 EGL311	8	25	MT/BF	8/14/2009	459660 70			M	15 - 30%				Fo	0	0
121 EGL48	8	0	MT/BF	8/14/2009	460292 71	00144 11	15	М	0 - 0.059	25-Jan			Fo	0	0
121 EGL48	8	0	MT/BF	8/14/2009	460292 71	00144 11	15	M	0 - 0.059	25-Jan			Fo	0	0
121 EGL48	8	0	MT/BF	8/14/2009	460292 71	00144 11	15	M	0 - 0.059	25-Jan			Fo	0	0
122 EGL312	8		MT/BF	8/14/2009	460600 709	99800		М	45-70%	25-50			DL	0	0
122 EGL312	8		MT/BF	8/14/2009	460600 709	99800		М	45-70%	25-50			DL	0	0
122 EGL312	8		MT/BF		460600 70			M	45-70%				DL	0	0
123 EGL47	8	25	MT/BF					M	15 - 30%		CV	LN	Fo	0	0
123 EGL47	8	25	MT/BF	8/14/2009	460009 71			M	15 - 30%		CV	LN	Fo	0	0
123 EGL47 124 EGL1	<u>8</u> 8	25 30	MT/BF MT/BF		460009 710 460221 710		80 <0.01% ) <0.01%	<u>М</u> М	15 - 30% 15 - 30%		CV	LN LN	Fo W slight	0	0 0
124 EGL1	8	30	MT/BF		460221 71		) <0.01% ) <0.01%	M	15 - 30%			LN	Fo W slight	0	0
124 EGL1	8	30	MT/BF		460221 71			M	15 - 30%			LN	Fo W slight	0	0

SiteID SiteNo	Soil Cor Zone Area		Surveyors	s Survey Dat	te Easting Northi	ing Elevatio	Surface on Expression Surf.Stone	Slope Position ne (site)	n Position Lands	dscape lope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use E	Erosion Erosion Severity	Seepage Depth Flag	
					<u>,                                     </u>	<u> </u>											
125 EGL313		35	MT/BF	8/14/2008	3 459524 710140 <sup>2</sup>	101 0	3 - 15%	U	30 - 4	45%	25-Jan	CV	LV	Fo		0	0
125 EGL313		35	MT/BF	8/14/2008	3 459524 710140°	101 0	3 - 15%	U U	30 - 2	- 45%	25-Jan	CV	LV	Fo		0	0
125 EGL313		35	MT/BF	8/14/2008	3 459524 710140 <sup>2</sup>	101 0	3 - 15%	U	30 - 4	- 45 <u>%</u>	25-Jan	CV	LV	Fo		0	0
126 EGR400	8	3	MT/BF	8/15/2008	3 449319 7086377	377 621	<0.01%	<u>E</u>	2 - {	- 5%	50-100	LN	LN	Fo		0	0
126 EGR400	8	3	MT/BF	8/15/2008	3 449319 7086377	377 621	<0.01%	<u> E</u>	2-	- 5%	50-100	LN	LN	Fo		0	0
126 EGR400	0	3	MT/BF	9/4 <i>E</i> /2008	. 440240 70863.	377 621	~n n1%	E	2.	- 5%	50 100	LN	LNI	Eo		0	0
	8				3 449319 7086377		<0.01%				50-100	LIN	LN	Fo			
127 EGR70	8	48	MT/BF	8/11/2009	9 464843 7101282	282 0		U	45-70	<u>'0%</u>	25-50			Fo		0	0
127 EGR70	8	48	MT/BF	8/11/2009	9 464843 7101282	282 0		U	45-7	-70%	25-50			Fo		0	0
127 EGR70	8	48	MT/BF	8/11/2009	464843 710128	32 0		U	45-7	-70%	25-50			Fo		0	0
128 EGR72	8	30	MT/BF	8/11/2009	464660 710126	66 0		U	30 -	<u>· 45%</u>	50-100			Fo		0	0
400 FOD72	•	20	NAT/DE	2/44/2006	104000 74040			11	30	450/	50 400			<b>5</b> 0		0	0
128 EGR72	8	30	MT/BF	8/11/2009	464660 / 101200	<u>6 U</u>		<u> </u>	30 - 4	<u>45%</u>	50-100			<u> </u>		<u> </u>	0
128 EGR72	8	30	MT/BF	8/11/2009	9 464660 7101266	36 0		U	30 - 4	- 45%	50-100			Fo		0	0
129 EGR401	8	2	MT/BF	8/15/2008	3 448898 7087172	72 630		E_	2 - 5	· 5%	25-50			Fo		0	0

SiteID SiteNo		oil Corr Area Slope %	Survevors	Survey Date	Easting Northing	Elevation	Surface Expression Surf.Stone		Slope Position (PEL)	Landscape Slope		Horizon Curvature	Vertical Curvature	Land Erosion Use Erosion Severity	Seepage Depth Flag	Seepage Permafrost Permafro
								(CILC)	()	O.O.p.o					9	
129 EGR401	8	2	MT/BF	8/15/2008	448898 7087172	630		E		2 - 5%	25-50			Fo	0	0
129 EGR401	8	2	MT/BF	8/15/2008	448898 7087172	630		E		2 - 5%	25-50			Fo	0	0
130 EGR74	8	28	MT/BF	8/11/2009	464553 7102008	1469		M		15 - 30%	50-100			Fo	0	0
130 EGR74	8	28	MT/BF	8/11/2009	464553 7102008	1469		M		15 - 30%	50-100			Fo	0	0
130 EGR74 131 EGR102	8	28 0	MT/BF MT/BF	8/11/2009 8/13/2009	464553 7102008 462277 7097530	1469 742		M E		15 - 30% 0.05 - 2%				Fo Wt	0	0
131 EGR102	8	0	MT/BF	8/13/2009	462277 7097530	742		<u>E</u>		0.05 - 2%	500-1000			Wt	0	0
131 EGR102	8	0	MT/BF	8/13/2009	462277 7097530	742		E		0.05 - 2%	500-1000			Wt	0	0
132 EGR405	8	50	MT/BF	8/15/2009	449399 7090898	685		L						Fo	0	0
132 EGR405	8	50	MT/BF	8/15/2009	449399 7090898	685		L						Fo	0	0
132 EGR405	8	50	MT/BF	8/15/2009	449399 7090898	685		L						Fo	0	0
133 EGR406	8	10	MT/BF	8/15/2008	449694 7091202	662	<0.01%					CV	LV	Fo	0	0
133 EGR406	8	10	MT/BF	8/15/2008	449694 7091202	662	<0.01%					CV	LV	Fo	0	0
133 EGN400	0	10	WIT/DI	6/13/2006	449094 7091202	002	V0.0176					CV	LV	10	0	U
133 EGR406 134 EGR404	8	10 0	MT/BF MT/BF	8/15/2008 8/15/2009	449694 7091202 449171 7090107	662 643	<0.01% <0.01%	E				CV LN	LV LN	Fo Fo	0	0
134 EGR404	8	0	MT/BF	8/15/2009	449171 7090107	643	<0.01%	E E				LN	LN	Fo	0	0
134 EGR404	8	0	MT/BF	8/15/2009	449171 7090107		<0.01%	E				LN	LN	Fo	0	0
135 EGR403	8	50	MT/BF	8/15/2009	449007 7089609	672		L		45-70%	25-50			Fo	0	0
135 EGR403	8	50	MT/BF	8/15/2009	449007 7089609	672		L		45-70%	25-50			Fo	0	0
135 EGR403	8	50	MT/BF	8/15/2009	449007 7089609	672		L		45-70%	25-50			Fo	0	0

SiteID SiteNo	Soil Co Zone Area		Surveyors	Survey Date	Easting	Northing		Surface pression Surf.Stor	Slope Position ne (site)	Slope Position Landscape (PEL) Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Erosion Use Erosion Severity		eepage Permafrost Permafrost Depth Depth Flag Depth
			-		_											
136 EGR407	8	45	MT/BF	8/15/2008	450348	7092047	720	<0.01%	L	30 - 45%	25-50	CN	LN	Fo	0	0
136 EGR407	8	45	MT/BF	8/15/2008	450348	7092047	720	<0.01%	L	30 - 45%	25-50	CN	LN	Fo	0	0
136 EGR407	8	45	MT/BF	8/15/2008	450348	7092047	720	<0.01%	1	30 - 45%	25-50	CN	LN	Fo	0	0
137 EGR300	8	70	MT/BF	8/11/2009		7101250	0	40.0170	U	45-70%	50-100	014	LIV	Fo	0	0
137 EGR300	8	70	MT/BF	8/11/2009		7101250	0		U	45-70%	50-100			Fo	0	0
137 EGR300		70	MT/BF						U	45-70%				Fo	0	0
137 EGR300	8	70	IVIT/DF	8/11/2009	404002	7101250	0			45-70%	50-100			FU	0	U
138 EGR402	8	67	MT/BF	8/15/2009	448780	7089130	692		L	45-70%	25-50				0	0
138 EGR402	8	67	MT/BF	8/15/2009	448780	7089130	692		L	45-70%	25-50				0	0
138 EGR402	8	67	MT/BF	8/15/2009		7089130	692		L	45-70%	25-50				0	0
139 EGR413 139 EGR413	8	3	MT/BF MT/BF	8/15/2008 8/15/2008	457840	7096179 7096179	727 727		E E	2 - 5% 2 - 5%	25-50 25-50			Fo Fo	0	0
139 EGR413	8	3	MT/BF	8/15/2008	457840	7096179	727		E	2 - 5%	25-50			Fo	0	0
140 EGR301	8	50	MT/BF	8/11/2009	464125	7100900	0		М	30 - 45%	50-100			Fo	0	0
140 EGR301	8	50	MT/BF	8/11/2009	464125	7100900	0		M	30 - 45%	50-100			Fo	0	0
140 EGR301	8	50	MT/BF	8/11/2009	464125	7100900	0		M	30 - 45%	50-100			Fo	0	0
141 EGL21	8	14	MT/BF/NT/S	8/11/2009	462896	7101163	1372	<0.01%	М	9 -15%	50-100	LN	LV	Fo	0	0
141 EGL21	8	14	MT/BF/NT/S	8/11/2009	462896	7101163	1372	<0.01%	M	9 -15%	50-100	LN	LV	Fo	0	0
141 EGL21	8	14	MT/BF/NT/S	8/11/2009	462896	7101163	1372	<0.01%	М	9 -15%	50-100	LN	LV	Fo	0	0

SiteID SiteNo	Zone	Soil Corr Area Slope %	Surveyors	Survey Date	Easting Northing I	Surface Elevation Expression Surf.Stone	Slope Slop Position Posit (site) (PE	tion Landscape	Slope Horizo		Seepage Depth Flag	Seepage Permafrost Permafrost Depth Depth Flag Depth
142 EGR302	8	70	MT/BF	8/11/2009	464000 7100500	0		45-70%	50-100	Fo	0	0
142 EGR302	8	70	MT/BF	8/11/2009	464000 7100500	0		45-70%	50-100	Fo	0	0
142 EGR302	8	70	MT/BF	8/11/2009	464000 7100500	0		45-70%	50-100	Fo	0	0
143 EGR71	8	8	MT/BF	8/11/2009	464771 7101387	0	С	5 - 9%	25-50	Fo	0	0
143 EGR71	8	8	MT/BF	8/11/2009	464771 7101387	0	С	5 - 9%	25-50	Fo	0	0
143 EGR71	8	8	MT/BF	8/11/2009	464771 7101387	0	С	5 - 9%	25-50	Fo	0	0
144 TPA1	8	9	Straker	7/18/2009	459464 7101321		L	5 - 9%	500-1000	Fo	0	1 52
144 TPA1	8	9	Straker	7/18/2009	459464 7101321		L	5 - 9%	500-1000	Fo	0	1 52
144 TPA1	8	9	Straker	7/18/2009	459464 7101321		L	5 - 9%	500-1000	Fo	0	1 52
145 TPA3	8	7	Straker	7/19/2009	458474 7100551		Т	5 - 9%		Fo	0	1 50
145 TPA3	Q	7	Straker	7/10/2000	458474 7100551		Т	5 - 9%		Fo	0	1 50
	-											
145 TPA3	8	7	Straker	7/19/2009	458474 7100551		T	5 - 9%		Fo	0	1 50
146 TPA4	8	20	Straker	7/19/2009	458978 7100215		M	15 - 30%	100-500	Fo	0	1 53
146 TPA4	8	20	Straker	7/19/2009	458978 7100215		M	15 - 30%	100-500	Fo	0	1 53
146 TPA4	8	20	Straker	7/19/2009	458978 7100215		M	15 - 30%	100-500	Fo	0	1 53
147 EGR451 147 EGR451	8	5 5	JS/NT JS/NT	9/16/2009	452180 7085869 452180 7085869	639 639	U			Fo Fo	0	0
147 EGR451	8	5	JS/NT	9/16/2009	452180 7085869	639	U			Fo	0	0
148 EGR450	8		JS/NT	9/16/2009	449630 7085952	614	D				0	0
148 EGR450	8		JS/NT	9/16/2009	449630 7085952	614	D				0	0
148 EGR450	8		JS/NT	9/16/2009	449630 7085952	614	D				0	0

	Depth to I Bedrock				cosite/Site eries	Site Note	Vegetation Note Open Lichen Spruce, woodland. Lichen	QC By	QC Complete		Root Restricting Layer Type S	Soil Code	Series Code Phase	e Soil Notes
							(Clad ste) dominant ground co er. Thin band		_	_	_			Fining upward sequence broken
4 EGL63	0	0					of S! different colour than matrix?  Open Lichen Spruce, woodland. Lichen		0	0		CHER-DB-		horizons from soil creep
							(Clad ste) dominant ground co er. Thin band							Fining upward sequence broken
4 EGL63	0	0					of S! different colour than matrix?		0	0	C	CHER-DB-		horizons from soil creep
							Open Lichen Spruce, woodland. Lichen (Clad ste) dominant ground co er. Thin band							Fining upward sequence broken
4 EGL63	0	0		1			of S! different colour than matrix?		0	0	С	CHER-DB-		horizons from soil creep
						Cut in road adjacent to Dublin Creek,								likely mix of Regosols and thin
5 EGL216	0	0		1		Placer Mining distrbance exposes fractured bedrock.	Aspen stand DV/R / CV/R	nTashe	1	20	В	BRUN-DYB-O		Brunisols on site. Silty Sand
						Cut in road adjacent to Dublin Creek,	•							•
5 EGL216	0	0		,		Placer Mining distrbance exposes fractured bedrock.	Aspen stand DV/R / CV/R	nTashe	1	20		BRUN-DYB-O		likely mix of Regosols and thin Brunisols on site. Silty Sand
5 EGL210	U	U				Cut in road adjacent to Dublin Creek,	Aspen stand DV/R / CV/R	masne	<u> </u>	20	В	RUN-D1B-U		Bruffisols of site. Sitty Safid
						Placer Mining distrbance exposes								likely mix of Regosols and thin
5 EGL216	0	0				fractured bedrock. site deep, steep + wet high failure risk		nTashe	1	20	B	BRUN-DYB-O		Brunisols on site. Silty Sand seepage flowing through pit
						L = subsurface seepage soils are gra								Dissected landscape start of gentle
6 EGR94	0	13	Р	High /		elly, not rubble or boulders			0		R	REGOO	O.R.	drainage to creek
						site deep, steep + wet high failure risk L = subsurface seepage soils are gra								seepage flowing through pit Dissected landscape start of gentle
6 EGR94	0	13	Р	High /		elly, not rubble or boulders			0		F	REGOO	O.R.	drainage to creek
	-					site deep, steep + wet high failure risk			-				-	seepage flowing through pit
6 EGR94	0	13	Р	High /		L = subsurface seepage soils are gra elly, not rubble or boulders			0		F	REGOO	O.R.	Dissected landscape start of gentle drainage to creek
0 EGR94	U	13	Р	nigii /		elly, flot rubble of boulders			0		<u>R</u>	EGOO	U.R.	drainage to creek
														o er half the profile is rock no
7 EGR93 7 EGR93		0	<u>Р</u>			open lichen fir forest frost hea e open lichen fir forest frost hea e			0	30 30		BRUN-DYB-O BRUN-DYB-O	O.DB O.DB	alignment o er half the profile is rock no
7 EGR93 7 EGR93		0	<u>Р</u> Р	1		open lichen fir forest frost hea e			0	30		BRUN-DYB-O	O.DB	o er half the profile is rock no
				<u>-</u>		•								phase: pt Lenses of silt + sand Do
8 EGR92	0	0		,		Site in acti e seepage track at surface and at depth outside of rock	Picemar, Alnucri, Salix, Spharub, Rubucha, Hierspl, Rhizonmium		0	60	Z C	CRYO-SC-HR	Cryosol	not appear as layers Bands of silt + sand found in Of layer Some flat
0 EGR92	U	U				and at depth outside of rock	nierspi, Knizoninium		0	00		RTU-SU-FIR	Cryosoi	phase: pt Lenses of silt + sand Do
							Picemar, Alnucri, Salix, Spharub, Rubucha,							not appear as layers Bands of silt +
8 EGR92	0	0		/		and at depth outside of rock	Hierspl, Rhizonmium		0	60	Z C	CRYO-SC-HR	Cryosol	sand found in Of layer Some flat phase: pt Lenses of silt + sand Do
						Site in acti e seepage track at surface	Picemar, Alnucri, Salix, Spharub, Rubucha,							not appear as layers Bands of silt +
8 EGR92	0	0		1		and at depth outside of rock	Hierspl, Rhizonmium		0	60	Z C	CRYO-SC-HR	Cryosol	sand found in Of layer Some flat
9 EGR69	0	0		,		Acti e stream tributary to Haggart Creek		nTashe	1					
9 LGR09	U	- 0				Acti e stream tributary to Haggart		III asiic	ı		<del></del>			
9 EGR69	0	0		1		Creek		nTashe	1					
9 EGR69	0	0		,		Acti e stream tributary to Haggart Creek		nTashe	1		_	_		
9 LON09	<u> </u>						Sb, Hylo, Cladina, Ledum, Equisyl, Petasag,							likely R.G + GL.R in polygon +
10 EGL8	0	0		1		size		nTashe	1		G	SLEY-G-O		GL.OB Ah too thin to sample
10 EGL8	0	0		,		SR pebbles to cobbles mostly pebble size	Sb, Hylo, Cladina, Ledum, Equisyl, Petasag, Mert, Empenig, Vacoli, Vacc it	nTashe	1		c	SLEY-G-O		likely R.G + GL.R in polygon + GL.OB Ah too thin to sample
10 LOL0	<u> </u>						Sb, Hylo, Cladina, Ledum, Equisyl, Petasag,					<u> </u>		likely R.G + GL.R in polygon +
10 EGL8	0	0		1		size		nTashe	1		G	SLEY-G-O		GL.OB Ah too thin to sample
11 EGL6	n	0	S	Low /		exposed piles, some ha e been sorted to finer piles		nTashe	1		F	REGO-R-O		Some depressions w water but o erall dry site
TT LGL0	0	0		LOW /		exposed piles, some ha e been sorted to		III asiic	!			<u> </u>		Some depressions w water but o erall
11 EGL6	0	0	S	Low /		finer piles	dandelion REVEG all 2 m height	nTashe	1		R	REGO-R-O		dry site
11 EGL6	Ω	0	S	Low /		exposed piles, some ha e been sorted to finer piles		nTashe	1		Е	REGO-R-O		Some depressions w water but o erall dry site
11 2020						mio. piioo	dandonon neveo di 2 in noigni	uone				<u></u>		phase: pt likely roots restricted by
40 500 11	•	•		-		soil like pudding where seepage drier		<b>-</b> ·	,	400	<b>_</b> -	N EV 5	<b>D</b> 0	ice some tilted trees, ery stunted,
12 EGL41	0	0				below		nTashe	1	100	Z G	SLEYR	R.G.	cold soil likely Cryosol at site check phase: pt likely roots restricted by
						soil like pudding where seepage drier								ice some tilted trees, ery stunted,
						son like padding where scepage driet				100		SLEYR		cold soil likely Cryosol at site check

SiteID SiteNo	Depth to Bedrock			Site Site Note	Vegetation Note	QC By	QC Complete		Root Restricting Layer Type	Soil Code	Series Code	Phase	Soil Notes
						-	•	-	, <u>, , , , , , , , , , , , , , , , , , </u>				phase: pt likely roots restricted by
40 501 44	•	•	,	soil like pudding where seepage drier		<b>-</b> .	4	400	-	OLEV D	Б.О		ice some tilted trees, ery stunted,
12 EGL41	0	0		below	Abieslas, Betugla, Poly, Pleur, Cladina,	nTashe	1	100	Z	GLEYR	R.G.		cold soil likely Cryosol at site check C too coarse to dig cannot cho el or
13 EGL200	200	0	1	No rocks at surface	ground co er Heath egetation		0			BRUN-EB-E	E.EB		auger Flat lying rocks Mine material
.0 202200			· · · · · · · · · · · · · · · · · · ·	TO TOOKS OF SUITAGE	Abieslas, Betugla, Poly, Pleur, Cladina,					2			C too coarse to dig cannot cho el or
13 EGL200	200	0	1	No rocks at surface	ground co er Heath egetation		0			BRUN-EB-E	E.EB		auger Flat lying rocks Mine material
40 501000			,		Abieslas, Betugla, Poly, Pleur, Cladina,								C too coarse to dig cannot cho el or
13 EGL200	200	0		No rocks at surface	ground co er Heath egetation  Open drunken forest, lichen and sphagnum		0			BRUN-EB-E	E.EB		auger Flat lying rocks Mine material discontinuous Ah <2cm. Strongly
				Permafrost sllapse scars w/ standing	dominant understory. Pice mar, Ledu gro,								cryoturbated layer of. Phase modifier
14 EGR96	0	0	P Medium /	water	Ledu dec, Erio, Clad stel, sphag, Empi nig,		0	30	Z	CRYO-TC-HR		р	= pt
					Open drunken forest, lichen and sphagnum								discontinuous Ah <2cm. Strongly
	_			Permafrost sllapse scars w/ standing	dominant understory. Pice mar, Ledu gro,		_		_				cryoturbated layer of. Phase modifier
14 EGR96	0	0	P Medium /	water	Ledu dec, Erio, Clad stel, sphag, Empi nig,		0	30	Z	CRYO-TC-HR		р	= pt
				Permafrost sllapse scars w/ standing	Open drunken forest, lichen and sphagnum dominant understory. Pice mar, Ledu gro,								discontinuous Ah <2cm. Strongly cryoturbated layer of. Phase modifier
14 EGR96	0	0	P Medium /	water	Ledu dec, Erio, Clad stel, sphag, Empi nig,		0	30	7	CRYO-TC-HR		n	= pt
	<del>-</del>	-		Large boulders at surface coarse			<u> </u>			0		Р	
				grained igneous intrusi e Fc microscale									Augered holes BC structure indicati
				in plot bare mineral soil mo ing									e of former ice contact causing
15 EGL16	200	0	P Low /	downslope	Betugla, Abieslas		0			BRUN-EB-O	O.EB		dessication resulting in structure
				Large boulders at surface coarse grained igneous intrusi e Fc microscale									Augered holes BC structure indicati
				in plot bare mineral soil mo inq									e of former ice contact causing
15 EGL16	200	0	P Low /	downslope	Betugla, Abieslas		0			BRUN-EB-O	O.EB		dessication resulting in structure
				Large boulders at surface coarse	<b>5</b> /								
				grained igneous intrusi e Fc microscale									Augered holes BC structure indicati
45 50140	000	•	<b>D</b>	in plot bare mineral soil mo ing	D. C. L. Alii I		•			DD1111 ED 0	0.50		e of former ice contact causing
15 EGL16	200	0	P Low /	downslope	Betugla, Abieslas		0			BRUN-EB-O	O.EB		dessication resulting in structure
16 EGR91	0	0	S Low /			nTashe	1			REGO-R-CU			
16 EGR91	0	0	S Low /			nTashe	1			REGO-R-CU			
16 EGR91	0	0	S Low /			nTashe	1			REGO-R-CU			
47 50070	•	•	,	Frost hea e bedrock ridge abo e site	On an link an firm on all and		•						
17 EGR79	0	0		some Frost hea e bedrock ridge abo e site	Open lichen fir woodland.		0						
17 EGR79	0	0	1	some	Open lichen fir woodland.		0						
II LOIGIO			•	Frost hea e bedrock ridge abo e site	opon nonon in woodiana.								
17 EGR79	0	0	1	some	Open lichen fir woodland.		0						
				Small rock slides shallow bedrock									
18 EGR98	0	0		isible	Fir/Lichen open forest		0						
18 EGR98	0	0	1	Small rock slides shallow bedrock isible	Fir/Lichen open forest		0						
10 EGR90	0	U		Small rock slides shallow bedrock	i ii/Lichen open lorest		0						
18 EGR98	0	0	1	isible	Fir/Lichen open forest		0						
				E idence of water flowing through stand									
				originating on road isible water									Moist area, some parts of polygon e
19 EGL15	0	0	P Medium /	upslope from site L <12% of polygon		nTashe	1			BRUN-DYB-GL	GL.DB		idence of surface drainage
				E idence of water flowing through stand originating on road isible water									Moist area, some parts of polygon e
19 EGL15	0	0	P Medium /	upslope from site L <12% of polygon	Abieslas trees Empenia Pleusch	nTashe	1			BRUN-DYB-GL	GL DB		idence of surface drainage
10 EGE10			1 Wediani 7	E idence of water flowing through stand		madric				BROW BTB GE	OL.DD		idented of carrage aramage
				originating on road isible water									Moist area, some parts of polygon e
19 EGL15	0	0	P Medium /	upslope from site L <12% of polygon	Abieslas, trees, Empenig, Pleusch	nTashe	1			BRUN-DYB-GL	GL.DB		idence of surface drainage
00 501 15			. ,	Seepage flowing water downslope ~10		<b>-</b> .				55.00			Verify texture's pH to determine if
20 EGL17	U	0	Low /	m (out of plot) toe slope  Seepage flowing water downslope ~10	Betugla, Abieslas, Empenig	nTashe	1			BRUN-DYB-E	E.DB		Brunisol s. Lu isol Heap leach Verify texture's pH to determine if
20 EGL17	0	0	Low /	m (out of plot) toe slope	Betugla, Abieslas, Empenig	nTashe	1			BRUN-DYB-E	E.DB		Brunisol s. Lu isol Heap leach
20 LOLII			LOW /	Seepage flowing water downslope ~10		40.10	'			2.1.0.1 D 1 D-L			Verify texture's pH to determine if
20 EGL17	0	0	Low /	m (out of plot) toe slope	Betugla, Abieslas, Empenig	nTashe	1			BRUN-DYB-E	E.DB		Brunisol s. Lu isol Heap leach
				Shallow slumps, Grown o er. Weathered									Rocks and unstable slope angle limit
04 =01 00	_	•	D M E '	bedrock with rock near surface. EGR39.		<b>-</b> .				1111/01 55			soil depth. ariety of fragments gra el
21 EGL39	U	0	P Medium /	good cross profile	Geocaulon, acc it, Rosaaci, Ledugro,	nTashe	1			LUV-GL-BR			to cobbles

	Depth to	Depth to	E	osite/Site				Root Restricting Root Restricting	Series	
SiteID SiteNo	Bedrock			ries Site Note	Vegetation Note	QC By	QC Complete		Code Phase	Soil Notes
				Shallow slumps, Grown o er. Weathere	d Aspen/Birch o erstory, White Spruce					Rocks and unstable slope angle limit
				bedrock with rock near surface. EGR39						soil depth. ariety of fragments gra el
21 EGL39	0	0	P Medium /	good cross profile	Geocaulon, acc it, Rosaaci, Ledugro,	nTashe	1	LUV-GL-BR		to cobbles
				Shallow slumps, Grown o er. Weathere						Rocks and unstable slope angle limit
04 50100	0	•	P Medium /	bedrock with rock near surface. EGR39		Tb	4	LUN OL BB		soil depth. ariety of fragments gra el to cobbles
21 EGL39	U	U	P Medium /	good cross profile e idence of charcoal in profile. Some	Geocaulon, acc it, Rosaaci, Ledugro,	nTashe	11	LUV-GL-BR		to copples
				subrounded gra el cobbles. Check	Open lichen woodland Picemar, Cladina,					mica like shads of glass difficult to
22 EGL38	0	0	S Low /	extent of Minarea.	Cladonia, Vacc it, Ledugro		0	CHER-DB-		texture Almost a lu isoil
ZZ LOLSO			O LOW /	e idence of charcoal in profile. Some	Cladofila, vaccit, Leadyro		<u> </u>	OHEIX-DB-		texture Airiost a la ison
				subrounded gra el cobbles. Check	Open lichen woodland Picemar, Cladina,					mica like shads of glass difficult to
22 EGL38	0	0	S Low /	extent of Minarea.	Cladonia, Vacc it, Ledugro		0	CHER-DB-		texture Almost a lu isoil
				e idence of charcoal in profile. Some	, ,					
				subrounded gra el cobbles. Check	Open lichen woodland Picemar, Cladina,					mica like shads of glass difficult to
22 EGL38	0	0	S Low /	extent of Minarea.	Cladonia, Vacc it, Ledugro		0	CHER-DB-		texture Almost a lu isoil
				Bedrock isible > ery weathered &	Fir / B. Spruce forest, Pleursch, Cladinastel,					Soil shows pre ious ice contact by
23 EGL37	0	0	1	broken from cut upslope in road	Vacc it, Ledugro	nTashe	1	BRUN-DYB-O		granulated structure at depth in C.
				Bedrock isible > ery weathered &	Fir / B. Spruce forest, Pleursch, Cladinastel,					Soil shows pre ious ice contact by
23 EGL37	0	0		broken from cut upslope in road	Vacc it, Ledugro	nTashe	1	BRUN-DYB-O		granulated structure at depth in C.
00 50107	•	•	,	Bedrock isible > ery weathered &	Fir / B. Spruce forest, Pleursch, Cladinastel,		_	DDUN DVD O		Soil shows pre ious ice contact by
23 EGL37	0	0		broken from cut upslope in road	Vacc it, Ledugro	nTashe	1	BRUN-DYB-O		granulated structure at depth in C.
24 ECL26	0	0	S Low /	SA to SR clasts photo taken plus mica			0			some are alia SA to SB
24 EGL36	U	U	S Low /	flakes pea size. M likely o er D or R SA to SR clasts photo taken plus mica	accolig, empinig, cladstel, pleursch open abies las forest, ledugro, betugla,		U	<del></del>		some gra el is SA to SR
24 EGL36	0	0	S Low /	flakes pea size. M likely o er D or R	accolig, empinig, cladstel, pleursch		0			some gra el is SA to SR
24 LOL30	0	U	3 LOW /	SA to SR clasts photo taken plus mica			<u> </u>	<del>_</del>		Some gra er is SA to Six
24 EGL36	0	0	S Low /	flakes pea size. M likely o er D or R	accolig, empinig, cladstel, pleursch		0			some gra el is SA to SR
21 20200	<u> </u>		0 2011 /	boulders at surface rock slides lichen	0 1 0	2				weak Ae may some E.DB in more
25 EGL207	0	0	P Medium /	co ered in stand	it.		0	ORG		stable areas
				boulders at surface rock slides lichen	Sw, Abies las, Shepcan, Birch, Aspen, Vaco	;				weak Ae may some E.DB in more
25 EGL207	0	0	P Medium /	co ered in stand	it,		0	ORG		stable areas
				boulders at surface rock slides lichen	Sw, Abies las, Shepcan, Birch, Aspen, Vaco	;				weak Ae may some E.DB in more
25 EGL207	0	0	P Medium /	co ered in stand	it,		0	ORG		stable areas
										Broken horizon Platey structure from
					Betugla, Abielas, Anemone, Cladina,					historic ice contact *weathered
00 501 10	•				Cladonia, Pleusch, Polytrichum, Lazulapar,	<b>-</b> .	,	22111 52 0	0.50	bedrock produces linear stration of
26 EGL18	0	0		Ingenous intrusi e and meta sed rocks.	Juncbal	nTashe	1	BRUN-EB-O	O.EB	mottle colours
					Datuala Abialas Anomana Cladina					Broken horizon Platey structure from
					Betugla, Abielas, Anemone, Cladina, Cladonia, Pleusch, Polytrichum, Lazulapar,					historic ice contact *weathered bedrock produces linear stration of
26 EGL18	0	0	1	Ingenous intrusi e and meta sed rocks.	Juncbal	nTashe	1	BRUN-EB-O	O.EB	mottle colours
20 LGL10	0	U		ingenous intrusi e and meta sed rocks.	Juliobal	III asiic	<u> </u>	BRON-LB-O	O.LB	Broken horizon Platey structure from
					Betugla, Abielas, Anemone,Cladina,					historic ice contact *weathered
					Cladonia, Pleusch, Polytrichum, Lazulapar,					bedrock produces linear stration of
26 EGL18	0	0	1	Ingenous intrusi e and meta sed rocks.	Juncbal	nTashe	1	BRUN-EB-O	O.EB	mottle colours
			·	g	Open fir forest, Betugla, Ledugro, Lycopod,		·			Thin dicontinuous Ahe (<2cm). 33
27 EGL33	0	0	S Low /		Vaccoli, Cladina, Vacc it		0	ORG		Auger/Sho el refusal large stone.
					Open fir forest, Betugla, Ledugro, Lycopod,					Thin dicontinuous Ahe (<2cm). 33
27 EGL33	0	0	S Low /		Vaccoli, Cladina, Vacc it		0	ORG		Auger/Sho el refusal large stone.
					Open fir forest, Betugla, Ledugro, Lycopod,				<u> </u>	Thin dicontinuous Ahe (<2cm). 33
27 EGL33	0	0	S Low /		Vaccoli, Cladina, Vacc it		0	ORG		Auger/Sho el refusal large stone.
				Site appears to be near small test pit sit						
00 =0: ::	•	_		(blue flagging). Can hear water	Salixpul, Betugla, Salixret, di erse	<b>-</b> .				
28 EGL19	0	0	Medium /	downslope.	understory.	nTashe	1	BRUN-EB-GL		
				Site appears to be near small test pit sit						
28 EGL19	0	0	Medium /	(blue flagging). Can hear water downslope.	Salixpul, Betugla, Salixret, di erse	nTashe	4	BRUN-EB-GL		
20 EGL19	U	U	iviedium /	Site appears to be near small test pit sit	understory.	iii asiie	I	BKUN-EB-GL		
				(blue flagging). Can hear water	e Salixpul, Betugla, Salixret, di erse					
28 EGL19	0	0	Medium /	downslope.	understory.	nTashe	1	BRUN-EB-GL		
23 20210			Wicdialii /	Boulder field isible on surface. Coarse		TT GOTT		BIXOIV-LD-OL		
				sand contains pea size gra el in C						C.F. content, but nice fine matrix for
29 EGL20	0	0	Medium /	horizon.			0	BRUN-DYB-O	O.DB	reclamation
				Boulder field isible on surface. Coarse				-		
				sand contains pea size gra el in C						C.F. content, but nice fine matrix for
29 EGL20	0	0	Medium /	horizon.			0	BRUN-DYB-O	O.DB	reclamation

SiteID SiteNo	Depth to Bedrock	Depth to Water			Vegetation Note	QC By	QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase Soil Notes
				Boulder field isible on surface. Coarse sand contains pea size gra el in C								C.F. content, but nice fine matrix for
29 EGL20	0	0	Medium /	horizon.  highly disturbed area need updated			0			BRUN-DYB-O	O.DB	reclamation unsuitable reclamation material. Well
				disturbance layer for LSA portion of the								de eloped fines as noted by organic
				polygon Angular rubble at surface +								enrichment. C? Cannot dig or auger
30 EGL201	0	0	S /	throughout site Frost hea e at site.			0	25	L	BRUN-DYB-O	O.DB	Organic enrichment old soil. unsuitable reclamation material. Well
				highly disturbed area need updated disturbance layer for LSA portion of the								de eloped fines as noted by organic
				polygon Angular rubble at surface +								enrichment. C? Cannot dig or auger
30 EGL201	0	0	S /	throughout site Frost hea e at site.			0	25	L	BRUN-DYB-O	O.DB	Organic enrichment old soil.
				highly disturbed area need updated disturbance layer for LSA portion of the								unsuitable reclamation material. Well de eloped fines as noted by organic
				polygon Angular rubble at surface +								enrichment. C? Cannot dig or auger
30 EGL201	0	0	S /	throughout site Frost hea e at site.			0	25	L	BRUN-DYB-O	O.DB	Organic enrichment old soil.
31 EGL5	0	0	1	highly disturbed polygon could be split out from main large polygon		nTashe	1	100	X	BRUN-DYB-O	O.DB	So many boulder, stones near surface, went to cut created by road
31 LGL3	0	0	, , , , , , , , , , , , , , , , , , ,	highly disturbed polygon could be split		III asile	<u>'</u>	100	^	BROIN-D1B-O	0.06	So many boulder, stones near
31 EGL5	0	0	1	out from main large polygon		nTashe	1	100	X	BRUN-DYB-O	O.DB	surface, went to cut created by road
24 5015	0	0	,	highly disturbed polygon could be split		aTaaba	4	100	V	BRUN-DYB-O	0.00	So many boulder, stones near surface, went to cut created by road
31 EGL5	0	0	/	out from main large polygon Part of Krich Feldspar/Granite coarse		nTashe	1	100	Х	BRUN-DYB-O	O.DB	BC some colour imparted based on
32 EGL202	0	0	1	grained	Betugla, Abielas, Pleusch, Cladina, Cladoni	а	0		X	BRUN-DYB-O	O.DB	what is isible from disturbed areas
	_	_		Part of Krich Feldspar/Granite coarse			_					BC some colour imparted based on
32 EGL202	0	0	/	grained Part of Krich Feldspar/Granite coarse	Betugla, Abielas, Pleusch, Cladina, Cladoni	a	0		Х	BRUN-DYB-O	O.DB	what is isible from disturbed areas BC some colour imparted based on
32 EGL202	0	0	/	grained	Betugla, Abielas, Pleusch, Cladina, Cladoni	а	0		Х	BRUN-DYB-O	O.DB	what is isible from disturbed areas
	-	-		Some foliated rock theat clea es into fla	t		-					
				sheets. C material intact but A & B								
33 EGL203	0	Λ	1	buried some C remo ed & pushed / windrowed.	No egetation at site		0				ZDL	Compacted all subsoil & topsoil pushed (unidirectional but mixed)
30 LOL203	<u> </u>		,	Some foliated rock theat clea es into fla			<u> </u>				ZDL	pusited (diffaticefiorial but filixed)
				sheets. C material intact but A & B								
33 EGL203	0	0	,	buried some C remo ed & pushed / windrowed.	No agetation at aita		0				ZDL	Compacted all subsoil & topsoil pushed (unidirectional but mixed)
33 EGL203	U	U		Some foliated rock theat clea es into fla	No egetation at site t		0				ZDL	pushed (unidirectional but mixed)
				sheets. C material intact but A & B	•							
00 501000	•	•	,	buried some C remo ed & pushed /	N		•				70.	Compacted all subsoil & topsoil
33 EGL203	0	0	/	windrowed.  Collapse scars from ice meltout	No egetation at site		0				ZDL	pushed (unidirectional but mixed)
				exposed soil in areas. Bedrock residual								past e idence of permafrost no
				material closer to bedrock texture gets								longer present in soil profile.
34 EGL58	0	0		coarser.	Salixpal, Betugla, Abieslas, Carex spp.	nTashe	1	20	W	GLEYO	O.G	boulders at surface
				Collapse scars from ice meltout exposed soil in areas. Bedrock residual								past e idence of permafrost no
				material closer to bedrock texture gets								longer present in soil profile.
34 EGL58	0	0	1	coarser.	Salixpal, Betugla, Abieslas, Carex spp.	nTashe	1	20	W	GLEYO	O.G	boulders at surface
				Collapse scars from ice meltout exposed soil in areas. Bedrock residual								past e idence of permafrost no
				material closer to bedrock texture gets								longer present in soil profile.
34 EGL58	0	0	1	coarser.	Salixpal, Betugla, Abieslas, Carex spp.	nTashe	1	20	W	GLEYO	O.G	boulders at surface
				head water of gulch adjacent to								gentle then steepens to gulch/gully
				boulder/bedrock outcrop. Slope	Salix, Betugla, Calamagrostis, burned							mottles from bedrock weathering not water table. frost boils exposed soil
35 EGL52	200	0	P Medium /	Should break out bedrock from polygon		nTashe	1			BRUN-DYB-O	O.DB	trends downward
		-		head water of gulch adjacent to	, ,							gentle then steepens to gulch/gully
				boulder/bedrock outcrop. Slope	Coliv Dotuglo Colomography human							mottles from bedrock weathering not
35 EGL52	200	0	P Medium /	steepens o er short distance. Burn site Should break out bedrock from polygon	Salix, Betugla, Calamagrostis, burned spruce. Abies las	nTashe	1			BRUN-DYB-O	O.DB	water table. frost boils exposed soil trends downward
00 20202	200		. Modium /	head water of gulch adjacent to		aone	·			2.1011 212-0	0.00	gentle then steepens to gulch/gully
				boulder/bedrock outcrop. Slope								mottles from bedrock weathering not
35 EGL52	200	0	P Medium /	steepens o er short distance. Burn site Should break out bedrock from polygon	Salix, Betugla, Calamagrostis, burned	nTashe	4			BRUN-DYB-O	O.DB	water table. frost boils exposed soil trends downward
SS EGLSZ	200	U	P Medium /	Boulder field some exposed granite	Spruce, Ables las	masne	I			סאזת-אוטאם	O.DB	tienus downward
				boulders at surface Frost shatter & boil								
36 EGL53	0	0	P Low /	on site	Polytrichum, Festuca, acc it, Casstet		0	45	Χ	BRUN-DYB-O	O.DB	Ah thin & discontinuous ~ 3 cm

SiteID SiteNo	Depth to Bedrock			osite/Site ries Site Note	Vegetation Note	QC By	QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	l Soil Code	Series Code	Phase Soil Notes
				Boulder field some exposed granite boulders at surface Frost shatter & boi	le Batuala Salivaul Cladina Plausch							
36 EGL53	0	0	P Low /	on site	Polytrichum, Festuca, acc it, Casstet		0	45	X	BRUN-DYB-O	O.DB	Ah thin & discontinuous ~ 3 cm
				Boulder field some exposed granite								
36 EGL53	0	0	P Low /	boulders at surface Frost shatter & boi on site	ls Betugla, Salixpul, Cladina, Pleusch, Polytrichum, Festuca, acc it, Casstet		0	45	Х	BRUN-DYB-O	O.DB	Ah thin & discontinuous ~ 3 cm
30 EGL33	U	- 0	F LOW /	on site	Folythichum, r estuca, acc ii, Cassiei		0	45	^	BRUN-D1B-O	U.DB	of coarse fragments from pea gra el
												to boulders in silt loam matrix.
07 5010	200	•	5 M E (		nt Abieslas, Empinig, Cladina, Betugla, Salipu	ıl,	•				0.00	Auger/sho el refusal at 50 3rd pit
37 EGL3	200	0	P Medium /	to steep gully sharp drop off ~30 m	Pleusch, Polyjun		0			BRUN-DYB-O	O.DB	attempt due to rocks of coarse fragments from pea gra el
												to boulders in silt loam matrix.
					nt Abieslas, Empinig, Cladina, Betugla, Salipu	ıl,						Auger/sho el refusal at 50 3rd pit
37 EGL3	200	0	P Medium /	to steep gully sharp drop off ~30 m	Pleusch, Polyjun		0			BRUN-DYB-O	O.DB	attempt due to rocks of coarse fragments from pea gra el
												to boulders in silt loam matrix.
					nt Abieslas, Empinig, Cladina, Betugla, Salipu	ıl,						Auger/sho el refusal at 50 3rd pit
37 EGL3	200	0	P Medium /	to steep gully sharp drop off ~30 m	Pleusch, Polyjun		0			BRUN-DYB-O	O.DB	attempt due to rocks
				Pull polygon out as a unit No buried horizon tonguing in soil horizon								
				boundaries Mo ement in profile e ident								
					Abieslas, Empinig, Epilang, Cass (heather)							High degree of mixing in soil profile
38 EGL204	0	0	P High /	slumps	lichen dominant co er, Spir bea		0			BRUN-DYB-E	E.DB	No 'C' horizon
				Pull polygon out as a unit No buried horizon tonguing in soil horizon								
				boundaries Mo ement in profile e ident								
					Abieslas, Empinig, Epilang, Cass (heather)							High degree of mixing in soil profile
38 EGL204	0	0	P High /	slumps	lichen dominant co er, Spir bea		0			BRUN-DYB-E	E.DB	No 'C' horizon
				Pull polygon out as a unit No buried horizon tonguing in soil horizon								
				boundaries Mo ement in profile e ident								
	_				Abieslas, Empinig, Epilang, Cass (heather)		_					High degree of mixing in soil profile
38 EGL204	0	0	P High /	slumps	lichen dominant co er, Spir bea Abieslas, Picegla, Hylospl, Lupialp, heather	-	0			BRUN-DYB-E	E.DB	No 'C' horizon
39 EGL4	0	0	P Medium /		Betugla, Salipal, Saliret	,	0		Х	BRUN-DYB-O	O.DB	
	-				Abieslas, Picegla, Hylospl, Lupialp, heather	·,	-					
39 EGL4	0	0	P Medium /		Betugla, Salipal, Saliret		0		X	BRUN-DYB-O	O.DB	
39 EGL4	0	0	P Medium /		Abieslas, Picegla, Hylospl, Lupialp, heather Betugla, Salipal, Saliret	,	0		X	BRUN-DYB-O	O.DB	
00 202.				eroded surface in gully bottom Stewart						2	0.22	
	_			Gulch areas of ponding deposition o	:							
40 EGL205	0	0	U High /	sand occurs eroded surface in gully bottom Stewart		nTashe	1	60	L	REGOO	O.R	
				Gulch areas of ponding deposition of								
40 EGL205	0	0	U High /	sand occurs		nTashe	1	60	L	REGOO	O.R	
				eroded surface in gully bottom Stewari								
40 EGL205	0	0	U High /	Gulch areas of ponding deposition o sand occurs		nTashe	1	60	1	REGOO	O.R	
10 202200			S High /	some rock fall near road downslope		40110	· · · · · · · · · · · · · · · · · · ·			55 5	J., (	
				into plot. No eg in those areas or topso								
41 EGL60	100	0	Р /	or fines Frost shatter in areas exposed slope.	Betugla, Salipal, Vaccoli, Abieslas		0		1	BRUN-DYB-O	O.DB	x shallow cannot assess C horizon depth is estimate
41 LGL00	100	- 0	Г /	some rock fall near road downslope	Betugia, Salipai, Vaccoli, Ablesias		0		<u> </u>	BRUN-D1B-O	O.DB	deptir is estimate
				into plot. No eg in those areas or topso								
44 50100	400	•	P /	or fines Frost shatter in areas exposed			•				0.00	x shallow cannot assess C horizon
41 EGL60	100	0	Ρ /	slope. some rock fall near road downslope	Betugla, Salipal, Vaccoli, Abieslas		0		L	BRUN-DYB-O	O.DB	depth is estimate
				into plot. No eg in those areas or topso	il							
		_	_	or fines Frost shatter in areas exposed			_					x shallow cannot assess C horizon
41 EGL60	100	0	P /	slope.	Betugla, Salipal, Vaccoli, Abieslas		0		L	BRUN-DYB-O	O.DB	depth is estimate  x shallow Ahe 0.2 Too high C.F. to
				D with some C mo ement of boulders	in Betugla, Salipal, Abieslas, Empenio							fully assess soil Some soil is just
42 EGL61	0	0	Medium /	areas	Casstet, Vacc it, Cladina, Cladonia, Polyjun	nTashe_	1			BRUN-DYB-O	O.DB	rock to surface flat lying rocks
				D. 244	in Detunia Collins Alice I — T							x shallow Ahe 0 2 Too high C.F. to
42 EGL61	Ω	0	Medium /	D with some C mo ement of boulders	in Betugla, Salipal, Abieslas, Empenig, Casstet, Vacc it, Cladina, Cladonia, Polyjun	nTacho	1			BRUN-DYB-O	O.DB	fully assess soil Some soil is just rock to surface flat lying rocks
42 EGL01	U	U	iviediuiti /	areas	Gassier, vaccir, Giauliia, Giaudilia, Polyjur	111145116	I			ח-פן ח-אוטטט	מע.ט	TOUR TO SUITAGE HALTYING TOOKS

	Depth to	Depth to	Ecosite/Site				Root Restricting	Root Restricting	j	Series	
SiteID SiteNo	Bedrock	Water	TSM EP Series	Site Note	Vegetation Note QC By	QC Complete		Layer Type	Soil Code	Code Pha	se Soil Notes
				D with some C mo ement of boulders in	a Rotugla Salinal Abioclas Emponia						x shallow Ahe 0 2 Too high C.F. to fully assess soil Some soil is just
42 EGL61	0	0	Medium /	areas	Casstet, Vacc it, Cladina, Cladonia, Polyjun nTashe	1			BRUN-DYB-O	O.DB	rock to surface flat lying rocks
			THOUSANT 7	some cobbles isible on surface, rocks	outer, ruse in clauma, clausema, respira	· · · · · · · · · · · · · · · · · · ·			2.10.12.2	0.55	lots of deadfall on ground no
				broken on natural planes & aligned in	past burn Abies las ~ 10 m high, Empenig,						charcoal in soil may be O.R weak
43 EGL68	0	0	Low /	horizontal position	Cladina, Cladonia dominant co er on ground	0			BRUN-DYB-O	O.DB	structure mostly held together by
				some cobbles isible on surface, rocks broken on natural planes & aligned in	past burn Abies las ~ 10 m high, Empenig,						lots of deadfall on ground no charcoal in soil may be O.R weak
43 EGL68	0	0	Low /	horizontal position	Cladina, Cladonia dominant co er on ground	0			BRUN-DYB-O	O.DB	structure mostly held together by
.0 20200				some cobbles isible on surface, rocks	Gradina, Graderina dorimitant do Si on gradina				2.10.12.2	0.55	lots of deadfall on ground no
				broken on natural planes & aligned in	past burn Abies las ~ 10 m high, Empenig,						charcoal in soil may be O.R weak
43 EGL68	0	0	Low /	horizontal position	Cladina, Cladonia dominant co er on ground	0			BRUN-DYB-O	O.DB	structure mostly held together by
44 EGL206	100	0	U Low /	Exposed weathered bedrock on crest Frost hea e + shatter at site	Betugla, ledudec, Cladina, Salixarc, Vacc it, Salixgla, Arctrub	0			BRUN-DYB-O	O.DB	too many C.F. to sho el C horiz skeletal soil flat lying planar rock
44 EGL206	100	U	U Low /	Exposed weathered bedrock on crest	Betugla, ledudec, Cladina, Salixarc, Vacc it,	U			BRUN-D1B-O	O.DB	too many C.F. to sho el C horiz
44 EGL206	100	0	U Low /	Frost hea e + shatter at site	Salixgla, Arctrub	0			BRUN-DYB-O	O.DB	skeletal soil flat lying planar rock
		-		Exposed weathered bedrock on crest	Betugla, ledudec, Cladina, Salixarc, Vacc it,	-				-	too many C.F. to sho el C horiz
44 EGL206	100	0	U Low /	Frost hea e + shatter at site	Salixgla, Arctrub	0			BRUN-DYB-O	O.DB	skeletal soil flat lying planar rock
					Ericaceous shrubs + lichen community						
45 EGR206	100	0	U Hiah /	Frost hea e + rock slide	Salix gla, Ledu dec, Betu gla, Cass tet,	0	100		BRUN-DYB-O		skeletal soil
45 EGR200	100	U	U High /	Frost flea e + fock slide	Cladina, Cladonia, Dryas ala  Ericaceous shrubs + lichen community	U	100	L	BRUN-D1B-U		Skeletal Soli
45 EGR206	100	0	U High /	Frost hea e + rock slide	Salix gla, Ledu dec, Betu gla, Cass tet,	0	100	L	BRUN-DYB-O		skeletal soil
					Ericaceous shrubs + lichen community	· · · · · · · · · · · · · · · · · · ·		<del>-</del>			
45 EGR206	100	0	U High /	Frost hea e + rock slide	Salix gla, Ledu dec, Betu gla, Cass tet,	0	100	L	BRUN-DYB-O		skeletal soil
				Abies las, drunken forst collapse areas							sample of water taken pH 6.3
46 EGR97	0	0	Medium /		Hylospl, Pleusch, Nephroma, Cladstel, Cladarb, Vacc it, Ledudec, Sphag,	0	65	W	CRYO-TC-GL		limited cryoturbation Ice within 2 metres will also be root restricting.
40 EGR97	U	U	Wedium /	water high gra el content as well  Abies las, drunken forst collapse areas	Cladarb, Vacc II, Ledudec, Spriag,	U	00	VV	CRTU-IC-GL		sample of water taken pH 6.3
					Hylospl, Pleusch, Nephroma, Cladstel,						limited cryoturbation Ice within 2
46 EGR97	0	0	Medium /	water high gra el content as well	Cladarb, Vacc it, Ledudec, Sphag,	0	65	W	CRYO-TC-GL		metres will also be root restricting.
				Abies las, drunken forst collapse areas							sample of water taken pH 6.3
40 50007	•	•				•	0.5	14/	0DV0 T0 01		limited cryoturbation Ice within 2
46 EGR97	0	0	Medium /	water high gra el content as well	Cladarb, Vacc it, Ledudec, Sphag, open lichen forest e idence of snow loading	0	65	W	CRYO-TC-GL		metres will also be root restricting.
47 EGR95	0	0	P Medium /	Gra els, cobbles, boulders at site	Abies las, cladina, Cladonia, Empe nig nTashe	1	60	1	REGOO	O.R	Boulders at surface
					open lichen forest e idence of snow loading	<u> </u>		<del>_</del>		<u> </u>	Double at January
47 EGR95	0	0	P Medium /	Gra els, cobbles, boulders at site	Abies las, cladina, Cladonia, Empe nig nTashe	1	60	L	REGOO	O.R	Boulders at surface
					open lichen forest e idence of snow loading						
47 EGR95	0	0	P Medium /	Gra els, cobbles, boulders at site	Abies las, cladina, Cladonia, Empe nig nTashe	1	60	L	REGOO	O.R	Boulders at surface
				Shattered rock planar + rod shaped horizontal rock layers in profile No							
					Abieslas, Cladinaste, Cladrang, Betupum,						Ahe discontinuous + bedrock outcrop
48 EGR80	100	0	P High /	m across	Ledugro open woodland lichen dominant	0			BRUN-DYB-O	O.DB	upslope ~ 20 m
			<u> </u>	Shattered rock planar + rod shaped	<u> </u>						
				horizontal rock layers in profile No							
40 FCD00	100	0	D. High /	•	Abieslas, Cladinaste, Cladrang, Betupum,	0			DDUN DVD O	0.00	Ahe discontinuous + bedrock outcrop
48 EGR80	100	0	P High /	m across Shattered rock planar + rod shaped	Ledugro open woodland lichen dominant	0			BRUN-DYB-O	O.DB	upslope ~ 20 m
				horizontal rock layers in profile No							
					Abieslas, Cladinaste, Cladrang, Betupum,						Ahe discontinuous + bedrock outcrop
48 EGR80	100	0	P High /	m across	Ledugro open woodland lichen dominant	0			BRUN-DYB-O	O.DB	upslope ~ 20 m
				clast supported matrix Coarse sand							
49 EGL27	0	0	Medium /	photos taken acti e flowing channel	Salix, Alnus	0			REGOO	O.R	ariable clast size May be some Cu.R
49 EGL21	U	U	Medium /	disturbed by Placer mining clast supported matrix Coarse sand	Salix, Alflus	U			REGUU	U.R	Cu.R
				photos taken acti e flowing channel							ariable clast size May be some
49 EGL27	0	0	Medium /	disturbed by Placer mining	Salix, Alnus	0			REGOO	O.R	Cu.R
				clast supported matrix Coarse sand							
40 501 07	^	^	NA maliana d	photos taken acti e flowing channel	Callin Alama	•			DE00 0	0.0	ariable clast size May be some
49 EGL27	U	U	Medium /	disturbed by Placer mining	Salix, Alnus	0			REGOO	O.R	Cu.R Cg is filled in with water from
											seepage Ahe 2 cm but too thin to
50 EGL12	0	0	S Medium /		Sb forest, Salix, Betugla, Cared pod	0	56	W	GLEY-HG-O		sample. May be some Hu. Lu ic
					, , , ,	<del>-</del>					, ,

SiteID SiteNo	Depth to Bedrock			osite/Site ries Site Note	Vegetation Note	QC By	QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase	Soil Notes Cg is filled in with water from
50 EGL12	0	0	S Medium /		Sb forest, Salix, Betugla, Cared pod		0	56	W	GLEY-HG-O			seepage Ahe 2 cm but too thin to sample. May be some Hu. Lu ic
30 LGL12	0	- 0	3 Wediani /		Sh forest, Salix, Betugia, Caled pou		0	30	VV	GLL1-11G-O			Cg is filled in with water from
	•	•								0.57440			seepage Ahe 2 cm but too thin to
50 EGL12	0	0	S Medium /	broken horizons tipping/dying top	Sb forest, Salix, Betugla, Cared pod		0	56	W	GLEY-HG-O			sample. May be some Hu. Lu ic Sequence of silts o er gra els likely
				spruce likely due to permafrost check									continues at depth Broken horizons
51 EGL215	0	0		drill logs in area	Sb forest open moss/lichen understory	nTashe	1	200	X	CRYO-TC-HD	O.DB		likely influenced by ice in past
				broken horizons tipping/dying top spruce likely due to permafrost check									Sequence of silts o er gra els likely continues at depth Broken horizons
51 EGL215	0	0	1	drill logs in area	Sb forest open moss/lichen understory	nTashe	1	200	Х	CRYO-TC-HD	O.DB		likely influenced by ice in past
				broken horizons tipping/dying top spruce likely due to permafrost check									Sequence of silts o er gra els likely continues at depth Broken horizons
51 EGL215	0	0	1	drill logs in area	Sb forest open moss/lichen understory	nTashe	1	200	Х	CRYO-TC-HD	O.DB		likely influenced by ice in past
F2 F01 22	0	0	Madium /		Abies las, Pice mar, Ledu gro, Empe nig,		0			CLEV D	D.C		flood common
52 EGL22	U	U	Medium /		Vacc oli, Salix pau, Salix gla, Rubus arc, Abies las, Pice mar, Ledu gro, Empe nig,		U			GLEYR	R.G		flood sequence
52 EGL22	0	0	Medium /		Vacc oli, Salix pau, Salix gla, Rubus arc,		0			GLEYR	R.G		flood sequence
52 EGL22	0	0	Medium /		Abies las, Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus arc,		0			GLEYR	R.G		flood sequence
JZ LGLZZ	0	- 0	Wediam /	D & C is o er Rock Failures if they ocu			0			GLL I K	N.G		nood sequence
	•	•	D /	will be shallow. Root restriction is lithic									
53 EGL211	0	0	Р /	contact.  D & C is o er Rock Failures if they ocu	Betu gla, Vacc it, Ledu gro, Cladina.		0						
				will be shallow. Root restriction is lithic									
53 EGL211	0	0	P /	contact.  D & C is o er Rock Failures if they ocu	Betu gla, Vacc it, Ledu gro, Cladina.		0						
				will be shallow. Root restriction is lithic	I								
53 EGL211	0	0	P /	contact.	Betu gla, Vacc it, Ledu gro, Cladina.		0						
				Some tilted trees not many May be due to snow loading Some surface									
				drainage channels sedimentation	Fir, spruce (Pice mar) forest, sphagnum,								Bedrock noted near side trail Phyllite
54 EGL26	0	0	P Medium /	surface	Hylo spl, Rubus cham, Empe nig, Equi syl		0		Z	CRYO	Cryosol	р	highly weathered & fractured
				Some tilted trees not many May be due to snow loading Some surface									
				drainage channels sedimentation	Fir, spruce (Pice mar) forest, sphagnum,								Bedrock noted near side trail Phyllite
54 EGL26	0	0	P Medium /	surface Some tilted trees not many May be	Hylo spl, Rubus cham, Empe nig, Equi syl		0		Z	CRYO	Cryosol	р	highly weathered & fractured
				due to snow loading Some surface									
54 50100	•	•	5 44 11 /	drainage channels sedimentation	Fir, spruce (Pice mar) forest, sphagnum,		•		7	001/0	0 1		Bedrock noted near side trail Phyllite
54 EGL26 55 EGL49	0	0	P Medium /	surface upslope from bedrock outcrops	Hylo spl, Rubus cham, Empe nig, Equi syl mature spruce/fir forest		0		Z	CRYO	Cryosol	р	highly weathered & fractured
55 EGL49	0	0	P /	upslope from bedrock outcrops	mature spruce/fir forest		0						
55 EGL49	0	0	P /	upslope from bedrock outcrops	mature spruce/fir forest  Abies las, Pice mar, Pice gla, Hylo spl, Vac		0						mid to upper slope difficult to texture
					oli, Ledu gro, Equi syl, Nephroma, Clad ste								as high broken rock fragments May
56 EGL25	0	0	Medium /	Broken metased material	Betu gla Main shrub is Salix pau		0			BRUN-DYB-O	O.DB		be Lu osols in polygon
					Abies las, Pice mar, Pice gla, Hylo spl, Vac oli, Ledu gro, Equi syl, Nephroma, Clad ste								mid to upper slope difficult to texture as high broken rock fragments May
56 EGL25	0	0	Medium /	Broken metased material	Betu gla Main shrub is Salix pau		0			BRUN-DYB-O	O.DB		be Lu osols in polygon
					Abies las, Pice mar, Pice gla, Hylo spl, Vac								mid to upper slope difficult to texture
56 EGL25	0	0	Medium /	Broken metased material	oli, Ledu gro, Equi syl, Nephroma, Clad ste Betu gla Main shrub is Salix pau	l,	0			BRUN-DYB-O	O.DB		as high broken rock fragments May be Lu osols in polygon
				Dionoli motacoa matema.	-								likely O.DB in polygon as well Some
57 EGL210	0	0			fir/spruce forest		0			LUV-GL-O	O.GL		met. sed in profile, mostly likely O.DB in polygon as well Some
57 EGL210	0	0	/		fir/spruce forest		0			LUV-GL-O	O.GL		met. sed in profile, mostly
	_	_			·		_						likely O.DB in polygon as well Some
57 EGL210	0	0		broken horixon profile slow downward	fir/spruce forest		0			LUV-GL-O	O.GL		met. sed in profile, mostly
				mo ement of material historically									
58 EGL208	0	0	Low /	Cobbles to stones mostly with gra el			0			BRUN-DYB-E			skeletal soil
				broken horixon profile slow downward mo ement of material historically									
58 EGL208	0	0	Low /	Cobbles to stones mostly with gra el			0			BRUN-DYB-E			skeletal soil
			·				·		·				

	Depth to	Depth to		Ecosite/Site					Root Restricting	Root Restricting		Series	
SiteID SiteNo	Bedrock	Water	TSM EP	Series	Site Note	Vegetation Note	QC By	QC Complete	Layer Depth	Layer Type	Soil Code	Code Phase	e Soil Notes
					broken horixon profile slow downward mo ement of material historically								
58 EGL208	0	0	Low	, ,	Cobbles to stones mostly with gra el			0			BRUN-DYB-E		skeletal soil
00 202					Section to stories in early man grade.						2.10.12.22		SKOIGIG. SSI.
					Meta sed on 45 degree angle Two								
59 EGL209	0	0	U High	n /	lithologies may be near bedrock contact	Abies, Betu gla		0			BRUN-DYB-E	E.DB/O.DB	meta sed SiL / igneous SL/LS
59 EGL209	0	0	U High	n /	Meta sed on 45 degree angle Two lithologies may be near bedrock contact	Ahies Returda		0			BRUN-DYB-E	E.DB/O.DB	meta sed SiL / igneous SL/LS
00 202200			o riigi	. ,	Meta sed on 45 degree angle Two	7 toles, Beta gia					BRONDIBL	L.DD/ 0.DD	meta sea oiz / ignesas oz/ze
59 EGL209	0	0	U High	n /	lithologies may be near bedrock contact			0			BRUN-DYB-E	E.DB/O.DB	meta sed SiL / igneous SL/LS
				,	bedrock cliffs abo e site pull out rock	Vacc it, Hylo spl, Cladina, Cladonia,							
60 EGL50	0	0	U	1	cliffs separate from boulder slides bedrock cliffs abo e site pull out rock	Crustose lichen, Salix gla, Betu gla, Ledu, Vacc it, Hylo spl, Cladina, Cladonia,		0					coarse sand w gra el
60 EGL50	0	0	U	/	cliffs separate from boulder slides	Crustose lichen, Salix gla, Betu gla, Ledu,		0					coarse sand w gra el
00 20200				,	bedrock cliffs abo e site pull out rock	Vacc it, Hylo spl, Cladina, Cladonia,							gra or
60 EGL50	0	0	U	1	cliffs separate from boulder slides	Crustose lichen, Salix gla, Betu gla, Ledu,		0					coarse sand w gra el
04 50100	•	•		,	exposed rock slide but historic as lichen			•					
61 EGL28	0	0			co er on rocks exposed rock slide but historic as lichen	gla, Abies las, Cladina ste, Vacc it, Ledu ery few trees, mostly shrub dominant Betu		0					
61 EGL28	0	0		/	co er on rocks	gla, Abies las, Cladina ste, Vacc it, Ledu		0					
	<del></del>	-				ery few trees, mostly shrub dominant Betu		<del></del>					
61 EGL28	0	0		1	co er on rocks	gla, Abies las, Cladina ste, Vacc it, Ledu		0					
					mixed lithology of gra els flat, angular,	old growth forest of Abies las, Ledu gro,							
62 EGL212	0	0	S Mediu	ım /	subangular, arious shapes due to lithology more than transport	Pleu sch, mostly Clad stel. some Vacc it + Nephroma	nTashe	1			BRUN-DYB-O	O.DB	1 cobble near surface, all else is consistently gra el in the profile
02 LGL212	<u> </u>	U	3 Media	1111 7	mixed lithology of gra els flat, angular,	old growth forest of Abies las, Ledu gro,	III asile	I			BRON-DIB-O	0.06	consistently gra er in the profile
					subangular, arious shapes due to	Pleu sch, mostly Clad stel. some Vacc it +							1 cobble near surface, all else is
62 EGL212	0	0	S Mediu	ım /	lithology more than transport		nTashe	1			BRUN-DYB-O	O.DB	consistently gra el in the profile
					mixed lithology of gra els flat, angular,	old growth forest of Abies las, Ledu gro,							
62 EGL212	0	0	S Mediu	.m. /	subangular, arious shapes due to lithology more than transport	Pleu sch, mostly Clad stel. some Vacc it + Nephroma	nTashe	4			BRUN-DYB-O	O.DB	1 cobble near surface, all else is consistently gra el in the profile
02 EGL212	U	U	S Mediu	IITTI /	Fines ob ious in the slide area Ob ious	Першопа	nrasne	1			BRUN-D1B-O	O.DB	consistently gra er in the profile
					recent slides weathered bedrock								
63 EGL213	0	0	U High	n /	exposed	Mixed forest Aspen, spruce, birch		0					
					Fines ob ious in the slide area Ob ious								
63 EGL213	0	0	U High		recent slides weathered bedrock exposed	Mixed forest Aspen, spruce, birch		0					
03 EGL213	U	U	U Higi	1 /	Fines ob ious in the slide area Ob ious	Mixed forest. Aspen, spruce, birch		0					
					recent slides weathered bedrock								
63 EGL213	0	0	U High	n /	exposed	Mixed forest Aspen, spruce, birch		0					
					deep & wet soil consistency of pudding								
64 EGL214	0	0	P Mediu	.m. /	hole collapsing as digging tilled forest circular collapse scars (egetated) in site	open Sb forest Ledu gro, Cladina, Cladonia		0	100	Z	CRYO	Cryosol, R.HG	
04 EGL214	U	U	P Mediu	IIII /	deep & wet soil consistency of pudding	dominant		U	100		CRTU	Cryosol, R.nG	
						open Sb forest Ledu gro, Cladina, Cladonia							
64 EGL214	0	0	P Mediu	ım /	circular collapse scars ( egetated) in site	dominant		0	100	Z	CRYO	Cryosol, R.HG	
					deep & wet soil consistency of pudding								
64 EGL214	0	0	P Mediu	.m. /	hole collapsing as digging tilled forest circular collapse scars (egetated) in site	open Sb forest Ledu gro, Cladina, Cladonia		0	100	Z	CDVO	Cryosol, R.HG	
04 EGL214	U	U	P Mediu	IIII /	Silt appears as rock flower likely part of			0	100		CRYO	Cryosol, R.nG	
					high energy deposition short distance tra								
					el due to angularity then cycles of lower								
65 EGL214A	0	0		1	energy deposition silts	Mixed decidous Salix, Birch		0					
					Silt appears as rock flower likely part of high energy deposition short distance tra								
					el due to angularity then cycles of lower								
65 EGL214A	0	0		/	energy deposition silts	Mixed decidous Salix, Birch		0					
					Silt appears as rock flower likely part of	·		-					
					high energy deposition short distance tra								
65 FOLO444	0	0		1	el due to angularity then cycles of lower	Mixed decidous Salix, Birch		0					
65 EGL214A	U	0		/	energy deposition silts rock slides filling bottom of Oli e Gulch	shrub restricted trees due to boulders recei		U					
66 EGL50A	0	0		/	shallow slides bedrock isible upslope	ing slide area		0					
					rock slides filling bottom of Oli e Gulch	shrub restricted trees due to boulders recei		-					
66 EGL50A	0	0		1	shallow slides bedrock isible upslope	ing slide area		0					

SiteID SiteNo	Depth to Bedrock		Ecosite/Site TSM EP Series	Site Note	Vegetation Note	QC Bv	QC Complete	Root Restricting Layer Depth	Root Restricting Layer Type	Soil Code	Series Code	Phase	Soil Notes
Oncid Oncivo	Bearook	Water	Tom Er oches	rock slides filling bottom of Oli e Gulch	shrub restricted trees due to boulders rece		ao complete	Layer Deptin	Layer Type	oon oode	Oodo	THUSE	CON NOTES
66 EGL50A	0	0	/	shallow slides bedrock isible upslope	ing slide area	•	0						
00 = 0 = 0			•	No rocks at surface some channel	J								
				surface flow, but egetation relati ely	Open fir forest. Abies las, Betugra, Clad								high amount of gra el & mica in
67 EGL35	0	0	/	intact	ste, Nephroma, Ledu gro, Cladonia, Poly tri	mTrommelen	1			BRUN-DYB-O	O.DB		profile
				No rocks at surface some channel	· · · · · · · · · · · · · · · · · · ·								
				surface flow, but egetation relati ely	Open fir forest. Abies las, Betugra, Clad								high amount of gra el & mica in
67 EGL35	0	0	/	intact	ste, Nephroma, Ledu gro, Cladonia, Poly tri	mTrommelen	1			BRUN-DYB-O	O.DB		profile
				No rocks at surface some channel									·
				surface flow, but egetation relati ely	Open fir forest. Abies las, Betugra, Clad								high amount of gra el & mica in
67 EGL35	0	0	/	intact	ste, Nephroma, Ledu gro, Cladonia, Poly tri	mTrommelen	1			BRUN-DYB-O	O.DB		profile
					Abies las, Vacc oli, Vacc it, Ledu gro,								
68 EGL34	0	0	Low /	M likely o er D or R	Nephroma, Empi nig	nTashe	1			LUV-GL-O			likely O.GL/E.DB both in polygons
					Abies las, Vacc oli, Vacc it, Ledu gro,								
68 EGL34	0	0	Low /	M likely o er D or R	Nephroma, Empi nig	nTashe	1			LUV-GL-O			likely O.GL/E.DB both in polygons
					Abies las, Vacc oli, Vacc it, Ledu gro,								
68 EGL34	0	0	Low /	M likely o er D or R	Nephroma, Empi nig	nTashe	1			LUV-GL-O			likely O.GL/E.DB both in polygons
69 EGL32	0	0	P Medium /		Open Betu gla shrubland		0			BRUN-DYB-E	E.DB		may be Lu isols in more stable areas
69 EGL32	0	0	P Medium /		Open Betu gla shrubland		0			BRUN-DYB-E	E.DB		may be Lu isols in more stable areas
69 EGL32	0	0	P Medium /		Open Betu gla shrubland		0			BRUN-DYB-E	E.DB		may be Lu isols in more stable areas
													cannot dig deeper than 40 cm due to
				Historic + shallow recent slides	Aspen fir + Sw. In understory Juni com,								high CF Some exposed
70 EGL31	200	0	U High /	exposed mineral soil ~ 5 x 3 m	Ledu gro, Vacc it, Arct u a, Vacc uli		0			REGOO	O.R		stones/boulders on site Gra el in
													cannot dig deeper than 40 cm due to
				Historic + shallow recent slides	Aspen fir + Sw. In understory Juni com,								high CF Some exposed
70 EGL31	200	0	U High /	exposed mineral soil ~ 5 x 3 m	Ledu gro, Vacc it, Arct u a, Vacc uli		0			REGOO	O.R		stones/boulders on site Gra el in
													cannot dig deeper than 40 cm due to
				Historic + shallow recent slides	Aspen fir + Sw. In understory Juni com,								high CF Some exposed
70 EGL31	200	0	U High /	exposed mineral soil ~ 5 x 3 m	Ledu gro, Vacc it, Arct u a, Vacc uli		0			REGOO	O.R		stones/boulders on site Gra el in
					Mature old fir/white spruce Geoc Ii , Hylo								bare soil under trees downslope only
71 EGL30	200	0	P Medium /	Large boulders protruding at surface	spl, Linn bor, Vacc it		0			BRUN-DYB-O	O.DB		tonguing horizons
					Mature old fir/white spruce Geoc li , Hylo								bare soil under trees downslope only
71 EGL30	200	0	P Medium /	Large boulders protruding at surface	spl, Linn bor, Vacc it		0			BRUN-DYB-O	O.DB		tonguing horizons
					Mature old fir/white spruce Geoc li , Hylo								bare soil under trees downslope only
71 EGL30	200	0	P Medium /	Large boulders protruding at surface	spl, Linn bor, Vacc it		0			BRUN-DYB-O	O.DB		tonguing horizons
72 EGR81	0	0	P Medium /	subsurface seepage abo e ice	open forst lichen dominant	nTashe	1	30	<u>Z</u>	CRYO-SC-HE		р	phase modifiers pt if Brunisols in
72 EGR81	0	0	P Medium /	subsurface seepage abo e ice	open forst lichen dominant	nTashe	1	30	<u>Z</u>	CRYO-SC-HE		р	phase modifiers pt if Brunisols in
72 EGR81	0	0	P Medium /	subsurface seepage abo e ice	open forst lichen dominant	nTashe	1	30	Z	CRYO-SC-HE		р	phase modifiers pt if Brunisols in
				Just started to get in clump of trees,									
				open forest/parkland Patches of frost									
70 50570	•	•	5 , ,	shattered R, possibly due to permafrost			•						
73 EGR73	0	0	P Low /	sorting, SE aspect though. TSM III			0						
				Just started to get in clump of trees,									
				open forest/parkland Patches of frost									
70 50070	0	0	D 1 /	shattered R, possibly due to permafrost			0						
73 EGR73	U	0	P Low /	sorting, SE aspect though. TSM III			U			-			
				Just started to get in clump of trees,									
				open forest/parkland Patches of frost shattered R, possibly due to permafrost									
73 EGR73	0	0	P Low /	sorting, SE aspect though. TSM III			0						
13 EGR13	U	U	P LOW /	Walked down slope from last, onto a			U			-			
				bench (~30m wide), with a steep scarp									
				to NE, then slightly up and off a ways to									
				the side. Hole ~50 60% peb sml cob, SF									
				A SA TSM = 11 111 dep. how thick, no									
74 ERG115	0	0	S Low /	e id. of mo ement.	,		Ω						
IH ERGIID	U	U	G LOW /	Walked down slope from last, onto a			U						
				bench (~30m wide), with a steep scarp									
				to NE, then slightly up and off a ways to									
				the side. Hole ~50 60% peb sml cob, SF									
				A SA TSM = 11 111 dep. how thick, no									
74 ERG115	0	0	S Low /	e id. of mo ement.	•		Ω						
	U	U	J LOW /	o ia. or mo omon.			U			-			

	Depth to	Donth to		Ecosite/Site				Root Restricting	Poot Postricting		Series	
SiteID SiteNo				EP Series	Site Note Vegetation Note	QC By	QC Complete		Layer Type			Soil Notes
					Walked down slope from last, onto a				,			
					bench (~30m wide), with a steep scarp							
					to NE, then slightly up and off a ways to							
					the side. Hole ~50 60% peb sml cob, SR							
74 500445	0	0	0	1 /	A SA TSM = 11 111 dep. how thick, no		0					
74 ERG115	0	0	S	Low /	e id. of mo ement. matrix FSL, . poorly sorted, few poorly		0					no auger, can't check for ice O.EB or
75 EGL9	0	0	Р	Low /	sorted areas (MS cs)		0		N	BRUN-DYB-O		O.DYB
75 LGL9		- 0	<u>'</u>	LOW /	matrix FSL, . poorly sorted, few poorly				IN .	BRON-DID-O		no auger, can't check for ice O.EB or
75 EGL9	0	0	Р	Low /	sorted areas (MS cs)		0		N	BRUN-DYB-O		O.DYB
	-	-			matrix FSL, . poorly sorted, few poorly		-					no auger, can't check for ice O.EB or
75 EGL9	0	0	Р	Low /	sorted areas (MS cs)		0		N	BRUN-DYB-O		O.DYB
					L matrix, with 20 35%. Any blocky gr to							
			_		sm cobble, all psammites(or arenites)							
76 EGR306	0	0	S	Low /	TSM=II Unsure Re: permafrost		0			-		
					L matrix, with 20 35%. Any blocky gr to sm cobble, all psammites(or arenites)							
76 EGR306	0	0	S	Low /	TSM=II Unsure Re: permafrost		0					
70 LGR300	0	- 0	3	LOW /	L matrix, with 20 35%. Any blocky gr to		U					
					sm cobble, all psammites(or arenites)							
76 EGR306	0	0	S	Low /	TSM=II Unsure Re: permafrost		0					
					a few rocks oc around. probably see on							
					airphotos EP med high watch							
					channeled water old burn, all the way							
					down this slope; not alley/slope to NE/E							
77 500444	•	•	ъ.	. A. P. 7	TSM=III IV check slope model fire		•					
77 ERG114	0	0	P	Medium /	didn't cause slides; dry likely thin.		0					
					a few rocks oc around. probably see on airphotos EP med high watch							
					channeled water old burn, all the way							
					down this slope; not alley/slope to NE/E							
					TSM=III IV check slope model fire							
77 ERG114	0	0	P N	Medium /	didn't cause slides; dry likely thin.		0					
					a few rocks oc around. probably see on							
					airphotos EP med high watch							
					channeled water old burn, all the way							
					down this slope; not alley/slope to NE/E							
77 500444	0	0	ъ.	Marathura /	TSM=III IV check slope model fire		0					
77 ERG114	0	0	PI	Medium /	didn't cause slides; dry likely thin.  Slope undulates a lot. TSM II Separate		0					
					74 and 76 by aspect instead of how							
78 EGR76	0	0	S	Low /	now?		0					
70 201170				2011	Slope undulates a lot. TSM II Separate							
					74 and 76 by aspect instead of how							
78 EGR76	0	0	S	Low /	now?		0					
					Slope undulates a lot. TSM II Separate							
					74 and 76 by aspect instead of how							
78 EGR76	0	0	S	Low /	now?		0					
					walked ~ along contour to this site, Mix							
					of stuff. Once cross into this one, way more actual rock at surface. Most							
					somewhat frost hea e of shatter. are							
					just NW (~8m) of what looks like an old							
					R"r, about 5m deep, with ra @ bottom of							
79 EGR113	0	0	P N	Medium /	slope		0					
					walked ~ along contour to this site, Mix							
					of stuff. Once cross into this one, way							
					more actual rock at surface. Most							
					somewhat frost hea e of shatter. are							
					just NW (~8m) of what looks like an old							
70 505442	^	^	Б.	Marathura /	R"r, about 5m deep, with ra @ bottom of		^					
79 EGR113	0	0	P 1	Medium /	slope		U			-		

	Depth to	Donth to	Ecosite/Sit				Root Restricting	Poot Postricting		Series	
SiteID SiteNo	Bedrock	Water	TSM EP Series	Site Note Vegetation Note	QC By	QC Complete		Layer Type			Soil Notes
				walked ~ along contour to this site, Mix	,	•		, ,,			
				of stuff. Once cross into this one, way							
				more actual rock at surface. Most							
				somewhat frost hea e of shatter. are							
				just NW (~8m) of what looks like an old							
70 500440		•	5 44 5 7	R"r, about 5m deep, with ra @ bottom of		•					
79 EGR113	0	0	P Medium /	slope Poorly sorted, massi e diamict; afs		0					
				matrix, occationally areas that are a bit							
				more sorted (more mc sand). Clasta							
				area A SA, minor SR. Mostly granule to							
				pebble, only ~ 15 Y., ablation till or poss.							
80 EGL10	0	0	S Low /	debris flow (btw alley + glacier).		0	42	Z	CRYO		
				Poorly sorted, massi e diamict; afs							
				matrix, occationally areas that are a bit							
				more sorted (more mc sand). Clasta							
				area A SA, minor SR. Mostly granule to							
80 EGL10	0	0	S Low /	pebble, only ~ 15 Y., ablation till or poss. debris flow (btw_alley + glacier).		0	42	7	CRYO		
60 EGL10	0	U	3 LOW /	Poorly sorted, massi e diamict; afs		U	42	L	CRTO		
				matrix, occationally areas that are a bit							
				more sorted (more mc sand). Clasta							
				area A SA, minor SR. Mostly granule to							
				pebble, only ~ 15 Y., ablation till or poss.							
80 EGL10	0	0	S Low /	debris flow (btw alley + glacier).		0	42	Z	CRYO		
				Abundant frost shattered A peb 5m							
				boulder in ery rough solifluction lobes.							
				Only 5% 20 30 cm wide mud boils.  Practically R, just frost shattered. TSM =							
81 EGR14	0	0	S Low /	II b.c thin shattered R, r drained		0					
OT LOITIT	<u> </u>		O LOW /	Abundant frost shattered A peb 5m		<u> </u>					
				boulder in ery rough solifluction lobes.							
				Only 5% 20 30 cm wide mud boils.							
				Practically R, just frost shattered. TSM =							
81 EGR14	0	0	S Low /	II b.c thin shattered R, r drained		0					
				Abundant frost shattered A peb 5m							
				boulder in ery rough solifluction lobes.							
				Only 5% 20 30 cm wide mud boils.  Practically R, just frost shattered. TSM =							
81 EGR14	0	0	S Low /	II b.c thin shattered R, r drained		0					
OT EORTH	<u> </u>		C LOW /	burnt, steepish slope. fire didn't cause		<b>U</b>					
				slide; TSM IVR (too steep for road) but							
				dry, seems stable other than minor							
82 EGR112	0	0	P Medium /	creep.		0					
		·		burnt, steepish slope. fire didn't cause							
				slide; TSM IVR (too steep for road) but							
00 500440	•	0	D. Madius: /	dry, seems stable other than minor		^					
82 EGR112	0	0	P Medium /	creep. burnt, steepish slope. fire didn't cause		0					
				slide; TSM IVR (too steep for road) but							
				dry, seems stable other than minor							
82 EGR112	0	0	P Medium /	creep.		0					
				Is there a source for C abo e? Not a							
83 EGL11	0	0	S Low /	good till, but a small possibility		0		N	BRUN-DYB-O	O.EB or O.DYB	O.EB or O.DYB
	_	_		Is there a source for C abo e? Not a		_			BB100-50-5	0 = 0 =	0.55
83 EGL11	0	0	S Low /	good till, but a small possibility		0		N	BRUN-DYB-O	O.EB or O.DYB	O.EB or O.DYB
83 EGL11	0	0	S Low /	Is there a source for C abo e? Not a good till, but a small possibility		0		NI	BRUN-DYB-O	O ED or O DVD	O.EB or O.DYB
83 EGL11 84 EGR13	0	0	S Low /	TSM = II		0		IN	 BRUN-DYB-O	O.EB or O.DYB	O.ED UI O.DTB
84 EGR13	0	0	S Low /	TSM = II		0					
84 EGR13	0	0	S Low /	TSM = II		0					
	-	-									

Site D Site No Depth to Badrock Water 15M EP Series Site Note Vegetation Note QC By QC Complete Layer Depth Layer Type Soil Code Code    Series Site Note   Series Site Note   Series   Series	Phase Soil Notes
They thin may be scanp of ery old slide but nothing ob lous to support that.   There is a it of a conca ity, but could be due to in ation in the past. Reid glaciation just got to edge of top	
But nothing ob lous to support that.   There is a it of a concal ity, but could be due to in altion in the past. Reid glaciation just got to edge of top debuttress during melt =	
There is a it of a concal ity, but could be due to in altion in the past. Reid glaciation just got to edge of top debutress during melt = 0	
See EGL307	
SEGL307	
see notes for BGE on separate sheet. They thin may be scarp of ery old slide but nothing do lous to support that. There is a it of a conce ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 S Medium / debuttress during melt = 0  86 EGR307 0 O S Medium / debuttress during melt = 0  85 EGL307 0 O S Medium / debuttress during melt = 0  85 EGL307 0 O S Medium / debuttress during melt = 0  85 EGL307 0 O S Medium / debuttress during melt = 0  85 EGR307 O S Medium / debuttress during melt = 0  86 EGR111 0 O S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from site site just upslope (sideways) fro	
They thin may be scarp of ery old slide but nothing ob ious to support that. There is a it of a conce ity, but could be due to ni ation in the past. Reid glacitation just got to edge of top  85 EGL307 0 0 0 S Medium / debuttress during melt = 0  see notes for BGE on separate sheet. They thin may be scarp of ery old slide but nothing ob ious to support that. There is a it of a conce ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 S Medium / debuttress during melt = 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from	
Dut nothing ob ious to support that.   There is a it of a conca ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top	
There is a it of a concal tiy, but could be due to ni ation in the past. Reid glaciation just got to edge of top	
See GL307   0   0   S   Medium /   Medium   Me	
85 EGL307	
see notes for BGE on separate sheet. They thin may be scarp of ery old slide but nothing ob ious to support that. There is a it of a conca ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 S Medium / debuttress a lit be way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II  86 EGR111 0 0 0 S Low / small treed gully. TSM II  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II  pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II  pretty steep all the way down to this site site just upslope (sideways) from	
They thin may be scarp of ery old slide but nothing ob ious to support that.  There is a it of a conca ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 S Medium / debuttress during melt = 0  Pretty steep all the way down to this site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  Pretty steep all the way down to this site just upslope (sideways) from site site just upslope (sideways) from small treed gully. TSM II 0  Pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  Pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  Pretty steep all the way down to this site site just upslope (sideways) from small treed gully. TSM II 0  Pretty steep all the way down to this site just upslope (sideways) from site site just upslope site si	
but nothing ob ious to support that. There is a it of a conca ity, but could be due to ni ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 0 S Medium / debuttress during melt = 0 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  site site just upslope (sideways) from  site site just upslope (sideways) from	
There is a it of a conca ity, but could be due to in ation in the past. Reid glaciation just got to edge of top  85 EGL307 0 0 S Medium / debuttress during melt = 0	
State   Stat	
85 EGL307 0 0 S Medium / debuttress during melt = 0	
pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from 0  pretty steep all the way down to this site site just upslope (sideways) from	
site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  86 EGR111 0 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from  small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from	
86 EGR111       0       0       S       Low /       small treed gully. TSM II       0          pretty steep all the way down to this site site just upslope (sideways) from         86 EGR111       0       0       S       Low /       small treed gully. TSM II       0          pretty steep all the way down to this site site just upslope (sideways) from	
site site just upslope (sideways) from  86 EGR111 0 0 S Low / small treed gully. TSM II 0  pretty steep all the way down to this site site just upslope (sideways) from	
86 EGR111 0 0 S Low / small treed gully. TSM II 0 pretty steep all the way down to this site site just upslope (sideways) from	
pretty steep all the way down to this site site just upslope (sideways) from	
site site just upslope (sideways) from	
86 EGR111 0 0 S Low / small treed gully. TSM II 0	
Since last site, walking on ridge. Pull out	
as separate poly, with arying amounts of shattered R. TSM = II as decent	
slope, dry, somewhat undulating ertical	
rather than straight (could be III on	
87 EGR304	
Since last site, walking on ridge. Pull out	
as separate poly, with arying amounts of shattered R. TSM = II as decent	
slope, dry, somewhat undulating ertical	
rather than straight (could be III on	
87 EGR304 0 0 S Medium / opposite aspect) 0	
Since last site, walking on ridge. Pull out	
as separate poly, with arying amounts of shattered R. TSM = II as decent	
slope, dry, somewhat undulating ertical	
rather than straight (could be III on	
87 EGR304 0 0 S Medium / opposite aspect) 0	
Few Fk e edge of fill Area x cut by roads, etc. Shows ~ 5 10 m of C.	
88 EGL309 0 0 P High / Competant R isible in few areas 0	
Few Fk e edge of fill Area x cut by	
roads, etc. Shows ~ 5 10 m of C.	
88 EGL309 0 0 P High / Competant R isible in few areas 0	
Few Fk e edge of fill Area x cut by roads, etc. Shows ~ 5 10 m of C.	
88 EGL309 0 0 P High / Competant R isible in few areas 0	
abundant moss/peat/burnt duff eg +	
soil samples taken check photos to	
see if drape or if material makes slope  89 EGR110 0 0 S Low / TSM=II  0 N BRUN-MB-O	or O SB
89 EGR110 0 0 S Low / TSM=II 0 N BRUN-MB-O abundant moss/peat/burnt duff eg +	or O.SB
soil samples taken check photos to	
see if drape or if material makes slope	
89 EGR110 0 0 S Low / TSM=II 0 N BRUN-MB-O	or O.SB

	Depth to	Depth to		Ecosite/Site				Root Restricting Root R	estricting		Series		
SiteID SiteNo				P Series	Site Note Vegetation Note	QC By	QC Complete			Soil Code		Soil Notes	
					abundant moss/peat/burnt duff eg +	•	•		· ·				
					soil samples taken check photos to								
00 505440	•			,	see if drape or if material makes slope							0.00	
89 EGR110	0	0		ow /	TSM=II		0		N	BRUN-MB-O		or O.SB	
90 EGL46 90 EGL46	0	0		ow /	check photos if R old (R"r) check photos if R old (R"r)		0						
90 EGL46	0	0		ow /	check photos if R old (R"r)		0						
30 LOL40	<u> </u>	U	<u> </u>	OW /	Hole is 30cm deep; then too rocky, but								
					rocks break easily. No idea how thick.								
					No rocks on surface, just moss/lichen.								
91 EGR305	0	0	S L	ow /	TSM = II (low slope, ok drainage)		0						
					Hole is 30cm deep; then too rocky, but								
					rocks break easily. No idea how thick.								
					No rocks on surface, just moss/lichen.								
91 EGR305	0	0	S L	ow /	TSM = II (low slope, ok drainage)		0						
					Hole is 30cm deep; then too rocky, but rocks break easily. No idea how thick.								
					No rocks on surface, just moss/lichen.								
91 EGR305	0	0	S L	ow /	TSM = II (low slope, ok drainage)		0						
01 201000	<u> </u>		<u> </u>	5 <b>vv</b> 7	small areas with a tiny bit of piping, tiny								
					bit of trees leaning e er so slightly. Not								
					enough to include in map label though.								
					Rocks poke out in a few spots. Other								
92 EGR412	0	0	S Med	dium /	spots moss is up to 30 cm thick		0						
					small areas with a tiny bit of piping, tiny								
					bit of trees leaning e er so slightly. Not								
					enough to include in map label though.								
92 EGR412	0	0	S Med	dium /	Rocks poke out in a few spots. Other spots moss is up to 30 cm thick		0						
92 EGR412	0	- 0	3 IVIE	ululii /	small areas with a tiny bit of piping, tiny		0						
					bit of trees leaning e er so slightly. Not								
					enough to include in map label though.								
					Rocks poke out in a few spots. Other								
92 EGR412	0	0	S Med	dium /	spots moss is up to 30 cm thick		0						
					Open forest, mostly shrub birch,								
					lichen/moss. SiL matrix with 20% friable								
					tabular phyllite granules to 5m pebbles,								
					plus 15% more competant, tabular, ang clasts. TSM III. Unsure D or C, going D								
93 EGR124	0	0	S Med	dium /	and C. Unsure thickness.		0						
93 LON124		- 0	O IVIE	ululii 7	Open forest, mostly shrub birch,		0						
					lichen/moss. SiL matrix with 20% friable								
					tabular phyllite granules to 5m pebbles,								
					plus 15% more competant, tabular, ang								
					clasts. TSM III. Unsure D or C, going D								
93 EGR124	0	0	S Med	dium /	and C. Unsure thickness.		0						
					Open forest, mostly shrub birch,								
					lichen/moss. SiL matrix with 20% friable								
					tabular phyllite granules to 5m pebbles,								
					plus 15% more competant, tabular, ang clasts. TSM III. Unsure D or C, going D								
93 EGR124	0	0	S Med	dium /	and C. Unsure thickness.		0						
00 EGIT12+	<u> </u>		O IVIC	aram 7	hole = 0 21 or w 2fs with ~2%gr sm								
					pebble, SA SR, almost magic mud								
					21 35+ dirty m es matrix with ~ 30 40%								
					granule sm cobble. Most A SA, few SR								
94 EGR109	0	0	S L	ow /	inc 1 med cobble @ surface		0						
					hole = 0 21 or w 2fs with ~2%gr sm								
					pebble, SA SR, almost magic mud								
					21 35+ dirty m es matrix with ~ 30 40%								
94 EGR109	0	0	S L	OW /	granule sm cobble. Most A SA, few SR inc 1 med cobble @ surface		0						
34 EGK 109	U	U	J LI	OVV /	IIIC THIEG CODDIC W SUHACE		U						

	Depth to	Donth to			Ecosite/Site					Root Restricting R	Poot Bootrioting		Series		
SiteID SiteNo	Bedrock			EP	Series Site Note		Vegetation Note	QC By	QC Complete		Layer Type	Soil Code	Code	Phase Soil Notes	
						1 or w 2fs with ~2%gr sm		•	-						
						A SR, almost magic mud ty m es matrix with ~ 30 40%									
						n cobble. Most A SA, few SR									
94 EGR109	0	0	S	Low		cobble @ surface			0						
95 EGR414	0	0		Medium		Goer Till			0						
95 EGR414 95 EGR414	0	0		Medium Medium		Goer Till Goer Till			0						
33 23					Slope has	minor undulations, probably									
						uction. Permafrost likely still									
96 EGR125	0	0	S	Low	·	not acti ely creating landforms			0						
30 LGIT123		0		LOW		minor undulations, probably									
					relict solifl	uction. Permafrost likely still									
00 500405	0	0	0	1		not acti ely creating landforms			0						
96 EGR125	0	0	S	Low	/ TSM = II. Slope has	minor undulations, probably			U						
					relict solifl	uction. Permafrost likely still									
	_		_			not acti ely creating landforms									
96 EGR125	0	0	S	Low		in patches on tops Horsetail	le		0						
97 EGR415	0	0	S	Low	/ + trees	in pateries on tops Trorsetail	15		0					some buried horizons	,
						in patches on tops Horsetail	ls								
97 EGR415	0	0	S	Low	/ + trees	in patches on tops Horsetail	lo.		0					some buried horizons	3
97 EGR415	0	0	S	Low		in patches on tops Horsetali	is .		0					some buried horizons	,
0. 20					TSM = I	0.8m peat hummock H2O			•						
00 500407	0	0	0			h then = grey, cold SiCL wit	h		0			01.57.0		0.0 0.0	
98 EGR107	0	0	S	Low		granules only)wet, dense 0.8m peat hummock H2O -	<u> </u>		0			GLEYO		O.G or R.G	
						h then = grey, cold SiCL wit									
98 EGR107	0	0	S	Low	/ ~15% grit(	granules only)wet, dense			0			GLEYO		O.G or R.G	
						0.8m peat hummock H2O - h then = grey, cold SiCL wit									
98 EGR107	0	0	S	Low		granules only)wet, dense	.11		0			GLEYO		O.G or R.G	
					20 cm fs,	no clasts o er ~ 1.5 m + z fs	3		·						
99 EGR416	0	0	S	Low		6 R pebble to cobble			0		N	BRUN-DYB-O		O.DYB or O.EB	
99 EGR416	0	0	S	Low		no clasts o er ~ 1.5 m + z fs 6 R pebble to cobble	•		0		N	BRUN-DYB-O		O.DYB or O.EB	
00 201110				2011		no clasts o er ~ 1.5 m + z fs	3		<u> </u>			BROW BIB 0			
99 EGR416	0	0	<u>S</u>	Low		6 R pebble to cobble			0		N	BRUN-DYB-O		O.DYB or O.EB	
100 EGR106 100 EGR106	0	0	S S	Low Low		lue to slope, could be I lue to slope, could be I			<u> </u>						
100 EGR106	0	0	S	Low		lue to slope, could be I			0						
					TSM = II.	Basically same as 125 for									
101 EGR126	0	0	S	Low	/ terrain.	Basically same as 125 for			0						
101 EGR126	0	0	s	Low		Dasically same as 120 101			0						
					TSM = II.	Basically same as 125 for			-						
101 EGR126	0	0	S	Low	/ terrain.	as minor undulations matrix =			0						
102 EGR417	0	0	S	Low		is minor undulations matrix =			0						
		<u> </u>				as minor undulations matrix =			<u> </u>						
102 EGR417	0	0	S	Low					0						
102 EGR417	0	0	c	Low		s minor undulations matrix =			0			_			
102 EGR417	U	U	<u> </u>	LUW		are ~ 35% peat in bottom			U						
					now, tiny t	oit of possible effemeral H20									
400 500405			_	Levi		tom Poss merge poly c rest of	of		0						
103 EGR105			8	Low	ran, or at I	east tighten to draw are ~ 35% peat in bottom			U			-			
					now, tiny b	oit of possible effemeral H20									
			_		right e bot	tom Poss merge poly c rest of	of		_						
103 EGR105			S	Low	fan, or at l	east tighten to draw			0						

SiteID SiteNo	Depth to	Depth to	TSM EP Ser	site/Site les Site Note Vegetation Note		estricting Root Restricting Serie  Depth Layer Type Soil Code Code	
SiteID SiteNo	Dearock	water	TOWN ET SET	gully walls are ~ 35% peat in bottom	ac by ac complete Layer	Deptil Layer Type 3011 Gode Code	r Hase Sull Notes
				now, tiny bit of possible effemeral H20			
103 EGR105			S Low /	right e bottom Poss merge poly c rest of fan, or at least tighten to draw	0		
				side slopes ~ 20 35% kettle hole in	-		
104 EGR418	0	0	S Low /	terrace side slopes ~ 20 35% kettle hole in	0	<del></del>	
104 EGR418	0	0	S Low /	terrace	0		
104 505440	0	0	0 1 /	side slopes ~ 20 35% kettle hole in	2		
104 EGR418	0	0	S Low /	terrace EP Could erode quickly if slope mat as	0	<del>-</del>	
				LSA where gullied from off of road. Is a			
				zd, with 30 35% gr sm pebble. More diam like than before. Clasts are A SA			
				mix of green pelite, orange pelite, some			
				qtz, bit granite. Unsure if all could be D.			
105 EGR123	0	0	P Medium /	Poss C. or e en  EP Could erode quickly if slope mat as	0		
				LSA where gullied from off of road. Is a			
				zd, with 30 35% gr sm pebble. More			
				diam like than before. Clasts are A SA			
				mix of green pelite, orange pelite, some qtz, bit granite. Unsure if all could be D.			
105 EGR123	0	0	P Medium /	Poss C. or e en	0		
				EP Could erode quickly if slope mat as			
				LSA where gullied from off of road. Is a zd, with 30 35% gr sm pebble. More			
				diam like than before. Clasts are A SA			
				mix of green pelite, orange pelite, some			
105 EGR123	0	0	P Medium /	qtz, bit granite. Unsure if all could be D. Poss C. or e en	0		
100 EGITIZO	<u> </u>		1 Wicdian 7	permafrost @ 60 cm depth May be			
	_			mineral e base, but no auger and it's	_		
106 EGR419	0	0	S Low /	frozen solid permafrost @ 60 cm depth May be	0	<del>-</del>	
				mineral e base, but no auger and it's			
106 EGR419	0	0	S Low /	frozen solid	0		
				permafrost @ 60 cm depth May be mineral e base, but no auger and it's			
106 EGR419	0	0	S Low /	frozen solid	0		
107 EGR420	0	0	S Low /	check photos/polygon for deciles	0		
107 EGR420 107 EGR420	0	0	S Low /	check photos/polygon for deciles check photos/polygon for deciles	0		
101 2011.20				toe slope has a few piping holes whole	·		
400 505444	0	0	II law /	hillside seems to be satureated + slowly	0		
108 EGR411	0	0	U Low /	slumping/creeping toe slope has a few piping holes whole	0	<del></del>	
				hillside seems to be satureated + slowly			
108 EGR411	0	0	U Low /	slumping/creeping toe slope has a few piping holes whole	0		
				toe slope has a few piping noies whole hillside seems to be satureated + slowly			
108 EGR411	0	0	U Low /	slumping/creeping	0		
				Open spruce forest, lichen/ moss. Magic			
				mud@20cm depth seepage. Sed is a zfsd, med brown, 20 25% gr lg pebble, A			
				mostly, but some SA. Mostly tabular			
				phyllite, some blockier harder rock. Till			
109 EGR122	0	0	S Medium /	or could be V weathered C. TSM = III due to H20.	0	<u></u>	
	-			Open spruce forest, lichen/ moss. Magic	<u> </u>		
				mud@20cm depth seepage. Sed is a			
				zfsd, med brown, 20 25% gr lg pebble, A mostly, but some SA. Mostly tabular			
				phyllite, some blockier harder rock. Till			
100 505:55	•	•		or could be V weathered C. TSM = III	_		
109 EGR122	0	0	S Medium /	due to H20.	0		

	Depth to	Depth to		Ecosite/Site					Root Restricting	Root Restricting		Series			
SiteID SiteNo				P Series		Vegetation Note	QC By	QC Complete		Layer Type S	Soil Code	Code	Phase S	oil Notes	
					Open spruce forest, lichen/ moss. Magic										
					mud@20cm depth seepage. Sed is a										
					zfsd, med brown, 20 25% gr lg pebble, A										
					mostly, but some SA. Mostly tabular										
					phyllite, some blockier harder rock. Till										
100 505400	•	•	0 14	P	or could be V weathered C. TSM = III			•							
109 EGR122	0	0	S Me	aium /	due to H20. section ~ 15 20 m of crude stratified sz			0		-					
					with some gra el beds older fan? much										
110 EGR410	0	0		1	steeper thicker than alley			0							
110 LGR410		<u> </u>			section ~ 15 20 m of crude stratified sz			0							
					with some gra el beds older fan? much										
110 EGR410	0	0		1	steeper thicker than alley			0		_	_				
20					section ~ 15 20 m of crude stratified sz										
					with some gra el beds older fan? much										
110 EGR410	0	0		1	steeper thicker than alley			0		-	_				
					f= fsz, no clasts, interbeddedw buried										
111 EGR409	0	0	S L	ow /	humic to mesic beds 2 5 cm thick			0							
					f= fsz, no clasts, interbeddedw buried										
111 EGR409	0	0	S L	ow /	humic to mesic beds 2 5 cm thick			0		-	-				
=05.00	•			,	f= fsz, no clasts, interbeddedw buried			•							
111 EGR409	0	0	S L	ow /	humic to mesic beds 2 5 cm thick			0		-	-				
					20cm of SiL matrix with 40% A peb.										
					small cobble, all tabular and same										
112 EGR120	0	0	S L	OW /	lithology (not sure, but strong elongated fabric).			0							
TIZ LGKIZU		<u> </u>	<u> </u>	OW /	20cm of SiL matrix with 40% A peb.			0							
					small cobble, all tabular and same										
					lithology (not sure, but strong elongated										
112 EGR120	0	0	S L	ow /	fabric).			0		_	_				
	-				20cm of SiL matrix with 40% A peb.			-							
					small cobble, all tabular and same										
					lithology (not sure, but strong elongated										
112 EGR120	0	0	S L	ow /	fabric).			0							
					slope has se eral small (0.5m) scarps.										
	_				Didn't walk up to top. Small gully just R			_							
113 EGR408	0	0	U Me	dium /		eg says trees ~ 100 yrs old		0		-	-				
					slope has se eral small (0.5m) scarps.										
113 EGR408	0	0	U Me	dium /	Didn't walk up to top. Small gully just R of site (~ 1 m wide)	eg says trees ~ 100 yrs old		0			_				
113 LGR400		<u> </u>	U IVIE	ululli /	slope has se eral small (0.5m) scarps.	eg says trees 100 yrs old		0							
					Didn't walk up to top. Small gully just R										
113 EGR408	0	0	U Me	dium /		eg says trees ~ 100 yrs old		0		-	_				
2 _ 33	<del>-</del>	<del></del>			Open spruce forest, lichen and moss.	<u> </u>		-							
114 EGR119	0	0	P Me	dium /	TSM = II III			0		<u> </u>	<u>-</u>				
					Open spruce forest, lichen and moss.										
114 EGR119	0	0	P Me	dium /	TSM = II III			0							
					Open spruce forest, lichen and moss.										
114 EGR119	0	0	P Me	dium /	TSM = II III			0		-	-				
445 501 000	^	•	0	-U /	check drill logs for depth matrix is zfs			0							
115 EGL308	U	0	S Me	aium /	(L)			0		-	-				
115 FOL 200	0	0	S Me	dium /	check drill logs for depth matrix is zfs (L)			0							
115 EGL308	U	U	o ivie	uiuiII /	check drill logs for depth matrix is zfs			U		-	-				
115 EGL308	Ω	0	S Me	dium /	(L)			0		_	_				
110 E02000			O IVIC	aidili /	Open forest, walked past one open area			<u> </u>							
					(lichen o er rock) that could be an old										
					(small) slide runout check photos. Hole										
					= grey brown SiCL matrix, dry and loose										
					with 30 40% A SA SR (sm lg) peb and										
					granules. Unsure depth, Slope so may										
116 EGR118			P Me	dium /	just be a d??? (b ).			0		-	-				
· · · · · · · · · · · · · · · · · · ·		·	·	·		· · · · · · · · · · · · · · · · · · ·	·		·		·	·		· · · · · · · · · · · · · · · · · · ·	

	Depth to I	Depth to	Ecosite/Site				Root Restricting			Series	
SiteID SiteNo	Bedrock	Water	TSM EP Series	Site Note Vegetation Note	QC By	QC Complete	Layer Depth	Layer Type	Soil Code	Code	Phase Soil Notes
				Open forest, walked past one open area (lichen o er rock) that could be an old							
				(small) slide runout check photos. Hole							
				= grey brown SiCL matrix, dry and loose							
				with 30 40% A SA SR (sm lg) peb and							
				granules. Unsure depth, Slope so may							
116 EGR118			P Medium /	just be a d??? (b ).		0					
				Open forest, walked past one open area (lichen o er rock) that could be an old							
				(small) slide runout check photos. Hole							
				= grey brown SiCL matrix, dry and loose							
				with 30 40% A SA SR (sm lg) peb and							
				granules. Unsure depth, Slope so may							
116 EGR118			P Medium /	just be a d??? (b).		0					0.00/01 0.50 4 411
117 EGL66 117 EGL66	0	0	Medium / Medium /	Check drill logs for depth Check drill logs for depth		0			BRUN-DYB-O BRUN-DYB-O		O.DYB to O.EB Ae thicker upslope O.DYB to O.EB Ae thicker upslope
117 EGL66	0	0	Medium /	Check drill logs for depth		0			BRUN-DYB-O		O.DYB to O.EB Ae thicker upslope
117 EGEGG	<u> </u>		Wediam 7	all clasts are ery angular, all appear to					BRON BIB C		O.B. 12 to O.E.B. 7 to tillollol apolopo
				be granitic, up with depth, granules to							
				med pebbles (slate nearby on trail). dif D							
	_			than yesterday, as dif R that it's eri ed							
118 EGR303	0	0	S Low /	from. No idea how thick. all clasts are ery angular, all appear to		0			BRUN		
				be granitic, up with depth, granules to							
				med pebbles (slate nearby on trail). dif D							
				than yesterday, as dif R that it's eri ed							
118 EGR303	0	0	S Low /	from. No idea how thick.		0			BRUN		
				all clasts are ery angular, all appear to							
				be granitic, up with depth, granules to							
				med pebbles (slate nearby on trail). dif D than yesterday, as dif R that it's eri ed							
118 EGR303	0	0	S Low /	from. No idea how thick.		0			BRUN		
7.00 = 0.1000				mixed mostly deciduous forest Is a							
119 EGL310	0	0	P Medium /	small rock oc/frost head ~ 10 m to NW		0		N	BRUN-DYB-O		O.DYB or O.EB
	_			mixed mostly deciduous forest Is a							
119 EGL310	0	0	P Medium /	small rock oc/frost head ~ 10 m to NW mixed mostly deciduous forest Is a		0		N	BRUN-DYB-O		O.DYB or O.EB
119 EGL310	0	0	P Medium /	small rock oc/frost head ~ 10 m to NW		0		N	BRUN-DYB-O		O.DYB or O.EB
120 EGL311	0		S Medium /	unsure of spatial extent		0		N N	BRUN		basially same as M, C, D parent
120 EGL311			S Medium /	unsure of spatial extent		0		N	BRUN		basially same as M, C, D parent
120 EGL311			S Medium /	unsure of spatial extent		0		N	BRUN		basially same as M, C, D parent
101 501 10	•		0 14 11 /	und to humm topo landslide runout							
121 EGL48	0	0	S Medium /	material? und to humm topo landslide runout		0					
121 EGL48	0	0	S Medium /	material?		0					
121 EGE40	0		O Wicdiani /	und to humm topo landslide runout		<u> </u>					
121 EGL48	0	0	S Medium /	material?		0					
				mostly talus (shattered R) mo ed a bit by							
100 =0: -:-			<b>D</b>	solif Scarp must be quite old o		•					
122 EGL312			P Low /	ergrowan mostly talus (shattered R) mo ed a bit by		0					
				solif Scarp must be quite old o							
122 EGL312			P Low /	ergrowan		0					
			<del></del>	mostly talus (shattered R) mo ed a bit by		<del>-</del>					
				solif Scarp must be quite old o							
122 EGL312			P Low /	ergrowan		0					
123 EGL47 123 EGL47	0	0	S Low /	road cut,		0					
123 EGL47 123 EGL47	0	0	S Low /	road cut, road cut,		0					
120 LOL-1	<u> </u>	- 0	J LOW /	rous out,		U					IIC hard to texture due to clast
124 EGL1	0	0	S Medium /	Gully 20m downslope, only 1 2m wide.		0					content. Ah too thin to sample.
											IIC hard to texture due to clast
124 EGL1	0	0	S Medium /	Gully 20m downslope, only 1 2m wide.		0					content. Ah too thin to sample.
124 5014	0	0	C. Modium /	Cully 20m deveralance only 1.2m wid-		0					IIC hard to texture due to clast
124 EGL1	U	0	S Medium /	Gully 20m downslope, only 1 2m wide.		U					content. Ah too thin to sample.

	Depth to				Ecosite/Site					Root Restricting		Series
SiteID SiteNo	Bedrock	Water	TSM	EP	Series	Site Note Vegetation Note	QC By	QC Complete	Layer Depth	Layer Type	Soil Code	Code Phase Soil Notes
						Seems to be an R Coned ridge. 2 holes dug encountered numerous phyllite						
						pieces @ 20cm depth, with few intact						
						pieces. SL matrix. Crest (old road) co						
						ered by numerous frost shattered						Rock at 20cm. Soil code O.EB or
125 EGL313	0	0	S	Low	1	pebbles (square, flat)		0	20	L	BRUN-DYB-O	O.DYB
						Seems to be an R Coned ridge. 2 holes						
						dug encountered numerous phyllite						
						pieces @ 20cm depth, with few intact						
						pieces. SL matrix. Crest (old road) co						Deals at 00am Oall and O. F.D. an
125 EGL313	0	0	S	Low	,	ered by numerous frost shattered pebbles (square, flat)		0	20	1	BRUN-DYB-O	Rock at 20cm. Soil code O.EB or O.DYB
123 LGL313	U	<u> </u>		LUW	1	Seems to be an R Coned ridge. 2 holes		<u> </u>	20	L	BRON-D1B-O	O.DTB
						dug encountered numerous phyllite						
						pieces @ 20cm depth, with few intact						
						pieces. SL matrix. Crest (old road) co						
						ered by numerous frost shattered						Rock at 20cm. Soil code O.EB or
125 EGL313	0	0	S	Low	1	pebbles (square, flat)		0	20	L	BRUN-DYB-O	O.DYB
						+60cm of SL, mottled grey and brown,						
						unsure if laminated. Are a few Fs beds						
						therefore crude stratification. Spruce and						
126 EGR400	0	0	S	Low	,	cottonwood, equi sp, ibuedu, rosaaci, some moss.		0		N	REGOGLCU	Soil Code GLCU.R (likely)
120 EGR400	U	U		LOW	1	+60cm of SL, mottled grey and brown,		<u> </u>		IN	REGOGLCU	Soil Code GLCO.R (likely)
						unsure if laminated. Are a few Fs beds						
						therefore crude stratification. Spruce and						
						cottonwood, equi sp, ibuedu, rosaaci,						
126 EGR400	0	0	S	Low	1	some moss.		0		N	REGOGLCU	Soil Code GLCU.R (likely)
						+60cm of SL, mottled grey and brown,						
						unsure if laminated. Are a few Fs beds						
						therefore crude stratification. Spruce and						
126 EGR400	0	0	S	Low	,	cottonwood, equi sp, ibuedu, rosaaci, some moss.		0		N	REGOGLCU	Soil Code GLCU.R (likely)
120 EGR400	U	U	3	LOW	1	poss steeper slope break below SiL		0		IN	REGOGLCU	Soil Code GLCO.R (likely)
						TSM=V unsure C/D thickness fen						
						slumps along slope, just upslope from						
127 EGR70	0	0	Р	Medium	ı /	site. Pull out if can't get ID elsewhere		0				
						poss steeper slope break below SiL						
						TSM=V unsure C/D thickness fen						
			_			slumps along slope, just upslope from						
127 EGR70	0	0	Р	Medium	1 /	site. Pull out if can't get ID elsewhere		0				
						poss steeper slope break below SiL TSM=V unsure C/D thickness fen						
						slumps along slope, just upslope from						
127 EGR70	0	0	Р	Medium	1 /	site. Pull out if can't get ID elsewhere		0				
.2. 20170				cururi		slope is ~ 70 80%, egetated with		<u> </u>				
						patches of tabular rock near surface. All						
						clasts oriented II to slope. TSM II III >						
						R not that competant; unsure how deep						
128 EGR72	0	0	Р		1	to solid.		0				
						slope is ~ 70 80%, egetated with						
						patches of tabular rock near surface. All clasts oriented II to slope. TSM II III >						
						R not that competant; unsure how deep						
128 EGR72	0	0	Р		1	to solid.		0				
120 201072					•	slope is ~ 70 80%, egetated with		<u> </u>				
						patches of tabular rock near surface. All						
						clasts oriented II to slope. TSM II III >						
						R not that competant; unsure how deep						
128 EGR72	0	0	Р		1	to solid.		0				
						C1 20cm of z fs, appears massi e, no						
						clasts. C2 30cm+ of (sm lg) pebble gra						
129 EGR401	Λ	0	S	Low	1	el (35 45%) in a m cs granule poorly sorted matrix. Clasts are R, mix of litho		0			REGOCU	Soil code CU.R
128 EGR401	U	U	<u> </u>	LUW	1	SOLICA MARIA. CIASIS AIG IV, IIIIA OI IIIIIO		U			NEGOCO	Joil Goue CO.N

	Depth to D	enth to			Ecosite/Site			R	oot Restricting R	oot Restricting	7	Series		
SiteID SiteNo	Bedrock	Water	TSM	EP	Series	Site Note Vegetation Note	QC By	QC Complete		Layer Type			nase Soil Notes	
						C1 20cm of z fs, appears massi e, no								
						clasts. C2 30cm+ of (sm lg) pebble gra el (35 45%) in a m cs granule poorly								
129 EGR401	0	0	S	Low	1	sorted matrix. Clasts are R, mix of litho		0			REGOCU		Soil code CU.R	
						C1 20cm of z fs, appears massi e, no								
						clasts. C2 30cm+ of (sm lg) pebble gra								
129 EGR401	0	0	S	Low	1	el (35 45%) in a m cs granule poorly sorted matrix. Clasts are R, mix of litho		0			REGOCU		Soil code CU.R	
123 LOI(401	0			LOW	,	At least on N NW facing side, are some		<u> </u>			NEGO00		2011 2002 20.11	
						rudimentary sorted circles/mud boild with								
						A cobbles . Few solifluction lobes Cant								
130 EGR74			S		1	tell D or C is soliflucted D now C/ Some slope to pro ice C		0						
130 LGR74			3			At least on N NW facing side, are some		0						
						rudimentary sorted circles/mud boild with								
						A cobbles . Few solifluction lobes Cant								
100 50074			0		,	tell D or C is soliflucted D now C/ Some		0						
130 EGR74			S		1	slope to pro ice C At least on N NW facing side, are some		U						
						rudimentary sorted circles/mud boild with								
						A cobbles . Few solifluction lobes Cant								
			_			tell D or C is soliflucted D now C/ Some								
130 EGR74 131 EGR102			S S	Low	/	slope to pro ice C O g 50 80 cm o er SL grey, no clasts		0						
131 EGR102				Low	/	O g 50 80 cm o er SL grey, no clasts		0						
131 EGR102				Low	1	O g 50 80 cm o er SL grey, no clasts		0						
						road cut is partially weathered R, o er 3								
						m of mostly competant R Phyllite to								
132 EGR405					/	slate c some qtc_eins_Minor road cut Rsr		0						
102 LON400					,	road cut is partially weathered R, o er 3		<u> </u>						
						m of mostly competant R Phyllite to								
400 505405					,	slate c some qtc eins Minor road cut		•						
132 EGR405					/	Rsr road cut is partially weathered R, o er 3		0						
						m of mostly competant R Phyllite to								
						slate c some qtc eins Minor road cut								
132 EGR405					1	Rsr		0						
						Old placer acti ity. One large roadcut exposes 5m of dk grey SL, inerbedded								
						with f ms. Contains 2 3 peat beds with								
						some large root pieces for Lisa (paleo).								
133 EGR406	0	0	S N	1edium	n /	Lots of old wood in placer stuff.		0			REGOGLCU	1	Soil Code GLCU.R	
						Old placer acti ity. One large roadcut								
						exposes 5m of dk grey SL, inerbedded with f ms. Contains 2 3 peat beds with								
						some large root pieces for Lisa (paleo).								
133 EGR406	0	0	S M	1edium	n /	Lots of old wood in placer stuff.		0			REGOGLCU	I	Soil Code GLCU.R	
						Old placer acti ity. One large roadcut								
						exposes 5m of dk grey SL, inerbedded								
						with f ms. Contains 2 3 peat beds with some large root pieces for Lisa (paleo).								
133 EGR406	0	0	s M	1edium	n /	Lots of old wood in placer stuff.		0			REGOGLCU	ı	Soil Code GLCU.R	
134 EGR404			S	Low	/	Recent flooding/thin silt co er o er eg Alder, Equi sp.		0		N	REGOCU			
134 EGR404				Low		Recent flooding/thin silt co er o er eg Alder, Equi sp.		0		N	REGOCU			
134 EGR404			S	Low	1	Recent flooding/thin silt co er o er eg Alder, Equi sp. rock exposed in road cut. Estimate D is		0		N	REGOCU			
						1 3 m thick Hole = 60% A phyllite								
135 EGR403			Р	Low	1	pieces in a SL matrix. Mica in matrix too		0	10	L	REGOO			
						rock exposed in road cut. Estimate D is								
125 500400			В	Lave	,	1 3 m thick Hole = 60% A phyllite		0	10		DECC O			
135 EGR403			Р	LOW	I	pieces in a SL matrix. Mica in matrix too rock exposed in road cut. Estimate D is		0	10	L	REGOO			
						1 3 m thick Hole = 60% A phyllite								
135 EGR403			Р	Low	1	pieces in a SL matrix. Mica in matrix too		0	10	L	REGOO			
·	<del></del>						<u>-</u>		·			·	·	

	Danish ta	Davids (a		F '4 . /0'					De et Bestrietie e	De et De etaletico		Ouries	
SiteID SiteNo	Depth to Bedrock	Depth to Water	TSM	Ecosite/Si EP Series	te Site Note	Vegetation Note	QC By	QC Complete	Root Restricting Layer Depth		Soil Code	Series Code	Phase Soil Notes
					Slump block. Site is just down from R	•	•	•	· ·	, ,,			
					side of scarp, unsure how far it goes.								
					Scarp is 2 3m high. Trees are 30 50								
					years old. Caution when digging toe as								
					could re acti ate. Trees are happy and								Soil code O.R Root restricting layer:
136 EGR407	0	0	P	Low /	upright looks stable now.			0		L	REGOO		rock at some unknown depth.
					Slump block. Site is just down from R								
					side of scarp, unsure how far it goes.								
					Scarp is 2 3m high. Trees are 30 50								
					years old. Caution when digging toe as could re acti ate. Trees are happy and								Soil and O.D. Doot restricting lover
136 EGR407	0	0	Р	Low /	upright looks stable now.			0		1	REGOO		Soil code O.R Root restricting layer: rock at some unknown depth.
130 LGIN407	0	<u> </u>	- '	LOW /	Slump block. Site is just down from R			0		<u> </u>	NEGOO		Tock at some unknown deptin.
					side of scarp, unsure how far it goes.								
					Scarp is 2 3m high. Trees are 30 50								
					years old. Caution when digging toe as								
					could re acti ate. Trees are happy and								Soil code O.R Root restricting layer:
136 EGR407	0	0	Р	Low /	upright looks stable now.			0		L	REGOO		rock at some unknown depth.
					TSM = V Slides likely old, but as fill								·
137 EGR300	0	0	U	Medium /	sed could fail again			0					
					TSM = V Slides likely old, but as fill								
137 EGR300	0	0	U	Medium /	sed could fail again			0					
					TSM = V Slides likely old, but as fill								
137 EGR300	0	0	U	Medium /	sed could fail again			0					
					where site is, road cuts show > 3 m of								
					FG to west and 4 20 of FG/R to east at								
138 EGR402				Low /	site hillis all stg. Is this a terrace scarp?			0					
130 EGR402			<u> </u>	LOW /	looks like a large bump where site is, road cuts show > 3 m of	Veg is open aspen; likely outlines feature		U			-		
					FG to west and 4 20 of FG/R to east at								
					site hillis all stg. Is this a terrace scarp?								
138 EGR402			S	Low /	looks like a large bump	Veg is open aspen; likely outlines feature		0					
100 2011102					where site is, road cuts show > 3 m of	rog to open depen, interf calmines realare							
					FG to west and 4 20 of FG/R to east at								
					site hillis all stg. Is this a terrace scarp?								
138 EGR402			S	Low /	looks like a large bump	Veg is open aspen; likely outlines feature		0					
139 EGR413			S	Low /	2.5m up from ri er base.	TSM=1		0					
139 EGR413			S	Low /	2.5m up from ri er base.	TSM=1		0					
139 EGR413			S	Low /	2.5m up from ri er base.	TSM=1		0					
					TSM = III split from upper as more								
=====	•		_		egetated eg co ered poss few R			•					
140 EGR301	0	0	<u>P</u>	Low /	outcrops			0					
					TSM = III split from upper as more egetated eg co ered poss few R								
140 EGR301	0	0	Р	Low /	outcrops			0					
140 LONS01	0	- 0	- '	LOW /	TSM = III split from upper as more			0					
					egetated eg co ered poss few R								
140 EGR301	0	0	Р	Low /	outcrops			0					
	<u> </u>	<u> </u>	-		1m high shrub birch, scattered spruce,			<u> </u>					
					moss. Gentle slope, some mud boils								
					therefore permafrost. Not C, as no								
					source area or dif material. Small								
					depression below site has scattered A								Soil code O.EB Structure and clour
141 EGL21	0	0	S	Low /	boulders.			0			BRUN-EB-O	O.EB	due (partially?) to weathering of R
					1m high shrub birch, scattered spruce,								
					moss. Gentle slope, some mud boils								
					therefore permafrost. Not C, as no								
					source area or dif material. Small								Cail and O.F.D. Otroctors and I
144 FOLO4	0	0	c	Low /	depression below site has scattered A boulders.			0			ס פווא ביי	O EB	Soil code O.EB Structure and clour
141 EGL21	U	0	S	Low /	1m high shrub birch, scattered spruce,			U			BRUN-EB-O	O.EB	due (partially?) to weathering of R
					moss. Gentle slope, some mud boils								
					therefore permafrost. Not C, as no								
					source area or dif material. Small								
					depression below site has scattered A								Soil code O.EB Structure and clour
141 EGL21	0	0	S	Low /	boulders.			0			BRUN-EB-O	O.EB	due (partially?) to weathering of R
. = ·	<del>-</del>			· · · · · · · · · · · · · · · · · · ·				-					(I

SiteID SiteNo	Depth to Bedrock			EP	Ecosite/Site Series	Site Note	Vegetation Note	QC By	QC Complete	Root Restricting Laver Depth	Root Restrictin  Layer Type		Series Code F	Phase Soil Notes
ORGID GROTTO	Boaroon	Wato.			Corros	TSM V Same as ERG300, old	rogotation Noto	<b>40 5</b> ,	a o oomproto	zayor Dopur	zayor rypo	0011 00u0	occo :	naco con notos
142 EGR302	0	0	U	Low	1	slides, but may fill + slide again			0					
						TSM V Same as ERG300, old								
142 EGR302	0	0	U	Low	1	slides, but may fill + slide again			0					
						TSM V Same as ERG300, old								
142 EGR302	0	0	U	Low	1	slides, but may fill + slide again			0					
143 EGR71	0	0	S	Low	,	alpine, moss scattered sm. boulders TSM=II			0					
143 EGR/ I	U	U	<u> </u>	Low	1	alpine, moss scattered sm. boulders			U			<b>-</b>		
143 EGR71	0	0	S	Low	1	TSM=II			Ω					
110 201111	<u> </u>				•	alpine, moss scattered sm. boulders								
143 EGR71	0	0	S	Low	1	TSM=II			0					
						3rd sample is "OS" org. soft want part								wood in underlying till total hole
144 TPA1					1	size + O.M. content			0	52	Z			depth ~ 6 ft all sal agable mix of
						3rd sample is "OS" org. soft want part								wood in underlying till total hole
144 TPA1					1	size + O.M. content			0	52	Z			depth ~ 6 ft all sal agable mix of
					,	3rd sample is "OS" org. soft want part			•		_			wood in underlying till total hole
144 TPA1					1	size + O.M. content			0	52	Z			depth ~ 6 ft all sal agable mix of
														gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost
														to 4 m SiS Mb then to SiS gray,
														unoxidized samples samples PM3+
														PM4 both strangely effer esent, esp
145 TPA3	0	0			1				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
	-								-					gra elly layers all sal eagable ice to
														1.3 m may or may not be permafrost
														to 4 m SiS Mb then to SiS gray,
														unoxidized samples samples PM3+
	_								_		_			PM4 both strangely effer esent, esp
145 TPA3	0	0			1				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
														gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost
														to 4 m SiS Mb then to SiS gray,
														unoxidized samples samples PM3+
														PM4 both strangely effer esent, esp
145 TPA3	0	0			1				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
														is Cb w slope wash C o erlying pre
														ious surface soil No e idenc eof
														carbonates in this Cb sample PM1
146 TPA4	0	0			1				0	53	Z			frozen Cb total depth > 2.5 m
														is Cb w slope wash C o erlying pre
														ious surface soil No e idenc eof
146 TPA4	0	0			,				0	E2	7			carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
140 17/4	U	U			,				U	53				is Cb w slope wash C o erlying pre
														ious surface soil No e idenc eof
														carbonates in this Cb sample PM1
146 TPA4	0	0			1				0	53	Z			frozen Cb total depth > 2.5 m
147 EGR451					/	by road			0	-		BRUN-DYB-O		,
147 EGR451					1	by road			0			BRUN-DYB-O		
147 EGR451					/	by road			0			BRUN-DYB-O		
440 =0= :==					,		fen sedge on periphery horsetail in centre	re	•			015775	D 0:	likely lenses of silt not isible due to
148 EGR450					1		surrounded by bog water at surface all		0	20		GLEYR	Rego Gleysol	
148 EGR450					,		fen sedge on periphery horsetail in centre surrounded by bog water at surface all	е	0	20		GLEYR	Rego Gleysol	likely lenses of silt not isible due to
140 EGR430					/		fen sedge on periphery horsetail in centre	Έ	U	20		GLE I K	Regu Gleysol	high water table likely lenses of silt not isible due to
148 EGR450					1		surrounded by bog water at surface all	•	Ω	20		GLEYR	Rego Gleysol	
1.10 2011400					,		Tamasa ay ang mator at barrado an					OLL: IX	. togo Cicyou	

SiteID SiteNo	ProfileID	Horizon	<b>DpthStart</b>	DpthEnd	l PrtMatCode	MoistCode	Color	CFPct cfpctl (	cfpct2 CFShpCode cfshpl	cfshp CFTyp cf code2 Code cftypl co	ityp Txt ode2 Code	Struc Grd Code stru	struc grd Struc Cls ıcgrdl code2 Code strucclsl	Struc struccls Kind struc code2 Code kindl		rootsa Roots otsal code2 SCode
4 EGL63	2	LFH	7	0	-			0								
4 EGL63	3	Ahe	0	5	-	M	10YR 4/3	30	SR	G	SiL	W	М	PL		
4 EGL63	7	Bm	5	9	-	M	10YR 4/4	50	SR	G	SL	W	M	SB		
4 EGL63	9	ВС	9	32	-	M	10YR 3/4	50	SR	G	LS	W	F	SB		
4 EGL63	11	С	32	0	-	М	10YR 4/6	65	SR	G	LS			SG		
5 EGL216	4	LFH	6	0	-			0								
5 EGL216	5	Bm	0	20	RESID-			50	A	s	SiL					
5 EGL216	6	С	20	60	RESID-			70	A	В	SiL					
6 EGR94	8	LFH	7	0	-										A	М
6 EGR94	10	С	0	FO		\A/	10VD 5/4	45	SA	G	201			MA	F	
7 EGR93	12		4		<del>-</del>	VV	10113/4	0	SA	G	SCL			WA	<u>г</u> А	г М
7 EGR93			0	2			10YR 3/3		А	S		М	М	GR	A	F
7 EGR93	14	Bm	2	25	COLL-MF		10YR 3/3	55	А	В		M	F	GR	F	F
8 EGR92	15	Of	1.7	0	-			0								
8 EGR92	16	Cg	0	60	FLUV-MF	W		15	SA	G	CL			MA		

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	e Color	CFPct cfpc	ctl cfpct2 CFShpCode cfshp	cfshp CFTyp l code2 Code cft	cftyp Txt cypl code2 Code				struc c kind Cons Roots l code2 ID ACode ro	rootsa Roots otsal code2 SCode
8 EGR92	17	Cgz	60	61	-			0			SCL					
10 EGL8	18	LFH	10	0	-			0							A	С
10 EGL8	19	Ah	0	4	-	М	10YR 2/2				SiCL	W	М	PL	A	M
10 EGL8	20	Bg	4	14	-	М	2.5Y 3/2	0			SCL	М	М	SB	F	M
10 EGL8	21	BCg	14	41	-	М	2.5Y 3/3	0			SCL	М	М	SB	F	M
44 5010	22	0	0	0	CLEL VC			75	CD.	S	C			20	F	0
11 EGL6	22	С	0	0	GLFL-VC			75	SK	5	5			SG	P.	С
12 EGL41	23	Of	25	0	-			0							Α	<u>M</u>
12 EGL41	24	Cg	0	16	FLUV-ME	W	2.5Y 4/4	25	SA	CG	SiL			MA	Р	M
12 EGL41	25	Cg	16	50	FLUV-ME	W	2.5YR 4/2	25	SA	CG	SiL			MA	F	F
13 EGL200	26	LFH	7	0	-			0							А	M
13 EGL200	27	Ahe	0	5	-	M	10YR 4/2	20	A	G		M	F	PR	A	<u>M</u>
13 EGL200	28	Bm	5	29	-	M	2.5Y 4/3	0	А	С		М	М	BL	Р	M
13 EGL200	29	ВС	29	51	_	М	2.5Y 5/4	0	А	С		М	М	BL	F	F
.3 232200				<u> </u>		141	01 0/4	<b>~</b>		<u>_</u>			111	- DL		<u> </u>
13 EGL200	30	С	0	0	-			45	A	S						
14 EGR96	31	Of	20	0	-			0							A	С

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct cf	fpctl cfpct2 CFShpCode cfshpl		cftyp Txt S		struc grd Struc Cls st trucgrdl code2 Code strucclsl c		struc : kind Cons Roots : code2 ID ACode rootsa	rootsa Roots al code2 SCode
14 EGR96	33	Cgy	0	30	FLUV-ME		5Y 3/2	15	SR	G	SiL			MA		
14 EGR96	319	Cz	30	0	-			0								
15 EGL16	35	LFH	7	0	-			0							А	M
15 EGL16	40	Ah	0	7	RESID-	М	10YR 2/2	50	A	В	SiL	M	М	GR	A	M
15 EGL16	41	Bm	10	30	RESID-	M	10YR 4/4	50	А	В	SiL	M	М	GR	Р	F
15 EGL16 16 EGR91	42 34	BC Of	30 12	60 0	RESID-	М	10YR 5/4	50 0	А	В	L	S	F	BL	F	F
16 EGR91 16 EGR91 16 EGR91	36 37 38	C1 Of2 C2	0 20 40	20 40 50	- - -	M M M		0 0			SiL LS					
16 EGR91	39	C3	50	60	-	М		0			SiL					
19 EGL15	43	LFH	3	0	-			20	SA	G					А	С
19 EGL15	44	Λb	0	7	RESID-	M	10VP 2/2	20	A	G	61	M	М	CP	P	М
19 EGL13	44	All	0	,	RESID-	IVI	1011 2/2	20	A	<u> </u>	- SL	IVI	IVI	GR	r	IVI
19 EGL15	45	Bm	7	61	RESID-	M	10YR 4/4	20	A	С	SL	M	M	SB	F	F
19 EGL15	46	Bg	61	65	RESID-	М	10YR 5/4	45	A	S	SL	W	F	SB	F	F
20 EGL17	48	LFH	5	0	-			0								
20 EGL17	49	Ahe	0	6	RESID-	M	10YR 5/2	25	A	С	SiL	M	M	GR	A	F

SiteID SiteNo	ProfileID	Horizon	DnthStart	DothEnd	PrtMatCode	MoistCode	Color	cf: FPct cfpctl cfpct2 CFShpCode cfshpl co	shp CFTyp cftyp	Txt S			Struc struc s Kind struc kind	d Cons Roots ro	ootsa Roots
ORCID ORCIGO	TTOMEID	HOHZOH	<b>Dpinotair</b>	Бринена	Trimatocae	moistoodo	GGIGI	The dipoli dipoliz of dispoduc distipli do	dez dede ditypi dedez	Oode	ocac strategrar coac.	- Joue Struction Code	Code kindi code	SE ID AGGGC POOLSUI C	5dc2 555dc
20 EGL17	50	Bm	6	13	RESID-	M	10YR 3/4	30 A	С	SL	M	M	BL	Р	M
21 EGL39	51	LFH	7	0	-			0						A	С
									_						
21 EGL39	52	Ae	0	7	COLL-ME	D	10YR 7/3	15 A	G	SiCL	M	M	GR	A	<u>C</u>
21 EGL39	53	Bm	7	33	COLL-ME	D	10YR 4/4	25 A	CG	SiCL	W	F	GR	A	M
21 EGL39	54	Bt	33	37	COLL-ME	D	10YR 4/4	40 A	С	SiC	M	M	PL	P	M
21 EGL39	55	ВС	37	57	COLL-ME			40 A	C	8;Cl	W	E	CD.	F	E
21 EGL39	55	ВС	31	57	COLL-IVIE			40 A	C	SICL	VV	Г	36	г	г
				_											
22 EGL38	56	LFH	6	0	-			0						A	С
22 EGL38	57	Λhe	0	4		D	10VP 4/2	15 SR	G	SiCI	M	М	GP	Α	M
ZZ LGL30	- 31	Alle	0			<u> </u>	10111 4/2	II JIK	<u> </u>	SIGE	IVI	IVI	GIV		IVI
22 FGI 38	58	Rt	4	27	MORA-	M	10YR 4/3	15 SA	G	SiCI	M	М	PL	P	M
22 LOLSO	30	Б		21	WOTON-	IVI	1011114/3	TO OA	0	OIOL	191	IVI	1.2		IVI
22 EGL38	59	BC	27	42	MORA-	М	10YR 4/3	15 SA	G	Sil	W	М	SB	F	M
														•	
22 EGL38	60	С	42	63	MORA-	М	10YR 4/4	25 SA	С	SiL			MA	F	F
23 EGL37	61	LFH	8	0	-			0						А	
23 EGL37	62	Ahe	0	6	-	М	10YR 4/4	30 A	G	SiL	М	F	GR	А	С
23 EGL37	63	Bm	6	20	-	М	10YR 4/4	30 A	С	SiL	М	M	SB	F	M
23 EGL37	64	ВС	20	50	-	М	10YR 4/4	30 A	С	SiCL	M	F	GR	F	F

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color (	CFPct cfpctl cfpct2	CFShpCode cfshpl	cfshp C	FTyp cftyp Code cftypl code2	Txt S Code	Struc Grd Code strucgrdl	struc grd S I code2	Struc Cls struccl Code struccisi code2		struc struc kind Cons kindl code2 ID		rootsa Roots I code2 SCode
23 EGL37	65	С	50	55	-	M	10YR 4/4	45	A		С	SiCL			F	GR		F	F
24 EGL36	66	LFH	4	0	<u>-</u>			0											
24 EGL36	67	Ah	0	5	-		10YR 2/2	25	SR	SA	G	SiL							
24 EGL36	68	Bm	5	35	<del>-</del>		10R 4/4	30	SR		G	SiL							
24 EGL36	69	С	35	70	-			25	SA		G	SiCL							
25 EGL207	70	LFH	3	0	-			0										A	С
25 EGL207	71	Aej	0	2	COLL-ME	D	10YR 5/2	0				SiL	W		F	PL		А	M
25 EGL207	72	С	2	20	COLL-ME	D	10YR 5/3	0				SiL	W		F	GR		F	M
26 EGL18	73	LFH	6	0	-			0										A	C
26 EGL18	74	Ahe	0	4	RESID-	М	10YR 4/2	20	A		С	L	M		F	GR		Р	M
26 EGL18	75	Bm	4	19	RESID-	M	10YR 4/4	30	A		С	L	M		M	SB		Р	F
26 EGL18	76	Bm	19	59	RESID-		10YR 4/6	30	A		С	L	S		М	PL			
26 EGL18	77	С	59		-			50											
27 EGL33	78	LFH	3	0	-			0										A	M

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct cfpctl cfpct2	cfshp CFShpCode cfshpl code2			Struc Grd Code strucgro	Struc Cls strucc Code struccisi code		struc struc kind Cons kindl code2 ID		rootsa Roots I code2 SCode
07.50100	70		٥	٥			40)/D 0/4	4-	24		0.1			Di			
27 EGL33	79	Bm	U	8	-		10YR 3/4	15	SA	G	SIL	IVI	М	PL		A	IVI
27 EGL33	80	ВС	8	30			10YR 3/4	15	A	G	SiL	W	M	SB		F	F
27 EGL33	81	С	30	0			10YR 4/4	45	A	С	SiCL			MA		F	F
28 EGL19	82	LFH	3	0	_			0								Δ	С
20 20210	- 02															•	<u> </u>
28 EGL19	83	AB	0	7	RESID-	M	10YR 3/3	15	A	G	SiL	M	F	GR		A	M
28 EGL19	84	Bm	7	29	RESID-	М	10YR 4/3	15	SA	С	SiL	М	С	SB		Р	F
28 EGL19	85	Bgj	29	37	RESID-	W	2.5Y 4/4	20	SA	С	SiL	M	M	SB		F	F
										_							
28 EGL19	86	Cgj	37	42	=	W	2.5Y 5/4	50	А	S							
29 EGL20	87	LFH	5	0	-			0								A	С
29 EGL20	88	Ah	0	9	RESID-	M	10YR 2/2	15	SA	G	L	М	М	GR		A	M
29 EGL20	89	Bm	9	25	RESID-	М	10YR 3/4	15	SA	S	L	М	M	SB		P	F
29 EGL20	90	Bm	25	55	RESID-	M	2.5Y 5/4	30	SA	S	SiL	M	F	SB		F	F
29 EGL20	91	С	55	70	RESID-		2.5Y 5/4	40	SA	В	L			MA			
30 EGL201	92	l FH	2	0	_			0									
33 232231	- J <u>L</u>	L. 11						<u> </u>									
30 EGL201	93	Ah	0	5	RESID-	M	10YR 2/2	40	А	S	SiL	М	F	GR		Р	M

SiteID Sit	eNo F	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct cfpctl cfpct2 C		CFTyp cftyp Code cftypl code2	Txt S		truc grd Struc Cls strucc code2 Code strucclsl code2	Struc struc Is Kind struc kind Con 2 Code kindl code2 ID		otsa Roots de2 SCode
30 EG	GL201	94	Bm	5	25	RESID-	M	10YR 3/4	60	Α	S	SiL	W	M	SB	F	F
30 EG	GL201	95	Bm	25	40	-			0								
31 EG	GL5	96	LFH	4	0	-			0								
31 EG	SL5	97	Ah	0	8	RESID-	М	10YR 3/2	40	А	S	SiL	М	М	GR	Р	M
31 EG	SL5	98	Bm	8	25	RESID-	М	10YR 3/4	45	А	С	SiL	М	М	SB	А	С
31 EG	GL5	99	ВС	25	60	RESID-	М	2.5Y 5/3	45	A	С	SiL			MA	F	F
32 EG	GL202	100	LFH	4	0				0							A	M
32 EG	GL202	101	Ah	0	3	RESID-	M	10YR 3/2	20	SA	G	SiL	М	F	GR	Α	М
32 EG	GL202	102	Bm	3	26	RESID-	M	10YR 3/3	30	SA	С	SiL	M	М	SB	Р	M
32 EG	GL202	103	вс	26	45	RESID-	M	10YR 3/4	45	Α	С	SiL			MA	F	F
33 EG	GL203	104	С	0	100	RESID-	D	10YR 5/4	50	A	С	SiL			MA		
33 EG	GL203	105	С	0	0	-	М	10YR 4/4	0								
34 EG	GL58	106	LFH	0	0	<del>-</del>			0							A	M
34 EG	GL58	107	Ahg	0	2	RESID-	W	2.5Y 2.5/1	20	Α	G	SCL	W	F	GR	Р	F

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct c	cfshp fpctl cfpct2 CFShpCode cfshpl code2	CFTyp Code	Txt S				struc truc kind Cons tindl code2 ID		rootsa Roots code2 SCode
34 EGL58	108	Bg	2	40	RESID-	W	2.5Y 4/2	30	Α	G	SCL			MA		Р	F
34 EGL58	109	Cg	40	60	RESID-	W	2.5Y 4/4	40	A	С	LS			MA			
35 EGL52	110	LFH	4	0	-			0								A	M
35 EGL52	111	Ah	0	3	RESID-	M	10YR 3/2	20	SA	G	L	W	F	GR		Р	F
35 EGL52	112	Bm	3	49	RESID-	М	10YR 4/3	20	SA	С	L	M	М	SB		Р	F
35 EGL52	113	ВС	49	82	RESID-	М	10YR 4/4	25	SA	С	L	W	М			F	F
35 EGL52	114	С	82	100	RESID-	М	10YR 4/4	30	SA	S	L			MA			
36 EGL53	115	LFH	30	0	-			0								Α	С
36 EGL53	116	Bm	0	15	RESID-	M	10YR 3/4	25	SA	S	L	M	M	SB		Р	M
36 EGL53	117	вс	15	41	RESID-	М	10YR 4/4	20	SA	D	1	W	F	<b>CD</b>		E	E
30 EGL33	117	ВС	15	41	KESID-	IVI								ЗБ			
36 EGL53	118	С	41	45	RESID-	M	10YR 4/4	45	SA	В	L			MA			
37 EGL3	119	LFH	3	0	-			0								А	С

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode I	MoistCode	Color	CFPct cfpctl cfpct2 CFShpCode cfsh	cfshp CFTyp pl code2 Code cftypl	cftyp Txt Si code2 Code	truc Grd Code strucg		ruccls Kind struc	struc kind Cons Roots ode2 ID ACode rootsal o	rootsa Roots code2 SCode
37 EGL3	120	Ah	0	7	RESID-	M	10YR 2/2	30 SA	G	L	W	F	GR	А	M
37 EGL3	121	Bm	7	20	RESID-	M	10YR 3/4	30 SA	С	L	М	М	SB	А	F
27 5012	400	DO.	00	40	DEOLD		40/0 4/4	00			.,	-	OD.		-
37 EGL3	122	BC	20	40	RESID-	M	10YR 4/4	30 SA	C	L	М	F	SB	Р	<u> </u>
37 EGL3	123	С	40	50	RESID-	M	10YR 4/4	45 SA	s	L			MA		
38 EGL204	124	LFH	3	0	-			0						А	M
38 EGL204	125	Ahe	0	10	COLL-ME	D	10YR 4/2	40 SA	G	SiL	W	F	GR	А	F
38 EGL204	126	AB	10	20	COLL-ME	D	10YR 4/3	40 SA	<u> </u>	SiL	W	М	PL PL	А	<u> </u>
38 EGL204	127	Bm	20	75	COLL-ME	M	10YR 4/4	40 A	С	L	W	F	GR	Р	F
39 EGL4	128	LFH	7	0	-			0						А	С
39 EGL4	129	Ah	0	4	COLL-ME	М	10YR 3/3	30 A	С	L	M	M	GR	A	С
39 EGL4	130	Bm	4	51	COLL-MC	М	10YR 3/3	30 A	С	SL	M	F	SB	Р	M
39 EGL4	131	ВС	51	80	COLL-MC	M	10YR 3/3	60 A	S	SL	W	F	SB	Р	М

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	l PrtMatCode	MoistCode	Color	CFPct cfpctl cfpct2 CFShpCode	cfshp CFTyp cfshpl code2 Code			struc grd Struc Cls strucc strucgrdl code2 Code strucclsl code		struc kind Cons Roots code2 ID ACode rootsa	rootsa Roots Il code2 SCode
40 EGL205	132	LFH	3	0	-			0						A	M
40 EGL205	133	Ah	0	5	FLUV-ME	W	10YR 2/2	30 A	<u> </u>	SiL	M	М	GR	A	F
40 EGL205	134	C1	5	30	FLUV-MC	W	10YR 4/4	30 A	С	SL			MA	A	VF
40 EGL205	135	C2	30	50	-	W	10YR 5/4	60 A	С	LS					
41 EGL60	136	LFH	3	0	-			0						А	M
41 EGL60	137	Bm	0	6	COLL-ME		10YR 3/3	65 A	С	L	W	F	SB	F	M
41 EGL60	138	С	6	100	-			70 A	В						
42 EGL61	139	LFH	4	0	-			0							
42 EGL61	140	Ahe	0	2		М	10YR 5/2	45 A	S	L					
42 EGL61	141	Bm	2	40	-	М	10YR 4/4	30 A	s	L					
.2 20201		<b>5</b>	<del>-</del>												
42 EGL61	142	С	40	0	-			65 A	S	L					
43 EGL68	143	LFH	6	0	<del>-</del>			0						А	С
43 EGL68	144	Ah	0	2	RESID-	М	10YR 2/2	30 A	С	SiL	W	F	GR	Α	С
43 EGL68	145	Bm	2	19	RESID-	М	10YR 4/3	40 A	С	SiL	W	М	SB	A	M
43 EGL68	146	С	19	55	RESID-	М	10YR 4/3	50 A	С	L			MA	Р	M

Section   Parliam   Parl	SiteID SiteNo	ProfileID	Horizon	DnthStart	DnthEnd	PrtMatCode	MoistCode	Color C	FPct cfnctl cfnct2 CFShnCode cfshi	cfshp CFTyp cftyp	Txt Code		c grd Struc Cls	struccls Kind struc	truc tind Cons Roots r	ootsa Roots
44 CG1285 140 Dn 0 35 R7500 M 1070 44 45 A 3 L W F 50 A M 64 CG1886 140 LPH 4 0	SiteID SiteNo	PTOMED	Horizon	Dptilotart	Брипсии	Filmatcode	Worstoode	COIOI	Tree cipeli cipel2 of Shipeode cish	or code2 Code citypi code2	Code	code stratgraf cod	uez coue struccisi	codez code kilidi c	odez ib Acode footsal (	codez Scode
46 E09506 149 L9N 4 5	44 EGL206	147	LFH	7	0	-			0						Α	C
46 EGRSQ 180 80 0 46 . 1078 34 0 P M  46 EGRSQ 180 80 0 46 . 1078 34 0 SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40 D SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40  W 1078 44 20 SR C SQ M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 M 1078 40 M 1078 44 20 SR C SQ M M M SR F M  46 EGRSQ 180 101 40 M M SR F M  46 EGRSQ 180 101 40 M M SR F M  47 EGRSQ 180 101 40 M M M 1078 20 40 A C SQ M M M M M M M M M M M M M M M M M M	44 EGL206	148	Bm	0	35	RESID-	М	10YR 4/4	45 A	S	L	W	F	SB	А	М
46 EGRSQ 180 80 0 46 . 1078 34 0 P M  46 EGRSQ 180 80 0 46 . 1078 34 0 SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40 D SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40  W 1078 44 20 SR C SQ M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 M 1078 40 M 1078 44 20 SR C SQ M M M SR F M  46 EGRSQ 180 101 40 M M SR F M  46 EGRSQ 180 101 40 M M SR F M  47 EGRSQ 180 101 40 M M M 1078 20 40 A C SQ M M M M M M M M M M M M M M M M M M																
46 EGRSQ 180 80 0 46 . 1078 34 0 P M  46 EGRSQ 180 80 0 46 . 1078 34 0 SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40 D SR C SQ M M M CR A M  46 EGRSQ 180 80 150 80 101 40  W 1078 44 20 SR C SQ M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 W 1078 44 20 SR C SQ M M F SR  46 EGRSQ 180 80 101 40 M 1078 40 M 1078 44 20 SR C SQ M M M SR F M  46 EGRSQ 180 101 40 M M SR F M  46 EGRSQ 180 101 40 M M SR F M  47 EGRSQ 180 101 40 M M M 1078 20 40 A C SQ M M M M M M M M M M M M M M M M M M	45 EGR206	149	LFH	4	0	-			0						А	C
48 EGRS7 151 Of 4 0 0 0 0 TILL-MF M 20 SR G SICL M M GR A M  48 EGRS7 152 ANY 0 6 TILL-MF M 10YR-43 20 SR C SCL M F 50  48 EGRS7 153 Bay 8 27 TILL-MF M 10YR-43 20 SR C SCL M F 50  48 EGRS7 154 Gay 27 68 TILL-MF W 10YR-44 30 SR C SCL W M 90 F F  48 EGRS7 155 Cay 56 68 TILL-MF W 25Y-43 30 SA G SCL MA  47 EGRS6 156 LFH 8 0 . 0 A C  47 EGRS6 157 C 0 50 CQL-MF M 10YR-52 40 A C SCL MA F MA  48 EGRS7 159 LFH 3 0 . 0 A C SCL MA F M 10YR-52 0 MA  48 EGRS7 159 LFH 3 0 . 0 A C SCL MA F M 10YR-52 0 MA																
48 EGR87 151 CF 4 0 . 0  48 EGR87 152 Alty 0 8 TEL-MF M 20 SR G SICL M M M GR A M  48 EGR87 153 Bgy 6 27 TEL-MF M 1078 43 20 SR C SCL M F SB  48 EGR87 154 Bgy 77 58 TEL-MF W 1078 44 30 SR C SCL M F SB  48 EGR87 156 Cgy 58 B8 TEL-MF W 2074 43 30 SA G SCL M SR  47 EGR85 159 LFH 8 0 0 SA C SCL M A C  47 EGR85 157 C 0 0 50 COLL-MF M 1078 59 40 A C SCL M A M  48 EGR80 150 LFH 3 0 0 A M  48 EGR80 150 LFH 3 A M  48 EGR80	45 EGR206	150	Bm	0	45	-		10YR 3/4	0						Р	М
48 EGR87 152 ANY 0 6 TILLARF M 20 SR C SICL M M F S8  48 EGR87 153 850 6 27 TILLARF M 107R 43 20 SR C SCL M F S8  46 EGR87 154 850 27 38 TILLARF W 107R 44 30 SR C SCL W M S8 F F  47 EGR85 155 Cgy 55 66 71 LARF W 25740 30 SA G SCL MA  47 EGR85 157 C D 50 COLLARF M 107R 52 40 A C SCL M A P M  48 EGR80 150 LFH 3 0 . 0 A M  48 EGR80 150 LFH 3 0 . 0 A M																
48 EGR87 152 ANY 0 6 TILLARF M 20 SR C SICL M M F S8  48 EGR87 153 850 6 27 TILLARF M 107R 43 20 SR C SCL M F S8  46 EGR87 154 850 27 38 TILLARF W 107R 44 30 SR C SCL W M S8 F F  47 EGR85 155 Cgy 55 66 71 LARF W 25740 30 SA G SCL MA  47 EGR85 157 C D 50 COLLARF M 107R 52 40 A C SCL M A P M  48 EGR80 150 LFH 3 0 . 0 A M  48 EGR80 150 LFH 3 0 . 0 A M	46 EGR97	151	Of	4	0	-			0							
46 EGR97 153 Bgy 6 27 TILL-MF M 107R 4/3 20 SR C SCL M F SB  46 EGR97 154 Bgy 27 59 TILL-MF W 107R 4/4 30 SR C SCL W M SB F F  46 EGR97 155 Cgy 58 88 TILL-MF W 2.57 4/3 30 SA G SCL MA  47 EGR98 158 LFH 6 0 - 0 A C  47 EGR99 157 C 0 50 COLL-MF M 107R 5/2 40 A C SCL MA  48 EGR80 159 LFH 3 0 - 0 A MA  48 EGR80 159 LFH 3 0 - 0 F GR																
46 EGR97 154 Bgy 27 58 TILL-MF W 10YR 414 30 SR C SCL W M SB F F  46 EGR97 155 Cgy 58 68 TILL-MF W 2.5Y 4/3 30 SA G SCL MA  47 EGR95 156 LFH 6 0 - 0 A C  47 EGR95 157 C 0 50 COLL-MF M 10YR 5/2 40 A C SCL MA P M  48 EGR80 159 LFH 3 0 - 0 A M  48 EGR80 160 Abe 0 3 COLL-MF M 10YR 5/2 0 W F GR	46 EGR97	152	Ahy	0	6	TILL-MF	М		20 SR	G	SiCL	M	М	GR	А	М
46 EGR97 154 Bgy 27 58 TILL-MF W 10YR 414 30 SR C SCL W M SB F F  46 EGR97 155 Cgy 58 68 TILL-MF W 2.5Y 4/3 30 SA G SCL MA  47 EGR95 156 LFH 6 0 - 0 A C  47 EGR95 157 C 0 50 COLL-MF M 10YR 5/2 40 A C SCL MA P M  48 EGR80 159 LFH 3 0 - 0 A M  48 EGR80 160 Abe 0 3 COLL-MF M 10YR 5/2 0 W F GR																
46 EGR97 155 Cgy 58 68 TILL-MF W 2.5Y 4/3 30 SA G SCL MA  47 EGR95 156 LFH 6 0 - 0	46 EGR97	153	Bgy	6	27	TILL-MF	М	10YR 4/3	20 SR	С	SCL	M	F	SB		
46 EGR97 155 Cgy 58 68 TILL-MF W 2.5Y 4/3 30 SA G SCL MA  47 EGR95 156 LFH 6 0 - 0																
47 EGR95 156 LFH 6 0 - 0 10	46 EGR97	154	Bgy	27	58	TILL-MF	W	10YR 4/4	30 SR	С	SCL	W	M	SB	F	F
47 EGR95 156 LFH 6 0 - 0 10																
47 EGR95 157 C 0 50 COLL-MF M 10YR 5/2 40 A C SCL MA P M  48 EGR80 159 LFH 3 0 - 0  48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR	46 EGR97	155	Cgy	58	68	TILL-MF	W	2.5Y 4/3	30 SA	G	SCL			MA		
47 EGR95 157 C 0 50 COLL-MF M 10YR 5/2 40 A C SCL MA P M  48 EGR80 159 LFH 3 0 - 0  48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR																
48 EGR80 159 LFH 3 0 - 0 A M  48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR	47 EGR95	156	LFH	6	0	-			0						Α	С
48 EGR80 159 LFH 3 0 - 0 A M  48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR	47 EGR95	157	C	0	50	COLL-ME	M	10VR 5/2	40 A	C	SCI			MΔ	D	M
48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR	47 EGI(33	137			30	COLL-IVII	IVI	10110 3/2	40 A	U	JOL			IVIA	Г	IVI
48 EGR80 160 Ahe 0 3 COLL-MF M 10YR 5/2 0 W F GR	48 EGR80	150	I FH	3	0	_			0						Δ	M
	10 20100		L. 11		<u> </u>				•							141
	48 FGR80	160	Ahe	0	3	COLL-MF	М	10YR 5/2	0			W	F	GR		
48 EGR80 161 Bm 3 45 COLL-MF M 10YR 4/4 40 A C SCL W F GR P M	.0 20100		, 410	<u> </u>		JULE IVII		.511(0/2	<del>-</del>					<u> </u>		
	48 EGR80	161	Bm	3	45	COLL-MF	М	10YR 4/4	40 A	С	SCI	W	F	GR	P	М
	.5 251100									~				<u></u>	•	
49 EGL27 162 LFH 2 0 - 0	49 EGL27	162	LFH	2	0	-			0							

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	l PrtMatCode	MoistCode	Color	CFPct cfpc	tl cfpct2 CFShpCode cfshpl	cfshp CFTyp code2 Code cftypl	cftyp Txt S		struc grd Struc Cls str rucgrdl code2 Code struccisi co	Struc ruccls Kind struc ode2 Code kindl	struc kind Cons Roots code2 ID ACode rootsa	rootsa Roots al code2 SCode
49 EGL27	163	С	0	0	_			65	SR	В	s					
		-	-	-												
50 EGL12	164	LFH	14	0	-			0							A	М
50 EGL12	165	Ahg	0	10	FLUV-MF	W	2.5Y 3/2	25	SA	CG	SCL	M	М	GR	А	F
50 EGL12	166	Bg	10	23	FLUV-MF	W	2.5Y 3/3	25	SA	CG	SCL	W	М	SB	Р	F
50 EGL12	167	Cg	23	60	FLUV-MF	W	2.5Y 4/3	25	SA	С	SCL			MA		
51 EGL215	168	Oh	14	0	-		10YR 3/3	0							A	С
51 EGL215	169	Bmy	0	9	FLUV-ME	М	2.5Y 4/3	25	SR	FG	SiL	W	М	PL	A	М
51 EGL215	170	Су	9	31	FLUV-VC	М	2.5Y 3/3	30	SR	CG	LS			SG	F	F
52 EGL22	171	LFH	7	0				0							A	M
52 EGL22	172	Cg	0	17	FLUV-VC	W	2.5Y 3/2	40	SA	G	S			SG	Р	M
52 EGL22	173	Ahbg	17	23	FLUV-ME	W	2.5Y 3/2	30	SA	G	SiL	M	М	PL	P	F
52 EGL22	174	Bgb	23	26	FLUV-VC	W	10YR 4/1	40	SA	CG	LS				P	М
52 EGL22	175	Cg	26	43	FLUV-VC	W		40	SA	CG	S					

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct cfpctl cfpc	et2 CFShpCode cfshpl	cfshp code2	CFTyp cftyp Code cftypl code2	Txt S Code	Struc Grd Code strucgrd	struc grd S	struc Cls Code struccisi	struccis code2	Struc Kind Code	struc k	truc ind Cons ode2 ID	Roots ACode rootsa	rootsa Roots al code2 SCode
54 EGL26	176	LFH	17	0	_			0												A	М
	-			-																	
54 EGL26	177	Bm	0	11	COLL-MF	W	10YR 3/3	20	SA		G	SiCL	S		F		GR			Р	F
54 EGL26	178	Cz	11	31	COLL-MF	W	10YR 5/4	25	SA		G	SCL					MA				
56 EGL25	179	LFH	6	0	-			0												A	M
56 EGL25	180	Ahe	0	2	-	W	10YR 4/2	25	A		G	SiL	М		М		GR			А	M
56 EGL25	181	Bm	2	33	COLL-MF	W	10YR 4/4	25	A		С	SCL	М		М		SB			Р	F
56 EGL25	182	ВС	33	50	COLL-MF	W	10YR 4/4	40	A		С		W		F		SB				
					-																
57 EGL210 57 EGL210					-			0				SiCL	M M		M M						
57 EGL210	186	ВС	15	29	-			0				SCL	W		M		BL				
57 EGL210	187	С	29	0	-			0				LS					SG				
58 EGL208	188	LFH	6	0	<u>-</u>			0												A	M
58 EGL208	189	Ahe	0	4	COLL-ME	М	10YR 4/2	25	А		G	L	М		М		GR			A	M

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode	Color	CFPct cfpctl cf	cfshp pct2 CFShpCode cfshpl code2			Struc Grd Code strucgrdl		ruccls Kind struc	struc kind Cons Roots code2 ID ACode rootsal	rootsa Roots code2 SCode
										7		3				
58 EGL208	190	Bm	4	19	COLL-MF	M	10YR 4/6	35	Α	S	SCL	M	M	SB	А	С
58 EGL208	191	С	19	50	COLL-MF	M	10YR 5/4	40	А	С	SCL	W	F	GR	Р	M
59 EGL209	192	LFH	3	0	-			0								
59 EGL209	193	Ahe	0	4	COLL-ME	M		0			SiL					
59 EGL209	194	Bm	7	15	COLL-ME	M		0			SiL					
59 EGL209	195	С	15	0	COLL-MF			0			SiCL					
60 50150	400	1511	0	0				0								M
60 EGL50	196	LFH	0	U	-			U							A	N
60 EGL50	197	Ahe	0	0	-			15	А	G	SL	M	M	PL	A	M
60 EGL50	198	Bm	0	0	-		10YR /	50	А	С	LS	W	М	GR	F	F
60 EGL50	199	С	0	0	-			75	A	В	LS			SG		
00 23200	100		· ·											33		
62 EGL212	200	LFH	5	0	-			0							A	M
62 EGL212	201	Ahe	0	2	FLUV-MF	W	10YR 4/1	50	SA	CG	SCL	М	F	GR	A	M
62 EGL212	202	Bm	2	18	FLUV-MC	W	10YR 4/4	50	SA	CG	SL	M	F	SB	P	М
																_
62 EGL212	203	С	18	50	FLUV-MF	W	10YR 5/4	50	SA	CG	SCL			SG	F	F

SiteID SiteNo	ProfileID	Horizon	DothStart	DpthEnd	I PrtMatCode	MoistCode	e Color (	CFPct cfpctl cfpct2 CFShpCo		p Txt S		struc grd Struc Cls s	Struc stru truccis Kind struc kind code2 Code kindl code		rootsa Roots
			•						71		3				
64 EGL214	204	LFH	3	0	-			0						А	М
64 EGL214	205	Ah	0	7	-	۱۸/		25 SA	CG	SiCL	М	М	GR	P	М
04 EGE214	203	All		r	<del>-</del>	VV		23 57		SIGL	IVI	IVI	GIV	г	IVI
64 EGL214	206	С	7	50	FLUV-MF	W		25 SA	CG	SiCL			MA		
67 EGL35	207	LFH	4	0	-			0							
67 EGL35	208	Bm	0	30	-			45 A	С						
68 EGL34	209	LFH	5	0				0						А	M
68 EGL34	210	Ahe	0	6	TILL-ME	М	10YR 5/2	25 SA	G	SiL	S	M	PL	A	С
68 EGL34	211	Bt	6	18	TILL-MF	М	10YR 4/4	25 SR	CG	SiCL	S	М	PL	P	M
68 EGL34 69 EGL32	212	BC LFH	18 11	35 0	TILL-MF	M	10YR 4/4	30 SA 0	CG	SiCL	M	F	SB	Р	M
69 EGL32	214	Ahe	0	5	<u> </u>	М	10YR 3/2		CG		W	M	PL		
69 EGL32	215	AB	5	30	COLL-MF	М	10YR 3/4		CG		М		PL		
69 EGL32	216	В	30	35	COLL-MF	М	10YR 4/4	40 SA	CG		М	М	SB		
69 EGL32	217	С	35	59	COLL-MF	М	10YR 4/4	45 A	С		W	F	GR		
70 EGL31	218	LFH	0	2	<del>-</del>			0							
70 EGL31	219	С	2	40	TILL-ME	D	10YR 4/6	40 A	С	SiL				A	<u> </u>
71 EGL30	220	LFH	5	0	-			0						A	С
												_			
71 EGL30	221	Ae	0	4	COLL-ME	M		0 A	С	SiL	M	F	GR	A	<u> </u>
71 EGL30	222	Bm	4	30	COLL-MF	М	10YR 4/4	0 A	G	SCL	W	F	GR	А	M
71 EGL30	223	ВС	30	45	COLL-MF	М		0 A	С	SiCL				F	М

SiteID SiteNo	ProfileID	Ho <u>rizon</u>	Dpt <u>hStart</u>	Dp <u>thEnd</u>	PrtM <u>atCode</u>	Moi <u>stCode</u>	e Color <u>CFPct cfp</u>	octl cfpct2 <u>CFShpCode cfshpl</u>	cfshp code2		cftyp Txt Struc Grd code2 Code Code st	struc grd Struc Cls trucgrdl code2 Code strucclsl	Struc struccls Kind stru- code2 Code kind	struc c kind Cons ll code2 ID		rootsa Roots code2 SCode
72 EGR81	224	Of	18	0	ORG-		0					<b>.</b>				
72 EGR81	225	Bm1	0	15	TILL-MF	М	10YR 3/3 15	A		G	SiL					
72 EGR81	226	Bm2	15	30	TILL-MF	W	10YR 3/4 20	A		G	SiL					
72 EGR81	318	Cz	30	0	TILL-MF		0									
75 EGL9	227	LFH	9	0	-		0								Р	C
75 EGL9	228	Α	0	3	GLFL-MC	M	30	SR	SA	G	SL		GR		F	F
75 EGL9	229	С	3	45	GLFL-MC	M	40	SR	SA	G	SL		MA			
80 EGL10	230	LFH	15	0	-		0									
80 EGL10	231	АВ	0	3	GLFL-MC	М	10	SA	SR	G	SL		MA			
80 EGL10	232	С	3	42	GLFL-MC	M	15	SA	SR	G	SL		MA			
80 EGL10	233	Cz	42	0	-		0									,
83 EGL11	234	LFH	12	0	-		0								Р	M
83 EGL11	235	Ah	0	3	TILL-MC	M	15	А	SA	G	SL				F	F
83 EGL11	236	ВС	3	45	TILL-MF	М	20	25 A	SA	G	SiCL		MA		F	F

SiteID SiteNo	ProfileID	Horizon	DothStart	DpthEnd	PrtMatCode	MoistCode Color	CFPct cf	pctl cfpct2 CF	FShpCode (		CFTyp Code			Struc Grd Code strucar	struc grd St		struccis		struc ki	ruc ind Cons		rootsa Roots
									•	•		7		3								
89 EGR110	237	LFH	20	0	-	М	0														Р	С
89 EGR110	238	Ah	0	15	-	М	0						SiL								Р	M
89 EGR110	239	Bm	15	48	-	М							SiCL					MA			F	F
97 EGR415	240	С	0	50	FLUV-MC	M	0						SL					MA				
99 EGR416	241	LFH	8	0	-		0														Р	С
99 EGR416	242	Ae	0	3	GLFL-VC	D	0						S	W				PL			Р	М
99 EGR416	243	Bm	3	20	GLFL-VC	D	0						S					MA			F	F
99 EGR416	244	С	20	30	GLFL-MC	D	30	40	R		G	S	SL					MA				
108 EGR411	245	LFH	15	0	-		0														F	М
108 EGR411	246	AB	0	2	TILL-MF		15	20	Α	R	G		CL								F	F
108 EGR411	247	С	2	50	TILL-MF		15	20	Α	R	G		CL					MA				
111 FCD400	240	LEU	60	0	ODC		0														D	F
TTT EGR409	248	LFN	60	- 0	URG-		0														<u> </u>	<u>-</u>
111 EGR409	249	Ah	0	12	FLUV-MC	М	0						SL								F	F
	250	С	12	40	FLUV-MC	M							SL					MA				
117 EGL66	251	LFH	4	0	-		0															
117 EGL66	252	Ae	0	10	COLL-ME	D	15		A	SA	G		L					GR			Р	М
117 EGL66	253	Bm	10	50	COLL-MF	М	30	40	Α	SA	G	S	SiCL	M		M		SB			F	F

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode C	olor CFPct cfp	ctl cfpct2 CFShpCode cfsh	cfshp npl code2	CFTyp Code	cftyp cftypl code2	Txt S	truc Grd Code strucgro	struc grd \$ dl code2				ns Roots O ACode	otsa Roots de2 SCode
118 EGR303	255	LFH	5	0	<u>-</u>		0												
118 EGR303	257	Ah	0	2	<u>-</u>	М	5	А		G		L				GR		Р	F
118 EGR303	258	Bm	2	14	-	М	5	А		G		L				MA		F	<u> </u>
118 EGR303	260	С	14	50	-	M	15	А		G		SiL				MA			
119 EGL310	254	LFH	4	0	-		0												
119 EGL310	256	Ae	0	3	COLL-VC	D	5	SA	SR	G		S				SG		Р	F
119 EGL310			3		COLL-MC	D	15 0	SA	SR	G		SL				SG		Р	F
120 EGL311 120 EGL311	261 262	LFH Ae	0	0 15	- TILL-ME	D	10	A	SA	G		L				PL		P	M
120 EGL311	263	ВС	15	200	TILL-MF	D	30	40 A	SA	G	S	SiCL						F	F
123 EGL47 123 EGL47 123 EGL47	264 265 266	LFH Ae Bm	15 0 3	0 3 0	- - -	M M	0 20 30	A 40 A	SA SA	G G	S S	SL SiCL	W			PL		P	M
120 LGL41	200	וווט	J	<u> </u>	<del>-</del>	IVI	<u> </u>		<u> </u>	G	3	OIOL						Г	1
124 EGL1	267	LFH	10	0	-		0												
124 EGL1	268	Ah	0	2	FLUV-MC	M	5	SA		G		SL						Р	F
124 EGL1	269	IC	2	20	FLUV-MC	M	10	А		G		SL				MA		Р	F
124 EGL1	270	IIC	20	50	FLUV-MF	M	40	А		G		SiCL				MA			

SiteID SiteNo	ProfileID	<b>Horizon</b>	DpthStart	DpthEnd	PrtMatCode	MoistCode Color	CFPct cfpctl c	fpct2 CFShpCode cfshpl	cfshp CFT code2 Cod	yp cftyp de cftypl code2	Txt Stru Code C	uc Grd code strucgrd	struc grd Stru II code2 Co	struccis i		struc uc kind dl code2		rootsa Roots al code2 SCode
125 EGL313	271	LFH	3	0	-		0										Р	M
125 EGL313	272	Ae	0	1	GLFL-MC	D	10	SA	G	i	SL						F	F
125 EGL313	273	Bm	1	40	GLFL-MC	D	10	SA	G	<u> </u>	SL							
126 EGR400	274	LFH	10	0			0										Р	М
120 EGN400	217	LIII	10	0	-		U										·	101
126 EGR400	275	AB	0	2	FLUV-MC	D	0				SL	W			PL		Р	F
126 EGR400	276	С	2	60	FLUV-MC	D	0				SL				MA		Р	M
129 EGR401	277	LFH	4	0	-		0											
129 EGR401	278	AB	0	2	FLUV-MC	D	0				SL	W			PL		Р	M

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode Color	CFPct cfpctl cfpc	ct2 CFShpCode cfshp	cfshp CFTyp I code2 Code cftypl	cftyp Txt Struc Grd code2 Code Code strucç	struc grd Struc Cls grdl code2 Code struccisi	Struc struc struccls Kind struc kin code2 Code kindl cod	uc d Cons Roots e2 ID ACode rootsal	rootsa Roots I code2 SCode
129 EGR401	279	IC	2	22	FLUV-MC	D	0			SL		MA	F	F
129 EGR401	280	IIC	22	35	FLUV-VC	D	35	R	G	S		MA		
133 EGR406	201	ıcu	15	0	-		0							
133 EGR400	201	LFN	15	0	<u> </u>		U							
133 EGR406	282	Ah	0	6	FLUV-MC	M	0			SL			F	F
400 FOD400	000	0	0	00	FLUVINO		2			Q.				
133 EGR406 134 EGR404	283 284	<u>с</u> с	<u>6</u> 0	40	FLUV-MC FLUV-VC	M M	0 40	SR	G	SL S		SG	F	M
135 EGR403	285	LFH	12	0	-		0						Р	M
135 EGR403	286	Ae	0	10	RESID-	D	30	А	SA G	SL W		GR	F	F
135 EGR403	287	R	10	25	RESID-	D	60	A	G	SL				
400 500 105	000			•			2						5	
136 EGR40/	288	LFH	4	U	-		U						Р	IVI

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	PrtMatCode	MoistCode (	Color CFPct cfp	ctl cfpct2 CFShpCode cfshpl co	fshp CFTyp ode2 Code cftyp	cftyp Txt pl code2 Code	Struc Grd Code st	struc grd Struc Cls trucgrdl code2 Code struc	struccls Kind struc k	truc ind Cons Roots ide2 ID ACode rootsal	rootsa Roots code2 SCode
136 EGR407	289	С	0	50	RESID-	D	35	A	G	S SiL			MA	F	F
139 EGR413	290	LFH	4	0	- -	D.	0			CI.	10/		DI	P	С
139 EGR413 139 EGR413	291 292	Ae C	<u> </u>	<u>1</u> 60	FLUV-MC FLUV-MC	D D	0 2	SR	G	SL SL			PL MA	<u>Р</u> Р	C
141 EGL21	293	LFH	9	0	_		0							А	М
141 EGL21		Ah	0	4	RESID-	M 10	YR 2/2 10	A	G	L			GR	P	F
141 EGL21	295		4				YR 4/4 10	A	G	L	M	M	SB	P	M
								A						F	<u> </u>
141 EGL21		С			RESID-			A					MA		
144 TPA1	298	LFH	20	0	-		0								

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	l PrtMatCode	MoistCode	e Color	CFPct cfpctl cfpct2 CFShpCod	cfshp ( e cfshpl code2	CFTyp cftyp Code cftypl code2	Txt Struc Grd Code Code strucg	struc grd Struc Cls str rdl code2 Code strucclsl c	Struc uccls Kind struc de2 Code kindl		sa Roots 2 SCode
144 TPA1	299	Bm1	0	20	COLL-VC	М	10YR 4/2	50		С	S		MA		
			<del>-</del>										****		
144 TPA1	300	Bm2	20	52	COLL-ME	М	10YR 4/2	50		С	L				
145 TPA3	301	LFH	19	0	-			0							
145 TPA3	302	Bm1	0	22	TILL-ME	М	2.5Y 4/2	5 SR			SiL		MA		
145 TDA2	202	Abb	22	27				0							
145 TPA3	303	Ahb	22	27	-			0							
145 TPA3	304	Bm2	27	51	TILL-ME	M		5 SR			SiL		MA		
146 TPA4	305	L	18	16	-			0							
146 TPA4	306	F	16	4	-			0							

SiteID SiteNo	ProfileID	Horizon	DpthStart	DpthEnd	I PrtMatCode	MoistCode	Color	CFPct	cfpctl cfpct2 CFShpCode cfshpl	cfshp C	FTyp cftyp Code cftypl code2	Txt Code	Struc Grd Code strucgr	struc gro	l Struc Cls Code	s struccisi	struccis code2	Struc Kind Code	struc kindl	struc kind code2	Cons ID	Roots ACode	roo rootsal coo	tsa Roots le2 SCode
146 TPA4	307	Н	4	0	<u>-</u>			0																
146 TPA4	308	Bm1	0	32	COLL-MF	М	10YR 3/2	50	F			CL						MA						
146 TPA4	309	Ahb	32	41	-			5				L												
146 TPA4	310	Bm2	41	53	-	М	10YR 3/2		F			CL												
147 EGR451 147 EGR451	311 312	LFH Bm	3	0	-			0				SiL												
147 EGR451	313	С	8		-			35	70			LS												
148 EGR450	314	Om			-																			
148 EGR450	315	Of			-																			
148 EGR450	316	С			-			45			CG													

4 FG183	SiteID SiteNo	rootss Carb Me	otA rode motal c	Mot nota Con ode2 Code	1	motcon code2		HBDist Code	HB Form Code	Sal pH Cod	t Sam le Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Eas
4 COLCO  4 COLCO  C	4 ECI 62									0	0		1	4	1	ECI 63	D	P.C	0	25	nt in	8/16/2009 459
4 EGL63 C 0 4 C 3 4 1 EGL63 D 9C 8 35 ML js 6/186  4 EGL63 D 0 C 4 1 EGL63 D 0 C 8 35 ML js 6/186  4 EGL63 D 0 C 8 35 ML js 6/186  4 EGL63 D 0 C 8 35 ML js 6/186  5 EGL216 D 0 C 1 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 5 1 EGL218 V 0 C 8 30 NT L 8 6/186  5 EGL216 D 0 C 2 6 1 EGR64 D 0 C 8 55 NT L 8 6/186  5 EGR64 D 0 C 2 6 1 EGR64 D 0 C 8 55 NT L 8 6/186  7 EGR65 D 0 C 1 7 1 EGR65 D 0 C 8 50 NT L 8 6/186  7 EGR65 D 0 C 2 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186  7 EGR65 D 0 C 7 1 EGR65 D 0 C 8 60 NT L 8 6/186	4 EGL03									0	0		ı .	4		EGLOS	<u> </u>	ВС	0		пі, јъ	8/10/2009 438
4 EG163  0 0 4 4 1 EG163 D BC 8 25 ml js 8/102  4 EG163  0 0 6 4 1 EG163 D BC 8 25 ml js 8/102  5 EG1246  0 0 1 5 1 EG1246 V BC 8 30 NT JS 8/102  5 EG1246  0 0 2 5 1 EG1246 V BC 8 30 NT JS 8/102  5 EG1246  0 0 0 2 5 1 EG1246 V BC 8 30 NT JS 8/102  6 EGR94  0 0 0 1 6 1 EGR94 D BC 8 50 NT JS 8/102  6 EGR94  0 0 0 2 6 1 EGR94 D BC 8 50 NT JS 8/102  7 EGR93  0 0 0 2 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 0 2 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 0 2 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93  0 0 3 7 1 EGR93 D BC 8 60 NT JS 8/102  7 EGR93	4 EGL63							G	I	0	0		2	4	1	EGL63	D	ВС	8	35	nt, js	8/16/2009 459
4 EG163	4 EGL63							С	В	4	0		3	4	1	EGL63	D	ВС	8	35	nt, js	8/16/2009 459
4 EGLGS 0 0 0 5 4 1 EGLGS D BC 8 35 mt, js 8165  5 EGL216 0 0 0 1 5 1 EGL216 V BC 8 30 NT, JS 8165  5 EGL216 0 0 0 2 5 1 EGL216 V BC 8 30 NT, JS 8165  5 EGL216 0 0 0 3 5 1 EGL216 V BC 8 30 NT, JS 8165  6 EGR94 0 0 1 6 1 EGR84 D BC 8 55 NTJJS 8135  6 EGR94 0 0 0 2 6 1 EGR84 D BC 8 55 NTJJS 8135  7 EGR93 0 0 0 1 7 1 EGR83 D BC 8 60 NTJJS 8135  7 EGR93 0 0 0 2 7 1 EGR83 D BC 8 60 NTJJS 8135  7 EGR83 0 0 0 3 7 1 EGR83 D BC 8 60 NTJJS 8135  7 EGR83 0 0 0 3 7 1 EGR83 D BC 8 60 NTJJS 8135  7 EGR83 0 0 0 3 7 1 EGR83 D BC 8 60 NTJJS 8135																						
5 EG1216         0         1         5         1         EG1216         V         BC         8         30         NT, JS         84866           5 EG1216         0         0         2         5         1         EG1216         V         BC         8         30         NT, JS         84866           5 EG1216         0         0         3         5         1         EG1216         V         BC         8         30         NT, JS         84866           5 EG1216         0         0         3         5         1         EG1216         V         BC         8         30         NT, JS         84866           6 EGR94         0         0         1         6         1         EGR94         D         BC         8         55         NT/JS         94367           6 EGR94         0         0         2         6         1         EGR94         D         BC         8         55         NT/JS         94367           7 EGR93         0         0         1         7         1         EGR93         D         BC         8         60         NT/JS         84367           7 EGR93         0 </td <td>4 EGL63</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>0</td> <td></td> <td>4</td> <td>4</td> <td>1</td> <td>EGL63</td> <td>D</td> <td>ВС</td> <td>8</td> <td>35</td> <td>nt, js</td> <td>8/16/2009 459</td>	4 EGL63									0	0		4	4	1	EGL63	D	ВС	8	35	nt, js	8/16/2009 459
5 EGL216         0         0         2         5         1 EGL216         V         BC         8         30         NT, JS         B/16/2           5 EGL216         0         0         3         5         1 EGL216         V         BC         8         30         NT, JS         B/16/2           6 EGR94         0         0         1         6         1 EGR94         D         BC         8         55         NT/JS         B/13/2           6 EGR94         0         0         2         6         1 EGR94         D         BC         8         55         NT/JS         B/13/2           7 EGR93         0         0         1         7         1 EGR93         D         BC         8         60         NT/JS         B/13/2           7 EGR93         0         0         2         7         1 EGR93         D         BC         8         60         NT/JS         B/13/2           7 EGR93         0         0         3         7         1 EGR93         D         BC         8         60         NT/JS         B/13/2	4 EGL63									0	0		5	4	11	EGL63	D	ВС	8	35	nt, js	8/16/2009 459
5 EGL216         0         0         2         5         1 EGL216         V         BC         8         30         NT, JS         8/16/2           5 EGL216         0         0         3         5         1 EGL216         V         BC         8         30         NT, JS         8/16/2           6 EGR94         0         0         1         6         1 EGR94         D         BC         8         55         NT/JS         8/13/2           6 EGR94         0         0         2         6         1 EGR94         D         BC         8         55         NT/JS         8/13/2           7 EGR93         0         0         1         7         1 EGR93         D         BC         8         60         NT/JS         8/13/2           7 EGR93         0         0         2         7         1 EGR93         D         BC         8         60         NT/JS         8/13/2           7 EGR93         0         0         3         7         1 EGR93         D         BC         8         60         NT/JS         8/13/2	5 EGI 216									0	0		1	5	1	FGI 216	V	BC	8	30	NT IS	8/16/2009 458
5 EGL216         0         0         3         5         1         EGL216         V         BC         8         30         NT, JS         8/16/2           6 EGR94         0         0         1         6         1         EGR94         D         BC         8         55         NT/JS         9/13/2           6 EGR94         0         0         2         6         1         EGR94         D         BC         8         55         NT/JS         9/13/2           7 EGR93         0         0         1         7         1         EGR93         D         BC         8         60         NT/JS         8/13/2           7 EGR93         0         0         3         7         1         EGR93         D         BC         8         60         NT/JS         8/13/2	5 EGL210									0	0		·	3		EGLZ10	V	ВС	0	30	N1, J3	8/10/2009 436
6 EGR94	5 EGL216									0	0		2	5	1	EGL216	V	ВС	8	30	NT, JS	8/16/2009 458
6 EGR94	5 EGL216									0	0		3	5	1	EGL216	V	ВС	8	30	NT, JS	8/16/2009 458
6 EGR94																						
7 EGR93	6 EGR94									0	0		1	6	1	EGR94	D	ВС	8	55	NT/JS	9/13/2009 462
7 EGR93 0 0 0 2 7 1 EGR93 D BC 8 60 NT/JS 8/13/2 7 EGR93 0 0 0 3 7 1 EGR93 D BC 8 60 NT/JS 8/13/2	6 EGR94									0	0		2	6	1	EGR94	D	ВС	8	55	NT/JS	9/13/2009 462
7 EGR93 D BC 8 60 NT/JS 8/13/2	7 EGR93		 							0	0		1	7	1	EGR93	D	ВС	8	60	NT/JS	8/13/2009 462
	7 EGR93									0	0		2	7	1	EGR93	D	ВС	8	60	NT/JS	8/13/2009 462
8 EGR92 0 0 0 1 8 1 EGR92 D BC 8 25 NT/JS 8/13/2	7 EGR93									0	0		3	7	1	EGR93	D	ВС	8	60	NT/JS	8/13/2009 462
	8 EGR92									0	0		1	8	11	EGR92	D	ВС	8	25	NT/JS	8/13/2009 462
8 EGR92 F F F 6.3 0 water tested 2 8 1 EGR92 D BC 8 25 NT/JS 8/13/2	8 ECD03		E	F			E			6.3	0	water toolod	2	0	1	ECD02	D	P.C	Q	25	NT/IC	8/13/2000 454

SiteID SiteNo	rootss Carb rootssl code2 Code		MotA mo Code motal cod	Mot ta Con le2 Code motconl	motcon (	MotS mots Code motsl code2	HBDist Code		Salt pH Code		sam Label	Display Order				Survey Type	So Province Zone	il Corr Slope Area %	Surveyors	Survey Date Easting
8 EGR92									0	0		3	8	1	EGR92	D	BC 8	25	NT/JS	8/13/2009 462758
10 EGL8									0	0		1	10	1	EGL8	D	BC 8	15	NT/JS	8/16/2009 458909
10 EGL8							С	W	0	0	EGR8 NT 1	2	10	1	EGL8	D	BC 8	15	NT/JS	8/16/2009 458909
10 EGL8			С	D		F	С	W	0	0	EGR8 NT 2	3	10	1	EGL8	D	BC 8	15	NT/JS	8/16/2009 458909
10 EGL8			F	Р		F	С	W	0	0	EGR8 NT 3	4	10	1	EGL8	D	BC 8	15	NT/JS	8/16/2009 458909
11 EGL6									0	0		1	11	1	EGL6	V	BC 8	0	NT/JS	8/16/2009 458890
12 EGL41									0	0		1	12	1	EGL41	D	BC 8	30	NT/JS	8/16/2009 459759
12 EGL41		10YR 4/6	С	Р		F	С	1	4.7	0	EGL41 NT 1	2	12	11	EGL41	D	BC 8	30	NT/JS	8/16/2009 459759
12 EGL41		10YR 4/4	М	Р		М			4.6	0	EGL41 NT 2	3	12	1	EGL41	D	BC 8	30	NT/JS	8/16/2009 459759
13 EGL200									0	0		1	13	1	EGL200	D	BC 8	8	NT/SW	8/11/2009 463530
13 EGL200									0	0		2	13	1	EGI 200	D	BC 8	Q	NT/SW/	8/11/2009 463530
13 EGL200									0	0			13		EGLZ00		BC 6	0	IN 173VV	6/11/2009 403330
13 EGL200									6	0		3	13	1	EGL200	D	BC 8	8	NT/SW	8/11/2009 463530
13 EGL200									0	0		4	13	1	EGL200	D	BC 8	8	NT/SW	8/11/2009 463530
13 EGL200									0	0		5	13	1	EGL200	D	BC 8	8	NT/SW	8/11/2009 463530
									-	<u> </u>		<u> </u>						<u> </u>		
14 EGR96									0	0		1	14	1	EGR96	D	BC 8	25	NT, JS	8/13/2009 462720

rootss SiteID SiteNo rootssl code2	Carb Mot Code Color	MotA mota Code motal code2		motcon Mot code2 Cod	S mots e motsl code2	HBDist Code			t Sam e Col	sam Label	Display Order				Survey Type	Province	Soil Corr Zone Area		Surveyors	Survey Date Easting
14 EGR96	10YR 3/3							0	1	EGR96NT 1	2	14	11	EGR96	D	ВС	8	25	NT, JS	8/13/2009 462720
14 EGR96								0	0		3	14	1	EGR96	D	ВС	8	25	NT, JS	8/13/2009 462720
15 EGL16								0	0		11	15	11	EGL16	D	ВС	8	10	NT/SW	8/11/2009 462792
15 EGL16						С	S	0	0		2	15	1	EGL16	D	ВС	8	10	NT/SW	8/11/2009 462792
15 EGL16						С	S	5.7	0		3	15	1	EGL16	D	ВС	8	10	NT/SW	8/11/2009 462792
15 EGL16 16 EGR91 16 EGR91 16 EGR91 16 EGR91								0 0 0 0	0 0 0 0		4 1 2 3 4	16 16 16 16	1 1 1 1	EGL16 EGR91 EGR91 EGR91	D D D D	BC BC BC BC	8 8 8 8	10 18 18 18 18	NT/SW NT, JS NT, JS NT, JS NT, JS	8/11/2009 462792 8/13/2009 462687 8/13/2009 462687 8/13/2009 462687 8/13/2009 462687
16 EGR91 19 EGL15								0	0		5	16 19	1	EGR91 EGL15	D D	BC BC	8	18 27	NT, JS	8/13/2009 462687 8/11/2009 462811
19 EGL15								0	0		2	19	1	EGL15	D	ВС	8	27	NT/SW	8/11/2009 462811
19 EGL15						С	S	5	0		3	19	1	EGL15	D	ВС	8	27	NT/SW	8/11/2009 462811
19 EGL15	10YR 3/4	М	D	F		С	S	0	0		4	19	1	EGL15	D	ВС	8	27	NT/SW	8/11/2009 462811
19 EGL15						С	S		0					EGL15				27		8/11/2009 462811
20 EGL17 20 EGL17								0	0	EGL17NT 1	2	20	1	EGL17	D D	BC BC	8	17 17		8/11/2009 462958 8/11/2009 462958

rootss SiteID SiteNo rootssl code2	Carb Mot Code Color	MotA Code motal	mota C		MotS Code mot	mots tsl code2	HBDist Code	HB Form Code	Salt pH Code	: Sam e Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
20 EGL17									4.2	0	EGL17NT 2	3	20	1	EGL17	D	ВС	8	17	NT/SW	8/11/2009 462958
21 EGL39									0	0		1	21	1	EGL39	D	ВС	8	70	NT, JS	8/14/2009 459731
21 EGL39							D	W	0	0		2	21	1	EGL39	D	ВС	8	70	NT, JS	8/14/2009 459731
21 EGL39									0	0		3	21	1	EGL39	D	ВС	8	70	NT, JS	8/14/2009 459731
21 EGL39								В	0	0		4	21	1	EGL39	D	BC	8	70	NT, JS	8/14/2009 459731
21 EGL39									0	0		5	21	1	EGL39	D	ВС	8	70	NT, JS	8/14/2009 459731
22 EGL38									0	0		1	22	1	EGL38	D	ВС	8	18	NT, JS	8/14/2009 459691
22 EGL38									0	0		2	22	1	EGL38	D	BC	8	18	NT. JS	8/14/2009 459691
22 EGL38																					8/14/2009 459691
22 EGL38									0	0		4	22	1	EGL38	D	BC	8	18	NT, JS	8/14/2009 459691
22 EGL38									0	0		5	22	1	EGL38	D	ВС	8	18	NT, JS	8/14/2009 459691
23 EGL37									0	0		1	23	1	EGL37	D	ВС	8	28	NT, JS	8/14/2009 459728
23 EGL37									0	0		2	23	1	EGL37	D	ВС	8	28	NT, JS	8/14/2009 459728
23 EGL37									4.5	0		3	23	1	EGL37	D	ВС	8	28	NT, JS	8/14/2009 459728
23 EGL37									5	0		4	23	1	EGL37	D	ВС	8	28	NT, JS	8/14/2009 459728

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con motcon Code motconl code2	MotS mots Code motsl code2	HB HBDist Form Code Code	Salt pH Code	Sam Col	sam Label	Display Order		Project ID		Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
23 EGL37					0	0		5	23	1	EGL37	D	ВС	8	28	NT, JS	8/14/2009 459728
24 EGL36					0	0		1	24	1	EGL36	D	ВС	8	18	NT, JS	8/14/2009 459838
24 EGL36					0	0		2	24	11	EGL36	D	ВС	8	18	NT, JS	8/14/2009 459838
24 EGL36					0	0		3	24	1	EGL36	D	ВС	8	18	NT, JS	8/14/2009 459838
24 EGL36					0	0		4	24	1	EGL36	D	ВС	8	18	NT, JS	8/14/2009 459838
25 EGL207					0	0		1	25	1	EGL207	V	ВС	8	80	NT, JS	8/14/2009 460282
					0	0		2		1	EGL207	V	ВС	8	80	NT, JS	8/14/2009 460282
25 EGL207					0	0		3	25	1	EGL207	V	BC	8	80	NT, JS	8/14/2009 460282
26 EGL18					0	0		1	26	1	EGL18	D	ВС	8	18	NT/SW	8/11/2009 463270
26 EGL18						0		2	26	1	EGL18	D	ВС	8	18	NT/SW	8/11/2009 463270
26 EGL18				С В	6	0		3	26	1	EGL18	D	ВС	8	18	NT/SW	8/11/2009 463270
00 501 40				0 0					00		501.40	5	DO.	٠	40	NEGOV	0/44/0000 400070
26 EGL18				С В	0.5	U		4	26	1	EGL18	U	RC	δ	18	N1/SW	8/11/2009 463270
26 EGL18					0	0		5	26	1	EGL18	D	ВС	8	18	NT/SW	8/11/2009 463270
27 EGL33					0	0		11	27	1	EGL33	D	ВС	8	8_	NT, JS	8/14/2009 459688

	Mot nota Con motcon ode2 Code motconl code2	MotS mots Code motsl code2	HB HBDist Form Code Code p	Salt Sa H Code Co	m ol sam Label	Display Order	Site F	Project ID S	Surv te No3 Typ		Soil Cor nce Zone Area	Slope %	Surveyors	Survey Date Easting
27 EGL33			ı	0 0		2	27	1 E	EGL33 D	ВС	8	8	NT, JS	8/14/2009 459688
27 EGL33				0 0		3	27	1 E	EGL33 D	ВС	8	8	NT, JS	8/14/2009 459688
27 EGL33				0 0		4	27	1 E	EGL33 D	ВС	8	8	NT, JS	8/14/2009 459688
28 EGL19				0 0		1	28	1 E	EGL19 D	ВС	8	18	NT/SW	8/11/2009 463242
28 EGL19				0 0		2	28	1 E	EGL19 D	ВС	8	18	NT/SW	8/11/2009 463242
28 EGL19				0 0		3	28	1 E	EGL19 D	ВС	8	18	NT/SW	8/11/2009 463242
28 EGL19 2.5Y 4/6 C	D	F	ı	0 0		4	28	1 E	EGL19 D	ВС	8	18	NT/SW	8/11/2009 463242
28 EGL19				0 0		5	28	1 E	EGL19 D	ВС	8	18	NT/SW	8/11/2009 463242
29 EGL20				0 0		1	29	1 E	EGL20 D	ВС	8	22	NT/SW	8/11/2009 463116
29 EGL20				0 0	<u> </u>	2	29	1 E	EGL20 D	ВС	8	22	NT/SW	8/11/2009 463116
29 EGL20			C I 5	5.5 0		3	29	1 E	EGL20 D	ВС	8	22	NT/SW	8/11/2009 463116
29 EGL20														
29 EGL20				0 0		5	29	<u>1 E</u>	EGL20 D	BC	8	22	NT/SW	8/11/2009 463116
30 EGL201				0 0		4	20	1 -	CI 201	D.O.	٥	1.1	NIT/Q\A/	8/11/2009 463459
JU EGEZUT			·	0		I	30	, <u>E</u>	OLZUI D	DC	U	14	IN I / OVV	0/11/2009 400409
30 EGL201				0 0		2_	30	<u>1</u> E	<u>GL201</u> D	ВС	8	14	NT/SW	8/11/2009 463459

Mot rootss Carb Mot MotA mota Con motcon MotS m SiteID SiteNo rootssl code2 Code Color Code motal code2 Code motconl code2 Code motsl co	HB ots HBDist Form Salt S de2 Code Code pH Code	Sam Display Col sam Label Order	Site Project ID2 ID Site No3	Survey Soil Co Type Province Zone Area	rr Slope Survey % Surveyors Date Easting
30 EGL201	5	0 3	30 1 EGL201	D BC 8	14 NT/SW 8/11/2009 463459
30 EGL201	0	0 4	30 1 EGL201	D BC 8	14 NT/SW 8/11/2009 463459
31 EGL5	0	0 1	31 1 EGL5	D BC 8	8 NT/SW 8/11/2009 463097
31 EGL5	0	0 2	31 1 EGL5	D BC 8	8 NT/SW 8/11/2009 463097
31 EGL5	5	0 3	31 1 EGL5	D BC 8	8 NT/SW 8/11/2009 463097
31 EGL5	0	0 4	31 1 EGL5	D BC 8	8 NT/SW 8/11/2009 463097
32 EGL202 32 EGL202		0 1	32 1 EGL202 32 1 EGL202		7 NT/SW 8/11/2009 462894 7 NT/SW 8/11/2009 462894
32 EGL202		0 3	32 1 EGL202		7 NT/SW 8/11/2009 462894
32 EGL202	0	0 4	32 1 EGL202	V BC 8	7 NT/SW 8/11/2009 462894
33 EGL203	0	0 1	33 1 EGL203	V BC 8	4 NT/SW 8/11/2009 462908
33 EGL203	0	0 2	33 1 EGL203	V BC 8	4 NT/SW 8/11/2009 462908
34 EGL58	0	0 1	34 1 EGL58	D BC 8	0 NT/SW 8/11/2009 462612
34 EGL58	0	0 2	34 1 EGL58	D BC 8	0 NT/SW 8/11/2009 462612

SiteID SiteNo	rootss Carb Mot rootssl code2 Code Color	MotA mota Code motal code2	Mot Con motoc Code motconl code	on MotS mots 2 Code motsl code2		HB Form Code	Salt pH Code	Sam e Col	sam Label	Display Order		Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
34 EGL58							5.5	0		3	34	1	EGL58	D	ВС	8	0	NT/SW	8/11/2009 462612
34 EGL58							0	0		4	34	1	EGL58	D	ВС	8	0	NT/SW	8/11/2009 462612
35 EGL52							0	0		1	35	11	EGL52	D	ВС	8	10	NT/JS	8/12/2009 461913
35 EGL52					С	S	0	0		2	35	1	EGL52	D	ВС	8	10	NT/JS	8/12/2009 461913
35 EGL52					С	S	0	0		3	35	1	EGL52	D	ВС	8	10	NT/JS	8/12/2009 461913
35 EGL52					С	S	0	0		4	35	1	EGL52	D	ВС	8	10	NT/JS	8/12/2009 461913
35 EGL52					С	S	0	0		5	35	1	EGL52	D	ВС	8	10	NT/JS	8/12/2009 461913
36 EGL53							0	0		1	36	1	EGL53	D	ВС	8	10	NT/JS	8/12/2009 461946
36 EGL53							5	0		2	36	1	EGL53	D	ВС	8	10	NT/JS	8/12/2009 461946
36 EGL53							0	0		3	36	1	EGL53	D	ВС	8	10	NT/JS	8/12/2009 461946
36 EGL53							0	0		4	36	1	EGL53	D	ВС	8	10	NT/JS	8/12/2009 461946
37 EGL3							0	0		1	37	1	EGL3	D	ВС	8	15	NT/JS	8/12/2009 461502

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con mot Code motconl cod	con MotS mot le2 Code motsl code		HB Form Code p	Salt pH Code	Sam Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
37 EGL3						0	0		2	37	1	EGL3	D	ВС	8	15	NT/JS	8/12/2009 461502
37 EGL3						5	0		3	37	1	EGL3	D	BC	8	15	NT/JS	8/12/2009 461502
37 EGL3					ţ	5.5	0		4	37	1	EGL3	D	BC BC	8	15	NT/JS	8/12/2009 461502
37 EGL3						0	0		5	37	1	EGL3	D	ВС	8	15	NT/JS	8/12/2009 461502
38 EGL204						0	0		1	38	1	EGL204	D	ВС	8	60	NT/JS	8/12/2009 461449
38 EGL204				А	В	0	0		2	38	11	EGL204	D	ВС	8	60	NT/JS	8/12/2009 461449
38 EGL204				А	В	0	0		3	38	1	EGL204	D	ВС	8	60	NT/JS	8/12/2009 461449
38 EGL204				A	В	5	0		4	38	1	EGL204	D	ВС	8	60	NT/JS	8/12/2009 461449
39 EGL4  39 EGL4						0	0 0 lim	ited sample EGL4	2		1	EGL4	D D	BC BC	8	25 25	NT/JS	8/12/2009 461305 8/12/2009 461305
39 EGL4 39 EGL4						0	0 0 too	EGL4 NT 2	3		1	EGL4	D D		8	25 25	NT/JS	8/12/2009 461305 8/12/2009 461305

rootss Carb SiteID SiteNo rootssl code2 Code	MotA Code motal c	mota C	motcon nl code2	mots			Salt Code	Sam Col	sam Label	Display Order			Site No3	Survey Type	Province	Soil Corr Zone Area		Surveyors	Survey Date Easting
40 EGL205						0		0		1	40	1	EGL205	D	ВС	8	25	NT/JS	8/12/2009 461307
40 EGL205						0		0		2	40	11	EGL205	D	ВС	8	25	NT/JS	8/12/2009 461307
40 EGL205						0		0		3	40	1	EGL205	D	ВС	8	25	NT/JS	8/12/2009 461307
40 EGL205						0		0		4	40	1	EGL205	D	ВС	8	25	NT/JS	8/12/2009 461307
41 EGL60						0		0		1	41	1	EGL60	D	ВС	8	35	NT/JS	8/12/2009 460681
41 EGL60			 	 		0		0		2	41	<u>1</u>	EGL60	D_	BC	8	35	NT/JS	8/12/2009 460681
41 EGL60						0		0		3	41	1	EGL60	D	ВС	8	35	NT/JS	8/12/2009 460681
42 EGL61						0		0		1	42	1	EGL61	D	ВС	8	35	NT/JS	8/12/2009 460670
42 EGL61						0		0		2	42	1	EGL61	D	ВС	8	35	NT/JS	8/12/2009 460670
42 EGL61						0		0		3			EGL61	D		8	35		8/12/2009 460670
42 EGL61						0		0		4	42	1	EGL61	D	BC	8	35	NT/JS	8/12/2009 460670
43 EGL68						0		0		1	43	1	EGL68	D	ВС	8	20	NT/JS	8/12/2009 460392
43 EGL68						0		0		2	43	1	EGL68	D	ВС	8	20	NT/JS	8/12/2009 460392
43 EGL68					С	W 5		0		3	43	1	EGL68	D	ВС	8	20	NT/JS	8/12/2009 460392
43 EGL68						0		0		4	43	1	EGL68	D	ВС	8	20	NT/JS	8/12/2009 460392

rootss			Mot nota Con	motcon			HBDist Fo		Salt Sam		Display	Site	Project		Survey		Soil Cor			Survey
SiteID SiteNo rootssl code2	Code Color	Code motal co	ode2 Code mo	otconl code2	Code motsl	code2	Code C	ode pH	Code Col	sam Label	Order	ID2	ID	Site No3	Туре	Province	Zone Area	%	Surveyors	Date Easting
44 EGL206								0	0		1	44	1	EGL206	D	ВС	8	2	NT/JS	8/13/2009 463119
44 EGL206								0	0		2	44	1	EGL206	D	ВС	8	2	NT/JS	8/13/2009 463119
45 EGR206								0	0		1	45	1	EGR206	D	RC.	8	50	NT/JS	8/13/2009 463081
40 EGN250											<u> </u>	40	'	LONZOO				- 00	141700	0/10/2000 <del>1</del> 00001
45 EGR206								0	0		2	45	1	EGR206	D	BC	8	50	NT/JS	8/13/2009 463081
46 EGR97								0	0		11	46	11	EGR97	D	ВС	8	10	NT/JS	8/13/2009 462742
46 EGR97							С	W 6.3	0		2	46	1	EGR97	D	ВС	8	10	NT/JS	8/13/2009 462742
46 EGR97	10YR 5/6	С	Р		М		D	W 6.3	0		3	46	1	EGR97	D	ВС	8	10	NT/JS	8/13/2009 462742
46 EGR97	10YR 5/8	С	Р		М			0	0		4	46	1	EGR97	D	ВС	8	10	NT/JS	8/13/2009 462742
		-							-								-			
40 50007								0	0		F	46	4	ECD07	<b>D</b>	D.C.	0	40	NT/IC	0/42/2000 402742
46 EGR97								0	0		5	46	1	EGR97	D	BC	8	10	NT/JS	8/13/2009 462742
47 EGR95								0	0		1	47	1	EGR95	D	ВС	8	35	NT/JS	8/13/2009 462800
																				_
47 EGR95								0	0		2	47	1	EGR95	D	ВС	8	35	NT/JS	8/13/2009 462800
48 EGR80								0	0		1	48	1	EGR80	D	ВС	8	45	NT/JS	8/13/2009 462942
48 EGR80							С	В 0	0		2	48	1	EGR80	D	ВС	8	45	NT/JS	8/13/2009 462942
								-	-									-		<u> </u>
40 FCD00								•	•		2	40		EOD00	<b>.</b>	D.O.	0	45	NT/IO	0/40/0000 400040
48 EGR80								0	0		3	48	1	EGR80	U	BC	8	45	IN I /JS	8/13/2009 462942
49 EGL27								0	0		1	49	1	EGL27	V	ВС	8	5	NT/JS	8/14/2009 460298

SiteID SiteNo	rootss Carb rootssl code2 Code		MotA mota Code motal code	Mot a Con 2 Code motconl	motcon code2	MotS mots Code motsl code2	HBDist Code	HB Form Code	Salt pH Code	Sam Col	sam Label	Display Order	Site ID2		Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
49 EGL27									0	0		2	49	1	EGL27	V	ВС	8	5	NT/JS	8/14/2009 460298
50 EGL12									0	0		1	50	1	EGL12	D	ВС	8	9	NT/JS	8/15/2009 458688
50 EGL12		10YR 3/3	С	F		F	G	W	0	1	EGLIZ NT 1	2	50	1	EGL12	D	вс	8	9	NT/JS	8/15/2009 458688
50 EGL12		7.5YR 3/4	F	Р		М	G	W	0	1	EGL12 NT 2	3	50	1	EGL12	D	BC	8	9	NT/JS	8/15/2009 458688
50 EGL12			F	D		M			0	1	EGL12 NT 3	4	50	1	EGL12	D	BC	8	9	NT/JS	8/15/2009 458688
51 EGL215									0	0		1	51	11	EGL215	D	вс	8	35	NT/JS	8/15/2009 459132
51 EGL215							A	В	5.5	0		2	51	1	EGL215	D	ВС	8	35	NT/JS	8/15/2009 459132
51 EGL215									0	0		3	51	1	EGL215	D	ВС	8	35	NT/JS	8/15/2009 459132
52 EGL22									0	0		1	52	1	EGL22	D	ВС	8	15	NT/JS	8/15/2009 461235
52 EGL22			С	Р		С			0	0		2	52	1	EGL22	D	ВС	8	15	NT/JS	8/15/2009 461235
52 EGL22			С	Р		С			0	0		3	52	1	EGL22	D	ВС	8	15	NT/JS	8/15/2009 461235
52 EGL22		7.5YR 3/4	С	Р		F			0	0		4	52	1	EGL22	D	ВС	8	15	NT/JS	8/15/2009 461235
52 EGL22			С			F			0	0		5	52	1	EGL22	D	ВС	8	15	NT/JS	8/15/2009 461235

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con motco Code motconl code2	HB HBDist Form Code Code	Salt pH Code	Sam Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
54 EGL26				0	0		1	54	1	EGL26	D	ВС	8	30	NT/JS	8/15/2009 461407
54 EGL26				0	0		2	54	1	EGL26	D	BC	8	30	NT/JS	8/15/2009 461407
54 EGL26				0	0		3	54	1	EGL26	D	ВС	8	30	NT/JS	8/15/2009 461407
56 EGL25				0	0		1	56	1	EGL25	D	ВС	8	30	NT/JS	8/15/2009 461541
56 EGL25				0	0		2	56	1	EGL25	D	ВС	8	30	NT/JS	8/15/2009 461541
56 EGL25				0	1	EGL25 NT 1	3	56	1	EGL25	D	ВС	8	30	NT/JS	8/15/2009 461541
56 EGL25				0	0		4	56	1	EGL25	D	ВС	8	30	NT/JS	8/15/2009 461541
57 EGL210				0	0		1	57	1	EGL210	D	ВС	8	0	NT/JS	8/15/2008 461675
57 EGL210				0	0			57		EGL210		ВС		0		8/15/2008 461675
57 EGL210				0	0			57		EGL210		BC		0	NT/JS	_
57 EGL210 57 EGL210				0	0		4 5	57 57	1	EGL210	D D	BC BC	8	0	NT/JS	8/15/2008 461675 8/15/2008 461675
58 EGL208				0	0		1	58	1	EGL208	D	ВС	8	28	NT/JS	8/15/2009 461494
58 EGL208			G B	0	1	EGL208 NT 1	2	58	1	EGL208	D	ВС	8	28	NT/JS	8/15/2009 461494

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con Code motconl	motcon MotS code2 Code mot	HB IBDist Form Code Code		t Sam le Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
58 EGL208				G I	5	1	EGL208 NT 2	3	58	1	EGL208	D	ВС	8	28	NT/JS	8/15/2009 461494
58 EGL208					0	1	EGL208 NT 3	4	58	11	EGL208	D	ВС	8	28	NT/JS	8/15/2009 461494
59 EGL209					0	0		1	59	1	EGL209	D	ВС	8	35	NT/JS	8/15/2009 461564
59 EGL209					0	0		2	59	1	EGL209	D	ВС	8	35	NT/JS	8/15/2009 461564
59 EGL209					0	0		3	59	1	EGL209	D	ВС	8	35	NT/JS	8/15/2009 461564
59 EGL209					0	0		4	59	1	EGL209	D	ВС	8	35	NT/JS	8/15/2009 461564
60 EGL50					0	0		1	60	1	EGL50	D	ВС	8	35	NT/JS	8/15/2009 461708
60 EGL50					0	1	EGL50 NT 1	2	60	1	EGL50	D	ВС	8	35	NT/JS	8/15/2009 461708
60 EGL50					0	0		3	60	11	EGL50	D	ВС	8	35	NT/JS	8/15/2009 461708
60 EGL50					0	0		4	60	1	EGL50	D	ВС	8	35	NT/JS	8/15/2009 461708
62 EGL212					0	0		1	62	1	EGL212	D	ВС	8	35	NT/JS	8/15/2009 460889
62 EGL212					0	0		2	62	1	EGL212	D	ВС	8	35	NT/JS	8/15/2009 460889
62 EGL212					0	0		3	62	11	EGL212	D	ВС	8	35	NT/JS	8/15/2009 460889
62 EGL212					0	0		4	62	1	EGL212	D	ВС	8	35	NT/JS	8/15/2009 460889

rootss Carb SiteID SiteNo rootssl code2 Code	Mot MotA Color Code m	Mot mota Con otal code2 Code	moto	on MotS e2 Code mote	HB HBDist Form Code Code	Salt pH Code	t Sam e Col	sam Label	Display Order	Site ID2		Site No3	Survey Type	Province	Soil Corr Zone Area		Surveyors	Survey Date Easting
64 EGL214						0	0		1	64	1	EGL214	D	ВС	8	10	NT/JS	8/15/2009 458678
64 EGL214						0	0		2	64	1	EGL214	D	ВС	8	10	NT/JS	8/15/2009 458678
64 EGL214						0	0		3	64	11	EGL214	D	ВС	8	10	NT/JS	8/15/2009 458678
67 EGL35						0	0		1	67	1	EGL35	D	ВС	8	20	NT/JS	8/14/2009 460058
67 EGL35						0	0		2	67	1	EGL35	D	ВС	8	20	NT/JS	8/14/2009 460058
68 EGL34 68 EGL34						0	0		1	68	1	EGL34	D	BC	8	20	NT/JS	8/14/2009 460172 8/14/2009 460172
68 EGL34						0	0		3	68	1	EGL34	D D	BC BC	8	20	NT/JS	8/14/2009 460172 8/14/2009 460172
68 EGL34						0	0		4	68	1	EGL34	D	ВС	8	20	NT/JS	8/14/2009 460172
69 EGL32						0	0		2	69 69	1	EGL32 EGL32	D D	BC BC	8	30	NT/JS NT/JS	8/14/2009 460281 8/14/2009 460281
69 EGL32 69 EGL32						0	0		<u>3</u>	69 69	1	EGL32	D D	BC BC	8	30 30	NT/JS	8/14/2009 460281 8/14/2009 460281
69 EGL32						0	0		4		1	EGL32	D		8	30		8/14/2009 460281
70 EGL31						0	0		1	70	1	EGL31	D	ВС	8	45	NT/JS	8/14/2009 460212
70 EGL31						0	0		2	70	1	EGL31	D	ВС	8	45	NT/JS	8/14/2009 460212
71 EGL30						0	0		1	71	1	EGL30	D	ВС	8	65	NT/JS	8/14/2009 460171
71 EGL30						0	0		2	71	1	EGL30	D	ВС	8	65	NT/JS	8/14/2009 460171
71 EGL30						5	0		3	71	1	EGL30	D	ВС	8	65	NT/JS	8/14/2009 460171
71 EGL30						0	0		4	71	1	EGL30	D	ВС	8	65	NT/JS	8/14/2009 460171

rootss Carb Mot MotA mota SiteID SiteNo rootssI code2 Code Color Code motal code2	Mot a Con motcon MotS mot: 2 Code motconl code2 Code motsl code	HB s HBDist Form c2 Code Code		Sam e Col	sam Label	Display Order	Site	Project	Site No2	Survey	Brovince	Soil Co Zone Area	r Slope %	Surveyors	Survey Date Easting
72 EGR81	z code motcom codez code motsi code	2 Code Code	0	0	Saiii Labei	order 1		1	EGR81	D D		8 8	30	NT/JS	8/13/2009 462935
72 EGR81		C S	5.6	0		2		1	EGR81	D	ВС	8	30	NT/JS	8/13/2009 462935
72 EGR81		C S	5.6	0		3	72	1	EGR81	D	ВС	8	30	NT/JS	8/13/2009 462935
72 EGR81			0	0		4	72	11	EGR81	D	ВС	8	30	NT/JS	8/13/2009 462935
75 EGL9				0		1	75	1	EGL9	R	ВС	8	35	NT/BF	8/16/2009 458581
75 EGL9			0	0		2	75	1	EGL9	R	ВС	8	35	NT/BF	8/16/2009 458581
75 EGL9			0	0		3	75	1	EGL9	R	ВС	8	35	NT/BF	8/16/2009 458581
80 EGL10			0			1 2		1	EGL10	R R		8	10	MT/BF	8/16/2009 458651 8/16/2009 458651
			U	U		2									
80 EGL10			0	1	EGL10 MT 2	3	80	1	EGL10	R	BC	8	10	MT/BF	8/16/2009 458651
80 EGL10			0	0		4	80	1	EGL10	R	ВС	8	10	MT/BF	8/16/2009 458651
83 EGL11			0	0		1	83	1	EGL11	R	ВС	8	18	MT/BF	8/16/2009 458848
83 EGL11			0	0		2	83	1	EGL11	R	ВС	8	18	MT/BF	8/16/2009 458848
83 EGL11			0	0		3	83	1	EGL11	R	ВС	8	18	MT/BF	8/16/2009 458848

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	notcon MotS code2 Code motsl	mots HBDist code2 Code		Salt Sam Code Col	sam Label	Display Order	Site ID2			Survey Type	Province Zone	Soil Corr Area		Surveyors	Survey Date Easting
89 EGR110				0	0		1	89	1	EGR110	D	BC 8		26	MT/BF	8/13/2009 463495
89 EGR110				0	1	EGR110 MT 1	2	89	1	EGR110	D	BC 8		26	MT/BF	8/13/2009 463495
89 EGR110 97 EGR415				0	1 0	EGR110 MT 2	3	89 97	<u>1</u> 1	EGR110 EGR415	D R	BC 8		<u> 26</u> 1	MT/BF	8/13/2009 463495 8/16/2009 449778
99 EGR416 99 EGR416				0	0		1	99	1	EGR416	R	BC 8		1	MT/BF	8/16/2009 450943
99 EGR416 99 EGR416				0 0	0 0		3	99 99 99	1 1	EGR416 EGR416	R R R	BC 8  BC 8		1 1 1	MT/BF	8/16/2009 450943 8/16/2009 450943 8/16/2009 450943
108 EGR411				0	0		1	108	1	EGR411		BC 8		22	MT/BF	8/15/2009 453232
108 EGR411				0	0		2	108	11	EGR411	R	BC 8		22	MT/BF	8/15/2009 453232
108 EGR411	F	С		0	0		3	108	11	EGR411	R	BC 8		22	MT/BF	8/15/2009 453232
111 EGR409 111 EGR409				0	0		2	111		EGR409	R R	BC 8		2		8/15/2009 451814 8/15/2009 451814
111 EGR409				0	0			111		EGR409		BC 8		2		8/15/2009 451814
117 EGL66				0	0			117	1		R R	BC 8		35		8/14/2009 459974 8/14/2009 459974
117 EGL66				0	0		<u> </u>	117	<u> </u>	EGL66	К	BC 8		35	MT/BF	8/14/2009 459974

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	Mot MotA mota Con Code motal code2 Code motcon	motcon MotS mots HBD I code2 Code motsI code2 Cod	HB Dist Form Salt de Code pH Code	Sam e Col	sam Label	Display Order	Site F ID2	Project ID	Site No3	Survey Type	Province Zone	Soil Corr S Area	Slope %	Surveyors	Survey Date Easting
118 EGR303			0	0		11	118	1	EGR303	D	BC 8		10	MT/BF	8/12/2009 455171
118 EGR303			0	0		2	118	1	EGR303	D	BC 8		10	MT/BF	8/12/2009 455171
118 EGR303			0	0		3	118	1	EGR303	D	BC 8		10	MT/BF	8/12/2009 455171
118 EGR303			0	0		4	118	1	EGR303	D	BC 8		10	MT/BF	8/12/2009 455171
119 EGL310			0	0		1	119	1	EGL310	R	BC 8		50	MT/BF	8/14/2009 459640
119 EGL310			0	0		2				R	BC 8		50	MT/BF	8/14/2009 459640
119 EGL310 120 EGL311 120 EGL311			0 0	0 0		3 1 2	120	1	EGL310 EGL311 EGL311		BC 8  BC 8		50 25 25	MT/BF MT/BF	8/14/2009 459640 8/14/2009 459660 8/14/2009 459660
120 EGL311 123 EGL47 123 EGL47 123 EGL47			0 0 0 0	0 0 0 0		3 1 2 3	120 123 123 123	1 1 1	EGL311 EGL47 EGL47 EGL47	V R R R	BC 8 BC 8 BC 8 BC 8		25 25 25 25 25	MT/BF MT/BF MT/BF MT/BF	8/14/2009 459660 8/14/2009 460009 8/14/2009 460009 8/14/2009 460009
124 EGL1			0	0		1 2		1	EGL1	D D	BC 8		30	MT/BF	8/14/2008 460221 8/14/2008 460221
124 EGL1			0	1	EGL1 MT 2	3			EGL1	D	BC 8		30	MT/BF	8/14/2008 460221
124 EGL1			0	1	EGL1 MT 3	4	124	1	EGL1	D	BC 8		30	MT/BF	8/14/2008 460221

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	Mot MotA mota Con Code motal code2 Code		HB IBDist Form Salt Code Code pH Code	Sam Col s	Dis am Label O	splay Site rder ID2	Project ID Sit	Survey No3 Type	Province Zone	Soil Corr Slope Area %	Surveyors	Survey Date Easting
125 EGL313			0	0		1 125	1 EC	6L313 R	BC	35	MT/BF	8/14/2008 459524
125 EGL313			0	0		2 125	1 EC	6L313 R	вс	35	MT/BF	8/14/2008 459524
125 EGL313			0	0		3 125	1 EC	6L313 R	ВС	35	MT/BF	8/14/2008 459524
126 EGR400			0	0		1 126	1 EC	R400 R	BC 8	3	MT/BF	8/15/2008 449319
126 EGR400			0	0		<u>2 126</u>	1 EC	R400 R	BC 8	3	MT/BF	8/15/2008 449319
126 EGR400	Α	М	0	0		3 126	1 EC	R400 R	BC 8	3	MT/BF	8/15/2008 449319
129 EGR401			0	0		1 129	1 EC	R401 R	BC 8	2	MT/BF	8/15/2008 448898
129 EGR401			0	0		2 129	1 EC	:R401 R	BC 8	2	MT/BF	8/15/2008 448898

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con r Code motconl	motcon MotS code2 Code motsl	HB Form Code p	Salt S H Code	Sam Col	sam Label	Display Order	Site ID2	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
129 EGR401				(	)	0		3	129	1	EGR401	R	ВС	8	2	MT/BF	8/15/2008 448898
129 EGR401				(	)	0		4	129	1	EGR401	R	ВС	8	2	MT/BF	8/15/2008 448898
133 EGR406				C	)	0		1	133	1	EGR406	R	BC	8	10	MT/BF	8/15/2008 449694
133 EGR406				(	)	0		2	133	11	EGR406	R	ВС	8	10	MT/BF	8/15/2008 449694
133 EGR406	F		F	ſ	)	0		3	133	1	EGR406	P	BC	8	10	MT/BF	8/15/2008 449694
134 EGR404	<u> </u>		<u> </u>			0		1	134	1	EGR404	R	ВС	8	0	MT/BF	8/15/2009 449171
135 EGR403						0		1	135	1	EGR403	R	ВС	8	50	MT/BF	8/15/2009 449007
135 EGR403						0		2	135	11	EGR403	R	ВС	8	50	MT/BF	8/15/2009 449007
135 EGR403						0		3	135	1	EGR403	R	ВС	8	50	MT/BF	8/15/2009 449007
136 EGR407				(	)	0		1	136	1	EGR407	R	ВС	8	45	MT/BF	8/15/2008 450348

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	MotA mota Code motal code2	Mot Con Code motconl	motcon MotS code2 Code motsl (	mots HBDist	HB Form Salt Code pH Code	Sam Col	sam Label	Display Order	Site ID2	Project ID S	Site No3	Survey Type	Province 2	Soil Corr one Area	Slope %	Surveyors	Survey Date Easti
136 EGR407 139 EGR413					0	0		<u>2</u> 1	139	1	EGR407 EGR413	R R	BC	8	45 3	MT/BF	8/15/2008 4503 8/15/2008 4578
139 EGR413 139 EGR413					0	0		3	139 139	1 1	EGR413 EGR413	R R	BC BC	8	3	MT/BF MT/BF	8/15/2008 4578 8/15/2008 4578
141 EGL21					0	0		1	141	1	EGL21	D	ВС	8	14 N	IT/BF/NT/S	8/11/2009 4628
141 EGL21					0	0		2	141	1	EGL21	D	вс	8	14 N	1T/BF/NT/S	8/11/2009 4628
444 FCI 24					G	0		2	444	4	EOL 24	D	DC.	0	14 N	AT/DE/NIT/O	9/44/2000 4622
141 EGL21					6	0		3	141	1	EGL21	D	BC	8	14 N	11/BF/N1/S	8/11/2009 462
141 EGL21					6.5	0			141		EGL21						8/11/2009 4628
141 EGL21 144 TPA1					0	1	EGL21 NT 4		141		EGL21		BC				8/11/2009 4628
ITT IFAI					0	0		ı	144	- 1	TPA1	IX	ВС	U	9	Juanti	7/18/2009 4594

SiteID SiteNo	rootss Carb Mot rootssl code2 Code Col	MotA or Code	Mot Con Code motco	motcon nl code2	MotS Code motsl	mots I code2	HBDist Code	HB Form Code pl	Salt H Code	Sam Col	sam Label	Display Order	Site	Project ID	Site No3	Survey Type	Province	Soil Corr Zone Area	Slope %	Surveyors	Survey Date Easting
144 TPA1										1	TP20 BM1	2			TPA1	R		8	9		7/18/2009 459464
144 TPA1								C	)	1	TP20 BM2	3	144	1	TPA1	R	ВС	8	9	Straker	7/18/2009 459464
145 TPA3										0		1	145	1	TPA3	R	BC	8	7	Straker	7/19/2009 458474
145 TPA3										1	TPA3 BM1	2	145	1	TPA3	R	ВС	8	7	Straker	7/19/2009 458474
445 TDAG										0		2	445	4	TDAG		DO.		7	Otrologo	7/40/0000 450474
145 TPA3										0		3	145	1	IPA3	R	BC.	8	/	Straker	7/19/2009 458474
145 TPA3										1	TPA3 Bm2	4	145	1	TPA3	R	ВС	8	7	Straker	7/19/2009 458474
146 TPA4								C	)	0		1	146	1	TPA4	R	ВС	8	20	Straker	7/19/2009 458978
146 TPA4								C	)	0		2	146	1	TPA4	R	ВС	8	20	Straker	7/19/2009 458978

rootss Carb Mot SiteID SiteNo rootssl code2 Code Color	Mot MotA mota Con Code motal code2 Code	motcon MotS mot motconl code2 Code motsl code		Sam Col sam Labe		Site Pi	roject ID Site No3	Survey Type	Soi Province Zone	l Corr Slope Irea %	Surveyors	Survey Date Easting
146 TPA4				0	3	146	1 TPA4	R	BC 8	20	Straker	7/19/2009 458978
146 TPA4				1 BM1	4	146	1 TPA4	R	BC 8	20	Straker	7/19/2009 458978
146 TPA4				0	5	146	1 TPA4	R	BC 8	20	Straker	7/19/2009 458978
146 TPA4 147 EGR451 147 EGR451 147 EGR451			0 0 0	1 Bm2 0 0 0	6 1 2 3	146 147 147 147	1 TPA4 1 EGR451 1 EGR451 1 EGR451	R Q Q Q	BC 8 BC 8 BC 8 BC 8	20 5 5 5	Straker JS/NT JS/NT JS/NT	7/19/2009 458978 9/16/2009 452180 9/16/2009 452180 9/16/2009 452180
148 EGR450			6.3	0	1	148	1 EGR450	Q	BC 8		JS/NT	9/16/2009 449630
148 EGR450				0	2	148	1 EGR450	Q	BC 8		JS/NT	9/16/2009 449630
148 EGR450				0	3	148	1 EGR450	Q	BC 8		JS/NT	9/16/2009 449630

SiteID SiteNo	Northing E	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
4 EGL63	7100415	933	<0.01%	U		30 - 45%		100-500	LN	CV	Fo				0		0	
4 EGL63	7100415	933	<0.01%	U		30 - 45%		100-500	LN	CV	Fo				0		0	
4 EGL63	7100415	933	<0.01%	U		30 - 45%		100-500	LN	CV	Fo				0		0	
4 EGL63	7100415	933	<0.01%	U		30 - 45%		100-500	LN	CV	Fo				0		0	
4 EGL03	7100413	933	<0.0176			30 - 43 //		100-300	LIN	CV	10				0		0	
4 EGL63	7100415	933	<0.01%	U		30 - 45%		100-500	LN	CV	Fo				0		0	
5 EGL216	7101004	811		Т		30 - 45%		50-100	LN	LV	Fo	W	moderate		0		0	
5 EGL216	7101004	811		Т		30 - 45%		50-100	LN	LV	Fo	W	moderate		0		0	
5 EGL216	7101004	811		Т		30 - 45%		50-100	LN	LV	Fo	W	moderate		0		0	
6 EGR94	7103626	1147	0.1 - 3%	M		45-70%			LN	LN	Fo	W	moderate		0	13	0	
6 EGR94	7103626	1147	0.1 - 3%	М		45-70%			LN	LN	Fo	W	moderate		0	13	0	
7 EGR93	7103852	1096	15 - 50%	М		45-70%		100-500	LN	LN	Fo				0		0	
7 EGR93	7103852	1096	15 - 50%	М		45-70%		100-500	LN	LN	Fo				0		0	
7 EGR93	7103852	1096	15 - 50%	M		45-70%		100-500	LN	LN	Fo				0		0	
8 EGR92	7103994	1028	<0.01%	L		15 - 30%		100-500	CC	LN	Fo	W	moderate		0	22	0	60
8 EGR92	7103994	1028	<0.01%	L		15 - 30%		100-500	CC	LN	Fo	W	moderate		0	22	0	60

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position Landscap (PEL) Slope	e Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
8 EGR92	7103994	1028	<0.01%	L	15 - 30%		100-500	CC	LN	Fo	W	moderate		0	22	0	60
10 EGL8	7101065	846	0.01 - 0.1%	L	9 -15%					Fo				0		0	
10 EGL8	7101065	846	0.01 - 0.1%	L	9 -15%					Fo				0		0	
10 EGL8	7101065	846	0.01 - 0.1%	L	9 -15%					Fo				0		0	
10 EGL8	7101065	846	0.01 - 0.1%	L	9 -15%					Fo				0		0	
11 EGL6	7100898	831			9 -15%					DL	W	moderate		0		0	
12 EGL41	7100924	925	<0.01%	L				LN	LV	Fo				0	19	0	100
12 EGL41	7100924	925	<0.01%	L				LN	LV	Fo				0	19	0	100
12 EGL41	7100924	925	<0.01%	L				LN	LV	Fo				0	19	0	100
40 501 000	7404400	0	-0.040/		F 00/		100 500	1.51	1.51	0.4	107	a li ada A		0		0	
13 EGL200	7101102	0	<0.01%	M	5 - 9%		100-500	LN	LN	SA	W	slight		0		0	
13 EGL200	7101102	0	<0.01%	M	5 - 9%		100-500	LN	LN	SA	W	slight		0		0	
13 EGL200	7101102	0	<0.01%	М	5 - 9%		100-500	LN	LN	SA	W	slight		0		0	
		-														-	
13 EGL200	7101102	0	<0.01%	M	5 - 9%		100-500	LN	LN	SA	W	slight		0		0	
13 EGL200	7101102	0	<0.01%	M	5 - 9%		100-500	LN	LN	SA	W	slight		0		0	
14 EGR96	7104258	981	<0.01%				100-500	CC	LN	Fo				1	10	1	30

SiteID SiteNo	Northing	Elevation	Surface Expressi on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
14 EGR96	7104258	981		<0.01%				100-500	CC	LN	Fo				1	10	1	30
14 EGR96	7104258	981		<0.01%				100-500	CC	LN	Fo				1	10	1	30
15 EGL16	7102169	1316		15 - 50%	М		9 -15%	100-500	LN	LN	SA	W	slight		0		0	
15 EGL16	7102169	1316		15 - 50%	M		9 -15%	100-500	LN	LN	SA	W	slight		0		0	
45 50140	7400400	1010		45 500/			0.450/	100 500			0.4				•		0	
15 EGL16	7102169	1316		15 - 50%	M		9 -15%	100-500	LN	LN	SA	W	slight		0		0	
15 EGL16	7102169	1316		15 - 50%	M		9 -15%	100-500	LN	LN	SA	W	slight		0		0	
16 EGR91 16 EGR91	7104425 7104425	944 944			L L		15 - 30% 15 - 30%		CV	LN LN	Fo Fo	W	moderate moderate		1		0	
16 EGR91	7104425	944			L		15 - 30%		CV	LN	Fo	W	moderate		1		0	
16 EGR91 16 EGR91	7104425 7104425	944 944			<u>L</u> L		15 - 30% 15 - 30%		CV CV	LN LN	Fo Fo	W	moderate moderate		<u> </u>		0	
19 EGL15	7102030	0		3 - 15%	M		15 - 30%	100-500	LN	LN	Fo	W	moderate		0		0	
10 EGE10	7102030	<u> </u>		J - 1370	IVI		13 - 30 /0	100-300	LIV	LIV	10	VV	moderate				0	
19 EGL15	7102030	0		3 - 15%	М		15 - 30%	100-500	LN	LN	Fo	W	moderate		0		0	
19 EGL15	7102030	0		3 - 15%	М		15 - 30%	100-500	LN	LN	Fo	W	moderate		0		0	
	_,										_							
19 EGL15	7102030	0		3 - 15%	M		15 - 30%	100-500	LN	LN	Fo	W	moderate		0		0	
19 EGL15	7102030	0		3 - 15%	M		15 - 30%	 100-500	LN	LN	Fo	W	moderate		0		0	
20 EGL17				3 - 15%	L		15 - 30%	25-50	LN	CN	Fo		slight		0			
20 EGL17	7101937			3 - 15%	1		15 - 30%	25-50	LN	CN	Fo	W	slight		0			
	, 101007	1020		0 1070			10 0070	20 00	-14	J1 <b>1</b>		• • •	Silgiti				<u> </u>	

SiteID SiteNo	Northing	Surface Express Elevation on		Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Seepage I	Permafrost Depth Flag	Permafrost Depth
20 EGL17	7101937	1329	3 - 15%	L		15 - 30%		25-50	LN	CN	Fo	W	slight		0		0	
													-					
21 EGL39	7101483	0	0.1 - 3%	U		45-70%			LN	LV	Fo				U		U	
21 EGL39	7101483	0	0.1 - 3%	U		45-70%			LN	LV	Fo				0		0	
21 EGL39	7101483	0	0.1 - 3%	U		45-70%			LN	LV	Fo				0		0	
21 EGL39	7101483	0	0.1 - 3%	U		45-70%			LN	LV	Fo				0		0	
21 EGL39	7101483	0	0.1 - 3%	U		45-70%			LN	LV	Fo				0		0	
22 EGL38	7101575	954	<0.01%	М		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
22 EGL38	7101575	954	<0.01%	M		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
22 EGL38	7101575	954	<0.01%	M		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
22 EGL38			<0.01%	M		15 - 30%		50-100		LN		W	slight				0	
	7101575		<0.01%	<u>M</u>		15 - 30%		50-100	LN	LN		W	slight		0		0	
23 EGL37	7101841		0.01 - 0.1%			15 - 30%		100-500		LN	Fo				0		0	
23 EGL37 23 EGL37	7101841 7101841	989	0.01 - 0.1%			15 - 30% 15 - 30%		100-500		LN LN	Fo Fo				0		0	
23 EGL37	7101841		0.01 - 0.1%			15 - 30%		100-500		LN	Fo							
ZS EGLS/	1101041	303	0.01-0.1%	IVI		10 - 30%		100-300	LIN	LIN	ΓU				U		U	

SiteID SiteNo	o Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
23 EGL37		989	0.01 - 0.1%	М		15 - 30%		100-500	LN	LN	Fo				0		0	
															-		•	
24 EGL36	7102176	1053	<0.01%	M		9 -15%		100-500	LN	LN	Fo				0		0	
24 EGL36	7102176	1053	<0.01%	М		9 -15%		100-500	LN	LN	Fo				0		0	
24 EGL36	7102176	1053	<0.01%	M		9 -15%		100-500	LN	LN	Fo				0		0	
24 EGL36	7102176	1053	<0.01%	М		9 -15%		100-500	LN	LN	Fo				0		0	
25 EGL20		1013	15 - 50%	IVI		3-1070		100-300	LN	LN	Fo	W	moderate		0		0	
25 EGL20			15 - 50%						LN	LN	Fo	W	moderate		0		0	
25 EGL20	7101635	1013	15 - 50%						LN	LN	Fo	W	moderate		0		0	
26 EGL18	7101529	1356	0.1 - 3%	М		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
20 EGEN	7101020	1000	0.1 070	IVI		10 0070		00 100	LIV	LIV	10		Jiigiit		U			
26 EGL18	7101529	1356	0.1 - 3%	M		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
26 EGL18	7101529	1356	0.1 - 3%	М		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
26 EGL18	7101529	1356	0.1 - 3%	М		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
26 EGL18	7101529	1356	0.1 - 3%	М		15 - 30%		50-100	LN	LN	Fo	W	slight		0		0	
27 EGL33	7102357	1062		U		5 - 9%		50-100	LN	LV					0		0	
2, 20200	1 102001					2 0 / 0		33 100										

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
27 EGL33	7102357	1062		U		5 - 9%		50-100	LN	LV					0		0	
27 EGL33	7102357	1062		U		5 - 9%		50-100	LN	LV					0		0	
27 EGL33	7102357	1062		U		5 - 9%		50-100	LN	LV					0		0	
28 EGL19	7101394	1351	0.01 - 0.1%	т		15 - 30%		50-100			Sc	W	slight		0	37	0	
28 EGL19	7101394	1351	0.01 - 0.1%	Т		15 - 30%		50-100			Sc	W	slight		0	37	0	
28 EGL19	7101394	1351	0.01 - 0.1%	Т		15 - 30%		50-100			Sc	W	slight		0	37	0	
28 EGL19	7101394	1351	0.01 - 0.1%	Т		15 - 30%		50-100			Sc	W	slight		0	37	0	
28 EGL19	7101394	1351	0.01 - 0.1%	Т		15 - 30%		50-100			Sc	W	slight		0	37	0	
29 EGL20	7101354	1352	3 - 15%	М		15 - 30%		50-100	LN	LN					0		0	
29 EGL20	7101354	1352	3 - 15%	М		15 - 30%		50-100	LN	LN					0		0	
29 EGL20	7101354	1352	3 - 15%	М		15 - 30%		50-100	LN	LN					0		0	
29 EGL20	7101354	1352	3 - 15%	М		15 - 30%		50-100	LN	LN					0		0	
29 EGL20	7101354	1352	3 - 15%	M		15 - 30%		50-100	LN	LN					0		0	
30 EGL20	1 7100733	1433	15 - 50%	U		15 - 30%		50-100	LN	LV	SA				0		0	
30 EGL20	1 7100733	1433	15 - 50%	U		15 - 30%		50-100	LN	LV	SA				0		0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Curvature		Land Use	Erosior Erosion Severit	Seepage S Depth Flag	eepage Depth	Permafrost Depth Flag	Permafrost Depth
30 EGL201	7100733	1433	15 - 50%	U		15 - 30%	50-100	LN	LV	SA		0		0	
30 EGL201	7100733	1433	15 - 50%	U		15 - 30%	50-100	LN	LV	SA		0		0	
31 EGL5	7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0	
31 EGL5	7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0	
31 EGL5	7100757	1411	15 - 50%			9 -15%	100-500	LN	IN	Sc		0		0	
31 EGL5	7100757	1411	15 - 50%	L		9-15%	100-500	LIN	LN	SC		0		U	
31 EGL5	7100757	1411	15 - 50%	L		9 -15%	100-500	LN	LN	Sc		0		0	
32 EGL202	7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0	
32 EGL202	7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0	
32 EGL202	7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0	
32 EGL202	2 7100736	1405	3 - 15%	L		5 - 9%		LN	LN	Sc		0		0	
33 EGL203	3 7100758	1402		L			50-100	LN	LN	DL		0		0	
33 EGL203	3 7100758	1402		L			50-100	LN	LN	DL		0		0	
34 EGL58	7101002	1363	3 - 15%	D		2 - 5%	50-100	CN	CN	Wt	W slight	0	10	0	
34 EGL58	7101002	1363	3 - 15%	D		2 - 5%	50-100	CN	CN	Wt	W slight	0	10	0	

SiteID SiteNo	Northing	Surface Express Elevation on		Slope Position (site)	Slope Position L (PEL)	₋andscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use I	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
34 EGL58	7101002	1363	3 - 15%	D		2 - 5%		50-100	CN	CN	Wt	W	slight		0	10	0	
34 EGL58	7101002	1363	3 - 15%	D		2 - 5%		50-100	CN	CN	Wt	W	slight		0	10	0	
35 EGL52	7100049	1359	3 - 15%	U		9 -15%		25-50	CV	LN	DL	W	slight		0		0	
35 EGL52	7100049	1359	3 - 15%	U		9 -15%		25-50	CV	LN	DL	W	slight		0		0	
35 EGL52	7100049	1359	3 - 15%	U		9 -15%		25-50	CV	LN	DL	W	slight		0		0	
35 EGL52	7100049	1359	3 - 15%	U		9 -15%		25-50	CV	LN	DL	W	slight		0		0	
35 EGL52	7100049		3 - 15%	U		9 -15%		25-50	CV	LN	DL	W	slight		0		0	
36 EGL53 36 EGL53	7100227 7100227		3 - 15% 3 - 15%	U		9 -15%		100-500	CV	LN LN	Sc Sc	W W	slight slight		0		0	
36 EGL53	7100227		3 - 15%	U		9 -15%		100-500	CV	LN	Sc	W	slight		0		0	
36 EGL53	7100227	1356	3 - 15%	U		9 -15%		100-500	CV	LN	Sc	W	slight		0		0	
37 EGL3	7100241	1333	3 - 15%	U		15 - 30%		25-50	CV	LN	Fo	W	slight		0		0	

SiteID SiteNo	Northing	Surface Express Elevation on		Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Permafrost Depth Flag	Permafrost Depth
37 EGL3	7100241	1333	3 - 15%	U		15 - 30%		25-50	CV	LN	Fo	W	slight		0	0	
37 EGL3	7100241	1333	3 - 15%	U		15 - 30%		25-50	CV	LN	Fo	W	slight		0	0	
37 EGL3	7100241	1333	3 - 15%	U		15 - 30%		25-50	CV	LN	Fo	W	slight		0	0	
37 EGL3	7100241	1333	3 - 15%	0		15 - 30%		25-50	CV	LIN	F0	VV	Silgrit		0	0	
37 EGL3	7100241	1333	3 - 15%	U		15 - 30%		25-50	CV	LN	Fo	W	slight		0	0	
38 EGL204	7100218	1310	3 - 15%	M		45-70%		50-100	LN	LN	Fo	W	moderate		0	0	
38 EGL204	7100218	1310	3 - 15%	М		45-70%		50-100	LN	LN	Fo	W	moderate		0	0	
00 501004	7400040	4040	0. 450/			45 700/		50.400			_	14/			•		
38 EGL204	7100218	1310	3 - 15%	M		45-70%		50-100	LN	LN	F0	W	moderate		0	0	
38 EGL204	7100218	1310	3 - 15%	M		45-70%		50-100	LN	LN	Fo	W	moderate		0	0	
39 EGL4	7100234	1261	3 - 15%	L		15 - 30%		50-100			Fo	W	slight		0	0	
39 EGL4	7100234	1261	3 - 15%	L		15 - 30%		50-100			Fo	W	slight		0	0	
39 EGL4	7100234	1261	3 - 15%	L		15 - 30%		50-100			Fo	W	slight		0	0	
39 EGL4	7100234	1261	3 - 15%	L		15 - 30%		50-100			Fo	W	slight		0	0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
40 EGL205	7100251	1261	3 - 15%	Т		15 - 30%		100-500	LN	CN	Fo	W	severe		0	60	0	
40 EGE200	7100201	1201	0 1070	<u> </u>		10 0070		100 000	LIV	014	10		SCVCIC			- 00	U	
40 EGL205	7100251	1261	3 - 15%	Т		15 - 30%		100-500	LN	CN	Fo	W	severe		0	60	0	
40 ECL 205	7400054	4004	2 450/	T		45 200/		100 500	LNI	CNI	Γ.	10/			0	60	0	
40 EGL205	7100251	1261	3 - 15%	T		15 - 30%		100-500	LN	CN	Fo	W	severe		0	60	0	
40 EGL205	7100251	1261	3 - 15%	Т		15 - 30%		100-500	LN	CN	Fo	W	severe		0	60	0	
41 EGL60	7099510	1389	15 - 50%	U		30 - 45%		100-500	LN	LV	Sc				0		0	
41 EGL60	7099510	1389	15 - 50%	U		30 - 45%		100-500	LN	LV	Sc				0		0	
41 EGL60	7099510	1389	15 - 50%	U		30 - 45%		100-500	LN	LV	Sc				0		0	
42 EGL61	7099307	1403	15 - 50%	U		30 - 45%		100-500	CV	LN	Sc	W	moderate		0		0	
42 20201	7000001	1400	10 0070	<u> </u>		00 4070		100 000		LIV			moderate				U	
42 EGL61	7099307	1403	15 - 50%	U		30 - 45%		100-500	CV	LN	Sc	W	moderate		0		0	
42 EGL61	7099307	1403	15 - 50%	U		30 - 45%		100-500	CV	LN	Sc	W	modorata		0		0	
42 EGL01	7099307	1403	15 - 50%	0		30 - 45%		100-500	CV	LIN	30	VV	moderate		U		U	
42 EGL61	7099307	1403	15 - 50%	U		30 - 45%		100-500	CV	LN	Sc	W	moderate		0		0	
43 EGL68	7099284	1329	3 - 15%	М		15 - 30%		100-500	LN	LN	Fo	W	slight		0		0	
43 EGL68	7099284	1329	3 - 15%	M		15 - 30%		100-500	LN	LN	Fo	W	slight		0		0	
43 EGL68	7099284	1329	3 - 15%	M		15 - 30%		100-500	LN	LN	Fo	W	slight		0		0	
43 EGL68	7099284	1329	3 - 15%	M		15 - 30%		100-500	LN	LN	Fo	W	slight		0		0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position I (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use I	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
44 EGL206	7102837	1361	15 - 50%	С		2 - 5%		25-50	CV	LV	Sc				0		0	
44 EGL206	7102837	1361	15 - 50%	С		2 - 5%		25-50	CV	LV	Sc				0		0	
45 EGR206	7102926	1337	15 - 50%	U		45-70%		50-100			Al	W	moderate		0		0	
45 EGR206	7102926	1337	15 - 50%	U		45-70%		50-100			Al	W	moderate		0		0	
46 EGR97	7103063	1281	0.1 - 3%	Т		9 -15%		50-100	CN	LN	Fo	W	moderate		1	43	1	200
46 EGR97	7103063	1281	0.1 - 3%	Т		9 -15%		50-100	CN	LN	Fo	W	moderate		1	43	1	200
46 EGR97	7103063	1281	0.1 - 3%	Т		9 -15%		50-100	CN	LN	Fo	W	moderate		11	43	1	200
46 EGR97	7103063	1281	0.1 - 3%	Т		9 -15%		50-100	CN	LN	Fo	W	moderate		1	43	1	200
46 EGR97	7103063	1281	0.1 - 3%	Т		9 -15%		50-100	CN	LN	Fo	W	moderate		1	43	1	200
47 EGR95	7103396	1215	3 - 15%	M		30 - 45%		100-500	LN	LN	Fo	W	slight		0		0	
47 EGR95	7103306	1215	3 - 15%	М		30 - 45%		100-500	LN	LN	Fo	W	slight		0		0	
47 LONGS	7 103330	1210	3 - 10/0	IVI		30 - 43 /0		100-300	LIV	LIN	10	vv	Silgrit				0	
48 EGR80	7103398	1213	0.1 39/	N4		45-70%		50-100	LNI	LNI	Γο.	۱۸/	oliabt		0		0	
40 EGR00	7 103396	1213	0.1 - 3%	<u> </u>		45-70%		50-100	LN	LN	Fo	W	slight		0		0	
											_							
48 EGR80	7103398	1213	0.1 - 3%	M		45-70%		50-100	LN	LN	Fo	W	slight		0		0	
48 EGR80	7103398	1213	0.1 - 3%	M		45-70%		50-100	LN	LN	Fo	W	slight		0		0	
49 EGL27	7101566	965	>50%	L		5 - 9%		>1000	LN	LN	Rp				1	0	0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion Erosion Severity				Permafrost Depth Flag	Permafrost Depth
49 EGL27	7101566	965	>50%	L		5 - 9%		>1000	LN	LN	Rp			1	0	0	
											•						
50 EGL12	7099705	828	0.1 - 3%						CN	CN	Rp			1	45	0	
50 EGL12	7099705	828	0.1 - 3%						CN	CN	Rp			1	45	0	
50 EGL12	7099705	828	0.1 - 3%						CN	CN	Rp			1	45	0	
50 EGL12	7099705	828	0.1 - 3%						CN	CN	Rp			1	45	0	
51 EGL21	5 7099518			M		30 - 45%			LN	LV	Fo			0		1	200
54 501044	7000540					00 450/					_			0		1	000
51 EGL215	5 7099518			M		30 - 45%			LN	LV	Fo			U		1	200
51 EGL218	5 7099518			M		30 - 45%			LN	LV	Fo			0		1	200
52 EGL22	7101585	1075	0.1 - 3%	L		9 -15%		>1000	LN	LN	Rp	W moderate	e	0		0	
52 EGL22	7101585	1075	0.1 - 3%	L		9 -15%		>1000	LN	LN	Rp	W moderate	e	0		0	
52 EGL22	7101585	1075	0.1 - 3%	L		9 -15%		>1000	LN	LN	Rp	W moderate	e	0		0	
52 EGL22	7101585	1075	0.1 - 3%	L		9 -15%		>1000	LN	LN	Rp	W moderat	e	0		0	
52 EGL22	7101585	1075	0.1 - 3%	L		9 -15%		>1000	LN	LN	Rp	W moderate	9	0		0	

SiteID SiteNo	Northing	Surface Express Elevation on		Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Permafrost Depth Flag	Permafrost Depth
54 EGL26	7101728	1109	0.1 - 3%	М		30 - 45%		100-500	CN	LN	Fo	W	moderate		0	1	31
54 EGL26	7101728	1109	0.1 - 3%	M		30 - 45%		100-500	CN	LN	Fo	W	moderate		0	1	31
54 EGL26	7101728	1109	0.1 - 3%	M		30 - 45%		100-500	CN	LN	Fo	W	moderate		0	1	31
																·	
56 EGL25	7101717	1140	0.1 - 3%	М		30 - 45%		100-500	LN	LV	Fo				0	0	
56 EGL25	7101717	1140	0.1 - 3%	М		30 - 45%		100-500	LN	LV	Fo				0	0	
56 EGL25	7101717	1140	0.1 - 3%	M		30 - 45%		100-500	LN	LV	Fo				0	0	
56 EGL25	7101717	1140	0.1 - 3%	М		30 - 45%		100-500	LN	LV	Fo				0	0	
57 EGL210	7101144	1192		U							Fo				0	0	
57 EGL210	7101144	1192		U							Fo				0	0	
57 EGL210	7101144	1192		U							Fo				0	0	
57 EGL210	7101144	1192		U							Fo				0	0	
57 EGL210	7101144	1192		U							Fo				0	0	
58 EGL208	7101557	1153	0.01 - 0.1%						LN	LV	Sc	W	slight		0	0	
58 EGL208	7101557	1153	0.01 - 0.1%						LN	LV	Sc	W	slight		0	0	

SiteID SiteNo	Northing		Surface Expressi on Surf	.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Permafrost Depth Flag	Permafrost Depth
58 EGL208	7101557	<u>115</u> 3	0.01	- 0.1%						LN	LV	Sc	W	slight		0	 0	
58 EGL208	7101557	1153	0.01	- 0.1%						LN	LV	Sc	W	slight		0	0	
59 EGL209	7101385	1160	0.1	I - 3%	M		30 - 45%			LN	LN	Fo	W	slight		0	0	
59 EGL209	7101385	1160	0.1	I - 3%	M		30 - 45%			LN	LN	Fo	W	slight		0	0	
59 EGL209	7101385	1160	0.1	I - 3%	М		30 - 45%			LN	LN	Fo	W	slight		0	0	
59 EGL209	7101385	1160	0.1	I - 3%	M		30 - 45%			LN	LN	Fo	W	slight		0	0	
60 EGL50	7101037	1213			M					LN	LN	Sc				0	0	
60 EGL50	7101037	1213			M					LN	LN	Sc				0	0	
60 EGL50	7101037	1213			M					LN	LN	Sc				0	0	
60 EGL50	7101037	1213			M					LN	LN	Sc				0	0	
62 EGL212	7101578	1011	<0	0.01%	М		30 - 45%		100-500	LN	CN	Fo				0	0	
62 EGL212	7101578	1011	<0	).01%	M		30 - 45%		100-500	LN	CN	Fo				0	0	
62 EGL212	7101578	1011	<0	).01%	M		30 - 45%		100-500	LN	CN	Fo				0	0	
62 EGL212	7101578	1011	<0	0.01%	М		30 - 45%		100-500	LN	CN	Fo				0	0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position La (PEL)	andscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion	Erosion Severity	% Bare Ground			Permafrost Depth Flag	Permafrost Depth
64 EGL214	7099609	836	<0.01%	L		9 -15%		500-1000	CN	LN	Fo	W	moderate		1	15	1	100
64 EGL214	7099609	836	<0.01%	L		9 -15%		500-1000	CN	LN	Fo	W	moderate		1	15	1	100
64 EGL214	7099609	836	<0.01%	L		9 -15%		500-1000	CN	LN	Fo	W	moderate		1	15	1	100
67 EGL35	7102286	1116		U		15 - 30%		100-500	CV	LV	Fo	W	slight		0		0	
07 E0233	7102200	1110				10 - 00 /0		100-300		LV	10	•	Silgrit		0		<u> </u>	
67 EGL35	7102286	1116		U		15 - 30%		100-500	CV	LV	Fo	W	slight		0		0	
68 EGL34	7102101	1142		U		15 - 30%			CV	LV	Fo	W	slight		0		0	
68 EGL34	7102101	1142		U		15 - 30%			CV	LV	Fo	W	slight		0		0	
68 EGL34	7102101	1142		U		15 - 30%			CV	LV	Fo	W	slight		0		0	
68 EGL34	7102101	1142		U		15 - 30%			CV	LV	Fo	W	slight		0		0	
69 EGL32 69 EGL32	7101918 7101918			U U		30 - 45% 30 - 45%		100-500	LN LN	LN LN	Sc Sc	W	moderate moderate		0		0	
69 EGL32	7101918			U		30 - 45%		100-500	LN	LN	Sc	W	moderate		0		0	
69 EGL32 69 EGL32	7101918 7101918			U		30 - 45% 30 - 45%		100-500	LN LN	LN LN	Sc Sc	W W	moderate moderate		0		0	
00 20202	7 10 10 10				·	00 1070		100 000	LIV				moderate				<u> </u>	
70 EGL31	7101843	1107	3 - 15%	M		45-70%		100-500	LN	LN	Fo				0		0	
70 EGL31	7101843	1107	3 - 15%	M		45-70%		100-500	LN	LN	Fo				0		0	
71 EGL30	7101718	1053	3 - 15%	М		45-70%		100-500	LN	LN	Fo				0		0	
71 EGL30	7101718	1053	3 - 15%	М		45-70%		100-500	LN	LN	Fo				0		0	
71 EGL30	7101718	1053	3 - 15%	M		45-70%		100-500	LN	LN	Fo				0		0	
71 EGL30	7101718	1053	3 - 15%	М		45-70%		100-500	LN	LN	Fo				0		0	

SiteID SiteNo	Northi <u>ng</u>	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use	Erosion Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
72 EGR81	7104148	1016				15 - 30%			LN	LN	Fo			1	12	1	30
72 EGR81	7104148	1016				15 - 30%			LN	LN	Fo			1	12	1	30
72 EGR81	7104148	1016				15 - 30%			LN	LN	Fo			1	12	1	30
72 EGR81	7104148	1016				15 - 30%			LN	LN	Fo			1	12	1	30
75 EGL9	7100058	799	<0.01%	М		30 - 45%		25-Jan	LN	LV	Fo			0		0	
75 EGL9	7100058	799	<0.01%	М		30 - 45%		25-Jan	LN	LV	Fo			0		0	
75 EGL9	7100058	799	<0.01%	М		30 - 45%		25-Jan	LN	LV	Fo			0		0	
80 EGL10	7100068	850	<0.01%	E		9 -15%		25-50	LN	LN	Fo			0		1	57
80 EGL10	7100068	850	<0.01%	<u> </u>		9 -15%		25-50	LIN	LN	F0			0		11	5/
80 EGL10	7100068	850	<0.01%	E		9 -15%		25-50	LN	LN	Fo			0		1	57
80 EGL10	7100068	850	<0.01%	E		9 -15%		25-50	LN	LN	Fo			0		1	57
			* **								-			-			
80 EGL10	7100068	850	<0.01%	E		9 -15%		25-50	LN	LN	Fo			0		1	57
83 EGL11	7100062	864	<0.01%	L		15 - 30%		50-100	LN	LV	Fo			0		0	
83 EGL11	7100062	864	<0.01%	L		15 - 30%		50-100	LN	LV	Fo			0		0	
83 EGL11	7100062	864	<0.01%	L		15 - 30%		50-100	LN	LV	Fo			0		0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use E	Ero: Erosion Sev		% Bare Ground	Seepage Depth Flag	Permafrost Depth Flag	Permafrost Depth
89 EGR110	7098832	0		M		15 - 30%		50-100							0	0	
89 EGR110	7098832	0		M		15 - 30%		50-100							0	0	
89 EGR110	7098832	0		М		15 - 30%		50-100							0	0	
	7085727	612		E		0.05 - 2%		50-100			Wt				0	0	
99 EGR416	7085182	687	<0.01%	E		0.05 - 2%		100-500	LN	LN	Fo				0	0	
99 EGR416	7085182	687	<0.01%	E		0.05 - 2%		100-500	LN	LN	Fo				0	0	
99 EGR416	7085182	687	<0.01%	E		0.05 - 2%		100-500	LN	LN	Fo				0	0	
99 EGR416	7085182	687	<0.01%	E		0.05 - 2%		100-500	LN	LN	Fo				0	0	
108 EGR411	7093681	685		L		15 - 30%		50-100			Fo				0	0	
108 EGR411	7093681	685		L		15 - 30%		50-100			Fo				0	0	
108 EGR411	7093681	685		L		15 - 30%		50-100			Fo				0	0	
111 EGR409	7092951	676		E		0.05 - 2%		50-100			Wt				0	0	
505.00				_													
111 EGR409	7092951	676		<u>E</u>		0.05 - 2%		50-100			Wt				0	0	
111 EGR409	7092951	676		E		0.05 - 2%		50-100			Wt				0	0	
117 EGL66	7099838	1154		М		30 - 45%		50-100	LN	LV	Fo	W sli	ght		0	0	
117 EGL66	7099838	1154		M		30 - 45%		50-100	LN	LV	Fo	W sli	ght		0	0	
117 EGL66	7099838	1154		M		30 - 45%		50-100	LN	LV	Fo	W sli	ght		0	0	

SiteID SiteNo	Northing I	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Site Length	Horizon Curvature	Vertical Curvature	Land Use I		Erosion Severity	% Bare Ground	Seepage Depth Flag		Permafrost Depth Flag	Permafrost Depth
118 EGR303	7099733		<0.01%	С		9 -15%	25-50	CV	LV	Fo				0		0	
118 EGR303	7099733		<0.01%	С		9 -15%	25-50	CV	LV	Fo				0		0	
110 ESINOS	7000700		10.0176			3 1070	20 00		LV	10							
118 EGR303	7099733		<0.01%	С		9 -15%	25-50	CV	LV	Fo				0		0	
118 EGR303	7099733		<0.01%	С		9 -15%	25-50	CV	LV	Fo				0		0	
119 EGL310	7099420	1051	<0.01%	M		15 - 30%	50-100	LN	LN	Fo				0		0	
119 EGL310	7099420	1051	<0.01%	M		15 - 30%	50-100	LN	LN	Fo				0		0	
119 EGL310	7099420	1051	<0.01%	M		15 - 30%	50-100	LN	LN	Fo				0		0	
120 EGL311	7099770	1067		M		15 - 30%	50-100			Fo				0		0	
120 EGL311		1067		M		15 - 30%	50-100			Fo				0		0	
120 EGL311 123 EGL47	7099770 7100810	1067 1080	<0.01%	M M		15 - 30% 15 - 30%	50-100 25-50	CV	LN	Fo Fo				0		0	
123 EGL47	7100810	1080	<0.01%	M		15 - 30%	 25-50	CV	LN	Fo				0		0	
123 EGL47	7100810	1080	<0.01%	М	· <del></del>	15 - 30%	 25-50	CV	LN	Fo	· · · · · · · · · · · · · · · · · · ·	· <del></del>	· <del></del>	0	· <del></del>	0	
124 EGL1	7100621	0	<0.01%	M		15 - 30%	25-50		LN	Fo	W	slight		0		0	
124 EGL1	7100621	0	<0.01%	M		15 - 30%	25-50		LN	Fo	W	slight		0		0	
124 EGL1	7100621	0	<0.01%	M		15 - 30%	25-50		LN	Fo	W	slight		0		0	
124 EGL1	7100621	0	<0.01%	M		15 - 30%	 25-50		LN	Fo	W	slight		0		0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope		Slope Length	Horizon Curvature		Land Use	Frosion S	Erosion Severity	% Bare Ground	Seepage Depth Fla	Seepage g Depth	Permafrost Depth Flag	Permafrost Depth
125 EGL313	7101401	0	3 - 15%	U		30 - 45%		25-Jan	CV	LV	Fo				0		0	
120 202010	7101101		0 1070	<u> </u>		00 1070		20 0411		LV					J		v	
125 EGL313	7101401	0	3 - 15%	U		30 - 45%		25-Jan	CV	LV	Fo				0		0	
125 EGL313	7101401	0	3 - 15%	U		30 - 45%		25-Jan	CV	LV	Fo				0		0	
126 EGR400	7086377	621	<0.01%	E		2 - 5%		50-100	LN	LN	Fo				0		0	
126 EGR400	7086377	621	<0.01%	E		2 - 5%		50-100	LN	LN	Fo				0		0	
400 505 400				_							_							
126 EGR400	7086377	621	<0.01%	E		2 - 5%		50-100	LN	LN	F0				0		0	
129 EGR401	7087172	630		E		2 - 5%		25-50			Fo				0		0	
129 EGR401	7087172	630		E		2 - 5%		25-50			Fo				0		0	

CitalD CitaNa	Northing	E		Slope Position		Landscape	Camera	Pit Site	Slope	Horizon	Vertical	Land	Erosion	% Bare			Permafrost	
SiteID SiteNo	Northing	Elevation o	n Surf.Stone	(site)	(PEL)	Slope	ID	Pit Site	Length	Curvature	Curvature	USE Erosi	on Severity	Ground	Depth Flag	Depth	Depth Flag	Depth
129 EGR401	7087172	630		E		2 - 5%			25-50			Fo			0		0	
129 EGR401	7087172	630		E		2 - 5%			25-50			Fo			0		0	
133 EGR406	7091202	662	<0.01%							CV	LV	Fo			0		0	
133 EGR406	7091202	662	<0.01%							CV	LV	Fo			0		0	
133 EGR406			<0.01%							CV	LV	Fo			0		0	
134 EGR404	7090107	643	<0.01%	E						LN	LN	Fo			0		0	
135 EGR403	7089609	672		L		45-70%			25-50			Fo			0		0	
135 EGR403	7089609	672		L		45-70%			25-50			Fo			0		0	
135 EGR403	7089609	672		L		45-70%			25-50			Fo			0		0	
136 EGR407	7092047	720	<0.01%	L		30 - 45%			25-50	CN	LN	Fo			0		0	

SiteID SiteNo	Northing	Surface Expressi Elevation on	Surf.Stone	Slope Position (site)	Slope Position I (PEL)	Landscape Slope	Slope Site Length	Horizon Curvature	Vertical Curvature	Land Use Er	Erosion osion Severity	% Bare Ground	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
136 EGR407 139 EGR413 139 EGR413 139 EGR413	7096179 7096179	720 727 727 727 727	<0.01%	L E E E		30 - 45% 2 - 5% 2 - 5% 2 - 5%	25-50 25-50 25-50 25-50	CN	LN	Fo Fo Fo			0 0 0		0 0 0	
141 EGL21	7101163	1372	<0.01%	M		9 -15%	50-100	LN	LV	Fo			0		0	
141 EGL21	7101163	1372	<0.01%	M		9 -15%	50-100	LN	LV	Fo			0		0	
444 50104	7404400	4070	.0.04%			0.45%	50.400			_						
141 EGL21	7101163	1372	<0.01%	M		9 -15%	50-100	LN	LV	Fo			0		0	
141 EGL21	7101163	1372	<0.01%	M		9 -15%	50-100	LN	LV	Fo			0		0	
141 EGL21	7101163	1372	<0.01%	M		9 -15%	50-100	LN	LV	Fo			0		0	
144 TPA1	7101321			L		5 - 9%	500-1000			Fo			0		1	52

SiteID SiteNo	Northing Elevatio	Surface Expressi n on Surf.Stone		Slope Position (PEL)	Landscape Slope	Camera ID Pit Site	Slope Length	Horizon Curvature	Vertical Curvature	Land Use Erosion	Erosion Severity	Seepage S Depth Flag		Permafrost Depth
144 TPA1	7101321		L		5 - 9%		500-1000			Fo		0	1	52
144 TPA1	7101321		L		5 - 9%		500-1000			Fo		0	1	52
145 TPA3	7100551		Т		5 - 9%					Fo		0	1	50
145 TPA3	7100551		Т		5 - 9%					Fo		0	1	50
145 TPA3	7100551		Т		5 - 9%					Fo		0	1	50
145 TPA3	7100551		Т		5 - 9%					Fo		0	1	50
146 TPA4	7100215		M		15 - 30%		100-500			Fo		0	1	53
146 TPA4	7100215		М		15 - 30%		100-500			Fo		0	1	53

SiteID SiteNo	Northing E	Surface Expressi levation on Surf.Stone	Slope Position (site)	Slope Position (PEL)	Landscape Slope	Slope Length	Horizon Vertical Curvature Curvature	Land Use Erosion	Erosion Severity	% Bare Ground	Seepage Depth Flag	Seepage Depth	Permafrost Depth Flag	Permafrost Depth
146 TPA4	7100215		M		15 - 30%	100-500		Fo			0		1	53
146 TPA4	7100215		M		15 - 30%	100-500		Fo			0		1	53
146 TPA4	7100215		M		15 - 30%	100-500		Fo			0		1	53
146 TPA4 147 EGR451	7100215 7085869	639	<u>M</u> U		15 - 30%	100-500		Fo Fo			0		<u>1</u> 0	53
147 EGR451 147 EGR451 147 EGR451	7085869	639 639	U U					Fo Fo			0		0	
148 EGR450		614	D								0		0	
148 EGR450 148 EGR450		614	D D								0		0	

		Organi	io														Root	Root Restrictin		
	Organic	Organi Soil	Nutrie	nt Moi	sture Hum	nus		Depth to	Depth to			Ecosite/S				QC	Restricting		Series	
SiteID SiteNo	Surface	Organic Draina	ge Regin	ne Reç	gime For	rm C	Drainage	Bedrock	Water	TSM	EP	ite Series	Site Note	Vegetation Note Open Lichen Spruce,	QC By	Complete	Layer Depth	Type	Soil Code Code	Phase Soil Notes
														woodland. Lichen (Clad ste)						
														dominant ground co er. Thin band of S! different colour						Fining upward sequence broken horizons from soil
4 EGL63								0	0			1		than matrix?		0	0		CHER-DB-	creep
														Open Lichen Spruce, woodland. Lichen (Clad ste)						
														dominant ground co er. Thin						Fining upward sequence
4 501.00								•	•			,		band of S! different colour		•	•		01150.00	broken horizons from soil
4 EGL63								0	0			/		than matrix?  Open Lichen Spruce,		0	0		CHER-DB-	creep
														woodland. Lichen (Clad ste)						
														dominant ground co er. Thin band of S! different colour						Fining upward sequence broken horizons from soil
4 EGL63								0	0			1		than matrix?		0	0		CHER-DB-	creep
														Open Lichen Spruce, woodland. Lichen (Clad ste)						
														dominant ground co er. Thin						Fining upward sequence
4 EGL63								0	0			/		band of S! different colour than matrix?		0	0		CHER-DB-	broken horizons from soil creep
7 20200								<u> </u>	<u> </u>					Open Lichen Spruce,		<u> </u>	<u> </u>		OHER DE-	огоор
														woodland. Lichen (Clad ste) dominant ground co er. Thin						Fining upward sequence
														band of S! different colour						broken horizons from soil
4 EGL63								0	0			1		than matrix?		0	0		CHER-DB-	creep
													Cut in road adjacent to							
													Dublin Creek, Placer							likely mix of Regosols and
5 EGL216								0	0			/	Mining distrbance exposes fractured bedrock.	Aspen stand DV/R / CV/R	nTashe	1	20		BRUN-DYB-O	thin Brunisols on site. Silty Sand
								-					0.44	'			-			
													Cut in road adjacent to Dublin Creek, Placer							likely mix of Regosols and
													Mining distrbance exposes							thin Brunisols on site. Silty
5 EGL216								0	0			/	fractured bedrock.	Aspen stand DV/R / CV/R	nTashe	1	20		BRUN-DYB-O	Sand
													Cut in road adjacent to							
													Dublin Creek, Placer Mining distrbance exposes							likely mix of Regosols and thin Brunisols on site. Silty
5 EGL216								0	0			1	fractured bedrock.	Aspen stand DV/R / CV/R	nTashe	1	20		BRUN-DYB-O	Sand
													site deep, steep + wet high failure risk L =							
													subsurface seepage soils							seepage flowing through pit
6 EGR94								0	13	Р	Hiah	1	are gra elly, not rubble or boulders			0			REGOO O.R.	Dissected landscape start of gentle drainage to creek
0 LONG									10	<u> </u>	riigii	, , , , , , , , , , , , , , , , , , ,	site deep, steep + wet						NEGOO O.N.	genite drainage to creek
													high failure risk L = subsurface seepage soils							seepage flowing through pit
													are gra elly, not rubble or							Dissected landscape start of
6 EGR94								0	13	Р	High		boulders open lichen fir forest frost			0			REGOO O.R.	gentle drainage to creek o er half the profile is rock
7 EGR93									0	Р		/	hea e			0	30	L	BRUN-DYB-O O.DB	no alignment
									^	Р		,	open lichen fir forest frost			0	20	ı		o er half the profile is rock
7 EGR93									0	۲			hea e open lichen fir forest frost			0	30	L	BRUN-DYB-O O.DB	no alignment o er half the profile is rock
7 EGR93									0	Р		/	hea e			0	30	L	BRUN-DYB-O O.DB	no alignment
																				phase: pt Lenses of silt +
													Otto in and	Diagram Al						sand Do not appear as
													Site in acti e seepage track at surface and at depth	Picemar, Alnucri, Salix, Spharub, Rubucha, Hierspl,						layers Bands of silt + sand found in Of layer Some flat
8 EGR92								0	0			1	outside of rock	Rhizonmium		0	60	Z	CRYO-SC-HR Cryosol	pans rocks in profile
																				phase: pt Lenses of silt +
														B						sand Do not appear as
													Site in acti e seepage track at surface and at depth	Picemar, Alnucri, Salix, Spharub, Rubucha, Hierspl,						layers Bands of silt + sand found in Of layer Some flat
8 EGR92								0	0				outside of rock	Rhizonmium		0	60	Z	CRYO-SC-HR Cryosol	pans rocks in profile

		0														Deed	Root			
	Organic	Organic Soil	Nutrient	Moisture H	Humus		Depth to	Depth to		Eco	osite/S	3			QC	Root Restricting	Restrictin g Layer	Series		
		Organic Drainage				Orainage	Bedrock	Water				Site Note	Vegetation Note	QC By		Layer Depth	Туре	Soil Code Code	Phase	Soil Notes
																				phase: pt Lenses of silt +
																				sand Do not appear as
												Site in acti e seepage track								layers Bands of silt + sand
8 EGR92							0	0			,	at surface and at depth outside of rock	Spharub, Rubucha, Hierspl, Rhizonmium		0	60	Z	CRYO-SC-HR Cryosol		found in Of layer Some flat pans rocks in profile
0 LONS2							0	- 0			,		Sb, Hylo, Cladina, Ledum,					ORTO-00-FIR Oryoson		likely R.G + GL.R in polygon
												SR pebbles to cobbles	Equisyl, Petasag, Mert,							+ GL.OB Ah too thin to
10 EGL8							0	0			/	mostly pebble size	Empenig, Vacoli, Vacc it Sb. Hylo, Cladina, Ledum.	nTashe	11			GLEY-G-O		sample likely R.G + GL.R in polygon
												SR pebbles to cobbles	Equisyl, Petasag, Mert,							+ GL.OB Ah too thin to
10 EGL8							0	0			1	mostly pebble size	Empenig, Vacoli, Vacc it	nTashe	1			GLEY-G-O		sample
												00 111 1 111	Sb, Hylo, Cladina, Ledum,							likely R.G + GL.R in polygon
10 EGL8							0	0			,	SR pebbles to cobbles mostly pebble size	Equisyl, Petasag, Mert, Empenig, Vacoli, Vacc it	nTashe	1			GLEY-G-O		+ GL.OB Ah too thin to sample
10 2020							0	- 0			,	mostly peoble size	Sb, Hylo, Cladina, Ledum,	masne				OLL 1-O-O		likely R.G + GL.R in polygon
												SR pebbles to cobbles	Equisyl, Petasag, Mert,							+ GL.OB Ah too thin to
10 EGL8							0	0			1	mostly pebble size	Empenig, Vacoli, Vacc it	nTashe	1			GLEY-G-O		sample
													Salix, Balsam poplar, Aspen,							
												exposed piles, some ha e								Some depressions w water
11 EGL6							0	0	S L	ow	1	been sorted to finer piles	all 2 m height	nTashe	1			REGO-R-O		but o erall dry site
																				phase: pt likely roots
																				restricted by ice some tilted
																				trees, ery stunted, cold soil
40 501 44							•	•			,	soil like pudding where		Tb	4	400	-	01577 D D 0		likely Cryosol at site check
12 EGL41							0	0			1	seepage drier below		nTashe	1	100	Z	GLEYR R.G.		drill logs for permafrost
																				phase: pt likely roots
																				restricted by ice some tilted
												soil like pudding where								trees, ery stunted, cold soil likely Cryosol at site check
12 EGL41							0	0			1	seepage drier below		nTashe	1	100	Z	GLEYR R.G.		drill logs for permafrost
							<u> </u>								·					j .
																				phase: pt_likely roots
																				restricted by ice some tilted trees, ery stunted, cold soil
												soil like pudding where								likely Cryosol at site check
12 EGL41							0	0			1	seepage drier below		nTashe	1	100	Z	GLEYR R.G.		drill logs for permafrost
													Abieslas, Betugla, Poly,							C too coarse to dig cannot
													Pleur, Cladina, ground co er							cho el or auger Flat lying
13 EGL200							200	0			1	No rocks at surface	Heath egetation		0			BRUN-EB-E E.EB		rocks Mine material
													Abiaslas Datuela Dalu							C too coarse to dig cannot
													Abieslas, Betugla, Poly, Pleur, Cladina, ground co er							cho el or auger Flat lying
13 EGL200							200	0			1	No rocks at surface	Heath egetation		0			BRUN-EB-E E.EB		rocks Mine material
													Abieslas, Betugla, Poly, Pleur, Cladina, ground co er							C too coarse to dig cannot cho el or auger Flat lying
13 EGL200							200	0			1	No rocks at surface	Heath egetation		0			BRUN-EB-E E.EB		rocks Mine material
													<u> </u>							
													Abieslas, Betugla, Poly,							C too coarse to dig cannot
13 EGL200							200	0			/	No rocks at surface	Pleur, Cladina, ground co er Heath egetation		0			BRUN-EB-E E.EB		cho el or auger Flat lying rocks Mine material
10 202200											•	roons at oarrage	<u> </u>					3		
													Abieslas, Betugla, Poly,							C too coarse to dig cannot
13 EGL200							200	0			,	No rocks at surface	Pleur, Cladina, ground co er Heath egetation		0			BRUN-EB-E E.EB		cho el or auger Flat lying rocks Mine material
13 EGL200							200	U			1	וייט וטטתס מו טעוומטכ	Open drunken forest, lichen		U			DIQIN-ED-E E.ED		TOOKS WITHE HIGHERIAL
													and sphagnum dominant							
													understory. Pice mar, Ledu							diagontinu At 2
												Permafrost sllanse scars w	gro, Ledu dec, Erio, Clad / stel, sphag, Empi nig, Betu							discontinuous Ah <2cm. Strongly cryoturbated layer
14 EGR96							0	0	Р Ме	dium	/	standing water	gla, salix		0	30	Z	CRYO-TC-HR		of. Phase modifier = pt

															Root		
	Organic														Restrictin		
Organic SiteID SiteNo Surface	Soil Organic Drainage	Nutrient I Regime		Drainage	Depth to Bedrock	Depth to Water	TSM	ED	Ecosite/	S s Site Note	Vegetation Note	OC By	QC	Restricting Layer Depth	g Layer Type	Series Soil Code Code	Phase Soil Notes
Siter Siter Surface	Organic Drainage	Regime	Regime Form	Drainage	Beurock	water	ISIVI		ne Sene	S Site Note	Open drunken forest, lichen	QC By	Complete	Layer Deptil	туре	Soil Code Code	Filase Sull Notes
											and sphagnum dominant						
											understory. Pice mar, Ledu						
										Dormofroot allance accress	gro, Ledu dec, Erio, Clad						discontinuous Ah <2cm. Strongly cryoturbated layer
14 EGR96					0	0	Р	Medium	1	standing water	v/ stel, sphag, Empi nig, Betu gla, salix		0	30	Z	CRYO-TC-HR	p of. Phase modifier = pt
11 201.00								Modium		otanianig water	Open drunken forest, lichen					ORTO TO THE	p on rideo medici pr
											and sphagnum dominant						
											understory. Pice mar, Ledu						
										Dawn of root allows a source	gro, Ledu dec, Erio, Clad						discontinuous Ah <2cm.
14 EGR96					0	0	Р	Medium	,	standing water	v/ stel, sphag, Empi nig, Betu gla, salix		0	30	Z	CRYO-TC-HR	Strongly cryoturbated layer p of. Phase modifier = pt
14 20100								Wicalain		Large boulders at surface	gia, canx					OKTO TO TIK	p of Frace meaner pt
										coarse grained igneous							Augered holes BC structure
										intrusi e Fc microscale in							indicati e of former ice
15 EGL16					000	0	Р		,	plot bare mineral soil mo			0			DDUN ED O O ED	contact causing dessication
15 EGL16					200	U	Р	Low		ing downslope  Large boulders at surface	Betugla, Abieslas		U			BRUN-EB-O O.EB	resulting in structure
										coarse grained igneous							Augered holes BC structure
										intrusi e Fc microscale in							indicati e of former ice
										plot bare mineral soil mo							contact causing dessication
15 EGL16					200	0	Р	Low	1	ing downslope	Betugla, Abieslas		0			BRUN-EB-O O.EB	resulting in structure
										Large boulders at surface coarse grained igneous							Augered holes BC structure
										intrusi e Fc microscale in							indicati e of former ice
										plot bare mineral soil mo							contact causing dessication
15 EGL16					200	0	Р	Low	1	ing downslope	Betugla, Abieslas		0			BRUN-EB-O O.EB	resulting in structure
										Large boulders at surface							
										coarse grained igneous							Augered holes BC structure
										intrusi e Fc microscale in plot bare mineral soil mo							indicati e of former ice contact causing dessication
15 EGL16					200	0	Р	Low	1	ing downslope	Betugla, Abieslas		0			BRUN-EB-O O.EB	resulting in structure
16 EGR91				Imperfect	0	0	S	Low	1		<b>.</b>	nTashe	1			REGO-R-CU	Ü
16 EGR91				Imperfect	0	0	S	Low	1			nTashe	1			REGO-R-CU	
16 EGR91 16 EGR91				Imperfect	0	0	<u>S</u>	Low	/			nTashe nTashe	<u> </u>			REGO-R-CU REGO-R-CU	
16 EGR91				Imperfect Imperfect	0	0	S S	Low	/			nTashe	<u> </u>			REGO-R-CU	
10 201101				ппропоос				2011	•	E idence of water flowing			<u> </u>			TLEGG TY GG	
										through stand originating of							
										road isible water upslope							Moist area, some parts of
19 EGL15					0	0	D	Medium	,	from site L <12% of	Abieslas, trees, Empenig, Pleusch	nTashe	1			BRUN-DYB-GL GL.DB	polygon e idence of surface drainage
19 EGL15					U	U	<u> </u>	Medium		polygon  E idence of water flowing	Fieuscii	III asile	<u> </u>			BRUN-DIB-GL GL.DB	uramage
										through stand originating of	on						
										road isible water upslope	•						Moist area, some parts of
										from site L <12% of	Abieslas, trees, Empenig,						polygon e idence of surface
19 EGL15					0	0	Р	Medium		polygon  E idence of water flowing	Pleusch	nTashe	1			BRUN-DYB-GL GL.DB	drainage
										through stand originating of	nn						
										road isible water upslope							Moist area, some parts of
										from site L <12% of	Abieslas, trees, Empenig,						polygon e idence of surface
19 EGL15					0	0	Р	Medium	1	polygon	Pleusch	nTashe	1			BRUN-DYB-GL GL.DB	drainage
										E idence of water flowing							
										through stand originating or road isible water upslope							Moist area, some parts of
										from site L <12% of	Abieslas, trees, Empenig,						polygon e idence of surface
19 EGL15					0	0	Р	Medium	1	polygon	Pleusch	nTashe	1			BRUN-DYB-GL GL.DB	drainage
										E idence of water flowing							
										through stand originating of							Maintage
										road isible water upslope from site L <12% of	Abieslas, trees, Empenig,						Moist area, some parts of polygon e idence of surface
19 EGL15					0	0	Р	Medium	1	polygon	Pleusch	nTashe	1			BRUN-DYB-GL GL.DB	drainage
								oaiaiii	•	Seepage flowing water			<u> </u>				Verify texture's pH to
										downslope ~10 m (out of							determine if Brunisol s. Lu
20 EGL17					0	0		Low	1	plot) toe slope	Betugla, Abieslas, Empenig	nTashe	11			BRUN-DYB-E E.DB	isol Heap leach option 3
										Seepage flowing water							Verify texture's pH to
20 EGL17					0	0		Low	,	downslope ~10 m (out of plot) toe slope	Betugla, Abieslas, Empenig	nTacha	1			BRUN-DYB-E E.DB	determine if Brunisol s. Lu isol Heap leach option 3
ZU EULI/					U	U		LUW	1	piot) toe slope	Detugia, Abiesias, Emperily	111 05116	1			הויטוא-טום-ב ב.טוי	isor Treap reacti option 3

Organic									Root R	Root Restrictin	
Organic Organic Organic Organic Soil Nutrient Moisture Humus	Depth to	Depth to			osite/S				QC Restricting		
SiteID SiteNo Surface Organic Drainage Regime Regime Form Drainage	Bedrock	Water	TSM E	EP ite	Series	Site Note	Vegetation Note	QC By	Complete Layer Depth	Type Soil Code Code	Phase Soil Notes
						Seepage flowing water downslope ~10 m (out of					Verify texture's pH to determine if Brunisol s. Lu
20 EGL17	0	0	L	.ow	/		Betugla, Abieslas, Empenig	nTashe	1	BRUN-DYB-E E.DB	isol Heap leach option 3
							A (D: 1 ) \( \)				
						Shallow slumps, Grown o	Aspen/Birch o erstory, White				Rocks and unstable slope
						er. Weathered bedrock with					angle limit soil depth. ariety
						rock near surface. EGR39A	Geocaulon, acc it, Rosaaci,				of fragments gra el to
21 EGL39	0	0	P Me	dium	1	good cross profile	Ledugro, Empinig	nTashe	1	LUV-GL-BR	cobbles
							Aspen/Birch o erstory, White				
						Shallow slumps, Grown o					Rocks and unstable slope
						er. Weathered bedrock with	•				angle limit soil depth. ariety
							Geocaulon, acc it, Rosaaci,				of fragments gra el to
21 EGL39	0	0	P Me	dium	/	good cross profile	Ledugro, Empinig	nTashe	1	LUV-GL-BR	cobbles
							Aspen/Birch o erstory, White				
						Shallow slumps, Grown o					Rocks and unstable slope
						er. Weathered bedrock with					angle limit soil depth. ariety
							Geocaulon, acc it, Rosaaci,				of fragments gra el to
21 EGL39	0	0	P Me	dium	/	good cross profile	Ledugro, Empinig	nTashe	1	LUV-GL-BR	cobbles
							Aspen/Birch o erstory, White				
						Shallow slumps, Grown o					Rocks and unstable slope
						er. Weathered bedrock with					angle limit soil depth. ariety
							Geocaulon, acc it, Rosaaci,				of fragments gra el to
21 EGL39	0	0	P Me	dium	1	good cross profile	Ledugro, Empinig	nTashe	1	LUV-GL-BR	cobbles
							Aspen/Birch o erstory, White				
						Shallow slumps, Grown o					Rocks and unstable slope
						er. Weathered bedrock with					angle limit soil depth. ariety
							Geocaulon, acc it, Rosaaci,				of fragments gra el to
21 EGL39	0	0	P Me	dium	1	good cross profile e idence of charcoal in	Ledugro, Empinig	nTashe	1	LUV-GL-BR	cobbles
							Open lichen woodland				mica like shads of glass
						gra el cobbles. Check	Picemar, Cladina, Cladonia,				difficult to texture Almost a
22 EGL38	0	0	S L	.ow	1	extent of Minarea.	Vacc it, Ledugro		0	CHER-DB-	lu isoil
						e idence of charcoal in					
						profile. Some subrounded gra el cobbles. Check	Open lichen woodland Picemar, Cladina, Cladonia,				mica like shads of glass difficult to texture Almost a
22 EGL38	0	0	S L	.ow	1	extent of Minarea.	Vacc it, Ledugro		0	CHER-DB-	lu isoil
		-		-		e idence of charcoal in					
						profile. Some subrounded	Open lichen woodland				mica like shads of glass
00 FOLO0	0	0	0 1		,	gra el cobbles. Check	Picemar, Cladina, Cladonia,		•	OUED DD	difficult to texture Almost a
22 EGL38	U	0	S L	.OW	1	extent of Minarea. e idence of charcoal in	Vacc it, Ledugro		0	CHER-DB-	lu isoil
						profile. Some subrounded	Open lichen woodland				mica like shads of glass
						gra el cobbles. Check	Picemar, Cladina, Cladonia,				difficult to texture Almost a
22 EGL38	0	0	S L	.OW	1		Vacc it, Ledugro		0	CHER-DB-	lu isoil
						e idence of charcoal in profile. Some subrounded	Open ligher woodland				mica like shads of glass
						gra el cobbles. Check	Open lichen woodland Picemar, Cladina, Cladonia,				mica like snads of glass difficult to texture Almost a
22 EGL38	0	0	S L	.OW	/	extent of Minarea.	Vacc it, Ledugro		0	CHER-DB-	lu isoil
	<del>-</del>						, ,			- · <del></del>	Soil shows pre ious ice
						Bedrock isible > ery	Fir / B. Spruce forest,				contact by granulated
23 EGL37	0	0			,	weathered & broken from cut upslope in road	Pleursch, Cladinastel, Vacc it, Ledugro	nTashe	1	BRUN-DYB-O	structure at depth in C. Charcoal in profile
ZJ EGLJI	U	U			1	cut upsiope iii roau	ii, Leuugio	III asile	I	DKUN-D I B-U	Soil shows pre ious ice
						Bedrock isible > ery	Fir / B. Spruce forest,				contact by granulated
						weathered & broken from	Pleursch, Cladinastel, Vacc				structure at depth in C.
23 EGL37	0	0			1	cut upslope in road	it, Ledugro	nTashe	1	BRUN-DYB-O	Charcoal in profile
						Bedrock isible > ery	Fir / B. Spruce forest,				Soil shows pre ious ice contact by granulated
							Pleursch, Cladinastel, Vacc				structure at depth in C.
23 EGL37	0	0			/		it, Ledugro	nTashe	1	BRUN-DYB-O	Charcoal in profile
							<del>-</del>				Soil shows pre ious ice
						Bedrock isible > ery	Fir / B. Spruce forest,				contact by granulated
22 FCL 27	0	^			,		Pleursch, Cladinastel, Vacc	nTook -	4	DDUN DVD O	structure at depth in C.
23 EGL37	0	0			1	cut upslope in road	it, Ledugro	nTashe	1	BRUN-DYB-O	Charcoal in profile

Organic Organic Soil Nutrient Moisture Humus	Depth to	Depth to			Ecosite/S				Root Root Restrictin QC Restricting g Layer	Series	
SiteID SiteNo Surface Organic Drainage Regime Regime Form Drainage	Bedrock	Water				s Site Note	Vegetation Note	QC By	Complete Layer Depth Type	Soil Code Code	Phase Soil Notes
						Bedrock isible > ery	Fir / B. Spruce forest,				Soil shows pre ious ice contact by granulated
						weathered & broken from	Pleursch, Cladinastel, Vacc				structure at depth in C.
23 EGL37	0	0			1	cut upslope in road	it, Ledugro	nTashe	1	BRUN-DYB-O	Charcoal in profile
						SA to SR clasts photo taken plus mica flakes	open abies las forest,				
							ledugro, betugla, accolig,				
24 EGL36	0	0	S	Low	1	R	empinig, cladstel, pleursch		0		some gra el is SA to SR
						SA to SR clasts photo taken plus mica flakes	open abies las forest.				
							ledugro, betugla, accolig,				
24 EGL36	0	0	S	Low	1	R	empinig, cladstel, pleursch		0		some gra el is SA to SR
						SA to SR clasts photo taken plus mica flakes	open abies las forest,				
							ledugro, betugla, accolig,				
24 EGL36	0	0	S	Low	1	R	empinig, cladstel, pleursch		0		some gra el is SA to SR
						SA to SR clasts photo taken plus mica flakes	open abies las forest,				
							ledugro, betugla, accolig,				
24 EGL36	0	0	S	Low	1	R	empinig, cladstel, pleursch		0		some gra el is SA to SR
						boulders at surface rock slides lichen co ered in	Sw, Abies las, Shepcan,				weak Ae may some E.DB in
25 EGL207	0	0	P M	ledium	/	stand	Sw, Ables las, Shepcan, Birch, Aspen, Vacc it,		0	ORG	more stable areas
	-	-			-	boulders at surface rock	- y - p - y y				
25 EGL207	0	0	P M	مريناه ما	,	slides lichen co ered in	Sw, Abies las, Shepcan, Birch, Aspen, Vacc it,		0	ORG	weak Ae may some E.DB in more stable areas
25 EGL207	0	U	P IV	ledium	1	stand boulders at surface rock	Birch, Aspen, Vaccil,		0	URG	more stable areas
						slides lichen co ered in	Sw, Abies las, Shepcan,				weak Ae may some E.DB in
25 EGL207	0	0	P M	ledium	1	stand	Birch, Aspen, Vacc it,		0	ORG	more stable areas
26 EGL18	0	0			1	Ingenous intrusi e and met sed rocks.	Betugla, Abielas, Anemone,Cladina, Cladonia, a Pleusch, Polytrichum, Lazulapar, Juncbal	, nTashe	1	BRUN-EB-O O.EB	Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle colours
26 EGL18	0	0			I	Ingenous intrusi e and met sed rocks.	Betugla, Abielas, Anemone,Cladina, Cladonia, a Pleusch, Polytrichum, Lazulapar, Juncbal	, nTashe	1	BRUN-EB-O O.EB	Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle colours
26 EGL18	0	0			1	Ingenous intrusi e and met sed rocks.	Betugla, Abielas, Anemone,Cladina, Cladonia, a Pleusch, Polytrichum, Lazulapar, Juncbal	, nTashe	1	BRUN-EB-O O.EB	Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle colours
					,	230.100		40.10	•	בונטון בטיט ייבט	
26 EGL18	0	0			1	Ingenous intrusi e and met sed rocks.	Betugla, Abielas, Anemone,Cladina, Cladonia, a Pleusch, Polytrichum, Lazulapar, Juncbal	, nTashe	1	BRUN-EB-O O.EB	Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle colours
26 EGL18	0	0			1	Ingenous intrusi e and met sed rocks.	Betugla, Abielas, Anemone,Cladina, Cladonia, a Pleusch, Polytrichum, Lazulapar, Juncbal	, nTashe	1	BRUN-EB-O O.EB	Not elu iated as not thick enough Broken horizon Platey structure from historic ice contact *weathered bedrock produces linear stration of mottle colours
							Open fir forest, Betugla,				Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el
							Ledugro, Lycopod, Vaccoli,				refusal large stone. Some
27 EGL33	0	0	S	Low	1		Cladina, Vacc it		0	ORG	SA gra el at depth

	Organic													Root	Root Restrictin		
Organic	Soil		Moisture Humus			Depth to			Ecosite/					Restricting	g Layer	Series	
SiteID SiteNo Surface	Organic Drainage	Regime	Regime Form	Drainage	Bedrock	Water	TSM	EP	ite Serie	es Site Note	Vegetation Note	QC By	Complete	Layer Depth	Туре	Soil Code Code	Phase Soil Notes Thin dicontinuous Ahe
											Open fir forest, Betugla,						(<2cm). 33 Auger/Sho el
07 50100											Ledugro, Lycopod, Vaccoli,					0.00	refusal large stone. Some
27 EGL33					0	0	S	Low			Cladina, Vacc it		0			ORG	SA gra el at depth Thin dicontinuous Ahe
											Open fir forest, Betugla,						(<2cm). 33 Auger/Sho el
07 50100											Ledugro, Lycopod, Vaccoli,					0.00	refusal large stone. Some
27 EGL33					0	0	S	Low			Cladina, Vacc it		0			ORG	SA gra el at depth Thin dicontinuous Ahe
											Open fir forest, Betugla,						(<2cm). 33 Auger/Sho el
07 50100											Ledugro, Lycopod, Vaccoli,					0.00	refusal large stone. Some
27 EGL33					0	0	S	Low		Site appears to be near	Cladina, Vacc it		0			ORG	SA gra el at depth
										small test pit site (blue							
00 501 40					•	•			,	flagging). Can hear water	Salixpul, Betugla, Salixret, di		4			DDUN ED OL	
28 EGL19					0	0		Medium	1	downslope. Site appears to be near	erse understory.	nTashe	1			BRUN-EB-GL	
										small test pit site (blue							
28 EGL19					0	0		Madium	,	flagging). Can hear water	Salixpul, Betugla, Salixret, di	mTaaba	4			BRUN-EB-GL	
28 EGL19					U	U		Medium		downslope.  Site appears to be near	erse understory.	nTashe	ı			BRUN-EB-GL	
										small test pit site (blue							
28 EGL19					0	0		Medium	,	flagging). Can hear water downslope.	Salixpul, Betugla, Salixret, di	nTashe	4			BRUN-EB-GL	
28 EGL19					U	U		Medium	- 1	Site appears to be near	erse understory.	masne				BRUN-EB-GL	
										small test pit site (blue							
28 EGL19					0	0		Medium	,	flagging). Can hear water downslope.	Salixpul, Betugla, Salixret, di erse understory.	nTashe	1			BRUN-EB-GL	
28 EGL19					U	U		Medium	- 1	Site appears to be near	erse understory.	masne				BRUN-EB-GL	
										small test pit site (blue							
28 EGL19					0	0		Medium	,	flagging). Can hear water downslope.	Salixpul, Betugla, Salixret, di erse understory.	nTashe	1			BRUN-EB-GL	
20 EGL19					U	U		Medium		Boulder field isible on	erse understory.	masne	<u> </u>			DRUN-ED-GL	
										surface. Coarse sand							
29 EGL20					0	0		Medium	,	contains pea size gra el in C horizon.			0			BRUN-DYB-O O.DB	C.F. content, but nice fine matrix for reclamation
29 EGL20					0	U		Medium		Boulder field isible on			U			BRUN-DTB-O O.DB	matrix for reciamation
										surface. Coarse sand							
29 EGL20					0	0		Medium	,	contains pea size gra el in C horizon.			0			BRUN-DYB-O O.DB	C.F. content, but nice fine matrix for reclamation
29 LGL20					0			Medium		Boulder field isible on			<u> </u>			BRON-DTB-O O.DB	matrix for reciamation
										surface. Coarse sand							
29 EGL20					0	0		Medium	1	contains pea size gra el in C horizon.			0			BRUN-DYB-O O.DB	C.F. content, but nice fine matrix for reclamation
23 EGE20								Wicdiairi		Boulder field isible on			<u> </u>			BROIN-BIB-O O.BB	matrix for recialitation
										surface. Coarse sand							
29 EGL20					0	0		Medium	1	contains pea size gra el in C horizon.			0			BRUN-DYB-O O.DB	C.F. content, but nice fine matrix for reclamation
20 20220					<u> </u>			Wodiam	,	Boulder field isible on						BROW BIB 6 C.BB	matrix for residing term
										surface. Coarse sand							C.E. content but pice fire
29 EGL20					0	0		Medium	1	contains pea size gra el in C horizon.			0			BRUN-DYB-O O.DB	C.F. content, but nice fine matrix for reclamation
					<u> </u>				•				<u> </u>				
										highly disturbed area need	1						High coarse fragment makes
										updated disturbance layer							unsuitable reclamation material. Well de eloped
										for LSA portion of the							fines as noted by organic
										polygon Angular rubble at surface + throughout site							enrichment. C? Cannot dig or auger Organic enrichment
30 EGL201					0	0	S		1	Frost hea e at site.			0	25	L	BRUN-DYB-O O.DB	old soil.
																	High pages for any set a
										highly disturbed area need	d						High coarse fragment makes unsuitable reclamation
										updated disturbance layer							material. Well de eloped
										for LSA portion of the polygon Angular rubble at							fines as noted by organic enrichment. C? Cannot dig
										surface + throughout site							or auger Organic enrichment
30 EGL201					0	0	S		1	Frost hea e at site.			0	25	L	BRUN-DYB-O O.DB	old soil.

	Organic											Root	Root Restrictin		
	Organic Soil Surface Organic Drainage	Nutrient Mois Regime Reg	Drainage	Depth to Bedrock	Depth to Water	TSM E	Ecosite P ite Seri	e/S es Site Note	Vegetation Note	QC By	QC Complete	Restricting Layer Depth		Series Soil Code Code	Phase Soil Notes
30 EGL201				0	0	S	I	highly disturbed area nee updated disturbance layer for LSA portion of the polygon Angular rubble at surface + throughout site Frost hea e at site.			0	25	L	BRUN-DYB-O O.DB	High coarse fragment makes unsuitable reclamation material. Well de eloped fines as noted by organic enrichment. C? Cannot dig or auger Organic enrichment old soil.
30 EGL201				0	0	S	I	highly disturbed area nee updated disturbance layer for LSA portion of the polygon Angular rubble at surface + throughout site Frost hea e at site.			0	25	L	BRUN-DYB-O O.DB	High coarse fragment makes unsuitable reclamation material. Well de eloped fines as noted by organic enrichment. C? Cannot dig or auger Organic enrichment old soil.
31 EGL5				0	0		I	highly disturbed polygon could be split out from mai large polygon	n	nTashe	1	100	Х	BRUN-DYB-O O.DB	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
31 EGL5				0	0		1	highly disturbed polygon could be split out from mai large polygon	n	nTashe	1	100	Х	BRUN-DYB-O O.DB	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
31 EGL5				0	0		1	highly disturbed polygon could be split out from mai large polygon	n	nTashe	1	100	X	BRUN-DYB-O O.DB	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
31 EGL5				0	0		1	highly disturbed polygon could be split out from mai large polygon	n	nTashe	1	100	X	BRUN-DYB-O O.DB	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
32 EGL202				0	0		1	Part of Krich Feldspar/Granite coarse grained Part of Krich	Betugla, Abielas, Pleusch, Cladina, Cladonia		0		Х	BRUN-DYB-O O.DB	BC some colour imparted based on what is isible from disturbed areas  BC some colour imparted
32 EGL202				0	0		1	Feldspar/Granite coarse grained Part of Krich	Betugla, Abielas, Pleusch, Cladina, Cladonia		0		Х	BRUN-DYB-O O.DB	based on what is isible from disturbed areas  BC some colour imparted based on what is isible from
32 EGL202				0	0		1	Feldspar/Granite coarse grained Part of Krich Feldspar/Granite coarse	Betugla, Abielas, Pleusch, Cladina, Cladonia Betugla, Abielas, Pleusch,		0		Х	BRUN-DYB-O O.DB	disturbed areas  BC some colour imparted based on what is isible from
32 EGL202				0	0		1	grained Some foliated rock theat clea es into flat sheets. C material intact but A & B buried some C remo ed &	Cladina, Cladonia		0		X	BRUN-DYB-O O.DB	disturbed areas  Compacted all subsoil & topsoil pushed (unidirectional
33 EGL203				0	0		I	pushed / windrowed.  Some foliated rock theat clea es into flat sheets. C material intact but A & B buried some C remo ed &	No egetation at site		0			ZDL	but mixed)  Compacted all subsoil & topsoil pushed (unidirectional
33 EGL203				0	0		1	pushed / windrowed.  Collapse scars from ice meltout exposed soil in areas. Bedrock residual	No egetation at site		0			ZDL	past e idence of permafrost
34 EGL58				0	0		I	texture gets coarser.  Collapse scars from ice meltout exposed soil in	<ul> <li>Salixpal, Betugla, Abieslas, Carex spp.</li> </ul>	nTashe	1	20	W	GLEYO O.G	no longer present in soil profile. boulders at surface
34 EGL58				0	0		1	areas. Bedrock residual material closer to bedrock texture gets coarser.	Salixpal, Betugla, Abieslas, Carex spp.	nTashe	1	20	W	GLEYO O.G	past e idence of permafrost no longer present in soil profile. boulders at surface

Organic										Root I	Root Restrictin		
Organic Soil Nutrient Moisture Humus SitelD SiteNo Surface Organic Drainage Regime Regime Form Drainage	Depth to Bedrock	Depth to Water	TSM		osite/S Series	Site Note	Vegetation Note	QC By	QC Complete	Restricting Layer Depth		Series Soil Code Code	Phase Soil Notes
						Collapse scars from ice	.5		'		71		
						meltout exposed soil in areas. Bedrock residual							past e idence of permafrost
34 EGL58	0	0			1		Salixpal, Betugla, Abieslas, Carex spp.	nTashe	1	20	W	GLEYO O.G	no longer present in soil profile. boulders at surface
34 20230	<u> </u>	0				Collapse scars from ice	σαισχ όρφ.	masic	<u>'</u>	20	VV	GLET-O O.O	prome. bounders at surface
						meltout exposed soil in							
							Salixpal, Betugla, Abieslas,						past e idence of permafrost no longer present in soil
34 EGL58	0	0			/	texture gets coarser.	Carex spp.	nTashe	1	20	W	GLEYO O.G	profile. boulders at surface
						head water of gulch adjacent to boulder/bedrock	(						gentle then steepens to gulch/gully mottles from
						outcrop. Slope steepens o er short distance. Burn site							bedrock weathering not water table. frost boils
07 50150	000	•	5 M	ı.	,	Should break out bedrock	Calamagrostis, burned	Tb					exposed soil trends
35 EGL52	200	0	P Me	eaium	/	from polygon	spruce, Abies las	nTashe	1			BRUN-DYB-O O.DB	downward
						head water of gulch adjacent to boulder/bedrock	(						gentle then steepens to gulch/gully mottles from
						outcrop. Slope steepens o er short distance. Burn site	Salix. Betugla.						bedrock weathering not water table. frost boils
35 EGL52	200	0	P Me	adium	,	Should break out bedrock from polygon		nTashe	1			BRUN-DYB-O O.DB	exposed soil trends downward
33 20232	200		1 IVIC	calam		. ,0	Sprace, Ables las	madic	· ·			BROW-BTB-O C.DB	
						head water of gulch adjacent to boulder/bedrock	(						gentle then steepens to gulch/gully mottles from
						outcrop. Slope steepens o er short distance. Burn site	Salix, Betugla,						bedrock weathering not water table. frost boils
35 EGL52	200	0	P Me	edium	/	Should break out bedrock from polygon	Calamagrostis, burned spruce, Abies las	nTashe	1			BRUN-DYB-O O.DB	exposed soil trends downward
33 20232					•	head water of gulch	opiaco, ribico lac		· · · · · · · · · · · · · · · · · · ·			3.10.1.2.2.3.3	gentle then steepens to
						adjacent to boulder/bedrock	(						gulch/gully mottles from
						outcrop. Slope steepens o er short distance. Burn site	Salix, Betugla,						bedrock weathering not water table. frost boils
35 EGL52	200	0	P Me	edium	/	Should break out bedrock from polygon	Calamagrostis, burned spruce, Abies las	nTashe	1			BRUN-DYB-O O.DB	exposed soil trends downward
						head water of gulch							gentle then steepens to
						adjacent to boulder/bedrock outcrop. Slope steepens o	(						gulch/gully mottles from bedrock weathering not
						er short distance. Burn site							water table. frost boils
35 EGL52	200	0	P Me	edium	1	Should break out bedrock from polygon	spruce, Abies las	nTashe	1			BRUN-DYB-O O.DB	exposed soil trends downward
						Boulder field some exposed granite boulders a	t Betugla, Salixpul, Cladina,						
36 EGL53	0	0	P L	Low	1	surface Frost shatter & boils on site	Pleusch, Polytrichum, Festuca, acc it, Casstet		0	45	Х	BRUN-DYB-O O.DB	Ah thin & discontinuous ~ 3 cm
33 2023					· ·	Boulder field some exposed granite boulders a						5	•
	_	_				surface Frost shatter &	Pleusch, Polytrichum,						Ah thin & discontinuous ~ 3
36 EGL53	0	0	P L	Low	/	boils on site  Boulder field some	Festuca, acc it, Casstet		0	45	X	BRUN-DYB-O O.DB	cm
						exposed granite boulders a surface Frost shatter &	t Betugla, Salixpul, Cladina, Pleusch, Polytrichum,						Ah thin & discontinuous ~ 3
36 EGL53	0	0	P L	Low	1	boils on site Boulder field some	Festuca, acc it, Casstet		0	45	Х	BRUN-DYB-O O.DB	cm
						exposed granite boulders a							Ab this 9 discontinuous 0
36 EGL53	0	0	P L	Low	1	surface Frost shatter & boils on site	Pleusch, Polytrichum, Festuca, acc it, Casstet		0	45	Х	BRUN-DYB-O O.DB	Ah thin & discontinuous ~ 3 cm
													Mottles from wathering rock
													only Mix of coarse fragments from pea gra el to
						Some boulders at surface site adjacent to steep gully	Abieslas, Empinig, Cladina,						boulders in silt loam matrix. Auger/sho el refusal at 50
37 EGL3	200	0	Р Ме	edium	1	sharp drop off ~30 m	Polyjun		0			BRUN-DYB-O O.DB	3rd pit attempt due to rocks

	Organic												Root	Root Restrictin		
	Organic Soil Surface Organic Drainage		Moisture Humus Regime Form		Depth to Bedrock	Depth to Water	TSM		Ecosite/S	S s Site Note	Vegetation Note	OC By C	QC Restricting omplete Layer Depth	g Layer	Series Soil Code Code	Phase Soil Notes
37 EGL3	Surface Organic Diamage	Regille	Regille Fulli	Drainage	200	<b>Vale</b> :		Medium	/	Some boulders at surface site adjacent to steep gully sharp drop off ~30 m	Abieslas, Empinig, Cladina,	чову с	0	туре	BRUN-DYB-O O.DB	Mottles from wathering rock only Mix of coarse fragments from pea gra el to boulders in silt loam matrix.  Auger/sho el refusal at 50  3rd pit attempt due to rocks
37 EGL3					200	0	P I	Medium	1	Some boulders at surface site adjacent to steep gully sharp drop off ~30 m			0		BRUN-DYB-O O.DB	Mottles from wathering rock only Mix of coarse fragments from pea gra el to boulders in silt loam matrix. Auger/sho el refusal at 50 3rd pit attempt due to rocks
37 EGL3					200	0	P I	Medium	I	Some boulders at surface site adjacent to steep gully sharp drop off ~30 m			0		BRUN-DYB-O O.DB	Mottles from wathering rock only Mix of coarse fragments from pea gra el to boulders in silt loam matrix. Auger/sho el refusal at 50 3rd pit attempt due to rocks
37 EGL3					200	0	P I	Medium	1	Some boulders at surface site adjacent to steep gully sharp drop off ~30 m			0		BRUN-DYB-O O.DB	Mottles from wathering rock only Mix of coarse fragments from pea gra el to boulders in silt loam matrix. Auger/sho el refusal at 50 3rd pit attempt due to rocks
38 EGL204					0	0	P	High	1	Pull polygon out as a unit No buried horizon tonguing in soil horizon boundaries Mo ement in profile e ident exposed mineral soil from shallow micro slumps	Abieslas, Empinig, Epilang,		0		BRUN-DYB-E E.DB	High degree of mixing in soil profile No 'C' horizon
38 EGL204					0	0	P	High	1	Pull polygon out as a unit No buried horizon tonguing in soil horizon boundaries Mo ement in profile e ident exposed mineral soil from shallow micro slumps	Abieslas, Empinig, Epilang,		0		BRUN-DYB-E E.DB	High degree of mixing in soil profile No 'C' horizon
38 EGL204					0	0	Р	High	/	Pull polygon out as a unit No buried horizon tonguing in soil horizon boundaries Mo ement in profile e ident exposed mineral soil from shallow micro slumps	Abieslas, Empinig, Epilang,		0		BRUN-DYB-E E.DB	High degree of mixing in soil profile No 'C' horizon
					2	•			,	exposed mineral soil from	Abieslas, Empinig, Epilang, Cass (heather) lichen		0			High degree of mixing in soil
38 EGL204 39 EGL4					0	0	P I	High Medium	1	shallow micro slumps	dominant co er, Spir bea Abieslas, Picegla, Hylospl, Lupialp, heather, Betugla, Salipal, Saliret		0	X	BRUN-DYB-E E.DB  BRUN-DYB-O O.DB	profile No 'C' horizon
39 EGL4					0	0		Medium	1		Abieslas, Picegla, Hylospl, Lupialp, heather, Betugla, Salipal, Saliret Abieslas, Picegla, Hylospl,		0	X	BRUN-DYB-O O.DB	
39 EGL4					0	0	Р [	Medium	1		Lupialp, heather, Betugla, Salipal, Saliret Abieslas, Picegla, Hylospl,		0	Х	BRUN-DYB-O O.DB	
39 EGL4					0	0	P I	Medium	1		Lupialp, heather, Betugla, Salipal, Saliret		0	Х	BRUN-DYB-O O.DB	

Organic											Root Restrictin		
Organic Soil Nutrient Moisture Humus SiteID SiteNo Surface Organic Drainage Regime Regime Form Drainage	Depth to Bedrock	Depth to Water			Ecosite/	S s Site Note	Vegetation Note	QC By	QC Complete	Restricting Layer Depth		Series Soil Code Code	Phase Soil Notes
Ortens Ortens Organic Stanlage Regime Regime Form Stanlage	Bearook	Water	TOM		no ocno	eroded surface in gully	regetation Note	QO Dy	Complete	Layer Deptin	Турс	Con Code Code	Thase don Notes
						bottom Stewart Gulch areas of ponding							
40 EGL205	0	0	U	High	1	deposition of sand occurs		nTashe	1	60	L	REGOO O.R	
						eroded surface in gully bottom Stewart Gulch							
						areas of ponding							
40 EGL205	0	0	U	High	/	deposition of sand occurs eroded surface in gully		nTashe	1	60	L	REGOO O.R	
						bottom Stewart Gulch							
40 EGL205	0	0	U	High	1	areas of ponding deposition of sand occurs		nTashe	1	60	L	REGOO O.R	
						eroded surface in gully							
						bottom Stewart Gulch areas of ponding							
40 EGL205	0	0	U	High	1	deposition of sand occurs		nTashe	1	60	L	REGOO O.R	
						some rock fall near road							
						downslope into plot. No eq in those areas or topsoil or							
						fines Frost shatter in area	s Betugla, Salipal, Vaccoli,						x shallow cannot assess C
41 EGL60	100	0	Р		1	exposed slope.	Abieslas		0		L	BRUN-DYB-O O.DB	horizon depth is estimate
						some rock fall near road							
						downslope into plot. No eq in those areas or topsoil or							
			_			fines Frost shatter in area	s Betugla, Salipal, Vaccoli,						x shallow cannot assess C
41 EGL60	100	0	Р		/	exposed slope.	Abieslas		0		L	BRUN-DYB-O O.DB	horizon depth is estimate
						some rock fall near road	_						
						downslope into plot. No eq in those areas or topsoil or	-						
41 EGL60	100	0	P		,	fines Frost shatter in area exposed slope.	s Betugla, Salipal, Vaccoli, Abieslas		0			BRUN-DYB-O O.DB	x shallow cannot assess C
41 EGL00	100	U	<u> </u>			exposed slope.			U		L	BRUN-D1B-O O.DB	horizon depth is estimate x shallow Ahe 0 2 Too
						D with some C mo emen	Betugla, Salipal, Abieslas, t Empenig, Casstet, Vacc it,						high C.F. to fully assess soil Some soil is just rock to
42 EGL61	0	0		Medium	1	of boulders in areas	Cladina, Cladonia, Polyjun	nTashe	1			BRUN-DYB-O O.DB	surface flat lying rocks
							Betugla, Salipal, Abieslas,						x shallow Ahe 02 Too high C.F. to fully assess soil
						D with some C mo emen	t Empenig, Casstet, Vacc it,						Some soil is just rock to
42 EGL61	0	0		Medium	/	of boulders in areas	Cladina, Cladonia, Polyjun	nTashe	1			BRUN-DYB-O O.DB	surface flat lying rocks x shallow Ahe 0.2 Too
						D '''	Betugla, Salipal, Abieslas,						high C.F. to fully assess soil
42 EGL61	0	0		Medium	1	of boulders in areas	t Empenig, Casstet, Vacc it, Cladina, Cladonia, Polyjun	nTashe	1			BRUN-DYB-O O.DB	Some soil is just rock to surface flat lying rocks
							Betugla, Salipal, Abieslas,						x shallow Ahe 02 Too high C.F. to fully assess soil
						D with some C mo emen	Empenig, Casstet, Vacc it,						Some soil is just rock to
42 EGL61	0	0		Medium	1	of boulders in areas	Cladina, Cladonia, Polyjun	nTashe	1			BRUN-DYB-O O.DB	surface flat lying rocks
						some cobbles isible on	past burn Abies las ~ 10 m						lots of deadfall on ground no
						surface, rocks broken on natural planes & aligned ir	high, Empenig, Cladina, Cladonia dominant co er on						charcoal in soil may be O.R weak structure mostly held
43 EGL68	0	0		Low	1	horizontal position	ground		0			BRUN-DYB-O O.DB	together by roots
						some cobbles isible on	past burn Abies las ~ 10 m						lots of deadfall on ground no
						surface, rocks broken on	high, Empenig, Cladina,						charcoal in soil may be O.R
43 EGL68	0	0		Low	1	natural planes & aligned in horizontal position	Cladonia dominant co er on ground		0			BRUN-DYB-O O.DB	weak structure mostly held together by roots
						·	past burn Abies las ~ 10 m						lots of deadfall on ground no
						some cobbles isible on surface, rocks broken on	high, Empenig, Cladina,						charcoal in soil may be O.R
43 EGL68	0	0		Low	1	natural planes & aligned in horizontal position	Cladonia dominant co er on ground		0			BRUN-DYB-O O.DB	weak structure mostly held together by roots
73 LOLUU	U	U		LUW		•			U			PLOIN-DID-O O'ND	
						some cobbles isible on surface, rocks broken on	past burn Abies las ~ 10 m high, Empenig, Cladina,						lots of deadfall on ground no charcoal in soil may be O.R
						natural planes & aligned in	Cladonia dominant co er on						weak structure mostly held
43 EGL68	0	0		Low	/	horizontal position	ground		0			BRUN-DYB-O O.DB	together by roots

Company   Comp		Organic												Root	Root Restrictin		
	_	Soil					•					N		Restricting	g Layer	Series	DI 0.11 N 4
Marchael	SiteID SiteNo Surface	Organic Drainage	Regime	Regime Fo	rm Drainage	Bedrock	Water	TSM	EP	ite Serie			QC By Complet	e Layer Depth	Туре	Soil Code Code	
Decrease entering of the control o											bedrock on crest Frost he	ea Salixarc, Vacc it, Salixgla,					horiz skeletal soil flat lying
Mary 1997   Mary 1998   Mary	44 EGL206					100	0	U	Low	1			0			BRUN-DYB-O O.DB	
Stroke   19	44 EGL206					100	0	U	Low	1	e + shatter at site	Arctrub	0			BRUN-DYB-O O.DB	planar rock
Stroke   19												Fricaceous shrubs + lichen					
1												community Salix gla, Ledu					
Substant	45 FOD200					400	0		ماسنال	,	Front has a 1 rook alida		0	100		DDUN DVD O	akalatal apil
## FCP007	45 EGR200					100	U		підп		1 TOST HEA C + TOCK SHUC	Ciaulia, Ciaudila, Diyas ala	0	100		BRUN-DTB-O	Skeletal Soli
AC FORDER   CORE   CO																	
Marcian   Marc	45 EGR206					100	0	U	High	1			0	100	L	BRUN-DYB-O	skeletal soil
Charge   C											,	Hylocol Dloucob					sample of water taken in H
### DEFORM 1																	
											standing water high gra e	l Cladarb, Vacc it, Ledudec,					within 2 metres will also be
Collago arteas - Granton   Hotel   Posset   Charles	46 EGR97					0	0		Medium	ı /		Sphag,	0	65	W	CRYO-TC-GL	root restricting.
Carrier   Carr											*	Hylospl, Pleusch,					sample of water taken pH
4											channels e ident of	Nephroma, Cladstel,					6.3 limited cryoturbation Ice
Aber 18.6. G1497    Aber 18.6. G1497   Aber 18.6. G	46 FGR07					0	0		Medium	, /			0	65	\\\	CRYO-TC-GI	
1	40 EGR97					0	0		MCGIGITI	, ,		орнау,	<u> </u>		V V	OKTO-TO-OE	root restricting.
Standing water high part   Standing water high												• • •					•
A   E   G   F   F   F   F   F   F   F   F   F																	•
Section   Sect	46 EGR97					0	0		Medium	ı /			0	65	W	CRYO-TC-GL	
A E GR87											*						
March   Marc																	•
Ables las, drunken forst valent in start of the common and the com																	•
Collapse areas - draininge   Collapse areas - draininge   Collapse   Collap	46 EGR97					0	0		Medium	1 /		Sphag,	0	65	W	CRYO-TC-GL	root restricting.
de EGR97 0 0 Medium / content as well so famonés o ident of sanding water high grace I Cladarty, Lose IL, Ledudoc, of the CRYO-TC-QL within 2 metres will also be not restricting.  47 EGR95 0 0 P Medium / state  47 EGR95 0 0 P Medium / state												Hylosol Pleusch					sample of water taken inH
47 EGR95 0 0 0 Medium / content as well Sphag. 0 65 W CRYO-TC-GL root restricting.											channels e ident of	Nephroma, Cladstel,					6.3 limited cryoturbation Ice
A7 EGR95	46 FCD07					0	0		Madium	. ,			0	GE.	10/	CDVO TO CI	
A7 EGR95	40 EGR9/					0	U		wealum	1 /	content as well	Spriag,	U	00	VV	CRYU-IC-GL	root restricting.
47 EGR95												•					
47 EGR95	47 FGR05					0	0	P	Medium	, /	, ,	,	nTashe 1	60		REGOO OR	Roulders at surface
47 EGR95	47 EGR93					<u> </u>	0	<u>'</u>	McGiuiii	, ,	at site	ciadina, ciadonia, Empe nig	TH dolle			NEGOO O.N	Doulders at surface
47 EGR95  9											0						
Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No egetation on recent slide open woodland lichen  48 EGR80  100 0 P High And slump ~ 10 m across Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No egetation on recent slide open woodland lichen  48 EGR80  100 0 P High Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Ahe discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Cladrang, Betupum, Ledugro open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Alter discontinuous + bedrock open woodland lichen OBRUN-DYB-O DB outcrop upslope ~ 20 m  Clast supported matrix Coarse sand photos taken	47 EGR95					0	0	Р	Medium	1 /			nTashe 1	60	L	REGOO O.R	Boulders at surface
Ale GGR80						-				· · ·	Shattered rock planar +	, , , ,			<del>_</del>		
48 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  70 Shattered rock planar+  84 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  48 EGR80 100 0 P High / Shattered rock planar+  84 EGR80 100 0 P High / Shattered rock planar+  85 For the rock planar+  86 For the rock planar+  86 For the rock planar+  86 For the rock planar+  87 For the rock planar+  88 FOR SO For the rock planar+  88 FOR SO For the rock planar+  89 For the rock planar+  80 For the rock planar+																	
48 EGR80 100 0 P High / and slump ~ 10 m across dominant 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No egetation on recent slide open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No layers in profile No egetation on recent slide open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No egetation on recent slide open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock open woodland lichen 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m Ahe discontinuous + bedrock ope																	Ahe discontinuous + bedrock
Figh	48 EGR80					100	0	Р	High	1	and slump ~ 10 m across		0			BRUN-DYB-O O.DB	
layers in profile No egetation on recent slide egetation on recent slide open woodland lichen  Ahe discontinuous + bedrock planar + rod shaped horizontal rock layers in profile No egetation on recent slide open woodland lichen  Ahe discontinuous + bedrock planar + rod shaped horizontal rock planar + rod shaped horizontal rock layers in profile No egetation on recent slide open woodland lichen  Ahe discontinuous + bedrock planar + rod shaped horizontal rock p												rk Ahieslas Cladinaete					
## EGR80    100   0   P   High   7   Ale discontinuous + bedrock outcrop upslope ~ 20 m																	
Shattered rock planar + rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No Cladrang, Betupum, Ledugro egetation on recent slide open woodland lichen Ahe discontinuous + bedrock 48 EGR80 100 0 P High / and slump ~ 10 m across dominant 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m  clast supported matrix Coarse sand photos taken acti e flowing channel								_			egetation on recent slide	open woodland lichen				BB101515 5 5 5 5	
rod shaped horizontal rock Abieslas, Cladinaste, layers in profile No Cladrang, Betupum, Ledugro egetation on recent slide open woodland lichen Ahe discontinuous + bedrock 48 EGR80 100 0 P High / and slump ~ 10 m across dominant 0 BRUN-DYB-0 O.DB outcrop upslope ~ 20 m  clast supported matrix Coarse sand photos taken acti e flowing channel	48 EGR80					100	0	P	High	/		dominant	0			BRUN-DYB-O O.DB	outcrop upslope ~ 20 m
egetation on recent slide open woodland lichen  Ahe discontinuous + bedrock  48 EGR80  100 0 P High / and slump ~ 10 m across dominant												ck Abieslas, Cladinaste,					
48 EGR80 100 0 P High / and slump ~ 10 m across dominant 0 BRUN-DYB-O O.DB outcrop upslope ~ 20 m  clast supported matrix Coarse sand photos taken acti e flowing channel ariable clast size May be																	
clast supported matrix Coarse sand photos taken acti e flowing channel ariable clast size May be	48 FGR80					100	Ω	Р	High	1			Ω			BRUN-DYR-O O DR	
Coarse sand photos taken acti e flowing channel ariable clast size May be	10 20100					100	<u> </u>		. ngn	,	·	2011110111	0			2.10.1 2 12 0 0.22	200000 000000 20 111
acti e flowing channel ariable clast size May be												nn.					
												ži i					ariable clast size Mav be
	49 EGL27					0	0		Medium	ı /		g Salix, Alnus	0			REGOO O.R	

Organic								Root	Root Restrictin		
Organic Soil Nutrient Moisture Humus SiteID SiteNo Surface Organic Drainage Regime Regime Form	Depth to Drainage Bedrock	Depth to Water			cosite/S e Series Site Note	Vegetation Note	QC QC By Complete	Restricting			Phase Soil Notes
					clast supported matrix Coarse sand photos take	n					
49 EGL27	0	0	Me	edium	acti e flowing channel / disturbed by Placer mining	Salix, Alnus	0			REGOO O.R	ariable clast size May be some Cu.R
											Cg is filled in with water from seepage Ahe 2 cm but too thin to sample. May be some
50 EGL12	0	0	S Me	edium	1	Sb forest, Salix, Betugla, Cared pod	0	56	W	GLEY-HG-O	Hu. Lu ic Gleysols on site. Humic Gleysol.
						Sb forest, Salix, Betugla,					Cg is filled in with water from seepage Ahe 2 cm but too thin to sample. May be some Hu. Lu ic Gleysols on site.
50 EGL12	0	0	S Me	edium	1	Cared pod	0	56	W	GLEY-HG-O	Humic Gleysol.
50 EGL12	0	0	S Me	odium		Sb forest, Salix, Betugla, Cared pod	0	56	W	GLEY-HG-O	Cg is filled in with water from seepage Ahe 2 cm but too thin to sample. May be some Hu. Lu ic Gleysols on site. Humic Gleysol.
50 EGL12	U	U	S IVIE	ealum	1	Cared pod	0	00	VV	GLEY-HG-U	·
50 50140	•					Sb forest, Salix, Betugla,			<b>14</b> 7	0.57440.0	Cg is filled in with water from seepage Ahe 2 cm but too thin to sample. May be some Hu. Lu ic Gleysols on site.
50 EGL12	0	0	S Me	edium	1	Cared pod	0	56	W	GLEY-HG-O	Humic Gleysol.
51 EGL215	0	0			broken horizons tipping/dying top spruce likely due to permafrost / check drill logs in area	Sb forest open moss/lichen understory	nTashe 1	200	X	CRYO-TC-HD O.DB	Sequence of silts o er gra els likely continues at depth Broken horizons likely influenced by ice in past
51 EGL215	0	0			broken horizons tipping/dying top spruce likely due to permafrost / check drill logs in area	Sb forest open moss/lichen understory	nTashe 1	200	X	CRYO-TC-HD O.DB	Sequence of silts o er gra els likely continues at depth Broken horizons likely influenced by ice in past
51 EGL215	0	0			broken horizons tipping/dying top spruce likely due to permafrost / check drill logs in area	Sb forest open moss/lichen understory	nTashe 1	200	X	CRYO-TC-HD O.DB	Sequence of silts o er gra els likely continues at depth Broken horizons likely influenced by ice in past
						Abies las, Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus					
52 EGL22	0	0	Me	edium	1	arc, Pleu sch, Peltigera	0			GLEYR R.G	flood sequence
52 EGL22	0	0	Me	edium		Abies las, Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus arc, Pleu sch, Peltigera	0			GLEYR R.G	flood sequence
32 LOL22	0		IVIC	culuiii	1	Abies las, Pice mar, Ledu	0			GLL1K K.O	nood sequence
F2 F0122	^	0		adi. :==	,	gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus	•			CLEV D. D.O.	flood assuran-
52 EGL22	0	U	IVIE	edium	I	arc, Pleu sch, Peltigera	0			GLEYR R.G	flood sequence
52 EGL22	0	0	Me	edium	I	Abies las, Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus arc, Pleu sch, Peltigera	0			GLEYR R.G	flood sequence
						Abies las, Pice mar, Ledu gro, Empe nig, Vacc oli, Salix pau, Salix gla, Rubus					
52 EGL22	0	0	Me	edium	1	arc, Pleu sch, Peltigera	0			GLEYR R.G	flood sequence

Organic								Root	Root Restrictin				
Organic Soil Nutrient Moisture Humus	Depth to Drainage Bedrock	Depth to Water	TSM		Ecosite/	/S es Site Note	Vegetation Note	QC Restricting QC By Complete Layer Depth		Soil Code	Series Code	Dhaca	Soil Notes
SiteID SiteNo Surface Organic Drainage Regime Regime Form I	Drainage Bedrock	water	TOW		ite Serie		vegetation Note	QC By Complete Layer Depth	Гуре	Soil Code	Code	Filase	Soil Notes
						Some tilted trees not many May be due to snow							
						loading Some surface drainage channels	Fir, spruce (Pice mar) forest, sphagnum, Hylo spl, Rubus						Bedrock noted near side trail Phyllite highly weathered &
54 EGL26	0	0	Р	Medium	1	sedimentation surface	cham, Empe nig, Equi syl	0	Z	CRYO	Cryosol		fractured
						Some tilted trees not							
						many May be due to snow loading Some surface	Fir, spruce (Pice mar) forest,						Bedrock noted near side trail
54 EGL26	0	0	Б.	Medium	,	drainage channels sedimentation surface	sphagnum, Hylo spl, Rubus cham, Empe nig, Equi syl	0	7	CRYO	Cryosol		Phyllite highly weathered & fractured
54 EGL20	0	0	Р	Medium			cham, Empenig, Equi syi	U		CRTU	Cryosor	ρ	nactureu
						Some tilted trees not many May be due to snow							
						loading Some surface	Fir, spruce (Pice mar) forest,						Bedrock noted near side trail
54 EGL26	0	0	Р	Medium	1	drainage channels sedimentation surface	sphagnum, Hylo spl, Rubus cham, Empe nig, Equi syl	0	Z	CRYO	Cryosol		Phyllite highly weathered & fractured
							Abies las, Pice mar, Pice						
							gla, Hylo spl, Vacc oli, Ledu						mid to upper slope difficult
							gro, Equi syl, Nephroma, Clad stel, Betu gla Main						to texture as high broken rock fragments May be Lu
56 EGL25	0	0		Medium		Broken metased material	shrub is Salix pau	0		BRUN-DYB-0	O.DB		osols in polygon
							Abies las, Pice mar, Pice						
							gla, Hylo spl, Vacc oli, Ledu gro, Equi syl, Nephroma,						mid to upper slope difficult to texture as high broken
56 EGL25	0	0		Medium	1	Broken metased material	Clad stel, Betu gla Main shrub is Salix pau	0		BRUN-DYB-0	O DB		rock fragments May be Lu osols in polygon
30 ESL23	0	<u> </u>		Mcdium	,	Broken metasea material	·	U		DICOIN-DID-C	0.00		osois iii poiygoii
							Abies las, Pice mar, Pice gla, Hylo spl, Vacc oli, Ledu						mid to upper slope difficult
							gro, Equi syl, Nephroma, Clad stel, Betu gla Main						to texture as high broken rock fragments May be Lu
56 EGL25	0	0		Medium	1	Broken metased material	shrub is Salix pau	0		BRUN-DYB-0	O.DB		osols in polygon
							Abies las, Pice mar, Pice						
							gla, Hylo spl, Vacc oli, Ledu gro, Equi syl, Nephroma,						mid to upper slope difficult to texture as high broken
							Clad stel, Betu gla Main						rock fragments May be Lu
56 EGL25	0	0		Medium	1	Broken metased material	shrub is Salix pau	0		BRUN-DYB-0	O.DB		osols in polygon likely O.DB in polygon as
57 EGL210	0	0			,		fir/spruce forest	0		1111/101 0	0.61		well Some met. sed in
57 EGL210	U	0					III/spruce forest	U		LUV-GL-O	O.GL		profile, mostly granodronite likely O.DB in polygon as
57 EGL210	0	0			1		fir/spruce forest	0		LUV-GL-O	O.GL		well Some met. sed in profile, mostly granodronite
	· ·						•	-		<u> </u>	-		likely O.DB in polygon as well Some met. sed in
57 EGL210	0	0			1		fir/spruce forest	0		LUV-GL-O	O.GL		profile, mostly granodronite
													likely O.DB in polygon as well Some met. sed in
57 EGL210	0	0			1		fir/spruce forest	0		LUV-GL-O	O.GL		profile, mostly granodronite
													likely O.DB in polygon as well Some met. sed in
57 EGL210	0	0			1	broken horixon profile	fir/spruce forest	0		LUV-GL-O	O.GL		profile, mostly granodronite
						slow downward mo ement							
						of material historically Cobbles to stones mostly							
58 EGL208	0	0		Low	1	with gra el broken horixon profile		0		BRUN-DYB-	Ē		skeletal soil
						slow downward mo ement							
						of material historically Cobbles to stones mostly							
58 EGL208	0	0		Low	1	with gra el		0		BRUN-DYB-	<u> </u>	:	skeletal soil

Organic								Root	Root Restrictin	
Organic Soil Nutrient Moisture Humus	Depth to	Depth to			Ecosite/			QC Restricting	g Layer Series	
SiteID SiteNo Surface Organic Drainage Regime Regime Form Drainage	Bedrock	Water	TSM	EP	ite Serie	s Site Note broken horixon profile	Vegetation Note	QC By Complete Layer Depti	n Type Soil Code Code	Phase Soil Notes
						slow downward mo ement of material historically				
						Cobbles to stones mostly				
58 EGL208	0	0		Low	1	with gra el broken horixon profile		0	BRUN-DYB-E	skeletal soil
						slow downward mo ement				
						of material historically Cobbles to stones mostly				
58 EGL208	0	0		Low	1	with gra el		0	BRUN-DYB-E	skeletal soil
						Meta sed on 45 degree				
59 EGL209	0	0	U	High	1	angle Two lithologies may be near bedrock contact	Abies, Betu gla	0	E.DB/O.D BRUN-DYB-E B	meta sed SiL / igneous SL/LS
						Meta sed on 45 degree	· •			
						angle Two lithologies may			E.DB/O.D	meta sed SiL / igneous
59 EGL209	0	0	U	High		be near bedrock contact	Abies, Betu gla	0	BRUN-DYB-E B	SL/LS
						Meta sed on 45 degree angle Two lithologies may			E.DB/O.D	meta sed SiL / igneous
59 EGL209	0	0	U	High	1	be near bedrock contact	Abies, Betu gla	0	BRUN-DYB-E B	SL/LS
						Meta sed on 45 degree				
50 501000	•				,	angle Two lithologies may			E.DB/O.D	meta sed SiL / igneous
59 EGL209	0	0	U	High	1	be near bedrock contact	Abies, Betu gla	0	BRUN-DYB-E B	SL/LS
						bedrock cliffs abo e site	Vacc it, Hylo spl, Cladina, Cladonia, Crustose lichen,			
						pull out rock cliffs separate	Salix gla, Betu gla, Ledu,	_		
60 EGL50	0	0	U			from boulder slides	Salix pau, Empe nig	0	<del></del>	coarse sand w gra el
						bedrock cliffs abo e site	Vacc it, Hylo spl, Cladina, Cladonia, Crustose lichen,			
						pull out rock cliffs separate	Salix gla, Betu gla, Ledu,			
60 EGL50	0	0	U		1	from boulder slides	Salix pau, Empe nig	0	<del></del>	coarse sand w gra el
						bedrock cliffs abo e site	Vacc it, Hylo spl, Cladina, Cladonia, Crustose lichen,			
						pull out rock cliffs separate	Salix gla, Betu gla, Ledu,			
60 EGL50	0	0	U		1	from boulder slides	Salix pau, Empe nig	0		coarse sand w gra el
						bedrock cliffs abo e site	Vacc it, Hylo spl, Cladina, Cladonia, Crustose lichen,			
						pull out rock cliffs separate	Salix gla, Betu gla, Ledu,			
60 EGL50	0	0	U		1	from boulder slides mixed lithology of gra els	Salix pau, Empe nig	0		coarse sand w gra el
						flat, angular, subangular,	old growth forest of Abies			4 sabble mass surface all
						arious shapes due to lithology more than	las, Ledu gro, Pleu sch, mostly Clad stel. some Vacc			1 cobble near surface, all else is consistently gra el in
62 EGL212	0	0	S I	Medium	1	transport mixed lithology of gra els	it + Nephroma	nTashe 1	BRUN-DYB-O O.DB	the profile
						flat, angular, subangular,	old growth forest of Abies			
						arious shapes due to lithology more than	las, Ledu gro, Pleu sch, mostly Clad stel. some Vacc			1 cobble near surface, all else is consistently gra el in
62 EGL212	0	0	S I	Medium	1	transport mixed lithology of gra els	it + Nephroma	nTashe 1	BRUN-DYB-O O.DB	the profile
						flat, angular, subangular,	old growth forest of Abies			
						arious shapes due to lithology more than	las, Ledu gro, Pleu sch, mostly Clad stel. some Vacc			1 cobble near surface, all else is consistently gra el in
62 EGL212	0	0	S I	Medium	1	transport	it + Nephroma	nTashe 1	BRUN-DYB-O O.DB	the profile
						mixed lithology of gra els flat, angular, subangular,	old growth forest of Abies			
						arious shapes due to lithology more than	las, Ledu gro, Pleu sch, mostly Clad stel. some Vacc			1 cobble near surface, all else is consistently gra el in
62 EGL212	0	0	S I	Medium	1	transport	it + Nephroma	nTashe 1	BRUN-DYB-O O.DB	the profile

	Organic												Root	Root Restrictin			
Organic SiteID SiteNo Surface	Soil Organic Drainage		Moisture Humi	Depth to Bedrock	Depth to Water			Ecosite/site Serie	S s Site Note	Vegetation Note	QC Bv	QC Complete	Restricting Layer Depth		Soil Code	Series Code	Phase Soil Notes
		- 5	<b>.</b>						deep & wet soil consistency			'	, ,	,,,			
									of pudding hole collapsing as digging tilled forest								
									circular collapse scars (	open Sb forest Ledu gro,						Cryosol,	
64 EGL214				0	0	Р	Medium	1	egetated) in site	Cladina, Cladonia dominant		0	100	Z	CRYO	R.HG	
									deep & wet soil consistency	1							
									of pudding hole collapsing as digging tilled forest								
64 EGL214				0	0	P	Medium	1	circular collapse scars ( egetated) in site	open Sb forest Ledu gro, Cladina. Cladonia dominant		0	100	7	CRYO	Cryosol, R.HG	
OT EGEETT						•	Modium	,	,				100		OTTO		
									deep & wet soil consistency of pudding hole collapsing								
									as digging tilled forest circular collapse scars (	open Sb forest Ledu gro.						Cryosol,	
64 EGL214				0	0	Р	Medium	1	egetated) in site	Cladina, Cladonia dominant		0	100	Z	CRYO	R.HG	
									No rocks at surface some	Open fir forest. Abies las, Betugra, Clad ste.							
07 50105				0	0			,	channel surface flow, but egetation relati ely intact	Nephroma, Ledu gro,	mTromm elen	1			DDUN DVD	0.00	high amount of gra el & mica in profile
67 EGL35				0	U			- 1	-	Cladonia, Poly tri Open fir forest. Abies las,	eien	1			BRUN-DYB-	J U.DB	in profile
									No rocks at surface some channel surface flow, but	Betugra, Clad ste, Nephroma, Ledu gro,	mTromm						high amount of gra el & mica
67 EGL35				0	0			1	egetation relati ely intact	Cladonia, Poly tri	elen	1			BRUN-DYB-	O.DB	in profile
										Abies las, Vacc oli, Vacc it, Ledu gro, Nephroma, Empi							likely O.GL/E.DB both in
68 EGL34				0	0		Low	1	M likely o er D or R	nig Abies las, Vacc oli, Vacc it,	nTashe	11			LUV-GL-O		polygons
										Ledu gro, Nephroma, Empi							likely O.GL/E.DB both in
68 EGL34				0	0		Low		M likely o er D or R	nig Abies las, Vacc oli, Vacc it,	nTashe	11			LUV-GL-O		polygons
68 EGL34				0	0		Low	,	M likely o er D or R	Ledu gro, Nephroma, Empi nig	nTashe	4			LUV-GL-O		likely O.GL/E.DB both in
00 EGL34				U	0		LOW	1	Wilkely 0 el D 0l K	Abies las, Vacc oli, Vacc it,	III asile	<u> </u>			LUV-GL-O		polygons
68 EGL34				0	0		Low	1	M likely o er D or R	Ledu gro, Nephroma, Empi nig	nTashe	1			LUV-GL-O		likely O.GL/E.DB both in polygons
69 EGL32				0	0	Р	Medium	,	.,	Open Betu gla shrubland		0			BRUN-DYB-		may be Lu isols in more stable areas
						<u> </u>				1 0							may be Lu isols in more
69 EGL32				0	0	Р	Medium			Open Betu gla shrubland		0			BRUN-DYB-	E E.DB	stable areas may be Lu isols in more
69 EGL32				0	0	Р	Medium	1		Open Betu gla shrubland		0			BRUN-DYB-	E E.DB	stable areas
69 EGL32				0	0	Р	Medium	1		Open Betu gla shrubland		0			BRUN-DYB-	E E.DB	may be Lu isols in more stable areas
69 EGL32				0	0	Р	Medium	/		Open Betu gla shrubland		0			BRUN-DYB-	F F DB	may be Lu isols in more stable areas
					<u>~</u>	•		•		- 1 giw oili wolullu		<u>~</u>					
									Historic + shallow recent	Aspen fir + Sw. In understory	,						cannot dig deeper than 40 cm due to high CF Some
70 EGL31				200	0	U	High	/	slides exposed mineral soil ~ 5 x 3 m	Juni com, Ledu gro, Vacc it, Arct u a, Vacc uli		0			REGOO	O.R	exposed stones/boulders on site Gra el in matrix
10 20201				200			9	,	22. 0.7.0.11						11200 0		
									Historic + shallow recent	Aspen fir + Sw. In understory	,						cannot dig deeper than 40 cm due to high CF Some
70 EGL31				200	0	U	High	1	slides exposed mineral soil ~ 5 x 3 m	Juni com, Ledu gro, Vacc it, Arct u a. Vacc uli		0			REGOO	OR	exposed stones/boulders on site Gra el in matrix
70 LGLJ1				200	<u> </u>	U	iligii	1		Mature old fir/white spruce		<u> </u>			NLGOO	<u> </u>	bare soil under trees
71 EGL30				200	0	Р	Medium	1	Large boulders protruding at surface	Geoc li , Hylo spl, Linn bor, Vacc it		0			BRUN-DYB-	O.DB	downslope only tonguing horizons
				•						Mature old fir/white spruce Geoc li , Hylo spl, Linn bor,					-		bare soil under trees downslope only tonguing
71 EGL30				200	0	Р	Medium	1	at surface	Vacc it		0			BRUN-DYB-	O.DB	horizons
									Large boulders protruding	Mature old fir/white spruce Geoc li , Hylo spl, Linn bor,							bare soil under trees downslope only tonguing
71 EGL30				200	0	Р	Medium	1	at surface	Vacc it  Mature old fir/white spruce		0			BRUN-DYB-	O O.DB	horizons bare soil under trees
										Geoc li , Hylo spl, Linn bor,							downslope only tonguing
71 EGL30				200	0	P	Medium	1	at surface	Vacc it		0			BRUN-DYB-0	O.DB	horizons

Organia												Root	Root Restrictin			
Organic Soil	Nutrient Moisture Hun	nus	Depth to	Depth to			Ecosite/	'S			QC	Restricting				
SiteID SiteNo Surface Organic Drainage	Regime Regime For	rm Drainage	Bedrock	Water	TSM	EP	ite Serie	es Site Note	Vegetation Note	QC By		Layer Depth	Туре	Soil Code Code	Phase	e Soil Notes
72 EGR81			0	0	Р	Medium	1	subsurface seepage abo e ice	open forst lichen dominant	nTashe	1	30	Z	CRYO-SC-HE	р	phase modifiers pt if Brunisols in area
			-					subsurface seepage abo e	'							phase modifiers pt if
72 EGR81			0	0	Р	Medium	1	ice subsurface seepage abo e	open forst lichen dominant	nTashe	1	30	Z	CRYO-SC-HE	р	Brunisols in area phase modifiers pt if
72 EGR81			0	0	Р	Medium	1	ice	open forst lichen dominant	nTashe	1	30	Z	CRYO-SC-HE	р	Brunisols in area
72 EGR81			0	0	Р	Medium	1	subsurface seepage abo e ice	open forst lichen dominant	nTashe	1	30	z	CRYO-SC-HE	р	phase modifiers pt if Brunisols in area
72 Editor					<u> </u>	Wodiam		matrix FSL, . poorly sorted			· ·			OKTO GOTILE		
75 EGL9			0	0	Р	Low	1	few poorly sorted areas (MS cs)			0		N	BRUN-DYB-O		no auger, can't check for ice O.EB or O.DYB
70 2020					<u> </u>	2011		matrix FSL, . poorly sorted	,					DIOIT DID O		
75 EGL9			0	0	Р	Low	1	few poorly sorted areas (MS cs)			0		N	BRUN-DYB-O		no auger, can't check for ice O.EB or O.DYB
73 EGES				0		LOW		matrix FSL, . poorly sorted	1				- 11	DIOI4-D I D-O		
75 EGL9			0	0	Р	Low	,	few poorly sorted areas (MS cs)			0		N	BRUN-DYB-O		no auger, can't check for ice O.EB or O.DYB
73 EGE9			0	0		LOW							IN	BROW-DIB-O		O.EB GI O.BTB
								Poorly sorted, massi e diamict; afs matrix,								
								occationally areas that are								
								a bit more sorted (more mosand). Clasta area A SA,	:							
								minor SR. Mostly granule to								
								pebble, only ~ 15 Y., ablation till or poss. debris								
80 EGL10			0	0	S	Low	1	flow (btw alley + glacier).			0	42	Z	CRYO		
								Decayly conted massis								
								Poorly sorted, massi e diamict; afs matrix,								
								occationally areas that are								
								a bit more sorted (more mosand). Clasta area A SA,								
								minor SR. Mostly granule to	)							
								pebble, only ~ 15 Y., ablation till or poss. debris								
80 EGL10			0	0	S	Low	1	flow (btw alley + glacier).			0	42	Z	CRYO		
								Poorly sorted, massi e								
								diamict; afs matrix,								
								occationally areas that are a bit more sorted (more mo	:							
								sand). Clasta area A SA,								
								minor SR. Mostly granule to pebble, only ~ 15 Y.,	)							
								ablation till or poss. debris								
80 EGL10			0	0	S	Low	1	flow (btw alley + glacier).			0	42	Z	CRYO		
								Poorly sorted, massi e								
								diamict; afs matrix, occationally areas that are								
								a bit more sorted (more mo	:							
								sand). Clasta area A SA, minor SR. Mostly granule to								
								pebble, only ~ 15 Y.,	J							
20 50140			•	^	_	1	,	ablation till or poss. debris				40	-	ODVO		
80 EGL10			0	0	8	Low		flow (btw alley + glacier).  Is there a source for C abo			0	42	Z	CRYO		
20 50144			•	^	_	1	,	e? Not a good till, but a						O.EB or		O ED ** O D\/D
83 EGL11			0	0	S	Low	1	small possibility Is there a source for C abo			0		N	BRUN-DYB-O O.DYB		O.EB or O.DYB
20 50144			_		_			e? Not a good till, but a			_			O.EB or		0.50 0.50
83 EGL11			0	0	S	Low		small possibility Is there a source for C abo			0		N	BRUN-DYB-O O.DYB		O.EB or O.DYB
			_		_			e? Not a good till, but a			_			O.EB or		
83 EGL11			0	0	S	Low	1	small possibility			0		N	BRUN-DYB-O O.DYB		O.EB or O.DYB

Organic									Root I	Root Restrictin		
Organic Soil Nutrient Moisture Humus	Depth to			ED	Ecosite	/S es Site Note	Vegetation Note		Restricting	g Layer	Series	Dhana Cail Natas
SiteID SiteNo Surface Organic Drainage Regime Regime Form Drainage	Bedrock	Water	TSM	EP	ite Serie		3	QC By Complete	Layer Depth	Type	Soil Code Code	Phase Soil Notes
						abundant moss/peat/burnt duff eg + soil samples						
						taken check photos to see if drape or if material						
89 EGR110	0	0	S	Low	1	makes slope TSM=II		0		N	BRUN-MB-O	or O.SB
						abundant moss/peat/burnt						
						duff eg + soil samples taken check photos to						
89 EGR110	0	0	S	Laur	,	see if drape or if material makes slope TSM=II		0		N	BRUN-MB-O	or O.SB
OS EGRITO	0	0	<u> </u>	Low		·		0		IN	BRUN-IVIB-U	01 O.SB
						abundant moss/peat/burnt duff eg + soil samples						
						taken check photos to see if drape or if material						
89 EGR110	0	0	S	Low	1	makes slope TSM=II		0		N	BRUN-MB-O	or O.SB
97 EGR415	0	0	S	Low	1	minor sed in patches on tops Horsetails + trees		0				some buried horizons
						20 cm fs, no clasts o er ~ 1.5 m + z fs with ~ 40% R						
99 EGR416	0	0	S	Low	1	pebble to cobble 20 cm fs, no clasts o er ~		0		N	BRUN-DYB-O	O.DYB or O.EB
						1.5 m + z fs with ~ 40% R						
99 EGR416	0	0	S	Low	/	pebble to cobble 20 cm fs, no clasts o er ~		0		N	BRUN-DYB-O	O.DYB or O.EB
99 EGR416	0	0	S	Low	,	1.5 m + z fs with ~ 40% R pebble to cobble		0		N	BRUN-DYB-O	O.DYB or O.EB
00 EGNATIO				LOW		20 cm fs, no clasts o er ~		<u> </u>			BROIT BTB 0	0.515010.25
99 EGR416	0	0	S	Low	1	1.5 m + z fs with ~ 40% R pebble to cobble		0		N	BRUN-DYB-O	O.DYB or O.EB
						toe slope has a few piping						
						holes whole hillside seems to be satureated + slowly						
108 EGR411	0	0	U	Low	1	slumping/creeping		0				
						toe slope has a few piping						
						holes whole hillside seems to be satureated + slowly						
108 EGR411	0	0	U	Low	1	slumping/creeping		0			<del></del>	
						toe slope has a few piping						
						holes whole hillside seems to be satureated + slowly						
108 EGR411	0	0	U	Low	1	slumping/creeping		0				
						f= fsz, no clasts, interbeddedw buried humic						
111 EGR409	0	0	S	Low	1	to mesic beds 2 5 cm thick		0				
						f= fsz, no clasts,						
111 EGR409	0	0	S	Low	,	interbeddedw buried humic to mesic beds 2 5 cm thick		0				
111 23,1700	<u> </u>	<u> </u>		LOW			<u>.                                      </u>	U			·	
						f= fsz, no clasts, interbeddedw buried humic						
111 EGR409	0	0	S	Low		to mesic beds 2 5 cm thick	(	0				
117 EGL66	0	0		Medium	, ,	Check drill logs for depth		0			BRUN-DYB-O	O.DYB to O.EB Ae thicker upslope than downslope
TIT EGLOO	U	0		wediuit	1	Check drill logs for deptit		U			PVOIN-D I D-O	
117 EGL66	0	0		Medium	/	Check drill logs for depth		0			BRUN-DYB-O	O.DYB to O.EB Ae thicker upslope than downslope
												O.DYB to O.EB Ae thicker
117 EGL66	0	0	l	Medium	1	Check drill logs for depth		0			BRUN-DYB-O	upslope than downslope

	Organic											Root	Root Restrictin		
Organic	Soil Nutrien	t Moisture Humus						Ecosite				QC Restricting	g Layer	Series	T
SiteID SiteNo Surface Or	ganic Drainage Regime	e Regime Form	Drainage	Bedrock	Water	TSM	EP	ite Serie	es Site Note	Vegetation Note	QC By C	Complete Layer Depth	Туре	Soil Code Code	Phase Soil Notes
									all clasts are ery angular, all appear to be granitic, up						
									with depth, granules to med pebbles (slate nearby on						
									trail). dif D than yesterday,						
118 EGR303			Moderate Well	0	0	s	Low	1	as dif R that it's eri ed from. No idea how thick.			0		BRUN	
20.1000			moderate tres									·		5.1.0.1	
									all clasts are ery angular, all appear to be granitic, up						
									with depth, granules to med pebbles (slate nearby on						
									trail). dif D than yesterday,						
118 EGR303			Moderate Well	0	0	S	Low	1	as dif R that it's eri ed from. No idea how thick.			0		BRUN	
									all clasts are ery angular,						
									all appear to be granitic, up						
									with depth, granules to med pebbles (slate nearby on						
									trail). dif D than yesterday,						
118 EGR303			Moderate Well	0	0	S	Low	1	as dif R that it's eri ed from. No idea how thick.			0		BRUN	
						-			all algate are any angular			-		-	
									all clasts are ery angular, all appear to be granitic, up						
									with depth, granules to med pebbles (slate nearby on						
									trail). dif D than yesterday,						
118 EGR303			Moderate Well	0	0	S	Low	1	as dif R that it's eri ed from. No idea how thick.			0		BRUN	
									mixed mostly deciduous						
									forest Is a small rock						
119 EGL310				0	0	Р	Medium	1	oc/frost head ~ 10 m to NW			0	N	BRUN-DYB-O	O.DYB or O.EB
									mixed mostly deciduous forest Is a small rock						
119 EGL310				0	0	Р	Medium	1	oc/frost head ~ 10 m to NW			0	N	BRUN-DYB-O	O.DYB or O.EB
									mixed mostly deciduous						
=				_		_			forest Is a small rock			_			
119 EGL310				0	0	Р	Medium	1	oc/frost head ~ 10 m to NW			0	N	BRUN-DYB-O	O.DYB or O.EB basially same as M, C, D
120 EGL311						S	Medium	1	unsure of spatial extent			0	N	BRUN	parent materials basially same as M, C, D
120 EGL311						S	Medium	1	unsure of spatial extent			0	N	BRUN	parent materials
120 EGL311						S	Medium		unsure of spatial extent			0	N	BRUN	basially same as M, C, D parent materials
123 EGL47				0	0	S	Low	1	road cut,			0	.,		Far and market and
123 EGL47 123 EGL47				0	0	S S	Low	1	road cut, road cut,			0			
									Gully 20m downslope, only						IIC hard to texture due to clast content. Ah too thin to
124 EGL1			Imperfect	0	0	S	Medium	1	1 2m wide.			0			sample.
									Gully 20m downslope, only						IIC hard to texture due to clast content. Ah too thin to
124 EGL1			Imperfect	0	0	S	Medium	1	1 2m wide.			0			sample.
									Gully 20m downslope, only						IIC hard to texture due to clast content. Ah too thin to
124 EGL1			Imperfect	0	0	S	Medium	1	1 2m wide.			0			sample.  IIC hard to texture due to
									Gully 20m downslope, only						clast content. Ah too thin to
124 EGL1			Imperfect	0	0	S	Medium	1	1 2m wide.			0			sample.

	Organic												Root	Root Restrictin		
Organic	Soil		isture Humus		Depth to				Ecosite				Restricting	g Layer	Series	
SiteID SiteNo Surface	Organic Drainage	Regime Re	gime Form	Drainage	Bedrock	Water	TSM	EP	ite Seri	es Site Note Seems to be an R Coned	Vegetation Note	QC By Complete	Layer Depth	Type	Soil Code Code	Phase Soil Notes
										ridge. 2 holes dug						
										encountered numerous phyllite pieces @ 20cm						
										depth, with few intact						
										pieces. SL matrix. Crest						
										(old road) co ered by numerous frost shattered						Rock at 20cm. Soil code
125 EGL313					0	0	S	Low	1	pebbles (square, flat) Seems to be an R Coned		0	20	L	BRUN-DYB-O	O.EB or O.DYB
										ridge. 2 holes dug						
										encountered numerous						
										phyllite pieces @ 20cm depth, with few intact						
										pieces. SL matrix. Crest						
										(old road) co ered by numerous frost shattered						Rock at 20cm. Soil code
125 EGL313					0	0	S	Low	1	pebbles (square, flat)		0	20	L	BRUN-DYB-O	O.EB or O.DYB
										Seems to be an R Coned ridge. 2 holes dug						
										encountered numerous						
										phyllite pieces @ 20cm depth, with few intact						
										pieces. SL matrix. Crest						
										(old road) co ered by numerous frost shattered						Rock at 20cm. Soil code
125 EGL313					0	0	S	Low	1	pebbles (square, flat)		0	20	L	BRUN-DYB-O	O.EB or O.DYB
										+60cm of SL, mottled grey	1					
										and brown, unsure if laminated. Are a few Fs						
										beds therefore crude						
										stratification. Spruce and cottonwood, equi sp,						
										ibuedu, rosaaci, some						
126 EGR400				Imperfect	0	0	S	Low	1	moss. +60cm of SL, mottled grey	1	0		N	REGOGLCU	Soil Code GLCU.R (likely)
										and brown, unsure if						
										laminated. Are a few Fs beds therefore crude						
										stratification. Spruce and						
										cottonwood, equi sp,						
126 EGR400				Imperfect	0	0	S	Low	1	ibuedu, rosaaci, some moss.		0		N	REGOGLCU	Soil Code GLCU.R (likely)
				•						+60cm of SL, mottled grey	1					, , , ,
										and brown, unsure if laminated. Are a few Fs						
										beds therefore crude						
										stratification. Spruce and cottonwood, equi sp,						
										ibuedu, rosaaci, some						
126 EGR400				Imperfect	0	0	S	Low	1	moss. C1 20cm of z fs, appears		0		N	REGOGLCU	Soil Code GLCU.R (likely)
										massi e, no clasts. C2						
										30cm+ of (sm lg) pebble gra el (35 45%) in a m cs						
										granule poorly sorted						
129 EGR401					0	0	c	Law	,	matrix. Clasts are R, mix o	of	0			REGOCU	Soil code CU.R
129 EGK401					0	0	5	Low		C1 20cm of z fs, appears		0			KEGUGU	Suil code Cu.K
										massi e, no clasts. C2						
										30cm+ of (sm lg) pebble gra el (35 45%) in a m cs						
										granule poorly sorted						
129 EGR401					0	0	S	Low	1	matrix. Clasts are R, mix of litho	of .	0			REGOCU	Soil code CU.R
									,			<u> </u>				33 0000 00(

March   Color   Colo		Organic											Root	Root Restrictin		
129 FORDER   1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Soil Nutrie											Restricting	g Layer		
## MODEL OF CONTROL OF	SiteID SiteNo Surface C	Organic Drainage Regin	me Regime Form	Drainage	Bedrock	Water	TSM	EP	ite Seri		Vegetation Note	QC By Comple	e Layer Depth	Туре	Soil Code Code	Phase Soil Notes
Color   Colo										massi e, no clasts. C2						
Consults seed your control seed your your control seed your your control seed your y										gra el (35 45%) in a m cs						
19   19   19   19   19   19   19   19										granule poorly sorted	•					
Table   Part	129 EGR401				0	0	S	Low	1	litho		0			REGOCU	Soil code CU.R
29   10   10   10   10   10   10   10   1										30cm+ of (sm lg) pebble						
133 ECRANO																
Collaboration   Collaboratii	120 ECP401				0	0	9	Low	1	matrix. Clasts are R, mix of	f	0			PECO CII	Soil code CLLP
Separation   Comparison   Com	129 EGR401				U	U	3	LOW	1	iitiio		0			REGOCO	Soil code Co.R
Secretary   Secr										Old placer acti ity. One						
SECOND   Second Control   Second Contr										large roadcut exposes 5m						
133 ECR406   Imported   0   0   8   Medium   0   100 model in place to but   0   100 model i											ıt					
133 EQR405   Imperfect   0   5   Westurn   7   of did wood in slader equility   0   REDO-GLCU   Sall Case GLCUR										beds with some large root						
Inspect conduct opposes from control of the properties of the pr	133 EGR406			Imperfect	0	0	S	Medium	ı /		5	0			REGOGLCU	Soil Code GLCU.R
September   Sept																
of dispress St. inerhedded   133 EGR409																
with first. Contrains 2.5 poat because this contrains 2.5 poat because this contrains 2.5 poat because this contrains 2.5 poat because the contrains 2.5 poat because first of of day own 51, improfess own 51, improfess of day own 51, improfess own 51, improve 51, im																
133 EGR408   Imperfect   0										with f ms. Contains 2 3 pea	t					
Chi places set ity. One lugge roadcut exposes 5m of the type 5t. Inertected of with first. Container 2 is peat between the son literage root is process for Lass (pallow) Lots   133 EGR406										pieces for Lisa (paleo). Lot	S					
Imperfect   0   S   Medium   1   S   Code GLCU   Soll C	133 EGR406			Imperfect	0	0	S	Medium	<u> </u>	of old wood in placer stuff.		0			REGOGLCU	Soil Code GLCU.R
Imperfect   0   S   Medium   1   S   Code GLCU   Soll C																
of ids grey SL, inerhedded with rns. Corchians 23 poets beds with some large root peeds for tase gliebel. Idea to be seed to the seed of t																
Deck with some large root pieces for Its (galader), Lots of old wood in placer stuff.										of dk grey SL, inerbedded						
131 EGR408										beds with some large root						
Recent (Booding/Brin sit Co   For or et et al. Alder, Equi sp. 0   N   REGO-CU	133 FGR406			Imperfect	0	0	S	Medium	1		S	0			REGOGLCU	Soil Code GLCLLR
Tock exposed in road cut.				ппрепсес						Recent flooding/thin silt co		· · · · · · · · · · · · · · · · · · ·				3011 3040 3E33.11
Estimate D is 1 3 m thick   Hole = 60% A phyllite   pieces in a SL matrix. Mica   135 EGR403	134 EGR404						S	Low	/		Alder, Equi sp.	0		N	REGOCU	
P   Low   / in matrix too   0   10   L   REGO-O										Estimate D is 1 3 m thick						
Took exposed in road cut.   Estimate D is 1 3 m thick   Hole = 60% A phyllite   pieces in a St. malrix. Mica   0 10 L REGO-O										pieces in a SL matrix. Mica						
Estimate D is 1 3 m thick Hole = 60% A phyllite pieces in a SL matrix. Mica  135 EGR403  P Low / in matrix too 0 10 L REGOO  rock exposed in road cut. Estimate D is 1 3 m thick Hole = 60% A phyllite pieces in a SL matrix. Mica  136 EGR403  D I L REGOO  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti atte. Trees are as an activate.  Soli code O.R Root restricting layer: rock at	135 EGR403						P	Low				0	10	L	REGOO	
pieces in a SL matrix. Mica  pieces in a SL matrix. Mica  rock exposed in road cut. Estimate D is 1 3 m thick Hole = 60% A phyllite pieces in a SL matrix. Mica  135 EGR403  P Low / in matrix too 0 10 L REGO-O  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees are happy and upright looks  Soil code O.R Root restricting layer: rock at										Estimate D is 1 3 m thick						
rock exposed in road cut. Estimate D is 1 3 m thick Hole = 60% A phyllite pieces in a SL matrix. Mica  135 EGR403  P Low / in matrix too 0 10 L REGOO  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees are happy and upright looks  Soil code O.R Root restricting layer: rock at																
Estimate D is 1 3 m thick   Hole = 60% A phyllite   pieces in a SL matrix. Mica     135 EGR403	135 EGR403						Р	Low	1			0	10	L	REGOO	
pieces in a SL matrix. Mica  135 EGR403  P Low / in matrix too 0 10 L REGOO  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees are happy and upright looks  Solar places in a SL matrix. Mica  0 10 L REGOO  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Soil code O.R Root restricting layer: rock at ere happy and upright looks										Estimate D is 1 3 m thick						
135 EGR403  P Low / in matrix too 0 10 L REGOO  Slump block. Site is just down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees are Apply and upright looks  Soil code O.R Root restricting layer: rock at services are strained and the strained are happy and upright looks										Hole = 60% A phyllite pieces in a SL matrix Mica						
down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees Soil code O.R Root are happy and upright looks	135 EGR403						Р	Low	1			0	10	L	REGOO	
down from R side of scarp, unsure how far it goes. Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees Soil code O.R Root are happy and upright looks										Slump block. Site is just						
Scarp is 2 3m high. Trees are 30 50 years old. Caution when digging toe as could re acti ate. Trees Soil code O.R Root are happy and upright looks										down from R side of scarp,						
Caution when digging toe as could re acti ate. Trees Soil code O.R Root are happy and upright looks restricting layer: rock at										Scarp is 2 3m high. Trees						
as could re acti ate. Trees Soil code O.R Root are happy and upright looks restricting layer: rock at										are 30 50 years old.						
are happy and upright looks  restricting layer: rock at  136 FGR407  0										as could re acti ate. Trees						
, 100 EOIXTOI UI L NEOUT-O SUITE UINIUWII UEDUI. I	136 EGR407				0	0	Р	Low	1	are happy and upright look stable now.	S	0		L	REGOO	restricting layer: rock at some unknown depth.

	Organic												Root	Root Restrictin		
Organic	Soil		Moisture Hum		Depth to				Ecosite		W	Q	C Restrictin	g g Layer	Series	DI 0 11 N 4
SiteID SiteNo Surface	Organic Drainage	Regime	Regime Form	m Drainage	Bedrock	Water	TSM	EP	ite Serie	es Site Note	Vegetation Note	QC By Com	plete Layer Dep	th Type	Soil Code Code	Phase Soil Notes
										Slump block. Site is just down from R side of scarp,						
										unsure how far it goes. Scarp is 2 3m high. Trees						
										are 30 50 years old.						
										Caution when digging toe as could re acti ate. Trees						Soil code O.R Root
136 EGR407					0	0	Р	Low	,	are happy and upright look stable now.	S	C	1		REGOO	restricting layer: rock at some unknown depth.
139 EGR413					0	0	S	Low	1	2.5m up from ri er base.	TSM=1	C	)	<u> </u>		some unknown deput.
139 EGR413 139 EGR413							S S	Low	1	2.5m up from ri er base. 2.5m up from ri er base.	TSM=1 TSM=1	<u>C</u>				
										1m high shrub birch,						
										scattered spruce, moss. Gentle slope, some mud						
										boils therefore permafrost.  Not C, as no source area o	ır					
										dif material. Small	''					Soil code O.EB Structure
141 EGL21				Moderate We	ell 0	0	S	Low	1	depression below site has scattered A boulders.		C	)		BRUN-EB-O O.EB	and clour due (partially?) to weathering of R
										1m high shrub birch,						
										scattered spruce, moss. Gentle slope, some mud						
										boils therefore permafrost. Not C, as no source area o	ır					
										dif material. Small	'					Soil code O.EB Structure
141 EGL21				Moderate We	ell 0	0	S	Low	1	depression below site has scattered A boulders.		C	)		BRUN-EB-O O.EB	and clour due (partially?) to weathering of R
										1m high shrub birch,						
										scattered spruce, moss. Gentle slope, some mud						
										boils therefore permafrost.  Not C, as no source area o	ar					
										dif material. Small	•					Soil code O.EB Structure
141 EGL21				Moderate We	ell 0	0	S	Low	1	depression below site has scattered A boulders.		C	)		BRUN-EB-O O.EB	and clour due (partially?) to weathering of R
										1m high shrub birch,						
										scattered spruce, moss. Gentle slope, some mud						
										boils therefore permafrost. Not C, as no source area o	or					
										dif material. Small depression below site has						Soil code O.EB Structure and clour due (partially?) to
141 EGL21				Moderate We	·II 0	0	S	Low	1	scattered A boulders.		C	)		BRUN-EB-O O.EB	weathering of R
										1m high shrub birch, scattered spruce, moss.						
										Gentle slope, some mud						
										boils therefore permafrost. Not C, as no source area o	r					
										dif material. Small depression below site has						Soil code O.EB Structure and clour due (partially?) to
141 EGL21				Moderate We	ell 0	0	S	Low	1	scattered A boulders.		C	)		BRUN-EB-O O.EB	weathering of R
										3rd sample is "OS" org. so	ft					wood in underlying till total hole depth ~ 6 ft all sal
144 TPA1									,	want part size + O.M. content		C	) 52	7		agable mix of clay masses + collu ium
ITT II AI										SOMETI			, 32			oona lum

		Orga	nic													Root	Root Restrictin			
SiteID SiteNo	Organic	Soi Organic Drain	il Nutrie	nt Moisture le Regime		Drainage	Depth to Bedrock	Depth t Water			site/S	Site Note	Vegetation Note	OC By	QC Complete	Restricting Layer Depth	g Layer	Soil Cod	Series le Code	Phase Soil Notes
SiteID SiteNo	Surrace	Organic Drain	age Regiii	le Regime	Form	Drainage	Беагоск	water	TOW	EP IIe S				QC By	Complete	Layer Depth	гуре	Soli Cod	le Code	wood in underlying till total
											V	Brd sample is "OS" org. soft vant part size + O.M.	I							hole depth ~ 6 ft all sal agable mix of clay masses +
144 TPA1											/ c	content			0	52	Z			collu ium wood in underlying till total
												Brd sample is "OS" org. soft want part size + O.M.	t							hole depth ~ 6 ft all sal agable mix of clay masses +
144 TPA1												content			0	52	Z			collu ium
																				silt till, low c.f. interbedded w 30 cm gra elly layers all sal
																				eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray,
																				unoxidized samples samples PM3+ PM4 both strangely effer esent, esp
145 TPA3							0	0			,				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
145 TPA5							0	0			1				U	0.5		<del></del>		
																				silt till, low c.f. interbedded w 30 cm gra elly layers all sal eagable ice to 1.3 m may or
																				may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples
																				samples PM3+ PM4 both strangely effer esent, esp
145 TPA3							0	0			1				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
																				silt till, low c.f. interbedded w 30 cm gra elly layers all sal
																				eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples
																				samples PM3+ PM4 both strangely effer esent, esp
145 TPA3							0	0			/				0	0.5	Z			PM3 BM2 = PM1 gra elly bars PM2
																				silt till, low c.f. interbedded w 30 cm gra elly layers all sal
																				eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray,
																				unoxidized samples samples PM3+ PM4 both
145 TPA3							0	0			/				0	0.5	Z			strangely effer esent, esp PM3 BM2 = PM1 gra elly bars PM2
																				All sal eageable underlying material is Cb w slope wash
																				C o erlying pre ious surface soil No e idenc eof
146 TPA4							0	0			1				0	53	Z			carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
																				All sal eageable underlying material is Cb w slope wash
																				C o erlying pre ious surface soil No e idenc eof carbonates in this Cb
146 TPA4							0	0		ı	1				0	53	Z			sample PM1 frozen Cb total depth > 2.5 m

SiteID SiteNo	Organic Surface C	Organic Soil Organic Drainage	Nutrient Regime		Humus Form	Drainage	Depth to Bedrock	Depth to Water	Ecosit EP ite Ser	e/S ies Site Note	Vegetation Note		Root Restricting Layer Depth			eries ode	Phase Soil Notes
146 TPA4		J	J	3		3	0	0	1		<b>J</b>	0	53	Z			All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
146 TPA4							0	0	I			0	53	Z			All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
146 TPA4							0	0	1			0	53	Z			All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
146 TPA4							0	0	1			0	53	Z			All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
147 EGR451			Poor	SubMesic		Well	-	-	1	by road		0			BRUN-DYB-O		
147 EGR451 147 EGR451			Poor Poor	SubMesic SubMesic		Well Well				by road by road		0			BRUN-DYB-O BRUN-DYB-O		
										by IOau	fen sedge on periphery horsetail in centre surrounded by bog water at		00		R	lego	likely lenses of silt not isible
148 EGR450		peraquic	Poor	SubhyDric		Very Poor					surface all egetated fen sedge on periphery horsetail in centre surrounded by bog water at	0	20			ego	due to high water table
148 EGR450		peraquic	Poor	SubhyDric		Very Poor			1		surface all egetated	0	20			Bleysol	due to high water table
148 EGR450		peraguic	Poor	SubhyDric		Very Poor			1		fen sedge on periphery horsetail in centre surrounded by bog water at surface all egetated	0	20			lego Bleysol	likely lenses of silt not isible due to high water table
-				•		•					-					•	

O'' ID	6% N		D 41 04 4 D 4	15 1 2 (2)			E CF Type		C Frag	DATING					15 15 15	
SiteID		ProfileID Horizon	DpthStart Dpt	hEnd Surf.Stone (		texture	RATING		RATING	RATING	Salvage TI	Seepage DPe	rmafros Dep	th to VRc	oot Resti Root Res	
1	4 EGL63	2 LFH	/	0 <0.01%	0	Cil	NA	NA	G	O	10			0	0	Fining upward sequence broken horizons from soil creep
2	4 EGL63	3 Ahe	0	5 <0.01%	30 G	SiL				F	12			0	0	Fining upward sequence broken horizons from soil creep
3	4 EGL63	7 Bm	5	9 < 0.01%	50 G	SL		G	P	P				0	0	Fining upward sequence broken horizons from soil creep
4	4 EGL63	9 BC	9	32 < 0.01%	50 G	LS		F	Р	P				0	0	Fining upward sequence broken horizons from soil creep
5	4 EGL63	11 C	32	0 <0.01%	65 G	LS		F	U	U				0	0	Fining upward sequence broken horizons from soil creep
6	5 EGL216	4 LFH	6	0	0		NA	NA	G	0	6			0	20	likely mix of rigosols and thin brunisols on site. Silty Sand
7	5 EGL216	5 Bm	0	0	50 S		U	NA	NA	U				0	20	likely mix of rigosols and thin brunisols on site. Silty Sand
8	5 EGL216	6 C	0	0	70 B		U	NA	NA	U				0	20	likely mix of rigosols and thin brunisols on site. Silty Sand
																seepage flowing through pit Dissected landscape start of gentle
9	6 EGR94	8 LFH	7	0 0.1 - 3%			NA	NA	NA	0	7	13		13		drainage to creek
																seepage flowing through pit Dissected landscape start of gentle
10	6 EGR94	10 C	0	59 0.1 - 3%	45 G	SCL		G	F	F	66	13		13		drainage to creek
11	7 EGR93	12 LFH	4	0 15 - 50%	0		NA	NA	G	0	4			0	30 L	o er half the profile is rock no alignment
12	7 EGR93	13 Ah	0	2 15 - 50%	55 S		U	NA	NA	U	_			0	30 L	o er half the profile is rock no alignment
13	7 EGR93	14 Bm	2	25 15 - 50%	55 B		U	NA	NA	U				0	30 L	o er half the profile is rock no alignment
																phase: pt Lenses of silt + sand Do not appear as layers Bands of
14	8 EGR92	15 Of	1.7	0 < 0.01%	0		NA	NA	G	0	1.7	22	60	0	60 Z	silt + sand found in Of layer Some flat pans rocks in profile
																phase: pt Lenses of silt + sand Do not appear as layers Bands of
16	8 EGR92	17 Cgz	60	61 <0.01%	0	SCL	NA	G	G	G		22	60	0	60 Z	silt + sand found in Of layer Some flat pans rocks in profile
10	0 20102	17 092	00	01 10.0170	O .	002	1471	J	O	Ŭ.			00	Ū	00 2	one sound today in or layer come hat pano rooks in prome
																phase: pt Lenses of silt + sand Do not appear as layers Bands of
15	8 EGR92	16 Cg	0	60 <0.01%	15 G	CL		E	G	G	61.7	22	60	0	60 Z	silt + sand found in Of layer Some flat pans rocks in profile
17	10 EGL8	18 LFH	10	0 0.01 - 0.1%	0	OL	NA	NA	G	0	10	22	00	0	00 2	likely R.G + GL.R in polygon + GL.OB Ah too thin to sample
18	10 EGL8	19 Ah	0	4 0.01 - 0.1%	U	SiCI	NA	G	G	0	10			0		likely R.G + GL.R in polygon + GL.OB Ah too thin to sample
19			4		0	SiCL SCL	NA	G	G	G	14			0		
	10 EGL8	20 Bg		14 0.01 - 0.1%	0			G		G	F.4			0		likely R.G + GL.R in polygon + GL.OB Ah too thin to sample
20	10 EGL8	21 BCg	14	41 0.01 - 0.1%	· ·	SCL	NA	G	G	G	51			0		likely R.G + GL.R in polygon + GL.OB Ah too thin to sample
21	11 EGL6	22 C	0	0	75 S	5	U	F	U	U				U		Some depressions w water but o erall dry site
																phase: pt likely roots restricted by ice some tilted trees, ery
	40 501 44	00.01		0 00101	•							4.0	400			stunted, cold soil likely Cryosol at site check drill logs for
22	12 EGL41	23 Of	25	0 <0.01%	0		NA	NA	G	O	25	19	100	0	100 Z	permafrost
																phase: pt likely roots restricted by ice some tilted trees, ery
								_	_							stunted, cold soil likely Cryosol at site check drill logs for
23	12 EGL41	24 Cg	0	16 <0.01%	25 CG	SCL		G	G	G		19	100	0	100 Z	permafrost
																phase: pt likely roots restricted by ice some tilted trees, ery
																stunted, cold soil likely Cryosol at site check drill logs for
24	12 EGL41	25 Cg	16	50 < 0.01%	25 CG	SCL		G	G	G	75	19	100	0	100 Z	permafrost
																C too coarse to dig cannot cho el or auger Flat lying rocks Mine
25	13 EGL200	26 LFH	7	0 <0.01%	0		NA	NA	G	0	7			0		material
																C too coarse to dig cannot cho el or auger Flat lying rocks Mine
26	13 EGL200	27 Ahe	0	5 < 0.01%	20 G			NA	NA	G	12			0		material
																C too coarse to dig cannot cho el or auger Flat lying rocks Mine
27	13 EGL200	28 Bm	5	29 < 0.01%	0 C		G	NA	G	G				0		material
			-											-		C too coarse to dig cannot cho el or auger Flat lying rocks Mine
28	13 EGL200	29 BC	29	51 <0.01%	0 C		G	NA	G	G	76			0		material
	.0 _000	20 20		0.0.0.70			•		•					•		C too coarse to dig cannot cho el or auger Flat lying rocks Mine
29	13 EGL200	30 C	0	0 <0.01%	45 S		U	NA	NA	U				0		material
20	TO LOLZOO	00 0		0 10.0170	40 0			147 (	147 (							discontinuous Ah <2cm. Strongly cryoturbated layer of. Phase
30	14 EGR96	31 Of	20	0 <0.01%	0		NA	NA	G	0	20	10	30	0	30 Z	modifier = pt
30	14 LONSO	31 01	20	0 <0.0170	U		INA	INA	J	O	20	10	30	U	30 Z	discontinuous Ah <2cm. Strongly cryoturbated layer of. Phase
31	14 EGR96	33 Cg	0	30 <0.01%	15 G	SiL		Е	G	_	50	10	30	0	30 Z	modifier = pt
31	14 EGR90	ss cg	U	30 <0.01%	15 G	SIL		г	G	F	50	10	30	U	30 Z	•
00	45 50140	05.1511	7	0.45 500/	0		N.1.A	NIA	0		_			•		Augered holes BC structure indicati e of former ice contact causing
32	15 EGL16	35 LFH	7	0 15 - 50%	0		NA	NA	G	O	/			0		dessication resulting in structure
	4= =01.40	40.41		- 4		0.11		_	_							Augered holes BC structure indicati e of former ice contact causing
33	15 EGL16	40 Ah	0	7 15 - 50%	50 B	SiL	U	F	Р	U				0		dessication resulting in structure
																Augered holes BC structure indicati e of former ice contact causing
34	15 EGL16	41 Bm	10	30 15 - 50%	50 B	SiL	U	F	Р	U				0		dessication resulting in structure
																Augered holes BC structure indicati e of former ice contact causing
35	15 EGL16	42 BC	30	60 15 - 50%	50 B	L	U	G	Р	U				0		dessication resulting in structure
36	16 EGR91	34 Of	12	0	0		NA	NA	G	0	12			0		
37	16 EGR91	36 C1	0	20	0	SiL	NA	F	G	F				0		
38	16 EGR91	37 Of2	20	40	0		NA	NA	G	0				0		
39	16 EGR91	38 C2	40	50	0	LS	NA	F	G	F				0		
40	16 EGR91	39 C3	50	60	0	SiL	NA	F	G	F	72			0		
41	19 EGL15	43 LFH	3	0 3 - 15%	20 G			NA	NA	0	3			0		Moist area, some parts of polygon e idence of surface drainage
			-				_				-					,

	SiteID	SiteNo	ProfileID Horizon	DpthStart Dpth	End Surf.Stone	COARSE FRAGS	TEXTURI texture	E CF Type RATING	Texture RATING		RATING	Salvage Ti	Seepage C Permafros Depth to V Root Resti Root Resti S	Soil Notes
											_	_		
42		19 EGL15	44 Ah	0	7 3 - 15%	20 G	SL		G	F	F	7	0	Moist area, some parts of polygon e idence of surface drainage
43		19 EGL15	45 Bm	7	61 3 - 15%	20 C	SL	Р	G	F	Р		0	Moist area, some parts of polygon e idence of surface drainage
44		19 EGL15	46 Bgj	61	65 3 - 15%	45 S	SL	U	G	Р	U		0	Moist area, some parts of polygon e idence of surface drainage
45		19 EGL15	47 Cg	0	0 3 - 15%	0		NA	NA	G				Moist area, some parts of polygon e idence of surface drainage
46	:	20 EGL17	48 LFH	5	0 3 - 15%	0		NA	NA	G	0	5	0	/erify texture's pH to determine if Brunisol s. Lu isol Heap leach option 3 /erify texture's pH to determine if Brunisol s. Lu isol Heap leach
47		20 EGL17	49 Ahe	0	6 3 - 15%	25 C	SiL	Р	F	G	Р			option 3
48		20 EGL17	50 Bm	6	13 3 - 15%	30 C	SL	Р	G	F	Р			/erify texture's pH to determine if Brunisol s. Lu isol Heap leach option 3
49		21 EGL39	51 LFH	7	0 0.1 - 3%	0		NA	NA	G	0	7		Rocks and unstable slope angle limit soil depth. ariety of fragments gra el to cobbles
								INA			O	′ '	,	Rocks and unstable slope angle limit soil depth. ariety of fragments
50		21 EGL39	52 Ae	0	7 0.1 - 3%	15 G	SiCL		G	G	G	14		gra el to cobbles Rocks and unstable slope angle limit soil depth. ariety of fragments
51	:	21 EGL39	53 Bm	7	33 0.1 - 3%	25 CG	SiCL		G	G	G	40	0	gra el to cobbles  Rocks and unstable slope angle limit soil depth. ariety of fragments
52		21 EGL39	54 Bt	33	37 0.1 - 3%	40 C	SiC	U	F	F	U		0	gra el to cobbles
53		21 EGL39	55 BC	37	57 0.1 - 3%	40 C	SiCL	U	G	F	U			Rocks and unstable slope angle limit soil depth. ariety of fragments gra el to cobbles
54		22 EGL38	56 LFH	6	0 <0.01%	0		NA	NA	G	0	6		nica like shads of glass difficult to texture Almost a lu isoil
55		22 EGL38	57 Ahe	0	4 < 0.01%	15 G	SiCL SiCL		G G	G	G	10		mica like shads of glass difficult to texture Almost a lu isoil
56 57		22 EGL38 22 EGL38	58 Bt 59 BC	4 27	27 <0.01% 42 <0.01%	15 G 15 G	SiL		G	G G	G	52		nica like shads of glass difficult to texture Almost a lu isoil nica like shads of glass difficult to texture Almost a lu isoil
58		22 EGL38	60 C	42	63 < 0.01%	25 C	SiL	Р	F	G	r P	52		nica like shads of glass difficult to texture Almost a lu isoil
59	:	23 EGL37	61 LFH	8	0 0.01 - 0.1%	0		NA	NA	G	0	8	0	Soil shows pre ious ice contact by granulated structure at depth in C. Charcoal in profile
60		23 EGL37	62 Ahe	0	6 0.01 - 0.1%	30 G	SiL		F	G	F	14		Soil shows pre ious ice contact by granulated structure at depth in C. Charcoal in profile
61		23 EGL37	63 Bm	6	20 0.01 - 0.1%		SiL	P	F	G	P		\$	Goll shows pre ious ice contact by granulated structure at depth in C. Charcoal in profile
62		23 EGL37	64 BC	20	50 0.01 - 0.1%	30 C	SiCL	Р	G	G	Р			Soil shows pre ious ice contact by granulated structure at depth in C. Charcoal in profile
63		23 EGL37	65 C	50	55 0.01 - 0.1%	45 C	SiCL	U	G	F				Soil shows pre lous ice contact by granulated structure at depth in C. Charcoal in profile
64		24 EGL36	66 LFH	4	0 <0.01%	0	SIGE	NA	NA	G	0	4		some gra el is SA to SR
65		24 EGL36	67 Ah	0	5 <0.01%	25 G	SiL		F	G	G	9		some gra el is SA to SR
66		24 EGL36	68 Bm	5	35 < 0.01%	30 G	SiL		F	G	F			some gra el is SA to SR
67		24 EGL36	69 C	35	70 <0.01%	25 G	SiCL		G	G	G	74		some gra el is SA to SR
68 69		25 EGL207 25 EGL207	70 LFH 71 Aej	3 0	0 15 - 50% 2 15 - 50%	0	SiL	NA NA	NA F	G G	0	3		veak Ae may some E.DB in more stable areas veak Ae may some E.DB in more stable areas
70		25 EGL207	71 Aej 72 C	2	20 15 - 50%	0	SiL	NA	F	G	U			veak Ae may some E.DB in more stable areas
71	:	26 EGL18	73 LFH	6	0 0.1 - 3%	0		NA	NA	G	0	6	0 s N	Not elu iated as not thick enough Broken horizon Platey structure rom historic ice contact *weathered bedrock produces linear stration of mottle colours  Not elu iated as not thick enough Broken horizon Platey structure rom historic ice contact *weathered bedrock produces linear
72		26 EGL18	74 Ahe	0	4 0.1 - 3%	20 C	L	Р	G	G	Р			stration of mottle colours  Not elu iated as not thick enough Broken horizon Platey structure
73	:	26 EGL18	75 Bm	4	19 0.1 - 3%	30 C	L	Р	G	G	Р		0 s	rom historic ice contact *weathered bedrock produces linear stration of mottle colours  Not elu iated as not thick enough Broken horizon Platey structure
74		26 EGL18	76 Bm	19	59 0.1 - 3%	30 C	L	Р	G	G	Р		0 s	rom historic ice contact *weathered bedrock produces linear stration of mottle colours  Not elu iated as not thick enough Broken horizon Platey structure rom historic ice contact *weathered bedrock produces linear
75		26 EGL18	77 C	59	0.1 - 3%	50		NA	NA	NA			0 \$	stration of mottle colours
76		27 EGL33	78 LFH	3	0	0		NA	NA	G	0	3	0 s	Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el refusal large stone. Some SA gra el at depth
77		27 EGL33	79 Bm	0	8	15 G	SiL		F	G	F		0 s	Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el refusal large stone. Some SA gra el at depth
78		27 EGL33	80 BC	8	30	15 G	SiL		F	G	F	33		Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el refusal large stone. Some SA gra el at depth

							E CF Type								
SiteI		ProfileID Horizon					RATING			RATING	Salvage TI	Seepage C Permafr	•	Resti Root Res	Thin dicontinuous Ahe (<2cm). 33 Auger/Sho el refusal large
79	27 EGL33	81 C	30	0	45 C	SiCL	U	G	F	U			0		stone. Some SA gra el at depth
80	28 EGL19	82 LFH	3	0 0.01 - 0.1%	0	Cil	NA	NA F	G G	0	3	37 37	0		
81 82	28 EGL19 28 EGL19	83 AB 84 Bm	0 7	7 0.01 - 0.1% 29 0.01 - 0.1%	15 G 15 C	SiL SiL	G	F	G	G	32	37	0		
83	28 EGL19	85 Bgj	29	37 0.01 - 0.1%	20 C	SiL	P	F	G	P	52	37	0		
84	28 EGL19	86 Cgj	37	42 0.01 - 0.1%	50 S		U	NA	NA	Ū		37	0		
85	29 EGL20	87 LFH	5	0 3 - 15%	0		NA	NA	G	0	5		0		C.F. content, but nice fine matrix for reclamation
86	29 EGL20	88 Ah	0	9 3 - 15%	15 G	L		G	G	G	14		0		C.F. content, but nice fine matrix for reclamation
87	29 EGL20	89 Bm	9	25 3 - 15%	15 S	L	F	G	G	F			0		C.F. content, but nice fine matrix for reclamation
88 89	29 EGL20 29 EGL20	90 Bm 91 C	25 55	55 3 - 15% 70 3 - 15%	30 S 40 B	SiL	P U	F G	G	<del> </del>	69		0		C.F. content, but nice fine matrix for reclamation C.F. content, but nice fine matrix for reclamation
09	29 EGL20	91 C	55	70 3 - 15%	40 Б	L	U	G		U			U		High coarse fragment makes unsuitable reclamation material. Well de eloped fines C? Cannot dig or auger Organic enrichment old
90	30 EGL201	92 LFH	2	0 15 - 50%	0		NA	NA	G	0	2		0	25 L	soil.  High coarse fragment makes unsuitable reclamation material. Well de eloped fines C? Cannot dig or auger Organic enrichment old
91	30 EGL201	93 Ah	0	5 15 - 50%	40 S	SiL	U	F	F	U			0	25 L	soil.
															High coarse fragment makes unsuitable reclamation material. Well
92	30 EGL201	94 Bm	5	25 15 - 50%	60 S	SiL	U	F	Р	U			0	25 L	de eloped fines C? Cannot dig or auger Organic enrichment old soil.  High coarse fragment makes unsuitable reclamation material. Well
															de eloped fines C? Cannot dig or auger Organic enrichment old
93	30 EGL201	95 Bm	25	40 15 - 50%	0		NA	NA	G	G			0	25 L	soil.
94	31 EGL5	96 LFH	4	0 15 - 50%	0		NA	NA	G	0	4		0	100 X	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.  So many boulder, stones near surface, went to cut created by road
95	31 EGL5	97 Ah	0	8 15 - 50%	40 S	SiL	U	F	F	U			0	100 X	to describe soils. Topsoil from site.
96	31 EGL5	98 Bm	8	25 15 - 50%	45 C	SiL	U	F	F	U			0	100 X	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
97	31 EGL5	99 BC	25	60 15 - 50%	45 C	SiL	U	F	F	U			0	100 X	So many boulder, stones near surface, went to cut created by road to describe soils. Topsoil from site.
O1	OT EGEO	00 00	20	00 10 00 70	40 0	OIL		<u>'</u>	'					100 %	BC some colour imparted based on what is isible from disturbed
98	32 EGL202	100 LFH	4	0 3 - 15%	0		NA	NA	G	0	4		0	X	areas
															BC some colour imparted based on what is isible from disturbed
99	32 EGL202	101 Ah	0	3 3 - 15%	20 G	SiL		F	G	G	7		0	X	areas
100	32 EGL202	102 Bm	3	26 3 - 15%	30 C	SiL	Р	F	G	P			0	X	BC some colour imparted based on what is isible from disturbed areas
100	02 LOL202	102 5111	Ü	20 0 1070	00 0	OIL	•	•	J				· ·	A	BC some colour imparted based on what is isible from disturbed
101	32 EGL202	103 BC	26	45 3 - 15%	45 C	SiL	U	F	F	U			0	X	areas
103	33 EGL203	105 C	0	0	0		NA	NA	G				0		Compacted all subsoil & topsoil pushed (unidirectional but mixed)
102	33 EGL203	104 C	0	100	50 C	SiL	U	_	Р	l.,			0		Compacted all subsoil & topsoil pushed (unidirectional but mixed)
102	33 EGL203	104 C	0	100	50 C	SIL	U	Г	Г	U			U		Compacted all subsoil & topsoil pushed (unidirectional but mixed)
104	34 EGL58	106 LFH	0	0 3 - 15%	0		NA	NA	G	0	0	10	0	W	past e idence of permafrost no longer present boulders at surface
105	34 EGL58	107 Ahg	0	2 3 - 15%	20 G	SCL		G	G	G	2	10	0	W	past e idence of permafrost no longer present boulders at surface
106	34 EGL58	108 Bg	2	40 3 - 15%	30 G	SCL		G	G	G	40	10	0	W	past e idence of permafrost no longer present boulders at surface
107	34 EGL58	109 Cg	40	60 3 - 15%	40 C	LS	U	F	Р	U		10	0	W	past e idence of permafrost no longer present boulders at surface
108	35 EGL52	110 LFH	4	0 3 - 15%	0		NA	NA	G	0	4		0		gentle then steepens to bulch/gully mottles from bedrock weathering not increased WiT frost boils exposed soil trends downward
109	35 EGL52	111 Ah	0	3 3 - 15%	20 G	L		G	G	G	7		0		gentle then steepens to bulch/gully mottles from bedrock weathering not increased WiT frost boils exposed soil trends downward
110	35 EGL52	112 Bm	3	49 3 - 15%	20 C	L	Р	G	G	Р			0		gentle then steepens to bulch/gully mottles from bedrock weathering not increased WiT frost boils exposed soil trends downward
111	35 EGL52	113 BC	49	82 3 - 15%	25 C	L	Р	G	G	P			0		gentle then steepens to bulch/gully mottles from bedrock weathering not increased WiT frost boils exposed soil trends downward
							·								gentle then steepens to bulch/gully mottles from bedrock weathering not increased WiT frost boils exposed soil trends
112	35 EGL52	114 C	82	100 3 - 15%	30 S	lr.	Р	G	G	I <sub>F</sub>			0		downward

March   Marc				Г		COARSE FRAGS	TEXTURE									
141	Si		ProfileID Horizon	DpthStart D		CF% CF Typ	texture	RATING	RATING	RATING	RATING	Salvage Ti	Seepage D Per	mafros Depth to V Ro	ot Resti Root R	
119 97 C3 3 117 PC 13 4 73 -195	113	36 EGL53	115 LFH	30	0 3 - 15%	0		NA	NA	G	0	30		0	45 X	Ah thin & discontinuous ~ 3 cm
119	114	36 EGL53	116 Bm	0	15 3 - 15%	25 S	L	Р	G	G	F			0	45 X	Ah thin & discontinuous ~ 3 cm
11   20   20   20   20   20   20   20	115	36 EGL53	117 BC	15	41 3 - 15%	30 B	L	Р	G		F	71		0	45 X	Ah thin & discontinuous ~ 3 cm
March   Marc							lī.	Ü			Ù					
117 S / CGS	110	30 EGE33	110 0	71	43 0 - 1070	40 B	_	Ü	J	<u>'</u>				· · ·	40 X	Mottles from wathering rock only Mix of coarse fragments from pea
116   37   126   127   127   126   127																gra el to boulders in silt loam matrix. Auger/sho el refusal at 50
## SP COLD ## 198	117	37 EGL3	119 LFH	3	0 3 - 15%	0		NA	NA	G	0	3		0		3rd pit attempt due to rocks
18   27   504   12   12   12   12   12   12   12   1																Mottles from wathering rock only Mix of coarse fragments from pea
18   31   EG1																gra el to boulders in silt loam matrix. Auger/sho el refusal at 50
19   ST ECIA   12: Dm	118	37 EGL3	120 Ah	0	7 3 - 15%	30 G	L		G	G	F	7		0		
19																
19 2 EGL3 12 EP																
April	119	37 FGL3	121 Rm	7	20 3 - 15%	30 C	l <sub>1</sub>	Р	G	G	Р			0		
120   37 CSL3   122 DC	110	0, 2020	121 5	,	20 0 1070		-	•	J		ľ			J		
12   37   CG.1   12   DC																
Market form instruction of the property of t	120	27 ECL2	122 BC	20	40 2 450/	20.0	1	D	C	C	Ь			0		
12   15   15   15   15   15   15   15	120	3/ EGL3	122 BC	20	40 3 - 15%	30 C	L	Р	G	G	P			U		
121   37 F.CLS   123 C																
192 38 FGL924 124 194 3 0 3 - 19% 40 0 84							1.		_	_	1			_		
123   38   ELGLOV   125   Ale   0   0   3 - 3 - 5   5   40   G   SIL   F   F   F   7   10   Miln degree of minding in all ord No. The Pattern   126							L			-	U			<u>.</u>		and the control of th
124 30 CGL204 1 28 AB 10 0 23 -15% 40 C L U F F F C 20 1 High degree of mining in soil profile. No 'C' horizon 1 125 30 CGL204 1 27 th						~		NA	NA	G	0	3		~		
128 38 EGL24 127 Bm									F	F	F	13		0		
128   38   ECAL   128   LFH   7	124	38 EGL204	126 AB	10	20 3 - 15%		SiL		F	F	F	23		0		
127   38 ECL4   129 Ah	125	38 EGL204	127 Bm	20	75 3 - 15%	40 C	L	U	G	F	U			0		High degree of mixing in soil profile No 'C' horizon
128 39 ECI.4 120 Bm	126	39 EGL4	128 LFH	7	0 3 - 15%	0		NA	NA	G	0	7		0	X	
198   30   EGLI   131   EG   151   EG   1-15%   EG   E   E   E   E   E   E   E   E	127	39 EGL4	129 Ah	0	4 3 - 15%	30 C	L	Р	G	G	Р			0	X	
139		39 EGL4	130 Bm	4	51 3 - 15%		SL	Р	G	F	Р			0	Х	
130   40 EGL205   132 LPH   3   0.3 - 15%   50   50   50   51   50   50   51   50   50				51				U	G	U	U			0		
131   40   EGL205   134 Ah   0   5 3 - 15%   30 C   SIL   F   G   F   P   8   80   0   1   132   40   EGL205   134 CI   6   50 3 - 15%   60 C   SI   V   F   C   F   P   8   80   0   0   0   0   0   0   0								NA		G	0	3	60	0		
132   40   ECL205   134   C1   5   30   3 - 15%   90   C   SL   P   G   F   P   00   0				~			Sil	10.	F		F	8		0		
133 40 EG1205 135 C2 30 50 3-15% 60 C IS U F U U 60 0  134 41 EG1205 136 CF 137				~				D	G		P			0		
134								•	F		li.			0		
136							LO		NΙΛ		0	2	00	0		v shallow cannot assess C horizon, donth is estimate
135											U	3		0	-	
137				•		_	l.	-			U			•		
137 42 EGLB1 139 LFH 4 0 15-50% 0 NA NA G O 4 District to surface flat lying rocks a shadow And 0 2 15-50% 45 S L U G F U O Signification of the structure of the structure of the structure mostly held posterior of	135	41 EGL60	137 BM	0	6 15 - 50%	65 C	L	U	G	Р	U			U	L	
18																
138   42   EGL81   140   Ahe   0   2   15 - 50%   45   S   L   U   G   F   U   S   A   S   C   C   A   A   S   C   C   C   A   A   S   C   C   C   A   A   A   C   C   C   A   A	137	42 EGL61	139 LFH	4	0 15 - 50%	0		NA	NA	G	0	4		0		
139   42   EGL.61   141   Bm																
139	138	42 EGL61	140 Ahe	0	2 15 - 50%	45 S	L	U	G	F	U			0		
140   42   EGL61   142   C   40   0   15 - 50%   65   S   L   U   G   P   U   0   0																x shallow Ahe 0 2 Too high C.F. to fully assess soil Some soil is
140	139	42 EGL61	141 Bm	2	40 15 - 50%	30 S	L	Р	G	G	F	44		0		just rock to surface flat lying rocks
141   43   EGL88   143   LFH   6   0 3 - 15%   0																x shallow Ahe 02 Too high C.F. to fully assess soil Some soil is
141	140	42 EGL61	142 C	40	0 15 - 50%	65 S	L	U	G	Р	U			0		just rock to surface flat lying rocks
141																lots of deadfall on ground no charcoal in soil may be O.R weak
142   43 EGL68   144 Ah   0   2   3 - 15%   30 C   SiL   P   F   G   P   0   Structure mostly held together by roots   lots of deadfall on ground no charcoal in soil may be O.R weak   143   43 EGL68   145 Bm   2   19 3 - 15%   40 C   SiL   U   F   F   U   0   Structure mostly held together by roots   lots of deadfall on ground no charcoal in soil may be O.R weak   144   43 EGL68   146 C   19   55 3 - 15%   50 C   L   U   G   P   U   0   Structure mostly held together by roots   lots of deadfall on ground no charcoal in soil may be O.R weak   144   43 EGL68   146 C   19   55 3 - 15%   50 C   L   U   G   P   U   0   Structure mostly held together by roots   145   44 EGL206   147 LFH   7   0 15 - 50%   0   NA   NA   G   O   7   0   Structure mostly held together by roots   146   44 EGL206   148 Bm   0   35 15 - 50%   45 S   L   U   G   F   U   0   Structure mostly held together by roots   147   45 EGR206   149 LFH   4   0   15 - 50%   0   NA   NA   G   O   4   0   100 L   Steletal soil   148   45 EGR206   150 Bm   0   45 15 - 50%   0   NA   NA   G   G   49   0   100 L   Steletal soil   148   45 EGR206   150 Bm   0   45 15 - 50%   0   NA   NA   G   G   49   0   100 L   Steletal soil   148   46 EGR07   151 LFH   4   0   0   1 - 3%   20 G   SiCL   G   G   G   G   G   G   G   G   G	141	43 EGL68	143 LFH	6	0 3 - 15%	0		NA	NA	G	0	6		0		
142 43 EGL68 144 Ah 0 2 3 -15% 30 C SIL P F G P  143 43 EGL68 145 Bm 2 19 3 - 15% 40 C SIL U F F F U 0 5 structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of deadfall on ground no charceal in soil may be O.R weak structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots																
143	142	43 FGI 68	144 Ah	0	2 3 - 15%	30 C	Sil	Р	F	G	Р			0		
143 43 EGL68 145 Bm 2 19 3-15% 40 C SiL U F F F U 0 structure mostly held together by roots lots of deadling a pround in soil may be O.R. weak structure mostly held together by roots lots of deadling a pround in soil may be O.R. weak structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and one of heat structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of deadling and be O.R. weak structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held together by roots lots of the structure mostly held of the Structure mostly held self-like proots deadling and together by roots of the structure	1 12	10 20200	111791	J	20 1070	00 0	O.L	•	•	<b>O</b>	•					
144   43 EGL88   146 C   19   55 3 - 15%   50 C   L   U   G   P   U   U   G   P   U   O   Structure mostly held together by roots   Structure mostly held together   Structure mostly held together   Structure mostly held together   Structure mostly held together   Structure mostly	143	43 EGI 68	145 Rm	2	10 3 - 15%	40 C	Sil	11	F	F	hi			0		
144 43 EGL68 146 C 19 55 3 - 15% 50 C L U G P U 0 structure mostly held together by roots  145 44 EGL206 147 LFH 7 0 15 - 50% 0 NA NA G 0 7 0 too many C.F. to sho el C horiz skeletal soil flat lying planar rock  146 44 EGL206 148 Bm 0 35 15 - 50% 45 S L U G F U 0 too many C.F. to sho el C horiz skeletal soil flat lying planar rock  147 45 EGR206 149 LFH 4 0 15 - 50% 0 NA NA G 0 4 0 100 L skeletal soil  148 45 EGR206 150 Bm 0 45 15 - 50% 0 NA NA G G 49 0 100 L skeletal soil  149 46 EGR97 151 LFH 4 0 0.1 - 3% 0 NA NA G G 4 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation  150 46 EGR97 152 Ah 0 6 0.1 - 3% 20 G SICL G G G F D 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation  151 46 EGR97 153 Bg) 6 27 0.1 - 3% 20 C SCL P G G P 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation  152 46 EGR97 155 Cg 58 68 0.1 - 3% 30 C SCL P G G P 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation  153 46 EGR97 155 Cg 58 68 0.1 - 3% 30 C SCL P G G P 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation  154 47 EGR95 156 LFH 6 0 3 - 15% 0 NA NA G O 6 D 60 L Boulders at surface  155 47 EGR95 157 C 0 5 50 3 - 15% 0 NA NA G O 6 L Boulders at surface  156 48 EGR80 159 LFH 3 0 0.1 - 3% 0 NA NA G G G G D Ahe discontinuous + bedrock outcrop upslope ~ 20 m NA NA NA G G G B C D Ahe discontinuous + bedrock outcrop upslope ~ 20 m NA NA NA G G G A Ahe discontinuous + bedrock outcrop upslope ~ 20 m NA NA NA G G G A Ahe discontinuous + bedrock outcrop upslope ~ 20 m	140	43 LOL00	143 BIII	2	13 3 - 1370	1 40 0	OIL	U	•	•				0		
145	111	42 FCI 60	146 C	10	EE 2 1E0/	50 C	l.		0	Ь	L			0		
146	144	43 EGL08	146 C	19	55 3 - 15%	50 C	L	U	G	Р	U			U		structure mostly held together by roots
146	4.45	44 501 000	447   511	7	0.45 500/			NIA	NIA	0		7		•		to a second O.F. to the old O.B. also letted and flat being also as a second
147	145	44 EGL206	147 LFH	1	0 15 - 50%	0		NA	NA	G	O	/		0		too many C.F. to sho el C horiz skeletal soil flat lying planar rock
147																
148							L			•	U					, , , , , , , , , , , , , , , , , , , ,
149				4		~					0	4				
150				0		0					G	49				
151				-		~		NA			0	4				
151	150	46 EGR97	152 Ah	0	6 0.1 - 3%	20 G	SiCL				G	10	43	200 0	65 W	sample of water taken pH 6.3 limited cryoturbation
152 46 EGR97 154 Bg 27 58 0.1 - 3% 30 C SCL P G G P 43 200 0 65 W sample of water taken pH 6.3 limited cryoturbation 153 46 EGR97 155 Cg 58 68 0.1 - 3% 30 G SCL G G G G G G G G G G G G G G G G G G G		46 EGR97	153 Bgj	6	27 0.1 - 3%	20 C	SCL	Р		G	Р					
153		46 EGR97		27	58 0.1 - 3%	30 C		Р	G	G	Р		43	200 0		
154 47 EGR95 156 LFH 6 0 3 - 15% 0 NA NA G O 6 D Boulders at surface  155 47 EGR95 157 C 0 50 3 - 15% 40 C SCL U G F U 0 Boulders at surface  156 48 EGR80 159 LFH 3 0 0.1 - 3% 0 NA NA G O 3 0.1 - 3% 0 NA NA G O 3 0 Ahe discontinuous + bedrock outcrop upslope ~ 20 m NA NA G G G G G D Ahe discontinuous + bedrock outcrop upslope ~ 20 m Ahe discontinuous + bedrock outcrop upslope ~ 20 m Ahe discontinuous + bedrock outcrop upslope ~ 20 m Ahe discontinuous + bedrock outcrop upslope ~ 20 m Ahe discontinuous + bedrock outcrop upslope ~ 20 m Ahe discontinuous + bedrock outcrop upslope ~ 20 m											G					
155 47 EGR95 157 C 0 50 3 - 15% 40 C SCL U G F U 0 60 L Boulders at surface  156 48 EGR80 159 LFH 3 0 0.1 - 3% 0 NA NA G 0 3 0.1 - 3% 0 NA NA G 0 Ahe discontinuous + bedrock outcrop upslope ~ 20 m  157 48 EGR80 160 Ahe 0 3 0.1 - 3% 0 NA NA G G G 6 0 Ahe discontinuous + bedrock outcrop upslope ~ 20 m  158 48 EGR80 161 Bm 3 45 0.1 - 3% 40 C SCL U G F U 0 Ahe discontinuous + bedrock outcrop upslope ~ 20 m								NA			0	6				
156				~			SCL				Ū					
157       48 EGR80       160 Ahe       0       3 0.1 - 3%       0       NA       NA       G       6       0       Ahe discontinuous + bedrock outcrop upslope ~ 20 m         158       48 EGR80       161 Bm       3       45 0.1 - 3%       40 C       SCL       U       G       F       U       0       Ahe discontinuous + bedrock outcrop upslope ~ 20 m							002			-	0	3			30 _	
158 48 EGR80 161 Bm 3 45 0.1 - 3% 40 C SCL U G F U 0 Ahe discontinuous + bedrock outcrop upslope ~ 20 m						-					G	6				
				~		~	SCI				li	0				
100 40 LOLZ? 102 LITI 2 0 700 0   INA INA G O Z 0 0 101 aliable dast size Iway be some Cu.R							JUL				0	2	0			
	108	TO LULZI	IUZ LFП		0 /30%	U		TVA	TVA	J			U	U		anable dast size iviay be suffic ou.IN

					COARSE FRAGS	TEXTURE	E CF Type	Texture	C Frag							
Sitel	D SiteNo	ProfileID Horizon	DpthStart Dpth	End Surf.Stone		texture			RATING	RATING	Salvage TI	Seepage C Per	rmafros Depth to	o V Root	Resti Root Re	esti Soil Notes
160	49 EGL27	163 C	. 0	0 >50%	65 B	S	U	F	U	U		. 0	•	0		ariable clast size May be some Cu.R
									_							Cg is filled in with water from seepage Ah 2 cm but too thin to
161	50 EGL12	164 LFH	14	0 0.1 - 3%	0		NA	NA	G	O	14	45		0	56 W	sample
162	50 EGL12	165 Ahg	0	10 0.1 - 3%	25 CG	SCL		G	G	G		45		0	56 W	Cg is filled in with water from seepage Ah 2 cm but too thin to sample
102	JU LULIZ	105 Alig	0	10 0.1 - 370	25 00	JOCL		U	J	G		43		U	30 VV	Cg is filled in with water from seepage Ah 2 cm but too thin to
163	50 EGL12	166 Bg	10	23 0.1 - 3%	25 CG	SCL		G	G	G	37	45		0	56 W	sample
		3														Cg is filled in with water from seepage Ah 2 cm but too thin to
164	50 EGL12	167 Cg	23	60 0.1 - 3%	25 C	SCL	Р	G	G	Р		45		0	56 W	sample
																Sequence of silts o er gra els likely continues at depth Broken
165	51 EGL215	168 LFH	14	0	0		NA	NA	G	0	14			0		horizons likely influenced by ice in past
166	51 EGL215	169 Bm	0	9	25 FG	SiL	Р	F	G	L	23			0		Sequence of silts o er gra els likely continues at depth Broken horizons likely influenced by ice in past
100	JI LGL213	109 6111	U	9	2516	SIL	Г	ı	G	ľ	23			U		Sequence of silts o er gra els likely continues at depth Broken
167	51 EGL215	170 C	9	31	30 CG	LS		F	F	F	44			0		horizons likely influenced by ice in past
168	52 EGL22	171 LFH	7	0 0.1 - 3%	0		NA	NA	G	0	7			0		flood sequence
169	52 EGL22	172 Cg	0	17 0.1 - 3%	40 G	S SiL		F	Р	Р				0		flood sequence
170	52 EGL22	173 Ahbg	17	23 0.1 - 3%	30 G			F	G	F				0		flood sequence
171	52 EGL22	174 Bgb	23	26 0.1 - 3%	40 CG	LS	U	F	Р	U				0		flood sequence
172	52 EGL22	175 Cg	26	43 0.1 - 3%	40 CG	S	U	F	Р	U				0		flood sequence
173	54 EGL26	176 LFH	17	0 0.1 - 3%	0		NA	NA	G		17		31	0	Z	Bedrock noted near side trail Phyllite highly weathered & fractured
173	J4 LOL20	170 LITI	17	0 0.1 - 370	U		INA	INA	U	O	17		31	U	2	Bedrock noted near side trail Phyllite highly weathered &
174	54 EGL26	177 Bm	0	11 0.1 - 3%	20 G	SiCL		G	G	G			31	0	Z	fractured
																Bedrock noted near side trail Phyllite highly weathered &
175	54 EGL26	178 Cz	11	31 0.1 - 3%	25 G	SCL		G	G	G	48		31	0	Z	fractured
																mid to upper slope difficult to texture as high broken rock
176	56 EGL25	179 LFH	6	0 0.1 - 3%	0		NA	NA	G	0	6			0		fragments May be Lu osols in polygon
177	56 EGL25	180 Ahe	0	2 0.1 - 3%	25 G	SiL		Г	G		0			0		mid to upper slope difficult to texture as high broken rock fragments May be Lu osols in polygon
177	30 EGL23	100 Alle	U	2 0.1 - 3%	25 G	SIL		Г	G	G	0			U		mid to upper slope difficult to texture as high broken rock
178	56 EGL25	181 Bm	2	33 0.1 - 3%	25 C	SCL	Р	G	G	Р				0		fragments May be Lu osols in polygon
	00 10110	.0. 2	_	00 011 070		002	•			ľ						mid to upper slope difficult to texture as high broken rock
179	56 EGL25	182 BC	33	50 0.1 - 3%	40 C		U	NA	NA	U				0		fragments May be Lu osols in polygon
																likely O.DB in polygon as well Some met. sed in profile, mostly
180	57 EGL210	183 LFH	9	0	0		NA	NA	G	0	9			0		granodronite
404	F7 F01 040	404 Aba	0	_	0	Cil	NIA	_	0		14			0		likely O.DB in polygon as well Some met. sed in profile, mostly
181	57 EGL210	184 Ahe	0	5	0	SiL	NA	F	G	G	14			0		granodronite likely O.DB in polygon as well Some met. sed in profile, mostly
182	57 EGL210	185 Bt	5	15	0	SiCL	NA	G	G	G				0		granodronite
.02	07 202210	100 20	ŭ	.0	Ŭ	0.02			Ü					Ū		likely O.DB in polygon as well Some met. sed in profile, mostly
183	57 EGL210	186 BC	15	29	0	SCL	NA	G	G	G	38			0		granodronite
																likely O.DB in polygon as well Some met. sed in profile, mostly
184	57 EGL210	187 C	29	0	0	LS	NA	F	G	F				0		granodronite
185	58 EGL208	188 LFH	6	0 0.01 - 0.1%			NA	NA	G	O G	6			0		skeletal soil
186 187	58 EGL208 58 EGL208	189 Ahe 190 Bm	0 4	4 0.01 - 0.1% 19 0.01 - 0.1%		SCL	U	G G	G	G I I	10			0		skeletal soil skeletal soil
188	58 EGL208	190 Bill 191 C	19	50 0.01 - 0.1%		SCL	U	G	F	Ü				0		skeletal soil
189	59 EGL209	192 LFH	3	0 0.1 - 3%	0	002	NA	NA	G	0	3			0		meta sed SiL / igneous SL/LS
190	59 EGL209	193 Ahe	0	4 0.1 - 3%	0	SiL	NA	F	G	G	7			0		meta sed SiL / igneous SL/LS
191	59 EGL209	194 Bm	7	15 0.1 - 3%	0	SiL	NA	F	G	F	18			0		meta sed SiL / igneous SL/LS
192	59 EGL209	195 C	15	0 0.1 - 3%	0	SiCL	NA	G	G	G				0		meta sed SiL / igneous SL/LS
194	60 EGL50	197 Ahe	0	0	15 G	SL	NIA	G	F	F	0			0		coarse sand w gra el
193 195	60 EGL50 60 EGL50	196 LFH 198 Bm	0	0	0 50 C	LS	NA U	NA F	G P	U	U			0		coarse sand w gra el coarse sand w gra el
196	60 EGL50	199 C	0	0	75 B	IS	U	F	U	Ü				0		coarse sand w gra el
100	00 20200				100											SSE. SS SAING IT GIVE OF
197	62 EGL212	200 LFH	5	0 < 0.01%	0		NA	NA	G	0	5			0		1 cobble near surface, all else is consistently gra el in the profile
198	62 EGL212	201 Ahe	0	2 <0.01%	50 CG	SCL	U	G	Р	U				0		1 cobble near surface, all else is consistently gra el in the profile
400	60 501046	000 P	•	40 -0 040/	50.00			0	<u></u>	<b>I</b>				0		4 ashbis assessments all also is assessed to the second to the second
199	62 EGL212	202 Bm	2	18 <0.01%	50 CG	SL	U	G	Р	U				0		1 cobble near surface, all else is consistently gra el in the profile
200	62 EGL212	203 C	18	50 < 0.01%	50 CG	SCL	U	G	Р	U				0		1 cobble near surface, all else is consistently gra el in the profile
201	64 EGL214	204 LFH	3	0 <0.01%	0	302	NA	NA	G	0	3	15	100	0	100 Z	. 5555.5 Hour currence, an olde to contributing gra of in the profile
202	64 EGL214	205 Ah	0	7 <0.01%	25 CG	SiCL		G	G	G		15	100	0	100 Z	
203	64 EGL214	206 C	7	50 <0.01%	25 CG	SiCL		G	G	G	53	15	100	0	100 Z	

Section   Sect						COARSE FRAGS		E CF Type		C Frag					
200   CT   ELLIS   23 B m   CT   CT   CT   CT   CT   CT   CT			ProfileID Horizon				texture	RATING	RATING		RATING	Salvage TI	Seepage C Permafros Depth to V		
Sect				•	· ·	~					0	4	0		
200   80 CE3-5   211 St.							0:1	U			U				
200   00 CG   10 CG				~	~		SIL		•		G	6	•		
200   Septical   200   Enterprise   Septical   Septic				-					-		G	25	•		
211   60   EC-12   214   47   67   67   67   67   67   67   6							SICL	NΔ			0	55	0		
Part				_	~			INA					0		
201   8   EC.   20   25   EFH   11   0				~	*								•		·
210 09 (2012) 210 U 30 00 00 U NA NA 10 U 3 more bettle areas more than area area.  216 09 (2012) 210 U 10 1								NA			0	11			
2*8											Ü		~		,
215 73 FOLIX 296 IFF 3 75 -159, 0 NA. MA. O. O. O. MA. MA. MA. O. O. O. MA	214	69 EGL32	217 C			45 C		U			U		0		· ·
The															cannot dig deeper than 40 cm due to high CF Some exposed
288 77 E-9-11 21 C C 2 4-9 1-9-N 40 C SL U F F F U	215	70 EGL31	218 LFH	0	<b>2</b> 3 - 15%	0		NA	NA	G	0	2	0		stones/boulders on site Gra el in matrix
277 7 EGLSD 20 LTH 5 0 5-15% 0 C NA NA G 0 5 5 0 man abli modern throat covereign early prograph between 220 LTH 6 0 4 5 10% 0 C SCI G F G G G G G G G G G G G G G G G G G															• • • • • • • • • • • • • • • • • • • •
248   71   EQUID   221   An							SiL		F	•	U		•		
26				~							0	5	~		, , , ,
220 71 CGL30 220 CC 90 45 3 19% OC SICL G G G G G G G G G G G G G G G G G G G				-				G			F	9	~		
221   72   258   224   07   16   0   0   15   0   16   0   15   0   16								0	-		G	50	· · · · · · · · · · · · · · · · · · ·		, , , ,
222 77 E CHIRT 225 BPTI 0 0 0 15 G NA NA G G C 12 33 0 30 Z phase monthers protein pro							SICL				G	50			1 , 0 0
223 7 Z CORR\$1								NA			G	18			
224   75 FeB19   227   FM   9				-	ū						G				process of the proces
225   75 ECLIP   228 A					-			NA			0	0			'
229 F5 EGLS 229 C 3				~			SI	14/-1		F	F	12			
227   80   Eq.   10   20   LFI   15				~			SI			P	P	12	•		•
228   B) EGL10   231 AB   D   3 - 40.01%   15 G   SL   G   G   G   16   57   0   42   2								NA		G	0	15	•		110 dagor, carrest con 100 c.22 of c.27.2
229   80   ESL   0   232   C   3   42   40   116   C   C   C   C   C   C   C   C   C							SL				G	18			
231 83 EGL11 238 LPH 12 0 -0.01% 0 NA NA G C C C C C C C C C C C C C C C C C C		80 EGL10	232 C	3	42 < 0.01%	15 G			G	F	F	57	57 0	42 Z	
232 8 S EGL11 238 Ah 0 3 -0.01% 19 G SL G F F 15 0 N O.EB or O.DVB 233 B9 EGR110 239 Bm 15 48 30 CG SCL G G G 57 0 N N CEB or O.DVB 238 B9 EGR110 239 LPH 20 0 S	230	80 EGL10	233 Cz	42	0 < 0.01%	0		NA	NA	G	G		57 0	42 Z	
233 83 EGL11 236 BC 3 45 <001% 29 Bm 15 48 80 CG SCL G G G G				12	0 <0.01%			NA			0		0	N	O.EB or O.DYB
236 89 EGR110 239 Bm 15 48 30 CG SICL G G G C CD N N or O.SB CD N N or O.SB CD N N OR CD CD N N N N N N N N N N N N N N N N N N							SL			<u> </u>	F		0		
234 89 EGR110 237 IEH 20 0							SiCL				G	57	•		
235 88 ESR110 238 Ah 0 15 0 SIL NA F G G G 55 0 N or O.SB 237 OF ECRA15 240 C 0 5 50 0 SL NA NA G G G C 50 238 09 ESRA16 241 LFH 8 0 0 0.01% 0 S NA NA G G G C 50 239 09 ESRA16 242 LFH 8 0 0 0.01% 0 S NA NA F G F F G F D O N O.DY8 or O.EB 240 98 ESRA16 242 LB D G G G G G G G G G G G G G G G G G G							SiCL			_	G	60	•		
237 97 EGR415 240 C 0 50 0 SN NA G G G 50 0 some buried harizons 238 99 EGR416 241 LFH 8 0 <0.0115 0 SN NA F G F 111 0 N O.DYB or O.E.B 239 99 EGR416 243 EM 3 20 <0.0115 0 SN NA F G F 111 0 N O.DYB or O.E.B 241 99 EGR416 243 EM 3 20 <0.0115 0 SN NA F G F 111 0 N O.DYB or O.E.B 241 99 EGR416 243 EM 3 20 <0.0115 0 SN NA F G F 111 0 N O.DYB or O.E.B 242 119 EGR418 244 C 20 30 <0.0115 0 SN NA F G F F 38 0 N O.DYB or O.E.B 242 129 EGR418 244 C 20 30 <0.0115 0 SN NA F G F F 38 0 N O.DYB or O.E.B 243 119 EGR419 244 LFH 15 0 0 G C L F G G F G G 244 108 EGR411 247 C 2 2 50 15 G C L F G G F G G 245 111 EGR409 248 LFH 80 0 0 15 G C L F G G F G G 246 111 EGR409 249 AN 0 12 0 SL NA G G G 72 0 247 111 EGR409 250 C 12 40 0 SL NA G G G T C 248 117 EGL66 251 LFH 4 0 0 0 SL NA G G G T C 249 117 EGL66 252 LFH 4 0 0 0 SL NA G G G T C 249 117 EGL66 252 LFH 4 0 0 0 SL NA G G G G T C 250 117 EGL56 252 AR 0 10 0 O.DYB to O.E.B As thicker upslope than downsiope 251 118 EGR303 257 AL B G C C L C G G G G T C 252 118 EGR303 257 AL B G C C L C G G G G T C G G G G G G G G G G G G G						~	0.11		NA		0	-	~		
238 99 EGR416 241 LPH 8 0 < 0.01% 0 S NA F G F 11 0 N O.DYB or O.EB 240 99 EGR416 242 AB 0 3 < 0.01% 0 S NA F G F 11 0 N O.DYB or O.EB 241 BP 99 EGR416 243 BP 3 20 < 0.01% 0 S NA F G F 11 0 N N O.DYB or O.EB 3 < 0.01% 0 S NA F G F 11 0 N N O.DYB or O.EB 3 < 0.01% 0 S NA F G F 11 0 N N O.DYB or O.EB 3 < 0.01% 0 S NA F G F 11 0 N N O.DYB or O.EB 3 < 0.01% 0 N O.DYB or O.EB 4 < 0.01% 0 N O.DYB				-		•			F		G	35	•		
299   99   EGR416							SL				G	50			
240 99 EGR416 244 C 20 30 <0.01% 30 G SL				~		•	e		INA E		0	8	•		
241 99 EGR416 244 C 20 30 <0.01% 0						•	9		F		F	1.1	•		
242 108 EGR411 246 LFH 15 0 0 0 NA NA G 0 15 0 0 15 G CL F G G 17 0 0 16 CR MA NA G 0 0 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0						_	-	INA	G	F	l <sub>F</sub>	38	· · · · · · · · · · · · · · · · · · ·		
243 108 EGR411 246 AB 0 2 15 G CL F G G 17 244 108 EGR411 247 C 2 5 0 15 G CL F G G F 65 245 111 EGR409 248 LFH 60 0 0 0 NA NA G O 60 246 111 EGR409 249 Ah 0 12 0 S L NA G G G G 72 247 111 EGR409 250 C 12 40 0 S L NA G G G G 72 247 111 EGR409 250 C 12 40 0 S L NA G G G G 72 248 117 EGL86 251 LFH 4 0 0 0 NA NA G O 0 0 O O O O O O O O O O O O O O O O							OL .	NA		G	0	15	0		0.515 01 0.25
244 108 EGR411 247 C 2 50 15 6 CL F G F 65 0 246 111 EGR409 248 LPH 60 0 0 0 SL NA NA G O 60 246 111 EGR409 249 Ah 0 12 0 SL NA G G G G 72 0 247 111 EGR409 290 C 12 40 0 SL NA G G G G 72 0 248 117 EGL66 251 LPH 4 0 0 SL NA G G G G 100 0 249 117 EGL66 252 Ae 0 10 10 15 G L G G G G 14 0 0 O.D/B to O.EB Ae thicker upslope than downslope 150 118 EGR303 255 LPH 5 0 <0.01% to O.B A NA NA G O 5 0 O.D/B to O.EB Ae thicker upslope than downslope 151 118 EGR303 255 LPH 5 0 <0.01% to O.B A NA NA G O 5 0 O.D/B to O.EB Ae thicker upslope than downslope 151 118 EGR303 257 Ah 0 2 <0.01% to O.B A NA NA G O 5 0 O.D/B to O.EB Ae thicker upslope than downslope 152 118 EGR303 257 Ah 0 2 <0.01% to O.B A NA NA G O 5 0 O.D/B to O.EB Ae thicker upslope than downslope 152 118 EGR303 257 Ah 0 2 <0.01% to O.D/B to O.B A CALL OR G G G G G G G G G G G G G G G G G G							CL		F	_	G	17	0		
246 111 ECR409 249 Ah 0 12 0 SL NA G G G 72 0 248 LFH 60 0 0 SL NA G G G G 72 0 248 117 ECR409 250 C 12 40 0 SL NA G G G G 72 0 248 117 ECR409 250 C 12 40 0 SL NA G G G G 72 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				2					F		F	65	0		
246 111 EGR409 249 Ah 0 12 0 SL NA G G G 72 247 111 EGR409 250 C 12 40 0 0 SL NA G G G 100 248 117 EGL66 251 LFH 4 0 0 0 NA NA G O O O O O O O O O O O O O O O O O O				60		0		NA	NA	G	0	60	0		
247 111 EGR409 250 C 12 40 0 0 SL NA G G G 100 0 ODYB to QEB Ae thicker upslope than downslope 249 117 EGL66 251 LFH 4 0 0 ODYB to QEB Ae thicker upslope than downslope 249 117 EGL66 252 Ae 0 10 10 15 G L G G G 14 0 ODYB to QEB Ae thicker upslope than downslope 250 117 EGL66 253 Bm 10 50 30 G SICL G G G 54 0 ODYB to QEB Ae thicker upslope than downslope 251 118 EGR303 255 LFH 5 0 <0.01% 0 NA NA G O 5 0 ODYB to QEB Ae thicker upslope than downslope 252 118 EGR303 255 LFH 5 0 <0.01% 5 G L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 253 118 EGR303 257 Ah 0 2 2 0.01% 5 G L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 254 118 EGR303 256 Bm 2 14 <0.01% 5 G L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 254 118 EGR303 256 C 14 50 <0.01% 5 G L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 255 119 EGL310 256 Ae 0 3 0.01% 5 G S L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 255 119 EGL310 256 Ae 0 3 0.01% 5 G S L G G G G 7 0 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB Ae thicker upslope than downslope 255 ODYB to QEB 255 OD						0				G	G		0		
249 117 EGL66	247		250 C	12		O .				G	G	100	0		
250 117 EGL86 258 Bm 10 50 30 G SICL G G G G 54 0 O.DYB to O.EB Ae thicker upslope than downslope   251 118 EGR303 255 LFH 5 0 <0.01% 0				4	~			NA			0	4	0		
251 118 EGR303 255 LFH 5 0 <0.01% 5 G L G G G G 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							L				G	14	*		
252 118 EGR303 257 Ah 0 2 <0.01% 5 G L G G G T 0 0 254 118 EGR303 258 Bm 2 14 <0.01% 5 G L G G G T 9 0 0 254 118 EGR303 250 C 14 50 <0.01% 15 G SiL F G F 55 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							SiCL	110		_	G	54	•		O.DYB to O.EB Ae thicker upslope than downslope
253 118 EGR303 258 Bm 2 14 < 0.01% 5 G L G G G 19 254 118 EGR303 260 C 14 50 < 0.01% 15 G SiL F G F 55  255 119 EGL310 254 LFH 4 0 < 0.01% 0 NA NA NA G O 4 256 119 EGL310 256 Ae 0 3 < 0.01% 5 G S F G F 7 257 119 EGL310 259 Bmj 3 45 < 0.01% 5 G S F G F 7 258 120 EGL311 261 LFH 4 0 0 0 N O.DYB or O.EB 259 120 EGL311 262 Ae 0 15 10 G L G G G G G 19 260 120 EGL311 262 AE N Dasially same as M, C, D parent materials 261 123 EGL47 264 LFH 15 0 < 0.01% 0 NA NA NA G G G G G G G G G G G G G G G				~				NA			0	5	~		
254 118 EGR303 260 C 14 50 <0.01% 15 G SiL F G F 55  255 119 EGL310 254 LFH 4 0 0.01% 0 NA NA G O A DO NA O.DYB or O.EB  256 119 EGL310 256 Ae 0 3 <0.01% 5 G S F G F 7  257 119 EGL310 259 Bmj 3 45 <0.01% 15 G SL G F F G F 7  258 120 EGL311 261 LFH 4 0 0 0 NA O.DYB or O.EB  259 120 EGL311 261 LFH 4 0 0 0 NA O.DYB or O.EB  259 120 EGL311 262 Ae 0 15 10 G L G G G G G G G G G G G G G G G G G							L				G	/	•		
255 119 EGL310 254 LFH 4 0 < 0.01% 5 G S F G F 7 0 N O.DYB or O.EB 256 119 EGL310 259 Bmj 3 45 < 0.01% 5 G S F G F 7 0 N O.DYB or O.EB 257 119 EGL310 259 Bmj 3 45 < 0.01% 15 G SL G F F F 49 0 N O.DYB or O.EB 258 120 EGL311 261 LFH 4 0 0 N O.DYB or O.EB 259 120 EGL311 262 LE G I I I I I I I I I I I I I I I I I I							L Cil		G E		[G	19	0		
256 119 EGL310 256 Ae 0 3 <0.01% 5 G S F G F 7 0 N O.DYB or O.EB 257 119 EGL310 259 Bmj 3 45 <0.01% 15 G SL G F F 49 0 N O.DYB or O.EB 258 120 EGL311 261 LFH 4 0 0 N D.DYB or O.EB 259 120 EGL311 262 AE 0 15 10 G L G G G G 19 N D.DYB or O.EB 260 120 EGL311 263 BC 15 200 30 G SiCL G G G G 204 N D.DYB or O.EB 261 123 EGL47 264 LFH 15 0 <0.01% 0 N D.DYB or O.EB NA NA G O 15 N D.DYB or O.DYB or							SIL	NΔ	Γ NA			55	0	N	O DVR or O FR
257 119 EGL310 259 Bmj 3 45 <0.01% 15 G SL G F F F 49 0 N O.DYB or O.EB  258 120 EGL311 261 LFH 4 0 0 N basially same as M, C, D parent materials  259 120 EGL311 262 Ae 0 15 10 G L G G G G 19  260 120 EGL311 263 BC 15 200 30 G SiCL G G G G 204 N basially same as M, C, D parent materials  261 123 EGL47 264 LFH 15 0 <0.01% 0 NA NA NA G O 15  262 123 EGL47 265 Ae 0 3 <0.01% 20 G SL G F F F 18  263 123 EGL47 266 Bm 3 0 <0.01% 30 G SiCL G G G G  264 124 EGL1 267 LFH 10 0 <0.01% 5 G SL  265 124 EGL1 269 IC 2 2 <0.01% 10 G SL  266 124 EGL1 270 IIC 20 50 <0.01% 10 G SL  267 124 EGL1 270 IIC 20 50 <0.01% 10 G SICL G G G G 30 G SICL G G G G G G G G G G G G G G G G G G G				•			S	IVA			F	7			
258				~							l <sub>F</sub>	49	•		
259 120 EGL311 262 Ae 0 15 10 G L G G G G 9 19 N basially same as M, C, D parent materials 260 120 EGL311 263 BC 15 200 30 G SiCL G G G 204 261 123 EGL47 264 LFH 15 0 <0.01% 0 NA NA G O 15 262 123 EGL47 265 Ae 0 3 <0.01% 20 G SL G G G G G G G G G G G G G G G G G				4	0		52	NA		G	0	4			
260 120 EGL311 263 BC 15 200 30 G SiCL G G G 204 N basially same as M, C, D parent materials 261 123 EGL47 264 LFH 15 0 <0.01% 0 NA NA G 0 0 15 262 123 EGL47 265 Ae 0 3 <0.01% 20 G SL G G G 263 123 EGL47 266 Bm 3 0 <0.01% 30 G SiCL G G 264 124 EGL1 267 LFH 10 0 <0.01% 0 NA NA G 0 10 265 124 EGL1 268 Ah 0 2 <0.01% 5 G SL G G G 266 124 EGL1 269 IC 2 20 <0.01% 10 G SL G G G 267 124 EGL1 270 IIC 20 50 <0.01% 40 G SiCL G G G 27				0	15		L				G	19			
261 123 EGL47 264 LFH 15 0 <0.01% 0 NA NA G O 15 0 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 15 0 0 0 15 0 0 0 15 0 0 0 15 0 0 0 15 0 0 0 15 0 0 0 15 0 0 0 0							SiCL				G	204			
262       123 EGL47       265 Ae       0       3 < 0.01%								NA	NA		0	15	0		
263 123 EGL47 266 Bm 3 0 <0.01% 30 G SiCL G G G	262	123 EGL47	265 Ae	0	3 < 0.01%	20 G	SL			F	F	18	0		
265 124 EGL1 268 Ah 0 2 < 0.01% 5 G SL G G G 12 0 IIC hard to texture due to clast content. Ah too thin to sample.  266 124 EGL1 269 IC 2 20 < 0.01% 10 G SL G G G 30	263	123 EGL47				30 G	SiCL		G				0		
266 124 EGL1 269 IC 2 20 <0.01% 10 G SL G G G 30 0 IIC hard to texture due to clast content. Ah too thin to sample.  267 124 EGL1 270 IIC 20 50 <0.01% 40 G SiCL G F F 60 0 IIC hard to texture due to clast content. Ah too thin to sample.								NA		_	0	10	~		·
267 124 EGL1 270 IIC 20 50 <0.01% 40 G SiCL G F F 60 0 IIC hard to texture due to clast content. Ah too thin to sample.											G				· · · · · · · · · · · · · · · · · · ·
										G	G	30	•		·
208 125 EGL313 271 LFH 3 U 3-15%   U   NA NA G U 3 U 3 U 20 L ROCK at 20cm. Soil code O.EB of O.DYB							SICL	NIA		F	F	60			
	268	125 EGL313	Z/1 LFH	3	U 3 - 15%	U		NA	INA	G	U	3	0	20 L	ROCK At 20011. Soil code O.EB OF O.DYB

			Г			TEXTURE	E CF Type							
Si	teID SiteNo	ProfileID Horizon	DpthStart [	DpthEnd Surf.Stone	CF% CF Typ	texture	RATING	RATING	RATING	RATING	Salvage TI Seep	page C Permafros Depth to V Roc	ot Resti Root Res	tı Soil Notes
269	125 EGL313	272 Ae	0	1 3 - 15%	10 G	SL		G	G	G	4	0	20 L	Rock at 20cm. Soil code O.EB or O.DYB
270	125 EGL313	273 Bm	1	40 3 - 15%	10 G	SL		G	G	G	43	0	20 L	Rock at 20cm. Soil code O.EB or O.DYB
271	126 EGR400	274 LFH	10	0 < 0.01%	0		NA	NA	G	0	10	0	N	Soil Code GLCU.R (likely)
272	126 EGR400	275 AB	0	2 < 0.01%	0	SL	NA	G	G	G	12	0	N	Soil Code GLCU.R (likely)
273	126 EGR400	276 C	2	60 < 0.01%	0	SL	NA	G	G	G	70	0	N	Soil Code GLCU.R (likely)
274	129 EGR401	277 LFH	4	0	0	0.2	NA	NA	G	0	4	0		Soil code CU.R
275	129 EGR401	278 AB	0	2	0	SL	NA	G	G	G	6	0		Soil code CU.R
276	129 EGR401	279 IC	2	22	0	SL	NA	G	G	G	26	0		Soil code CU.R
277	129 EGR401	280 IIC	22	35	35 G	SL	INA		P	B	20	0		Soil code CU.R
278	133 EGR406	281 LFH	15	0 <0.01%	0	3	NA	NA	G		15	0		Soil Code GLCU.R
					· ·	CI		G		0	10	0		
279	133 EGR406	282 Ah	0	6 < 0.01%	0	SL	NA	G	G	G	21	•		Soil Code GLCU.R
280	133 EGR406	283 C	6	60 < 0.01%	0	SL	NA	G	G P	G	75	0	N.	Soil Code GLCU.R
281	134 EGR404	284 C	0	40 <0.01%	40 G	5	NIA	F NIA	•	P	40		N	
282	135 EGR403	285 LFH	12	0	0		NA	NA	G	0	12		10 L	
283	135 EGR403	286 Ae	0	10	30 G	SL		G	F	F	22		10 L	
284	135 EGR403	287 R	10	25	60 G	SL		G	U	U			10 L	
285	136 EGR407	288 LFH	4	0 <0.01%	0		NA	NA	G	0	4	0	L	Soil code O.R Root restricting layer: rock at some unknown depth.
286	136 EGR407	289 C	0	50 < 0.01%	35 G	SiL		F	F	F	54	0	L	Soil code O.R Root restricting layer: rock at some unknown depth.
287	139 EGR413	290 LFH	4	0	0		NA	NA	G	0	4			
288	139 EGR413	291 Ae	0	1	0	SL	NA	G	G	G	5			
289	139 EGR413	292 C	1	60	2 G	SL		G	G	G	64			
														Soil code O.EB Structure and clour due (partially?) to weathering
290	141 EGL21	293 LFH	9	0 < 0.01%	0		NA	NA	G	0	9	0		of R
														Soil code O.EB Structure and clour due (partially?) to weathering
291	141 EGL21	294 Ah	0	4 < 0.01%	10 G	L		G	G	G	13	0		of R
				, 5.5.7,				_				•		Soil code O.EB Structure and clour due (partially?) to weathering
292	141 EGL21	295 Bm	4	21 <0.01%	10 G	lı .		G	G	G		0		of R
202	141 LOLL	200 Bill	-	21 10.0170	10 0	-		O	O			<b>o</b>		Soil code O.EB Structure and clour due (partially?) to weathering
293	141 EGL21	296 Bm2	21	49 <0.01%	10 C	SiCL	G	G	G	G	58	0		of R
293	141 LOLZI	290 DIIIZ	21	43 \0.0170	10 C	SICL	O	O	O	<u> </u>	30	O		Soil code O.EB Structure and clour due (partially?) to weathering
204	444 50104	207.0	40	00 40 040/	20.0	CI	Р	0	F	L-		0		
294	141 EGL21	297 C	49	60 <0.01%	30 S	SL	Р	G	г	Р		0		of R
005	444 TD44	000   511	00	•	•		N10	NIA	0		00	50	50.7	wood in underlying till total hole depth ~ 6 ft all sal agable mix of
295	144 TPA1	298 LFH	20	0	0		NA	NA	G	U	20	52	52 Z	clay masses + collu ium
			_					_	_	1				wood in underlying till total hole depth ~ 6 ft all sal agable mix of
296	144 TPA1	299 Bm1	0	20	50 C	S	U	F	Р	U		52	52 Z	clay masses + collu ium
														wood in underlying till total hole depth ~ 6 ft all sal agable mix of
297	144 TPA1	300 Bm2	20	52	50 C	L	U	G	Р	U		52	52 Z	clay masses + collu ium
298	145 TPA3	301 LFH	19	0	0		NA	NA	G	0	19	50 0	0.5 Z	ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to
299	145 TPA3	302 Bm1	0	22	5	SiL	NA	F	G	F	41	50 0	0.5 Z	silt till, low c.f. interbedded w 30 cm gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples samples PM3+ PM4 both strangely effer esent, esp PM3 BM2 = PM1 gra elly bars PM2 underlying frozen silt PM3 is oxidized sandy till below ice (2 4 m) PM4 5 finer reduced till below (4 5 m)
300	145 TPA3	303 Ahb	22	27	0		NA	NA	G	G	46	50 0	0.5 Z	silt till, low c.f. interbedded w 30 cm gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples samples PM3+ PM4 both strangely effer esent, esp PM3 BM2 = PM1 gra elly bars PM2 underlying frozen silt PM3 is oxidized sandy till below ice (2 4 m) PM4 5 finer reduced till below (4 5 m)
301	145 TPA3	304 Bm2	27	51	5	SiL	NA	F	G	F	70	50 0	0.5 Z	silt till, low c.f. interbedded w 30 cm gra elly layers all sal eagable ice to 1.3 m may or may not be permafrost to 4 m SiS Mb then to SiS gray, unoxidized samples samples PM3+ PM4 both strangely effer esent, esp PM3 BM2 = PM1 gra elly bars PM2 underlying frozen silt PM3 is oxidized sandy till below ice (2 4 m) PM4 5 finer reduced till below (4 5 m)
														All sal eageable underlying material is Cb w slope wash C o
														erlying pre ious surface soil No e idenc eof carbonates in this Cb
302	146 TPA4	305 L	18	16	0		NA	NA	G	0	2	53 0	53 Z	sample PM1 frozen Cb total depth > 2.5 m
														All sal eageable underlying material is Cb w slope wash C o
														erlying pre ious surface soil No e idenc eof carbonates in this Cb
303	146 TPA4	306 F	16	4	0		NA	NA	G	0	14	53 0	53 Z	sample PM1 frozen Cb total depth > 2.5 m

						COARSE FRAGS	TEXTUR	E CF Type	Texture	C Frag						
	SiteID	SiteNo	ProfileID Horizon	DpthStart D	pthEnd Surf.Stone	CF% CF Typ	texture	RATING	RATING	RATING	RATING	Salvage TI	Seepage E Permafros Depth	to V Root R	Resti Root Rest	ii Soil Notes
:	304	146 TPA4	307 H	4	0	0		NA	NA	G	0	18	53	0	53 Z	All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb sample PM1 frozen Cb total depth > 2.5 m
				·	· ·	Ů					Ü			ŭ		All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb
(	305	146 TPA4	308 Bm1	0	32	50	CL	NA	F	Р	Р		53	0	53 Z	sample PM1 frozen Cb total depth > 2.5 m  All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb
;	306	146 TPA4	309 Ahb	32	41	5	L	NA	G	G	G		53	0	53 Z	sample PM1 frozen Cb total depth > 2.5 m
	207	440 TD44	040 Page	44	50	50		NIA	_	5	5		50	0	50.7	All sal eageable underlying material is Cb w slope wash C o erlying pre ious surface soil No e idenc eof carbonates in this Cb
	307 308	146 TPA4 147 EGR451	310 Bm2 311 LFH	41 3	53	50	CL	NA NA	NA NA	G	P	2	53	U	53 Z	sample PM1 frozen Cb total depth > 2.5 m
	309	147 EGR451 147 EGR451	311 LFH 312 Bm	3	U	0	Sil	NA NA	F	G	F	3				
	310	147 EGR451	313 C	8		35	LS	NA	F	P	P					
	311	148 EGR450	314 Om					NA	NA	NA	0	0			20	likely lenses of silt not isible due to high water table
;	312	148 EGR450	315 Of					NA	NA	NA	0	0			20	likely lenses of silt not isible due to high water table
- ;	313	148 EGR450	316 C			45 CG		U	NA	NA	U				20	likely lenses of silt not isible due to high water table

## **Eagle Gold Project**

Environmental Baseline Report: Surficial Geology, Terrain, and Soils Final Report

Appendix F - Soil Metal Data



## **APPENDIX F**

**Soil Metal Data** 

Table F.1 Soil Metal Exceedences (highlighted values only - based on CCME [1999], YK and BC)

			General Parameters		Total Metals																	Copper /		Exchangeable Cations										
Sample	Date Sampled	Depth (m)		Aluminum	Antimony	Arsenic	Barium	Berylium	Boron	Cadmium	Chromium	Cobalt	Copper	Iron	Lead	Manganese	Mercury v	olybdenun	Nickel	Selenium	Silver	Strontium	Thallium	Tin	Titanium	Vanadium	Zinc	Zirconium	Molybdenum Ratio	Calcium	Magnesium	Phosphorus	Potassium	Sodium
			pН	Al	Sb	As	Ва	Be	В	Cd	Cr	Co	Cu	Fe	Pb	Mn	Hg	Мо	Ni	Se	Ag	Sr	TI	Sn	Ti	V	Zn	Zr	Katio	Ca	Mg	Р	K	Na
														sc	IL LAYER	(DEPTH U	P TO 1 METI	RE)																
DG3 S1	8//2009	1	5.9	7430	10.1	438	128	<1	1	0.4	20	15	39	31400	38.4	286	0.02	0.8	35	0.7	0.2	22	0.3	< 5	342	26	108	13	n/a	2070	3530	494	1970	64
HL6-8 S1	8//2009	0.3	8.2	5650	2.4	9.4	107	< 1	3	0.3	9	6	21	15000	8.2	658	0.06	0.3	17	1.3	0.2	176	0.1	< 5	35	10	44	4	n/a	34700	5090	411	1110	32
HL6-10 S1	8//2009	0.2-0.4	4.8	7060	16.7	226	114	< 1	< 1	< 0.2	15	9	25	25800	26.9	294	0.02	0.9	20	0.7	0.1	12	0.1	< 5	175	25	53	< 1	n/a	956	2340	340	748	33
														OVERBU	RDEN (DE	PTH GREA	TER THAN	METRE)																
HL5-3 S3	8//2009	2	6.6	8410	5.9	486	163	< 1	< 1	0.9	28	9	12	22500	41.3	571	0.02	3.2	18	0.6	0.2	20	0.2	< 5	996	33	125	2	n/a	3080	5250	674	1680	86
HL5-4 S3	8//2009	4-4.5	7	14200	0.5	45.4	338	< 1	< 1	< 0.2	30	9	3	23300	5.7	300	< 0.01	1.1	25	0.5	< 0.1	17	0.5	< 5	1620	35	40	2	n/a	3410	8060	827	6980	93
HL5-6 S3	8//2009	5-5.5	6.5	17500	0.9	49.3	272	< 1	< 1	< 0.2	40	10	10	27900	9	419	< 0.01	0.4	20	0.4	< 0.1	20	0.6	< 5	2090	40	63	3	n/a	2820	8460	791	7630	85
HL5-7 S3	8//2009	2.2-2.5	6.8	2520	17.6	777	68	< 1	1	1	8	10	18	25000	85.8	560	0.22	7.8	23	0.4	0.4	40	0.2	< 5	49	7	144	7	2.3	1040	957	280	1180	17
HL6-1 S3	8//2009	5-5.5	7.1	15900	2.4	42.3	120	1	< 1	0.3	27	20	45	49600	9.6	658	0.01	0.9	57	0.6	< 0.1	16	0.5	< 5	443	29	97	9	n/a	1630	5940	303	5960	126
HL6-3 S4	8//2009	5-5.5	7.1	11500	4.6	97.4	74	1	< 1	< 0.2	34	19	57	43200	11.9	390	0.02	0.9	48	0.7	0.1	19	0.5	< 5	370	25	81	11	n/a	1730	5050	363	4550	86
HL6-4 S3	8//2009	3	7.8	8070	5.5	1350	69	< 1	< 1	< 0.2	22	14	51	32800	13.3	483	0.02	0.4	30	8.0	0.4	19	0.4	< 5	221	28	54	10	n/a	2250	3720	332	2990	85
HL6-4 S4	8//2009	4-4.4	7.8	14800	0.7	23.7	69	< 1	< 1	< 0.2	26	15	50	48000	10.8	261	< 0.01	1.3	30	0.5	< 0.1	12	0.4	< 5	302	27	90	24	n/a	1760	6540	296	5310	77
P1-S2	8//2009	2.7-3.2	6.6	20400	5.4	148	155	< 1	< 1	< 0.2	46	29	46	32900	11.5	947	0.01	0.9	42	0.4	< 0.1	25	0.6	< 5	639	49	92	2	n/a	3400	7560	314	8980	91
P2-S2	8//2009	1-1.1	6.5	11000	10.5	78.3	374	< 1	1	0.5	26	13	27	25300	14.5	461	0.02	1	29	0.6	0.1	23	0.2	< 5	561	36	75	3	n/a	2600	4740	733	1940	85
P4-S2	8//2009	1.8-2	7.2	13900	8.1	903	376	< 1	1	0.3	26	14	81	23900	13.7	228	0.02	1.5	21	1	0.2	24	0.4	< 5	869	29	46	5	n/a	4230	8160	577	4840	94
WR1-S3	8//2009	6	7.8	4100	11.4	212	67	1	1	< 0.2	8	30	84	62500	18.1	924	0.33	1.6	42	1.2	0.2	33	0.3	< 5	16	87	93	9	n/a	3929	2250	630	1210	31
WR2-S2	8//2009	4	7.1	13900	3.8	170	248	< 1	1	0.4	23	12	30	29300	31.2	487	0.03	1	28	0.4	0.1	20	0.3	< 5	563	27	102	9	n/a	2370	4710	560	3330	63
WR3-S1	8//2009	2	7.3	3590	5.8	189	10	< 1	1	< 0.2	4	14	21	24300	12.1	94	0.06	5.7	43	0.5	< 0.1	22	< 0.1	< 5	3	3	95	3	3.7	1740	1660	190	891	25
WR8-S2	8//2009	2	7	7440	2.4	241	131	< 1	1	0.7	19	8	17	21800	37.7	298	0.05	1.7	19	0.6	0.2	28	0.3	< 5	726	24	113	2	n/a	2830	3900	599	1290	95
																BLINDS																		
HL5-5 S3 BLND	8//2009		6.6	17100	1	45.9	264	< 1	< 1	< 0.2	39	11	10	26900	8.5	411	< 0.01	0.3	21	0.4	< 0.1	20	0.6	< 5	2040	38	63	2	n/a	2800	8400	732	7500	88
HL6-1 S3 BLND	8//2009		7	18100	2.3	42.6	128	2	< 1	0.3	29	19	49	51700	10.5	668	0.01	0.9	58	0.6	0.1	18	0.6	< 5	492	30	98	9	n/a	1820	6730	306	6400	154
															REF	PORTING L	IMITS																	
CCME Ag.					20	12	750	4		1.4	64	40	63		70		6.6	5	50	1	20		1	5		130	200							
CCME Parkland					20	12	500	4		10	64	50	63		140		6.6	10	50	1	20		1	50		130	200							
BC (Ag.)					20	15	750	4		1.5	50	40	90		100		0.6	5	150	2	20		2	5		200	150							ļ
BC (Parkland)					20	15	750	4		1.5	60	50	90		100		15	10	100	3	20		-	50		200	150							
Yukon (Ag)					20	15	750	4		1.5	50	40	90		100		0.6	5	150	2	20		2	5		200	150							
Yukon (Park)					20	15	500	4		1.5	60	50	90		100		15	10	100	3	20		-	50		200	150							

BC and Yukon guidelines are for most sensitive receptor (could be ingestion by livestock, groundwater, etc.)

over all guidelines

over CCME Ag. and parkland guidelines, but not B.C.

over CCME and B.C. Ag. Guidelines, but not CCME or B.C. Parkland