



**FIRST MINING
GOLD**



APPENDIX L

HYDROGEOLOGY TECHNICAL SUPPORT DOCUMENTS

- L-1 Baseline Hydrogeology Report**
- L-2 Hydrogeological Modeling Report



2024 Baseline Hydrogeological Conditions

Springpole Gold Project

First Mining Gold Corp.

ONS2104

Prepared by:
WSP Canada Inc.

October 2024



2024 Baseline Hydrogeological Conditions Springpole Gold Project

Red Lake District, Northwest Ontario
Project #ONS2104

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EXECUTIVE SUMMARY

First Mining Gold Corp. proposes to develop an open pit gold and silver mine with supporting facilities known as the Springpole Gold Project (Project). The Project is located in a remote area of northwestern Ontario, approximately 110 kilometres (km) northeast of the Municipality of Red Lake and 145 km north of the Municipality of Sioux Lookout.

An environmental assessment pursuant to the *Canadian Environmental Assessment Act, 2012* (SC 2012, c. 19, s. 52) and the Ontario *Environmental Assessment Act* (RSO 1990, c. E.18) is required to be completed for the Project. This report is one of a series of Technical Support Documents prepared by WSP Canada Inc. on behalf of First Mining Gold Corp. to support the predicted environmental effects of the Project.

A characterization of baseline hydrogeological conditions has been conducted to support environmental reporting activities as part of the Environmental Assessment and Environmental Impact Statement for the proposed Project which includes an open pit of approximately 300 metres (m) depth, a co-disposal facility (CDF) for mine rock and tailings, and a plant site. Hydrogeological baseline characterization activities at site have included multiple drilling campaigns with associated groundwater monitoring installations, hydrogeologic testing, groundwater monitoring and corresponding desktop-based assessments.

The Project site is located in the Superior Province of the Canadian Shield physiographic region where the landscape is dominated by recent glacial activity. The undulating and subdued topography clearly shows the effects of glaciation, whereby cyclical ice advances and retreats eroded ancient mountain ranges and generally deposited reworked sediment in low-lying areas. Overburden is generally quite thin at the Project site, with frequent bedrock outcropping and an average overburden thickness of just 2.2 m on land. The Project site area falls between two major watersheds, including Birch Lake and Springpole Lake.

A site-specific hydrostratigraphic conceptualization has been developed through the synthesis of borehole data, test pits, outcrop mapping and general observations from shoreline mapping. Hydrostratigraphy at site generally consists of overburden, a highly altered unconsolidated granular material (UGM) zone in the immediate vicinity of the proposed open pit, a zone of low rock quality designation (RQD) rock (low RQD zone) in the area of the proposed open pit and the adjacent host rock surrounding the UGM and low RQD zones. Lithologies of the host rock area generally include various metavolcanic and metasedimentary rocks and a trachyte porphyry intrusion (which is associated with the UGM zone).

Hydraulic conductivity has been assessed at the Project site based on packer testing, single well tests in monitoring wells and a 30-day pumping test. Based on single well tests and packer tests, the geometric means of bedrock hydraulic conductivity are 5.0×10^{-6} metres per second (m/s) for the UGM zone (four data points), 2.9×10^{-6} m/s for the low RQD zone (33 data points) and 2.1×10^{-7} m/s (183 data points) for the host bedrock. When further broken-down by site location, host bedrock hydraulic geometric mean values are 3.2×10^{-8} m/s for the CDF area and 4.0×10^{-7} m/s across the rest of site. These estimates are consistent with semi-quantitative observations at site, which indicate that the CDF area bedrock is more competent compared to other areas of site and suggest that shallow bedrock underlying the planned CDF would be an effective barrier to seepage emanating from the CDF. The hydraulic conductivity of lake bed sediments is very low based on lab testing, and the geometric mean of all other overburden units is 5.9×10^{-6} m/s.

Groundwater level monitoring infrastructure at site includes 58 monitoring wells and 10 multi-level vibrating wire piezometer (VWP) installations (total of 26 VWP units). Automated pressure transducers are installed in 27 of the monitoring wells and VWPs are equipped with dataloggers to facilitate temporal groundwater level monitoring at site. Long-term monitoring in monitoring wells and VWPs generally shows two archetypes of water level responses: 1) those strongly linked to Springpole Lake water level fluctuations; and 2) those more indicative of responses to recharge / infiltration events (primarily the spring freshet).

Instantaneous water level monitoring was conducted in the fall of 2022. Measurements demonstrated that water levels generally coincide with local topography, with the highest water levels inland dissipating towards the lows and surface water features. This is consistent with the conceptual hydrogeological model; that groundwater recharge is driven by snowmelt / rainfall during the wet seasons and is focused at locations where the topography is favourable for infiltration. Groundwater flow is primarily focused through interconnected fractures in the bedrock (flows likely decreasing with depth), though will also be present at locations where thick overburden is present beneath the water table. Flows converge towards topography lows and natural surface water receivers, which act as the discharge point of groundwater.

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Attachment A Stratigraphic Logs
Attachment B Bedrock Hydraulic Conductivity Data

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Annex A: 2021 Baseline Hydrogeology Report

LIST OF ABBREVIATIONS

°C	Degrees Celsius
CDF	Co-disposal facility
EA	Environmental Assessment
EIS	Environmental Impact Statement
cm	Centimetre
Ga	Giga annum (one billion years)
ID	Identification
K	Hydraulic conductivity
km	Kilometre
km ²	Square kilometre
L/min	Litre per minute
m	Metre
m/m	Metres per metre
mm	Millimetre
mm/yr	Millimetres per year
m ³ /d	Cubic metres per day
m ³ /s	Cubic metres per second
m/s	Metres per second
Ma	Mega annum (one million years)
mags	Metres above ground surface
m amsl	Metres above mean sea level
mbgs	Metres below ground surface
mbtoc	Metres below top of casing
MW	Monitoring well
RQD	Rock quality designation
UGM	Unconsolidated granular material
VWP	Vibrating wire piezometer
%	percent

1.0 INTRODUCTION

First Mining Gold Corp. proposes to develop, operate and eventually decommission and close an open pit gold and silver mine and ore process plant with supporting facilities known as the Springpole Gold Project (Project). The Project is located in a remote area of northwestern Ontario, approximately 110 kilometres (km) northeast of the Municipality of Red Lake and 145 km north of the Municipality of Sioux Lookout (Figure 1–1).

An environmental assessment (EA) pursuant to the *Canadian Environmental Assessment Act, 2012* (SC 2012, c. 19, s. 52) and the Ontario *Environmental Assessment Act* (RSO 1990, c. E.18) is required to be completed for the Project. This report is one of a series of Technical Support Documents prepared by WSP Canada Inc. on behalf of First Mining Gold Corp. to describe the predicted environmental effects of the Project.

During the consultation process, Project-specific input from regulatory agencies and Indigenous communities was considered at key milestones of the EA process including baseline studies, alternatives, assessment approach, mitigation and monitoring where appropriate. An overview of the consultation input that was considered during the assessment in relation to this assessment will be summarized in the final Environmental Impact Statement (EIS)/EA.

This report summarizes hydrogeological data from various Project studies in a single document and provides a description of the basic geology, hydrogeology and hydrology of the Project area. This report serves as an update to a previously prepared hydrogeological baseline conditions report (Wood 2021b; Annex A), which should be considered as a supplement to this report as it includes additional analyses not included in this report (as well as accompanying appendices).

This report includes additional data and analysis gathered as part of recent hydrogeological field investigation programs conducted at site, which incorporated feedback provided by government agencies and Indigenous communities. Much of the background / historic information is duplicated between reports while Section 5.0 presents updated analysis and interpretations based on the field data collected since the release of the Wood (2021b) hydrogeological conditions baseline report. Information related to groundwater quality is presented in Appendix N-1.

1.1 Background

Gold exploration at the property has been carried out during two main periods, with the first period being from the 1920s to the 1940s, and the second period from 1985 to the present.

The first period of exploration included trenching and prospecting activities carried out followed by advancement of 10 shallow boreholes totaling about 450 metres (m) in depth. After this, the site lay dormant until the second phase of exploration began in the mid-1980s and continues to the present day.

Work conducted in the second period of exploration has consisted of both airborne and ground based geophysical surveys as well as significant advancement of diamond drill holes across the Project site. Information collected during this work led to the identification of the currently understood prospect areas.

In addition to historical work at the Project, there have been two historical mines in the area: the MacIntyre Gold Mine, located on the northeast side of Birch Lake, and the Casey Summit Mine (later renamed the Casummit Mine) located on Casummit Lake, approximately 10 km north of the Project.

1.2 Proposed Mining and Dewatering

The proposed open pit and relevant site features are shown in Figure 1–2. The proposed Project will consist of an open pit that is to be developed in phases. The pit footprint extends under the northern portion of Springpole Lake and will be about 300 m deep at its deepest point. The footprint of the open pit will extend

under what is currently the northernmost bay of Springpole Lake. Two dikes will be built to isolate the open pit from the lake. In addition to the open pit, a fish habitat development area will be excavated near the plant location during the pre-production period.

The mining plan includes a single co-disposal facility (CDF) that will be constructed west of the open pit for storage of tailings from ore processing and mine rock from mining. The CDF will contain two cells, north and south.

1.3 Groundwater Users

The Project is located in a remote area of northwestern Ontario and there are no nearby industrial / commercial developments. An assessment of the Ontario Ministry of the Environment, Conservation and Parks Water Well Information System indicates a single monitoring well installation at the Project site for the purpose of monitoring prior to recent investigations. There are no other wells listed within the Water Well Information System database that are within the area (MECP 2022).

The Project site is located approximately 40 km from Cat Lake First Nation, 45 km from Slate Falls First Nation and 120 km from the community of Hudson in the Lac Seul First Nation. All of these communities are located well away from any anticipated impacts to groundwater from the proposed Project.

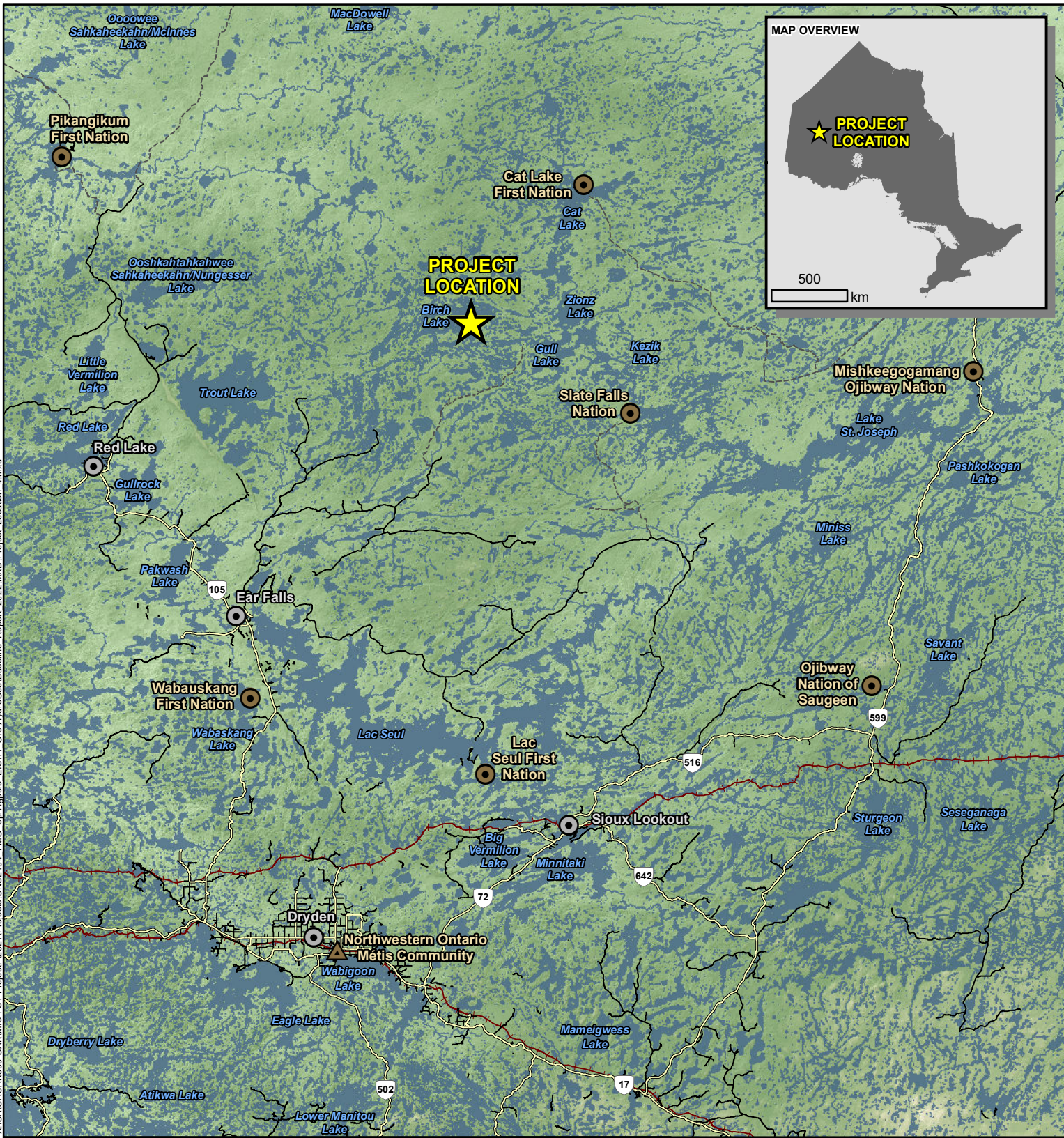
1.4 Previous Studies

The bulk of the information contained in this report has been obtained from the following sources:

- Hydrogeological Baseline Report First Mining Gold, Gold Canyon Resources Springpole Lake Project Site, Ontario (FracFlow 2021);
- First Mining Gold Corp. NI 43-101 Technical Report and Pre-Feasibility Study on the Springpole Gold Project, Ontario, Canada (AGP 2021);
- Hydrology Baseline Report (Wood 2021a);
- Final Factual Report, Geotechnical Program, Winter-Summer 2020 (FracFlow 2020);
- Springpole Gold Project Pre-Feasibility Design of Cofferdams (Knight Piésold 2021);
- Diamond drill hole database provided for the Project provided by First Mining Gold Corp.; and
- Selected geologic information taken from the geologic structural model developed by First Mining Gold Corp.

In addition, studies which have been conducted since the issuance of the 2021 baseline hydrogeology conditions report (Wood 2021b) have also been used to inform this report and are summarized here where applicable.

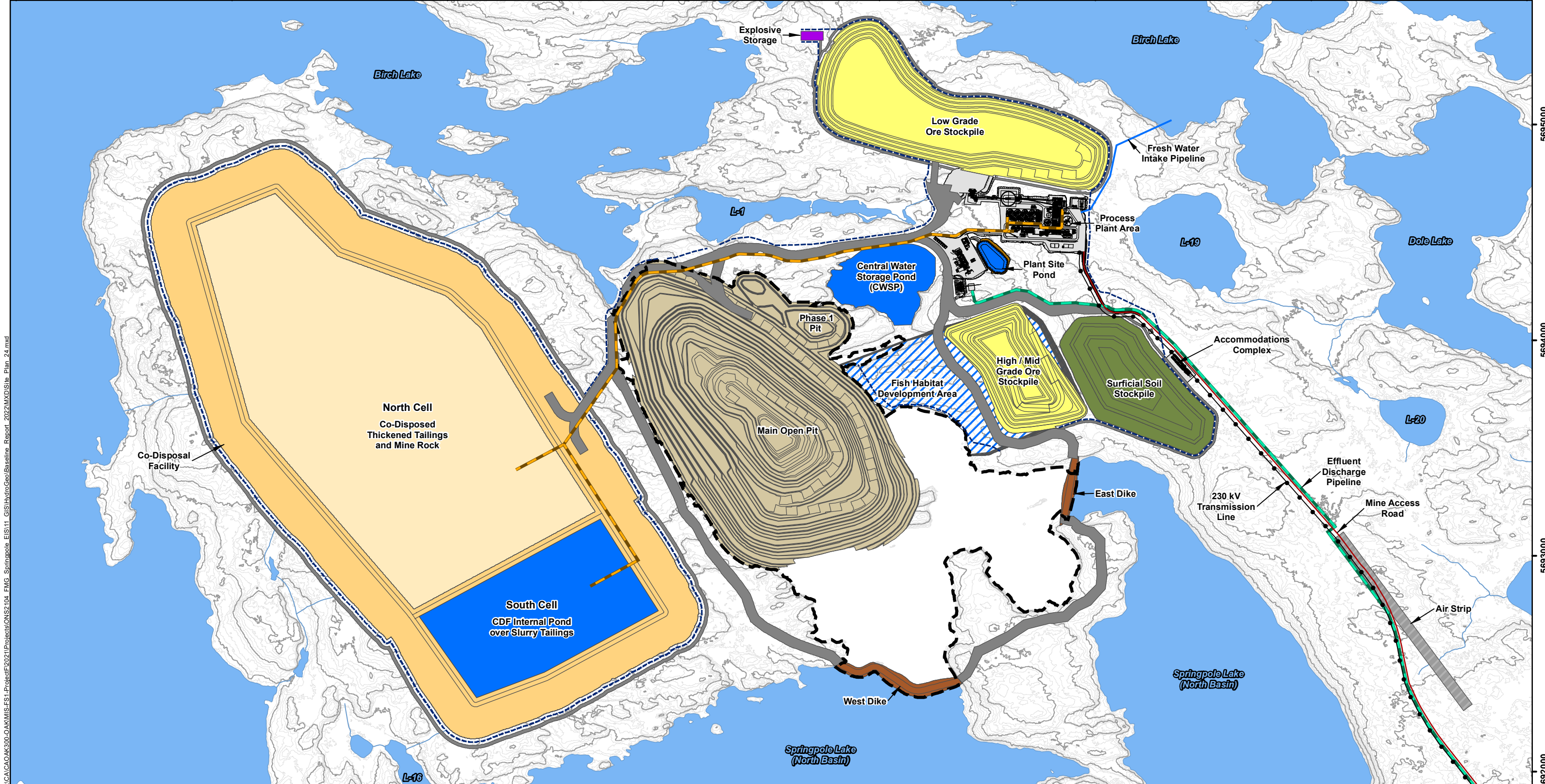
X:\CAL\OAK\300-OAK\MIS-FS1-Project\2021\Projects\ONS2104_FMG_Springpole_EIS\11_GIS\HydroGeo\Baseline_Report_2022\MXD\Project_Location_4.mxd



<p>LEGEND</p> <ul style="list-style-type: none"> ★ Project Location Town First Nation Reserve Northwestern Ontario Métis Community Highway Secondary Road Resource / Winter Road —+— Railway 	<p>NOTES:</p> <ul style="list-style-type: none"> - Topographic information extracted from LIO, MNRF. 	<p>FIRST MINING GOLD</p> <p>WSP</p>	<p>SPRINGPOLE GOLD PROJECT</p> <p>Project Location</p>
<p>Datum: NAD83 Projection: UTM Zone 18N</p>		<p>PROJECT N^o: ONS2104</p> <p>SCALE: 1:1,500,000</p>	<p>FIGURE: 1-1</p> <p>DATE: September 2024</p>



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LEGEND

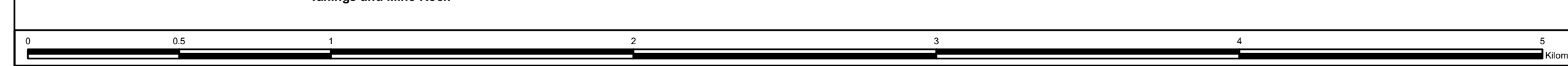
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|-------------------------------|--|--------------------|------------------------------------|-------------------------------|
| Watercourse | Proposed Mine Features | Process Plant Area | Mine Access Road | Fish Habitat Development Area |
| Waterbody | Open Pit | Dike | Seepage / Runoff Collection System | |
| Major Contours (5 m interval) | Open Pit Basin | Pond | 230 kV Transmission Line | |
| Minor Contours (1 m interval) | Ore Stockpile | Haul / Access Road | Fresh Water Intake Pipeline | |
| | Surficial Soil Stockpile | Explosives Storage | Effluent Discharge Pipeline | |
| | Co-Disposal Facility | Air Strip | Tailings Pipeline Corridor | |
| | Co-Disposed Thickened Tailings and Mine Rock | | | |

NOTES:
 - Contours extracted from 2020 LiDAR survey.
 - Proposed site plan provided by Ausenco, drawing number 104496-GX-03000-31344-003, Rev 1. 26 June 2023 and modified by WSP July 2023.
 - 230 kV transmission line provided by First Mining Gold, April 2024.



SPRINGPOLE GOLD PROJECT

EIS / EA Site Plan



Datum: NAD83
 Projection: UTM Zone 15N

PROJECT N°: ONS2104 **FIGURE: 1-2**
 SCALE: 1:17,000 DATE: September 2024

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2.0 SITE PHYSIOGRAPHIC SETTING

The proposed Project is situated within the western Superior Province of the Canadian Shield physiographic region where the landscape is dominated by recent glacial activity. The undulating and subdued topography clearly shows the effects of glaciation, whereby cyclical ice advances and retreats eroded ancient mountain ranges and generally deposited and reworked sediment in low-lying areas.

2.1 Climate and Weather

The following information is summarized from the Project baseline hydrological conditions report (Appendix M-1 Hydrology Baseline). The climate at the Project site can be classified as subarctic (Dfc) with cold winters and mild summers. The bulk of precipitation at the Project site occurs as rain in the warmer months although winter snowfall amount can be substantial.

Precipitation data are taken from the Environment and Climate Change Canada Red Lake A station (located 110 km from the site; Appendix M-1). The total annual precipitation from the Red Lake station is 686.4 millimetres per year (mm/yr). Approximately 74 percent (%) of the total precipitation falls from May to October with a maximum average monthly precipitation value of 103.4 millimetres (mm) occurring in July.

The mean annual monthly temperature at Red Lake A station is 1.3 degrees Celsius (°C) with the coldest month being January, having a mean daily minimum and maximum temperature of -23.7 °C and -12.7 °C, respectively. The warmest month is July with a mean daily minimum and maximum temperature of 12.4 °C and 23.8 °C.

Lake evaporation was estimated based on the daily maximum and minimum temperatures of the Red Lake A station using the Harmon equation. This resulted in an average monthly potential evaporation between 0 mm for January and 107 mm for July and an annual potential evaporation of 460 mm (Appendix M-1 Hydrology Baseline).

2.2 Topography and Land-Cover

Site topographic contours and lake bathymetry contours are shown in Figure 2-1. The topography is typical of northern Ontario and can be characterized as moderately rugged. The elevation of Springpole Lake is 391 metres above mean sea level (m amsl), based on site light detection and ranging. Site topographic relief increases from this elevation by 35 m to a topographic high area located northwest of Lake L-3 with an elevation of 426 m amsl.

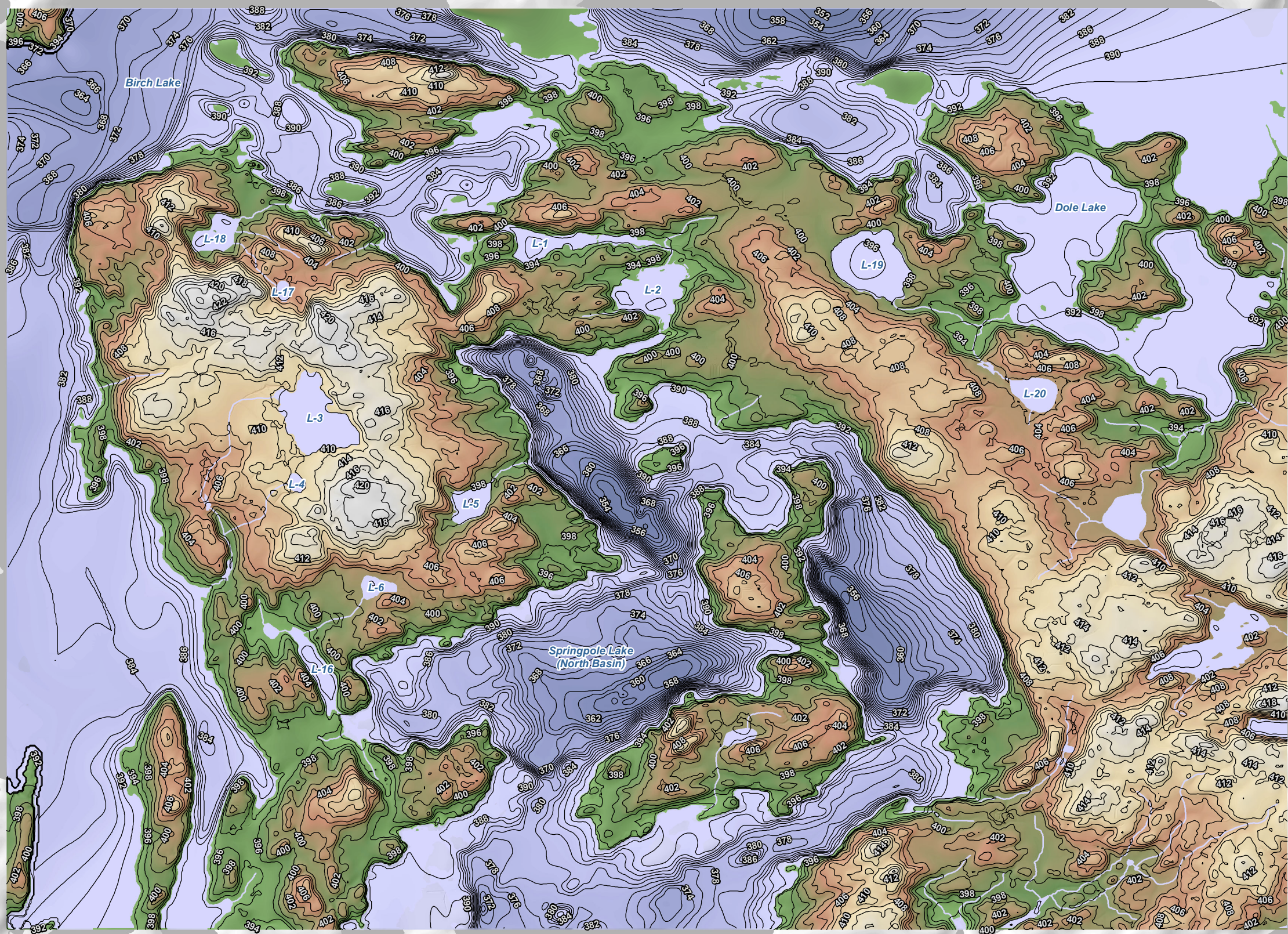
Lake L-3 is located on the west side of the proposed open pit, on the land between Springpole Lake and Birch Lake. The Lake L-3 catchment, which is located underneath a portion of the footprint of the proposed CDF, drains to the southwest and discharges into Birch Lake. On the Springpole Lake side of this flow divide, the area is drained by several small ponds and tributaries which discharge into Springpole Lake.

The surface water divide between the northern portion of Springpole Lake and Birch Lake runs south and east of what is currently Lake L-3 and then along the narrow (about 250 m at its narrowest) east-west strip of land that separates Birch Lake from Springpole Lake.

The topography east of the proposed open pit is similar to the topographic high area, at 414 m amsl elevation and separating the catchment of Dole Lake / South Dole Lake, which drains into Birch Lake, from that of Springpole Lake. The proposed low grade ore stockpile area straddles the surface water flow divide between Birch Lake and Springpole Lake. Details of major surface water drainage pathways surrounding the Project site are discussed in Section 4.0.

Land cover at site consists almost exclusively of forested area, with a combination of deciduous, coniferous and mixed forest. Aside from the forested area, a minimal footprint associated with the existing site exploration camp is present.

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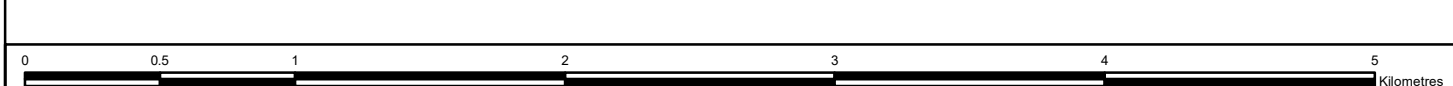


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LEGEND

- Contours (2 metre interval)
- Elevation (masl)
 - 424
 - 352



NOTES:

Datum: NAD83
Projection: UTM Zone 15N



SPRINGPOLE GOLD PROJECT

Site Topography and Springpole Lake Bathymetry

PROJECT N°: ONS2104

FIGURE: 2-1

SCALE: 1:28,000

DATE: October 2023

3.0 GEOLOGICAL SETTING

3.1 Overburden Geology

Mapping of Project site overburden materials is based on stratigraphic logs and information gathered as part of site characterization activities. Detailed overburden geology mapping from the Ontario Geological Survey is not available for the Project site, with the closest available coverage from the Northern Ontario Engineering Geology Terrain Study ending about 45 km south of the Project site. Detailed discussion of site overburden hydrostratigraphy, based on this information, is provided in Section 5.1.

3.2 Bedrock Geology

The overall regional bedrock geologic setting for the Project area is shown in Figure 3–1 and is best described by the following excerpt taken from Devaney (2001):

“The Birch-Uchi Greenstone Belt is the portion of the Uchi Sub-province with an arcuate, concave to the southeast, (i.e., a major oroclinal bend between the Red Lake and Meen-Dempster portions of the sub-province). Studies of the southern part of the Birch-Uchi greenstone belt as a rootless greenstone belt only a few kilometres thick, have revealed a long (ca. 3.0 to 2.7 Ga), multistage history of crustal development. Based on mapping, litho-geochemistry, and radiometric dating, the supracrustal rocks of the greenstone belt were subdivided into three stratigraphic group-scale units (listed in decreasing age): the Balmer, Woman and Confederation assemblages. This three-part subdivision was applied to most of the Uchi Subprovince. The Confederation assemblage is thought to be a continental margin (Andean-type) arc succession, versus the less certain tectono-stratigraphic context of the other assemblages. Workers performing recent and ongoing studies of the southern Birch-Uchi greenstone belt and the Red Lake greenstone belt (i.e., the Western Uchi Subprovince NATMAP Project) have proposed some modifications and additions to the Balmer-Woman-Confederation stratigraphic scheme. As discussed herein, some relatively small conglomeratic units likely form a synorogenic, discontinuously distributed, post-Confederation assemblage in the Birch-Uchi greenstone belt. Radiometrically dated plutons within the Birch-Uchi greenstone belt are of post-Confederation assemblage, ca. 2725-2700 Ma age.

The northern margin of the Birch-Uchi greenstone belt forms a pattern of sub-regional scale cusps of supracrustal strata alternating with batholiths. Basaltic units are prominent around the periphery of the greenstone belt and may be part of the Woman assemblage, but the accuracy of this stratigraphic assignment is unknown. Based on a ca. 2740 Ma age of Shabumeni Lake [intermediate to felsic fragmental] volcanic rocks at a site near the northern greenstone belt margin, suggested that Confederation assemblage age rocks make up the bulk of the greenstone belt”.

The Archean Orogenic gold deposit model developed by various authors has been applied to the mineral deposits of the Archean Superior Province. Orogenic gold deposits are epigenetic, structurally controlled gold deposits that are hosted in orogenic belts. They are generally accepted as having formed during late stages of continental collision (about 2.6 billion years ago). Most of the discovered orogenic gold deposits in the world occur in greenstone belts situated on the margins or within Archean cratons in North America, Australia, and southern Africa.”

3.2.1 Property Geology

The geology of the site area is shown in Figure 3–2. Bedrock in the Project area is composed primarily of three major groupings:

- Trachyte Porphyry Intrusion (the heart of the Springpole deposit, hosting the mineralization zones);
- Metavolcanic and Siliciclastic Rocks (host rock that pre-dates the intrusion, representing the bulk of the bedrock seen in the vicinity of the proposed open pit); and
- Metasediments (located to the northeast of the proposed open pit).

The zone of intrusive feldspar porphyry (trachyte) that is observed on the northeast shore of Springpole Lake, shown in red (zone 6D) in Figure 3–2, extends out to the south under the lake and forms the heart of the Springpole deposit. It is this rock zone that forms the bulk of what has been deemed the portage zone (so-named after the nearby portage route between Springpole and Birch Lakes) and extends from surface to a depth of greater than 400 m and over 1,500 m to the southeast.

The portage zone bedrock has undergone significant alteration and metamorphism which has reduced the original porphyry intrusion to a complex alteration assemblage dominated by sercite, biotite, pyrite, calcite / dolomite and quartz. The bedrock of the portage zone shares little in common with the surrounding bedrock other than their location in proximity to the Project site.

The metavolcanic host rocks that predate the intrusion, shown as grey and green (zones 1 and 2, respectively) in Figure 3–2, are composed of a complex sequence of altered and metamorphosized volcanic (primarily andesite) and associated volcanoclastic rocks. These represent the primary rock type that is found in the immediate area of the proposed open pit, outside of the portage zone.

To the north of the proposed open pit location is a band of clastic metasedimentary rock, shown in purple (zone 3) in Figure 3–2. These contain clasts of the trachyte porphyry and are assumed to postdate the intrusion.

Based on site characterization studies, primarily related to site rock mechanics investigations (SRK 2024), the portage zone has been further defined and demarcated based on lithological, textural and rock quality designation (RQD) data. The current understanding of the portage zone includes a “low RQD” zone, defined based on a rock mass with less than 25% RQD, and a zone of unconsolidated granular material (UGM), which has a sand-like texture. Additional information and interpretation based on the current conceptualization of the portage zone hydrostratigraphy is provided in Section 5.1.

3.2.2 Bedrock Structures

Gravity and magnetic surveys that have been carried out across the Project site demonstrate that several phases of deformation are evident. This deformation has added complexity to the apparent geometry of the Springpole deposit. In addition to this, ductile shearing and brittle faulting have played a significant role in redistributing structurally controlled blocks of the mineralization (SRK 2013).

Studies conducted by SRK Consulting have led to the development of a preliminary model of the structural controls on the mineralized deposit geometry. SRK Consulting determined that the deposit had been subjected to several deformation events which resulted in:

- Early folding resulting in tight to isoclinal fold geometries and development of associated shear zones;
- Intermediate large-scale, potentially deep-rooted shear zones; and
- Late stage brittle faulting.

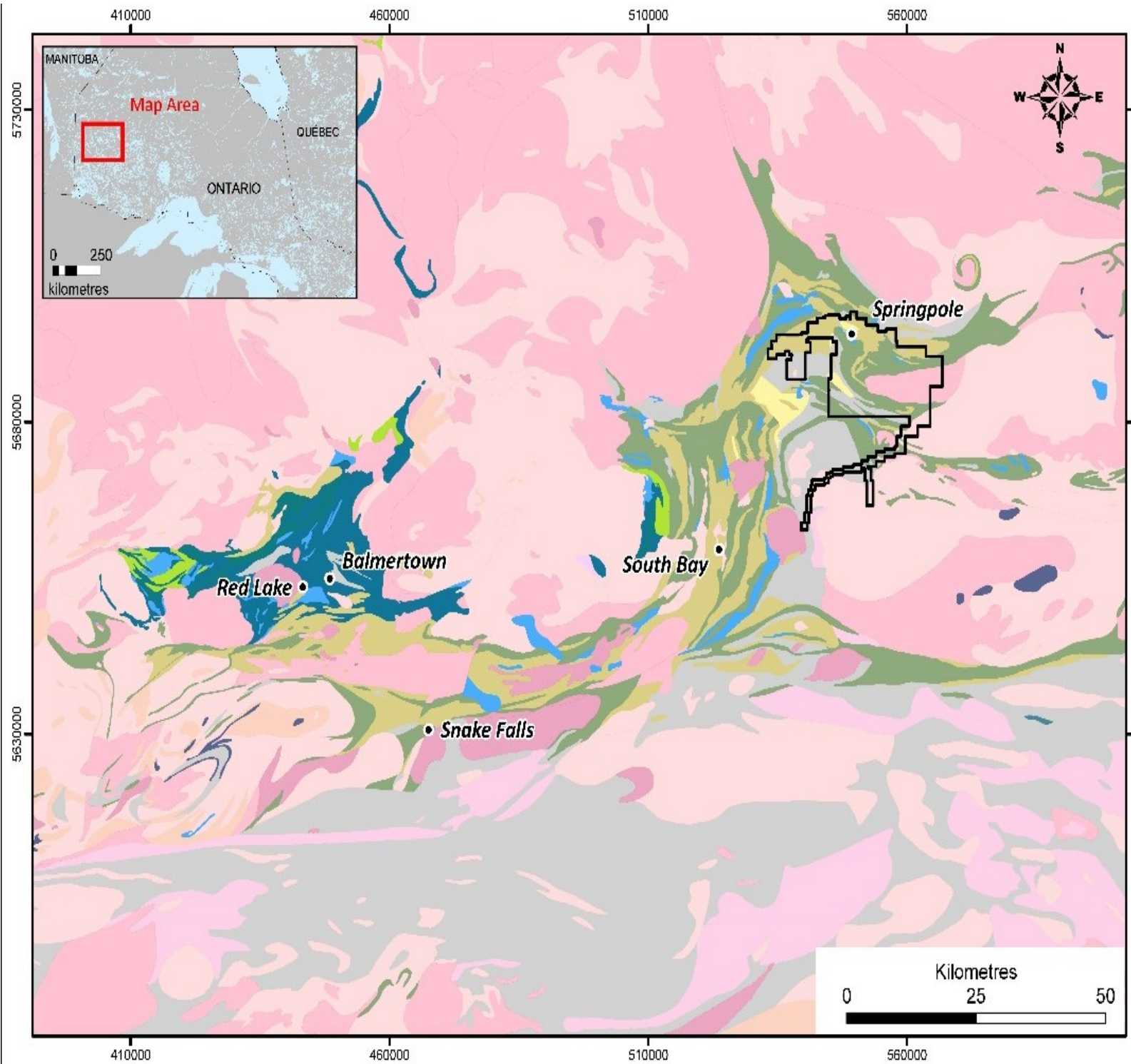
Faults within the proposed open pit and immediate vicinity have been modelled and preliminary structural domains developed which are described below.

The 3D structural modelling developed by SRK Consulting (2013) identified a total of 12 faults and five shear zones in the vicinity of the Springpole deposit. An additional five zones of weakness (defined by very low RQD values, advanced argillic alteration and gold mineralization) were also modelled.

Of the 12 modelled faults, five are considered to have higher levels of confidence associated with them and are shown in Figure 3–3 along with the zones of weakness. The youngest of these faults (SW1 and SW2 in Figure 3–3) are southwest striking, steeply dipping (around 60°) and have been interpreted as brittle faults. An additional series of west striking faults, which run parallel to regional east-west trending lineaments, have been identified as brittle faults. These faults bound the northern and southern extents of the weak zones and are themselves offset by the southwest striking faults.

Acoustic televiewer surveying of boreholes conducted by FracFlow Consultants Limited in 2019 on 21 exploration boreholes located at the northern end of the proposed open pit, indicated that fractures tended to have a northwest to southeast strike and a northeast dip (FracFlow 2021). The boreholes acoustic televiewer surveyed during the 2019 program were all generally aligned on a northeast to southwest bearing so to reduce bias in the dataset a series of boreholes drilled in 2020 around the perimeter of the proposed open pit, that tended to have a southeast bearing, were acoustic televiewer surveyed. The 2020 dataset indicated a slightly more diverse set of orientations with a one strong cluster northwest to southeast strike along with at least one weaker cluster that has a northeast to southwest trend.

Additionally, the average fracture frequency observed in the 2019 borehole dataset ranged from 2.2 to 19 fractures when averaged over 3 m compared to a fracture frequency that ranged from 0.4 to 2.9 per 3 m interval for the 2020 borehole dataset which confirms that dominant fracture set is oriented approximately perpendicular to the 2019 borehole orientations.



Legend

Geology

- Hornblende
- Coarse clastic metasediment
- Massive granodiorites to granite
- Diorite-monzodiorite-granodiorite
- Muscovite-bearing granite
- Foliated tonalite
- Gneissic tonalite
- Mafic and ultramafic
- Migmatized supracrustal rock
- Metasediment
- Felsic to intermediate metavolcanic
- Mafic to intermediate metavolcanic
- Mafic metavolcanics and metasediments
- Felsic to intermediate metavolcanic
- Metasediments and mafic to ultramafic metavolcanics
- Springpole Property Boundary

Geology Source: Ontario Geological Survey, 2011: MRD 126, Rev1

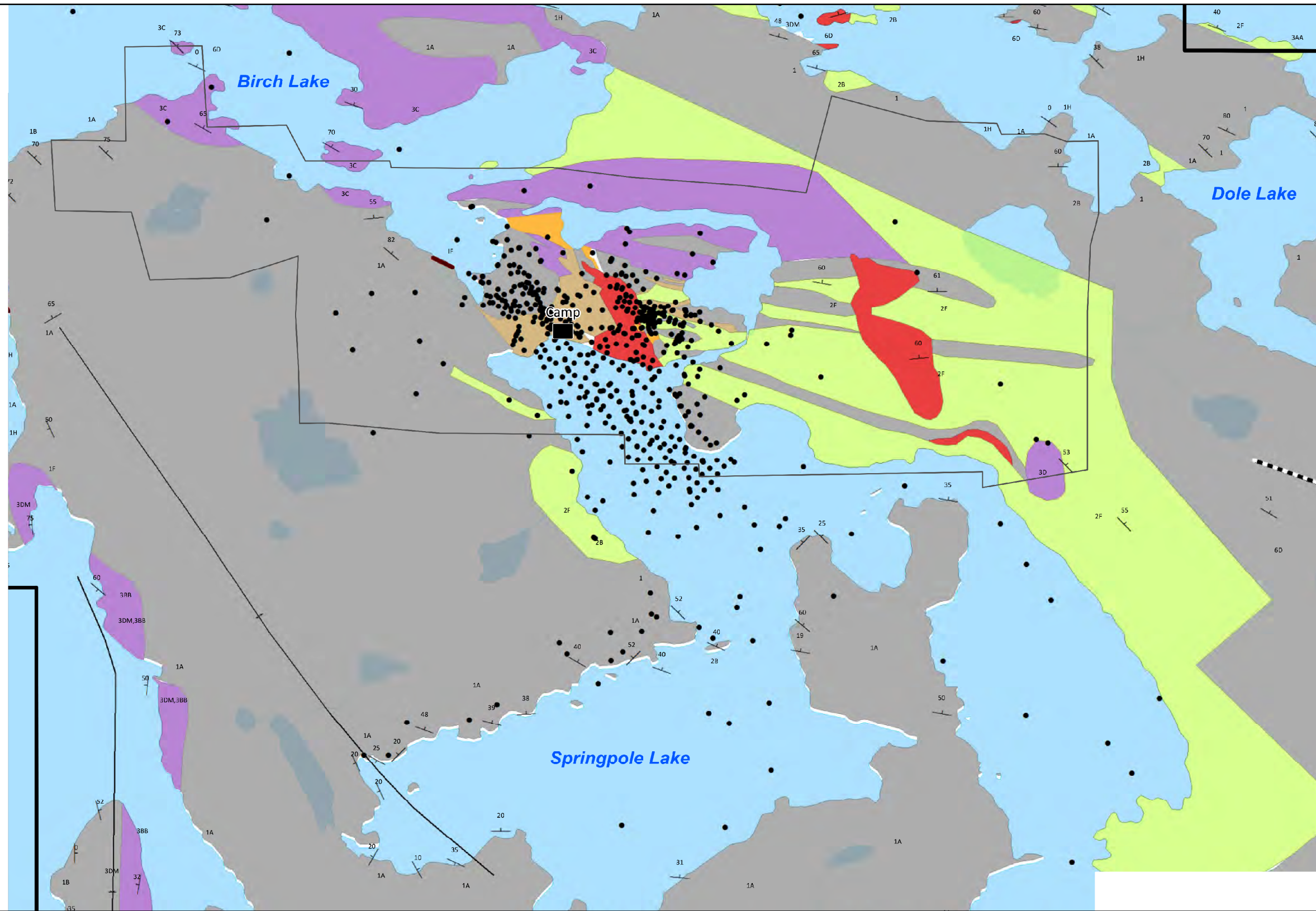
FIRST MINING
GOLD

Springpole Gold Project
Regional Bedrock Geology

Figure: 3-1

Projection: UTM 7 zone 15 (NAD 83) Date: 2020-01-12

X:\CA\CAOAK300-OAK\MIS-FS1-Project\2021\Projects\ONS2104_FMG_Springpole_EIS11_GIS\HydroGeoBaseline_Report_2021\MXD\Site_Backrock_Geology_1.mxd



LEGEND

- Drillhole Collar
 - Camp
 - ▭ Property Outline
 - ▭ Patents Outline
- Geology Mapping 20k Scale**
- | | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> 1-Mafic to Intermediate Metavolcanics; 1A-Massive Lava 2-Intermediate to Felsic Metavolcanics; 2B-Intermediate to Felsic Tuff | <ul style="list-style-type: none"> 2A-Rhyolite 3AA-Clastic Sediment; 3C-Conglomerate; 3DM-Metasediments; 3BB-Siltstone and Greywacke; 3 | <ul style="list-style-type: none"> 6B-Quartz Porphyry 6D-Feldspar Porphyry B O | <ul style="list-style-type: none"> — BIF ■ ■ ■ Shear —+ Anticline —- Syncline |
|--|---|--|---|
- Lithology Observation
Structure Strike/Dip

NOTES:
- Site bedrock geology provided by FracFlow Consultants Inc., Hydrogeology Baseline Report 19 February 2021.



SPRINGPOLE GOLD PROJECT

Local Geologic Setting

Datum: NAD83
Projection: UTM Zone 15N



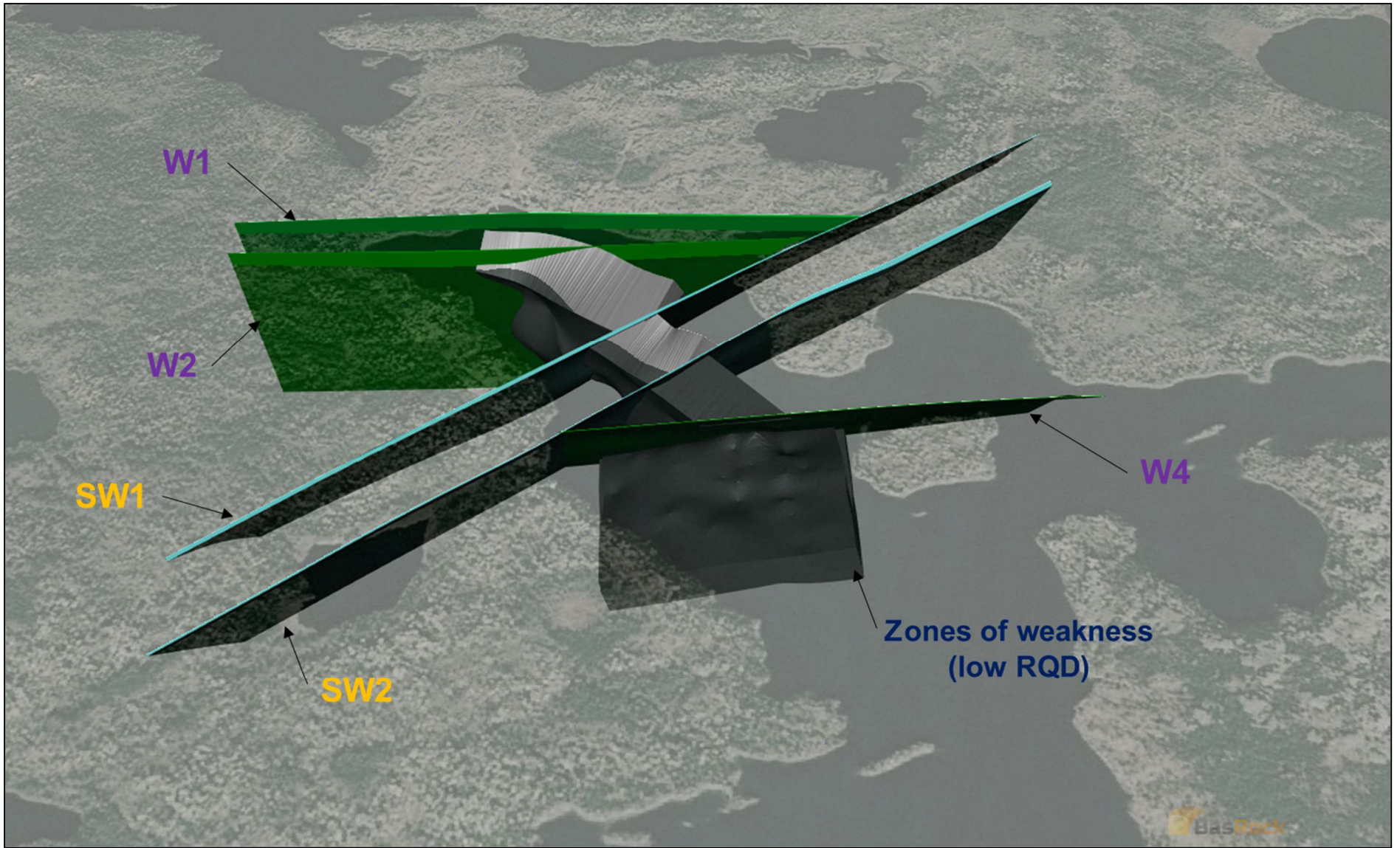
PROJECT N°: ONS2104



FIGURE: 3-2

SCALE: 1:21,000

DATE: October 2023





	Figure No: 3-3	Springpole Gold Project - 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 25-Jul-23	Springpole Structural Geology Model (SRK 2013)
	Rev: 0	

4.0 SURFACE WATER FEATURES

The Project site falls between two major watersheds, including Birch Lake and Springpole Lake. The catchment area for Birch Lake and Springpole Lake is shown in Figure 4–1 and described below. More detailed discussion of surface water features at the Project site is provided in the Hydrology Baseline Report (Appendix M-1).

4.1 Birch Lake

Birch Lake is a large lake that is located upstream of Springpole Lake. It has a watershed area of approximately 1,050 square kilometres (km²). The elevation of Birch Lake, based on hydrometric monitoring described in Section 5.3, is approximately 393 m amsl and is about 2 to 4 m higher than Springpole Lake, depending on the season.

Birch Lake essentially bounds the Project site on its eastern, northern and western sides. Birch Lake discharges from Exit Bay, which is located at the south end of the lake (west of Springpole Lake). From Exit Bay surface water discharges into Satterly Lake and then to Cromarty Lake via Bumpy Creek. Cromarty Lake also receives surface water discharge from the Seagrave Lake drainage network (located to the south of Springpole Lake). Cromarty lake in turn discharges to the southeast arm of Springpole Lake. The outflow from Cromarty Lake into Springpole Lake (station F7-HS1, Figure 4–1) takes place through a relatively shallow channel, with exposed boulders and rock outcrops.

4.2 Springpole Lake

At a regional scale, Springpole Lake flows through the Birch River towards Lake St. Joseph to the south. Historically, Lake St. Joseph discharged into the Albany River which ultimately flowed to James Bay. In 1957, the hydroelectric dam constructed at the lower end of Lake St. Joseph at Rat Rapids was converted to a diversion dam as part of the Manitoba – Ontario Lake St. Joseph Diversion Agreement. The diversion dam has resulted in an average annual water flow of 86 cubic metres per second (m³/s) being redirected east towards Lac Seul through the Root River, and onwards to the Nelson River watershed to the west.

The local Springpole Lake watershed is approximately 98 km²; however, the total area reporting to the Springpole Lake outlet is approximately 1,370 km². Springpole Lake includes multiple freshwater bodies, as shown in Figure 4–2. The direct catchment area upstream of what is proposed to become the dewatered portion of lake area is approximately 1.5 km² (Knight Piésold 2021). Approximately 70% of the surface area of the local Springpole Lake drainage basin is covered by surface water features.

Springpole Lake can be divided into two separate sections: the north section, where the Project site is located, and the south section, denoted as the southeast arm that is elongated in the east-west direction and into which the north section flows. The southeast arm of Springpole receives surface water discharge from the Birch Lake catchment area as well as the Seagrave Lake catchment area through Cromarty Lake which is directly upstream of Springpole Lake. Springpole Lake ultimately discharges into Gull Lake at the eastern end of the southeast arm via the Birch River (station F8-HS7, Figure 4–1). The outflow channel here is primarily exposed bedrock outcrops with a rocky channel bottom. The point at which Cromarty Lake discharges into Springpole Lake is at the westernmost end of the southeast arm of the lake. The southeast arm is oriented east-west and forms the southern portion of Springpole Lake and is essentially separated from the northern portion of Springpole Lake by an approximately 160 m wide channel that widens as it progresses north and opens into the northern lobe of the lake. It is expected that since there are no lake outflows in the northern lobe of the lake there will be limited interaction between water that is discharged from Cromarty Lake and the northern portion of the lake with the bulk of the water travelling eastward as it flows toward the outlet of the lake.

4.3 Other Waterbodies and Watercourses

Within the Springpole Lake surface water catchment area, there are a number of smaller ponds and creeks which drain into both Birch Lake and Springpole Lake. The location of these features and their delineated watersheds are shown in Figure 4-2. In the northern portion of Springpole Lake, these smaller watershed features generally contribute relatively little flow to Springpole Lake. Along the northern shore of the southeast portion of Springpole Lake, many of the smaller creeks are ephemeral in nature. The south shore of the southeast arm of Springpole Lake accepts surface runoff from several catchments of interconnected ponds that are permanent in nature although the surface water inputs are relatively small compared to the inflow from Cromarty Lake.

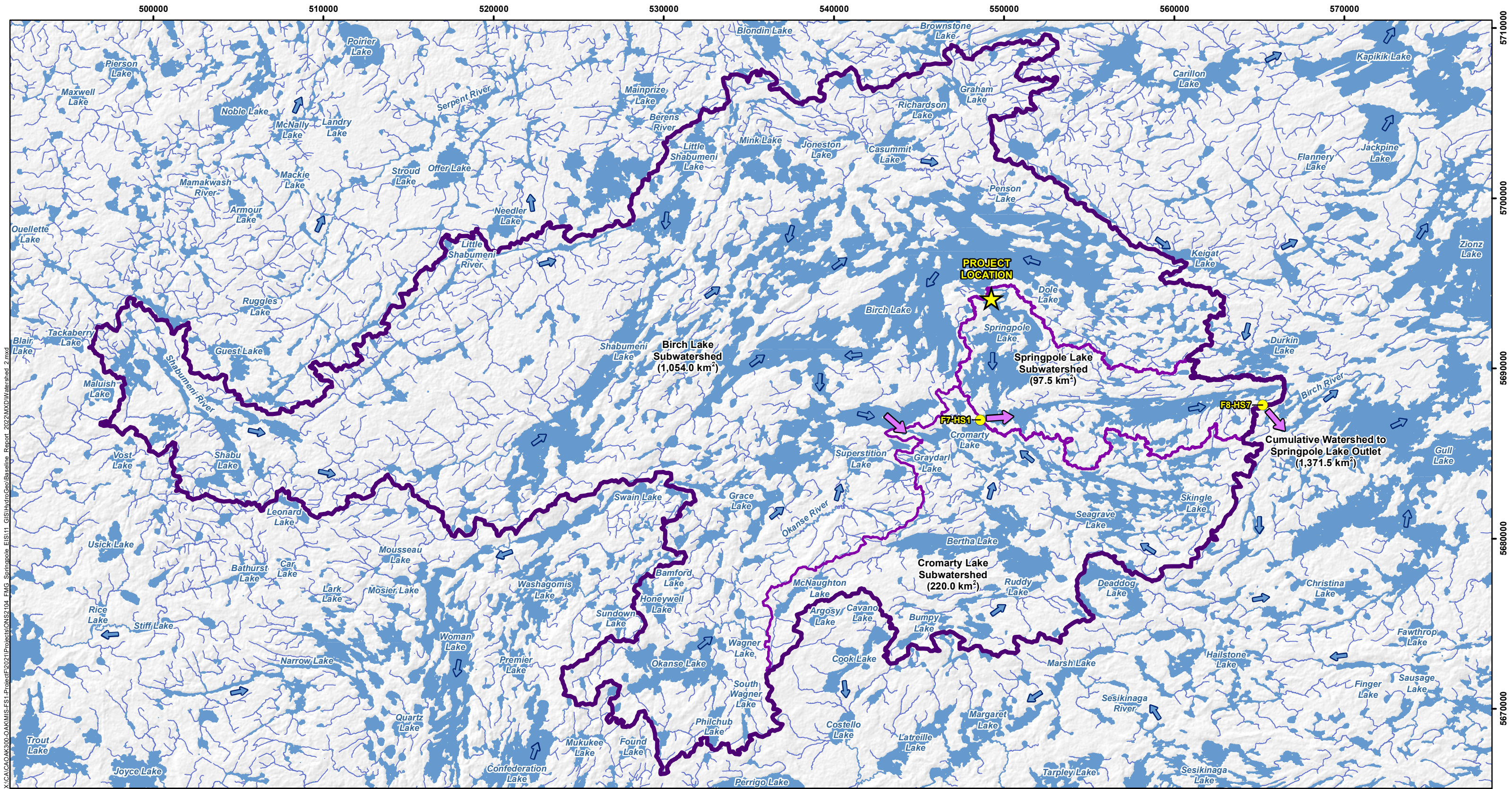
4.4 Water Surface Elevations

A summary of estimated water surface elevations for waterbodies in close proximity to the Project site is provided in Figure 4-3. Where available, these values are based on measurements from hydrometric monitoring stations installed at site, which is the case for the most important waterbodies with respect to groundwater flow pathways for this Project. Water surface elevations for other distal waterbodies are estimated based on the site digital elevation model, derived from site light detection and ranging surveys.

Table 4–1: Waterbody Water Surface Elevations

Feature	Monitoring Station	Date / Time	Water Surface Elevation (M amsl)
Birch Lake	L10	October 19, 2022 14:30	393.1
Springpole Lake	L1B-FFC	October 18, 2022 17:25	391.0
Dole Lake	Estimated from DEM		393.1
L-1	L11	October 19, 2022 16:50	393.4
L-2	Estimated from DEM		392.5
L-3	Estimated from DEM		410
L-4	Estimated from DEM		410
L-5	Estimated from DEM		398
L-6	Estimated from DEM		400.5
L-16	Estimated from DEM		393
L-17	Estimated from DEM		404
L-18	Estimated from DEM		397
L-19	L12	October 19, 2022 16:00	398.5
L-20	Estimated from DEM		402

DEM = digital elevation model.



LEGEND

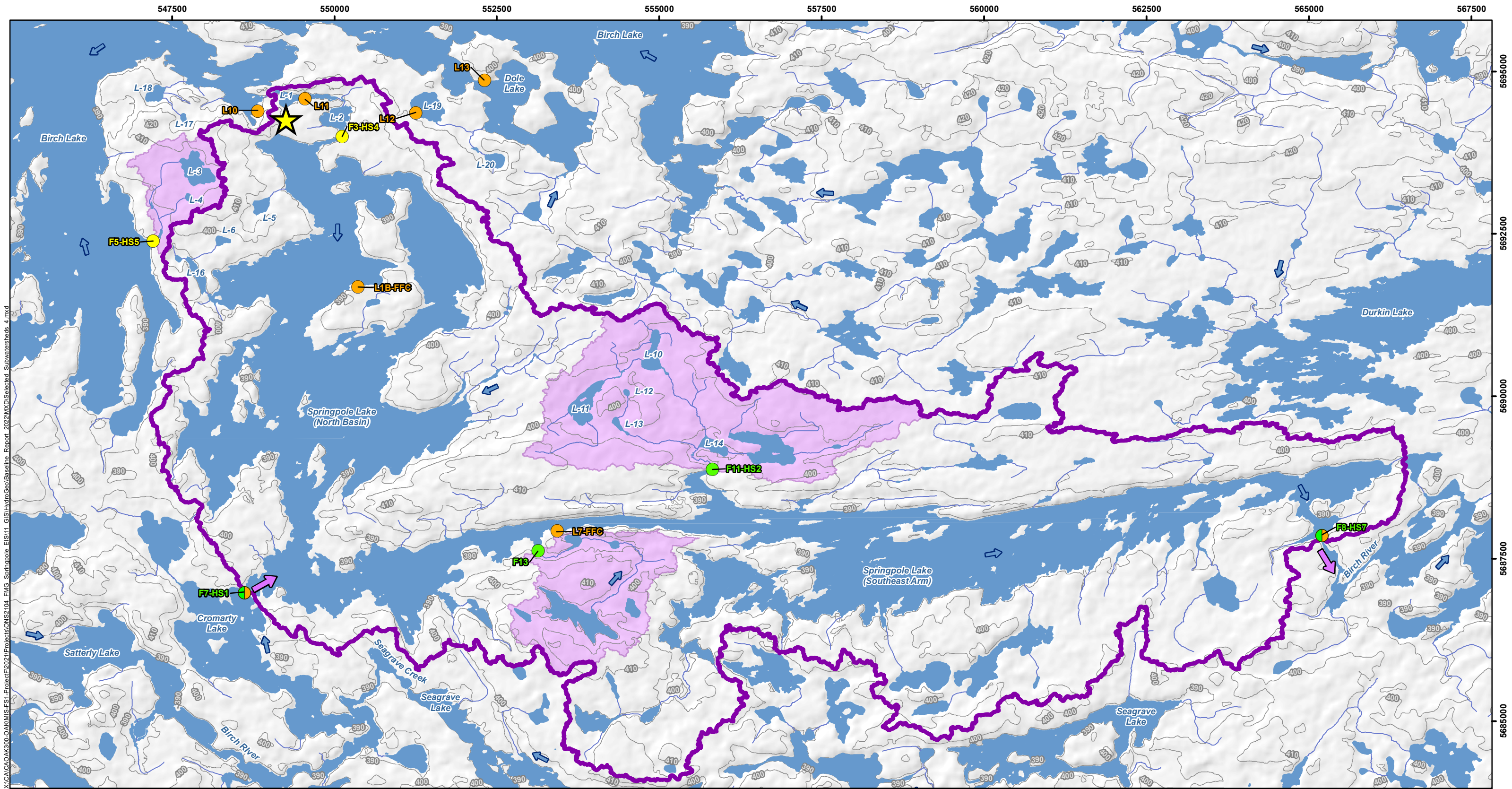
- Project Location
- Monitoring Station
- Cumulative Watershed to Springpole Lake Outlet (1,371.5 km²)
- Subwatershed (Labelled with Name and Local Area)
- Watercourse
- Waterbody
- Flow Direction
- Watershed Outlet Flow Direction

NOTES:

- Topographic information extracted from LIO, MNRF.
- Watershed delineations based on data provided by Aquasphaera, data obtained through the Ontario Flow Assessment Tool (OFAT) and LIDAR provided by First Mining Gold, 2020.

Datum: NAD83
Projection: UTM Zone 15N

SPRINGPOLE GOLD PROJECT
Springpole and Birch Lake Catchment Areas
PROJECT N°: ONS2104 FIGURE: 4-1
SCALE: 1:210,000 DATE: October 2023



LEGEND

- Project Location
- Flow Direction
- Continuous Open Channel Flow Measurement Station
- Springpole Lake Subwatershed
- Subwatershed
- Low-Flow Spot Measurement Station
- Contour (10 m intervals)
- Watercourse
- Waterbody
- Continuous Lake Level Monitoring Station
- Watershed Outlet Flow Direction

NOTES:
- Topographic information extracted from LIO, MNRF.

Datum: NAD83
Projection: UTM Zone 15N

SPRINGPOLE GOLD PROJECT				
Select Sub-Watersheds and Monitoring Points				
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">PROJECT N°: ONS2104</td> <td style="width: 50%;">FIGURE: 4-2</td> </tr> <tr> <td>SCALE: 1:55,000</td> <td>DATE: October 2023</td> </tr> </table>	PROJECT N°: ONS2104	FIGURE: 4-2	SCALE: 1:55,000	DATE: October 2023
PROJECT N°: ONS2104	FIGURE: 4-2			
SCALE: 1:55,000	DATE: October 2023			



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5.0 SITE HYDROGEOLOGY

Site hydrogeological conditions have been assessed as part of several hydrogeological and geotechnical investigation programs, the bulk of which have been conducted since 2019. Hydrogeological characterization work conducted at site has generally included test pitting, drilling, monitoring well and vibrating wire piezometer (VWP) installations, hydraulic testing in the form of falling / rising heads tests, packer testing, a 30-day pumping test, automated groundwater level monitoring, and instantaneous / "snapshot" water level monitoring events.

Characterization efforts at site have generally focused on bedrock for several key reasons:

- On land, overburden is generally quite thin and discontinuous at site, with thicknesses being 2.2 m on average (where overburden is present), and values exceeding 5 m being atypical.
- The thickest overburden deposits are located under Springpole Lake and are confined to a narrow corridor within the footprint of the proposed open pit (i.e., within Springpole Lake). This material will be removed as part of open pit development.
- The locations of the proposed dikes are at bedrock highs within Springpole Lake. As such, groundwater flows from Springpole Lake toward the open pit will be constricted to the bedrock underlying the dikes.
- Overburden within the footprint of the CDF dams will generally be removed as part of dam construction. As such, groundwater flows (i.e., seepages from the CDF) will be forced through bedrock at the embankments, where the primary convergences of flows are anticipated.

5.1 Hydrostratigraphy

In general, the site hydrostratigraphy consists of the same overall materials described in Section 3.0. Site-specific hydrostratigraphic conceptualization has subsequently been developed through the synthesis of borehole data (821 points, including data from exploration drilling and investigation programs), test pits (106 points), outcrop mapping (458 points) and general observations from shoreline mapping. The locations of these stratigraphic data points are shown in Figure 5-1. The corresponding site investigation borehole and test pit logs are provided in Attachment A.

Based on this information, the following site hydrostratigraphic units have been demarcated:

Overburden:

- Surficial organics;
- Lake bed sediments;
- Glaciolacustrine silt / clays;
- Glacial till; and
- Coarse granular deposits.

Bedrock:

- UGM;
- Low RQD bedrock; and
- Host bedrock.

Summary descriptions of each of these units are provided in Table 5–1. Justification for the demarcation of these units, and additional subdivision of these units, based on hydraulic testing, is provided in Section 5.2.

To assess whether any apparent relationship between overburden thickness and elevation / depth exist, which is often the case in locations dominated by glacial sedimentation, total overburden thickness, regardless of type, has been plotted against elevation and is shown in Figure 5–2. This figure shows that overburden thickness generally tends to increase with decreasing surface elevation, which is often found in glaciated environments.

Data shown in Figure 5–2 have been further subdivided by hydrostratigraphic unit and are plotted against elevation in Figure 5–3. This figure shows that the surficial organics and silt / clay thicknesses have a minor tendency to thin with increasing elevation, while the till seems to be fairly uniform.

5.1.1 Hydrostratigraphic Model

A 3D hydrostratigraphic model has been compiled using Leapfrog (Seequent 2020) based on the hydrostratigraphic layers described in Section 5.1. This model has been developed to provide visualization of hydrostratigraphic layers at site in conjunction with the development of the site conceptual hydrogeological model. This model is also subsequently utilized in the development of the numerical hydrogeological model for the site.

Topography in the Leapfrog model is defined based on a high-resolution digital elevation model for the site and also includes bathymetric survey data for Springpole Lake, Birch Lake, L-1, L-2 and L-5. The hydrostratigraphic model incorporates data from boreholes (investigation and exploration holes), test pits, bedrock outcrop mapping, as well as general observations from shoreline mapping as part of fish habit surveys to define the overall distribution of overburden materials across site (Section 5.1) and to map the total thickness of overburden across site. Bedrock zones in the hydrostratigraphic model have been assigned based on modelling conducted as part of rock mechanics investigations (SRK 2013, 2024), which utilize the bedrock zones described in Table 5–1.

Two images showing cross sections through the hydrostratigraphic model in the vicinity of the open pit are given in Figure 5–4 (transverse to open pit) and Figure 5–5 (longitudinal to open pit). These sections demonstrate:

- The extent of the low RQD and UGM zones in relation to the proposed depth / extent of the open pit. The lateral extent of these two zones is similar to the open pit but extends more southward along / within Springpole Lake. Vertically, the low RQD zone extends to below a depth of -100 m amsl (or roughly 200 m below the open pit depth).
- Overburden thicknesses are generally quite thin. The thickest overburden is in the deepest sections of Springpole Lake, which will be removed as the open pit depth progresses.
- The UGM zone is largely contained within the low RQD zone.

It is worth noting that structure SW2 (Section 3.2.2, Figure 3–3) is aligned with a topographic lineament that extends from the open pit areas towards the CDF. Although this lineament is unlikely to enhance the already elevated permeability of the low RQD zone (see Section 5.2), it may act to extend the hydrogeologic connection between the open pit and CDF.

5.2 Hydraulic Conductivity

Hydraulic conductivity (K) for overburden and bedrock materials found at site have been assessed as part of several site investigation and programs, with the majority of site work having been conducted since 2019 (Tetra Tech 2019; Ausenco 2022; WSP 2023, 2024; SRK 2024). As noted in Section 5.0, the primary groundwater flow paths are expected to be through bedrock rather than overburden, and therefore the bulk of testing has focused on the bedrock system at site. A summary of hydraulic conductivity estimates available for the Project site are presented in Sections 5.2.1 and 5.2.2.

5.2.1 Overburden

A list of results from hydraulic tests for overburden materials is given in Table 5–2. This table also includes results for wells screened across the overburden / bedrock interface. The results are grouped together for analysis, due to the similarity of the test results for wells completed only in overburden materials (excluding lab tests for lake bed organics) and wells completed across the overburden / bedrock interface.

Hydraulic conductivity values for overburden and interface materials (excluding the lake bed organics) show a relatively narrow range, with values ranging from 1.0×10^{-6} to 8.5×10^{-5} metres per second (m/s), with an overall geometric mean of 5.9×10^{-6} m/s. This contrasts with the values for lake bed organics obtained from laboratory tests, which both yielded very low values.

5.2.2 Bedrock

Hydrogeological characterization investigations at the Project site have primarily focused on bedrock. The database has been bolstered with results from field programs conducted in 2021 and 2022, and now includes 220 unique estimates of bedrock hydraulic conductivity from rising / falling head tests in monitoring wells and packer tests in boreholes. In addition to this hydraulic testing data, a 30-day pumping test has also been conducted at the site and used to inform the hydraulic conductivity estimates available for bedrock. Hydraulic test locations in bedrock are shown in Figure 5–6. The polygons noted on this figure denote the general area / proximity of test locations in relation to site features (i.e., not the actual footprints of site features themselves). A complete list of bedrock hydraulic conductivity measurements is provided in Attachment B. Of the 220 bedrock hydraulic conductivity estimates, available at the time of report preparation, 99 are associated with either the CDF or are directly adjacent to the CDF / Open Pit (i.e., the transition zone between the CDF and open pit areas), 72 are located within or near to the proposed open pit, 31 are located across the eastern portion of the Project site and 18 hydraulic conductivity estimates are available at the proposed dike locations.

Based on the hydrostratigraphic conceptualization described in Section 5.1, bedrock at site is broadly grouped into three zones, including host rock, UGM zone, and the low RQD zone. Utilizing the 3D hydrostratigraphic model developed in Leapfrog, hydraulic conductivity estimates for bedrock have been grouped into these three categories (i.e., by querying the corresponding bedrock model unit where each test interval was located) and are provided against interval depth in Figure 5–7. On this plot:

- Error bars are used to indicate the interval depth / length for each data point, with the data symbol corresponding to the centre of the interval. Inclined hole intervals have been converted to the corresponding vertical depth / length.
- Four UGM zone measurements are present, with hydraulic conductivity values ranging from 10^{-6} to 2×10^{-5} m/s, with a geometric mean of 5×10^{-6} m/s.
- The 33 low RQD zone measurements have hydraulic conductivity values ranging from 4.4×10^{-8} to 3×10^{-4} m/s, with a geometric mean of 2.9×10^{-6} m/s.

- There are 183 measurements in the host rock zone, with hydraulic conductivity values ranging from 10^{-10} to 1.6×10^{-4} m/s, and a geometric mean of 2.1×10^{-7} m/s. Hydraulic conductivity values in the host rock zone generally show a wider range, with an apparent decrease in both hydraulic conductivity as well as its variability with depth (i.e., hydraulic conductivity values tend to decrease with depth – likely as fractures seal due to the increasing confining pressures with depth). Note that six “low” values are included in the plot, arbitrarily shown as 10^{-9} m/s.

The hydraulic conductivity data are summarized in histogram format in Figure 5–8. This plot illustrates the variability in hydraulic conductivity values for the host rock zone compared to the low RQD zone, which show consistently higher hydraulic conductivity values.

An assessment was also conducted to determine the correlation between the hydraulic conductivity and RQD of test intervals (as permissible by the available data). RQD is plotted against bedrock hydraulic conductivity in Figure 5–9. This plot demonstrates:

- Intervals within the low RQD zone have lower RQD and typically correspond to higher K values. This further corroborates the use of the low RQD zone as a distinct hydrostratigraphic unit. Note that, since the physical boundaries (i.e., the interpolated 3D volume) of the low RQD zone are based on the Leapfrog modelling, a few core runs with higher RQD values are present within the volume (as shown in this plot).
- UGM zone intervals also have low RQD and correspondingly higher hydraulic conductivity.
- Intervals in the host rock show variable RQD, though are generally greater than 80%, which correspond to a wide range of hydraulic conductivity values.

To assess the spatial variability of the host bedrock hydraulic conductivity across the site, hydraulic conductivity estimates, shown in Figure 5–7 and Figure 5–9 for host bedrock, have been tabulated as a function of their location across the site. Site location demarcations for bedrock hydraulic test data correspond to the polygons shown in Figure 5–6. The locations for these groupings and analysis of hydraulic conductivity testing data are defined as the:

- CDF area;
- Open pit area;
- Dike area;
- East side of the mine site area (i.e., approximate location of the proposed plant site and ore stockpiles); and
- Open pit / CDF area (i.e., the transition / boundary between the CDF and open pit areas, generally corresponding to the eastern shoreline of the CDF peninsula).

Hydraulic conductivity estimates of the host bedrock have been tabulated in this way as bedrock type in the vicinity of proposed mine infrastructure such as the CDF, which is an important site feature, primarily consists of competent andesite, which contrasts with the variable rock types and qualities found across the rest of site (excluding the low RQD and UGM zones).

Figure 5–10 shows the estimated hydraulic conductivities of the host bedrock plotted against the interval depth, but now coloured by site location. These data are also plotted as a histogram in Figure 5–11. The corresponding geometric mean values of hydraulic conductivity are provided in Table 5–3.

Based on these figures and Table 5–3:

- For all areas at site, both hydraulic conductivity and its variability tend to decrease with depth.
- Outside of the CDF area, the other bedrock zones show a fairly narrow range of geometric means between them, with each area being within about a factor of three of the overall “other” mean.
- The geometric mean of hydraulic conductivity of the CDF area rock (3.2×10^{-8} m/s) is lower compared to “other” host rock areas of site (4.0×10^{-7} m/s). This contrast supports their differentiation in the conceptual hydrostratigraphic model.

Based on the distribution of estimated hydraulic conductivity values with depth (colour coded as a function of site location) shown in Figure 5–10, geometric mean hydraulic conductivity values for different depth intervals can be estimated. The resulting geometric means for each depth interval shown in Figure 5–10 are given in Table 5–4, along with the mean values for the low RQD and UGM zones, which are shown in Figure 5–7. Note, the low RQD and UGM zone hydraulic conductivities are not assumed to vary with depth, based on the available data.

The hydraulic conductivity estimates for shallow bedrock (i.e., approximately the upper 25 metres below ground surface [mbgs]) in the area of the CDF are depicted in Figure 5–12. The order of magnitude of the hydraulic conductivity values in shallow rock in the CDF generally show limited spatial bias. An exception to this, however, exists along the southeastern shoreline which is adjacent to the open pit and low RQD zones. This area likely represents a transition zone between the relatively competent and lower permeability rock of the CDF area with the weaker and more permeable rock in the immediate vicinity of the open pit.

5.2.2.1 Long-Term Pumping Test

Pumping tests can provide information on local fracture connectivity at a given test location through the observation of water level responses at nearby monitoring wells (i.e., observation wells) due to pumping from test well (i.e., pumping well). Bedrock settings represent highly heterogeneous systems, consisting of variably connected fractures surrounded by a practically impermeable bedrock matrix (which combined represent the “bulk” properties of a representative volume of rock). The yield of the test well (i.e., achievable pumping rate), and its corresponding drawdown, are governed by the permeability / connectivity of fractures that intersect the test well. Not all fracture sets that contribute flow to a pumping well are necessarily intersected by the monitoring well network. Conversely, monitoring wells do not necessarily have fracture sets that are connected to the pumping well, even if other permeable fractures do intersect the monitoring well screen (i.e., the fractures are connected to some other flow pathway that does not connect to the pumping well). Generally, observations from the pumping well show the total / cumulative response of permeable fracture sets while monitoring well responses demonstrate whether the monitoring well is connected to the pumping well.

A 30-day pumping test was conducted at site in this isthmus area between the CDF area and plant site area. This test was conducted from October 18 to November 16, 2020. Details from this testing are provided in Appendix A of Annex A. Pumping was conducted from the long-interval borehole SPW20-001 at a rate ranging from approximately 160 to 204 litres per minute (L/min; i.e., 230 to 294 cubic metres per day [m^3/d]) and was followed by a recovery monitoring period of two days.

Distance-drawdown plots for late test data may give insight into which wells are likely best connected to the pumping well and therefore whose hydraulic conductivity estimates are most representative for that specific, most permeable, pathway. Distance-drawdown data from day 30 of the pumping test are shown in Figure 5–13. A summary of the test data and drilling information from selected monitoring wells / open exploration holes from the test network is given in Table 5–5.

Data from this test demonstrate the variability of local fracture connectivity in this area, with a wide range in measured responses to pumping from SPW20-001. Several wells near the pumping well show limited response to pumping (e.g., BL-263), while others at farther distances show a greater response (e.g., BL-102). Standard pumping test analysis does not account for heterogeneity / differences in hydraulic connection when comparing analysis results between two wells for a given pumping test. Observation wells with little drawdown, whose data would yield higher hydraulic conductivity estimates (all else being equal), are likely not to be representative when larger drawdowns are observed at wells farther from the pumping well. The implication of this is that wells with the largest responses to pumping yield the most representative values for that specific pathway / set of fractures (i.e., only the more permeable fracture sets connected to the test well are quantifiable), while monitoring wells with unexpectedly low drawdown are likely indicative of limited hydraulic connection to the pumping well (or other complicating factors such as hydraulic boundaries), whose analysis would yield unrepresentative values since pumping test analysis inherently does not account for flow system heterogeneity.

The Cooper-Jacob (1946) distance-drawdown solution was applied to the data fit and parameters shown in Figure 5-13. The resulting hydraulic conductivity estimate from this calculation is 6.9×10^{-8} m/s (transmissivity of 2.7×10^{-5} m²/s), with a specific storage of 3.3×10^{-6} m⁻¹ (storativity of 1.3×10^{-3}). The estimated hydraulic conductivity based on the data collected from the pumping well only for this test was approximately 2.5×10^{-7} m/s (i.e., a factor of 3.6 higher), suggesting that additional fracture sets contributing flow to the well are not intercepted by the monitoring network. This compares quite well with the overall geometric mean of "other" site locations host rock hydraulic conductivity values which is 4.0×10^{-7} m/s. Given that this estimated geometric mean value is based primarily on single well packer tests, this suggests that packer tests are a good indicator of the more permeable fracture sets at this location. Several observation wells from this test fall on the interpreted best-fit line (likely representing the observation wells best connected to the pumping well), including SGH20-005, BL-0354 and BL-0102.

It should be noted that the transmissivity of fractures contributing flow to the pumping well cannot exceed the transmissivity as estimated in the pumping well. Pumping test analyses for observation wells that yield transmissivity values greater than estimated based on the pumping well data are likely to be unrepresentative. Though, it should also be recognized that, due to nonlinear / turbulent flow losses, transmissivity based on pumping well drawdowns can be difficult to quantify in the absence of step-test data. Further to this, it is possible that the primary fractures contributing flow to the pumping well are not intersected by the monitoring well network.

In addition to the general nature of local fracture connectivity, the proximity of the observation wells (which themselves, along with other long and open exploration holes in the immediate vicinity, may act as preferential flow conduits affecting the results of the pumping test) to Springpole Lake and Birch Lake may also influence / suppress responses to pumping from SPW20-001 (i.e., a hydraulic boundary condition effect). For example, a well that shows minimal response to pumping may actually point to a well that is well-connected to Springpole Lake via the low RQD zone, rather than a well that is poorly connected to the pumping well (as noted above). Figure 5-14 shows the measured test drawdowns after 30 days of pumping (after FracFlow 2021) with respect to the horizontal extent of the low RQD zone (i.e., portage Zone) superimposed onto the figure. The only observation hole falling distinctly within this zone is BL-0310, which has a 30-day drawdown of 1.2 m. Although detailed structural / RQD logging was not conducted for this hole, notes from drilling do not suggest any likely major flow zones and packer testing in this hole indicated a low permeability in the upper section of this hole (2.5×10^{-7} m/s from 3 to 76 mbgs). Thus, despite its position relative to the low RQD zone, the minimal drawdown response in BL-0310 can likely be attributed to a lack of hydraulic connection with the pumping well, rather than a strong hydraulic connection to Springpole Lake via the low RQD zone.

5.3 Groundwater Levels

Groundwater level monitoring has been conducted at site to support baseline characterization and design activities. This has included “snapshot” water level monitoring rounds as well as automated datalogging in screened monitoring wells (MWs), selected open boreholes and VWP.

5.3.1 Groundwater Monitoring Network

The locations of groundwater monitoring installations are shown in Figure 5–15. The details of screened monitoring well installations and VWP installations are provided in Table 5–6 and Table 5–7, respectively. Screened monitoring wells are typically completed within the upper 20 mbgs (vertical depth), with the majority of monitored intervals / depths within bedrock, while VWP installation depths range from 5 to 357 mbgs. Generally, the deepest VWP installations correspond to the open pit area. Many monitoring locations (both screened wells and VWPs) include nested wells / multi-levels, which allow for the assessment of vertical hydraulic gradients.

Spatially, groundwater monitoring locations are distributed fairly uniformly across site, but with focused monitoring at locations of interest (e.g., perimeter of the open pit, CDF area). SPW20-002, located to the southeast of Project infrastructure, represents a background monitoring well, as it is far enough removed from site infrastructure that it is not expected to coincide with a potential seepage pathway.

Monitoring well installations in 2022 (22-series monitoring wells) are focused at locations of interest for future environmental monitoring, including the proposed CDF, ore stockpiles and plant site.

5.3.2 Long-Term Monitoring

Selected screened monitoring wells (27) have been instrumented with automated pressure transducers (Solinst Levellogger 5), as indicated in Table 5–6, and are logging at a data acquisition frequency of twice daily. Barometric compensation of the data is conducted utilizing data from a barologger at site. VWPs installed at site are equipped with dataloggers, which are setup at a data acquisition frequency of one-hour. Conversion of raw VWP readings to groundwater elevations is subsequently performed per manufacturer specifications. It should be noted that, despite having nearly identical relative responses to Springpole Lake water levels (indicating a likely strong hydraulic connection), some VWP monitoring ports (SG22-017 and SGH21-006) have head values up to approximately 5 m lower / offset from the Springpole Lake value. This is due to a combination of VWP sensor calibration resolution and potential effects of borehole deviations. Generally speaking, Springpole Lake is expected to represent the groundwater discharge point of this local system; therefore, VWP readings consistent with the Springpole Lake fluctuations are considered here to be connected to the Springpole Lake level.

Groundwater level timeseries plots (i.e., hydrographs) for site groundwater monitoring installations are provided in Figure 5–16 to Figure 5–20. Surface water levels from monitoring stations, including Springpole Lake (L1B-FFC), Birch Lake (L10), F13 and F11-HS2 are also given to provide context for the overall hydrologic cycle. The locations of these stations are given in Figure 4–1 and Figure 4–2. Note that for the two small sub-watersheds, F13 and F11-HS2, the benchmarks were not surveyed at the time of data acquisition. These stations are plotted on a secondary axis with an arbitrary datum and are intended to provide context on the timing of the surface water flows, particularly the melt during spring of 2022 and 2023. Manual water level measurements for screened monitoring wells are also provided as individual points plotted on top of the continuous data and are indicated with the addition of an “M” in the legend. Note, monitoring port identification convention for VWPs indicates the VWP port elevation after the hole identification. For example, BH-TMF-35-367 indicates the VWP installed in BH-TMF-35 and an elevation of 367 m amsl.

Figure 5–16 shows water level readings from monitoring wells for installations in the area of the CDF from November 2021 to June 2023. In this plot:

- Springpole Lake and smaller watershed stations F13 and F11-HS2 stages begin to rise at the end of April 2022. This is inferred to indicate the beginning of the freshet for the overall hydrologic system (i.e., the 2022 spring freshet). The initial spike in water levels observed at F13 and F11-HS2 are expected to be driven by snowmelt, with the later rise being driven by backwater effects from the rise in the Springpole Lake level. Most monitoring wells show a general rise in water level around this time. A spike in level for F13 is also apparent in the spring of 2023, indicating likely snow melt events associated with the 2023 freshet.
- Several monitoring wells, however, show a slightly earlier water level rise during the 2022 freshet, compared to the Springpole Lake rise. For example, BH-WSF2-06 (screened from 4 to 8 mbgs) which is inland and is located at a topographic high, begins to rise on April 10, 2022.
- Groundwater levels are sustained at a relatively high level from early May to mid August, 2022, at which point groundwater levels recede during the dry season.
- The amount of groundwater level change before / after the 2022 freshet ranges from <1 to about 8 m, with the largest fluctuation being in SH22-MW-002A (screened from 12.4 to 15.4 mbgs), which is located 130 m from the shoreline of Birch Lake at a small / local topographic high in the northern CDF area. Hydraulic testing in this well yielded the highest result in CDF area monitoring wells, at 1.9×10^{-5} m/s.
 - SH22-MW-002B (screened from 2.7 to 5.8 mbgs at the same location) shows a very subdued response, which is consistent with its “Low” hydraulic conductivity estimate from testing. This well fails to recover after purging during the August 2022 sampling program, indicating the shallow local fractures connected to this well have likely been depleted.
- Based on groundwater levels, the spring 2023 freshet begins in early April of 2023, with the earliest responses in SGH22-MW-006A and SH22-MW-006B.
- BH-WSF2-14D shows a very muted response to the 2023 freshet, with only about 5 centimetres (cm) of measured water level rise.
- Several monitoring wells show large drawdown and recovery events (e.g., SH22-MW-001A, SH22-0MW-003A/B). These correspond to sampling and testing events in “tight” / slow response wells during the August and October 2022 sampling rounds.

Figure 5–17 shows head data from VWPs in the area of the CDF from October 2021 to September 2022. In this plot:

- Seasonal groundwater fluctuation ranges are typically between 1 and 2 m, with the largest being in BH-TMF-37-405, which shows an approximate 2.4 m rise from the 2022 freshet.
- VWP responses to the spring 2022 freshet are variable, with some VWPs showing sharper responses (e.g., BH-TMF-35-397) and others more muted / subdued (e.g., SCH21-049-306). Generally, shallower VWPs tend to show sharp responses and deeper VWPs tend to show muted responses.
- VWPs respond primarily to the early “spike” of the freshet, which likely represents the main snowmelt event, rather than the overall rise in the Springpole Lake water level. This suggests a weak hydraulic connection with Springpole Lake and more of a dependence on the permeability of and infiltration to rock in the immediate vicinity of the VWP.

Monitoring well time-series plots for other site locations (i.e., not the area of the CDF) are given in Figure 5–18 from November 2021 to June 2023. Based on data in this plot:

- Seasonal groundwater fluctuation ranges are up to 2.5 m (SH22-MW-004D), with some wells showing only minimal responses (e.g., BH-WSF1-12D/S – located at a topographic low area just southeast of Birch Lake).
- Water levels begin to rise in monitoring wells prior to the apparent spikes in surface water stages, indicating likely recharge responses to localized snowmelt or rainfall.
- Similar to CDF area monitoring wells, water levels are sustained relatively high from mid April until late August, 2022, after which they begin to recede during the dry season.
- Water levels continue to decline, with a few brief / minor rise / recharge events, through late autumn and winter until early April, 2023 as a result of the 2023 freshet.

Figure 5–19 shows head data from VWP at all other areas of site from October 2021 to September 2022. In this plot:

- Two classes of VWP responses are apparent: those strongly connected to Springpole Lake (SGH21-006, SG22-008 and SG22-017) and the rest (SH22-002 and BH-CAMP-32).
- SGH21-006, SG22-008 and SH22-017 VWPs demonstrate nearly identical responses to the Springpole Lake level, indicating a strong hydraulic connection to the lake. This agrees with the position of these VWPs relative to the low RQD zone, suggesting the lack of an aquitard isolating the VWPs from the lake.
- SH22-002 and BH-CAMP-32 show earlier rises in head compared to Springpole Lake, indicating that water levels at these VWP may be driven by recharge from melt or rainfall in the spring of 2022.

5.3.3 Fall 2022 Water Level Monitoring

A “snapshot” water level monitoring event was conducted at site between October 8 and 17, 2022 and included manual water level measurements in 52 screened monitoring wells and four open holes. This is also supplemented by VWP readings from 26 monitoring ports (10 multi-levels) from between September 25 and 29, 2022, for a total of 82 measurements. Based on groundwater elevation and stream stage observations shown in Figure 5–16 to Figure 5–19 this monitoring round corresponds to “dry” conditions (i.e., a period of generally lower groundwater levels and reduced surface water flows following the spring freshet and preceding the late fall / early winter wet season).

The water level data were subsequently processed and are provided in Table 5–8.

Depth to water measurements in site monitoring wells are generally quite shallow, with the average water depth being approximately 3.0 metres below top of casing (mbtoc). Measured groundwater table relief in the area is approximately 27 m, based on the measured high in BH-WSF2-06 (417.9 m) and the Springpole Lake level of 391.3 m amsl, at the time of monitoring.

Vertical gradients in screened monitoring wells, based on nested well locations, range from -0.21 metres/metre (m/m) (upward) to 0.471 m/m (downward). Upward gradients generally correspond to topographic lows / inferred groundwater discharge zones and the downward gradients to the topographic highs / inferred groundwater recharge areas. Vertical gradients in VWPs, however, generally show a narrower range, with vertical gradients ranging from -0.115 to 0.064 m/m. VWPs in the area of the open pit generally show smaller gradients, which is due, partly, to their proximity to Springpole Lake. In addition, bedrock in the immediate vicinity of the open pit has higher hydraulic conductivity (i.e., the low RQD zone; Section 5.2), leading to better hydraulic connection between monitoring ports (i.e., no aquitard separating the monitoring zones).

Data from this monitoring round were subsequently used to compute groundwater level contours using Golden Software Surfer (Version 23). Groundwater contours were generated by co-kriging the measured water elevations against the site digital elevation model on a 20 by 20 m grid spacing. Fixed water levels (i.e., breaklines) were assigned along the shorelines of the various lakes / ponds surrounding site. In the case of multi-level wells (i.e., nested wells and VWPs), the shallowest monitoring port was generally used for contours. The resulting contours are shown in Figure 5–20 along with the measured data.

The water level contours and measured data illustrate that groundwater levels generally dissipate from topographic highs (e.g., BH-WSF2-06 at 417.9 m amsl) towards the lows and surface water features. Locations of shallow groundwater levels at topographic highs are likely indicative of a tendency for local bedrock to not readily drain (i.e., low permeability or limited fracture connectivity).

5.4 Groundwater Recharge

Groundwater recharge for the area will generally be highest during the spring freshet and late fall, when rainfall / snowmelt peak and evapotranspiration is reduced, and is typically focused at locations where the landscape is favourable (i.e., flat to gently sloping, minimal interception / transpiration yet shaded from evaporation, permeable soil). As such, localized infiltration / recharge rates can vary considerably within a given watershed depending on immediate local conditions. Overall, recharge is generally best-informed by catchment-scale stream flow monitoring and, as such, can likely be best approximated for the site utilizing streamflow data from local sub-watersheds.

Stream flow monitoring has been conducted at site as part of baseline hydrological characterization (Wood 2021a; Appendix M-1). The monitoring network for these data are provided in Figure 4–1 and Figure 4–2. Hydrographs for selected stations are provided in Figure 5–16 to Figure 5–19. A summary of baseflow (i.e., low-flow) measurements from locally monitored stations is given in Table 5–9. This table provides the measured volumetric baseflows and normalizes them to the watershed drainage area, thereby providing an estimate of groundwater recharge for the area.

Based on the measured low-flows, groundwater recharge rates range from approximately 25 to 76 millimetres per year (mm/yr), though it should be noted that there will be seasonal fluctuations with groundwater recharge, just as there are in groundwater levels. This range is generally consistent with regional studies on groundwater recharge in northern Ontario, completed by Singer and Cheng (2002). Conclusions from this study indicated, on average, that groundwater recharge in northern Ontario ranged from 27.6 to 57.9 mm/yr on an average annual basis.

The timing of groundwater recharge can be informed by groundwater hydrographs shown in Figure 5–16 to Figure 5–19. The timing of recharge events generally corresponds to water table rise and its sustained high period. For 2022, this corresponds to the period from approximately April to August. Groundwater levels begin to rise as a result of the 2022 freshet in April and remain high through to August as a result of recurring infiltration / recharge events. The only apparent minor recharge events occurred during October, after which levels begin to drop from late summer through to the 2023 freshet.

Table 5–1: Site Hydrostratigraphic Layers

	Unit	Description
Overburden	Surficial organics	The Project site is generally covered by a thin layer of dark brown to black peat / organics which is typically less than 1 m on land (average of 0.39 m, excluding outcrop locations). Lower ground surface elevations tend to show increasing organics depth. The thickest organics at site are often found adjacent to the various lakes / ponds.
	Lake bed organics	Lake bed organics form the shallowest substrate of the various lakes around site. The thickest lake bed organics are likely to be present in the deepest part of Springpole Lake (average thickness of 1.4 m). Note that the substrate material of Springpole Lake includes silt / clay and till deposits, in addition to the shallow lake bed organics.
	Glaciolacustrine silt / clays	Glaciolacustrine silts / clays are sparsely distributed at site, with average thicknesses being approximately 0.68 m. A small decrease in thickness with increasing elevation is apparent based on the measured data.
	Glacial till	A thin layer of till with variable composition covers most of the existing ground surface, with an average thickness of 1.1 m. The till thickness does not change appreciably with elevation, on-land, suggesting that the topography is covered with a consistent, thin, veneer of till.
	Coarse deposit	A sand / gravel deposit of limited spatial extent is located along the eastern shoreline of Springpole Lake. This material primarily consists of sand and gravel. Due to its very limited spatial extent, it is not expected to represent a unit of hydrogeological significance for this study.
Bedrock	UGM zone	Highly altered / disintegrated rock lending to a “sand-like” texture due to its apparent granularity. This zone is located primarily within / adjacent to the extents of the proposed open pit and is largely encapsulated by a zone of low RQD rock (see next row), which together form the Portage Zone.
	Low RQD zone	A zone of very low RQD bedrock (defined as less than 25% based on structural modelling) is present in the area of the proposed open pit. This zone largely encapsulates the UGM zone; combined it forms the portage zone. Due to the persistence of low rock qualities in this zone, bedrock structures are not expected to enhance its already high permeability. This zone represents a modelled / interpolated volume based on rock mechanics modelling being conducted to support open pit slope stability analyses.
	Host rock	Host / country rock surrounding the pit area (i.e., the UGM zone and low RQD zone, or together the portage zone), consists of a varying lithologies, as described in Section 3.2. Bedrock in the area of the CDF consists primarily of andesite, while other areas of site have more varied lithology. Several structures have been mapped in the area of the open pit which may extend into the host rock zone, particularly in area of the CDF.

Table 5–2: Site Overburden Materials Hydraulic Tests

Well ID	Material	Test Type	K (m/s)
BH-WFS1-11S	Surficial organics (peat)	Single well	3.3×10^{-6}
BH-TMF-15S	Silt / clay (glaciolacustrine)	Single well	1.7×10^{-6}
BH-PS-08-R1S	Glacial till	Single well	1.2×10^{-5}
BH-WSF1-02S	Overburden (undifferentiated)	Single well	8.5×10^{-5}
MW2	Overburden (undifferentiated)	Single well	2.6×10^{-6}
MW3	Overburden (undifferentiated)	Single well	4.5×10^{-6}
MW5	Overburden (undifferentiated)	Single well	4.6×10^{-6}
BH18-06	Overburden (undifferentiated)	Single well	1.0×10^{-6}
BH-WSF1-01S	Overburden / rock interface	Single well	1.9×10^{-5}
BH-WFS1-12S	Overburden / rock interface	Single well	2.1×10^{-5}
BH-WFS2-13S	Overburden / rock interface	Single well	2.1×10^{-6}
BH-PS-09-R1S	Overburden / rock interface	Single well	3.1×10^{-5}
-	Lake bed organics (clay, silt, soft, dark grey)	Lab constant head	3.0×10^{-10}
-	Lake bed organics (clay, silty, trace sand)	Lab constant head	1.7×10^{-9}

ID = identification.

Table 5–3: Geometric Mean Values of Host Bedrock Hydraulic Conductivity

SITE LOCATION		COUNT	GEOMETRIC MEAN – K (M/S)	GEOMETRIC MEAN – K (M/S)
CDF Host Rock		40 + 6 “Low” values ⁽¹⁾	3.2×10^{-8} ⁽²⁾	3.2×10^{-8} ⁽²⁾
“Other” Host Rock	Dike	18	1.0×10^{-6}	4.0×10^{-7}
	East	31	4.6×10^{-7}	
	Open pit	55	2.5×10^{-7}	
	Open pit / CDF	33	4.2×10^{-7}	

Notes:

- (1) Note that, for the CDF, several “Low” values (i.e., no flow during packer testing or minimal recovery during rising head testing) are included / plotted at 10^{-9} m/s.
(2) “Low” values assumed as 10^{-9} m/s for purpose of calculation of mean.

Table 5–4: Bedrock Hydraulic Conductivity Values with Depth

Layer	Location	Depth (mbgs)	Count	Geometric Mean - k (m/s)
Host Rock	CDF area	0 - 25	30	5.7×10^{-8}
		25 - 200	13	1.6×10^{-8}
		> 200	3	2.3×10^{-9}
	“Other” ⁽¹⁾ area	0 - 25	49	8.5×10^{-7}
		25 - 125	48	5.9×10^{-7}
		125 - 350	39	1.1×10^{-7}
		> 350	1	1.0×10^{-10}
Low RQD		-	33	2.9×10^{-6}
UGM		-	4	5.0×10^{-6}

Note:

- (1) Includes open pit, open pit / CDF, dike, and east side of the mine site area (i.e., plant site and ore stockpiles area) locations.

Table 5–5: Selected Data for 30-Day Test Well Network

Hole ID	Approximate Distance From Pumping Well (m)	Drawdown (m)	Depth		Lithology	Approximate rqd (%)		Notes from Drilling
			From (mbgs)	To (mbgs)		Average	Minimum	
BL-0102	97	20.4	13.5	19.8	Mafic volcanic	-	-	Water streaming in
			38.7	47.2	Sandstone	-	-	Water streaming in
			75.6	87.7	Mafic volcanic	-	-	Water streaming in
			109.4	123.2	Diorite	-	-	Water streaming in
BL-0098	65	7	1.6	54.3	Diorite	-	-	
			54.3	54.7	Porphyry	-	-	
			54.7	65.8	Diorite	-	-	
			65.8	187.4	Diorite	-	-	
BL-0263	7	3.42	1.9	19.0	Sedimentary	-	-	
			19.0	59.7	Mafic volcanic	-	-	
			59.7	60.0	Mafic volcanic	-	-	
BL-0310	215	1.2	2.7	31.9	Mafic volcanic	-	-	
			31.9	34.6	Mafic volcanic	-	-	
			34.6	77.1	Intermediate volcanic	-	-	
			77.1	107.1	Metasediments	-	-	
SGH20-005	130	14.8	1.6	49.1	Andesite	79	53	
			49.1	59.0	Andesite	89	84	
			59.0	121.8	Andesite	78	55	
			121.8	154.9	Andesite	93	77	
			154.9	246.7	Intermediate volcanic	82	63	
SPW20-001	-	21.6	4	19.96	Trachyte	93	78	
			19.96	35.34	Andesite	88	71	
			35.34	37.48	Trachyte	98	98	
			37.48	92	Andesite	97	83	
			92	226.05	Andesite	95	75	

ID = identification.

Table 5-6: Screened Monitoring Well Installation Details

Hole ID	Easting	Northing	Top of Casing (m amsl)	Ground Surface Elevation (m amsl)	Stick-Up (mags)	Screened ⁽¹⁾ from (mbgs)	Screened ⁽¹⁾ to (mbgs)	Completion Material	Automated Transducer
BH-PS-07-R1D	550473	5694184	405.11	404.85	0.26	8.6	10.8	Bedrock	No
BH-PS-07-R1S	550473	5694184	405.09	404.85	0.24	5.1	7.1	Bedrock	No
BH-PS-08-R1D	550666	5693923	400.97	400.80	0.17	8.3	11.1	Bedrock	No
BH-PS-08-R1S	550666	5693923	400.95	400.80	0.15	3.0	5.9	Overburden	No
BH-PS-09-R1D	550747	5693841	400.76	400.40	0.36	6.1	8.2	Bedrock	No
BH-PS-09-R1S	550747	5693841	400.74	400.40	0.34	1.4	3.0	Overburden	No
BH-TMF-04D	548122	5693471	413.66	412.27	1.39	10.0	14.2	Bedrock	No
BH-TMF-04S	548122	5693471	413.70	412.27	1.43	3.1	4.9	Bedrock	No
BH-TMF-05	547428	5694198	413.62	413.31	0.31	6.6	9.6	Bedrock	No
BH-TMF-15D	549463	5692557	395.89	395.75	0.14	9.2	11.2	Bedrock	Yes
BH-TMF-15S	549463	5692557	395.99	395.75	0.24	3.6	5.3	Overburden	No
BH-WSF1-01D	549772	5695076	398.97	398.80	0.17	6.8	8.2	Bedrock	Yes
BH-WSF1-01S	549772	5695076	398.94	398.80	0.14	0.2	2.3	Overburden	Yes
BH-WSF1-02D	550399	5694977	400.18	399.96	0.22	5.9	8.1	Bedrock	No
BH-WSF1-02S	550399	5694977	400.20	399.96	0.24	0.2	2.3	Overburden	No
BH-WSF1-03D	550726	5694431	404.85	404.63	0.22	8.2	10.4	Bedrock	Yes
BH-WSF1-03S	550726	5694431	404.86	404.63	0.23	2.8	5.0	Overburden	Yes
BH-WSF1-11D	551085	5694725	399.41	399.30	0.11	6.1	11.3	Bedrock	No
BH-WSF1-11S	551085	5694725	399.43	399.30	0.13	1.2	3.0	Overburden	No
BH-WSF1-12D	549785	5695494	395.40	395.23	0.17	6.1	8.2	Bedrock	Yes
BH-WSF1-12S	549785	5695494	395.40	395.23	0.17	1.7	3.3	Overburden	Yes
BH-WSF2-06	548012	5694089	420.56	420.34	0.22	4.1	8.1	Bedrock	Yes
BH-WSF2-13D	547290	5694515	401.89	401.47	0.42	6.6	9.7	Bedrock	No
BH-WSF2-13S	547290	5694515	401.90	401.47	0.43	0.7	2.3	Overburden	No
BH-WSF2-14D	547152	5692980	404.55	404.20	0.35	7.7	9.4	Bedrock	Yes
BH-WSF2-14S	547152	5692980	404.49	404.20	0.29	0.4	3.5	Overburden	No
BL-0143D	549041	5693629	398.06	397.35	0.71	20.9	22.3	Bedrock	No
BL-0143S	549041	5693629	398.06	397.35	0.71	8.3	9.7	Bedrock	No
BL-0321D	548909	5693708	395.81	394.37	1.44	21.3	23.6	Bedrock	Yes
BL-0321S	548909	5693708	395.51	394.37	1.14	6.9	8.0	Bedrock	Yes
BL-0334D	548847	5692194	398.74	398.00	0.74	22.7	23.8	Bedrock	Yes
BL-0334S	548847	5692194	398.71	398.00	0.71	8.6	9.7	Bedrock	No
BL-0357	549473	5692455	397.30	396.61	0.69	16.5	17.5	Bedrock	No
MW1	549750	5694109	401.45	400.30	1.15	1.4	2.2	Overburden	No
MW2	548946	5694468	396.00	395.00	1.09	3.4	4.2	Overburden	No
MW3	550320	5694013	399.30	398.00	1.27	1.2	2.0	Overburden	No
MW5	549556	5692429	393.10	392.00	1.08	3.7	4.5	Overburden	No
SGH20-001	549339	5693015	404.28	403.51	0.77	19.3	21.6	Bedrock	No
SGH20-002	548918	5693693	395.60	394.92	0.68	18.0	19.1	Bedrock	No
SGH20-004	548811	5694076	409.67	408.58	1.09	19.0	21.3	Bedrock	No
SGH20-008D	549328	5694167	401.19	400.81	0.38	22.4	24.8	Bedrock	No
SGH20-008S	549328	5694167	401.47	400.81	0.66	12.5	13.7	Bedrock	No

Table 5-6: Screened Monitoring Well Installation Details

Hole ID	Easting	Northing	Top of Casing (m amsl)	Ground Surface Elevation (m amsl)	Stick-Up (mags)	Screened ⁽¹⁾ from (mbgs)	Screened ⁽¹⁾ to (mbgs)	Completion Material	Automated Transducer
SH22-MW-001A	548477	5694283	412.17	411.15	1.02	12.5	15.5	Bedrock	Yes
SH22-MW-001B	548477	5694283	411.48	410.48	1.00	2.8	5.9	Bedrock	Yes
SH22-MW-002A	546868	5694900	411.86	410.93	0.93	12.4	15.4	Bedrock	Yes
SH22-MW-002B	546868	5694900	411.13	410.18	0.95	2.7	5.8	Bedrock	Yes
SH22-MW-003A	548425	5692154	400.83	399.80	1.03	12.7	15.8	Bedrock	Yes
SH22-MW-003B	548426	5692154	400.77	399.81	0.96	3.0	6.2	Bedrock	Yes
SH22-MW-004C	549885	5694812	403.64	402.69	0.95	12.5	15.5	Bedrock	Yes
SH22-MW-004D	549885	5694812	403.65	402.69	0.96	2.7	5.7	Bedrock	Yes
SGH22-MW-006A	547532	5694692	402.75	401.77	0.98	9.0	12.0	Bedrock	Yes
SH22-MW-006B	547526	5694692	402.82	401.77	1.05	3.0	6.0	Bedrock	Yes
SH22-MW-007A	550823	5695082	401.13	400.18	0.95	2.7	5.7	Bedrock	Yes
SH22-MW-008A	551001	5694632	400.73	399.87	0.86	6.6	9.6	Bedrock	No
SH22-MW-008B	551001	5694632	400.76	399.87	0.89	1.8	4.8	Bedrock	Yes
SH22-MW-009A	551192	5694354	400.84	399.92	0.92	11.0	14.0	Bedrock	Yes
SH22-MW-009B	551192	5694354	400.80	399.92	0.88	3.3	6.3	Bedrock	Yes
SPW20-002	551960	5693264	408.16	407.83	0.33	2.8	40.0	Bedrock	Yes

Note:

(1) Vertical depth.

ID = identification; mags = metres above ground surface.

Table 5–7: Vibrating Wire Piezometer Installations Details

Hole ID	Ground Surface Elevation (m amsl)	Easting	Northing	VWP Serial #	Port ID	VWP Tip Depth (mbgs)	VWP Tip Elevation (m amsl)
SCH21-049	420.65	547341	5694275	VW132145	SCH21-049-380	40.3	380.3
				VW134683	SCH21-049-306	114.2	306.4
				VW128645	SCH21-049-236	184.6	236.0
SGH21-006	399.77	549171	5693255	VW134904	SGH21-006-381	17.8	381.2
				VW134153	SGH21-006-343	55.6	343.4
				VW134340	SGH21-006-260	140.2	259.6
				VW128643	SGH21-006-147	252.9	146.8
				VW135669	SGH21-006-43	357.0	42.7
SH22-002	396.69	548721	5694325	VW134921	SH22-002-377	20.0	376.7
				VW132146	SH22-002-347	50.0	346.7
				VW134697	SH22-002-277	120.0	276.7
BH-CAMP-32	408.00	551360	5693903	VW129077	BH-CAMP-32-403	4.8	403.2
BH-TMF-35	407.10	548125	5694343	VW129195	BH-TMF-35-397	10.0	397.1
				VW129154	BH-TMF-35-367	40.5	366.6
BH-TMF-36	403.80	548764	5693368	VW129076	BH-TMF-36-394	10.0	393.8
				VW129024	BH-TMF-36-363	40.5	363.3
BH-TMF-37	414.96	546937	5693579	VW129079	BH-TMF-37-405	10.0	405.0
				VW129029	BH-TMF-37-374	40.9	374.1
BH-TMF-38	410.40	547046	5694790	VW129074	BH-TMF-38-400	10.9	399.5
SG22-008	394.05	549200	5693446	VW140761	SG22-008-299	94.9	299.2
				VW128624	SG22-008-223	170.3	223.8
				VW135670	SG22-008-121	273.3	120.8
SG22-017	393.91	549975	5693214	VW137096	SG22-017-259	134.4	259.5
				VW137085	SG22-017-193	201.3	192.6
				VW140961	SG22-017-128	265.7	128.2
				VW140977	SG22-017-071	322.6	71.3

ID = identification.

Table 5–8: Fall 2022 Water Level Data

Station ID	Type	Easting	Northing	Date	Water Depth (mbgs)	Water Level (m amsl)	Vertical Gradient 1 ^(1,2)	Vertical Gradient 2 ^(1,2)
SH22-MW-003A	MW	548425	5692154	06-Oct-22	4.2	395.6	-0.001	
SH22-MW-003B	MW	548426	5692154	06-Oct-22	4.2	395.6		
BL-0334D	MW	548847	5692194	06-Oct-22	5.2	392.8	-0.001	
BL-0334S	MW	548847	5692194	06-Oct-22	5.2	392.8		
BL-0357	Open hole	549473	5692455	06-Oct-22	3.2	393.4		
MW5	MW	549556	5692429	06-Oct-22	1.6	390.4		
SH22-MW-001B	MW	548477	5694283	06-Oct-22	3.6	406.9	-0.209	
SH22-MW-001A	MW	548477	5694283	06-Oct-22	2.3	408.8		
SGH20-001	MW	549339	5693015	06-Oct-22	7.9	395.6		
BL-0143S	MW	549041	5693629	06-Oct-22	2.7	394.7	-0.210	
BL-0143D	MW	549041	5693629	06-Oct-22	0.05	397.3		
BH-TMF-04D	MW	548122	5693471	06-Oct-22	1.3	411.0	-0.051	
BH-TMF-04S	MW	548122	5693471	06-Oct-22	1.7	410.6		
BH-WSF2-06	MW	548012	5694089	06-Oct-22	2.4	417.9		
BH-TMF-05	MW	547428	5694198	06-Oct-22	0.2	413.1		
BH-WSF2-13D	MW	547290	5694515	06-Oct-22	2.4	399.1	0.218	
BH-WSF2-13S	MW	547290	5694515	06-Oct-22	0.9	400.6		
SGH20-004	MW	548811	5694076	06-Oct-22	15.1	393.5		
MW2	MW	548946	5694468	07-Oct-22	1.7	393.3		
SGH20-008D	MW	549328	5694167	07-Oct-22	8.5	392.3	0.471	
SGH20-008S	MW	549328	5694167	07-Oct-22	3.5	397.3		
BH-PS-07-R1S	MW	550473	5694184	07-Oct-22	3.4	401.5	0.251	
BH-PS-07-R1D	MW	550473	5694184	07-Oct-22	4.3	400.6		
BH-PS-08-R1S	MW	550666	5693923	07-Oct-22	1.1	399.7	0.010	
BH-PS-08-R1D	MW	550666	5693923	07-Oct-22	1.2	399.6		
BH-PS-09-R1S	MW	550747	5693841	07-Oct-22	1.2	399.2	-0.012	
BH-PS-09-R1D	MW	550747	5693841	07-Oct-22	1.1	399.3		
BH-WSF1-03S	MW	550726	5694431	07-Oct-22	1.5	403.1	0.157	
BH-WSF1-03D	MW	550726	5694431	07-Oct-22	2.3	402.3		
BH-WSF1-11S	MW	551085	5694725	07-Oct-22	0.8	398.5	-0.002	
BH-WSF1-11D	MW	551085	5694725	07-Oct-22	0.8	398.5		
SH22-MW-008B	MW	551001	5694632	07-Oct-22	0.2	399.7	0.019	
SH22-MW-008A	MW	551001	5694632	07-Oct-22	0.3	399.6		
SH22-MW-004D	MW	549885	5694812	08-Oct-22	1.6	401.1	0.008	
SH22-MW-004C	MW	549885	5694812	08-Oct-22	1.7	401.0		
BH-WSF1-02S	MW	550399	5694977	08-Oct-22	0.9	399.1	-0.009	
BH-WSF1-02D	MW	550399	5694977	08-Oct-22	0.9	399.1		
SH22-MW-007A	MW	550823	5695082	08-Oct-22	0.6	399.6		
BH-WSF1-01S	MW	549772	5695076	08-Oct-22	0.8	398.0	-0.019	
BH-WSF1-01D	MW	549772	5695076	08-Oct-22	0.7	398.1		
BH-WSF1-12D	MW	549785	5695494	08-Oct-22	0.7	394.5	-0.004	
BH-WSF1-12S	MW	549785	5695494	08-Oct-22	0.7	394.5		
MW3	MW	550320	5694013	09-Oct-22	0.2	397.8		
SH22-MW-009B	MW	551192	5694354	09-Oct-22	0.4	399.5	0.199	
SH22-MW-009A	MW	551192	5694354	09-Oct-22	1.9	398.0		

Table 5–8: Fall 2022 Water Level Data

Station ID	Type	Easting	Northing	Date	Water Depth (mbgs)	Water Level (m amsl)	Vertical Gradient 1 ^(1,2)	Vertical Gradient 2 ^(1,2)
SG22-042	Open hole	546581	5694466	10-Oct-22	0.4	401.6		
SG22-038	Open hole	547337	5693631	10-Oct-22	0.5	409.0		
BH-WSF2-14D	MW	547152	5692980	10-Oct-22	0.8	403.4	0.012	
BH-WSF2-14S	MW	547152	5692980	10-Oct-22	0.7	403.5		
SH22-MW-006B	MW	547526	5694692	12-Oct-22	-0.3	402.1	0.023	
SGH22-MW-006A	MW	547532	5694692	12-Oct-22	-0.2	402.0		
BH-TMF-15S	MW	549463	5692557	12-Oct-22	0.9	394.9	0.134	
BH-TMF-15D	MW	549463	5692557	12-Oct-22	1.7	394.1		
SG22-033	Open hole	547686	5692276	16-Oct-22	0.3	395.1		
SH22-MW-002B	MW	546868	5694900	17-Oct-22	5.2	405.0	0.151	
SH22-MW-002A	MW	546868	5694900	17-Oct-22	7.3	403.6		
SCH21-049-380	VWP	547341	5694275	29-Sep-22	6.9	413.7	0.038	
SCH21-049-306	VWP	547341	5694275	29-Sep-22	9.7	410.9		
SCH21-049-236	VWP	547341	5694275	29-Sep-22	11.1	409.5		
SGH21-006-381	VWP	549171	5693255	28-Sep-22	9.3	390.5	0.000	
SGH21-006-343	VWP	549171	5693255	28-Sep-22	9.3	390.5		
SGH21-006-260	VWP	549171	5693255	28-Sep-22	10.6	389.2	0.012	0.016
SGH21-006-147	VWP	549171	5693255	28-Sep-22	12.0	387.8		
SGH21-006-43	VWP	549171	5693255	28-Sep-22	12.0	388.0		-0.002
SH22-002-377	VWP	548721	5694325	25-Sep-22	1.1	395.6	0.000	
SH22-002-347	VWP	548721	5694325	25-Sep-22	1.1	395.6		
SH22-002-277	VWP	548721	5694325	25-Sep-22	1.1	395.6		
BH-CAMP-32-403	VWP	551360	5693903	25-Sep-22	0.2	407.8		
BH-TMF-35-397	VWP	548125	5694343	29-Sep-22	1.7	405.4	-0.115	
BH-TMF-35-367	VWP	548125	5694343	29-Sep-22	-1.8	408.9		
BH-TMF-36-394	VWP	548764	5693368	27-Sep-22	-1.3	405.1	-0.033	
BH-TMF-36-363	VWP	548764	5693368	27-Sep-22	-2.3	406.1		
BH-TMF-37-405	VWP	546937	5693579	26-Sep-22	1.9	413.1	0.003	
BH-TMF-37-374	VWP	546937	5693579	26-Sep-22	2.0	413.0		
BH-TMF-38-400	VWP	547046	5694790	29-Sep-22	3.3	407.1		
SG22-008-299	VWP	549200	5693446	27-Sep-22	6.6	387.5	-0.057	
SG22-008-223	VWP	549200	5693446	27-Sep-22	2.3	391.8		
SG22-008-121	VWP	549200	5693446	27-Sep-22	3.4	390.7		
SG22-017-259	VWP	549975	5693214	28-Sep-22	5.0	388.9	-0.013	
SG22-017-193	VWP	549975	5693214	28-Sep-22	4.1	389.8		
SG22-017-128	VWP	549975	5693214	28-Sep-22	8.2	385.7	-0.014	0.064
SG22-017-071	VWP	549975	5693214	28-Sep-22	7.4	386.5		

Note:

(1) Sign convention taken as downward positive.

(2) Two columns of vertical gradient are given to show computed gradients for stations with multiple adjacent monitoring ports (i.e., above and below).

ID = identification.

Table 5–9: Measured Low-Flows in Local Small Watersheds

Hydrometric Station	Drainage Area (km²)	Date	Flow (m³/s)	Flow⁽¹⁾ (mm/yr)
F11-HS2	9.3	September 14, 2022 17:42	0.0104	35
		October 18, 2022 16:11	0.0062	21
		February 15, 2023 14:03	0.0116	39
F13	3.5	August 24, 2022 11:35	0.0084	76
		September 15, 2022 10:04	0.0035	32
F5-HS	1.5	August 9, 2021 11:00	0.0033	68
		August 24, 2021 16:24	0.0022	45
		September 14, 2022 9:35	0.0012	25

Note:

(1) Normalized by catchment area.

546000

548000

550000

552000

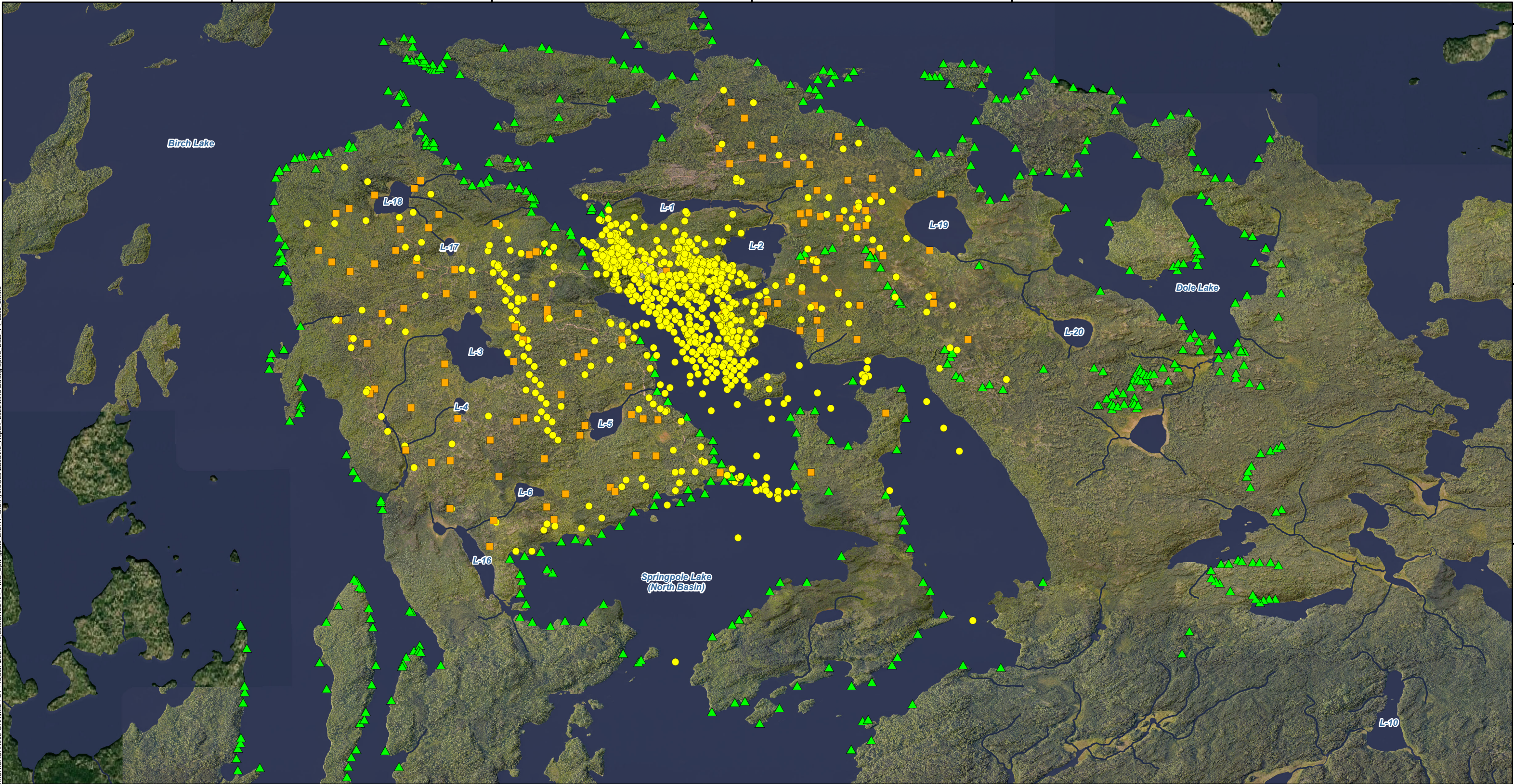
554000

5696000

5694000

5692000

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LEGEND

- Watercourse
- Waterbody
- Stratigraphic Data Point Locations**
 - Borehole
 - Outcrop Mapping
 - Test Pit

0 0.5 1 2 3 4 5 Kilometres

NOTES:
 - Topographic information extracted from LIO, MNR.
 - Aerial imagery provided by First Mining Gold, August 2020.

Datum: NAD83
 Projection: UTM Zone 15N

 	
SPRINGPOLE GOLD PROJECT	
Stratigraphic Data Point Locations	
PROJECT N°: ONS2104	FIGURE: 5-1
SCALE: 1:28,000	DATE: October 2023

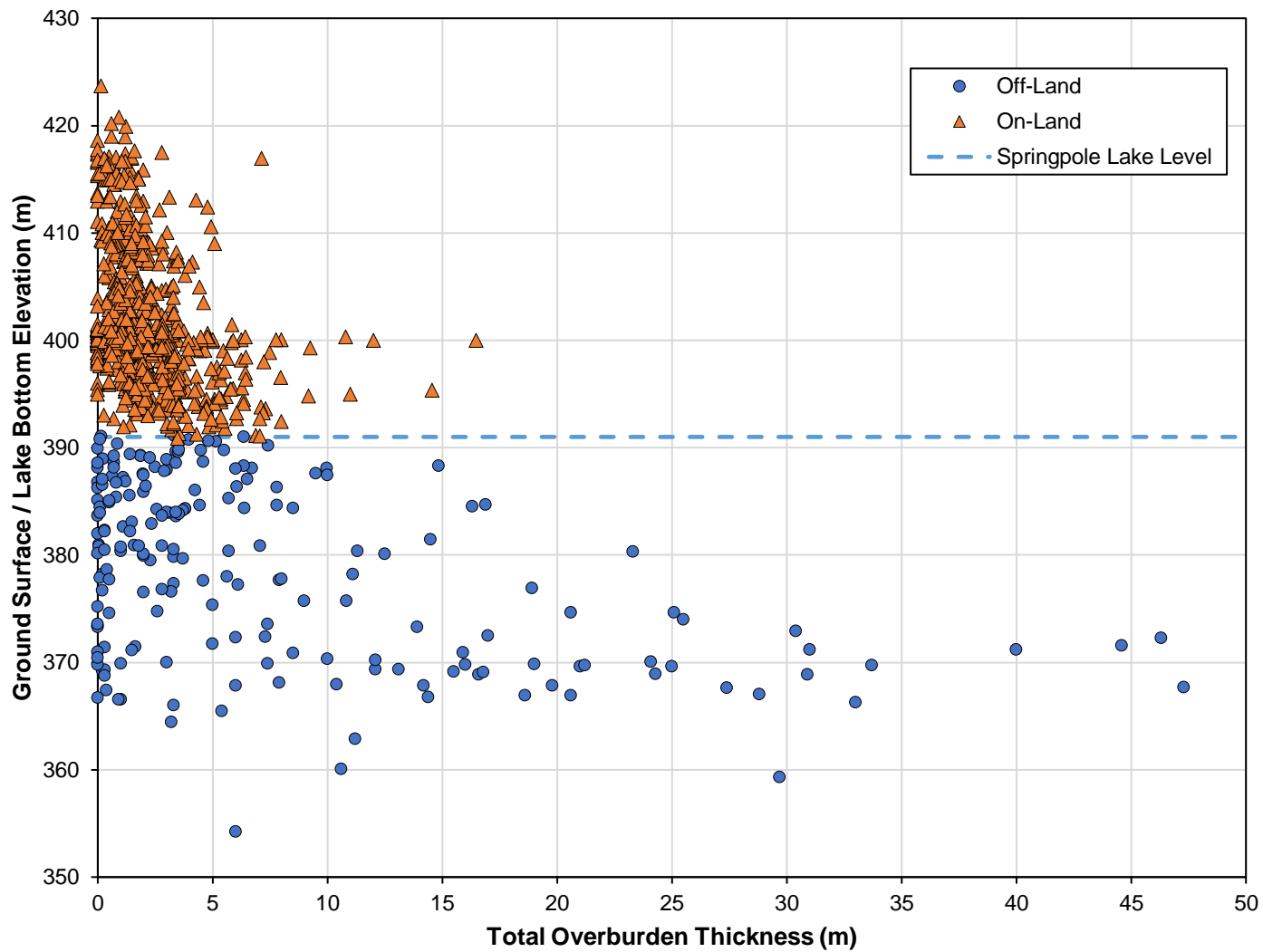


Figure No: 5-2

Project No: ONS2104

Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Total Overburden Thickness versus Ground/Lakebed Elevation

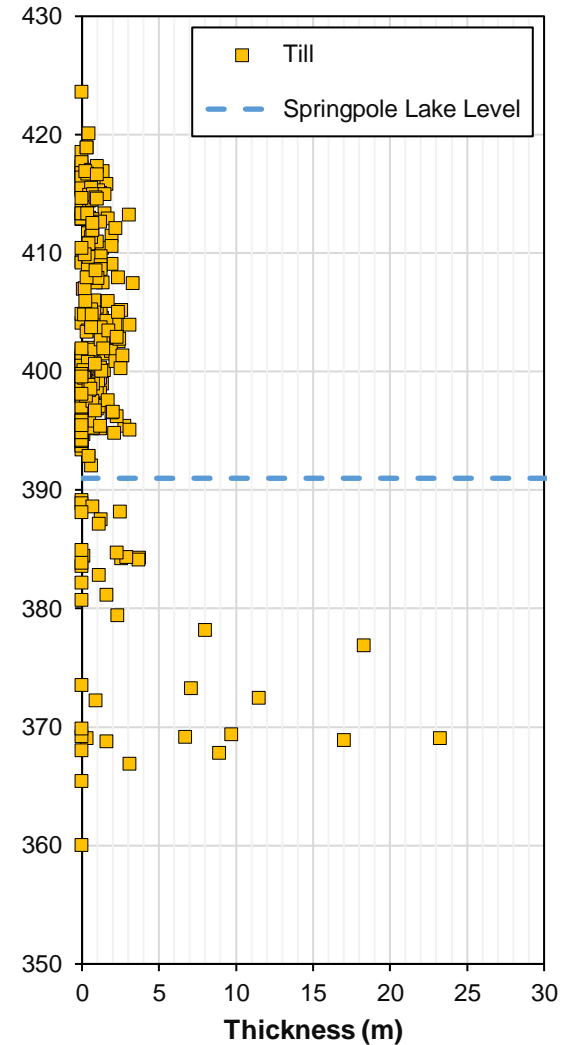
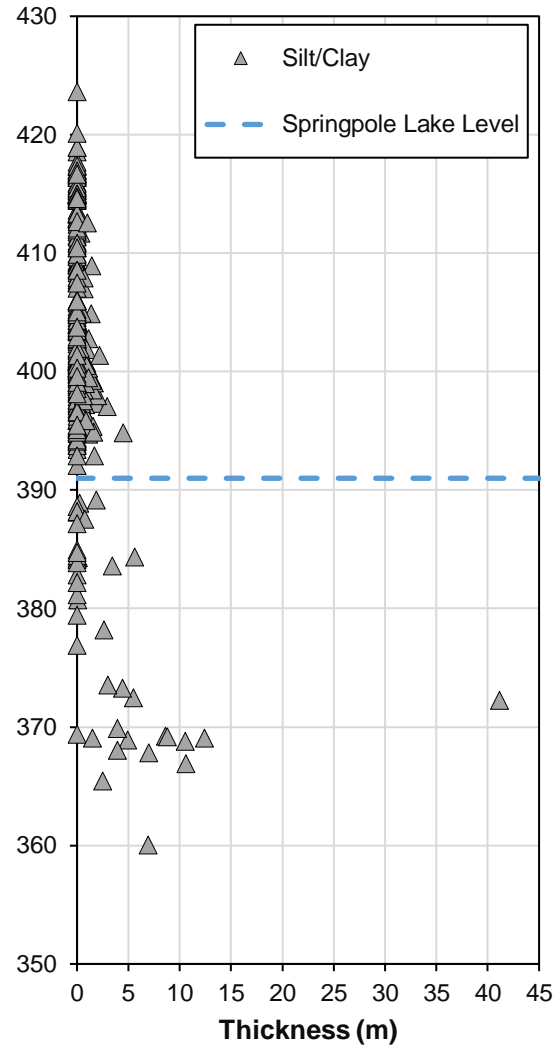
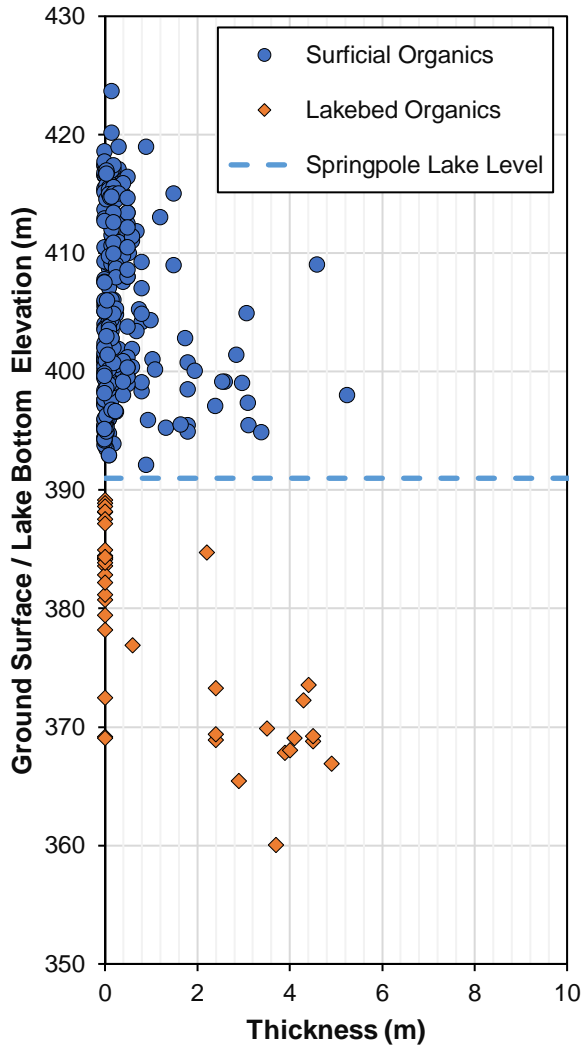


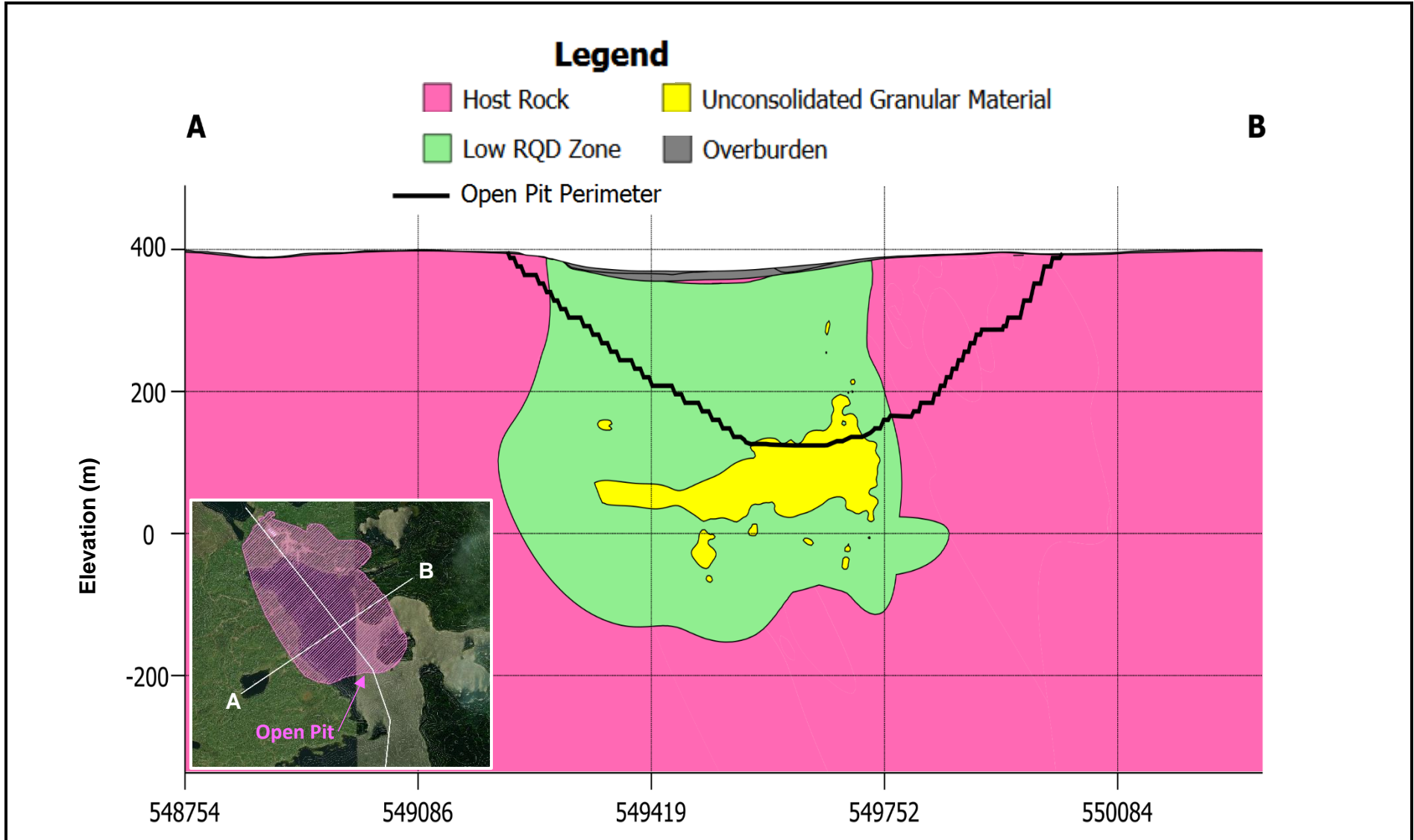
Figure No: 5-3
Project No: ONS2104



Springpole Gold Project – 2023 Baseline Hydrogeological Conditions

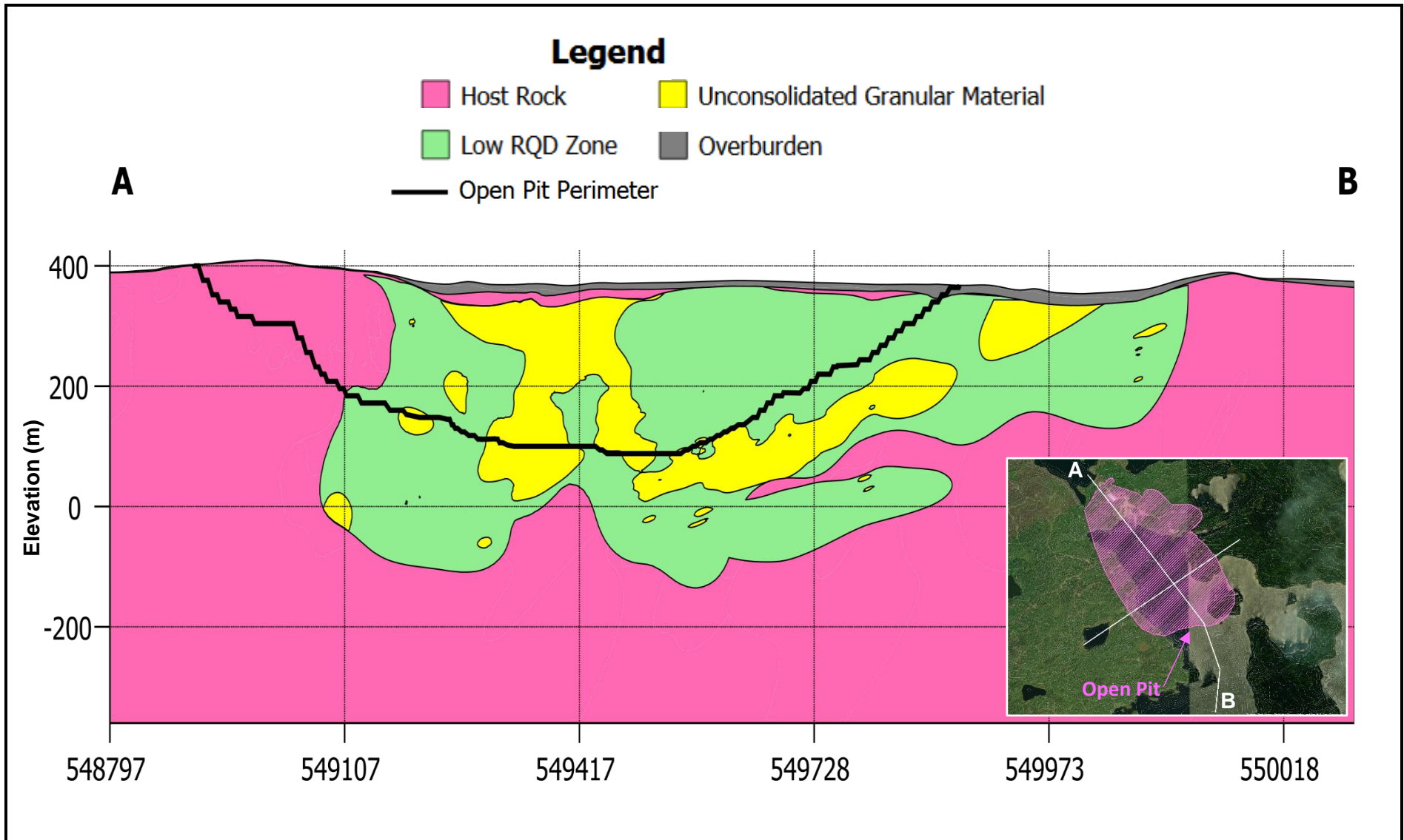


Date: 29-Jun-23
Rev: 0

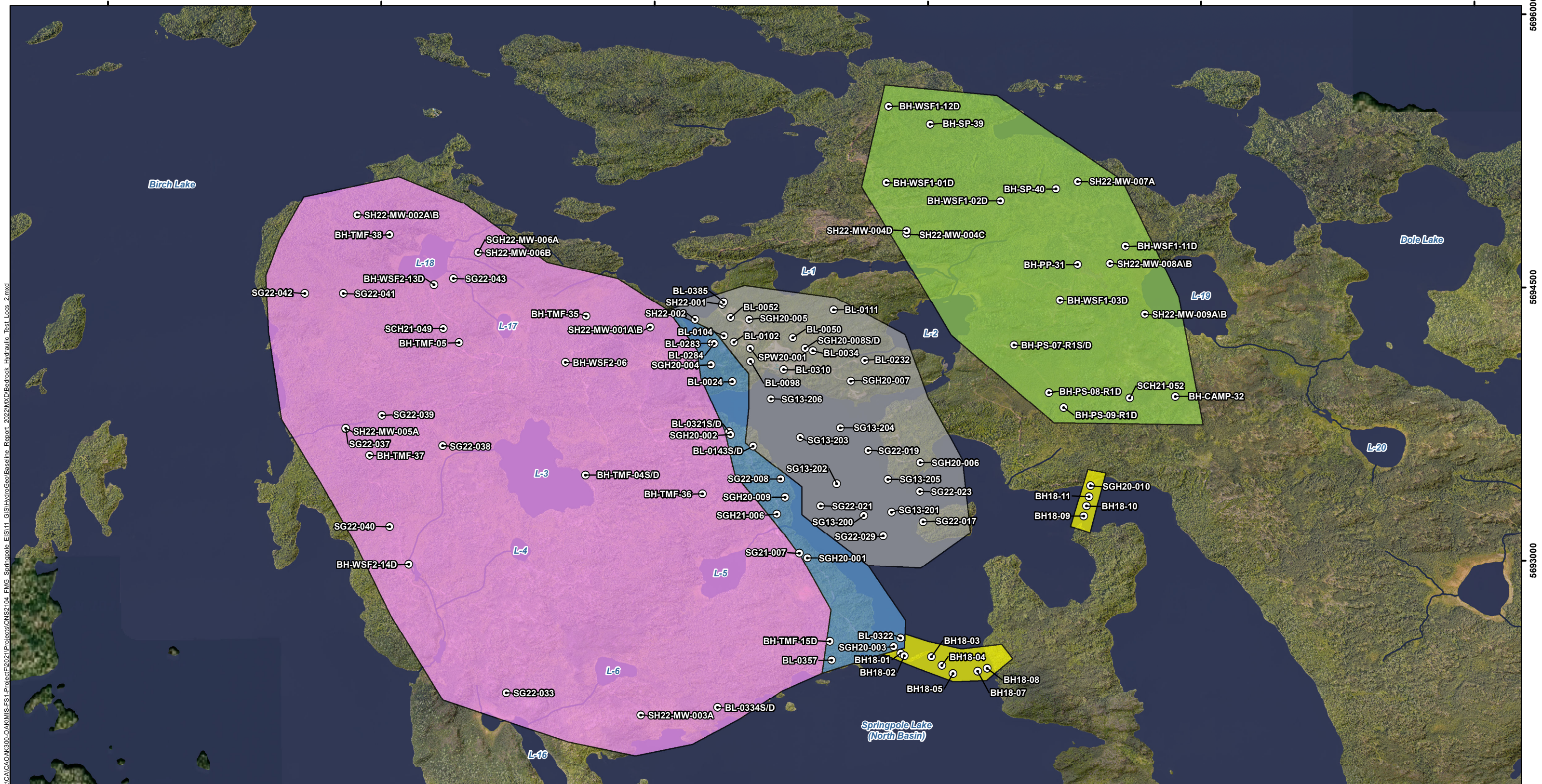
Overburden Unit Thickness by Elevation



	Figure No: 5-4	Springpole Gold Project – 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 29-Jun-23	Hydrostratigraphic Model Section – Transverse to Open Pit
	Rev: 0	



FIRST MINING GOLD	Figure No: 5-5	Springpole Gold Project – 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 29-Jun-23	Hydrostratigraphic Model Section – Longitudinal to Open Pit
	Rev: 0	



LEGEND

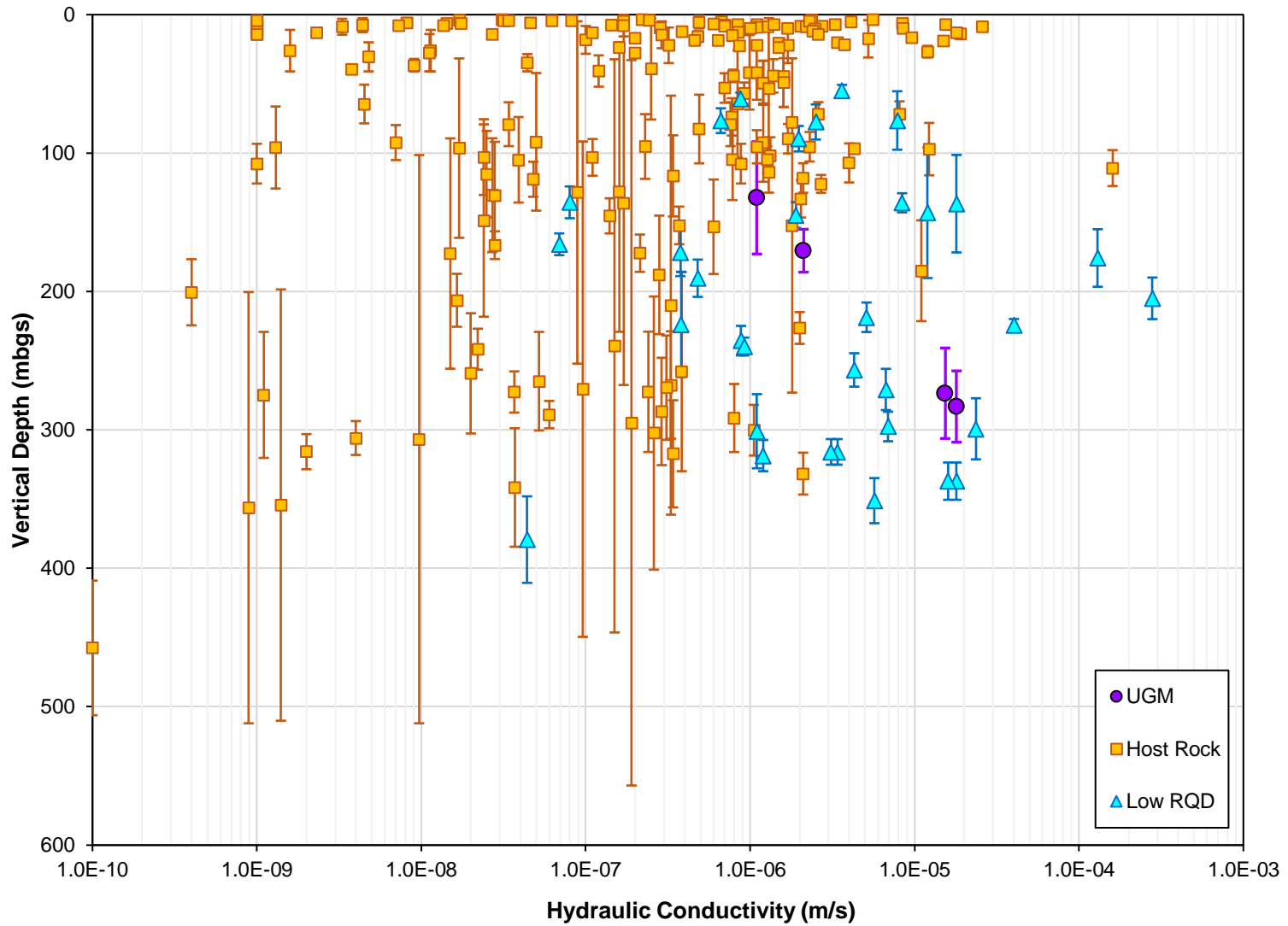
- Watercourse
- Hydraulic Test Location
- Waterbody
- Host Rock Locations***
 - Co-Disposal Facility
 - Open Pit
 - Open Pit / Co-Disposal Facility
 - Dike
 - East

*Polygons indicate the general vicinity of proximal site features (i.e., not the footprint) for the grouping/analysis of bedrock hydraulic conductivity data

NOTES:
 - Topographic information extracted from LIO, MNRF.
 - Aerial imagery provided by First Mining Gold, August 2020.

SPRINGPOLE GOLD PROJECT	
Bedrock Hydraulic Test Locations	
Datum: NAD83 Projection: UTM Zone 15N	
PROJECT N°: ONS2104	FIGURE: 5-6
SCALE: 1:20,000	DATE: October 2023

X:\CA\CAOAK300-OAKMIS-FS1-Project\2021\Projects\ONS2104_FMG_Springpole_EIS11_GIS\HydroGeo\Baseline_Report_2022\MXD\Bedrock_Hydraulic_Test_Locs_2.mxd



**FIRST MINING
GOLD**

Figure No: 5-7

Project No: ONS2104

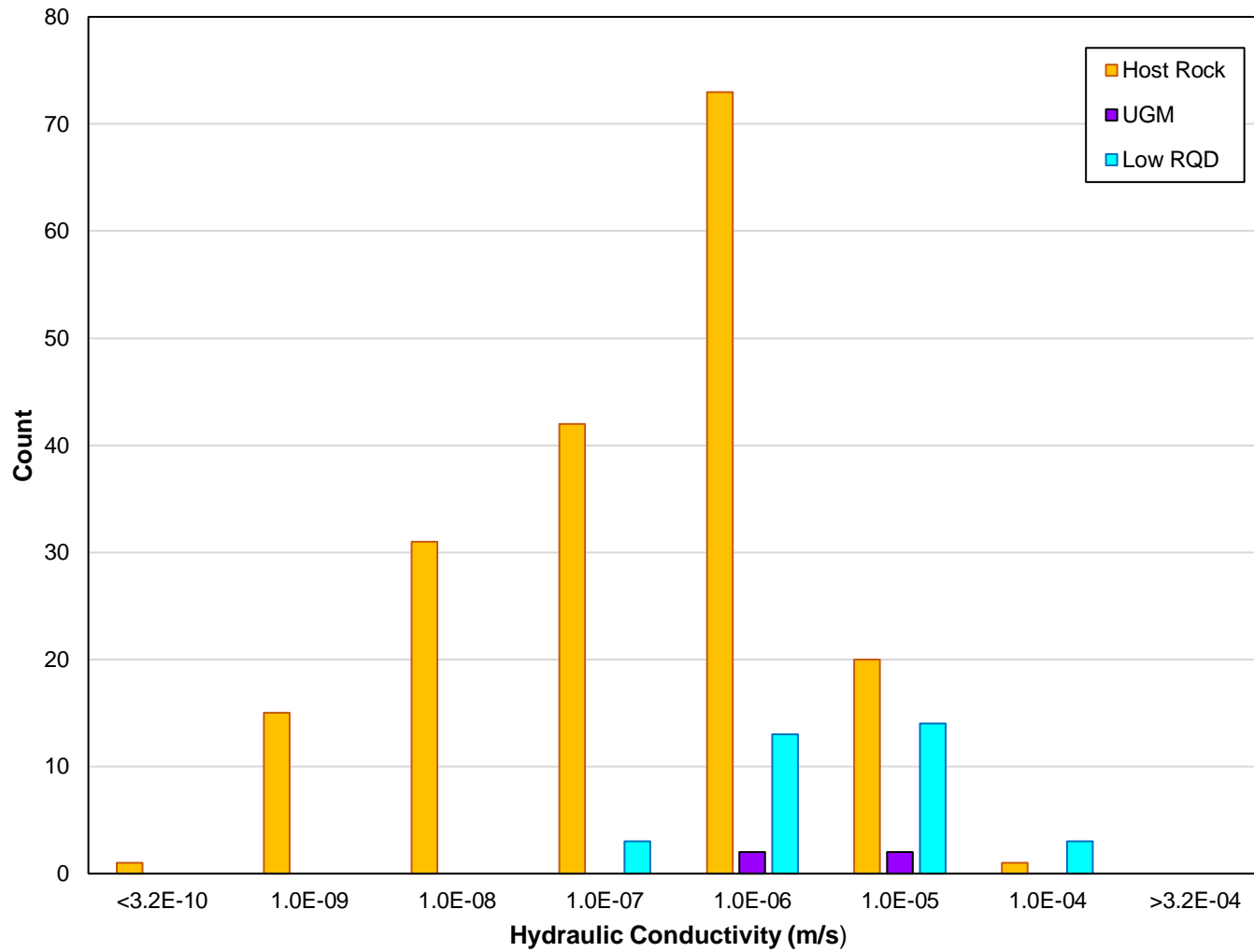
Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Bedrock Hydraulic Conductivity and Interval Depth



**FIRST MINING
GOLD**

Figure No: 5-8

Project No: ONS2104

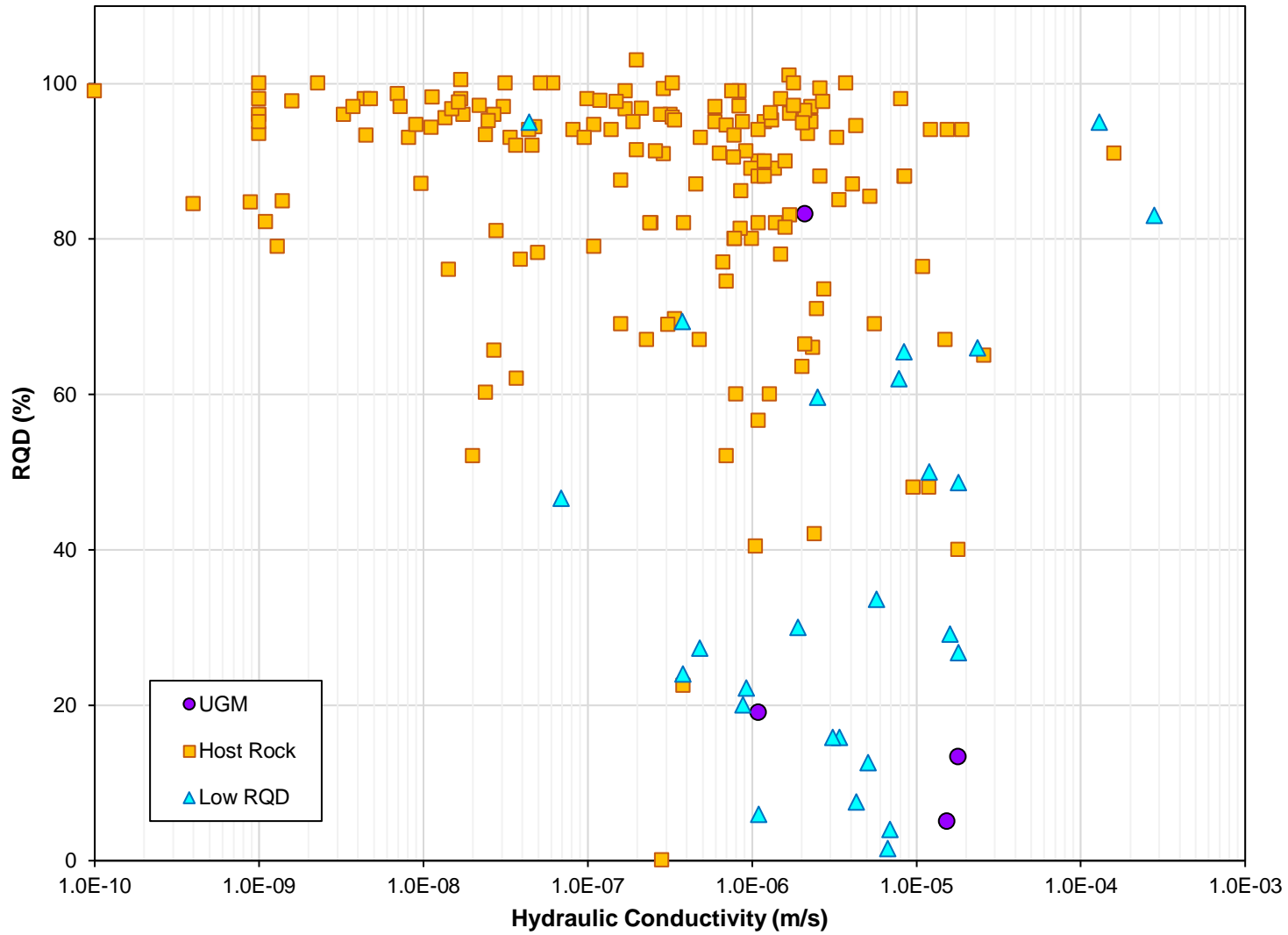
Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Bedrock Hydraulic Conductivity Histogram



**FIRST MINING
GOLD**

Figure No: 5-9

Project No: ONS2104

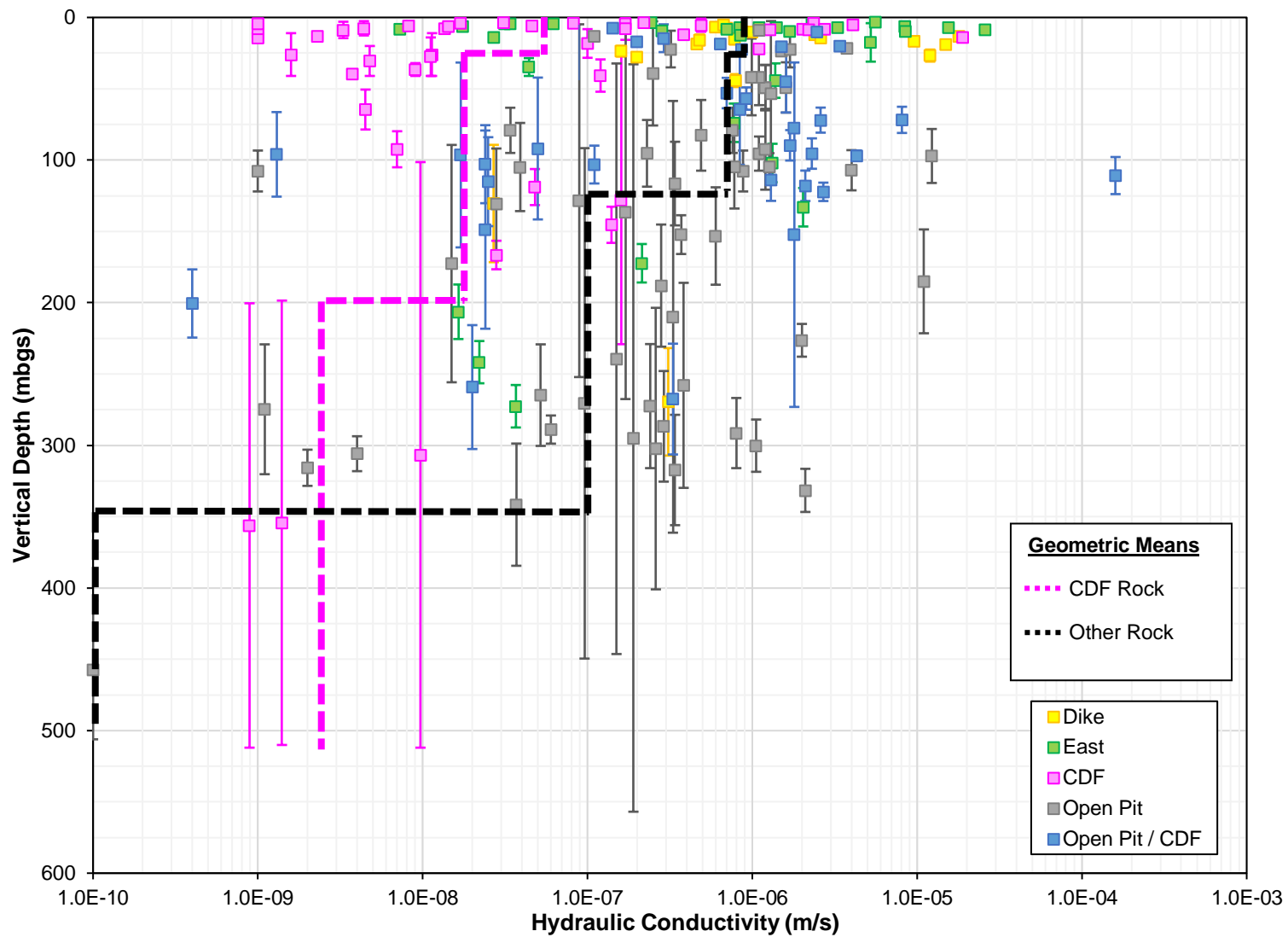
Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Bedrock Hydraulic Conductivity and RQD



**FIRST MINING
GOLD**

Figure No: 5-10

Project No: ONS2104

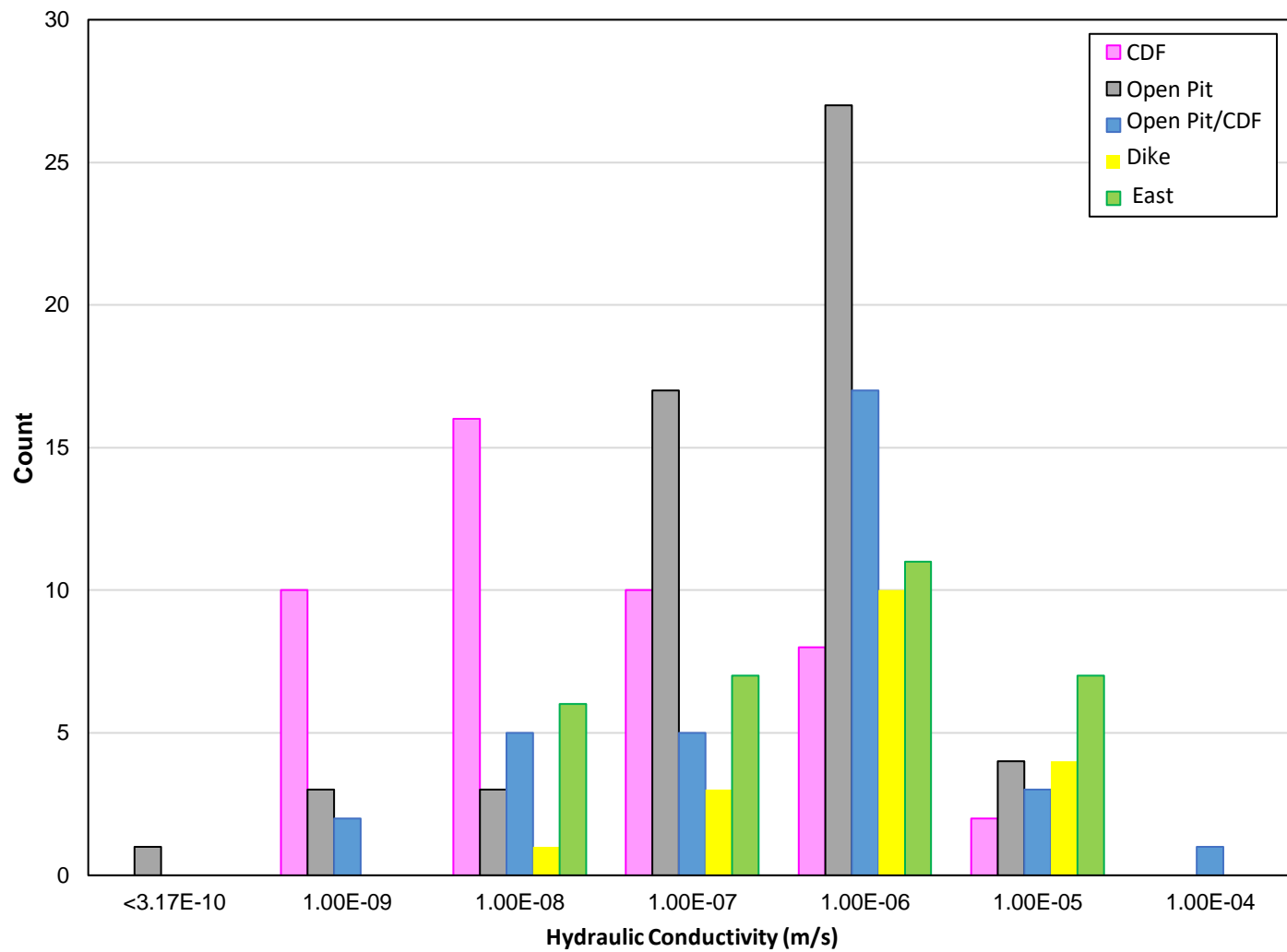
Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Host Bedrock Hydraulic Conductivity by Site Location



**FIRST MINING
GOLD**

Figure No: 5-11

Project No: ONS2104

Springpole Gold Project – 2023 Baseline Hydrogeological Conditions



Date: 29-Jun-23

Rev: 0

Host Bedrock Hydraulic Conductivity Histogram

547000

548000

549000



5696000
5695000
5694000
5693000
5692000
5691000

X:\CA\CA\AK300-CA\AKMIS-FS1-Project\ONS2104_FMG_Springpole_EIS11_GIS\HydroGeo\Baseline_Report_2022\MXD\CDF_Shallow_BDRK_Hydr_Conductivity_3.mxd

LEGEND

- Hydraulic Conductivity (m/s)*
- Watercourse
- Waterbody

*Data points with paired values indicate locations with two nested monitoring well installations

NOTES:

- Topographic information extracted from LIO, MNR.
- Aerial imagery provided by First Mining Gold, August 2020.



SPRINGPOLE GOLD PROJECT

Co-disposal Facility Area Shallow Bedrock Hydraulic Conductivity

Datum: NAD83
Projection: UTM Zone 15N



PROJECT N°: ONS2104

FIGURE: 5-12



SCALE: 1:15,000

DATE: September 2024

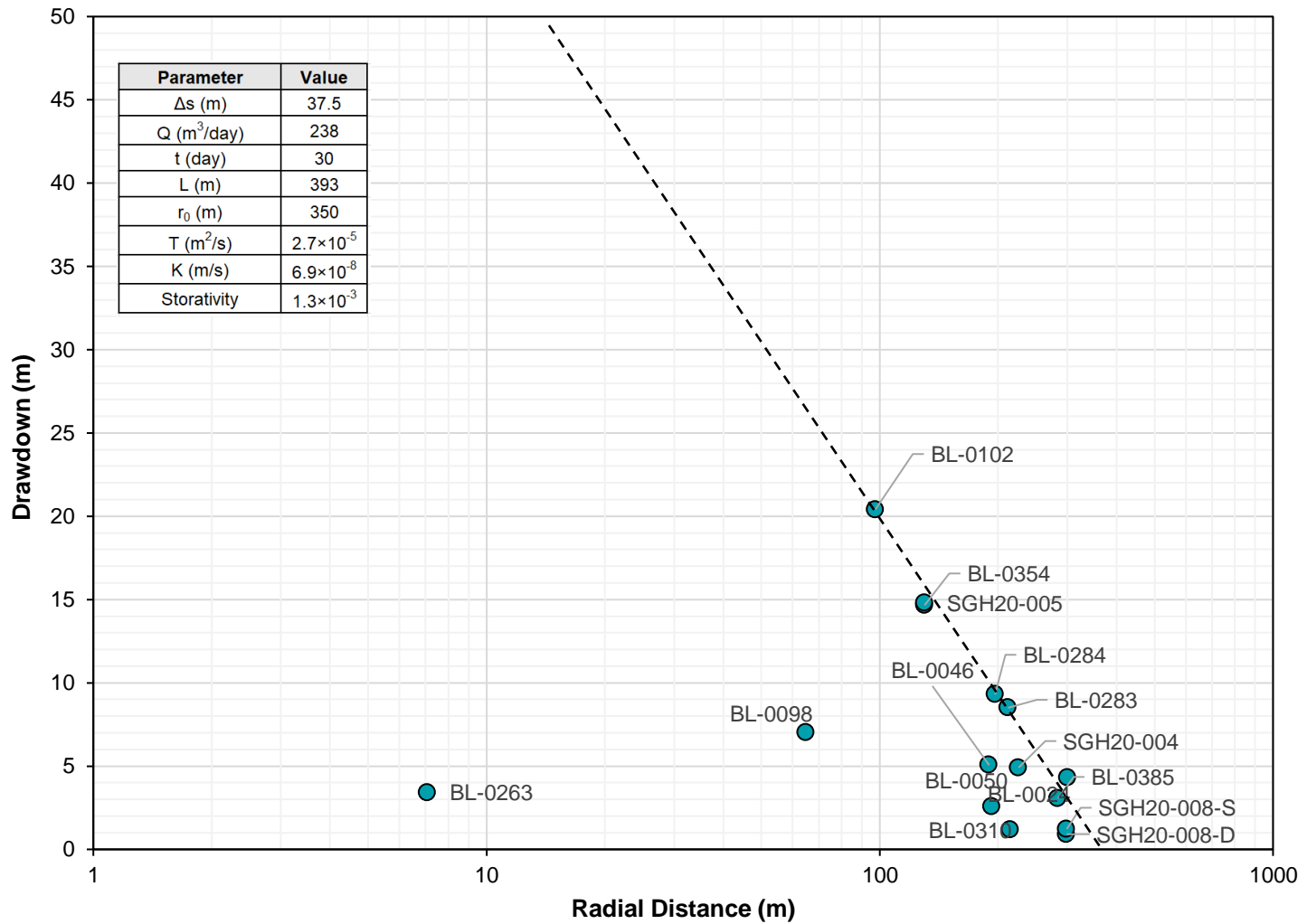


Figure No: 5-13

Project No: ONS2104

Springpole Gold Project – 2023 Baseline Hydrogeological Conditions

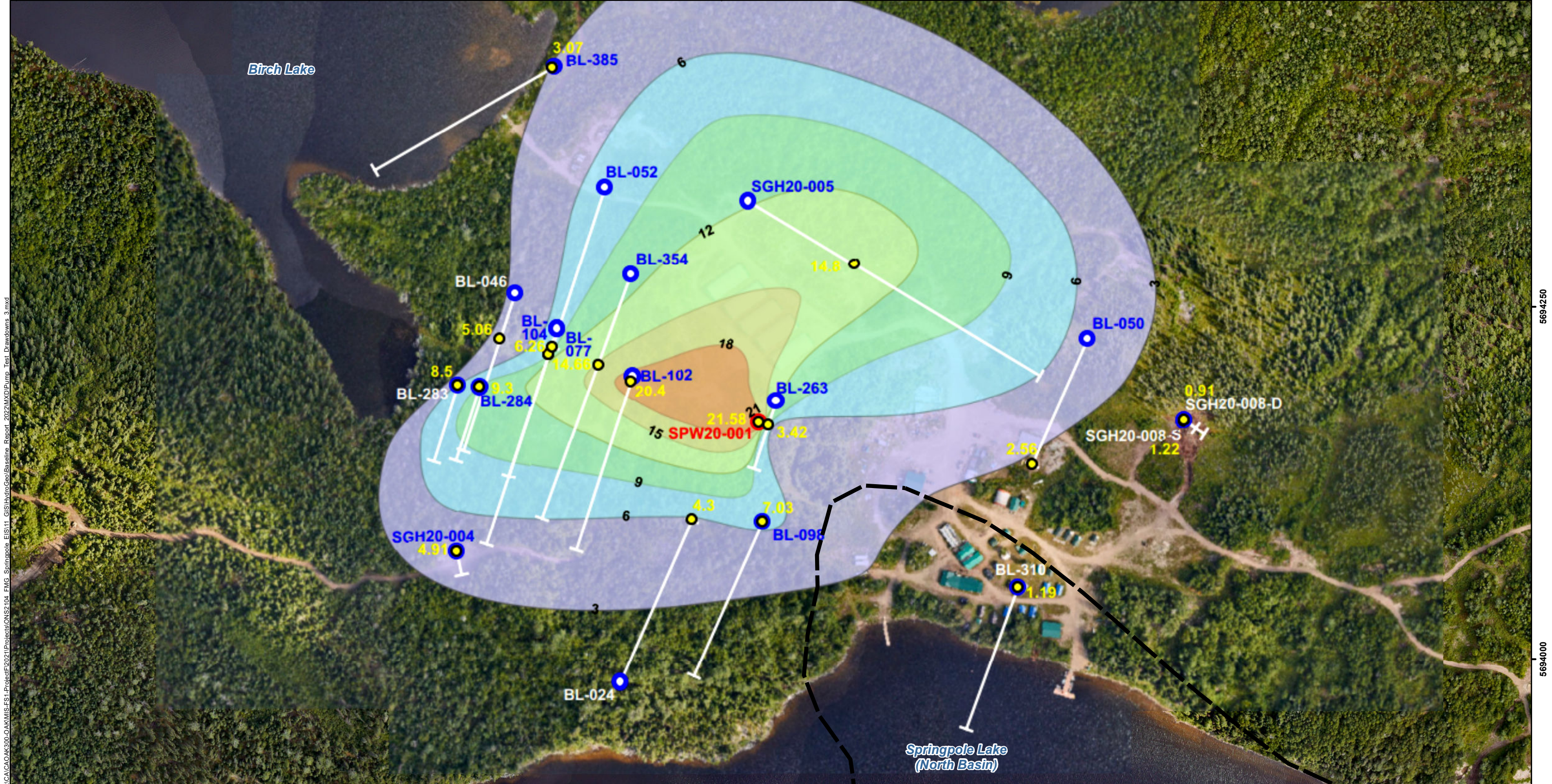


Date: 29-Jun-23





Rev: 0

30-Day Pumping Test Distance-Drawdown Plot (Day 30)

X:\CACA\OAK300-OAKMIS-FS1-Project\2021\Projects\ONS2104_FMG_Springpole_EIS11_GIS\HydroGeo\Baseline_Report_2022\MXD\Pump_Test_Drawdowns_3.mxd



LEGEND

-  Low RQD Zone Footprint
-  SPW20-001 Pumping Well
-  BL-263 Observation Well with Surface Trace of Incline Well
-  Closest Point to the Pumping Well (Yellow labels indicate the measured drawdown in metres)

NOTES:
 - Background information from FracFlow 2021a



SPRINGPOLE GOLD PROJECT

30-Day Pumping Test Drawdowns and Low Rock Quality Designation Zone

Datum: NAD83
 Projection: UTM Zone 15N



PROJECT N^o: ONS2104

FIGURE: 5-14

SCALE: 1:2,600

DATE: September 2024



5694250

5694000

X:\CA\CA\0300-OAK\MIS-FS1-Project\2021\Projects\ONS2104_FMG_Springpole_EIS11_GIS\HydroGeo\Baseline_Report_2022\MXD\GW_Monitoring_Installations_2.mxd



LEGEND

- Monitoring Well
- Monitoring Well with Transducer
- ▼ Vibrating Wire Piezometer
- Watercourse
- Waterbody

NOTES:

- Topographic information extracted from LIO, MNR.
- Aerial imagery provided by First Mining Gold, August 2020.

Datum: NAD83
Projection: UTM Zone 15N

0 0.5 1 2 3 4 5 Kilometres

SPRINGPOLE GOLD PROJECT	
Groundwater Monitoring Installation Network	
PROJECT N°: ONS2104	FIGURE: 5-15
SCALE: 1:20,000	DATE: September 2024

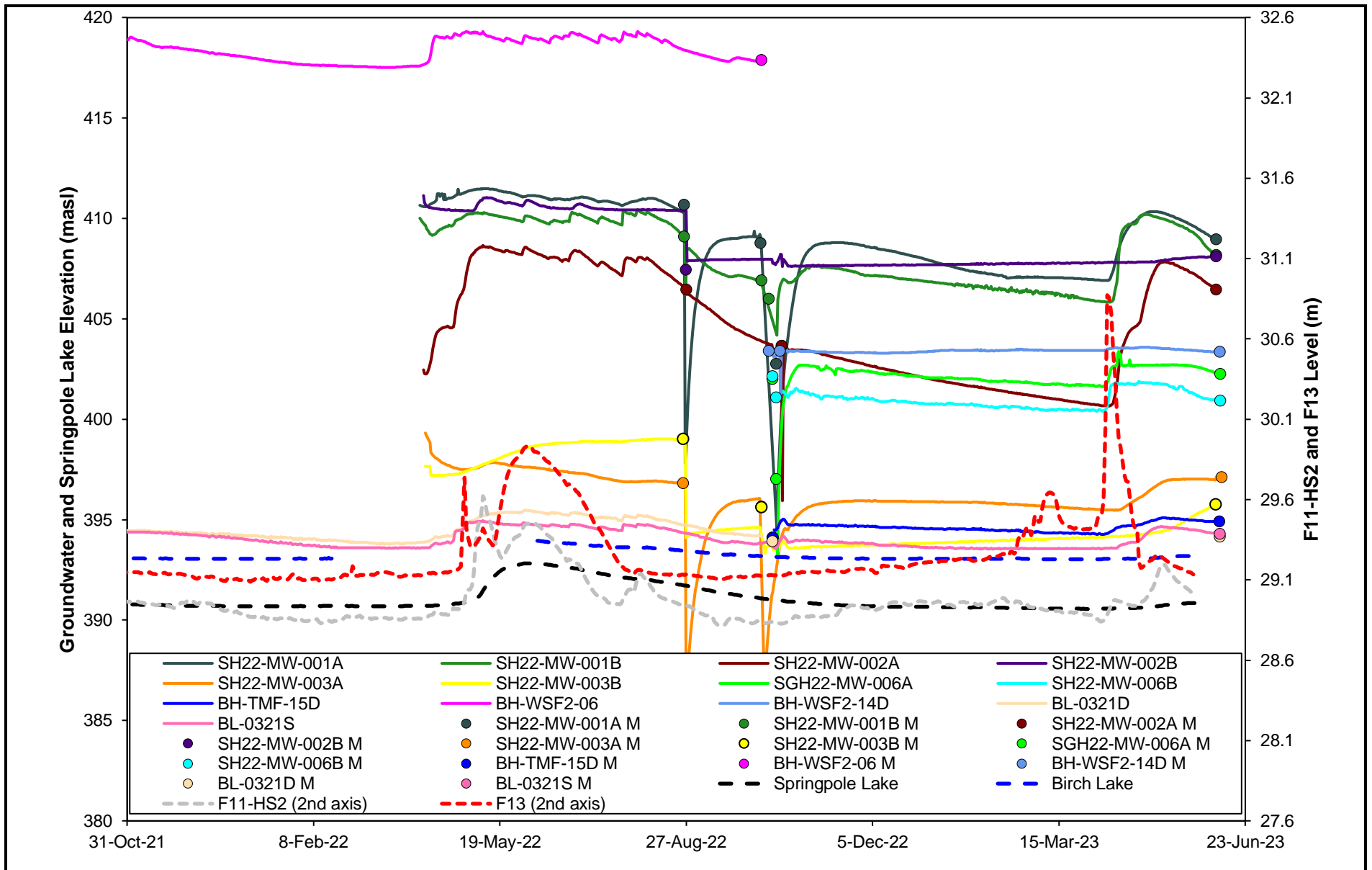
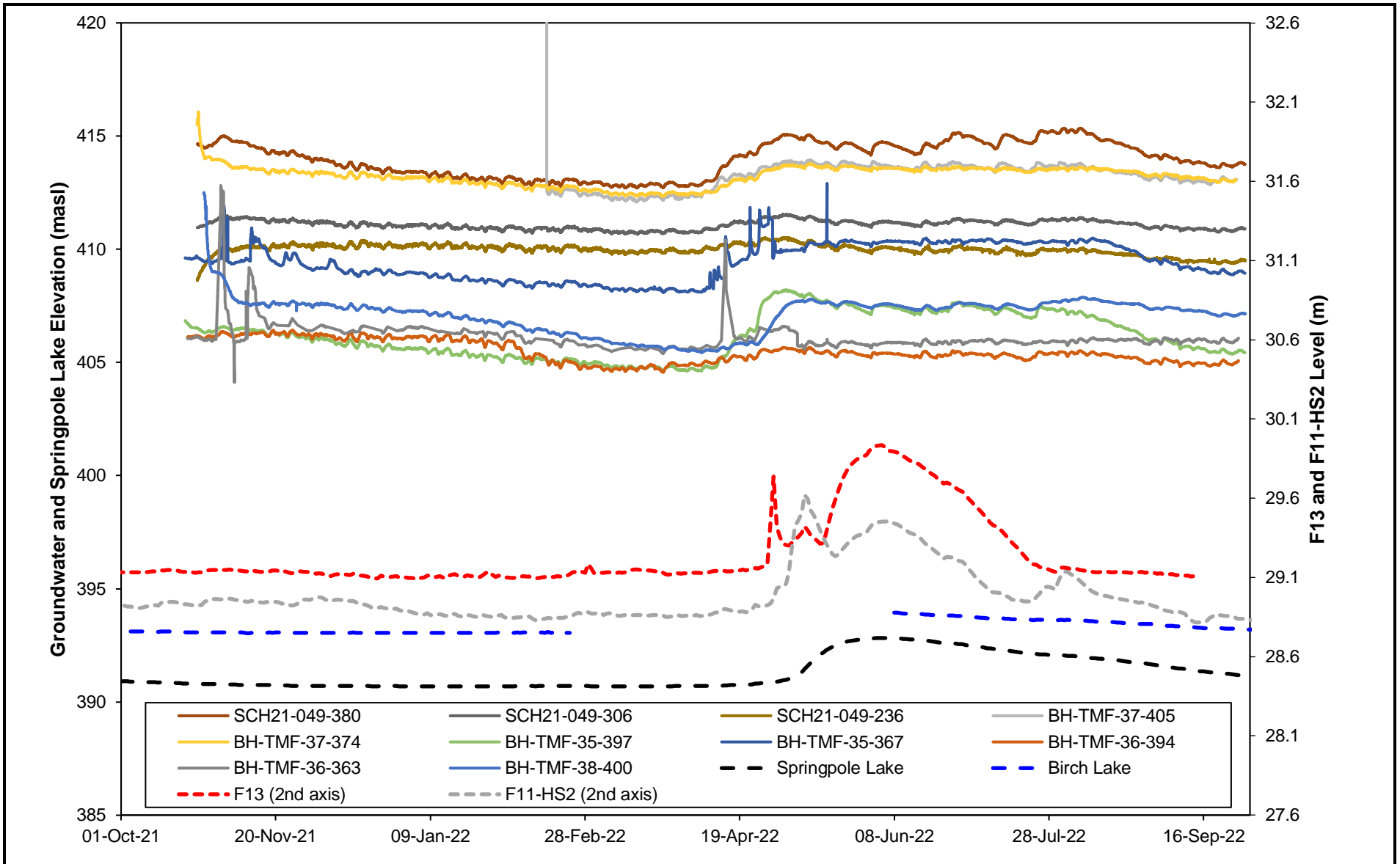




	Figure No: 5-16	Springpole Gold Project – 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 29-Jun-23	Groundwater Elevation Hydrographs –CDF Area Monitoring Wells
	Rev: 0	



	Figure No: 5-17	Springpole Gold Project – 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 29-Jun-23	Groundwater Elevation Hydrographs – CDF Area VWP
	Rev: 0	

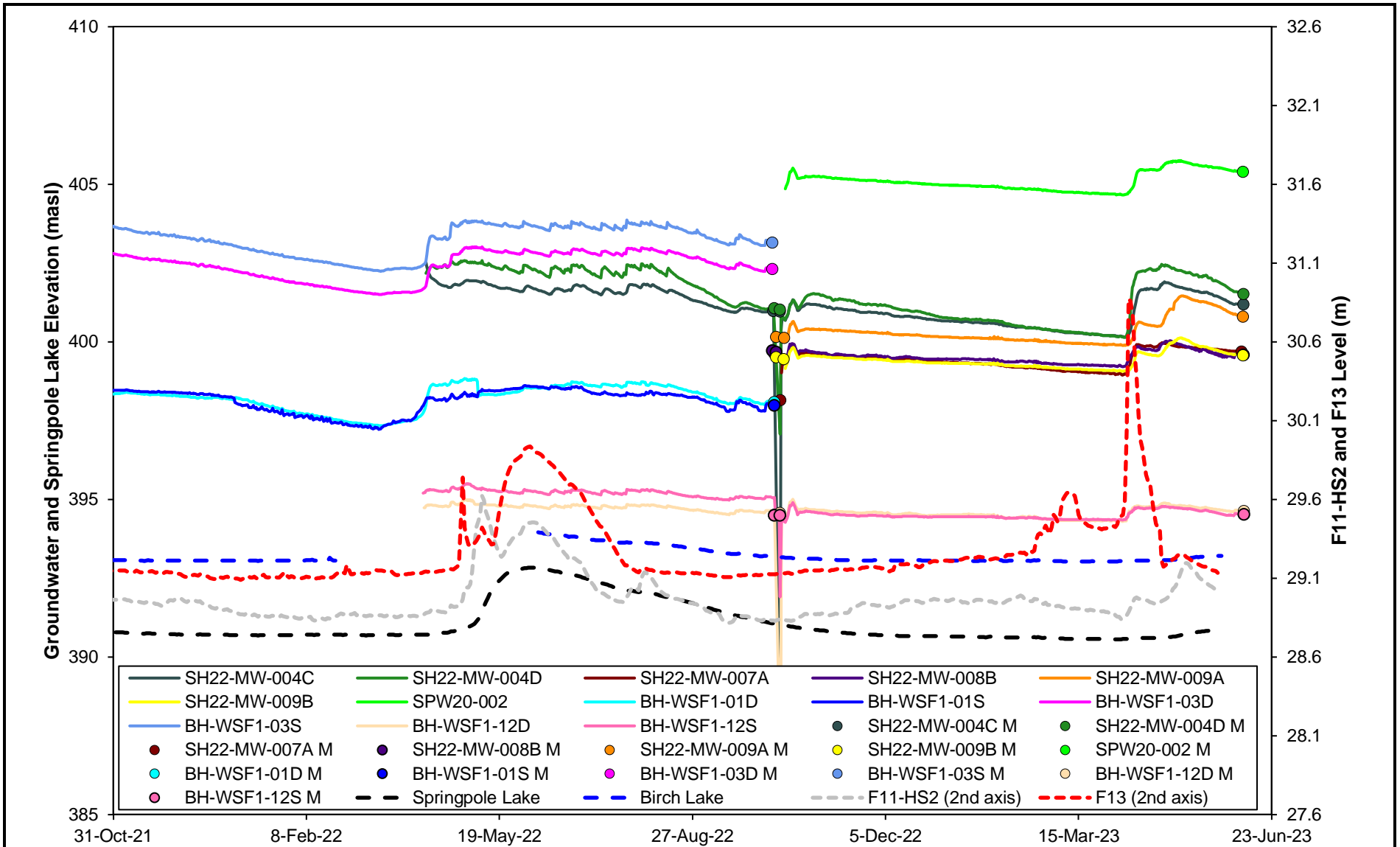


Figure No: 5-18

Project No: ONS2104

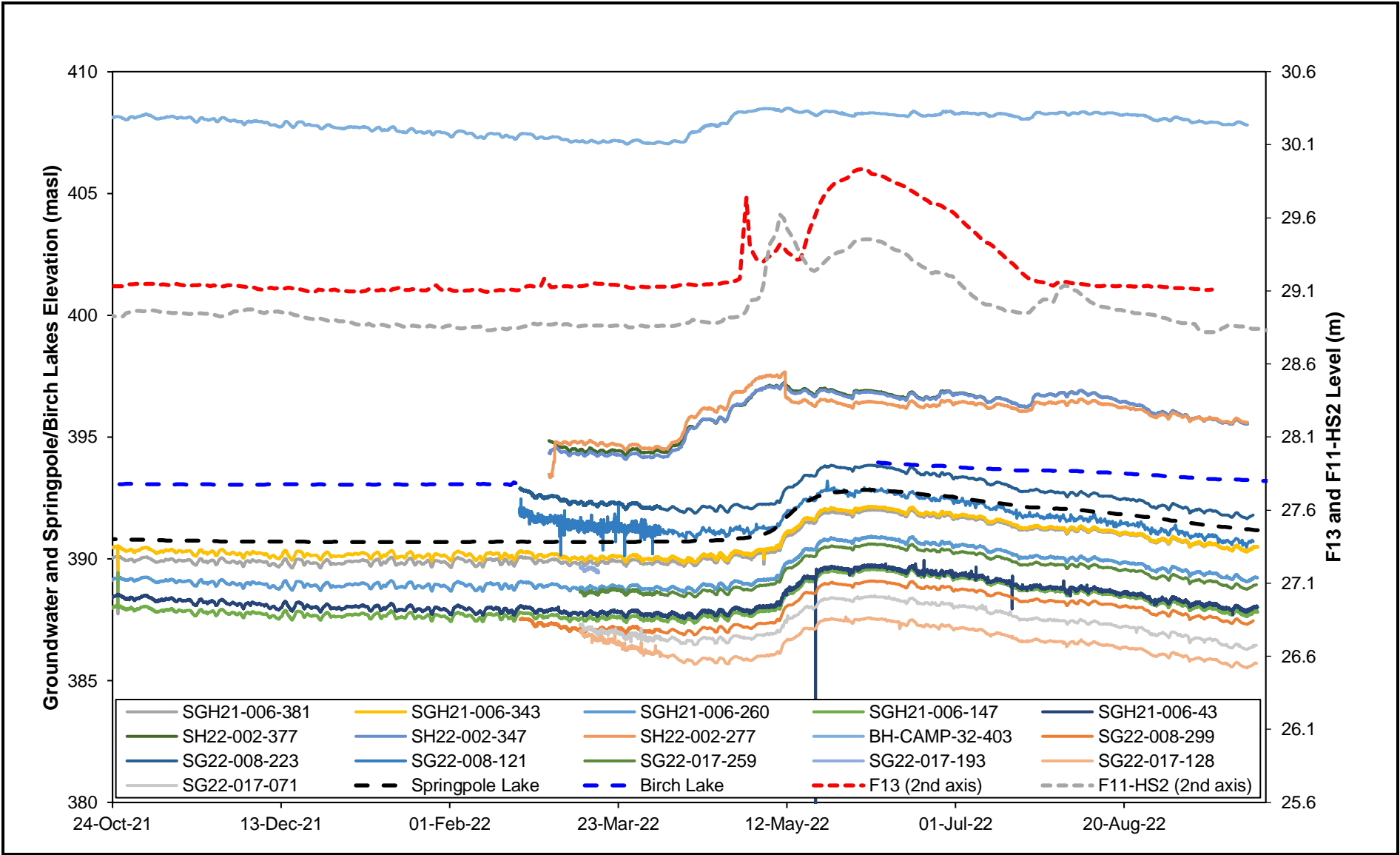
Springpole Gold Project – 2023 Baseline Hydrogeological Conditions





Date: 29-Jun-23

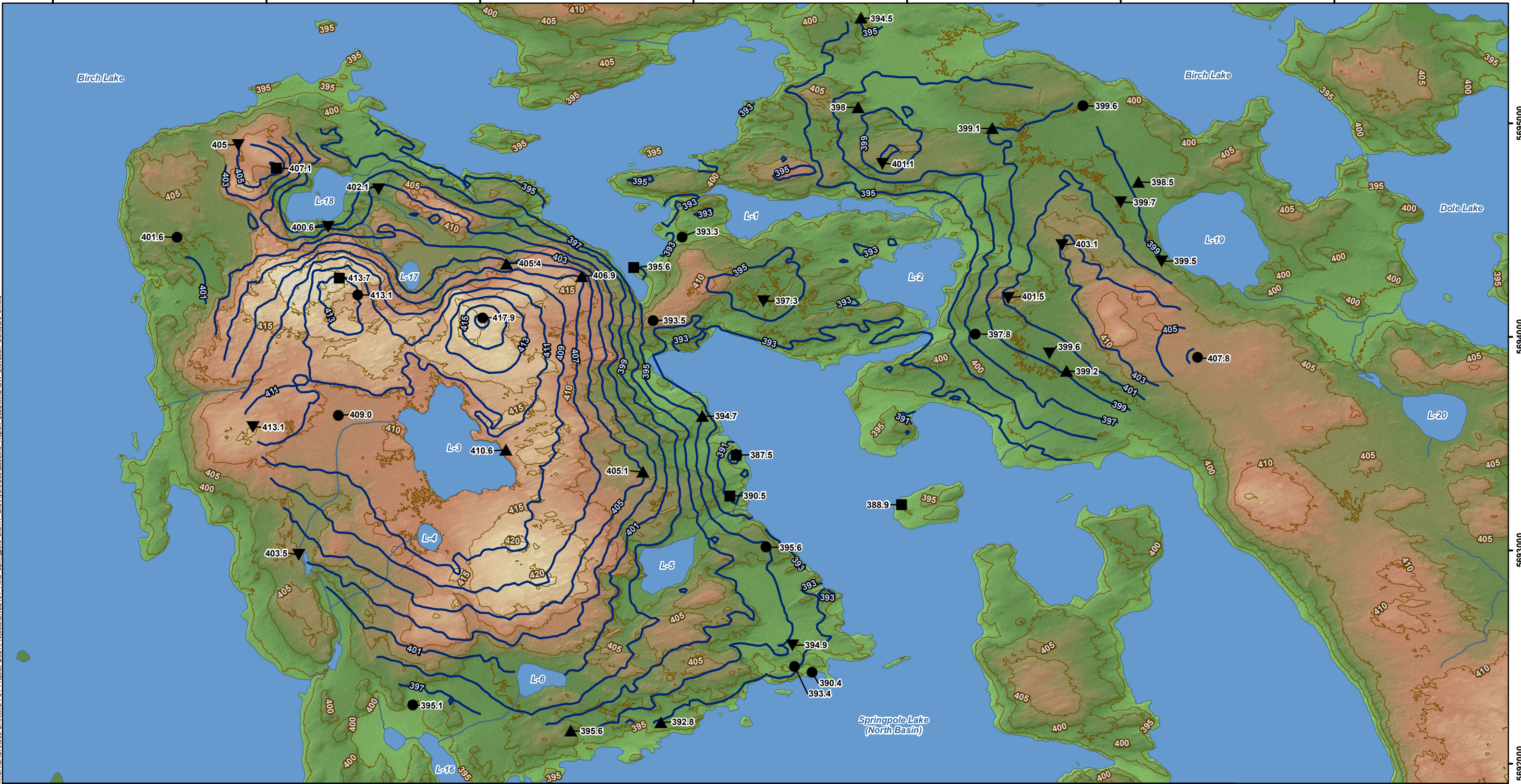
Rev: 0

Groundwater Elevation Hydrographs –Other Site Monitoring Wells



	Figure No: 5-19	Springpole Gold Project – 2023 Baseline Hydrogeological Conditions
	Project No: ONS2104	
	Date: 29-Jun-23	Groundwater Elevation Hydrographs – Other Site VWPs
	Rev: 0	

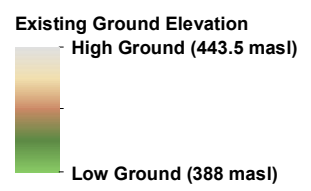
546000 547000 548000 549000 550000 551000 552000



5695000
5694000
5693000
5692000

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- LEGEND**
- Groundwater Elevation Contours (masl)
 - Watercourse
 - Waterbody
 - Contours (5 m interval)
 - Groundwater Monitoring Location (Labelled with Groundwater Elevation, masl)
 - Downward Vertical Gradient
 - Upward Vertical Gradient
 - Mixed Vertical Gradient
 - No Vertical Gradient Information Available



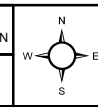
NOTES:
- Contours extracted from 2020 LiDAR survey.



SPRINGPOLE GOLD PROJECT

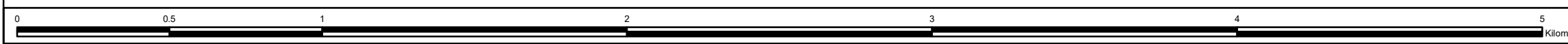
Groundwater Elevation Contours (Fall 2022 Monitoring Event)

Datum: NAD83
Projection: UTM Zone 15N



PROJECT N°: ONS2104
SCALE: 1:17,000

FIGURE: 5-20
DATE: September 2024



6.0 CONCEPTUAL HYDROGEOLOGICAL MODEL

There are several important elements in the hydrogeological conceptual model for the Project site, including surface water features, overburden cover, bedrock geology, structural setting and geologic history. The following section briefly summarizes the site conceptual hydrogeological model.

Stream flow gauging suggests that the groundwater regime may have limited groundwater flow and provides minimal baseflow to creeks in the immediate vicinity of the Project site as indicated by a number of the creeks that appear to essentially stop flowing at certain times of the year.

Groundwater flow through the bedrock will be mostly restricted to flow through those open fractures that are part of a connected fracture network. Given the generally low hydraulic conductivity of the host andesite rock seen at site, it is expected that the fracture networks present within the host metavolcanic rock are poorly connected and that flow through them is limited. Furthermore, within the host andesite, it is anticipated that the open fractures will be less common with depth as is consistent with the patterns of fracturing seen in Archean rock in northern Ontario, creating a trend of reduced bulk hydraulic conductivity within the host bedrock.

The low RQD and UGM zones have markedly higher hydraulic conductivity than the surrounding host bedrock. Hydraulic conductivity within these zones does not appear to decrease with depth in the same manner that is seen in surrounding host rock. Higher permeabilities in the low RQD and UGM zones reflect the presence of weak rock in this zone, which appears more prone to fracturing and weathering than either the metavolcanic (andesite) host rock to the southwest, or the metasediment to the northeast of the proposed open pit. The fracturing within this zone might be focused on several structural features identified by SRK Consulting (2013).

Under existing conditions, most of the local groundwater flow will be driven by recharge in higher elevation areas and subsequent discharge to surface water features in low-lying areas. Thin pockets of overburden overlying the fractured rock are likely to act as recharge buffers, whereby shallow infiltration is stored in porous overburden following rainfall / snowmelt events and slowly percolates into the fractured rock system. What limited groundwater flow exists will be preferential through shallow fractured bedrock, and overburden where present, towards surface water features such as Birch Lake and Springpole Lake. The degree of hydraulic connectivity between the groundwater flow system and surface water features is largely site specific. Groundwater levels in the immediate vicinity of Springpole Lake, for example, are shown to be very well connected to the lake due to the prevalence of fracturing in the low RQD zone.

The overall slow rate of groundwater movement through the fractured bedrock is demonstrated by the presence of a high water table in the higher elevation ground, which available data suggest does not drain quickly after the spring freshet over dry periods, such as the summer, and is insufficient to support year round flow (i.e., several small creeks appear to flow intermittently), ceasing to flow during the summer months.

The low porosity of bedrock, where groundwater is found in a sparse fracture network, indicates that the bedrock fracture network contains very little water on a per volume of material basis compared to the overburden. Groundwater recharge across the Project area will migrate mostly to Springpole Lake and Birch Lake, but given the size of these lakes, is not expected to make an appreciable contribution to the lake water balance.

7.0 SUMMARY AND CONCLUSIONS

An assessment of hydrogeological conditions at the Project has been conducted to support baseline characterization and environmental approvals applications for the Project. The assessment provided in this report represents an update to a previously prepared baseline report (Wood 2021b), which should be considered as a supplement to this report and is attached as Annex A. The data and information presented in this report represent an amalgamation of numerous field investigation programs and desktop studies that have been conducted for the site to assess the existing conditions of the local area. A hydrogeological modelling report will subsequently be prepared which will summarize the construction of a numerical groundwater model, to be calibrated to existing conditions and used to simulate and facilitate discussion of effects of mine development on the local environment.

In summary:

- The groundwater flow system, in the context of this study, constitutes a fractured bedrock flow system, given the sparse and thin occurrence of overburden, whereby groundwater flow is focused through interconnected bedrock fractures, where present.
- Broadly, the fractured rock consists of three main hydrostratigraphic zones: the UGM and low RQD zones (which are both located in the immediate vicinity of the proposed open pit), and the surrounding host bedrock, which includes a variety of metavolcanic and metasedimentary rock types.
- Hydraulic conductivity data show that the low RQD and UGM zones have consistently and markedly higher permeabilities compared to the surrounding host rock (2.9×10^{-6} and 5.0×10^{-6} m/s versus 2.1×10^{-7} m/s, respectively; Section 5.2.2). The low RQD and UGM hydraulic conductivities show minimal consistent variability with depth, while the host bedrock shows a tendency for a decrease in hydraulic conductivity with depth.
- Host bedrock hydraulic conductivities near the area of the proposed CDF, primarily consisting of andesite, are lower as compared to the rest of the site, which are otherwise similar (i.e., 3.2×10^{-8} versus 4.0×10^{-7} m/s, respectively; Section 5.2.2 and Table 5-3). This is consistent with semi-quantitative observations at site, which indicate that the CDF area bedrock is more competent compared to other areas of site and suggests that shallow bedrock underlying the planned CDF would be an effective barrier to seepage emanating from the CDF.
- Groundwater level monitoring in site monitoring wells and VWPs shows two archetypal water level responses: zones which appear well connected to Springpole Lake and zones whose water levels are driven by infiltration / recharge. It is likely that the high permeability low RQD zone bedrock surrounding the open pit provides the hydraulic connection of the deep VWPs with the lake. Locations of shallow groundwater levels close to the surface at topographic highs, as typically observed in the CDF area, are indicative of a tendency for local bedrock to not readily drain and are an indication of low permeability / limited fracture connectivity.

8.0 CLOSING

This hydrogeological baseline conditions report was prepared for First Mining Gold Corp. by WSP. The quality of information, conclusions and scheduling estimates contained here is consistent with the level of effort involved in WSP's services and based on 1) information available at the time of preparation; 2) data supplied by outside sources; and 3) the assumptions, conditions and qualifications set forth in this report.

Yours sincerely,

WSP Canada Inc.

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Original signed

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Original signed

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Attachment A

Stratigraphic Logs

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-CAMP-32	NORTH COORD(m): 5693903
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 551360
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 426 m	WATER LEVEL(m): 0.2

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.0	n/a	n/a	n/a	n/a	n/a	ORGANIC with some silt. Dark brown organics with woodchips overlying the grey silt					Well: Grout (cmnt. and bent mix)	
0.5	n/a	n/a	n/a	n/a	n/a	SILT with some sand. Grey/brown silt and fine to coarse grained sand, trace fine angular gravel, trace organic (woodchips)						
1.0						ANDESITE. Medium to light grey, slightly weathered, some joints moderately weathered with brown infill (iron-oxide), many fine quartz, pyrites and feldspar veins. Rubble zones at 1.4m and 3.7m						425
1.5	100	76	5	53	Fair							424
2.0												423
2.5												422
3.0												423
3.5	95	82	7	53	Fair							422
4.0												422
4.5											VWP: DT24145 VW129077	421
5.0						Bottom of hole at 5 m				2.44E-07	Well: Grout (cmnt. and bent mix)	421

AUSENCO ROCK CORE LOG BH-CAMP-32 20211209 BOREHOLE LOG - SPRINGPOLE2021_GS.GPJ.GEER (TEST PIT).GDT 21/12/23



ROCK CORE LOG

LOGGED BY : Mk	COMPLETION DEPTH : 5 m
START DATE : 2021-09-20	COMPLETION DATE : 2021-09-20
DRILLED BY : Carl	AZIMUTH : (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-CAMP-33	NORTH COORD(m): 5693837
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 551547
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 418 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)	
0.5	N/A	N/A	N/A	N/A	N/A	ORGANIC. Dark brown to grey, silty, with some fine to coarse grained sand, woodchips observed at the top 0.05m, damp to wet					Well: Grout (cmnt. and bent mix)		
1.0	N/A	N/A	N/A	N/A	N/A	SILT with some fine grained sand. Brown, wet, with trace fine gravel						417	
1.5	N/A	N/A	N/A	N/A	N/A	SANDY SILT. Brown, fine grained sand, wet, soft, with trace fine gravel.							
2.0	100	0	5	43	Fair	ANDESITE. Fine grained, medium to Light grey andesite, fresh, wet, contains few fine white veins.							416
2.5						Fine-grained, medium to light grey andesite with some iron-oxide weathering, a few fine quartz veins containing pyrites and feldspar veins							415
3.0													
3.5	100	83	7	58	Fair							413	
4.0												412	
4.5													
5.0													
5.5	100	100	7	61	Good								
6.0													

Bottom of hole at 6 m

AUSENCO ROCK CORE LOG BH-CAMP-33 20211209_BOREHOLE LOG_SPRINGPOLE2021_CS.GPJ.GEER (TEST PIT).GDT 21/12/23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 6 m
START DATE : 2021-09-21	COMPLETION DATE : 2021-09-21
DRILLED BY : Carl	AZIMUTH : (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-24	NORTH COORD(m): 5694502
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550772
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 416 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	82	N/A	N/A	N/A	N/A	SILTY SAND. Light brown, fine grained sand with trace clay, loose, wet, fibrous organics observed from at 0-0.05m, trace fine subangular gravel					Well: Grout (cmnt. and bent mix)	
0.5	50	N/A	N/A	N/A	N/A	GRAVELLY SAND. Brown, coarse grained sand, fine angular gravel, wet, trace weathered bedrock at 0.55m.						
1.0	0	N/A	N/A	N/A	N/A	No recovery						415
2.0	98	56	8	54	Fair	TRACHYTE. Tanned green, slightly weathered fractures, fine grained, rubble zone from 1.6m to 2.0m. Below 3.0m, some coarse grained minerals observed.						414
3.0	100	50	13	46	Fair							413
3.5	100	84	5	48	Fair	ANDESITE, sheared with a mylonitic texture. Dark Grey, moderately weathered. Below 4.04m, fresh, medium to dark grey, with less fractures.						412
5.0	99	95	3	55	Fair							411
6.5	99	89	1	49	Fair							410
7.0												409

Bottom of hole at 7 m

AUSENCO ROCK CORE LOG BH-PP-24 2021:1209 - BOREHOLE LOG - SPRINGPOLE 2021 - GS.GPJ GEER (TEST PIT).GDT 21/12/23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 7 m
START DATE : 2021-09-04	COMPLETION DATE : 2021-09-04
DRILLED BY : Matt & JP	AZIMUTH : (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-25	NORTH COORD(m): 5694566
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550723
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 414 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	62	N/A	N/A	N/A	N/A	SILTY SAND, Brown transitioning to light brown transitioning to red brown, gritty and subangular, @0-0.05m trace organic and silt; @0.1-0.3m saturated, silt lenses; below 0.3m redbrown sand and trace silt; @0.6m, medium to coarse grained sand					Well: Grout (cmnt. and bent mix)	413
1.0	75	N/A	N/A	N/A	N/A							
1.5	17	N/A	N/A	N/A	N/A	GRAVELLY SAND, brown, gritty and angular, minimal fines, pushing coarse gravel or cobble at 1.3m						412
2.0	0	N/A	N/A	N/A	N/A	NO RECOVERY						411
2.5	100	52	14	42	Fair	fine grained, medium grey Andesite, some quartz/carbonate veining						410
3.0												409
4.5	99	91	5	48	Fair							408
6.5	97	74	5	45	Fair							407

Bottom of hole at 7.5 m

AUSENCO ROCK CORE LOG BH-PP-25 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 7.5 m
START DATE : 09/25/2021	COMPLETION DATE : 09/25/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-26	NORTH COORD(m): 5694566
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550583
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 405 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	50	N/A	N/A	N/A	N/A	Organic silty sand, peaty, dark brown, fibrous, coarse woody organics, pine needles					Well: Grout (cmnt. and bent mix)	404
0.55	N/A	N/A	N/A	N/A								
0.53	N/A	N/A	N/A	N/A								
0.57	N/A	N/A	N/A	N/A								
1.0	0	N/A	N/A	N/A	N/A	SILT with high plasticity, light brown, particle size increases with depth from sand to gravel), trace sub angular gravel						404
1.5	0	N/A	N/A	N/A	N/A	Silty gravel, dark brown to grey, subangular, trace silt						
2.0	0	N/A	N/A	N/A	N/A	NO RECOVERY						403
3.0						Sheared andesite. Dark grey, fine grained andesite, sheared texture evident. slightly weathered with cemented fractures/carbonate veinlets						402
4.0	100	67	8	52	Fair							401
6.5	100	73	6	50	Fair							400
9.0	100	98	2	58	Fair							397
9.5												396

Bottom of hole at 9.7 m

AUSENCO ROCK CORE LOG BH-PP-26 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC

START DATE : 09/06/2021

DRILLED BY : Matt/JP

COMPLETION DEPTH : 9.7 m

COMPLETION DATE : 09/06/2021

AZIMUTH : N/A (deg) | PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-27	NORTH COORD(m): 5694666
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550592
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 405 m	WATER LEVEL(m): 0.1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.0	100	N/A	N/A	N/A	N/A	Well graded gravel, dark brown, friable, angular, top of spoon appears to be heavily weathered rock					Well: Grout (cmnt. and bent mix)	
0.0	100	N/A	N/A	N/A	N/A							
0.5	0	N/A	N/A	N/A	N/A	Silty sand, light brown, gritty, subangular, spoon went through a small layer of silty sand and then hit refusal						
1.0						NO RECOVERY						404
1.5	100	0	N/A	35	Poor	Washed cobbles and gravel subrounded, drill scour						
2.0	100	72	4	43	Fair	Banded Iron Formation, fine grained, medium/dark grey, weathered fractures, moderate mechanical breaks both parallel and perpendicular (some weathered)						403
2.5												
3.0	100	0	20	35	Poor	Fine grained Andesite, medium/dark grey, partial weathering, moderate mechanical breaks						402
3.5												
4.0												401
4.5	93	80	6	51	Fair							400
5.0												
5.5												
6.0												399
6.5												
7.0	98	71	9	49	Fair							398
7.5												

Bottom of hole at 7.5 m

AUSENCO ROCK CORE LOG BH-PP-27 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 7.5 m
START DATE : 09/06/2021	COMPLETION DATE : 09/06/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-28	NORTH COORD(m): 5694666
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550433
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 403 m	WATER LEVEL(m): 0.1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	67	N/A	N/A	N/A	N/A	Poorly graded Silty sand, light brown, gritty, subangular; 0-10cm peaty, organic silt, black, fibrous, saturated					Well: Grout (cmnt. and bent mix)	402
1.0	68	N/A	N/A	N/A	N/A							
1.5	53	N/A	N/A	N/A	N/A	Gravelly sand, light brown, gritty, angular						401
2.0						Pillow Andesite, fine grained, large inclusions 2-6 cm dia, subangular						400
2.5	100	100	3	56	Fair							
3.0												
4.0												399
4.5	91	99	7	54	Fair							
5.0												398
5.5												
6.0												
6.5												397
7.0	47	98	3	57	Fair							
7.5												396
8.0												

Bottom of hole at 8.3 m

AUSENCO ROCK CORE LOG BH-PP-28 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 8.3 m
START DATE : 09/09/2021	COMPLETION DATE : 09/09/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-29	NORTH COORD(m): 5694502
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550893
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 409 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.0	100	N/A	N/A	N/A	N/A	Peat, black, organic, fibrous, rootlets					Well: Grout (cmnt. and bent mix)	
0.1	100	N/A	N/A	N/A	N/A							
0.2	95	N/A	N/A	N/A	N/A	Silty sand, brown to grey, gritty, subangular, trace clay and gravel, transitions to red brown @ 0.25m						
0.3	0	N/A	N/A	N/A	N/A							
0.5						NO RECOVERY						
1.0						Sheared Porphyry Andesite, fine grained, medium/dark grey, weathered fractures, moderate mechanical breaks (some weathered)						408
2.0	100	71	8	47	Fair							407
3.0												406
4.5	91	91	5	56	Fair							405
5.0												404
6.0												403
6.5	100	100	5	60	Fair							402
7.0						Bottom of hole at 7 m						

AUSENCO ROCK CORE LOG BH-PP-29 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 7 m
START DATE : 09/10/2021	COMPLETION DATE : 09/10/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-30	NORTH COORD(m): 5694650
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550911
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 405 m	WATER LEVEL(m): 0.1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.0	100	N/A	N/A	N/A	N/A	Peat, red brown, trace silt, fibrous, woody, rootlets					Well: Grout (cmnt. and bent mix)	
0.0	100	N/A	N/A	N/A	N/A							
0.0	100	N/A	N/A	N/A	N/A	Silty sand, light brown to brown, gritty, subangular, low plasticity						
0.0	100	N/A	N/A	N/A	N/A							
0.0	100	N/A	N/A	N/A	N/A	Peat, red brown, trace silt, fibrous, woody, rootlets, same as top layer						
0.0	100	N/A	N/A	N/A	N/A							
0.5	100	N/A	N/A	N/A	N/A	Peat, red brown, trace silt, fibrous, woody, rootlets, same as top layer						
0.5	100	N/A	N/A	N/A	N/A							
0.5	100	N/A	N/A	N/A	N/A	Silt, light brown to dark brown, gritty, subangular, sand content increases at depth, trace angular gravel at 0.77m						404
0.5	100	N/A	N/A	N/A	N/A							
1.0	100	N/A	N/A	N/A	N/A							
1.0	100	N/A	N/A	N/A	N/A							
1.5	0	N/A	N/A	N/A	N/A	NO RECOVERY						403
2.0	0	N/A	N/A	N/A	N/A							403
2.5	0	N/A	N/A	N/A	N/A							403
3.0	100	72	7	43	Fair	Sheared andesite, with mylonite texture. fine grained, light/dark grey, weathered joints						402
3.5												402
4.0												401
4.5	93	80	6	51	Fair							400
5.0												400
5.5												400
6.0												399
6.5												399
7.0	98	71	9	49	Fair							398
7.5												398
8.0												397

Bottom of hole at 8.4 m

AUSENCO ROCK CORE LOG BH-PP-30 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 8.4 m
START DATE : 09/12/2021	COMPLETION DATE : 09/12/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-31	NORTH COORD(m): 5694626
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550823
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 409 m	WATER LEVEL(m): 1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	NA	N/A	N/A	N/A	N/A	Dark brown muskag/organics, rootlets, woodchips					Well: 2" PVC Sch. 40 (grout)	408
1.0	NA	N/A	N/A	N/A	N/A	Silty sand, brown to grey, some subangular gravel, low plasticity						407
1.5	0	N/A	N/A	N/A	N/A	NO RECOVERY						406
2.0												405
2.5												404
3.0												403
3.5	94	4	2	46	Fair	Mylonitic Andesite, dark gray, fine grained; quartz veining throughout, rubble zone at 28m and 29m						402
4.0												401
4.5												400
5.0												399
5.5												398
6.0	98	96	6	55	Fair					1.75E-08		397
6.5												396
7.0												395
7.5												394
8.0												393
8.5												392
9.0	100	95	5	65	Good							391
9.5												390
10.0												389
10.5												388
11.0												387
11.5												386
12.0	100	100	6	54	Fair							385
12.5												384
13.0												383
13.5												382
14.0												381
14.5												380
15.0	93	90	3	54	Fair							379
15.5												
16.0												
16.5												
17.0												
17.5												
18.0	100	100	3	55	Fair							
18.5												
19.0												
19.5												
20.0												
20.5												
21.0												
21.5	100	99	5	55	Fair							
22.0												
22.5												
23.0												
23.5												
24.0												
24.5	100	90	3	55	Fair							
25.0												
25.5												
26.0												
26.5												
27.0												
27.5	100	92	2	55	Fair							
28.0												
28.5												
29.0												
29.5	100	95	3	55	Fair							
30.0												

AUSENCO ROCK CORE LOG BH-PP-31 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23

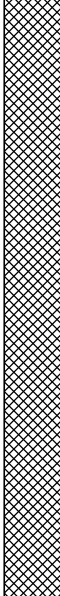
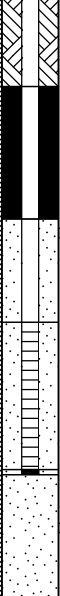


ROCK CORE LOG

LOGGED BY : Thom Kolb	COMPLETION DEPTH : 42.2 m
START DATE : 09/13/2021	COMPLETION DATE : 09/17/2021
DRILLED BY : Rodren Drilling	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-31	NORTH COORD(m): 5694626
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550823
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 409 m	WATER LEVEL(m): 1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
30.5	100	95	3	55	Fair	Mylonitic Andesite, dark gray, fine grained; quartz veining throughout, rubble zone at 28m and 29m(<i>continued</i>)					Well: 2" PVC Sch. 40 (grout)(<i>continued</i>)	378
31.0											Well: 2" PVC Sch. 40 (bent. pellets)	377
31.5	100	100	2	55	Fair							376
32.0												375
32.5											Well: Filter Sand.	374
33.0												373
33.5	98	87	3	54	Fair						Well: 2" PVC Sch. 40 10" slot. (36.6-39.6m)	372
34.0												371
34.5	100	92	5	55	Fair							370
35.0												369
35.5												368
36.0											Well: cap	367
36.5										4.41E-08		

Bottom of hole at 42.2 m

AUSENCO ROCK CORE LOG BH-PP-31 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : Thom Kolb	COMPLETION DEPTH : 42.2 m
START DATE : 09/13/2021	COMPLETION DATE : 09/17/2021
DRILLED BY : Rodren Drilling	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-PP-34	NORTH COORD(m): 5694350
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550385
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 386 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)			
0.5	NA	N/A	N/A	N/A	N/A	Dark brown organics, woodchips, fine grained pale green silt					Well: Grout (cmnt. and bent mix)				
1.0	NA	N/A	N/A	N/A	SILT. Pale green/grey/brown silt and fine to coarse sand, trace fine angular silty gravel at 2m					385					
1.5	NA	N/A	N/A	N/A											
2.0	NA	N/A	N/A	N/A								384			
2.5	NA	N/A	N/A	N/A											
3.0	NA	N/A	N/A	N/A								383			
3.5	90	70	9	49	Fair	Fine-grained, Medium to light grey Andesite containing some iron-oxide concentrations, mm to cm quartz veins containing pyrites and feldspar veins									
4.0															382
4.5															
5.0	100	50	11	44	Fair										
5.5															
6.0						Bottom of hole at 6 m						380			

AUSENCO ROCK CORE LOG BH-PP-34 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 6 m
START DATE : 09/23/2021	COMPLETION DATE : 09/23/2021
DRILLED BY : Rodren Drilling	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-18	NORTH COORD(m): 5693846
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550028
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): 3

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						fine-grained Andesite, medium grey with cm-scale quartz/carbonate veining. Very minor amounts of pyrite in a couple of natural breaks. Red/brown oxidation staining present at top. Transitions into amygdular "snowflake" andesite @ 6m					Well: Grout (cmnt. and bent mix)	399
1.0					398							
2.0	42	28	4	39	Poor							397
3.0						Andesite transition into trachyte. Fine-grained, medium grey rock with cm-scale qtz/carbonate veining					396	
4.0					395							
5.0	59	47	4	42	Fair						394	
6.0						Fine-grained Trachyte, medium to light grey rock with cm-scale qtz/carbonate/tourmaline veining. Rock containing sheared lithic fragments and/or large light to dark grey crystals. Some visible sulfides					393	
7.0					392							
8.0	77	75	3	49	Fair						391	
9.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					390	
10.0					389							
11.0	100	95	4	58	Fair						388	
12.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					387	
13.0					386							
14.0	100	100	3	66	Good						385	
15.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					384	
16.0					383							
17.0	93	91	5	65	Good						382	
18.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					381	
19.0					380							
20.0	100	100	4	64	Good						379	
21.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					378	
22.0					377							
23.0	87	81	8	54	Fair						376	
24.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					375	
25.0					374							
26.0	96	83	2	57	Fair						373	
27.0						Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.					372	
28.0					371							
29.0	100	70	6	39	Poor						370	

AUSENCO ROCK CORE LOG BH-Q-18 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23







ROCK CORE LOG

LOGGED BY : Satish/Benjie	COMPLETION DEPTH : 35 m
START DATE : 06/22/2021	COMPLETION DATE : 06/22/2021
DRILLED BY : James	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-18	NORTH COORD(m): 5693846
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550028
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): 3

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)									
30.5	100	70	6	39	Poor	Trachyte breccia, fine-grained, sheared, dark to medium grey rock with cm-scale qtz/carbonate/tourmaline veining. With a fair amount of visible sulfide.(continued)					Well: Grout (cmnt. and bent mix)(continued)	369									
31.0																				368	
31.5	77	69	6	52	Fair							367									
32.0																					366
32.5																					
33.0																					
33.5																					
34.0																					
34.5																					
35.0																					

Bottom of hole at 35 m

AUSENCO ROCK CORE LOG BH-Q-18 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : Satish/Benjie	COMPLETION DEPTH : 35 m
START DATE : 06/22/2021	COMPLETION DATE : 06/22/2021
DRILLED BY : James	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-19	NORTH COORD(m): 5693724
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550382
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): 1.5

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						Medium to light grey, massive Andesite that appears to have been altered, giving it a light brown (reddish in places) colour. cm-scale qtz/calcite veining prevalent					Well: Grout (cmnt. and bent mix)	399
1.0	24	0	3	44	Fair							398
1.5						Medium to light grey, massive texture with greenish-brownish alteration-stained sections. mm- to cm-scale qtz/calcite veining (some light, some dark - may contain chlorite) along with "specks" of dark material pervasive throughout (sulfides)						397
2.0												396
2.5	69	31	7	43	Fair							395
3.0						Medium to light grey, massive texture with greenish-brownish alteration-stained sections						394
3.5												393
4.0	38	25	4	43	Fair							392
4.5												391
5.0												390
5.5	91	56	2	55	Fair							389
6.0												388
6.5												387
7.0												386
7.5												385
8.0												384
8.5												383
9.0												382
9.5												381
10.0												380
10.5												379
11.0												378
11.5												377
12.0	95	74	14	44	Fair							376
12.5												375
13.0												374
13.5												373
14.0												372
14.5												371
15.0												370
15.5	87	53	15	45	Fair							369
16.0												368
16.5												367
17.0												366
17.5												365
18.0												364
18.5												363
19.0	100	77	15	52	Fair							362
19.5												361
20.0												360
20.5												359
21.0												358
21.5	94	91	8	54	Fair							357
22.0												356
22.5												355
23.0												354
23.5												353
24.0												352
24.5	100	84	5	54	Fair	Medium to light grey, massive (porphyry) with large pale crystals (plagioclase feldspar?). 40 cm of alteration (lighter grey rock) starts at 28.4 m. mm- to cm-scale quartz/calcite veins in joints						351
25.0												350
25.5												349
26.0												348
26.5												347
27.0												346
27.5	100	100	8	58	Fair							345
28.0												344
28.5												343
29.0												342

Bottom of hole at 29 m

AUSENCO ROCK CORE LOG BH-Q-19 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : Satish/Benjie	COMPLETION DEPTH : 29 m
START DATE : 06/26/2021	COMPLETION DATE : 06/26/2021
DRILLED BY : James	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-20	NORTH COORD(m): 5693810
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550540
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						NO RECOVERY					Well: Grout (cmnt. and bent mix)	399
1.0												398
2.0	0	N/A	N/A	N/A	N/A							397
3.0												396
4.0												395
5.0												394
5.5	100	81	9	56	Fair	Fine grained, tan thinly bedded ash Tuff, multiple rubble zones at 12-15m						393
6.0												392
6.5												391
7.0	96	95	8	61	Good							390
7.5												389
8.0												388
8.5												387
9.0												386
9.5												385
10.0	100	100	11	61	Good							384
10.5												383
11.0												382
11.5												381
12.0												380
12.5												379
13.0	93	39	13	49	Fair							378
13.5												377
14.0												376
14.5												375
15.0												374
15.5	100	83	11	56	Fair							373
16.0												372
16.5												371
17.0												370
17.5												
18.0												
18.5												
19.0	99	88	5	64	Good							
19.5												
20.0												
20.5												
21.0												
21.5												
22.0	99	85	7	61	Good	Fine grained, tan and grey thinly bedded ash tuff transitioning to completely grey bedded ash tuff at 23.6m						
22.5												
23.0												
23.5												
24.0												
24.5												
25.0	99	90	7	61	Good	Fine grained, light and medium grey bedded ash tuff						
25.5												
26.0												
26.5												
27.0												
27.5												
28.0												
28.5	100	66	7	53	Fair							
29.0												
29.5												
30.0												

AUSENCO ROCK CORE LOG BH-Q-20 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23

Bottom of hole at 30 m



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 30 m
START DATE : 06/30/2021	COMPLETION DATE : 06/30/2021
DRILLED BY : Rodren Drilling	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-21	NORTH COORD(m): 5693700
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550750
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						NO RECOVERY					Well: Grout (cmnt. and bent mix)	399
1.0												398
2.0	0	N/A	N/A	N/A	N/A							397
3.0												396
4.0												395
4.5	88	25	10	47	Fair	Fine grained Tuff, light/med grey to tan @ 4.3m; two Rubble Zones (trace staining angular >1cm @4.4m, gritty broken/crushed <1cm @4.6m), traces of cemented fracturing						394
5.0												393
6.5	100	77	6	54	Fair	Fine grained, tan, thinly bedded ash Tuff. quartz veining 1-5mm, yellow staining in fractures between 7.5m and 8m,						392
7.0												391
8.0												390
9.5	98	72	4	52	Fair							389
10.0												388
11.0												387
12.5	100	74	6	52	Fair							386
13.0												385
14.0												384
15.0	93	60	4	61	Good	Fine grained, tan and light/med grey thinly bedded ash tuff. With quartz veins and pyrite veins. Rubble zone at 16.7m, 17.7m, and 23.7m.						383
16.0												382
17.0												381
17.5												380
18.0	98	76	5	62	Good							379
18.5												378
19.0												377
19.5												376
20.0												375
20.5	100	55	6	61	Good							374
21.0												373
21.5												372
22.0												371
22.5												370
23.0												
23.5												
24.0	100	71	6	62	Good							
24.5												
25.0												
25.5												
26.0												
26.5												
27.0	98	36	5	54	Fair	Fine grained, tan and medium grey, thinly bedded ash tuff with lots of fine cemented fracturing, yellow stained veining <1mm, Quartz veining <5mm, pyrite veining <1mm, transition to med/dark grey beds @ 20m to EOH						
27.5												
28.0												
28.5												
29.0												
29.5	100	67	6	59	Fair							
30.0												

AUSENCO ROCK CORE LOG BH-Q-21 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 32 m
START DATE : 08/27/2021	COMPLETION DATE : 08/28/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-21	NORTH COORD(m): 5693700
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550750
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
30.5 31.0 31.5 32.0	100	67	6	59	Fair	Fine grained, tan and medium grey, thinly bedded ash tuff with lots of fine cemented fracturing, yellow stained veining <1mm, Quartz veining <5mm, pyrite veining <1mm, transition to med/dark grey beds @ 20m to EOH(continued)					Well: Grout (cmnt. and bent mix)(continued)	369 368

Bottom of hole at 32 m

AUSENCO ROCK CORE LOG BH-Q-21 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 32 m
START DATE : 08/27/2021	COMPLETION DATE : 08/28/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-22	NORTH COORD(m): 5693973
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550388
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 424 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						No recovery					Well: Grout (cmnt. and bent mix)	423
1.0												422
1.5												421
2.0												420
2.5												419
3.0												418
3.5												417
3.8	0	N/A	N/A	N/A	N/A							416
7.5											415	
8.0	75	65	3	47	Fair	Sheared andesite, fine grained, med/dk grey, with quartz veining (<1cm), pyrite veining (<2mm), low quantity of mechanical breaks					414	
9.5											413	
10.0	98	92	4	51	Fair						412	
10.5											411	
12.0	100	88	9	51	Fair						410	
13.5											409	
15.0	100	93	3	57	Fair						408	
16.0											407	
16.5											406	
17.0											405	
18.5	96	75	9	50	Fair	Sheared Andesite, fine grained, med/dk grey, bedding, quartz veining (<1cm), low quantity of mechanical breaks, natural rubble zones x3					404	
19.5											403	
21.0	100	76	7	56	Fair	Sheared andesite, fine grained, med/dk grey, with quartz veining (1cm), low to medium quantity of mechanical breaks					402	
21.5											401	
22.0											400	
22.5											399	
23.0	99	82	9	52	Fair						398	
23.5											397	
24.0											396	
24.5											395	
25.0											394	
27.0	100	86	8	52	Fair	Sheared andesite, fine grained, med/dk grey, with quartz veining (1cm) w/ and w/o bedding plane, low quantity of mechanical breaks						
27.5												
28.0												
28.5												
29.0												
29.5												
30.0												

AUSENCO ROCK CORE LOG BH-Q-22 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23

Rnftom of hole at 30 m



LOGGED BY : DMC	COMPLETION DEPTH : 30 m
START DATE : 08/29/2021	COMPLETION DATE : 08/30/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-Q-23	NORTH COORD(m): 5694043
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550560
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 424 m	WATER LEVEL(m): NA

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						NO RECOVERY					Well: Grout (cmnt. and bent mix)	423
1.0												422
1.5												421
2.0												420
2.5												419
3.0												418
3.5												417
3.8												416
4.0	0	N/A	N/A	N/A	N/A							415
4.5												414
5.0												413
5.5												412
6.0												411
6.5												410
7.0												409
7.5												408
8.0	78	72	5	50	Fair	Andesite, Fine grained, medium/dark grey, some cemented fine fractures (calcite), rubble zone at 8.7m						407
8.5												406
9.0												405
9.5												404
10.0	100	80	6	56	Fair							403
10.5												402
11.0												401
11.5												400
12.0												399
12.5												398
13.0	100	80	6	57	Fair	fine grained, medium/dark grey, some cemented fine fractures (calcite), trace mineralization (pyrite), rubble zone at 15m						397
13.5												396
14.0												395
14.5												394
15.0												
15.5												
16.0	100	65	6	50	Fair	fine grained, medium/dark grey, some fine fractures (calcite), coarse grained andesite inclusion @ 16.5m (12cm wide), rubble zone at 17.4m, 18.5m, 20.9m						
16.5												
17.0												
17.5												
18.0												
18.5												
19.0	100	84	8	54	Fair	fine grained, medium/dark grey, sheared fabric visible, cemented fine fracturing (calcite), rubble zone at 20.9m, 22.2m, 22.7m, 24.6m, 27.3m						
19.5												
20.0												
20.5												
21.0												
21.5												
22.0	98	73	8	50	Fair							
22.5												
23.0												
23.5												
24.0												
24.5												
25.0	100	73	7	48	Fair							
25.5												
26.0												
26.5												
27.0												
27.5												
28.0												
28.5	100	88	7	54	Fair							
29.0												
29.5												
30.0												

AUSENCO ROCK CORE LOG BH-Q-23 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23

Bottom of hole at 30 m



ROCK CORE LOG

LOGGED BY : DMC	COMPLETION DEPTH : 30 m
START DATE : 08/30/2021	COMPLETION DATE : 09/02/2021
DRILLED BY : Matt/JP	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-SP-39	NORTH COORD(m): 5695397
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550014
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 396 m	WATER LEVEL(m): 1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5						NO RECOVERY					Well: Grout (cmnt. and bent mix)	395
1.0												394
2.0	0	N/A	N/A	N/A	N/A							393
3.0												392
4.5	60	0	0	44	Fair	Fine-grained Andesite, Medium to light grey with pyrite. Used improper barel caused having mechanical rubble zones						391
5.5						Fine-grained Andesite, Medium to light grey andesite containing mm to cm quartz and calcite veins.						390
6.5	93	48	9	46	Fair							389
8.0												388
8.5												387
9.0	100	78	7	56	Fair							386
10.0						Bottom of hole at 10 m				7.28E-09		386

AUSENCO ROCK CORE LOG BH-SP-39 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 10 m
START DATE : 10/28/2021	COMPLETION DATE : 10/29/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-SP-40	NORTH COORD(m): 5695041
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 550705
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 404 m	WATER LEVEL(m): 0.8

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	0	N/A	N/A	N/A	N/A	NO RECOVERY					Well: Grout (cmnt. and bent mix)	403
1.0												
1.5	100	28	1	43	Fair	Fine-grained, Medium to light grey Andesite with pyrite, used inproper barel caused having mechanical rubble zones						402
2.0												
2.5						Fine-grained, Medium to light grey Andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite with some rubble and mechanical rubble zones						401
3.0												
3.5	99	77	4	56	Fair							400
4.0												
4.5												
5.0												399
5.5	100	100	3	57	Fair							
6.0										3.16E-08		398

Bottom of hole at 6 m

AUSENCO ROCK CORE LOG BH-SP-40 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 6 m
START DATE : 10/30/2021	COMPLETION DATE : 10/31/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-35	NORTH COORD(m): 5694343
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 548125
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): 2.68

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)	
0.5	N/A	N/A	N/A	N/A	N/A	poorly graded sand, brown and partially greyish					Well: Grout (cmnt. and bent mix)		
1.0	N/A	N/A	N/A	N/A	N/A							399	
1.5	N/A	N/A	N/A	N/A	N/A	poorly graded silty sand, light brown- brown and partially greyish							398
2.0	N/A	N/A	N/A	N/A	N/A	well grade gravel with silty sand, light brown and greyish							397
2.5	N/A	N/A	N/A	N/A	N/A								396
3.0	0	N/A	N/A	N/A	N/A	No recovery						395	
3.5												394	
4.0	100	94	7	57	Fair	Fine-grained Andesite, Medium to light grey, containing mm to cm quartz veins						393	
4.5												392	
5.0												391	
5.5												390	
6.0	100	100	5	59	Fair	Andesite porphyry. Fine-grained, Medium to light grey andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite. Partially Coarse-grained light grey andesite porphyry		VWP			VWP DT24144 VW129195 Well: Grout (cmnt. and bent mix)	389	
6.5										1.59E-09		388	
7.0												387	
7.5												386	
8.0												385	
8.5	99	99	5	59	Fair							384	
9.0												383	
9.5												382	
10.0	99	99	7	59	Fair							381	
10.5												380	
11.0												379	
11.5												378	
12.0												377	
12.5	100	98	3	59	Fair							376	
13.0												375	
13.5												374	
14.0												373	
14.5												372	
15.0	100	100	3	58	Fair	Fine-grained, Medium to light grey Andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite. It contains some mechanical rubble zones						371	
15.5												370	
16.0													
16.5													
17.0													
17.5													
18.0													
18.5													
19.0													
19.5													
20.0													
20.5													
21.0													
21.5	99	99	3	58	Fair								
22.0													
22.5													
23.0													
23.5													
24.0													
24.5	100	100	4	59	Fair								
25.0													
25.5													
26.0													
26.5													
27.0													
27.5	96	96	4	57	Fair								
28.0													
28.5													
29.0													
29.5													
30.0	98	98	4	59	Fair								

AUSENCO ROCK CORE LOG BH-TMF-35 BH LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 09/25/2021	COMPLETION DATE : 09/28/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-35	NORTH COORD(m): 5694343
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 548125
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 400 m	WATER LEVEL(m): 2.68

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
30.5	98	98	4	59	Fair	Andesite porphyry. Fine-grained, Medium to light grey andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite. Partially Coarse-grained light grey andesite porphyry(continued)				3.76E-09	Well: Grout (cmnt. and bent mix)(continued)	369
31.0												368
31.5	98	96	3	58	Fair					3.76E-09		367
32.0												366
32.5												365
33.0	94	94	3	59	Fair					3.76E-09		364
33.5												363
34.0												362
34.5												361
35.0	100	97	6	59	Fair					3.76E-09		360
35.5												359
36.0												
36.5												
37.0												
37.5												
38.0												
38.5												
39.0												
39.5												
40.0												
40.5												
41.0												

Bottom of hole at 41 m

VWP DT24148
VW129154
Well: Grout (cmnt. and bent mix)

AUSENCO ROCK CORE LOG BH-TMF-35 BH_LOG_JM_22DEC.GPJ(GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 09/25/2021	COMPLETION DATE : 09/28/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-36	NORTH COORD(m): 5693368
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 548764
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 515 m	WATER LEVEL(m): 1.1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	100	N/A	N/A	N/A	N/A	dark brown organics, woodchips, with grey fine grained grey silt					Well: Grout (cmnt. and bent mix)	514
1.0	0	N/A	N/A	N/A	N/A	No recovery						
1.5	100	44	18	49	Fair	Mylonitic Andesite, light grey, calcite, quartz, and pyrite veins, iron oxide mylonitic andesite						513
2.0												512
2.5												511
3.0	100	90	6	59	Fair							510
3.5												509
4.0												508
4.5												507
5.0												506
5.5						Fine-grained, Medium to light grey Andesite containing mm to cm magnetite calcite quartz veins with filled pyrite						505
6.0	100	96	6	60	Fair							504
6.5												503
7.0												502
7.5												501
8.0												500
8.5												499
9.0	100	93	5	57	Fair							498
9.5												497
10.0												496
10.5												495
11.0												494
11.5	100	10	5	57	Fair							493
12.0												492
12.5												491
13.0												490
13.5												489
14.0												488
14.5												487
15.0	98	98	6	57	Fair							486
15.5												485
16.0												
16.5												
17.0												
17.5												
18.0	100	97	8	57	Fair							
18.5												
19.0												
19.5												
20.0												
20.5												
21.0												
21.5	100	97	6	57	Fair							
22.0												
22.5												
23.0												
23.5												
24.0	100	100	6	57	Fair	Fine-grained, Medium to light grey Andesite containing mm to cm sheared chlorite/magnetite- calcite- quartz veins with filled pyrite						
24.5												
25.0												
25.5												
26.0												
26.5												
27.0												
27.5	99	95	6	57	Fair							
28.0												
28.5												
29.0												
29.5	99	97	5	57	Fair							
30.0												

AUSENCO ROCK CORE LOG BH-TMF-36 BH LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 09/29/2021	COMPLETION DATE : 10/02/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-36	NORTH COORD(m): 5693368
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 548764
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 515 m	WATER LEVEL(m): 1.1

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
30.5	99	97	5	57	Fair	Fine-grained, Medium to light grey Andesite containing mm to cm sheared chlorite/magnetite- calcite- quartz veins with filled pyrite(<i>continued</i>)					Well: Grout (cmnt. and bent mix)(<i>continued</i>)	484
31.0												483
31.5	100	99	9	57	Fair						482	
32.0											481	
32.5											480	
33.0	100	100	13	57	Fair						479	
33.5											478	
34.0											477	
34.5											476	
35.0	98	98	5	57	Fair						475	
35.5											474	
36.0												
36.5												
37.0												
37.5												
38.0												
38.5												
39.0												
39.5												
40.0												
40.5												
41.0												

Bottom of hole at 41 m

VWP DT24446
VW129024

AUSENCO ROCK CORE LOG BH-TMF-36 BH_LOG_JM_22DEC.GPJ GEER (TEST PIT).GDT 21-12-23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 09/29/2021	COMPLETION DATE : 10/02/2021
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-37	NORTH COORD(m): 5693579
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 546937
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 418 m	WATER LEVEL(m): 3.87

NOTES: TMF-03
 INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	100	N/A	N/A	N/A	N/A	ORGANIC. Silty with some light brown woodchips and greyish sand					Well: Grout (cmnt. and bent mix)	417
1.0	100	N/A	N/A	N/A	N/A	SILTY SAND. Dark brown, poorly graded, coarse grained sand						416
1.5	100	N/A	N/A	N/A	N/A	SAND with some silt, light brown coarse grained sand						415
2.0	100	80	15	55	Fair	ANDESITE. Fine-grained, Medium to light grey andesite porphyry						414
2.5						Same as above, containing mm to cm quartz and calcite veins. It also partially contains chlorite (indication of metamorphsim) with some rubble and mechanical rubble zones						413
3.0												412
3.5	100	83	9	56	Fair							411
4.0												410
4.5												409
5.0	100	100	7	57	Fair							408
5.5											VWP: DT24141 VW129079 Well: Grout (cmnt. and bent mix)	407
6.0						Same as above, partially contains with some rubble and mechanical rubble zones						406
6.5												405
7.0												404
7.5												403
8.0	97	97	5	57	Fair							402
8.5												401
9.0												400
9.5												399
10.0	100	100	8	56	Fair	Fine-grained, Medium to light grey andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite (indication of metamorphsim)						398
10.5												397
11.0												396
11.5												395
12.0	100	98	5	56	Fair							394
12.5												393
13.0												392
13.5												391
14.0	100	100	3	59	Fair							390
14.5												389
15.0												388
15.5	100	100	3	58	Fair							
16.0												
16.5												
17.0	100	96	4	59	Fair							
17.5												
18.0												
18.5												
19.0												
19.5												
20.0												
20.5												
21.0												
21.5												
22.0												
22.5												
23.0												
23.5												
24.0												
24.5												
25.0												
25.5												
26.0												
26.5												
27.0												
27.5												
28.0												
28.5												
29.0												
29.5												
30.0												

AUSENCO ROCK CORE LOG BH-TMF-37 20211209 BOREHOLE LOG - SPRINGPOLE LOG - GS.GPJ GEER (TEST PIT).GDT 21/12/23


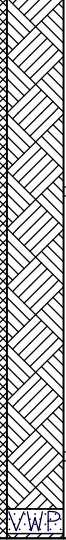



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 2021-10-19	COMPLETION DATE : 2021-10-23
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-37	NORTH COORD(m): 5693579
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 546937
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 418 m	WATER LEVEL(m): 3.87

NOTES: TMF-03
 INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
30.5	100	96	4	59	Fair	Fine-grained, Medium to light grey andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite (indication of metamorphsim)(continued)				1.12E-08 9.04E-09	Well: Grout (cmnt. and bent mix)(continued)	387
31.0												386
31.5	385											
32.0	384											
32.5	98	89	6	54	Fair					Well: Grout (cmnt. and bent mix)	383	
33.0											382	
33.5	381											
34.0	380											
34.5	100	98	5	56	Fair						379	
35.0											378	
35.5	377											
36.0	376											
36.5	98	94	7	57	Fair						375	
37.0											374	
37.5	373											
38.0	372											
38.5	371											
39.0	370											
39.5	369											
40.0	368											
40.5	367											
41.0	366											

Bottom of hole at 41 m

VWP
 1.12E-08
 9.04E-09
 VWP: DT24142
 VW129029
 Well: Grout (cmnt. and bent mix)

AUSENCO ROCK CORE LOG BH-TMF-37_20211209_BOREHOLE LOG -SPRINGPOLE2021_CS.GPJ.GEER (TEST PIT).GDT_21/12/23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 41 m
START DATE : 2021-10-19	COMPLETION DATE : 2021-10-23
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021Geotechnical Field Program	CONTRACTOR: Rodren Drilling	BOREHOLE NO.: BH-TMF-38	NORTH COORD(m): 5694790
CLIENT: First Mining Gold	EQUIPMENT: HQ	PROJECT NO.: 105877-02	EAST COORD(m): 547046
LOCATION: Springpole Project	METHOD: Diamond Drilling	ELEVATION: 419 m	WATER LEVEL(m): 1.2

NOTES:
INSTALLS:

DEPTH (m)	TCR (%)	CORE RQD (%)	FRACTURE FREQUENCY	RMR VALUE	ROCK QUALITY	SOIL/ROCK DESCRIPTION	ROCK SYMBOL	WELL	SAMPLE TYPE	PACKER TEST "K" RESULTS (m/s)	DRILL COMMENTS & WELL DESCRIPTION	ELEVATION (masl)
0.5	100	N/A	N/A	N/A	N/A	ORGANIC. Brown, with some silt and fine sand, trace clay, moss and woodchips present, mosit.					Well: Grout (cmnt. and bent mix)	418
1.0	100	22	3	45	Fair	ANDESITE. Fine grained andesite, medium to light grey, slightly weathered, with pyrite,						417
2.0						Fine-grained, medium to light grey andesite containing mm to cm quartz and calcite veins. It also partially contains chlorite (indication of metamorphsim) with some rubble and mechanical rubble zones						416
3.5	100	77	2	58	Fair							415
6.5	98	93	6	57	Fair							412
9.5	100	98	4	57	Fair							409
11.0						Bottom of hole at 11 m				1.36E-08	VWP: DT24143 VW129074 Well: Grout (cmnt. and bent mix)	408

AUSENCO ROCK CORE LOG BH-TMF-38 20211209 BOREHOLE LOG - SPRINGPOLE 2021_GS.GPJ GEER (TEST PIT).GDT 21/12/23



ROCK CORE LOG

LOGGED BY : MK	COMPLETION DEPTH : 11 m
START DATE : 2021-10-24	COMPLETION DATE : 2021-10-27
DRILLED BY : Carl	AZIMUTH : N/A (deg) PLUNGE : -90 (deg)

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-47	NORTH COORD. (m): 5693722
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550502
LOCATION: Springpole Project	ELEVATION: 396 m	GROUND WATER LEVEL (m): 1.88	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, mossy and organic					395.9
0.2							395.8
0.3		Silty SAND (glacial till), subrounded, very loose, coarse grained, light brown, dry, no HCl reaction, With cobbles, homogeneous, fine sand					395.7
0.4							395.6
0.5				TP-B-47-01		Pocket Pen: 0	395.5
0.6							395.4
0.7							395.3
0.8		Silty CLAY (glacial till), low plasticity, fine grained, brownish grey, damp, no HCl reaction, soft to stiff, slow, Trace organics, blocky					395.2
0.9				TP-B-47-02		Pocket Pen: 2.25, Vane Shear: 5.25	395.1
1.0							395.0
1.1		Poorly graded Silty SAND (glacial till), rounded, very loose, coarse grained, brownish grey, damp, no HCl reaction, Fine sand, laminated weathering					394.9
1.2							394.8
1.3		Poorly graded SAND (glacial till), subrounded, very loose, coarse grained, reddish brown, damp, no HCl reaction, With cobbles, lensed with fine sand and weathered cobbles, heavily oxidized					394.7
1.4							394.6
1.5				TP-B-47-04		Pocket Pen: 0.25	394.5
1.6							394.4
1.7							394.3
1.8							394.2
1.9		Poorly graded Sandy GRAVEL (glacial till), subrounded, very loose, coarse grained, reddish brown, wet, no HCl reaction, With cobbles and boulders, heavily oxidized					394.1
2.0							394.0

AUSENCO TP-B-47 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.24 m
START DATE: 26/Oct/21	COMPLETION DATE: 26/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-47	NORTH COORD. (m): 5693722
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550502
LOCATION: Springpole Project	ELEVATION: 396 m	GROUND WATER LEVEL (m): 1.88	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Poorly graded Sandy GRAVEL (glacial till), subrounded, very loose, coarse grained, reddish brown, wet, no HCl reaction, With cobbles and boulders, heavily oxidized (<i>continued</i>)	<input checked="" type="checkbox"/>	TP-B-47-05		Pocket Pen: 0.5	393.9
2.2							393.8

Bottom of hole at 2.24 m

AUSENCO TP-B-47 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.24 m
START DATE: 26/Oct/21	COMPLETION DATE: 26/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-48	NORTH COORD. (m): 5694108
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550496
LOCATION: Springpole Project	ELEVATION: 410 m	GROUND WATER LEVEL (m): 1.7	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, dry, Rootlet, odourous, mossy and organics					409.9
0.2		Well graded Gravelly SAND (glacial till), subrounded to rounded, very loose, coarse grained, reddish brown, damp, no HCl reaction, With cobbles and trace organics and clay, homogeneous, some oxidation		TP-B-48-01		Pocket Pen: 0.25	409.8
0.3							409.7
0.4		Poorly graded SAND (glacial till), rounded, medium dense, coarse grained, brown, damp, no HCl reaction, Comes out in chunks					409.6
0.5							409.5
0.6							409.4
0.7				TP-B-48-02		Pocket Pen: 3	409.3
0.8							409.2
0.9		Well graded Gravelly SAND (glacial till), subangular to subrounded, loose, coarse grained, green, moist, no HCl reaction, With cobbles and boulders, homogeneous					409.1
1.0							409.0
1.1							408.9
1.2							408.8
1.3							408.7
1.4							408.6
1.5							408.5
1.6				TP-B-48-03		Pocket Pen: 0.75	408.4
1.7							408.3
1.8							408.2
1.9							408.1
2.0							408.0

AUSENCO TP-B-48 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG






LOGGED BY: Erin	COMPLETION DEPTH: 2.2 m
START DATE: 26/Oct/21	COMPLETION DATE: 26/Oct/21
REVISION NO.: B	


























PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-B-48		NORTH COORD. (m): 5694108	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550496	
LOCATION: Springpole Project		ELEVATION: 410 m		GROUND WATER LEVEL (m): 1.7			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Well graded Gravelly SAND (glacial till), subangular to subrounded, loose, coarse grained, green, moist, no HCl reaction, With cobbles and boulders, homogeneous (continued)	<input checked="" type="checkbox"/>				407.9
2.2		Bottom of hole at 2.2 m					407.8
Ausenco			TEST PIT LOG			LOGGED BY: Erin	
						COMPLETION DEPTH: 2.2 m	
						START DATE: 26/Oct/21	
						COMPLETION DATE: 26/Oct/21	
						REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-B-49		NORTH COORD. (m): 5694576	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550809	
LOCATION: Springpole Project		ELEVATION: 415 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, mossy and organcis					414.9
0.2		Gravelly CLAY (glacial till), subangular to subrounded, low plasticity, orangeish green, damp, no HCl reaction, Some sand, trace organics, medium stiff		TP-B-49-01		Pocket Pen: 0.75	414.8
0.3							414.7
0.4		CLAY (glacial till), low to medium plasticity, fine grained, light grey, damp, slow, Trace organics, stiff, blocky		TP-B-49-02		Pocket Pen: 2.5, Vane Shear: 2.5	414.6
0.5							414.5
0.6							414.4
0.7		Gravelly SAND (glacial till), subangular, loose, coarse grained, brown, damp, no HCl reaction, With cobbles, some clay, homogeneous		TP-B-49-03		Pocket Pen: 0.25	414.3
0.8							414.2
0.9							414.1
Bottom of hole at 0.92 m							
				LOGGED BY: Erin		COMPLETION DEPTH: 0.92 m	
TEST PIT LOG				START DATE: 27/Oct/21		COMPLETION DATE: 27/Oct/21	
				REVISION NO.: B			

AUSENCO TP-B-49 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-50	NORTH COORD. (m): 5694676
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550946
LOCATION: Springpole Project	ELEVATION: 408 m	GROUND WATER LEVEL (m): 1.68	

SAMPLE TYPE:  GRAB SAMPLE	 NATIVE SOIL	
BACKFILL TYPE:  BENTONITE	 PEA GRAVEL	 SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, mossy and organics					407.9
0.2							407.8
0.3							407.7
0.4							407.6
0.5							407.5
0.6		CLAY (glacial till), high plasticity, fine grained, grey, damp, strong, no, Trace organics, medium stiff to stiff, blocky, white laminated layers (carbonates)		TP-B-50-01		Pocket Pen: 1.75, Vane Shear: 5	407.4
0.7							407.3
0.8							407.2
0.9							407.1
1.0		Silty CLAY (glacial till), low to medium plasticity, fine grained, orangeish grey, wet, no HCl reaction, rapid, Medium stiff, oxidized laminated layer		TP-B-50-02		Pocket Pen: 1.25, Vane Shear: 5	407.0
1.1							406.9
1.2							406.8
1.3		Well graded Gravelly SAND (glacial till), subangular, medium dense, coarse grained, brown, saturated, no HCl reaction, With cobbles, trace clay, homogeneous		TP-B-50-03		Pocket Pen: 0	406.7
1.4							406.6
1.5							406.5
1.6							406.4
1.7							406.3
1.8							406.2
1.9							406.1
Bottom of hole at 1.9 m							

AUSENCO TP-B-50 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13
































TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.9 m
START DATE: 27/Oct/21	COMPLETION DATE: 27/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-51	NORTH COORD. (m): 5693797
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549792
LOCATION: Springpole Project	ELEVATION: 384 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE:  GRAB SAMPLE  NATIVE SOIL

BACKFILL TYPE:  BENTONITE  PEA GRAVEL  SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		Gravelly CLAY (glacial till), medium plasticity, fine grained, grey, damp, medium, slow, Medium stiff, blocky					383.9
0.2							383.8
0.3							383.7
0.4				TP-B-51-01		Pocket Pen: 2, Vane Shear: 3	383.6
0.5							383.5
0.6							383.4
0.7							383.3
0.8							383.2
0.9		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, medium dense, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous		TP-B-51-02		Pocket Pen: 2	383.1
1.0		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, very loose, coarse grained, reddish brown, damp, no HCl reaction, With cobbles and boulders, homogeneous, sand is poorly graded					383.0
1.1				TP-B-51-03		Pocket Pen: 0.25	382.9
1.2							382.8
1.3							382.7
1.4		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, medium dense, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous				Pocket Pen: 2	382.6
1.5		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, very loose, coarse grained, reddish brown, damp, no HCl reaction, With cobbles and boulders, homogeneous, sand is poorly graded				Pocket Pen: 0.25	382.5
1.6							382.4
1.7		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, medium dense, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous					382.3
1.8							382.2
1.9							382.1
2.0							382.0

AUSENCO TP-B-51 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 3.08 m
START DATE: 28/Oct/21	COMPLETION DATE: 28/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-B-51		NORTH COORD. (m): 5693797	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 549792	
LOCATION: Springpole Project		ELEVATION: 384 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, medium dense, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous (continued)				Pocket Pen: 2	381.9
2.2							381.8
2.3							381.7
2.4							381.6
2.5							381.5
2.6							381.4
2.7							381.3
2.8							381.2
2.9							381.1
3.0							381.0
Bottom of hole at 3.08 m							
			TEST PIT LOG			LOGGED BY: Erin START DATE: 28/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 3.08 m COMPLETION DATE: 28/Oct/21	

AUSENCO TP-B-51 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-52	NORTH COORD. (m): 5694247
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 548343
LOCATION: Springpole Project	ELEVATION: 423 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		SILT very loose, brown, dry, no HCl reaction, Organic, some sand, homogeneous					422.9
0.2		Well graded Sandy GRAVEL (glacial till), subangular to subrounded, very loose, reddish brown, dry, no HCl reaction, With cobbles, stratification of straight gravel with some sand, heavily oxidized	<input checked="" type="checkbox"/>	TP-B-52-01			422.8
0.3							422.7
0.4							422.6
0.5							422.5
0.6							422.4
0.7							422.3
0.8							422.2
0.9		Well graded Gravelly SAND (glacial till), subrounded, loose, light brown, dry, no HCl reaction, With cobbles and boulders	<input checked="" type="checkbox"/>	TP-B-52-02		Pocket Pen: 0.5	422.1
1.0							422.0

Bottom of hole at 1.06 m

AUSENCO TP-B-52 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT),GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.06 m
START DATE: 30/Oct/21	COMPLETION DATE: 30/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-B-53		NORTH COORD. (m): 5694108	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 547718	
LOCATION: Springpole Project		ELEVATION: 419 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		Well graded Gravelly SAND (glacial till), subangular, loose, coarse grained, brown, wet, no HCl reaction, With cobbles, trace clay and organics, clayey lens, minor weathering		TP-B-53-01		Pocket Pen: 1	418.9
0.2							418.8
0.3							418.7
0.4							418.6
0.5							418.5
0.6							418.4
0.7		Clayey SAND (glacial till), subrounded, loose, coarse grained, light brown, wet, no HCl reaction, With cobbles and boulders, some gravel, homogeneous		TP-B-53-02		Pocket Pen: 0.25	418.3
0.8							418.2
0.9							418.1
1.0							418.0
1.1							417.9
Bottom of hole at 1.19 m							
				TEST PIT LOG		LOGGED BY: Erin START DATE: 30/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 1.19 m COMPLETION DATE: 30/Oct/21	

AUSENCO TP-B-53 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-54	NORTH COORD. (m): 5693813
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 547324
LOCATION: Springpole Project	ELEVATION: 418 m	GROUND WATER LEVEL (m): 1.15	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, mossy and organic					417.9
0.2		Gravelly CLAY (glacial till), high plasticity, fine grained, brown, damp, no HCl reaction, slow, With boulders, some gravel, trace organics, soft, blocky	<input checked="" type="checkbox"/>	TP-B-54-01		Pocket Pen: 1, Vane Shear: 4.5	417.8
0.3							417.7
0.4							417.6
0.5							417.5
0.6							417.4
0.7		Sandy CLAY (glacial till), medium plasticity, fine grained, orangeish grey, wet, moderate, Medium stiff, blocky, moderate dilatancy, white variations throughtout, weathering in laminated layers	<input checked="" type="checkbox"/>	TP-B-54-02		Pocket Pen: 0.75, Vane Shear: 4	417.3
0.8							417.2
0.9							417.1
1.0							417.0
1.1							416.9
1.2		Sandy GRAVEL (glacial till), subangular, loose, coarse grained, brown, wet, no HCl reaction, With cobbles and clay, homogeneous	<input checked="" type="checkbox"/>	TP-B-54-03		Pocket Pen: 0.5	416.8
1.3							416.7
1.4							416.6
1.5							416.5
1.6							416.4
1.7							416.3
1.8							416.2

Bottom of hole at 1.89 m

AUSENCO TP-B-54 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.89 m
START DATE: 30/Oct/21	COMPLETION DATE: 30/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-B-55		NORTH COORD. (m): 5693731	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 548430	
LOCATION: Springpole Project		ELEVATION: 412 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, mossy and organic					411.9
0.2							411.8
0.3		Well graded Gravelly SAND (glacial till), angular to subangular, very loose, coarse grained, reddish brown, damp, no HCl reaction, With cobbles and boulders, homogeneous	<input checked="" type="checkbox"/>	TP-B-55-01		Pocket Pen: 0.25	411.7
0.4							411.6
0.5							411.5
0.6							411.4
0.7							411.3
0.8		Silty SAND (glacial till), subrounded, low plasticity, coarse grained, wet, no HCl reaction, rapid, With cobbles, some gravel, homogeneous	<input checked="" type="checkbox"/>	TP-B-55-02		Pocket Pen: 0.25	411.2
0.9							411.1
1.0							411.0
1.1							410.9
1.2							410.8
1.3							410.7
1.4							410.6
Bottom of hole at 1.47 m							
			TEST PIT LOG			LOGGED BY: Erin START DATE: 31/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 1.47 m COMPLETION DATE: 31/Oct/21	

AUSENCO TP-B-55 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-B-56	NORTH COORD. (m): 5693472
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 548714
LOCATION: Springpole Project	ELEVATION: 415 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE	<input checked="" type="checkbox"/> NATIVE SOIL
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		SILT very loose, brown, dry, no HCl reaction, Organic, fibrous, rootlets					414.9
0.2		Silty SAND (glacial till), subangular, coarse grained, reddish brown, dry, no HCl reaction, With cobbles and some gravel, trace organics, homogeneous, heavily oxidized	<input checked="" type="checkbox"/>	TP-B-56-01		Pocket Pen: 0	414.8
0.3							414.7
0.4							414.6
0.5							414.5
0.6		Well graded Gravelly SAND (glacial till), angular to subangular, loose, coarse grained, light brown, dry, no HCl reaction, With cobbles, homogeneous, minor oxidation	<input checked="" type="checkbox"/>	TP-B-56-02		Pocket Pen: 0.5	414.4
0.7							414.3
0.8							414.2
0.9		Well graded Sandy GRAVEL (glacial till), angular, medium dense, coarse grained, green, dry, no HCl reaction, With cobbles, gravel is weathered bedrock, broken up more in the field, homogeneous	<input checked="" type="checkbox"/>	TP-B-56-03		Pocket Pen: 0.25 (sand)	414.1
1.0							414.0
1.1							413.9
1.2							413.8

Bottom of hole at 1.22 m

AUSENCO TP-B-56 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT),GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.22 m
START DATE: 31/Oct/21	COMPLETION DATE: 31/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-CAMP-41	NORTH COORD. (m): 5693915
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551394
LOCATION: Springpole Project	ELEVATION: 411 m	GROUND WATER LEVEL (m): 1.82	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					410.9
0.2							410.8
0.3							410.7
0.4							410.6
0.5							410.5
0.6		Gravelly SAND (glacial till), subangular to subrounded, loose, coarse grained, brown, moist, no HCl reaction, Trace cobbles and boulders, trace rootlets in upper part of layer, large boulders at top of layer, minor oxidation at peat contact	<input checked="" type="checkbox"/>	TP-CAMP-41-01		Pocket Pen: 1	410.4
0.7							410.3
0.8							410.2
0.9							410.1
1.0							410.0
1.1							409.9
1.2							409.8
1.3							409.7
1.4							409.6
1.5							409.5
1.6							409.4
1.7							409.3
1.8							409.2
1.9							409.1
2.0							409.0

AUSENCO TP-CAMP-41 TP LOG SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.85 m
START DATE: 12/Sep/21	COMPLETION DATE: 12/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-CAMP-41	NORTH COORD. (m): 5693915
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551394
LOCATION: Springpole Project	ELEVATION: 411 m	GROUND WATER LEVEL (m): 1.82	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Gravelly SAND (glacial till), subangular to subrounded, loose, coarse grained, brown, moist, no HCl reaction, Trace cobbles and boulders, trace rootlets in upper part of layer, large boulders at top of layer, minor oxidation at peat contact (continued)	<input checked="" type="checkbox"/>				408.9
2.2							408.8
2.3							408.7
2.4							408.6
2.5							408.5
2.6							408.4
2.7							408.3
2.8							408.2

Bottom of hole at 2.85 m

AUSENCO TP-CAMP-41 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.85 m
START DATE: 12/Sep/21	COMPLETION DATE: 12/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-CAMP-42	NORTH COORD. (m): 5693852
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551399
LOCATION: Springpole Project	ELEVATION: 417 m	GROUND WATER LEVEL (m): 1.6	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, fibrous and organic					416.9
0.2							416.8
0.3		CLAY (glacial till), high plasticity, fine grained, brownish grey, dry, no HCl reaction, stiff, no, Blocky					416.7
0.4				TP-CAMP-42-01		Pocket Pen: 1.25, Vane Shear: 7	416.6
0.5							416.5
0.6		CLAY (glacial till), fine grained, orangeish grey, moist, strong, stiff, no, Laminated, weathered/oxidized layers					416.4
0.7				TP-CAMP-42-02		Pocket Pen 1.5, Vane Shear: 5.5	416.3
0.8							416.2
0.9							416.1
1.0		Poorly graded SAND (glacial till), subrounded to rounded, coarse grained, brown, no HCl reaction, homogeneous, will not form ball or be moulded, minor oxidation					416.0
1.1		Sandy CLAY (glacial till), subrounded, low plasticity, fine grained, orangeish grey, wet, soft, Weathered/oxidized layers					415.9
1.2		Well graded Gravelly SAND (glacial till), subrounded to rounded, loose, non plastic, coarse grained, dark brown, wet, rapid, Some silt, trace cobbles and boulders, homogeneous, minor oxidation					415.8
1.3							415.7
1.4							415.6
1.5				TP-CAMP-42-03		Pocket Pen: 0.25	415.5
1.6							415.4
1.7							415.3
1.8							415.2
1.9							415.1

AUSENCO TP-CAMP-42 TP LOG SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

Bottom of hole at 1.97 m



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.97 m
START DATE: 12/Sep/21	COMPLETION DATE: 12/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-EE-59		NORTH COORD. (m): 5694100	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 549347	
LOCATION: Springpole Project		ELEVATION: 407 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					406.9
0.2							406.8
0.3							406.7
0.4							406.6
0.5		Silty CLAY (glacial till), medium plasticity, light brown, slow, medium dilatancy, Minor oxidation (orange)	<input checked="" type="checkbox"/>	TP-EE-59-01			406.5
0.6							406.4
0.7							406.3
0.8							406.2
0.9		Poorly graded Silty SAND (glacial till), Beige, oxidation at bedrock contact (orange), bedrock scratchable with hammer but not broken by a single blow	<input checked="" type="checkbox"/>	TP-EE-59-02			406.1
1.0							406.0
Bottom of hole at 1.02 m							
			TEST PIT LOG			LOGGED BY: Erin	
						COMPLETION DEPTH: 1.02 m	
						START DATE: 21/Jun/21	
						COMPLETION DATE: 21/Jun/21	
						REVISION NO.: B	

AUSENCO TP-EE-59_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-EE-60	NORTH COORD. (m): 5694103
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549703
LOCATION: Springpole Project	ELEVATION: 409 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL	<input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					408.9
0.2							408.8
0.3		Silty CLAY (glacial till), medium plasticity, fine grained, light brown, slow, Silt content and weathering increases with depth, mjr oxidation at bedrock contact, bedrock hard to scratch with hammer, some rootlets within	<input checked="" type="checkbox"/>	TP-EE-60-01			408.7
0.4							408.6
0.5							408.5
0.6							408.4
0.7							408.3
0.8							408.2
0.9							408.1
1.0							408.0
1.1							407.9
1.2							407.8

Bottom of hole at 1.2 m

AUSENCO TP-EE-60_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



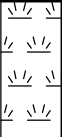



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.2 m
START DATE: 20/Jun/21	COMPLETION DATE: 20/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-EE-61A	NORTH COORD. (m): 5694198
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 548980
LOCATION: Springpole Project	ELEVATION: 424 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					423.9
0.2		Well graded Gravelly SAND (glacial till), coarse grained, orangeish brown, Small cobbles, brecciated bedrock throughout, 3 - 4 blows to break into smaller pieces	<input checked="" type="checkbox"/>	TP-EE-61A-01			423.8
0.3							423.7
0.4							423.6

Bottom of hole at 0.41 m

AUSENCO TP-EE-61A TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.41 m
START DATE: 21/Jun/21	COMPLETION DATE: 21/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-POND-43	NORTH COORD. (m): 5694692
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551455
LOCATION: Springpole Project	ELEVATION: 405 m	GROUND WATER LEVEL (m): 1.7	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					404.9
0.2							404.8
0.3							404.7
0.4							404.6
0.5		Sandy SILT (glacial till), rounded, medium dense, low plasticity, fine to coarse grained, light brown, moist, rapid, homogeneous, minor rootlets and organics, oxidation present	<input checked="" type="checkbox"/>	TP-POND-43-01			404.5
0.6							404.4
0.7							404.3
0.8							404.2
0.9							404.1
1.0							404.0
1.1							403.9
1.2		403.8					
1.3		403.7					
1.4		CLAY (glacial till), high plasticity, fine grained, grey, strong, stiff to very stiff, slow, Laminated, oxidized layers,	<input checked="" type="checkbox"/>	TP-POND-43-01			403.6
1.5							403.5
1.6							403.4
1.7							403.3

Bottom of hole at 1.7 m

AUSENCO TP-POND-43 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.7 m
START DATE: 1/Jul/21	COMPLETION DATE: 1/Jul/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-POND-44		NORTH COORD. (m): 5694258	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 551369	
LOCATION: Springpole Project		ELEVATION: 417 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, dry, Rootlets, odourous, fibrous and organic					416.9
0.2							416.8
0.3		Sandy SILT (glacial till), subrounded, very loose, non plastic, grey, dry, slow, homogeneous, some rootlets and organics, some gravel and cobbles, orange oxidation		TP-POND-44-01			416.7
0.4							416.6
0.5		Well graded SAND (glacial till), subrounded to rounded, loose, non plastic, coarse grained, light brown, moist, no HCl reaction, no, homogeneous, gravel and cobbles preent, orange oxidation		TP-POND-44-02			416.5
0.6							416.4
0.7							416.3
0.8							416.2
0.9							416.1
1.0							416.0
Bottom of hole at 1.07 m							
				TEST PIT LOG		LOGGED BY: Erin START DATE: 2/Jul/21 REVISION NO.: B	
						COMPLETION DEPTH: 1.07 m COMPLETION DATE: 2/Jul/21	

AUSENCO TP-POND-44 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-31	NORTH COORD. (m): 5694775
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550367
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): 0.7	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlet, odourous, fibrous and organic,					405.9
0.2		Silty CLAY (glacial till), low plasticity, fine grained, brown, damp, stiff, Some gravel, trace organics, pyrite mineralization, blocky, moderate dilatency, oxidized		TP-PP-31-01		Pocket Pen: 2, Vane Shear: 4	405.8 405.7 405.6 405.5
0.6		Sandy CLAY (glacial till), subangular, low plasticity, fine to coarse grained, brown, wet, soft to stiff, slow, With cobbles and some gravel, blocky, oxidized		TP-PP-31-02		Pocket Pen: 1, Vane Shear: 3.5	405.4 405.3 405.2 405.1 405.0
0.7							404.9 404.8

Bottom of hole at 1.26 m

AUSENCO TP-PP-31_TP LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.26 m
START DATE: 20/Oct/21	COMPLETION DATE: 20/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-32	NORTH COORD. (m): 5694540
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550374
LOCATION: Springpole Project	ELEVATION: 407 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE	<input checked="" type="checkbox"/> NATIVE SOIL
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, saturated, Rootlets, odourous, fibrous and organic	<input checked="" type="checkbox"/>	TP-PP-32-PEAT			406.9
0.2							406.8
0.3							406.7
0.4							406.6
0.5		CLAY (glacial till), medium to high plasticity, brown, wet, soft to stiff, Cohesive	<input checked="" type="checkbox"/>	TP-PP-32-01			406.6
0.6							406.5
0.7							406.4
0.8							406.3
0.9		Silty SAND (glacial till), brown, Small lens, oxidation at bedrock contact, possibly bioite mineralization (dark and squared)	<input checked="" type="checkbox"/>	TP-PP-32-02			406.2
1.0							406.1
1.1							406.0
1.2							405.9
							405.8

Bottom of hole at 1.27 m

AUSENCO TP-PP-32_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.27 m
START DATE: 22/Jun/21	COMPLETION DATE: 22/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-PP-33		NORTH COORD. (m): 5694517	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550529	
LOCATION: Springpole Project		ELEVATION: 407 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic		TP-PP-33-PEAT			406.9
0.2							406.8
0.3							406.7
0.4		Sandy SILT (glacial till), fine to coarse grained, brown, With pebbles and cobbles, pieces of brecciated angular bedrock within, fines downwards, bed rock can be scratched by a hammer		TP-PP-33-01			406.6
0.5							406.5
0.6							406.4
0.7							406.3
Bottom of hole at 0.79 m							
			TEST PIT LOG			LOGGED BY: Erin START DATE: 22/Jun/21 REVISION NO.: B	
						COMPLETION DEPTH: 0.79 m COMPLETION DATE: 22/Jun/21	

AUSENCO TP-PP-33_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-PP-34A		NORTH COORD. (m): 5694471	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550404	
LOCATION: Springpole Project		ELEVATION: 406 m		GROUND WATER LEVEL (m): 1.81			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic	<input checked="" type="checkbox"/>	TP-PP-34A-PEAT			405.9
0.2							405.8
0.3							405.7
0.4							405.6
0.5							405.5
0.6							405.4
0.7							405.3
0.8							405.2
0.9							405.1
1.0							Silty CLAY (glacial till), high plasticity, fine grained, greyish brown, soft
1.1		404.9					
1.2		404.8					
1.3		404.7					
1.4		404.6					
1.5		404.5					
1.6		404.4					
1.7		404.3					
1.8		Silty SAND (glacial till), coarse grained, light brown, With cobbles, brecciated bedrock	<input checked="" type="checkbox"/>	TP-PP-34A-02		No log from 1.81 to 1.99	404.2
1.9							404.1
Bottom of hole at 1.09 m			LOGGED BY: Erin		COMPLETION DEPTH: 1.99 m		
TEST PIT LOG			START DATE: 22/Jun/21		COMPLETION DATE: 22/Jun/21		
			REVISION NO.: B				

AUSENCO TP-PP-34A TP LOG SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-35	NORTH COORD. (m): 5694721
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550504
LOCATION: Springpole Project	ELEVATION: 404 m	GROUND WATER LEVEL (m): 0.5	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					403.9
0.2		(glacial till), low to medium plasticity, fine grained, grey, wet, no HCl reaction, stiff, slow, Trace gravels and organics, blocky, silt content increases with depth, water saturation increases with depth	<input checked="" type="checkbox"/>	TP-PP-35-01		Pocket Pen: 1.5, Vane Shear: 5	403.8 403.7 403.6
0.5		Poorly graded (glacial till), subrounded, coarse grained, brown, saturated, no HCl reaction, With cobbles, homogeneous				Pocket Pen: 1	403.5 403.4

Bottom of hole at 0.6 m

AUSENCO TP-PP-35_TP_LOG_SPRINGPOLE.GPJ_GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.6 m
START DATE: 20/Oct/21	COMPLETION DATE: 20/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-PP-36		NORTH COORD. (m): 5694508	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550676	
LOCATION: Springpole Project		ELEVATION: 411 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, mossy, fibrous and organic					410.9
0.2							410.8
0.3		Silty, clayey SAND loose, orangeish brown, Some gravel, slight color change with depth, orange oxidation, fines downwards, can be molded, bedrock scratched by hammer, increase cohesion with depth, some rootlets throughout	<input checked="" type="checkbox"/>	TP-PP-36-01			410.7
0.4							410.6
0.5							410.5
0.6							410.4
0.7							410.3
0.8							410.2
Bottom of hole at 0.85 m							
AUSENCO TP-PP-36 TP LOG - SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13			LOGGED BY: Erin		COMPLETION DEPTH: 0.85 m		
AUSENCO TEST PIT LOG			START DATE: 24/Jun/21		COMPLETION DATE: 24/Jun/21		
			REVISION NO.: B				

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-37	NORTH COORD. (m): 5694438
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550814
LOCATION: Springpole Project	ELEVATION: 416 m	GROUND WATER LEVEL (m): 0.91	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dense, dark brown, wet, Rootlets, odourous, fibrous and organic					415.9
0.2							415.8
0.3							415.7
0.4							415.6
0.5							415.5
0.6							415.4
0.7							415.3
0.8		Silty CLAY (glacial till), fine to coarse grained, greyish brown, soft, Small layer, cohesive, homogeneous, brecciated bedrock, some orange oxidation	<input checked="" type="checkbox"/>	TP-PP-37-01			415.2
0.9		Clayey SAND (glacial till), subrounded, loose, fine to coarse grained, reddish brown, saturated, Thin sand lens, some gravel, brecciated bedrock, bedrock scratched by hammer	<input checked="" type="checkbox"/>	TP-PP-37-02			415.1
Bottom of hole at 0.97 m							

AUSENCO TP-PP-37_TP LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.97 m
START DATE: 24/Jun/21	COMPLETION DATE: 24/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-38	NORTH COORD. (m): 5694449
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550880
LOCATION: Springpole Project	ELEVATION: 410 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL	<input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					409.9
0.2		Silty SAND (glacial till), rounded, loose, fine to coarse grained, light brown, Some gravel and cobbles, feldspar in sand, weathering in top section and at bedrock contact (color changes slightly), orange oxidation	<input checked="" type="checkbox"/>	TP-PP-38-01			409.8
0.3							409.7
0.4							409.6
0.5							409.5
0.6							409.4
0.7							409.3
0.8							409.2

Bottom of hole at 0.84 m

AUSENCO TP-PP-38_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT)).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.84 m
START DATE: 25/Jun/21	COMPLETION DATE: 25/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-PP-39	NORTH COORD. (m): 5694567
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550877
LOCATION: Springpole Project	ELEVATION: 412 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE	<input checked="" type="checkbox"/> NATIVE SOIL
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, mossy, fibrous and organic,		TP-PP-39-PEAT			411.9
0.2		Silty SAND (glacial till), coarse grained, orangeish brown, Fines in top, oxidation (rusty, orange) increases with depth					411.8
0.3							411.7
0.4				TP-PP-39-01			411.6
0.5							411.5
0.6							411.4
0.7							411.3
0.8		Well graded Gravelly SAND (glacial till), coarse grained, light brown, With pebbles and cobbles, some boulders, soil does not hold shape, minimal oxidation					411.2
0.9							411.1
1.0							411.0
1.1							410.9
1.2							410.8
1.3				TP-PP-39-02			410.7
1.4							410.6
1.5							410.5
1.6							410.4
1.7							410.3
1.8							410.2

Bottom of hole at 1.81 m

AUSENCO TP-PP-39_TP LOG_SPRINGPOLE.GPJ(GEER (TEST PIT)).GDT_21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.81 m
START DATE: 22/Jun/21	COMPLETION DATE: 22/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-PP-39A		NORTH COORD. (m): 5694101	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 549053	
LOCATION: Springpole Project		ELEVATION: 409 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		Clayey SILT fine grained, dark brown, moist, Trace gravel, medium dilatency	<input checked="" type="checkbox"/>	TP-PP-39A-01			408.9
0.2							408.8
0.3							408.7
0.4							408.6
0.5		Silty CLAY (glacial till), medium plasticity, fine grained, light brown, medium, slow	<input checked="" type="checkbox"/>	TP-PP-39A-02			408.5
0.6							408.4
0.7							408.3
0.8							408.2
0.9							408.1
1.0							408.0
1.1		407.9					
1.2		407.8					
1.3		407.7					
1.4		407.6					
1.5		407.5					
1.6		Poorly graded Clayey SAND (glacial till), coarse grained, brown, Trace clay	<input checked="" type="checkbox"/>	TP-PP-39A-03			407.4
1.7							407.3
Bottom of hole at 1.76 m							
				TEST PIT LOG		LOGGED BY: Erin	
				START DATE: 19/Jun/21		COMPLETION DEPTH: 1.76 m	
				REVISION NO.: B		COMPLETION DATE: 19/Jun/21	

AUSENCO TP-PP-39A TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-Q-57A	NORTH COORD. (m): 5693861
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550124
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, mossy, fibrous and organic,					405.9
0.2		SAND (glacial till), coarse grained, orangeish brown, Color changes from grey to rusty brown, broken bedrock throughout, rootlets, minor clay layer at top	<input checked="" type="checkbox"/>	TP-Q-57A-01			405.8
0.3							405.7
0.4							405.6
0.5							405.5
0.6		Sandy GRAVEL (glacial till), coarse grained, orangeish red, Weathered bedrock, some cobbles and boulders, bedrock pieces breaks in 3 hammer blows					405.4
0.7							405.3
0.8							405.2
0.9							405.1
1.0							405.0
1.1							404.9
1.2							404.8
1.3							404.7
1.4							404.6

Bottom of hole at 1.44 m

AUSENCO TP-Q-57A_TP_LOG_SPRINGPOLE.GPJ_GEER (TEST PIT).GDT_21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.44 m
START DATE: 20/Jun/21	COMPLETION DATE: 20/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-Q-58A	NORTH COORD. (m): 5693942
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550387
LOCATION: Springpole Project	ELEVATION: 405 m	GROUND WATER LEVEL (m): 0	

SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE	<input checked="" type="checkbox"/> NATIVE SOIL
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, saturated, Rootlets, odourous, mossy, fibrous and organic, strong seepage eroding pit					404.9
0.2			404.8				
0.3			404.7				
0.4			404.6				
0.5			404.5				

Bottom of hole at 0.5 m

AUSENCO TP-Q-58A_TP_LOG_SPRINGPOLE.GPJ_GEER (TEST PIT).GDT_21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.5 m
START DATE: 21/Jun/21	COMPLETION DATE: 21/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-20A	NORTH COORD. (m): 5694501
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550280
LOCATION: Springpole Project	ELEVATION: 358 m	GROUND WATER LEVEL (m): 0.35	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous, organic, leaves, mossy	<input checked="" type="checkbox"/>	TP-ROAD-20A-01	<input checked="" type="checkbox"/>	Pocket Pen: 0.25	357.9
0.2		Well graded Gravelly SAND (glacial till), subrounded, loose, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous	<input checked="" type="checkbox"/>	TP-ROAD-20A-02	<input checked="" type="checkbox"/>	Pocket Pen: 0.25	357.8
0.3		Clayey SILT (glacial till), low plasticity, fine grained, orangeish grey, wet, soft, rapid, Laminated, weathered layers	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		357.7
0.4		Gravelly CLAY (glacial till), subangular to subrounded, fine grained, brownish grey, wet, no HCl reaction, medium, with cobbles, laminated, weathered layers	<input checked="" type="checkbox"/>	TP-ROAD-20A-03	<input checked="" type="checkbox"/>	Pocket Pen: 1. Vane Shear: 4	357.6
0.5							357.5

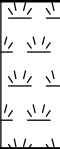




Bottom of hole at 0.53 m

AUSENCO TP-ROAD-20A_TP_LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.53 m
START DATE: 19/Oct/21	COMPLETION DATE: 19/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-ROAD-21		NORTH COORD. (m): 5694424	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 549451	
LOCATION: Springpole Project		ELEVATION: 410 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, dry, Rootlets, odourous, fibrous and organic, bedrock is extremely hard					409.9
0.2						Bottom of hole at 0.2 m	409.8
							
			TEST PIT LOG			LOGGED BY: Erin START DATE: 28/Jun/21 REVISION NO.: B	
						COMPLETION DEPTH: 0.2 m COMPLETION DATE: 28/Jun/21	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-22	NORTH COORD. (m): 5694210
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 548822
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE	<input checked="" type="checkbox"/> NATIVE SOIL
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE	<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					405.9
0.2		CLAY (glacial till), low plasticity, fine grained, grey, damp, no HCl reaction, hard, no, homogeneous, some rootlets	<input checked="" type="checkbox"/>	TP-ROAD-22-01			405.8
0.3							405.7
0.4							405.6
0.5							405.5
0.6							405.4
0.7							405.3
0.8		Silty SAND (glacial till), subangular to subrounded, medium dense, non plastic, fine to coarse grained, light brown, damp, no HCl reaction, rapid, some gravel and brecciated bedrock, orange oxidation	<input checked="" type="checkbox"/>	TP-ROAD-22-02			405.2
0.9							405.1
1.0							405.0
1.1							404.9
1.2							404.8
1.3							404.7
1.4							404.6

Bottom of hole at 1.42 m

AUSENCO TP-ROAD-22 TP LOG SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.42 m
START DATE: 28/Jun/21	COMPLETION DATE: 28/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-23	NORTH COORD. (m): 5693571
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549002
LOCATION: Springpole Project	ELEVATION: 404 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Tree roots and rootlets, odourous, mossy, fibrous and organic					403.9
0.2		Silty CLAY (glacial till), subrounded, high plasticity, fine grained, brown, damp, no HCl reaction, stiff, slow, Trace sand and cobbles and boulders, trace rootlets, fine sand lens throughout, minor weathering throughout		TP-ROAD-23-01		Pocket Pen: 1.5, Vane Shear: 4.5	403.8 403.7 403.6 403.5
0.6		CLAY (glacial till), high plasticity, fine grained, grey, damp, moderate, soft, slow, Trace silt and gravel, laminated and weathered layers		TP-ROAD-23-02		Pocket Pen: 0.75, Vane Shear: 5	403.4 403.3
0.8		Clayey SAND (glacial till), subrounded, loose, fine to coarse grained, light brown, damp, weak, With cobbles and boulders, some gravel, some clay/sand stratifications, sand lens, minor weathering		TP-ROAD-23-03		Pocket Pen: 0.25, Vane Shear: 2	403.2 403.1 403.0 402.9 402.8

Bottom of hole at 1.28 m

AUSENCO TP-ROAD-23 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.28 m
START DATE: 17/Sep/21	COMPLETION DATE: 17/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-24	NORTH COORD. (m): 5692953
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549280
LOCATION: Springpole Project	ELEVATION: 459 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic, dead tress					458.9
0.2							458.8
0.3		Silty CLAY (glacial till), high plasticity, coarse grained, brown, moist, no HCl reaction, medium, slow, trace gravel, trace rootlets, blocky, weathering in layers		TP-ROAD-24-01		Pocket Pen: 2, Vane Shear: 4.5	458.7
0.4							458.6
0.5							458.5
0.6		Silty CLAY (glacial till), low to medium plasticity, fine grained, grey, moist, strong, soft, Laminated, weathered layers, moderate dilatency		TP-ROAD-24-02		Pocket Pen: 1.25, Vane Shear: 5.5	458.4
0.7							458.3
0.8							458.2
0.9							458.1
1.0							458.0
1.1							457.9
1.2							457.8
1.3							457.7
1.4							457.6
1.5							457.5
1.6							457.4
1.7							457.3
1.8		Gravelly SAND (glacial till), subrounded, loose, coarse grained, brown, wet, no HCl reaction, Some clay, homogeneous, minor weathering					457.2
1.9							457.1
2.0							457.0











AUSENCO TP-ROAD-24 TP LOG, SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.8 m
START DATE: 16/Sep/21	COMPLETION DATE: 16/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-24	NORTH COORD. (m): 5692953
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549280
LOCATION: Springpole Project	ELEVATION: 459 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL	<input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Gravelly SAND (glacial till), subrounded, loose, coarse grained, brown, wet, no HCl reaction, Some clay, homogeneous, minor weathering (<i>continued</i>)		TP-ROAD-24-03		Pocket Pen: 0.25	456.9
2.2							456.8
2.3							456.7
2.4							456.6
2.5							456.5
2.6							456.4
2.7							456.3
2.8							456.2

Bottom of hole at 2.8 m






AUSENCO TP-ROAD-24 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13









TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.8 m
START DATE: 16/Sep/21	COMPLETION DATE: 16/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-25	NORTH COORD. (m): 5692546
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549758
LOCATION: Springpole Project	ELEVATION: 407 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE:  GRAB SAMPLE	 NATIVE SOIL
BACKFILL TYPE:  BENTONITE	 PEA GRAVEL  SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets and tree roots, odourous, fibrous and organic					406.9
0.2		SILT (glacial till), very loose, fine grained, light brown, dry, no HCl reaction, Organic silt with cobbles and boulders, homogeneous, rootlets, fibrous		TP-ROAD-25-01		Pocket Pen: 0	406.8 406.7 406.6 406.5
0.6		Gravelly SILT (glacial till), subangular, loose, fine grained, grey, dry, no HCl reaction, Some sand, trace rootlets, trace boulders, homogeneous		TP-ROAD-25-02		Pocket Pen: 0.25	406.4 406.3 406.2 406.1
1.0							406.0

Bottom of hole at 1.02 m

AUSENCO TP-ROAD-25 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.02 m
START DATE: 15/Sep/21	COMPLETION DATE: 15/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-26	NORTH COORD. (m): 5692551
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550458
LOCATION: Springpole Project	ELEVATION: 405 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					404.9
0.2		SILT loose, fine grained, light brown, dry, Some rounded gravel, some angular bedrock, rootlets, decomposing tree fragments	<input checked="" type="checkbox"/>	TP-ROAD-26-01			404.8
0.3							404.7
0.4							404.6
0.5							404.5
0.6							404.4

Bottom of hole at 0.65 m

AUSENCO TP-ROAD-26 TP_LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.65 m
START DATE: 30/Jun/21	COMPLETION DATE: 30/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-27	NORTH COORD. (m): 5693007
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551032
LOCATION: Springpole Project	ELEVATION: 407 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					406.9
0.2		Silty CLAY (glacial till), rounded, low to medium plasticity, light brown, moist, no HCl reaction, medium, slow, Moisture and plasticity increase with depth, some rootlets, angular bedrock pieces, orange oxidation	<input checked="" type="checkbox"/>	TP-ROAD-27-01			406.8
0.3							406.7
0.4							406.6
0.5							406.5
0.6							406.4
0.7							406.3

Bottom of hole at 0.7 m

AUSENCO TP-ROAD-27 TP_LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13






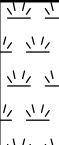






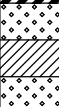







TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.7 m
START DATE: 30/Jun/21	COMPLETION DATE: 30/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-28	NORTH COORD. (m): 5693573
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550810
LOCATION: Springpole Project	ELEVATION: 409 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE:  GRAB SAMPLE  NATIVE SOIL

BACKFILL TYPE:  BENTONITE  PEA GRAVEL  SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets and tree roots, odourous, fibrous and organic					408.9
0.2		Silty CLAY (glacial till), low to medium plasticity, fine grained, brownish grey, dry, no HCl reaction, very stiff, slow, Blocky, trace rootlets		TP-ROAD-28-01		Pocket Pen: 2.5, Vane Shear: 5	408.8 408.7 408.6 408.5 408.4
0.7		CLAY (glacial till), high plasticity, fine grained, grey, damp, strong, medium, no, With calcite layer		TP-ROAD-28-02		Pocket Pen: 1.75, Vane Shear: 4.5	408.3 408.2 408.1
1.0		Well graded Gravelly SAND (glacial till), subrounded to rounded, loose, coarse grained, brown, damp, no HCl reaction, Trace cobbles, homogeneous				Pocket Pen: 0.25	408.0
1.1		Silty CLAY (glacial till), fine grained, light grey, wet, no HCl reaction, medium, homogeneous, with calcite layer (very strong reaction to HCl), heavily weathered at layer contact				Pocket Pen: 1, Vane Shear: 2.5	407.9
1.2		Well graded Gravelly SAND (glacial till), subangular to subrounded, medium dense, coarse grained, brown, wet, no HCl reaction, Trace cobbles and boulders, homogeneous, minor weathering		TP-ROAD-28-03		Pocket Pen: 0	407.8 407.7 407.6 407.5 407.4 407.3

Bottom of hole at 1.73 m

AUSENCO TP-ROAD-28 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.73 m
START DATE: 14/Sep/21	COMPLETION DATE: 14/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-29	NORTH COORD. (m): 5694017
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550287
LOCATION: Springpole Project	ELEVATION: 402 m	GROUND WATER LEVEL (m): 1.94	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)


DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					401.9
0.2							401.8
0.3		Clayey SILT (glacial till), subrounded, fine grained, dark brown, wet, medium, Fibrous and organic, cohesive, pyrite and quartz mineralization	<input checked="" type="checkbox"/>	TP-ROAD-29-01			401.7
0.4							401.6
0.5							401.5
0.6		Silty SAND (glacial till), subrounded, loose, non plastic, fine to coarse grained, light brown, damp, slow, Schist mineralization					401.4
0.7							401.3
0.8							401.2
0.9							401.1
1.0				TP-ROAD-29-02			401.0
1.1							400.9
1.2							400.8
1.3							400.7
1.4		Clayey SILT (glacial till), subrounded, low to medium plasticity, fine grained, orangeish grey, wet, stiff, With pebbles and angular bedrock pieces, homogeneous, breaks in lumps, orange oxidation					400.6
1.5							400.5
1.6							400.4
1.7							400.3
1.8				TP-ROAD-29-03			400.2
1.9							400.1
2.0							400.0

AUSENCO TP-ROAD-29 TP LOG, SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13





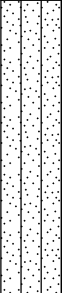

TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.17 m
START DATE: 27/Jun/21	COMPLETION DATE: 27/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-ROAD-29		NORTH COORD. (m): 5694017	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550287	
LOCATION: Springpole Project		ELEVATION: 402 m		GROUND WATER LEVEL (m): 1.94			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Clayey SILT (glacial till), subrounded, low to medium plasticity, fine grained, orangeish grey, wet, stiff, With pebbles and angular bedrock pieces, homogeneous, breaks in lumps, orange oxidation (<i>continued</i>)	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		399.9
Bottom of hole at 2.17 m							
			LOGGED BY: Erin			COMPLETION DEPTH: 2.17 m	
			START DATE: 27/Jun/21			COMPLETION DATE: 27/Jun/21	
			REVISION NO.: B				

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-ROAD-30		NORTH COORD. (m): 5694147	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550889	
LOCATION: Springpole Project		ELEVATION: 421 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					420.9
0.2		Well graded Gravelly SAND (glacial till), subrounded to rounded, loose, coarse grained, orangeish brown, damp, With cobbles and gravel, homogeneous, orange oxidation increases with depth, bedrock scratched by hammer	<input checked="" type="checkbox"/>	TP-ROAD-30-01			420.8
0.3							420.7
0.4							420.6
0.5							420.5
Bottom of hole at 0.54 m							
				TEST PIT LOG		LOGGED BY: Erin	
				START DATE: 25/Jun/21		COMPLETION DEPTH: 0.54 m	
				REVISION NO.: B		COMPLETION DATE: 25/Jun/21	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-45	NORTH COORD. (m): 5694217
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551009
LOCATION: Springpole Project	ELEVATION: 423 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					422.9
0.2		Silty SAND (glacial till), loose, coarse grained, brown, Some cobbles and pebbles, silt content increases with depth, orange oxidation at bedrock contact	<input checked="" type="checkbox"/>	TP-ROAD-45-01			422.8
0.3							422.7
0.4							422.6
0.5							422.5

Bottom of hole at 0.57 m

AUSENCO TP-ROAD-45 TP_LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.57 m
START DATE: 25/Jun/21	COMPLETION DATE: 25/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-ROAD-46	NORTH COORD. (m): 5693572
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 551664
LOCATION: Springpole Project	ELEVATION: 419 m	GROUND WATER LEVEL (m): 1.25	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Tree stumps, rootlets, odourous, fibrous and organic					418.9
0.2							418.8
0.3							418.7
0.4							418.6
0.5							418.5
0.6							418.4
0.7							418.3
0.8							418.2
0.9		Silty CLAY (glacial till), low to medium plasticity, fine grained, grey, moist, strong, stiff, slow, Homogeneous, some laminated and weathered areas, silt content increases with depth	<input checked="" type="checkbox"/>	TP-ROAD-46-01		Pocket Pen: 1, Vane Shear: 4	418.1
1.0							418.0
1.1							417.9
1.2							417.8
1.3		Silty SAND (glacial till), rounded, very loose, low plasticity, coarse grained, light grey, moist, no HCl reaction, Homogeneous, moderate dilatancy				Pocket Pen: 0.25	417.7
1.4							417.6
1.5							417.5

Bottom of hole at 1.5 m

AUSENCO TP-ROAD-46 TP LOG, SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.5 m
START DATE: 13/Sep/21	COMPLETION DATE: 13/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-12	NORTH COORD. (m): 5695277
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549946
LOCATION: Springpole Project	ELEVATION: 407 m	GROUND WATER LEVEL (m): 0.4	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, saturated, Rootlets, odourous, fibrous and organic, wood chips, soft and sludgy					406.9
0.2			406.8				
0.3			406.7				
0.4			406.6				
0.5			406.5				
0.6			406.4				
0.7			406.3				
0.8			406.2				
0.9			406.1				
1.0			406.0				
1.1			405.9				
1.2			405.8				
1.3			405.7				
1.4			405.6				
1.5			405.5				
1.6			405.4				

Bottom of hole at 1.65 m

AUSENCO TP-SP-12_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT_21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.65 m
START DATE: 22/Oct/21	COMPLETION DATE: 22/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-13	NORTH COORD. (m): 5695114
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550173
LOCATION: Springpole Project	ELEVATION: 402 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					401.9
0.2		Silty CLAY (glacial till), low plasticity, fine grained, brownish grey, dry, no HCl reaction, very stiff, With cobbles, blocky, moderate dilatency		TP-SP-13-01		Pocket Pen: 4.25, Vane Shear: 4.75	401.8
0.3							401.7
0.4		Gravelly SAND (glacial till), subangular to subrounded, loose, low plasticity, fine to coarse grained, brown, damp, no HCl reaction, With cobbles, some clay, homogeneous		TP-SP-13-02		Pocket Pen: 0.75	401.6
0.5		Sandy SILT (glacial till), fine grained, orangeish grey, damp, soft, rapid, Trace clay, laminated, weathered layers, wipes away, some grit		TP-SP-13-03		Pocket Pen: 1, Vane Shear: 3	401.5

Bottom of hole at 0.54 m

AUSENCO TP-SP-13_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.54 m
START DATE: 22/Oct/21	COMPLETION DATE: 22/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-14	NORTH COORD. (m): 5695070
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549996
LOCATION: Springpole Project	ELEVATION: 405 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, fibrous and organic					
0.2		Sandy SILT (glacial till), subrounded, non plastic, fine grained, grey, dry, no HCl reaction, soft, Some gravel, trace organics, moderate dilatency		TP-SP-14-01		Pocket Pen: 0.5	404.9
0.3		Silty SAND (glacial till), subrounded, very loose, non plastic, fine to coarse grained, orangeish brown, dry, no HCl reaction, Trace gravel, moderate dilatency, heavily oxidized (orange)		TP-SP-14-02		Pocket Pen: 0	404.8 404.7
0.4		Well graded Gravelly SAND (glacial till), subangular to subrounded, very loose, non plastic, coarse grained, brown, damp, no HCl reaction, With cobbles, homogeneous, minor oxidation		TP-SP-14-03		Pocket Pen: 0.5	404.6 404.5
0.6							404.4

Bottom of hole at 0.62 m

AUSENCO TP-SP-14_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT)).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.62 m
START DATE: 22/Oct/21	COMPLETION DATE: 22/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-15	NORTH COORD. (m): 5694921
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550270
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					405.9
0.2		Silty CLAY (glacial till), low plasticity, grey, damp, no HCl reaction, very stiff, Some gravel, trace organics, and cobbles in upper section, blocky, moderate dilatency	<input checked="" type="checkbox"/>	TP-SP-15-01		Pocket Pen: 4, Vane Shear: 4	405.8
0.3							405.7
0.4							405.6

Bottom of hole at 0.49 m

AUSENCO TP-SP-15_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT)).GDT 21-12-13




TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.49 m
START DATE: 22/Oct/21	COMPLETION DATE: 22/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-SP-16		NORTH COORD. (m): 5695030	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550505	
LOCATION: Springpole Project		ELEVATION: 403 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic, wood chips					402.9
0.2			402.8				
0.3			402.7				
0.4			402.6				
0.5			402.5				
0.6			402.4				
0.7			402.3				
0.8			402.2				
0.9			402.1				
1.0			402.0				
1.1			401.9				
1.2			401.8				
1.3			401.7				
1.4			401.6				
1.5			401.5				
1.6			401.4				
1.7			401.3				
1.8			401.2				
1.9			401.1				
2.0			401.0				
Ausenco TEST PIT LOG			LOGGED BY: Erin		COMPLETION DEPTH: 2.02 m		
			START DATE: 21/Oct/21		COMPLETION DATE: 21/Oct/21		
			REVISION NO.: B				

AUSENCO TP-SP-16_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT_21-12-13

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-SP-16		NORTH COORD. (m): 5695030	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550505	
LOCATION: Springpole Project		ELEVATION: 403 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
		Bottom of hole at 2.02 m					
			TEST PIT LOG		LOGGED BY: Erin START DATE: 21/Oct/21 REVISION NO.: B		COMPLETION DEPTH: 2.02 m COMPLETION DATE: 21/Oct/21

AUSENCO TP-SP-16_TP_LOG_SPRINGPOLE.GPJ_GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-17	NORTH COORD. (m): 5694918
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550449
LOCATION: Springpole Project	ELEVATION: 411 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, dry, Rootlets, odourous, fibrous and organic					410.9
0.2		Sandy SILT (glacial till), subangular to subrounded, low plasticity, fine to coarse grained, reddish brown, dry, no HCl reaction, soft, With cobbles, some gravel, trace organics, homogeneous		TP-SP-17-01		Pocket Pen: 0.75	410.8
0.3							410.7
0.4		Well graded Gravelly SAND (glacial till), subangular to subrounded, very loose, coarse grained, brown, damp, no HCl reaction, Homogeneous		TP-SP-17-02		Pocket Pen: 0.25	410.6
0.5							410.5

Bottom of hole at 0.55 m

AUSENCO TP-SP-17_TP_LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.55 m
START DATE: 22/Oct/21	COMPLETION DATE: 22/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-18	NORTH COORD. (m): 5694932
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550951
LOCATION: Springpole Project	ELEVATION: 401 m	GROUND WATER LEVEL (m): 0.83	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic, tree roots and stumps, wood chips					400.9
0.2			400.8				
0.3			400.7				
0.4			400.6				
0.5			400.5				
0.6			400.4				
0.7			400.3				
0.8			400.2				
0.9			400.1				
1.0			400.0				
1.1			399.9				
1.2			399.8				
1.3			399.7				
1.4			399.6				
1.5			399.5				
1.6			399.4				
1.7			399.3				
1.8			399.2				
1.9			399.1				
2.0			399.0				

AUSENCO TP-SP-18_TP LOG_SPRINGPOLE.GPJ(GEER (TEST PIT).GDT_21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.13 m
START DATE: 20/Oct/21	COMPLETION DATE: 20/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-SP-18		NORTH COORD. (m): 5694932	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 550951	
LOCATION: Springpole Project		ELEVATION: 401 m		GROUND WATER LEVEL (m): 0.83			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic, tree roots and stumps, wood chips (<i>continued</i>)					398.9
Bottom of hole at 2.13 m							
Ausenco TEST PIT LOG			LOGGED BY: Erin		COMPLETION DEPTH: 2.13 m		
			START DATE: 20/Oct/21		COMPLETION DATE: 20/Oct/21		
			REVISION NO.: B				

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-19	NORTH COORD. (m): 5694814
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550929
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): 2.3	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL






BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, saturated, Rootlets, odourous, fibrous and organic					405.9
0.2			405.8				
0.3			405.7				
0.4			405.6				
0.5			405.5				
0.6			405.4				
0.7			405.3				
0.8			405.2				
0.9			405.1				
1.0			405.0				
1.1			404.9				
1.2			404.8				
1.3			CLAY (glacial till), dense, medium plasticity, fine grained, grey, very stiff, no, Cohesive, moldable, rollable				
1.4		404.6					
1.5		404.5					
1.6		404.4					
1.7		404.3					
1.8		404.2					
1.9		404.1					
2.0		404.0					

AUSENCO TP-SP-19_TP LOG_SPRINGPOLE.GPJ(GEER (TEST PIT)).GDT_21-12-13

	TEST PIT LOG	LOGGED BY: Erin	COMPLETION DEPTH: 2.3 m
		START DATE: 25/Jun/21	COMPLETION DATE: 25/Jun/21
		REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-SP-19	NORTH COORD. (m): 5694814
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 550929
LOCATION: Springpole Project	ELEVATION: 406 m	GROUND WATER LEVEL (m): 2.3	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		CLAY (glacial till), dense, medium plasticity, fine grained, grey, very stiff, no, Cohesive, moldable, rollable (<i>continued</i>)					403.9
2.2							403.8
2.3							403.7






Bottom of hole at 2.3 m

AUSENCO TP-SP-19_TP_LOG_SPRINGPOLE.GPJ_GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.3 m
START DATE: 25/Jun/21	COMPLETION DATE: 25/Jun/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-01		NORTH COORD. (m): 5694536	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 547594	
LOCATION: Springpole Project		ELEVATION: 407 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic	<input checked="" type="checkbox"/>				406.9
0.2		SILT low plasticity, light brown, damp, no HCl reaction, hard, With gravel and cobbles, some sand, subangular cobbles, homogeneous, breaks along rocks	<input checked="" type="checkbox"/>	TP-TMF-01		Pocket Pen: 0.25	406.8
Bottom of hole at 0.28 m							
				TEST PIT LOG		LOGGED BY: Erin START DATE: 9/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 0.28 m COMPLETION DATE: 9/Oct/21	

AUSENCO TP-TMF-01 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-02	NORTH COORD. (m): 5694169
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 546770
LOCATION: Springpole Project	ELEVATION: 414 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL	<input checked="" type="checkbox"/> SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, Rootlets, odourous, fibrous and organic, tree roots, wood chips					413.9
0.2		Poorly graded Sandy GRAVEL (glacial till), subangular, loose, coarse grained, brown, dry, no HCl reaction, Trace silt and organics, homogeneous, majority of layer is gravel	<input checked="" type="checkbox"/>	TP-TMF-02-01		Pocket Pen: 0	413.8
0.3							413.7
0.4		Gravelly SILT (glacial till), fine grained, light brown, dry, no HCl reaction, stiff, Trace sand, homogeneous	<input checked="" type="checkbox"/>	TP-TMF-02-02		Pocket Pen: 2.25	413.6
0.5							413.5

Bottom of hole at 0.53 m

AUSENCO TP-TMF-02 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.53 m
START DATE: 11/Oct/21	COMPLETION DATE: 11/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-03	NORTH COORD. (m): 5694157
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 547100
LOCATION: Springpole Project	ELEVATION: 428 m	GROUND WATER LEVEL (m): 0.42	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic, tree roots					427.9
0.2		Poorly graded Sandy GRAVEL (glacial till), subangular to subrounded, loose to medium dense, coarse grained, brown, wet, no HCl reaction, Majority cobbles and boulders, homogeneous				Pocket Pen: 0.25	427.8
0.3		Clayey SAND (glacial till), subangular to subrounded, loose to medium dense, low to medium plasticity, fine to coarse grained, light brown, saturated, no HCl reaction, stiff, With cobbles, trace gravel	<input checked="" type="checkbox"/>	TP-TMF-03-01		Pocket Pen: 0.5	427.7
0.4							427.6
0.5							427.5
0.6							427.4

Bottom of hole at 0.6 m

AUSENCO TP-TMF-03 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.6 m
START DATE: 9/Oct/21	COMPLETION DATE: 9/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-04	NORTH COORD. (m): 5693927
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 547650
LOCATION: Springpole Project	ELEVATION: 417 m	GROUND WATER LEVEL (m): NE	
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE		<input checked="" type="checkbox"/> NATIVE SOIL	
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE		<input checked="" type="checkbox"/> PEA GRAVEL <input checked="" type="checkbox"/> SAND (10/20)	

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					416.9
0.2		SILT (glacial till), subangular, loose, fine grained, brown, moist, no HCl reaction, Organic and some rootlets, with cobbles and boulders, some sand,				Pocket Pen: 0	416.8
0.3			416.7				
0.4		Gravelly SAND (glacial till), subrounded to rounded, very loose, coarse grained, light brown, wet, no HCl reaction, Some silt, trace rootlets and organics, trace cobbles and boulders, homogeneous, follows bed rock ridge, thickness varies	<input checked="" type="checkbox"/>	TP-TMF-04-01		Pocket Pen: 0	416.6
0.5			416.5				

Bottom of hole at 0.56 m

AUSENCO TP-TMF-04 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.56 m
START DATE: 18/Sep/21	COMPLETION DATE: 18/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-05		NORTH COORD. (m): 5693772	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 547157	
LOCATION: Springpole Project		ELEVATION: 429 m		GROUND WATER LEVEL (m): 1.7			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					428.9
0.2							428.8
0.3							428.7
0.4							428.6
0.5							428.5
0.6		Poorly graded Gravelly SAND (glacial till), subrounded to rounded, very loose, coarse grained, brown, wet, no HCl reaction, With cobbles, homogeneous					428.4
0.7							428.3
0.8							428.2
0.9							428.1
1.0				TP-TMF-05-01		Pocket Pen: 0.25	428.0
1.1							427.9
1.2							427.8
1.3							427.7
1.4		CLAY (glacial till), high plasticity, fine grained, brownish grey, weak, medium, no, Laminated, weathered layers					427.6
1.5							427.5
1.6				TP-TMF-05-02		Pocket Pen: 1	427.4
1.7		Silty CLAY (glacial till), low to medium plasticity, fine grained, light grey, wet, strong, medium, slow, Laminated					427.3
1.8				TP-TMF-05-03			427.2
1.9		Sandy SILT (glacial till), very loose, non plastic, fine grained, light grey, wet, no HCl reaction, rapid, Homogeneous					427.1
2.0				TP-TMF-			427.0
			LOGGED BY: Erin		COMPLETION DEPTH: 2.7 m		
			START DATE: 18/Sep/21		COMPLETION DATE: 18/Sep/21		
			REVISION NO.: B				

AUSENCO TP-TMF-05 TP LOG SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-05	NORTH COORD. (m): 5693772
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 547157
LOCATION: Springpole Project	ELEVATION: 429 m	GROUND WATER LEVEL (m): 1.7	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
2.1		Well graded Gravelly SAND (glacial till), subrounded, loose, coarse grained, brown, saturated, no HCl reaction, With cobbles and boulders, homogeneous		05-04			426.9
2.2							426.8
2.3							426.7
2.4							426.6
2.5							426.5
2.6							426.4
2.7							426.3

Bottom of hole at 2.7 m

AUSENCO TP-TMF-05 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 2.7 m
START DATE: 18/Sep/21	COMPLETION DATE: 18/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-06	NORTH COORD. (m): 5693804
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 548429
LOCATION: Springpole Project	ELEVATION: 409 m	GROUND WATER LEVEL (m): 1.2	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					408.9
0.2							408.8
0.3		Well graded Gravelly SAND (glacial till), subrounded to rounded, very loose, non plastic, coarse grained, brown, wet, no HCl reaction, With cobbles and boulders, homogeneous, moderate plasticity					408.7
0.4							408.6
0.5							408.5
0.6				TP-TMF-06-01		Pocket PenL 0.5	408.4
0.7							408.3
0.8							408.2
0.9							408.1
1.0		Gravelly CLAY (glacial till), low plasticity, fine grained, grey, damp, no HCl reaction, stiff, slow, Some silt, trace cobbles and boulders, blocky					408.0
1.1							407.9
1.2				TP-TMF-06-02			407.8
1.3							407.7
1.4							407.6
1.5							407.5







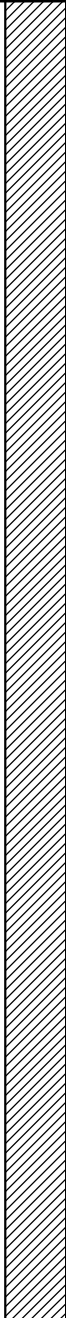

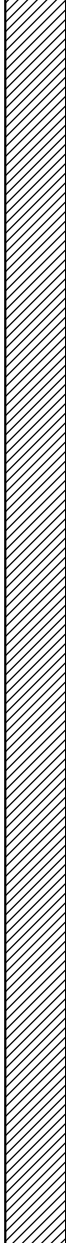







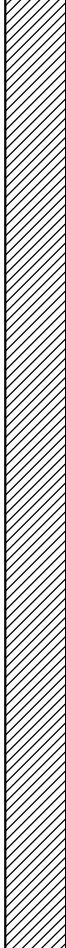

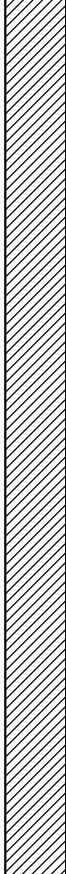

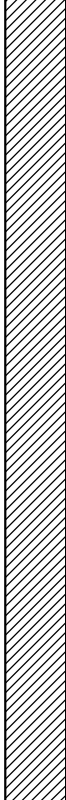

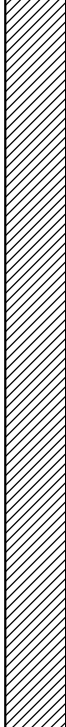







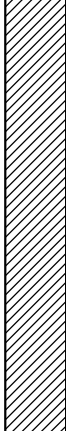

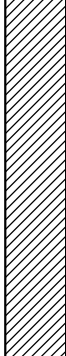

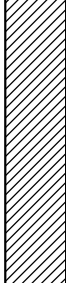





Bottom of hole at 1.5 m

AUSENCO TP-TMF-06 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 1.5 m
START DATE: 14/Sep/21	COMPLETION DATE: 14/Sep/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-07		NORTH COORD. (m): 5693669	
CLIENT: First Mining Gold		EQUIPMENT: Mid-Size Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 548179	
LOCATION: Springpole Project		ELEVATION: 414 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE:  GRAB SAMPLE				 NATIVE SOIL			
BACKFILL TYPE:  BENTONITE				 PEA GRAVEL		 SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					413.9
0.2							413.8
0.3							413.7
0.4		Poorly graded GRAVEL (glacial till), subangular to subrounded, coarse grained, grey, Large cobbles and boulders, voids filled by peat, oxidation on rocks					413.6
0.5							413.5
0.6							413.4
0.7		Well graded Gravelly SAND (glacial till), subrounded to rounded, medium dense, coarse grained, brown, damp, no HCl reaction, With cobbles and boulders, trace silt, homogeneous, minor oxidation throughout					413.3
0.8							413.2
0.9							413.1
1.0							413.0
1.1							412.9
1.2							412.8
1.3							412.7
1.4							412.6
1.5							412.5
1.6							412.4
1.7		Clayey SAND (glacial till), subrounded, loose, fine grained, greyish brown, wet, no HCl reaction, soft, Alternating stratified sand (brown) and silt clay (grey), weathering between layers					412.3
Bottom of hole at 1.79 m							
 TEST PIT LOG				LOGGED BY: Erin		COMPLETION DEPTH: 1.79 m	
				START DATE: 17/Sep/21		COMPLETION DATE: 17/Sep/21	
				REVISION NO.: B			

AUSENCO TP-TMF-07 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

TP-TMF-01-01

Pocket Pen: 0.75

Pocket Pen: 0.5

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-08	NORTH COORD. (m): 5692966
CLIENT: First Mining Gold	EQUIPMENT: Mini Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 547739
LOCATION: Springpole Project	ELEVATION: 416 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic					415.9
0.2							415.8
0.3		Gravelly SILT (glacial till), angular to subangular, low plasticity, fine grained, brown, wet, no HCl reaction, soft, rapid, Organic, some sand with cobbles, gravel comes from weathered bedrock	<input checked="" type="checkbox"/>	TP-TMF-08-01		Pocket Pen: 0.5	415.7
0.4		Silty SAND (glacial till), subangular, loose to medium dense, low plasticity, coarse grained, light brown, wet, no HCl reaction, rapid, Some gravel and cobbles	<input checked="" type="checkbox"/>	TP-TMF-08-02		Pocket Pen: 0.5	415.6
0.5							415.5
0.6							415.4

Bottom of hole at 0.65 m




AUSENCO TP-TMF-08 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.65 m
START DATE: 24/Oct/21	COMPLETION DATE: 24/Oct/21
REVISION NO.: B	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-09		NORTH COORD. (m): 5693049	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 547279	
LOCATION: Springpole Project		ELEVATION: 406 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic, mossy					405.9
0.2		Sandy CLAY (glacial till), high plasticity, fine grained, brown, damp, no HCl reaction, medium, slow, Some gravel and cobbles, trace organics, blocky					405.8
0.3							405.7
0.4							405.6
0.5							405.5
0.6				TP-TMF-09-01		Pocket Pen: 3, Vane Shear: 5	405.4
0.7							405.3
0.8							405.2
0.9							405.1
1.0		Silty CLAY (glacial till), medium plasticity, fine grained, light grey, damp, strong, medium, slow, Trace gravel, some white layers (possibly calcite), blocky,					405.0
1.1							404.9
1.2				TP-TMF-09-02		Pocket Pen: 1.5, Vane Shear: 5	404.8
1.3							404.7
1.4							404.6
1.5		Gravelly SAND (glacial till), subrounded, loose, coarse grained, brown, damp, no HCl reaction, With cobbles, trace clay, homogeneous					404.5
1.6				TP-TMF-09-03		Pocket Pen: 0.5	404.4
Bottom of hole at 1.68 m							
AUSenco TP-TMF-09 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13				LOGGED BY: Erin		COMPLETION DEPTH: 1.68 m	
AUSenco				TEST PIT LOG		START DATE: 24/Oct/21	
				REVISION NO.: B		COMPLETION DATE: 24/Oct/21	

PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-10		NORTH COORD. (m): 5692942	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 548194	
LOCATION: Springpole Project		ELEVATION: 425 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic, mossy					424.9
Bottom of hole at 0.12 m							
			TEST PIT LOG			LOGGED BY: Erin START DATE: 24/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 0.12 m COMPLETION DATE: 24/Oct/21	

AUSENCO TP-TMF-10 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13




PROJECT: 2021 Geotechnical Field Program		CONTRACTOR: N/A		TEST PIT NO.: TP-TMF-11		NORTH COORD. (m): 5692912	
CLIENT: First Mining Gold		EQUIPMENT: Mini Excavator		PROJECT NO.: 105877-02		EAST COORD. (m): 548717	
LOCATION: Springpole Project		ELEVATION: 412 m		GROUND WATER LEVEL (m): NE			
SAMPLE TYPE: <input checked="" type="checkbox"/> GRAB SAMPLE				<input checked="" type="checkbox"/> NATIVE SOIL			
BACKFILL TYPE: <input checked="" type="checkbox"/> BENTONITE				<input checked="" type="checkbox"/> PEA GRAVEL		<input checked="" type="checkbox"/> SAND (10/20)	
DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, damp, Rootlets, odourous, fibrous and organic, mossy					411.9
0.2		Gravelly CLAY (glacial till), angular, medium plasticity, fine to coarse grained, reddish brown, damp, no HCl reaction, medium, slow, With cobbles and boulders, some sand, trace organics, gravel comes from weathered bedrock, blocky, clay with sand lenses	<input checked="" type="checkbox"/>	TP-TMF-11-01		Pocket Pen: 2, Vane Shear: 3	411.8
0.3	411.7						
0.4	411.6						
0.5							411.5
0.6		Sandy CLAY (glacial till), angular to subangular, low plasticity, fine grained, orangeish grey, damp, no HCl reaction, very stiff, slow, With cobbles, some gravel, oxidation present throughout				Pocket Pen: 1.75, Vane Shear: 2.5	411.4
0.7							411.3
Bottom of hole at 0.74 m							
				TEST PIT LOG		LOGGED BY: Erin START DATE: 25/Oct/21 REVISION NO.: B	
						COMPLETION DEPTH: 0.74 m COMPLETION DATE: 25/Oct/21	

AUSENCO TP-TMF-11 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13

PROJECT: 2021 Geotechnical Field Program	CONTRACTOR: N/A	TEST PIT NO.: TP-TMF-40	NORTH COORD. (m): 5692995
CLIENT: First Mining Gold	EQUIPMENT: Mid-Size Excavator	PROJECT NO.: 105877-02	EAST COORD. (m): 549075
LOCATION: Springpole Project	ELEVATION: 405 m	GROUND WATER LEVEL (m): NE	

SAMPLE TYPE: GRAB SAMPLE NATIVE SOIL

BACKFILL TYPE: BENTONITE PEA GRAVEL SAND (10/20)

DEPTH (m)	SOIL SYMBOL	SOIL DESCRIPTION	SAMPLE TYPE	SAMPLE NO.	BACKFILL	COMMENTS	ELEVATION (masl)
0.1		PEAT dark brown, wet, Rootlets, odourous, fibrous and organic					404.9
0.2		Silty GRAVEL (glacial till), angular, loose, coarse grained, brown, wet, no HCl reaction, Organic, odourous silt, gravel and boulders come from weathered bedrock, bedrock is brecciated, homogeneous	<input checked="" type="checkbox"/>	TP-TMF-40-01			404.8
0.3							404.7
0.4							404.6
0.5							404.5
0.6							404.4
0.7							404.3
0.8							404.2
0.9							404.1

Bottom of hole at 0.98 m

AUSENCO TP-TMF-40 TP LOG_SPRINGPOLE.GPJ GEER (TEST PIT).GDT 21-12-13



TEST PIT LOG

LOGGED BY: Erin	COMPLETION DEPTH: 0.98 m
START DATE: 16/Sep/21	COMPLETION DATE: 16/Sep/21
REVISION NO.: B	

LOG OF BOREHOLE BH01-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.89 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5694159 m N, 548018 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			20	40	60	80	TOPSOIL - with organics								DRY
							SAND - some silt and gravel, occasional cobbles								
416							End of Borehole at 0.7 m Auger refusal on probable bedrock								
1.0															
415															
2.0															
414															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 1

LOG OF BOREHOLE BH02-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **418.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5694120 m N, 548059 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		SPT (N) □
							TOPSOIL - with organics									DRY
							SAND - trace silt, some gravel, occasional cobbles									
							End of Borehole at 0.5 m Auger refusal on probable bedrock									
1.0	417															
2.0	416															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 2

LOG OF BOREHOLE BH03-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **418.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5694081 m N, 548099 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
1.0	417														
2.0	416														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 3

LOG OF BOREHOLE BH04-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **419.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5694016 m N, 548063 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
1.0	418														
2.0	417														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 4

LOG OF BOREHOLE BH05-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **418.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693977 m N, 548104 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	417						BEDROCK - exposed at surface								DRY
2.0	416														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 5

LOG OF BOREHOLE BH06-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **418.81 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693938 m N, 548146 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						●	BEDROCK - exposed at surface								DRY
418															
417															
416															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 FX: 1-807-623-1792
 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 6

LOG OF BOREHOLE BH07-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **419.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693874 m N, 548109 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		
		▼					PEAT									
1.0	418						SAND									
							End of Borehole at 1.2 m Auger refusal on probable bedrock									
2.0	417															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 7

LOG OF BOREHOLE BH08-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.62 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693834 m N, 548149 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
			Blows/0.3m									SPT (N) □	DCPT ◆			
							TOSOIL								DRY	
							SAND - some silt, with gravel, occasional cobbles	AS1							26 56 (18)	
1.0							End of Borehole at 0.8 m Auger refusal on probable bedrock									
417																
416																
2.0																
415																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 8

LOG OF BOREHOLE BH09-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.54 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693795 m N, 548191 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								DRY
							SAND - some gravel, some to with silt								
416															
1.0															
							End of Borehole at 1.4 m Auger refusal on probable bedrock								17 61 (22)
415															
2.0															
414															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 9

LOG OF BOREHOLE BH10-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **415.80 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693731 m N, 548155 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ✕				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							PEAT								Water at 0.3 mbgs
							SAND - with silt								
1.0							End of Borehole at 0.9 m Auger refusal on probable bedrock								
	415														
	414														
2.0															
	413														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 10

LOG OF BOREHOLE BH11-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **415.22 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693691 m N, 548195 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							PEAT									Water at 0.2 mbgs
415		▼					SAND - some gravel, trace silt, occasional cobbles									
							End of Borehole at 0.8 m									
1.0																
414																
2.0																
413																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 11

LOG OF BOREHOLE BH12-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693652 m N, 548238 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						PEAT									Water at 0.3 mbgs
		▼				SAND - some gravel, trace silt, occasional cobbles									
1.0	415														
						End of Borehole at 1.5 m									
2.0	414														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 12

LOG OF BOREHOLE BH13-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **415.33 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693588 m N, 548201 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							PEAT								Water at 0.3 mbgs	
							SAND - with gravel, some silt									
							SILT - some sand, trace clay									
1.0							End of Borehole at 1.0 m Auger refusal on probable bedrock									
414																
2.0																
413																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 13

LOG OF BOREHOLE BH14-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693549 m N, 548241 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			+-----+ 20 40 60 80	●	+-----+	[Hatched Box]	BEDROCK - exposed at surface								DRY
1.0	415														
2.0	414														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 14

LOG OF BOREHOLE BH15-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.84 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693510 m N, 548284 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						●	BEDROCK - exposed at surface								DRY
417															
416															
415															

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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 15

LOG OF BOREHOLE BH16-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693445 m N, 548247 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
1.0	416														
2.0	415														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 16

LOG OF BOREHOLE BH17-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **415.49 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693406 m N, 548288 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							TOPSOIL - with organics									DRY
							SAND - some gravel and silt									
							End of Borehole at 0.3 m Auger refusal on probable bedrock									
415																
1.0																
414																
2.0																
413																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 17

LOG OF BOREHOLE BH18-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **414.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693367 m N, 548329 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		
						+-----+ 20 40 60 80 +-----+	TOPSOIL									DRY
						+-----+ 20 40 60 80 +-----+	SAND - Silty, trace gravel									
						+-----+ 20 40 60 80 +-----+	SILT - some sand, trace clay									
1.0	413															
2.0	412						End of Borehole at 1.7 m Auger refusal on probable bedrock									

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

Auger Sample	Rock Core	Bentonite
Split Spoon Sample	Hiller Peat Sampler	Sand
Bulk Sample	70mm Thin Wall Tube	

ENCLOSURE 18

LOG OF BOREHOLE BH19-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **414.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693302 m N, 548292 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
1.0	413														
2.0	412														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 19

LOG OF BOREHOLE BH20-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **413.61 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693263 m N, 548334 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		SPT (N) □
							TOPSOIL - with organics									DRY
							SILT - some sand, trace clay									
413																
1.0							SILT - Sandy									
412																
2.0							End of Borehole at 2.0 m Auger refusal on probable bedrock									
411																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 20

LOG OF BOREHOLE BH21-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **413.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693224 m N, 548375 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							SPT (N) □		DCPT ◆		
			20	40	60	80						Blows/0.3m	20	40	60	
		▼					PEAT								Water at 0.1 mbgs	
						█	SAND - some silt, trace gravel									
1.0	412					▨	SILT - some sand, trace clay									
2.0	411						End of Borehole at 2.0 m									

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 21

LOG OF BOREHOLE BH22-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693160 m N, 548338 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
1.0	415														
2.0	414														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 22

LOG OF BOREHOLE BH23-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **415.92 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693120 m N, 548380 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							TOPSOIL - with organics									DRY
							SAND - trace silt, some gravel									
							End of Borehole at 0.4 m Auger refusal on probable bedrock									
1.0	415															
2.0	414															
413																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 23

LOG OF BOREHOLE BH24-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693081 m N, 548421 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL - with organics								Water at 0.3 mbgs
							SAND - some to with silt, trace gravel								
							SAND - Silty, trace gravel								
1.0	415						End of Borehole at 1.2 m Auger refusal on probable bedrock								
2.0	414														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 24

LOG OF BOREHOLE BH25-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.32 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693017 m N, 548384 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		
		▼				[Symbol]	TOPSOIL - with organics									Water at 0.15 mbgs
417						[Symbol]	SAND - with silt and gravel									
1.0						[Symbol]	SILT -some sand, trace clay									
416						[Symbol]	End of Borehole at 1.5 m Auger refusal on probable bedrock									
2.0						[Symbol]										
415						[Symbol]										

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 25

LOG OF BOREHOLE BH26-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.31 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5692978 m N, 548426 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			+-----+ 20 40 60 80	●	+-----+	BEDROCK - exposed at surface									DRY
417															
1.0															
416															
2.0															
415															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 26

LOG OF BOREHOLE BH27-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.03 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5692939 m N, 548467 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
416		▼													Water at 0.1 mbgs	
								SAND - with silt, trace gravel								
								End of Borehole at 0.8 m Auger refusal on probable bedrock								
1.0	415															
2.0	414															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

Auger Sample	Rock Core	Bentonite
Split Spoon Sample	Hiller Peat Sampler	Sand
Bulk Sample	70mm Thin Wall Tube	

ENCLOSURE 27

LOG OF BOREHOLE BH28-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.18 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5692874 m N, 548430 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
417							TOPSOIL - with organics								DRY	
							SAND - trace silt, some gravel									
End of Borehole at 0.4 m Auger refusal on probable bedrock																
1.0																
416																
2.0																
415																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 28

LOG OF BOREHOLE BH29-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.08 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5692835 m N, 548472 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
416							TOPSOIL - with organics								DRY	
							SAND - with silt, trace gravel, occasional cobbles									
End of Borehole at 0.2 m Auger refusal on probable bedrock																
1.0	415															
2.0	414															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 29

LOG OF BOREHOLE BH30-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **413.34 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5692798 m N, 548512 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								DRY
413															
412															
411															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 30

LOG OF BOREHOLE BH31-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **418.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5692962 m N, 548350 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	417					TOPSOIL - with organics									DRY
						SAND - some silt, trace gravel									
						End of Borehole at 1.2 m Auger refusal on probable bedrock									
2.0	416														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 31

LOG OF BOREHOLE BH32-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **413.53 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693058 m N, 548534 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							TOPSOIL - with organics									DRY
413							End of Borehole at 0.4 m Auger refusal on probable bedrock									
1.0																
412																
2.0																
411																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND




- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 32

LOG OF BOREHOLE BH33-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693567 m N, 548277 m E**









DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	415						PEAT - with organics								Water at surface
							SILT - trace sand and clay								
2.0	414						End of Borehole at 1.8 m Auger refusal on probable bedrock								

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--|--|---|
|  Auger Sample |  Rock Core |  Bentonite |
|  Split Spoon Sample |  Hiller Peat Sampler |  Sand |
|  Bulk Sample |  70mm Thin Wall Tube | |

ENCLOSURE 33

LOG OF BOREHOLE BH34-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.05 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **8 November 2011**
 COORDINATES: **5693864 m N, 548203 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
417						●	TOPSOIL - some sand								
							End of Borehole at 0.5 m Auger refusal on probable bedrock								
1.0	416														
2.0	415														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 34

LOG OF BOREHOLE BH35-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.09 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **8 November 2011**
 COORDINATES: **5693883 m N, 548245 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
	416						TOPSOIL									DRY
							End of Borehole at 0.1 m Auger refusal on probable bedrock									
1.0	415															
2.0	414															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 35

LOG OF BOREHOLE BH36-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **416.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5693887 m N, 548202 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							PEAT								Water at 0.2 mbgs
		▼				⬮									
			●			⬮	SAND - some silt, trace gravel		▨						
1.0	415					⬮	SILT - Sandy, trace gravel								
2.0	414					⬮	End of Borehole at 2.0 m Auger refusal on probable bedrock								

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 36

LOG OF BOREHOLE BH37-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.48 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5694150 m N, 548051 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							TOPSOIL									DRY
							SAND & GRAVEL - some silt, occasional cobbles									
417							End of Borehole at 0.4 m									
1.0																
416																
2.0																
415																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 37

LOG OF BOREHOLE BH38-2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **410.05 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5694254 m N, 547973 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
410							TOPSOIL - with organics									DRY
							End of Borehole at 0.15 m Auger refusal on probable bedrock									
1.0	409															
2.0	408															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



DST CONSULTING ENGINEERS INC.
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 PH: 1-807-623-2929
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 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

Auger Sample	Rock Core	Bentonite
Split Spoon Sample	Hiller Peat Sampler	Sand
Bulk Sample	70mm Thin Wall Tube	

ENCLOSURE 38

LOG OF BOREHOLE C1

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **413.72 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694051 m N, 548194 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		SPT (N) □
			+-----+ 20 40 60 80	●	+-----+											
						[Symbol: Horizontal lines]	TOPSOIL									DRY
						[Symbol: Dotted]	SAND - some gravel, trace silt									
413																
1.0							End of Borehole at 1.0 m Auger refusal on probable bedrock									
412																
2.0																
411																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND


- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 40

LOG OF BOREHOLE C2

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **414.25 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694259 m N, 548144 m E**









DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
414						 TOPSOIL - with organics									DRY
						End of Borehole at 0.5 m Auger refusal on probable bedrock									
1.0															
413															
2.0															
412															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--|--|---|
|  Auger Sample |  Rock Core |  Bentonite |
|  Split Spoon Sample |  Hiller Peat Sampler |  Sand |
|  Bulk Sample |  70mm Thin Wall Tube | |

ENCLOSURE 41

LOG OF BOREHOLE C3

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **414.25 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694309 m N, 548407 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL	
			W _p	W	W _i						20	40	60	80		SPT (N) □
			+-----+ 20 40 60 80	●	+-----+											
						[Symbol]	TOPSOIL - with organics									DRY
							End of Borehole at 0.5 m Auger refusal on probable bedrock									
414																
413																
412																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 42

LOG OF BOREHOLE C4

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **411.38 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **8 November 2011**
 COORDINATES: **5694133 m N, 548480 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL - with organics								DRY
411							SAND - some gravel, trace silt								
1.0							End of Borehole at 0.8 m Auger refusal on probable bedrock								
410															
2.0															
409															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 43

LOG OF BOREHOLE C5

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - New Alignment**
 LOCATION: **Proposed Airstrip, Springpole Lake, Ontario**
 SURFACE ELEV.: **417.86 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **8 November 2011**
 COORDINATES: **5694232 m N, 548227 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
							TOPSOIL - with organics									DRY
							SAND - some gravel and silt									
							End of Borehole at 0.3 m Auger refusal on probable bedrock									
417																
416																
415																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - NEW ALIGNMENT.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- Auger Sample
- Split Spoon Sample
- Bulk Sample
- Rock Core
- Hiller Peat Sampler
- 70mm Thin Wall Tube
- Bentonite
- Sand

ENCLOSURE 44

LOG OF BOREHOLE BH01-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.34 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693495 m N, 549915 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			Blows/0.3m								SPT (N) □	DCPT ◆			
			+-----+ 20 40 60 80	●	+-----+										
395					█	SAND - with silt, trace to some gravel, trace clay								14 60 (26)	
1.0					█									12 55 31 2	
394					█									5 67 (27)	
2.0					█	End of Borehole at 1.5 m Auger refusal on probable bedrock									
393					█										
3.0					█										
392					█										
4.0					█										
391					█										
5.0					█										
390					█										

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 1

LOG OF BOREHOLE BH02-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693520 m N, 549883 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						CLAY									
1.0	397					SAND - Silty, trace to with gravel		AS1							7 75 (19)
						- some organics and pockets of silt									2 46 (53)
2.0	396							AS2							1 67 (32)
3.0	395					End of Borehole at 3.0 m Auger refusal on probable cobbles and boulders		AS3							24 44 (32)
4.0	394														
5.0	393														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN_GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 2

LOG OF BOREHOLE BH03-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.11 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693550 m N, 549848 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
	395						SAND - Silty, trace gravel and clay								
1.0								AS1							1 60 37 2
	394						SAND - with silt, trace gravel								
								AS2							2 73 (25)
							End of Borehole at 1.5 m Auger refusal on probable bedrock								
2.0															
	393														
3.0															
	392														
4.0															
	391														
5.0															
	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 3

LOG OF BOREHOLE BH04-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.60 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693524 m N, 549941 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - some silt								
398															
1.0															
							End of Borehole at 1.1 m Auger refusal on probable bedrock								
397															
2.0															
396															
3.0															
395															
4.0															
394															
5.0															
393															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 4

LOG OF BOREHOLE BH05-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **399.55 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693536 m N, 549948 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						TOPSOIL									
						SAND & GRAVEL - trace silt									
399						End of Borehole at 0.5 m Auger refusal on probable bedrock									
1.0															
398															
2.0															
397															
3.0															
396															
4.0															
395															
5.0															
394															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 5

LOG OF BOREHOLE BH06-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.55 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693582 m N, 549953 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - some to with silt, trace gravel to gravelly								
401															
1.0								AS1						35	55 (10)
							- pockets of sand and silt								
400								AS2						7	49 (44)
2.0								AS3						9	60 (31)
							End of Borehole at 2.1 m Auger refusal on probable bedrock								
399															
3.0															
398															
4.0															
397															
5.0															
396															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 6

LOG OF BOREHOLE BH07-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **396.74 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693569 m N, 549887 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							CLAY - with silt, some sand								
1.0	396						End of Borehole at 1.0 m Auger refusal on probable bedrock								
2.0	395														
3.0	394														
4.0	393														
5.0	392														
	391														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 7

LOG OF BOREHOLE BH08-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **396.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693587 m N, 549894 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							CLAY - with silt, trace sand								
1.0	395														0 2 (98)
2.0	394						End of Borehole at 1.6 m Auger refusal on probable bedrock								
3.0	393														
4.0	392														
5.0	391														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 8

LOG OF BOREHOLE BH09-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693598 m N, 549840 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	393					●	SAND - Silty, brown								
2.0	392						End of Borhole at 1.2 m Auger refusal on probable cobbles and boulders								
3.0	391														
4.0	390														
5.0	389														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 9

LOG OF BOREHOLE BH10-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **392.85 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693620 m N, 549828 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			+-----+ 20 40 60 80												
1.0	392		+-----+ 20 40 60 80	●		SILT - with clay, trace sand, some organics, brown		AS1							
2.0	391		+-----+ 20 40 60 80	●				AS2							0 3 72 25
3.0	390					End of Borehole at 2.5 m Auger refusal on probable cobbles and boulders		AS3							
4.0	389														
5.0	388														
	387														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 10

LOG OF BOREHOLE BH11-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **397.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693644 m N, 549910 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - some silt, trace gravel								
1.0	396						End of Borehole at 0.45 m Auger refusal on probable bedrock								
2.0	395														
3.0	394														
4.0	393														
5.0	392														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 11

LOG OF BOREHOLE BH12-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693625 m N, 549974 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						TOPSOIL									
						SILT, SAND & GRAVEL - with cobbles									
						CLAY - Silty, trace sand and gravel									
1.0	394					SAND - some silt, trace gravel, with cobbles									
						End of Borehole at 1.4 m Auger refusal on probable bedrock									
2.0	393														
3.0	392														
4.0	391														
5.0	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 12

LOG OF BOREHOLE BH13-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.16 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693625 m N, 549984 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
394						TOPSOIL									
						SAND - trace silt									
						SILT, SAND & GRAVEL - trace clay									
1.0						SAND									
393						CLAY - Silty, trace gravel and sand									
2.0						End of Borehole at 2.0 m									
392															
3.0															
391															
4.0															
390															
5.0															
389															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 13

LOG OF BOREHOLE BH14-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693693 m N, 550070 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						TOPSOIL									
1.0	393					SILT - some sand, trace clay									
						End of Borehole at 1.4 m Auger refusal on probable bedrock									
2.0	392														
3.0	391														
4.0	390														
5.0	389														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 14

LOG OF BOREHOLE BH15-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693721 m N, 549921 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - with silt, some gravel, brown								
1.0	394														
2.0	393						End of Borehole at 1.8 m Auger refusal on probable bedrock								
3.0	392														
4.0	391														
5.0	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 15

LOG OF BOREHOLE BH16-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693680 m N, 549827 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			Blows/0.3m								SPT (N) □	DCPT ◆			
						TOPSOIL									
						SAND - with silt, trace clay and gravel, grey									
1.0	394					End of Borehole at 1.1 m Auger refusal on probable bedrock	AS1							6 61 (33)	
2.0	393														
3.0	392														
4.0	391														
5.0	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN_GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 16

LOG OF BOREHOLE BH17-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.46 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693664 m N, 549811 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						TOPSOIL									
						SAND - with silt, trace gravel									
394															
1.0								AS1							1 61 (38)
393															
2.0						End of Borehole at 1.7 m Auger refusal on probable bedrock									
392															
3.0															
391															
4.0															
390															
5.0															
389															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 17

LOG OF BOREHOLE BH18-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.39 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693655 m N, 549776 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
394						SILT - some sand									
1.0						SAND - trace gravel, some silt									
393															
2.0															
392															
3.0															
391															
4.0															
390						End of Borehole at 4.4 m Auger refusal on probable bedrock									1 85 (14)
5.0															
389															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 18

LOG OF BOREHOLE BH19-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **396.19 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693684 m N, 549770 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			Blows/0.3m								SPT (N) □	DCPT ♦			
396						SAND - some gravel, occasional cobbles									
1.0						SAND & GRAVEL - some silt, occasional cobbles	AS1							39	48 (13)
395						SAND - with gravel, trace silt, occasional cobbles, brown									
2.0						GRAVEL - Sandy, occasional cobbles, brown	AS3							59	37 (4)
394						SAND - Gravelly, trace silt, occasional cobbles, brown									
3.0						SAND - Gravelly, trace silt, occasional cobbles, brown	AS4							37	56 (7)
393															
4.0							AS5							29	63 (9)
392															
5.0							AS6							26	67 (7)
391															
						End of Borehole at 5.6 m Auger refusal on probable cobbles and boulders	AS7							22	68 (9)

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 19

LOG OF BOREHOLE BH20-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **397.31 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693712 m N, 549746 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - some gravel, trace silt								
397															
1.0															
396															
2.0															
395															
3.0															
394															
4.0															
393															
5.0							End of Borehole at 5.0 m								
392															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 20

LOG OF BOREHOLE BH21-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.62 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **5 November 2011**
 COORDINATES: **5693722 m N, 549774 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - trace clay and sand								
395							SAND - trace gravel, trace silt								
1.0															
394															
2.0															
								AS1						1 95 (4)	
393														1 92 (7)	
3.0															
392															
4.0							End of Borehole at 3.8 m Auger refusal on probable bedrock								
391															
5.0															
390															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 21

LOG OF BOREHOLE BH22-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.65 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693736 m N, 549799 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			SPT (N) □		DCPT ◆										
			+-----+ 20 40 60 80	●		SILT - trace sand and gravel									
1.0			+-----+ 20 40 60 80	●											
2.0															
3.0						End of Borehole at 2.3 m Auger refusal on probable bedrock									
4.0															
5.0															
394															
393															
392															
391															
390															
389															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 22

LOG OF BOREHOLE BH23-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.88 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693760 m N, 549847 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - with sand								
1.0	395														
							End of Borehole at 1.2 m Auger refusal on probable bedrock								
2.0	394														
3.0	393														
4.0	392														
5.0	391														
	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 23

LOG OF BOREHOLE BH24-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.93 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693740 m N, 549751 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	394					SAND & GRAVEL - trace to some silt, brown	AS1								
2.0	393					SILT - some sand, grey	AS2								
3.0	392					SAND - trace to with silt, trace to some gravel, grey	AS3							1	76 (23)
4.0	391						AS4							15	74 (10)
							AS5							1	63 (36)
							AS6							17	75 (9)
5.0	390					- with silt and gravel	AS7								
						End of Borehole at 5.1 m Auger refusal on probable bedrock									
	389														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 24

LOG OF BOREHOLE BH25-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **394.80 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **3 November 2011**
 COORDINATES: **5693766 m N, 549769 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SAND - trace gravel and silt								
							SILT - some sand, trace gravel, grey								
	394						SAND - some to with silt, trace gravel, grey	AS1							
1.0															
															1 84 (15)
	393							AS2							
2.0															
															0 86 (14)
	392							AS3							
3.0															
															1 82 (16)
	391						- brown	AS4							
4.0															
								AS5							4 75 (21)
	390						End of Borehole at 4.3 m Auger refusal on probable bedrock	AS6							4 68 (28)
5.0															
	389														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



DST CONSULTING ENGINEERS INC.
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 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 25

LOG OF BOREHOLE BH26-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.75 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693751 m N, 549778 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - trace silt and gravel								
395															
1.0															
394															
2.0															
393															
3.0							End of Borehole at 2.9 m Auger refusal on probable bedrock	AS1							0 96 (4)
392															
4.0															
391															
5.0															
390															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 26

LOG OF BOREHOLE BH27-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.96 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693772 m N, 549807 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						TOPSOIL									
						CLAY - Silty									
						SAND - with silt, trace gravel									
1.0	395						AS2								0 77 (23)
						End of Borehole at 1.2 m Auger refusal on probable bedrock									
2.0	394														
3.0	393														
4.0	392														
5.0	391														
390															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 27

LOG OF BOREHOLE BH28-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **396.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693796 m N, 549798 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						CLAY - Silty, trace sand									
							AS1								3 86 (11)
1.0	395					SAND - some to with silt, trace gravel and clay									5 77 (19)
							AS2								0 68 (31)
2.0	394					End of Borehole at 1.5 m Auger refusal on probable cobbles and boulders									
3.0	393														
4.0	392														
5.0	391														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 28

LOG OF BOREHOLE BH29-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **399.08 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **2 November 2011**
 COORDINATES: **5693848 m N, 549878 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			SPT (N) □		DCPT ◆										
399						SILT - some sand, trace to some clay									0 14 57 29
398						SAND - Silty, trace to some clay									0 54 (46)
						End of Borehole at 1.2 m Auger refusal on probable bedrock									
397															
396															
395															
394															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 29

LOG OF BOREHOLE BH30-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **2 November 2011**
 COORDINATES: **5693861 m N, 549958 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			Blows/0.3m								SPT (N) □	DCPT ◆			
						SAND - some gravel and silt, occasional cobbles	AS1								10 70 (20)
						SILT - Sandy, some gravel	AS2								17 36 (47)
1.0	400					End of Borehole at 1.2 m Auger refusal on probable bedrock									
2.0	399														
3.0	398														
4.0	397														
5.0	396														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 30

LOG OF BOREHOLE BH31-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **4 November 2011**
 COORDINATES: **5693783 m N, 550014 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			Blows/0.3m								SPT (N) □ DCPT ◆				
						TOPSOIL									
						CLAY - with silt, some sand	AS1								
			+	+		SAND - Silty, trace gravel	AS2							2 56 (41)	
1.0	397					End of Borehole at 1.0 m Auger refusal on probable bedrock									
2.0	396														
3.0	395														
4.0	394														
5.0	393														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 31

LOG OF BOREHOLE BH32-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.39 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **2 November 2011**
 COORDINATES: **5693911 m N, 550052 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE				Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i							20	40	60	80	
			SPT (N) □ DCPT ◆									Blows/0.3m				
							SAND & GRAVEL - some silt, brown									
398									AS1							
1.0							End of Borehole at 0.75 m Auger refusal on probable bedrock									
397																
2.0																
396																
3.0																
395																
4.0																
394																
5.0																
393																

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 32

LOG OF BOREHOLE BH33-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.60 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693913 m N, 550063 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							TOPSOIL								
							SAND - some silt, trace gravel								
							SILT - some sand, trace gravel								
							SAND - some silt, trace gravel								
398							End of Borehole at 0.4 m Auger refusal on probable bedrock								
1.0															
397															
2.0															
396															
3.0															
395															
4.0															
394															
5.0															
393															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 33

LOG OF BOREHOLE BH34-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693886 m N, 550121 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								
1.0	400														
2.0	399														
3.0	398														
4.0	397														
5.0	396														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN_GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 34

LOG OF BOREHOLE BH35-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **397.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **2 November 2011**
 COORDINATES: **5693944** m N, **550111** m E

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - with sand, trace gravel and clay								
							End of Borehole at 0.5 m Auger refusal on probable bedrock								
1.0	396							AS1							
2.0	395														
3.0	394														
4.0	393														
5.0	392														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 35

LOG OF BOREHOLE BH36-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **395.85 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693996 m N, 549976 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
											SPT (N) □ DCPT ◆ <small>Blows/0.3m</small>				
							SILT - Sandy, trace clay and gravel	AS1	AS2						
1.0	395						End of Borehole at 1.2 m Auger refusal on probable bedrock								1 42 (57)
2.0	394														
3.0	393														
4.0	392														
5.0	391														
5.0	390														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 36

LOG OF BOREHOLE BH37-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694045 m N, 549951 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			SPT (N) □ DCPT ◆												
			+-----+ 20 40 60 80	●											
						SILT - some sand, trace gravel and clay	AS1								
1.0	397					SAND & SILT - trace to some gravel	AS2							6 43 (51) 14 45 (41)	
2.0	396					End of Borehole at 1.5 m Auger refusal on probable bedrock									
3.0	395														
4.0	394														
5.0	393														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN_GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 37

LOG OF BOREHOLE BH38-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **398.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694018 m N, 549896 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - with sand, trace clay and gravel								
							End of Borehole at 0.1 m								
							Auger refusal on probable bedrock								
1.0	397														
2.0	396														
3.0	395														
4.0	394														
5.0	393														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 38

LOG OF BOREHOLE BH39-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **396.64 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693958 m N, 549797 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								
396															
1.0															
395															
2.0															
394															
3.0															
393															
4.0															
392															
5.0															
391															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 THUNDER BAY, ON, P7C 5V5
 PH: 1-807-623-2929
 FX: 1-807-623-1792
 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 39

LOG OF BOREHOLE BH40-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **399.45 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694017 m N, 549767 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
399						SAND - with silt, trace gravel									
1.0						End of Borehole at 1.0 m Auger refusal on probable bedrock									
398															
2.0															
397															
3.0															
396															
4.0															
395															
5.0															
394															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 40

LOG OF BOREHOLE BH41-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **399.86 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694058 m N, 549842 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - some sand, trace clay, trace gravel								
1.0	399		40	50		SAND - trace gravel, some to with silt	AS1							8 71 (22)	
2.0	398					End of Borehole at 1.5 m Auger refusal on probable bedrock									
3.0	397														
4.0	396														
5.0	395														
	394														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 41

LOG OF BOREHOLE BH42-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **402.98 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694113 m N, 549853 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SAND - some silt, occasional cobbles and boulders								
							End of Borehole at 0.4 m Auger refusal on probable bedrock								
1.0	402														
2.0	401														
3.0	400														
4.0	399														
5.0	398														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND


- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 42

LOG OF BOREHOLE BH43-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.45 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694129 m N, 549847 m E**









DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
401						 SAND - some silt, occasional cobbles and boulders									
1.0						End of Borehole at 0.5 m Auger refusal on probable bedrock									
400															
2.0															
399															
3.0															
398															
4.0															
397															
5.0															
396															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--|--|---|
|  Auger Sample |  Rock Core |  Bentonite |
|  Split Spoon Sample |  Hiller Peat Sampler |  Sand |
|  Bulk Sample |  70mm Thin Wall Tube | |

ENCLOSURE 43

LOG OF BOREHOLE BH44-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **402.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694079 m N, 549779 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SAND - with silt and gravel								
							End of Borehole at 0.1 m								
							Auger refusal on probable bedrock								
1.0	401														
2.0	400														
3.0	399														
4.0	398														
5.0	397														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 44

LOG OF BOREHOLE BH45-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694096 m N, 549708 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								
1.0	400														
2.0	399														
3.0	398														
4.0	397														
5.0	396														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 45

LOG OF BOREHOLE BH46-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **402.33 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694098 m N, 549605 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								
402															
1.0															
401															
2.0															
400															
3.0															
399															
4.0															
398															
5.0															
397															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 46

LOG OF BOREHOLE BH47-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **404.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694088 m N, 549552 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	403					SAND - some silt, trace gravel, occasional cobbles and boulders									7 72 (21)
2.0	402					End of Borehole at 1.5 m Auger refusal on probable bedrock									
3.0	401														
4.0	400														
5.0	399														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN_GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 47

LOG OF BOREHOLE BH48-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **402.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5694021 m N, 549481 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							BEDROCK - exposed at surface								
1.0	401														
2.0	400														
3.0	399														
4.0	398														
5.0	397														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 48

LOG OF BOREHOLE BH49-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.58 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694062 m N, 549386 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - with sand and cobbles								
401							End of Borehole at 0.3 m Auger refusal on probable bedrock								
1.0															
400															
2.0															
399															
3.0															
398															
4.0															
397															
5.0															
396															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 49

LOG OF BOREHOLE BH50-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **401.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694047 m N, 549335 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	'N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			SPT (N) □		DCPT ◆										
						SAND - some silt and cobbles									
						End of Borehole at 0.4 m Auger refusal on probable bedrock									
1.0	400														
2.0	399														
3.0	398														
4.0	397														
5.0	396														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 50

LOG OF BOREHOLE BH51-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **400.28 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694017 m N, 549319 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
400						SAND & GRAVEL - some silt									
						End of Borehole at 0.4 m Auger refusal on probable bedrock									
1.0															
399															
2.0															
398															
3.0															
397															
4.0															
396															
5.0															
395															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 51

LOG OF BOREHOLE BH52-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **397.61 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **6 November 2011**
 COORDINATES: **5693985 m N, 549385 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							SILT - some sand, trace clay								
397															
1.0															
396															
2.0							End of Borehole at 1.7 m Auger refusal on probable bedrock								
395															
3.0															
394															
4.0															
393															
5.0															
392															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 52

LOG OF BOREHOLE BH53-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **411.00 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694240 m N, 549032 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
1.0	410					•	SAND - with silt, some gravel	AS1							14 65 (21)
2.0	409						End of Borehole at 1.3 m Auger refusal on probable bedrock								
3.0	408														
4.0	407														
5.0	406														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 53

LOG OF BOREHOLE BH54-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **410.12 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694281 m N, 548998 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
410						•	SAND - some gravel, trace silt								
1.0	409						End of Borehole at 0.75 m Auger refusal on probable bedrock								
2.0	408														
3.0	407														
4.0	406														
5.0	405														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 54

LOG OF BOREHOLE BH55-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **404.24 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694259 m N, 548915 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
404			20	40	60	80	SILT - some sand, trace clay and gravel								
1.0															
403							End of Borehole at 1.1 m Auger refusal on probable bedrock								
2.0															
402															
3.0															
401															
4.0															
400															
5.0															
399															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Email: thunderbay@dstgroup.com
 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 55

LOG OF BOREHOLE BH56-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **406.26 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694278 m N, 548942 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
406						SILT - some sand, trace gravel and clay	AS1								
						SAND - Silty, trace gravel	AS2								6 59 (35)
1.0						End of Borehole at 1.0 m Auger refusal on probable bedrock									
405															
404															
403															
402															
401															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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 Web: www.dstgroup.com

SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 56

LOG OF BOREHOLE BH57-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **408.05 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694326 m N, 548960 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ✕				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
			SPT (N) □		DCPT ◆										
408						SAND - some silt, trace gravel									
						End of Borehole at 0.6 m Auger refusal on probable bedrock									3 78 (19)
1.0	407														
2.0	406														
3.0	405														
4.0	404														
5.0	403														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 57

LOG OF BOREHOLE BH58-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **409.34 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694383 m N, 548972 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
							PEAT								
409															
						•••••	SAND - some gravel, trace silt								
1.0							End of Borehole at 1.0 m Auger refusal on probable bedrock								
408															
2.0															
407															
3.0															
406															
4.0															
405															
5.0															
404															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 58

LOG OF BOREHOLE BH59-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **406.27 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **7 November 2011**
 COORDINATES: **5694394 m N, 548949 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
						•	SAND - some gravel, trace silt								
406															
							End of Borehole at 0.5 m Auger refusal on probable bedrock								
1.0															
405															
2.0															
404															
3.0															
403															
4.0															
402															
5.0															
401															

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 59

LOG OF BOREHOLE BH60-GS

DST REF. No.: **GS-TB-012948**
 CLIENT: **Gold Canyon Resources Inc.**
 PROJECT: **Springpole Gold Project - Gravel Source**
 LOCATION: **Springpole Lake, Ontario**
 SURFACE ELEV.: **399.14 metres**

Drilling Data
 METHOD:
 DIAMETER:
 DATE: **1 November 2011**
 COORDINATES: **5693883 m N, 549961 m E**

DEPTH (m)	ELEV. (m)	Water Data	% MOISTURE			Symbol	MATERIAL DESCRIPTION	SAMPLE #	SAMPLE TYPE	N' VALUE	VANE (kPa) ×				REMARKS & GRAINSIZE DISTRIBUTION (%) GR SA SI CL
			W _p	W	W _i						20	40	60	80	
	399					TOPSOIL									
1.0	398					SAND - some gravel, trace silt, occasional cobbles End of Borehole at ??? m Auger refusal on probable bedrock									
2.0	397														
3.0	396														
4.0	395														
5.0	394														

BOREHOLE (STANDARD) GS-TB-012948 SPRINGPOLE GOLD PROJECT - GRAVEL SOURCE.GPJ DST_MIN.GDT 27/2/12



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SAMPLE TYPE LEGEND

- | | | |
|--------------------|---------------------|-----------|
| Auger Sample | Rock Core | Bentonite |
| Split Spoon Sample | Hiller Peat Sampler | Sand |
| Bulk Sample | 70mm Thin Wall Tube | |

ENCLOSURE 60

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	398.8								
1		SPT: 1 / 1 / 1 / 2 0.05 m Peat, with some brown sand/silt	398.2	SS	1	2	22				
3		SPT: 1 / 2 / 3 / 4 0.00 m - 0.05 m: Peat with wood 0.05 m - 0.23 m: Brown silt and fine sand 0.23 m - 0.26 m: Clay *SS2 overlapped 0.14 m with SS1	397.6	SS	2	5	55				
4		SV1: Shear vane failed, material too hard	397.5	SV	1						
5		SPT: 3 / 7 / 12 / 12 for 0.06 m (Refusal) Clay with some gravel *SS3 overlapped 0.12 m with SV1	397.1	SS	3	19	74				
6		SPT: 51 for 0.00 m (Refusal) SS4: "N" Value = 51; Recovery = 0%		RC	--		100	100			
9		Dark gray multilithic breccia. Dominant clasts, fine felsic with round quartz pheno's, 1% disseminated pyrite restricted to felsic clasts. Dark gray weakly calcareous groundmass with aligned biotite at 50 degrees to core axis. Calcite increasing with depth, veinlets and interstitial									
13			394.8					100			

0.03 m dia. PVC riser from 0.00 m to 6.75 m

2:1 ratio sand to bentonite packing from 0.00 m to 5.67 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
14											
15				RC	--		100	100			
16											
17	5										
18											
19		Dark gray multilithic breccia. Dominant clasts, fine felsic with round quartz pheno's, 1% disseminated pyrite restricted to felsic clasts. Dark gray weakly calcareous groundmass with aligned biotite at 50 degrees to core axis. Calcite increasing with depth, veinlets and interstitial									
20	6										
21											
22											
23	7							100			
24											
25											
26											

Bentonite packing from 5.67 m to 6.22

0.03 m dia. PVC screen from 6.75 m to 8.25 m

No. 2 silica sand packing from 6.22 m to 8.31



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
27			390.4	RC	--		100	98			<p>Pointed screw-on end cap at 8.31 m</p>
28		End of Borehole									
29											
30	9										
31											
32											
33	10										
34											
35											
36	11										
37											
38											
39											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	400											
1		SPT: 1 / 0 / 1 / 1 Peat		SS	1	1	25							Bentonite packing from 0.00 m to 0.18 m
2			399.3											0.03 m dia. PVC riser from 0.00 m to 0.75 m (Shallow well)
3		SPT: 1 / 2 / 3 / 2 0.00 m - 0.04 m: Peat 0.04 m to 0.22 m: Brown to grey clay/silt *SS2 overlapped 0.08 m with SS1		SS	2	5	50							No. 2 silica sand packing from 0.18 m to 2.25 m
4			398.8											
5		Shear vane test		SV	1									0.03 m dia. PVC screen from 0.75 m to 2.25 m (Shallow well)
5		Shelby tube (0.23 m) *ST1 overlapped 0.18 m with SV1		ST	1									
6			398.2	SS	3	51	71							
6		SPT: 12 / 51 for 0.10 m (Refusal) Clay and silty sand		OB	--									
7		Advancing casing												Pointed screw-on end cap at 2.25 m
7		Overburden		OB	--		100							
8			397.5											Bentonite packing from 2.25 m to 2.35 m
9														
10		Black carbonaceous shale with calcite veins, local stretched/sheared coarse grained metamorphosed interbeds/laminae under 10 cm. Weakly calcareous, calcite veinlets under 1 mm along bedding at 50 degrees to CA, and crossing		RC	--		96	16						2:1 ratio sand to bentonite packing from 2.35 m to 3.25 m
11														Bentonite packing from 3.25 m to 3.50 m
12				RC	--		88	59						2:1 ratio sand to bentonite packing from 3.50 m to 5.02 m
13			396											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Black carbonaceous shale with calcite veins, local stretched/sheared coarse grained metamorphosed interbeds/laminae under 10 cm. Weakly calcareous, calcite veinlets under 1 mm along bedding at 50 degrees to CA, and crossing		RC	--	90	90						0.03 m dia. PVC riser from 0.00 m to 6.58 m (Deep well)
15													
16					RC	--	31	31					
17	5												
18													
19				RC	--	98	78					Bentonite packing from 5.02 m to 5.86 m	
20	6												
21													
22													
23	7			RC	--	82	82					No. 2 silica sand packing from 5.86 m to 8.13 m	
24													
25													
26							86						0.03 m dia. PVC screen from 6.58 m to 8.13 m (Deep well)



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
27		End of Borehole	391.8	RC	--		86	86				Pointed screw-on end cap at 8.13 m
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	404.6										
1		SPT: 1 / 2 / 2 / 3 0.00 m - 0.08 m: Peat 0.08 m - 0.21 m: Silty clay, some coarse sand/fine gravel	404	SS	1	4	47						
2		Advancing casing	403.8	OB	--								
3		SPT: 51 for 0.01 m (Refusal) SS2: "N" Value = 51; Recovery = 100% Washed Gravel	403.4	OB	--								
4		Advancing casing		OB	--								
5		Overburden											
6				RC	--		100	85					
7													
8													
9													
10		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		97	58					
11													
12													
13			400.6										

No. 2 silica sand packing from 0.00 m to 2.58 m

0.03 m dia. PVC riser from 0.00 m to 3.43 m (Shallow well)

Bentonite packing from 2.58 m to 2.84 m

No. 2 silica sand packing from 2.84 m to 5.02 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		97	58			Well Data - Shallow	Well Data - Deep	0.03 m dia. PVC screen from 3.43 m to 4.98 m (Shallow well)	
15				RC	--		93	31						
16														Pointed screw-on end cap at 4.98 m
17	5													Bentonite packing from 5.02 m to 5.05 m
18														
19														
20	6													3:1 ratio sand to bentonite packing from 5.05 m to 7.75 m
21							95							
22														
23	7													
24														
25													0.03 m dia. PVC riser from 0.00 m to 8.80 m (Deep well)	
26			396.6											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description		
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60					
27		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		95	20						Bentonite packing from 7.75 m to 8.24 m	
28															
29															No. 2 silica sand packing from 8.24 m to 11.12 m
30	9														
31					RC	--		95	61						0.03 m dia. PVC screen from 8.80 m to 10.36 m (Deep well)
32															
33	10														
34															
35															
36	11			393.5											Pointed screw-on end cap at 10.36 m
37			End of Borehole												
38															
39															



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	412.6											
1		SPT: 3 / 4 / 4 / 9 Brown silty soil		SS	1	8	48							No. 2 silica sand packing from 0.00 m to 2.94 m
2			411.9											
3		SPT: 5 / 9 / 17 / 20 Gravelly silt trace coarse sand *SS2 overlapped 0.16 m with SS1		SS	2	26	66							0.03 m dia. PVC riser from 0.00 m to 3.38 m (Shallow Well)
4		SPT: 39 / 51 for 0.48 m (Refusal) Washed gravel	411.3	SS	3	51	13							
4		Advancing casing	411.2	OB	--									
5				RC	--		81	59						
6														
7				RC	--		97	67						0.03 m dia. PVC riser from 0.00 m to 9.30 m (Deep Well)
8														
9		Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite												
10														Bentonite packing from 2.94 m to 3.13 m
11														
12														
13			408.6					87						0.03 m dia. PVC screen from 3.38 m to 4.88 m (Shallow Well)



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14														
15				RC	--		87	66						
16														Pointed screw-on end cap at 4.94 m
17	5													Bentonite packing from 4.94 m to 5.05 m
18														3:1 ratio sand to bentonite packing from 5.05 m to 6.58 m
19		Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite												
20	6													
21				RC	--		88	84						
22														
23	7													3:1 ratio bentonite to sand packing from 6.58 m to 7.05 m
24														
25														3:1 ratio sand to bentonite packing from 7.05 m to 8.79 m
26			404.6											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
27														
28														
29														
30	9													4:1 ratio bentonite to sand packing from 8.79 m to 9.95 m
31														
32				RC	--		96	79						
33	10	Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite												No. 2 silica sand packing from 9.95 m to 14.19 m
34														
35														
36	11													0.03 m dia. PVC screen from 9.30 m to 12.30 m (Deep Well)
37														
38														
39			400.6											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
40													Pointed screw-on end cap at 12.36 m
41													
42													
43	13	Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite		RC	--	100	81						
44													
45													
46	14		398.4										
47		End of Borehole											
48													
49	15												
50													
51													
52													



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 4 of 4

Project: Geotechnical Investigation

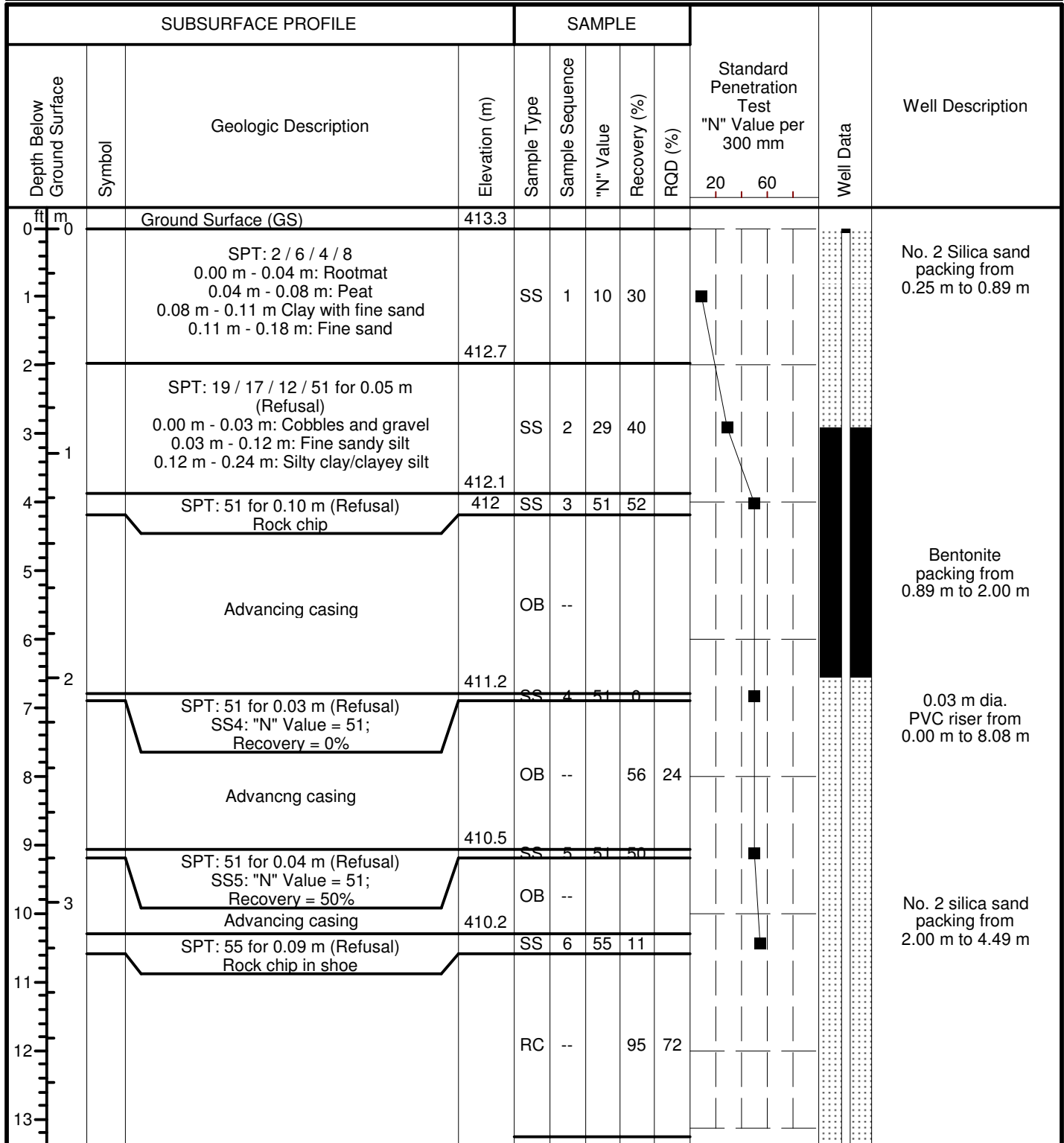
Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			60
14				RC	--		95	72				2:1 ratio bentonite to sand packing from 4.49 m to 5.54 m
15				RC	--		89	60				
16	5											Bentonite packing from 5.54 m to 6.62 m
17												
18												No. 2 silica sand packing from 6.62 m to 9.64 m
19	6	Medium green calcite/chloritize altered amygdaloidal "greenstone" andesite, metasomatic texture, irregular fine calcite veins, moderate to strong interstitial calcite, and chlorite, light green epidote with calc. veins, weakly brecciated with blebs of silvery grey sulfide and pyrite		RC	--		100	82				
20												
21												
22												
23	7											
24												
25												
26			405.3									



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
27		Medium green calcite/chloritize altered amygdaloidal "greenstone" andesite, metasomatic texture, irregular fine calcite veins, moderate to strong interstitial calcite, and chlorite, light green epidote with calc. veins, weakly brecciated with blebs of silvery grey sulfide and pyrite	403.7	RC	--	90	65				0.03 m dia. PVC screen from 8.08 m to 9.58 m
28											
29	9										Pointed screw-on end cap at 9.64 m
30		End of Borehole									
31											
32											
33	10										
34											
35											
36	11										
37											
38											
39											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	420.3								
1		No recovery		OB	--						
2											
3		Medium gray/green andesite with chlorite, biotite, trace pyrite, interstitial calcite reaction, minor quartz/calcite mixed veins, and minor epidote associated with calcite dominant veins	419.1	RC	--		95	64			
4											
5											
6											
7		2:1 ratio bentonite to sand packing from 2.38 m to 3.88 m									
8											
9											
10		Bentonite packing from 3.88 m to 4.13									
11											
12							99				
13			416.3								



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
14											
15				RC	--		99	78			
16											
17	5										
18											No. 2 silica sand packing from 4.13 m to 8.09
19											
20	6	Medium gray/green andesite with chlorite, biotite, trace pyrite, interstitial calcite reaction, minor quartz/calcite mixed veins, and minor epidote associated with calcite dominant veins									
21											
22							99				
23	7										0.03 m dia. PVC screen from 5.03 m to 8.03 m
24											
25											
26											Pointed screw-on



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
27		End of Borehole	412.3	RC	-		99	76			
28											
29											
30	9										
31											
32											
33	10										
34											
35											
36	11										
37											
38											
39											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	404.8										
0.10		SPT: 2 / 1 / 1 / 2 Top 0.10 m Grey brown silty sand		SS	1	2	50						
0.20		0.10 m Clay/silt											
0.30		0.10 m Silt or fine sand											
2.58		SPT: 51 for 0.08 m (Refusal)	404.2	SS	2	51	56						
2.68		Silty sand with some clay		OB	--								
2.78		Fine sand with some small gravel											
2.88		Advancing casing		OB	--		66						
3.68		Overburden	403.6										
5.68				RC	--		95	75					
1.58		Light to medium gray/green andesite, shearing evident, distorted calcite veins and minor calcite pheno's. Trace blebby pyrite											
10.12			401.7										
11.12								94					

No. 2 silica sand packing from 0.00 m to 1.58 m

0.03 m dia. PVC riser from 0.00 m to 5.68 m (Shallow Well)

Bentonite packing from 1.58 m to 2.23 m

2:1 ratio sand to bentonite packing from 2.23 m to 5.12 m



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Light tan tuffaceous section, moderate pink potassic alteration, quartz veins, minor brecciation		RC	--	94	65					0.03 m dia. PVC riser from 0.00 m to 9.25 m (Deep Well)	
15													
16													
17	5				RC	--	100						No.2 silica sand packing from 5.12 m to 7.30 m
18													
19													
20	6												0.03 m dia. PVC screen from 5.68 m to 7.08 m (Shallow Well)
21				RC	--	88	55						
22													
23	7										Pointed screw-on end cap at 7.12 m		
24													
25			397									Bentonite packing from 7.30 m to 7.59 m	
26												2:1 ratio sand to bentonite packing from 7.59 m to 8.19 m	



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description		
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60					
27															
28															
29															
30	9	Medium gray andesite with silicification, quartz veins and minor shearing. 1% disseminated pyrite													
31			RC	--	100	70									
32															
33	10														
34															
35			394												
36	11	End of Borehole													
37															
38															
39															



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	400.8										
1		SPT: 1 / 0 / 0 / 0 Peat		SS	1	0							
2			400.2										
		Advancing casing		OB	--								
3	1	SPT: 1 / 0 / 1 / 0 No recovery		SS	2	1	0						
4			399.5										
		Advancing casing	399.4	OB	--								
5													
6		SPT: 1 / 0 / 0 / 0 No recovery		SS	3	0	0						
7	2		398.8										
		Advancing casing	398.6	OB	--								
		Shear vane test	398.4	SV	1								
8		Shelby tube *Overlapped 0.29 m with SV1	398.2	ST	1		82						
9													
		Advancing casing		OB	--								
10	3		397.7										
11		SPT: 6 / 15 / 14 / 19 Clay and sand		SS	4	29							
12			397.1										
13		SPT: 13 / 16 / 18 / 5											

1:1 ratio bentonite to sand packing from 0.00 m to 2.72 m

0.03 m dia. PVC riser from 0.00 m to 4.31 m (Shallow well)

Bentonite packing from 2.72 m to 3.02 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14			396.5	SS	5	34								
14		SPT: 51 for 0.05 m (Refusal) SS6: "N" Value = 51; Recovery = 0%		SS	6	51	0							
15				OB	--		59							No. 2 silica sand packing from 3.02 m to 5.87 m
16														
17	5			RC	--		100							0.03 m dia. PVC screen from 4.31 m to 5.81 m (Shallow well)
18														
19														Pointed screw-on end cap at 5.87 m
20	6	Calcite/sericite/chlorite flooded/sheared schist. Shearing at 40 degrees to core axis. Chloritic shears/slickensides, disrupted calcite veins on shears. Black submetallic mineral, non magnetic, 5% coarse, disseminated, some cubes, some hexagonal												Bentonite packing from 5.87 m to 6.35 m
21														
22								90						2:1 ratio sand to bentonite packing from 6.35 m to 7.89 m
23	7													
24														0.03 m dia. PVC riser from 0.00 m to 9.53 m (Deep well)
25														
26			392.8											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
27		Calcite/sericite/chlorite flooded/sheared schist. Shearing at 40 degrees to core axis. Chloritic shears/slickensides, disrupted calcite veins on shears. Black submetallic mineral, non magnetic, 5% coarse, disseminated, some cubes, some hexagonal		RC	--	90	30						Bentonite packing from 7.89 m to 8.30 m	
28														
29														
30	9													
31														No. 2 silica sand packing from 8.30 m to 11.20 m
32					RC	--	92	27						
33	10													0.03 m dia. PVC screen from 9.53 m to 11.03 m (Deep well)
34														
35														
36	11													Pointed screw-on end cap at 11.09 m
37		End of Borehole	389.6											
38														
39														



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	400.4											
1		SPT: 1 / 1 / 0 / 1 No recovery		SS	1	1	0							1:1 ratio bentonite to sand packing from 0.00 m to 1.07 m
2		Advancing casing	399.8	OB	--									0.03 m dia. PVC riser from 0.00 m to 1.44 m (Shallow well)
3			399.4											
4		SPT: 1 / 3 / 2 / 4 0.10 m: Peat 0.28 m: Sand with some peat and small gravel		SS	2	5	46							Bentonite packing from 1.07 m to 1.42
5			398.8											No. 2 silica sand packing from 1.42 m to 2.94 m
6		SPT: 2 / 3 / 31 / 63 0.14 m: Fine sand with peat 0.28 m: Flakey bedrock *SS3 overlapped 0.24 m with SS2		SS	3	34	70							
7		SPT: 4 / 51 for 0.13 m (Refusal) 0.15 m: Washed gravel, coarse sand		SS	4	51	87							
8		0.08 m: Fractured bedrock *SS4 overlapped 0.05 m with SS3		OB	--									0.03 m dia. PVC screen from 1.44 m to 3.00 m (Shallow well)
9		Advancing casing	397.9											Pointed screw-on end cap at 3.00 m
10														
11		Chlorite/sericite/carbonate metasedimentary. fg chl altered groundmass with mg-cg sericite altered fragments stretched out parallel to foliation. Dis mag throughout		OB	--		86							Bentonite packing from 3.01 m to 3.26 m
12														
13			396.4											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 3

Project: Geotechnical Investigation

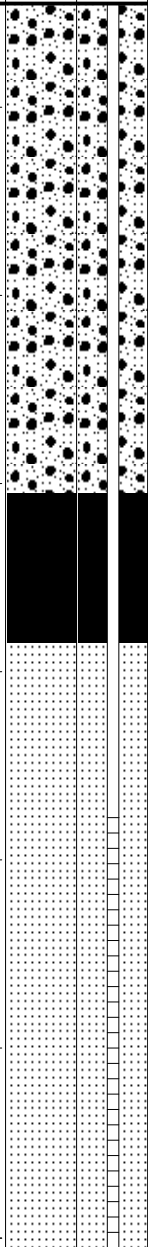
Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Chlorite/sericite/carbonate metasedimentary. fg chl altered groundmass with mg-cg sericite altered fragments stretched out parallel to foliation. Dis mag throughout										<p>2:1 ratio sand to bentonite packing from 3.26 m to 5.59 m</p> <p>0.03 m dia. PVC riser from 0.00 m to 6.64 m (Deep well)</p> <p>Bentonite packing from 5.59 m to 6.08 m</p> <p>No. 2 silica sand packing from 6.08 m to 8.20 m</p> <p>0.03 m dia. PVC screen from 6.64 m to 8.14 m (Deep well)</p>	
15				RC	--	83	20						
16	5												
17													
18													
19				RC	--	91	29						
20	6												
21													
22													
23	7												
24													
25						92							
26													



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
27		End of Borehole	392.2	RC	--		92	32						Pointed screw-on end cap at 8.20 m
28														
29														
30	9													
31														
32														
33	10													
34														
35														
36	11													
37														
38														
39														



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	399.3										
1		SPT: 1 / 0 / 0 / 0 No recovery		SS	1	0	0						Bentonite packing from 0.00 m to 1.20 m
2			398.6										
3		SPT: 1 / 1 / 2 / 1 Peat, some spruce/fir needles *SS2 overlapped 0.04 m with SS1		SS	2	3	16						0.03 m dia. PVC riser from 0.00 m to 1.44 m (Shallow well)
4			397.9										
5		SPT: 1 / 0 / 0 / 1 Peat		SS	3	0	7						
6			397.2										No. 2 silica sand packing from 1.20 m to 3.01 m
7													
8		SPT: 1 / 0 / 0 / 0 No recovery *SS4 overlapped 0.08 m with SS3		SS	4	0	0						0.03 m dia. PVC screen from 1.44 m to 2.94 m (Shallow well)
9			396.5										
10		Advancing casing	396.4	OB	--								Pointed screw-on end cap at 3.00 m
11		SPT: 1 / 4 / 6 / 16 0.00 m to 0.08 m: Peat 0.08 to 0.36 m Grey sticky clay		SS	5	10	60						Bentonite packing from 3.01 m to 3.26 m
12			395.8										
13		SPT: 8 / 4 / 2 / 2 Soft sticky clay					74						



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
14			395.1	SS	6	6	74					3:1 ratio sand to bentonite packing from 3.26 m to 5.59 m
		Shelby tube overlapped 0.16 m with SS6	394.9	ST	1							
15		Shear vane test overlapped 0.25 m with ST1	394.7	SV	1							
16		Advancing casing	394.4	OB	--							0.03 m dia. PVC riser from 0.00 m to 6.64 (Deep well)
17		SPT: 6 / 4 / 13 / 7 Grey sand with gravel and silt		SS	7	17						
18			393.8									
19		SPT: 51 for 0.08 m (Refusal) SS8: "N" Value = 51; Recovery = 100% Washed gravel *SS8 overlapped 0.07 m with SS7		RC	--		66	30				Bentonite packing from 5.59 m to 6.08 m
20												
21												
22												
23								98				No. 2 silica sand packing from 6.08 m to 11.25 m
24		fg-cg conglomerate with stretched, ellipsoidal fragments parallel to foliation										
25												0.03 m dia. PVC screen from 6.64 m to 8.14 m (Deep well)
26												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27				RC	--		98	71				Pointed screw-on end cap at 8.20 m	
28			390.6										
29	9	fg chlorite altered mafic volcanics. Fault gouge from 8.70 m to 9.20 m		RC	--		90	48					
30													
31													
32													
33	10												
34				RC	--		98	76					
35													
36	11												
37			388										
38		End of Borehole											
39													



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
0		Ground Surface (GS)	395.2									
1		SPT: 0 / 0 / 0 / 1 Peat *Split-spoon sank 0.26 m into soft sediments prior to start	394.4	SS	1	0	6					2:1 ratio sand to bentonite packing from 0.00 m to 1.51 m
3	1	SPT: 1 / 0 / 1 / 1 Peat with some woodchips *SS2 overlapped 0.16 m with SS1	393.9	SS	2	1	16					0.03 m dia. PVC riser from 0.00 m to 1.82 m (Shallow well)
5		SPT: 1 / 0 / 0 / 3 0.08 m: peat 0.23 m: coarse to silty sand *SS3 overlapped 0.05 m with SS2	393.3	SS	3	0	51					Bentonite packing from 1.51 m to 1.71 m
6		SPT: 51 for 0.14 m (Refusal) Grey silt/clay and sand	393.2	SS	4	51	71					
7	2	Advancing casing	392.9	OB	--							0.03 m dia. PVC screen from 1.82 m to 3.32 m (Shallow well)
10	3	Medium gray, heavily sheared conglomerate. Shearing at 40-50 degrees to core axis. Moderately calcareous groundmass. Clasts of aphanitic felsic volcanic and porphyry. Trace disseminated pyrite	391.2					100				No. 2 silica sand packing from 1.71 m to 3.37 m Pointed screw-on end cap at 3.37 m Bentonite packing from 3.37 m to 3.71 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14												2:1 ratio sand to bentonite packing from 3.71 m to 5.53 m	
15				RC	--		100	96					
16												0.03 m dia. PVC riser from 0.00 m to 6.58 m (Deep well)	
17	5												
18												Bentonite packing from 5.53 m to 6.06 m	
19		Medium gray, heavily sheared conglomerate. Shearing at 40-50 degrees to core axis. Moderately calcareous groundmass. Clasts of aphanitic felsic volcanic and porphyry. Trace disseminated pyrite											
20	6											No. 2 silica sand packing from 6.06 m to 8.21 m	
21													
22								100				0.03 m dia. PVC screen from 6.66 m to 8.16 m (Deep well)	
23	7												
24													
25													
26													



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
27		End of Borehole	387	RC	--	100	93					Pointed screw-on end cap at 8.21 m
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	401.5										
1		SPT: 1 for 0.33 m / 3 / 11 Top 0.18 m: Clay Bottom 0.05 m: Silty clay with fine sand	400.9	SS	1	3	38						No. 2 silica sand packing from 0.00 m to 0.15 m Bentonite packing from 0.15 m to 0.65 m
2		Advancing casing		OB	--								0.03 m dia. PVC riser from 0.00 m to 0.74 m (Shallow well)
3	1		400.4										
4		SPT: 44 / 51 for 0.03 m (Refusal) Coarse sand, rock chip in shoe	400.2	SS	2	51	29						No. 2 silica sand packing from 0.65 m to 2.43 m
5		Advancing casing	400.1	OB	--								
6				RC	--		72	20					0.03 m dia. PVC screen from 0.74 m to 2.30 m (Shallow well)
7	2			RC	--		29						Pointed screw-on end cap at 2.30 m
8		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm											Bentonite packing from 2.43 m to 3.50 m
9													
10	3												
11								98					
12													2:1 ratio bentonite to sand packing from 3.50 m to 4.03 m
13			397.5										



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm		RC	--	98	39					5:0.5 ratio sand to bentonite packing from 4.03 m to 5.01 m 2:1 ratio bentonite to sand packing from 5.01 m to 5.55 m Bentonite packing from 5.55 m to 6.58 m No. 2 silica sand packing from 6.58 m to 9.57 m 0.03 m dia. PVC riser from 0.00 m to 8.07 m (Deep well)	
15													
16	5												
17													
18													
19	6												
20													
21				RC	--	98	42						
22													
23	7												
24													
25													
26			393.5										



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
27		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm		RC	--	96	85					0.03 m dia. PVC screen from 8.07 m to 9.65 m (Deep well)
28												
29												
30	9											
31												
32			391.9									
33			End of Borehole									
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-14

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 05-06, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	404.2											
1		SPT: 4 / 3 / 3 / 10 0.00 m - 0.08 m: Woodchip 0.08 m - 0.11 m: Fines and sand 0.11 m - 0.16 m Sand with fines	403.6	SS	1	6	27							No. 2 silica sand packing from 0.00 m to 0.15 m Bentonite packing from 0.15 m to 0.35 m
2		Advancing casing	403.5	OB	--									0.03 m dia. PVC riser from 0.00 m to 2.04 m (Shallow well)
3		SPT: 56 for 0.13 m (Refusal) Gravel with sand and fines	403.3	SS	2	56	100							
4		Advancing casing	402.8	OB	--		23							No. 2 silica sand packing from 0.35 m to 3.60 m
5		SPT: 51 for 0.02 m (Refusal) SS3: "N" Value = 51; Recovery = 50% Rock chip		RC	--	51	90	44						
6		Light green calcite/chlorite flooded/altered andesite	401.8											
7														
8														
9														
10		Weakly silicified sericite healed breccia, chlorite flooded minor calcite on microfractures, sporadic trace coarse pyrite up to 2 cm												0.03 m dia. PVC screen from 2.04 m to 3.54 m (Shallow well)
11														
12								100						Pointed screw-on end cap at 3.54 m
13			400.2											Bentonite packing from 3.60 m to 4.11 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-14

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 05-06, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14														
15				RC	--		100	68						2:1 ratio bentonite to sand packing from 4.11 m to 4.87 m
16														
17														
18		Weakly silicified sericite healed breccia, chlorite flooded minor calcite on microfractures, sporadic trace coarse pyrite up to 2 cm												5:0.5 ratio sand to bentonite packing from 4.87 m to 5.91 m
19														
20														
21														2:1 ratio bentonite to sand packing from 5.91 m to 7.19 m
22								99						
23			397											0.03 m dia. PVC riser from 0.00 m to 7.88 m (Deep well)
24														Bentonite packing from 7.19 m to 7.66 m
25														
26														



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-14

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 05-06, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27		Light green chlorite/calcite flooded sheared andesite, shears 70 degrees dominant, calcite veins and mixed calcite/quartz veins at low angle		RC	--		99	44				No. 2 silica sand packing from 7.66 m to 9.44 m	
28													
29			395.3	RC	--		96	60				0.03 m dia. PVC screen from 7.88 m to 9.38 m (Deep well)	
30	9	Weakly silicified sericite healed breccia, chlorite flooded, minor calcite on microfractures											
31			394.8									Pointed screw-on end cap at 9.44 m	
32		End of Borehole											
33	10												
34													
35													
36	11												
37													
38													
39													



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	395.8										
1		SPT: 1 for 0.30 m / 1 for 0.25 m / 1 / 0 / 1 / 1 Peat, some wood		SS	1	1	14						
2			394.9										
3		SPT: 1 / 1 / 2 / 2 No recovery *SS2 overlapped 0.12 m with SS1		SS	2	3	0						
4			394.3										
5		SPT: 1 / 0 / 0 / 0 Peat, some wood *SS3 overlapped 0.42 m with SS2		SS	3	0	10						
6			394										
7		SPT: 1 / 0 / 0 / 0 No recovery *SS4 overlapped 0.07 m with SS3		SS	4	0	0						
8			393.5										
		Advancing casing	393.3	OB	--								
9													
10		Shelby tube		ST	1		60						
			392.6										
11		Shear vane test *Overlapped 0.12 m with ST1		SV	1								
			392.4										
12		Shear vane test		SV	2								
			392.1										
13		Shelby tube *Overlapped 0.37 m with SV2		ST	2		79						
			391.9										

1:1 ratio bentonite to sand packing from 0.00 m to 3.40 m

0.03 m dia. PVC riser from 0.00 m to 3.71 m (Shallow well)

Bentonite packing from 3.40 m to 3.60 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		SPT: 1 / 1 / 1 / 1 / 2 Light grey silt/clay, some gravel *SS5 overlapped 0.12 m with ST2	391.2	SS	5	2	85					0.03 m dia. PVC screen from 3.71 m to 5.21 m (Shallow well)	
15		SPT: 2 / 3 / 3 / 4 0.09 m sticky grey clay/silt 0.25 m silt and sand *SS6 overlapped 0.10 m with SS5	390.7	SS	6	6	57					No. 2 silica sand packing from 3.60 m to 5.27 m	
16	5												
17		SPT: 6 / 51 for 0.10 m (Refusal) Top: washed gravel, sand and some silt Bottom: green silt with some sand SS7 overlapped 0.08 m with SS6	390.4	SS	7	51	75					Pointed screw-on end cap at 5.27 m	
18		Advancing casing	390.1	OB	--								
19		SPT: 46 / 51 for 0.00 m (Refusal) Green silt and gravel	390	SS	8	51	67					2:1 ratio sand to bentonite packing from 5.27 m to 6.26 m	
20	6			RC	--		63	27					
21				RC	--		91					1:1 ratio bentonite to sand packing from 6.26 m to 7.96 m	
22													
23	7											0.03 m dia. PVC riser from 0.00 m to 9.64 m (Deep well)	
24													
25								96					
26			387.8										



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27				RC	--		96	55					Bentonite packing from 7.96 m to 9.21 m
28													
29													
30	9												
31		Light green calc/chlorite altered/flooded andesite. Strong chloritic shears, local epidote alteration with calcite veins, gray metallic mineral, cubic, non metallic		RC	--		100	71					No. 2 silica sand packing from 9.21 m to 11.20 m
32													
33	10												
34													0.03 m dia. PVC screen from 9.64 m to 11.14 m (Deep well)
35													
36	11		384.6										Pointed screw-on end cap at 11.20 m
37		End of Borehole											
38													
39													



Fracflow Consultants Inc.
 154 Major's Path
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 Phone: (709) 739-7270
 Fax: (709) 753-5101

Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

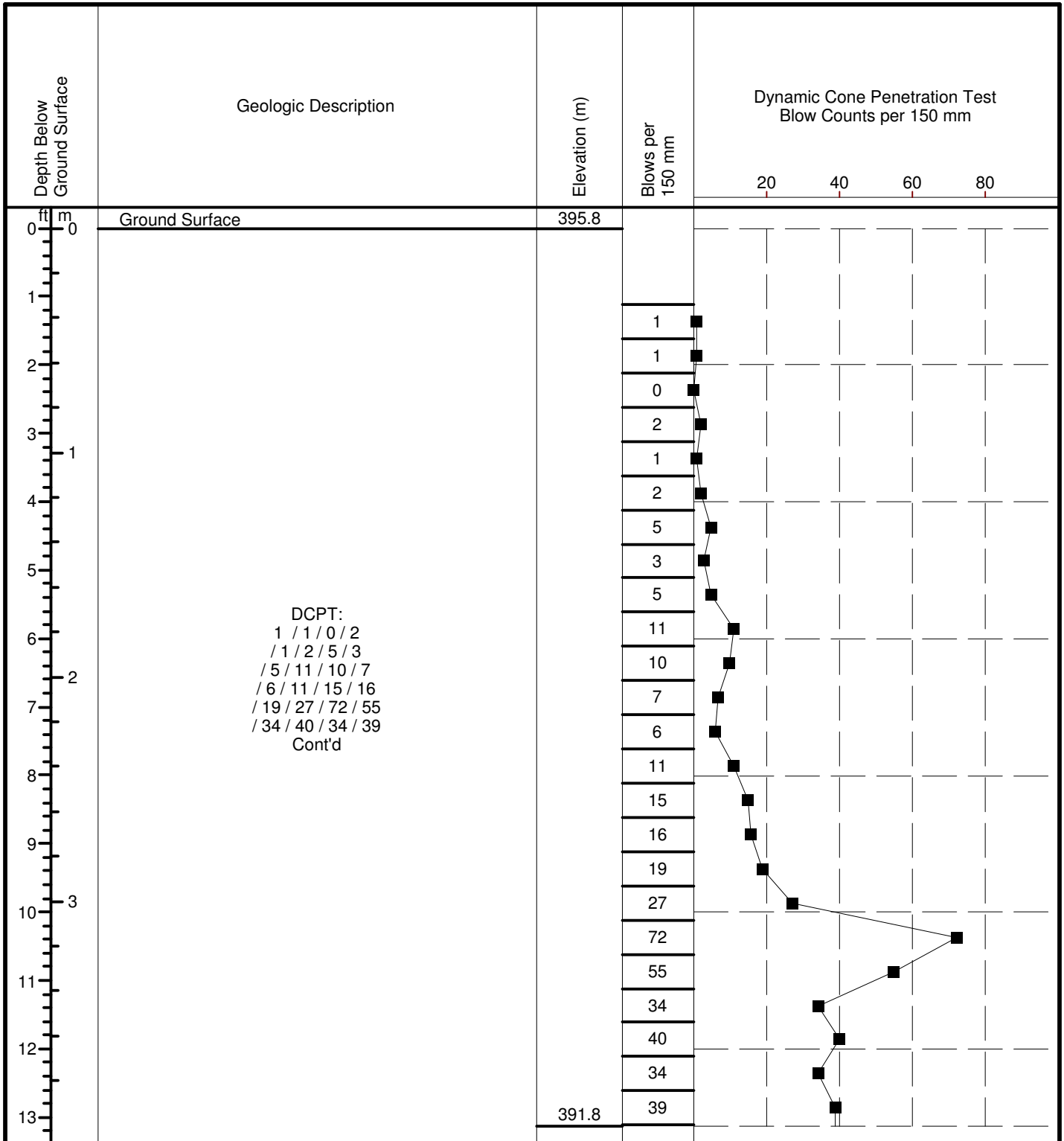
Log of DCPT: BH-TMF-15-1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 2

Project: Geotechnical Investigation

Log of DCPT: BH-TMF-15-1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020

Depth Below Ground Surface	Geologic Description	Elevation (m)	Blows per 150 mm	Dynamic Cone Penetration Test Blow Counts per 150 mm			
				20	40	60	80
14 15	Cont'd DCPT: 39 / 60 / 65 / 50 / 53 for 0.13 m (Refusal)	391	39				
			60				
			65				
			50				
			53				
16	End of Borehole						
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

Project: Geotechnical Investigation

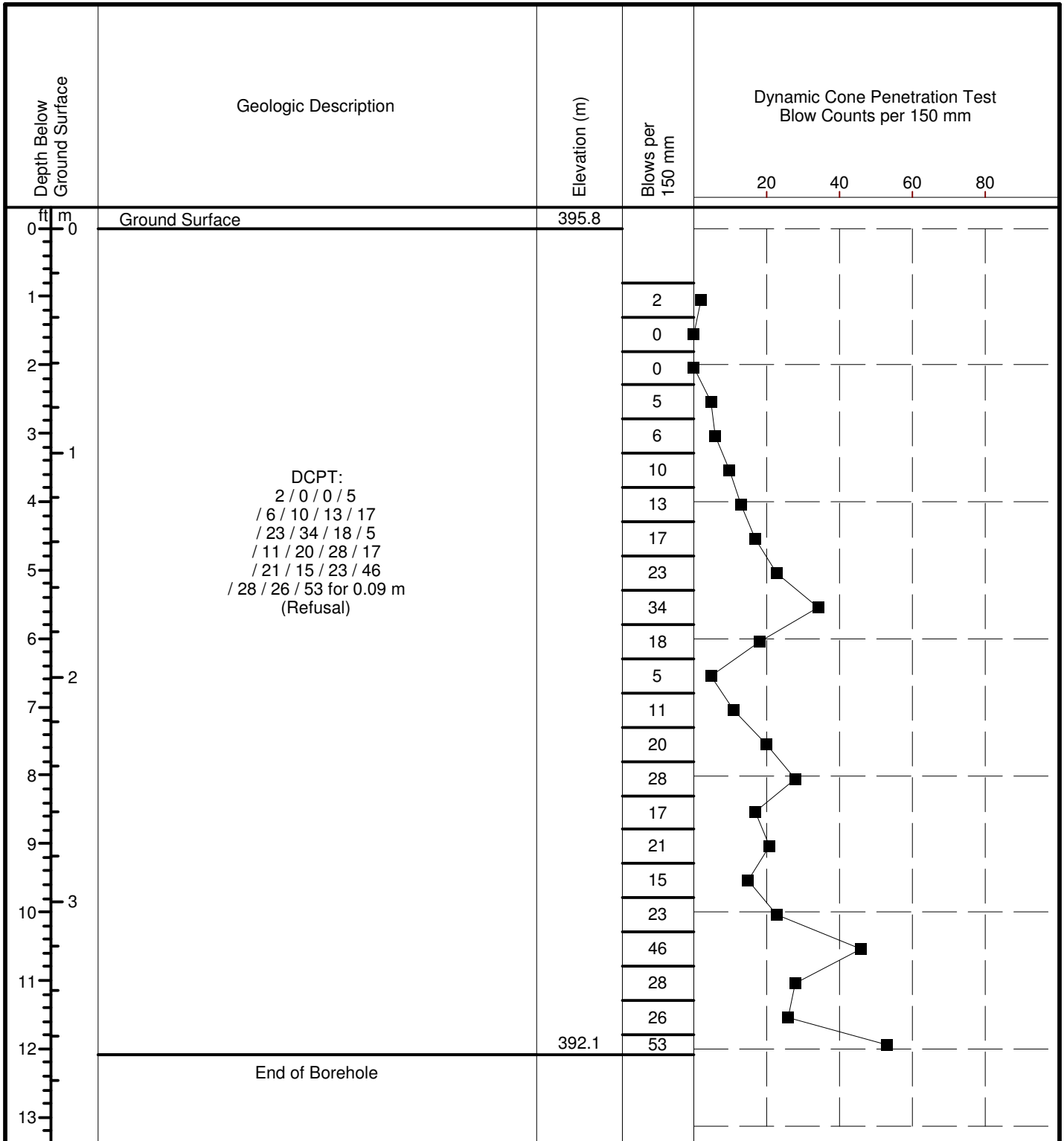
Log of DCPT: BH-TMF-15-2

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 1

Project: Geotechnical Investigation

Log of DCPT: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10, 2020

Depth Below Ground Surface	Geologic Description	Elevation (m)	Blows per 150 mm	Dynamic Cone Penetration Test Blow Counts per 150 mm			
				20	40	60	80
0	Ground Surface	395.8					
1			1				
2			0				
3			1				
4			3				
5			3				
6			2				
7			2				
8			2				
9			3				
10			3				
11			3				
12			2				
13			3				
14			3				
15			4				
16			4				
17			7				
18			6				
19			6				
20		391.8	4				

DCPT:
 1 / 0 / 1 / 3
 / 3 / 2 / 2 / 2
 / 2 / 3 / 3 / 2
 / 3 / 3 / 2 / 3
 / 3 / 3 / 4 / 4
 / 7 / 6 / 6 / 4
 Cont'd



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 2

Project: Geotechnical Investigation

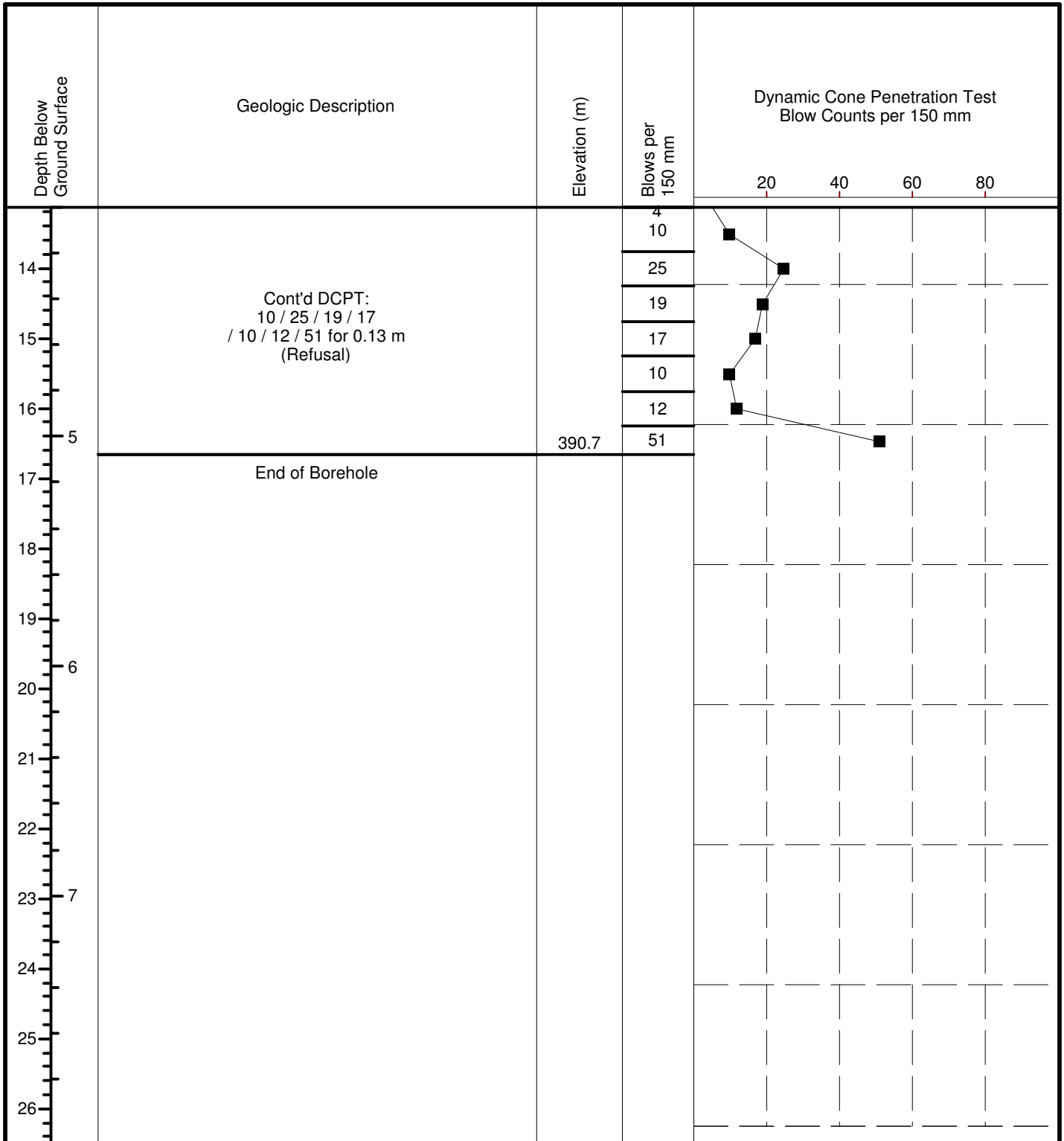
Log of DCPT: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10, 2020



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

Project: Geotechnical Investigation

Log of Monitoring Well: TP-TMF-10

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 08, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	414.7								
0		SPT: 1 / 51 for 0.10 (Refusal) Sphagnum moss	414.4	SS	1	51	65				
1		Advancing casing	414	OB	--						
2		SPT: 6 / 17 / 51 for 0.07 m (Refusal) Top: well graded sand and silt Bottom: gravelly silt	413.6	SS	2	68					
3		Advancing casing	413.3	OB	--						
4		Bedrock		RC	--						
5				RC	--						
6		End of Borehole	412.2								
7											
8											
9											
10											
11											
12											
13											



Fracflow Consultants Inc.
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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 1

Project: Geotechnical Investigation

Log of Monitoring Well: TP-TMF-27

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 07, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	404.3								
1		SPT: 1 / 1 / 1 / 2 for 0.18 m 0.10 m Peat 0.09 m Brown grey silt	403.6	SS	1 2	28					
3		SPT: 2 / 3 / 4 / 7 0.28 m Clay/silt with sand 0.05 m Silt/sand	403	SS	2 7	71					
5		SPT: 4 / 2 / 4 / 9 Light brown fine sand and silt/clay	402.3	SS	3 6	30					
7		SPT: 19 / 20 / 51 for 0.03 (Refusal) 0.12 m Silt/sand 0.08 m Gravel and coarse sand *SS4 overlapped 0.03 m with SS3	402	SS	4 71	61					
8				RC	--						
9				RC	--						
10		Bedrock									

Original material packing from 0.00 m to 4.18 m

0.03 m dia. PVC riser from 0.00 m to 2.62 m

0.03 m dia. PVC screen from 2.62 m to 4.12 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 2

Project: Geotechnical Investigation


Log of Monitoring Well: TP-TMF-27

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 07, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			60
14		End of Borehole	400.1	RC	--							Pointed screw-on end cap at 4.18 m
15												
16												
17	5											
18												
19												
20	6											
21												
22												
23	7											
24												
25												
26												



Fracflow Consultants Inc.
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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

Project: Springpole Lake Geotech

Log of Monitoring Well: B000

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 29, 2019

SUBSURFACE PROFILE				SAMPLE						Monitoring Well (MW)	Drive-point (DP)	Well Description									
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm 20 60												
0		Ground Surface (GS)	0																		
1		Peat/bog																			
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9		Peat/bog interface with granular bottom	-2.64																		
10		Silt/clay with small snail shells	-3.04																		
11		Grey highly consolidated sand and silt/clay																			
12																					
13		Assumed grey highly consolidated sand and silt/clay	-3.88																		
14																					
15																					
16		End of Borehole	-4.4																		



Fracflow Consultants Inc.
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Drilling Method: Hand Augering and
 Drive-point Piezometer
 Driller: Fracflow Consultants Inc.

Datum: Geodetic

Sheet: 1 of 1

Project: Springpole Lake Geotech

Log of Monitoring Well: G002

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 28-29, 2019

SUBSURFACE PROFILE				SAMPLE					Monitoring Well (MW)	Drive-point (DP)	Well Description									
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines				Standard Penetration Test "N" Value per 300 mm 20 60								
0		Ground Surface (GS)	0																	
1																				
2																				
3																				
4																				
5																				
6																				
7																				
8		Peat/bog No Recovery																		
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				



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Drilling Method: Hand Augering and
 Drive-point Piezometer
 Driller: Fracflow Consultants Inc.

Datum: Geodetic

Sheet: 1 of 2

Project: Springpole Lake Geotech


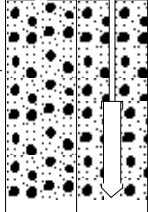
Log of Monitoring Well: G002

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 28-29, 2019

SUBSURFACE PROFILE				SAMPLE						Monitoring Well (MW)	Drive-point (DP)	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm 20 60			
17		Assumed penetrable peat/bog										MW: 0.03 m dia. Screen from 6.96 m to 8.48 m  WL 7.28 m BGS in MW (Newly installed)
18												
19												
20	6											
21												
22												
23	7											
24		Assumed slightly consolidated peat/bog									Native peat/bog packing from 8.07 m to 8.50 m Screw-on pointed end cap	
25												
26	8		-8.07								Native sand packing from 8.50 m to 9.30 m Drive-point from 8.77 m to 9.30 m	
27												
28			-8.5									
29		Assumed consolidated sand and/or silt/clay										
30	9											
31			-9.3									
32		End of Borehole										



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Drilling Method: Hand Augering and
 Drive-point Piezometer
 Driller: Fracflow Consultants Inc.

Datum: Geodetic

Sheet: 2 of 2

Project: Springpole Lake Geotech

Log of Monitoring Well: G106

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 28, 2019

SUBSURFACE PROFILE				SAMPLE						Monitoring Well (MW)	Drive-point (DP)	Well Description									
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm 20 60												
0		Ground Surface (GS)	0																		
1		Peat/bog with some roots																			
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11			-3.29																		
		Grey fine grained sand																			
12			-3.64																		
		End of Borehole																			
13																					
14																					
15																					
16																					



Fracflow Consultants Inc.
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Drilling Method: Hand Augering and
 Drive-point Piezometer
 Driller: Fracflow Consultants Inc.

Datum: Geodetic
 Sheet: 1 of 1

Project: Springpole Lake Geotech

Log of Monitoring Well: K034

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 28, 2019

SUBSURFACE PROFILE				SAMPLE						Monitoring Well (MW)	Drive-point (DP)	Well Description										
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm 20 60													
0		Ground Surface (GS)	0																			
1		Peat/bog with some roots																				
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9		Soil and peat/bog interface	-2.64																			
		Brown silt/clay	-2.9																			
		Grey fine grained sand																				
10		Grey sand																				
			-3.3																			
11		Grey coarse sand, some fines																				
			-3.66																			
12		Grey fine sand																				
13																						
14																						
15			-4.57																			
		End of Borehole																				
16																						



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Drilling Method: Hand Augering and
 Drive-point Piezometer
 Driller: Fracflow Consultants

Datum: Geodetic
 Sheet: 1 of 1

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0143

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 60	Well Data - Shallow	Well Data - Deep	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines				
0		Ground Surface (GS)	0									
1												
2												
3	1											
4												
5												
6	2											
7												
8												
9												
10	3											
11												
12												
13	4											
14												
15												
16	5											
17												
18												
19												
20	6											
21												
22												
23	7											
24												
25												
26	8											
27												
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39	12											
40												
41												
42	13											
43												



Fracflow Consultants Inc.
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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 1 of 2

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0143

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE						Well Data - Shallow	Well Data - Deep	Well Description		
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm					
									20	60				
43														
44														
45														
46	14													
47														
48														
49														
50														
51														
52														
53	16													
54														
55														
56														
57														
58														
59														
60														
61														
62														
63	19													
64														
65														
66	20													
67														
68														
69	21													
70														
71														
72	22													
73														
74														
75														
76	23													
77			-23.5											
78		End of Borehole												
79	24													
80														
81														
82	25													
83														
84														
85														



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 2 of 2

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0321

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Well Data - Shallow	Well Data - Deep	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines			
									20	60	
0		Ground Surface (GS)	0								
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
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20											
21											
22											
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26											
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28											
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32											
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34											
35											
36											
37											
38											
39											
40											
41											
42											
43											



Shallow: WL 0.673 m below top of casing (Oct 8, 2019)

Deep: WL 0.962 m below top of casing (Oct 8, 2019)

Concrete packing from 0.00 m to 0.30 m

Shallow: 0.03 m dia. riser from 1.380 m AGS to 9.120 m

Deep: 0.04 m dia. riser from 0.224 m AGS to 28.276 m

No. 2 silica sand packing from 0.30 m to 4.80 m

Bentonite packing from 4.80 m to 8.20 m

No. 2 silica sand packing from 8.20 m to 14.50 m

Shallow: 0.03 m dia. screen from 9.120 m to 10.620 m

Shallow: screw-on pointed end cap



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 1 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0321

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE						Well Data - Shallow	Well Data - Deep	Well Description	
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm				
									20	60			
43													
44													
45													
46	14												
47													
48													
49	15												
50													
51													
52	16												
53													
54													
55													
56	17												
57													
58													
59	18												
60													
61													
62	19												
63													
64													
65	20												
66													
67													
68													
69	21												
70													
71													
72	22												
73													
74													
75	23												
76													
77													
78													
79	24												
80													
81													
82	25												
83													
84													
85													



Fracflow Consultants Inc.
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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 2 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0321

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake, ON

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Well Data - Shallow	Well Data - Deep	Well Description	
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines				Standard Penetration Test "N" Value per 300 mm
									20	60		
86												Bentonite packing from 26.15 m to 27.45 m
87												No. 2 silica sand from 27.45 m to 31.80 m
88	27											Deep: 0.04 m dia. screen from 28.276 to 31.276 m
89												
90												
91												
92	28											
93												
94												
95	29											
96												
97												
98	30											
99												
00												
01	31											
02												
03												
04	32											
05												
06			-32.8									
07												
08	33	End of Borehole										
09												
10												
11	34											
12												
13												
14	35											
15												
16												
17	36											
18												
19												
20	37											
21												
22												
23	38											
24												
25												
26												
27												
28												



Fracflow Consultants Inc.
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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 3 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0334

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Well Data - Shallow	Well Data - Deep	Well Description										
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines				Standard Penetration Test "N" Value per 300 mm 20 60									
0		Ground Surface (GS)	0																		
1																					Concrete packing from 0.00 m to 0.50 m
2																					No. 2 silica sand packing from 0.50 m to 8.35 m
3																					▼
4																					Shallow: WL 2.679 m below top of casing (Oct 7, 2019)
5																					▼
6																					Deep: WL 4.644 m below top of casing (Oct 7, 2019)
7																					Deep: 0.04 m dia. riser from 0.939 m AGS to 30.561 m
8																					Shallow: 0.03 m dia. riser from 0.456 m AGS to 11.544 m
9																					Bentonite packing from 8.35 m to 10.85 m
10																					
11																					
12																					Shallow: 0.03 m dia. screen from 11.544 m to 13.044 m
13																					Shallow: screw-on pointed end cap



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 1 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0334

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE						Well Data - Shallow	Well Data - Deep	Well Description		
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm					
									20	60				
43														No. 2 silica sand packing from 10.85 m to 16.00 m
44														
45														
46	14													
47														
48														Bentonite and sand (4:1 ratio) packing from 16.00 m to 17.55 m
49	15													
50														
51														
52	16													
53														Bentonite and sand (1:10 ratio) packing from 17.55 m to 19.50 m
54	17													
55														
56														
57														
58	18													Bentonite and sand (8:3 ratio) packing from 19.50 m to 21.00 m
59	19													
60														
61														
62	19													
63														No. 2 silica sand packing from 21.00 m to 32.00 m
64														
65	20													
66														
67														
68														
69	21													
70														
71														
72	22													
73														
74	23													
75														
76														
77														
78	24													
79														
80														
81														
82	25													
83														
84														
85														



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 2 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0334

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE						Well Data - Shallow	Well Data - Deep	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm			
									20	60		
86												
87												
88	27											
89												
90												
91												
92	28											
93												
94												
95	29											
96												
97												
98	30											
99												
00												
01	31											
02												
03												
04												
05	32											
06												
07												
08	33											
09			-33.6									
10		End of Borehole										
11	34											
12												
13												
14												
15	35											
16												
17												
18	36											
19												
20												
21	37											
22												
23												
24												
25	38											
26												
27												
28												



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 3 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0357

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm 20 60	Well Data - Shallow	Well Data - Deep	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines				
0		Ground Surface (GS)	0									
1												Concrete packing from 0.00 m to 0.50 m
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
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26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
41												
42												
43												



Concrete packing from 0.00 m to 0.50 m

Deep: WL 1.423 m below top of casing (Oct 8, 2019)

Deep: 0.04 m dia. Riser from 0.288 m AGS to 23.712 m

No. 2 silica sand packing from 0.50 m to 6.70 m

Bentonite and sand (1:1 ratio) packing from 6.70 m to 9.78 m

No. 2 silica sand packing from 9.78 m to 11.55 m

Bentonite and sand (2:1 ratio) packing from 11.55 m to 12.07 m



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 1 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0357

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE							Well Description		
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines	Standard Penetration Test "N" Value per 300 mm			Well Data - Shallow	Well Data - Deep
									20	60			
43													Bentonite and sand (1:20 ratio) packing from 12.07 m to 17.80 m
44													
45													
46	14												
47													
48													
49	15												
50													
51													
52	16												
53													
54													
55	17												
56													
57													
58	18												
59													
60	19												
61													
62													
63	20												
64													
65													
66	21												
67													
68													
69	22												
70													
71													
72	23												
73													
74													
75	24												
76													
77													
78	25												
79													
80													
81													
82													
83													
84													
85													



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 2 of 3

Project: Hydrogeological Assessment

Log of Monitoring Well: BL-0357

Client: First Mining Gold

Project No: 3134

Location: Springpole Lake

Date: September 30 - October 8, 2019

SUBSURFACE PROFILE				SAMPLE					Well Data - Shallow	Well Data - Deep	Well Description
Depth	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	% Fines			
									20 60		
86											
87			-26.7								
88	27	End of Borehole									Deep: 0.04 m dia. riser from 25.212 m to 26.712 m
89											
90											
91											Bentonite seal in place from 25.65 m to 26.712 m
92	28										
93											
94											
95	29										Deep: screw-on pointed end cap
96											
97											
98	30										
99											
00											
01	31										
02											
03											
04	32										
05											
06											
07											
08	33										
09											
10											
11	34										
12											
13											
14	35										
15											
16											
17	36										
18											
19											
20	37										
21											
22											
23	38										
24											
25											
26											
27											
28											



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Drilling Method:

Driller:

Datum: Geodetic

Sheet: 3 of 3

APPENDIX D

***Detailed Borehole and DCPT Logs
Summer 2020 Program***

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	398.8								
1		SPT: 1 / 1 / 1 / 2 0.05 m Peat, with some brown sand/silt	398.2	SS	1	2	22				
3		SPT: 1 / 2 / 3 / 4 0.00 m - 0.05 m: Peat with wood 0.05 m - 0.23 m: Brown silt and fine sand 0.23 m - 0.26 m: Clay *SS2 overlapped 0.14 m with SS1	397.6	SS	2	5	55				
4		SV1: Shear vane failed, material too hard	397.5	SV	1						
5		SPT: 3 / 7 / 12 / 12 for 0.06 m (Refusal) Clay with some gravel *SS3 overlapped 0.12 m with SV1	397.1	SS	3	19	74				
6		SPT: 51 for 0.00 m (Refusal) SS4: "N" Value = 51; Recovery = 0%		RC	--			100	100		
9		Dark gray multilithic breccia. Dominant clasts, fine felsic with round quartz pheno's, 1% disseminated pyrite restricted to felsic clasts. Dark gray weakly calcareous groundmass with aligned biotite at 50 degrees to core axis. Calcite increasing with depth, veinlets and interstitial									
13			394.8								

0.03 m dia.
PVC riser from
0.00 m to 6.75 m

2:1 ratio
sand to bentonite
packing from
0.00 m to 5.67 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
14											
15				RC	--		100	100			
16											
17	5										
18											
19		Dark gray multilithic breccia. Dominant clasts, fine felsic with round quartz pheno's, 1% disseminated pyrite restricted to felsic clasts. Dark gray weakly calcareous groundmass with aligned biotite at 50 degrees to core axis. Calcite increasing with depth, veinlets and interstitial									
20	6										
21											
22											
23	7							100			
24											
25											
26											

Bentonite packing from 5.67 m to 6.22

0.03 m dia. PVC screen from 6.75 m to 8.25 m

No. 2 silica sand packing from 6.22 m to 8.31



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-01

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 29, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
27			390.4	RC	--		100	98			<p>Pointed screw-on end cap at 8.31 m</p>
28		End of Borehole									
29											
30	9										
31											
32											
33	10										
34											
35											
36	11										
37											
38											
39											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	400											
1		SPT: 1 / 0 / 1 / 1 Peat		SS	1	1	25							Bentonite packing from 0.00 m to 0.18 m
2			399.3											0.03 m dia. PVC riser from 0.00 m to 0.75 m (Shallow well)
3		SPT: 1 / 2 / 3 / 2 0.00 m - 0.04 m: Peat 0.04 m to 0.22 m: Brown to grey clay/silt *SS2 overlapped 0.08 m with SS1		SS	2	5	50							No. 2 silica sand packing from 0.18 m to 2.25 m
4			398.8											
5		Shear vane test		SV	1									0.03 m dia. PVC screen from 0.75 m to 2.25 m (Shallow well)
5		Shelby tube (0.23 m) *ST1 overlapped 0.18 m with SV1		ST	1									
6			398.2	SS	3	51	71							
6		SPT: 12 / 51 for 0.10 m (Refusal) Clay and silty sand		OB	--									
7		Advancing casing												Pointed screw-on end cap at 2.25 m
7		Overburden		OB	--		100							
8			397.5											Bentonite packing from 2.25 m to 2.35 m
9														
10		Black carbonaceous shale with calcite veins, local stretched/sheared coarse grained metamorphosed interbeds/laminae under 10 cm. Weakly calcareous, calcite veinlets under 1 mm along bedding at 50 degrees to CA, and crossing		RC	--		96	16						2:1 ratio sand to bentonite packing from 2.35 m to 3.25 m
11														Bentonite packing from 3.25 m to 3.50 m
12				RC	--		88	59						2:1 ratio sand to bentonite packing from 3.50 m to 5.02 m
13			396											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Black carbonaceous shale with calcite veins, local stretched/sheared coarse grained metamorphosed interbeds/laminae under 10 cm. Weakly calcareous, calcite veinlets under 1 mm along bedding at 50 degrees to CA, and crossing		RC	--	90	90						0.03 m dia. PVC riser from 0.00 m to 6.58 m (Deep well)
15													
16					RC	--	31	31					
17	5												
18													
19				RC	--	98	78					Bentonite packing from 5.02 m to 5.86 m	
20	6												
21													
22													
23	7			RC	--	82	82					No. 2 silica sand packing from 5.86 m to 8.13 m	
24													
25													
26						86						0.03 m dia. PVC screen from 6.58 m to 8.13 m (Deep well)	



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-02

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 27-28, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
27		End of Borehole	391.8	RC	--		86	86				Pointed screw-on end cap at 8.13 m
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	404.6										
1		SPT: 1 / 2 / 2 / 3 0.00 m - 0.08 m: Peat 0.08 m - 0.21 m: Silty clay, some coarse sand/fine gravel	404	SS	1	4	47						
2		Advancing casing	403.8	OB	--								
3		SPT: 51 for 0.01 m (Refusal) SS2: "N" Value = 51; Recovery = 100% Washed Gravel	403.4	OB	--								
4		Advancing casing		OB	--								
5		Overburden											
6				RC	--		100	85					
7													
8													
9													
10		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		97	58					
11													
12													
13			400.6										

No. 2 silica sand packing from 0.00 m to 2.58 m

0.03 m dia. PVC riser from 0.00 m to 3.43 m (Shallow well)

Bentonite packing from 2.58 m to 2.84 m

No. 2 silica sand packing from 2.84 m to 5.02 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		97	58			0.03 m dia. PVC screen from 3.43 m to 4.98 m (Shallow well)	Pointed screw-on end cap at 4.98 m Bentonite packing from 5.02 m to 5.05 m	3:1 ratio sand to bentonite packing from 5.05 m to 7.75 m 0.03 m dia. PVC riser from 0.00 m to 8.80 m (Deep well)
15				RC	--		93	31					
16													
17	5												
18													
19													
20	6												
21													
22							95						
23	7												
24													
25													
26			396.6										



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-03

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 18-19, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description		
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60					
27		Light gray/green and white, heavily sheared breccia. Local tuffaceous material and metamorphosed andesite. Variable calcite flooding and veins, chlorite along shears 40 degrees to core axis. Dark microfractures with biotite. 1-2% disseminated pyrite, limonitic high angle fractures to 10 mm. Local quartz veining		RC	--		95	20						Bentonite packing from 7.75 m to 8.24 m	
28															
29															No. 2 silica sand packing from 8.24 m to 11.12 m
30	9														
31					RC	--		95	61						0.03 m dia. PVC screen from 8.80 m to 10.36 m (Deep well)
32															
33	10														
34															
35															
36	11			393.5											Pointed screw-on end cap at 10.36 m
37			End of Borehole												
38															
39															



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	412.6										
1		SPT: 3 / 4 / 4 / 9 Brown silty soil		SS	1	8	48						No. 2 silica sand packing from 0.00 m to 2.94 m
2			411.9										
3		SPT: 5 / 9 / 17 / 20 Gravelly silt trace coarse sand *SS2 overlapped 0.16 m with SS1		SS	2	26	66						0.03 m dia. PVC riser from 0.00 m to 3.38 m (Shallow Well)
4		SPT: 39 / 51 for 0.48 m (Refusal) Washed gravel	411.3	SS	3	51	13						
4		Advancing casing	411.2	OB	--								
5				RC	--		81	59					
6													
7				RC	--		97	67					0.03 m dia. PVC riser from 0.00 m to 9.30 m (Deep Well)
8													
9		Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite											
10													Bentonite packing from 2.94 m to 3.13 m
11													
12								87					
13			408.6										0.03 m dia. PVC screen from 3.38 m to 4.88 m (Shallow Well)



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14														
15				RC	--		87	66						
16														Pointed screw-on end cap at 4.94 m
17	5													Bentonite packing from 4.94 m to 5.05 m
18														3:1 ratio sand to bentonite packing from 5.05 m to 6.58 m
19		Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite												
20	6													
21				RC	--		88	84						
22														
23	7													3:1 ratio bentonite to sand packing from 6.58 m to 7.05 m
24														
25														3:1 ratio sand to bentonite packing from 7.05 m to 8.79 m
26			404.6											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
27														
28														
29														
30	9													4:1 ratio bentonite to sand packing from 8.79 m to 9.95 m
31														
32				RC	--		96	79						
33	10	Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite												No. 2 silica sand packing from 9.95 m to 14.19 m
34														
35														
36	11													0.03 m dia. PVC screen from 9.30 m to 12.30 m (Deep Well)
37														
38														
39			400.6											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-04

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 13-15, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
40													Pointed screw-on end cap at 12.36 m
41													
42													
43	13	Light to medium green chlorite/calcite flooded, heavily sheared andesite breccia. Calcite veining and interstitial, biotite seams, 1% blebby pyrite veins with biotite		RC	--	100	81						
44													
45													
46	14		398.4										
47		End of Borehole											
48													
49	15												
50													
51													
52													



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 4 of 4

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	413.3								
0.25 - 0.89		SPT: 2 / 6 / 4 / 8 0.00 m - 0.04 m: Rootmat 0.04 m - 0.08 m: Peat 0.08 m - 0.11 m: Clay with fine sand 0.11 m - 0.18 m: Fine sand	412.7	SS	1	10	30				No. 2 Silica sand packing from 0.25 m to 0.89 m
0.03 - 0.24		SPT: 19 / 17 / 12 / 51 for 0.05 m (Refusal) 0.00 m - 0.03 m: Cobbles and gravel 0.03 m - 0.12 m: Fine sandy silt 0.12 m - 0.24 m: Silty clay/clayey silt	412.1	SS	2	29	40				
0.10		SPT: 51 for 0.10 m (Refusal) Rock chip	412	SS	3	51	52				
0.89 - 2.00		Advancing casing		OB	--						Bentonite packing from 0.89 m to 2.00 m
0.03 - 0.08		SPT: 51 for 0.03 m (Refusal) SS4: "N" Value = 51; Recovery = 0%	411.2	SS	4	51	0				0.03 m dia. PVC riser from 0.00 m to 0.08 m
0.00 - 0.08		Advancing casing		OB	--		56	24			
0.04 - 0.09		SPT: 51 for 0.04 m (Refusal) SS5: "N" Value = 51; Recovery = 50%	410.5	SS	5	51	50				
0.00 - 0.09		Advancing casing	410.2	OB	--						No. 2 silica sand packing from 2.00 m to 4.49 m
0.09 - 0.11		SPT: 55 for 0.09 m (Refusal) Rock chip in shoe		SS	6	55	11				
				RC	--		95	72			



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			60
14				RC	--		95	72				2:1 ratio bentonite to sand packing from 4.49 m to 5.54 m
15				RC	--		89	60				
16	5											Bentonite packing from 5.54 m to 6.62 m
17												
18												No. 2 silica sand packing from 6.62 m to 9.64 m
19	6	Medium green calcite/chloritize altered amygdaloidal "greenstone" andesite, metasomatic texture, irregular fine calcite veins, moderate to strong interstitial calcite, and chlorite, light green epidote with calc. veins, weakly brecciated with blebs of silvery grey sulfide and pyrite										
20												
21				RC	--		100	82				
22												
23	7											
24												
25												
26			405.3									



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Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-05

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 02-04, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
27		Medium green calcite/chloritize altered amygdaloidal "greenstone" andesite, metasomatic texture, irregular fine calcite veins, moderate to strong interstitial calcite, and chlorite, light green epidote with calc. veins, weakly brecciated with blebs of silvery grey sulfide and pyrite	403.7	RC	--	90	65				0.03 m dia. PVC screen from 8.08 m to 9.58 m
28											
29	9										Pointed screw-on end cap at 9.64 m
30		End of Borehole									
31											
32											
33	10										
34											
35											
36	11										
37											
38											
39											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	420.3								
1		No recovery		OB	--						
2											
3	1	Medium gray/green andesite with chlorite, biotite, trace pyrite, interstitial calcite reaction, minor quartz/calcite mixed veins, and minor epidote associated with calcite dominant veins	419.1	RC	--		95	64			
4											
5											
6											
7	2										
8											
9											
10	3										
11											
12											
13			416.3				99				

No. 2 Silica sand packing from 0.00 m to 0.38 m

Bentonite packing from 0.38 m to 0.78 m

0.03 m dia. PVC riser from 0.00 m to 5.03 m

No. 2 silica sand packing from 0.78 m to 2.38 m

2:1 ratio bentonite to sand packing from 2.38 m to 3.88 m

Bentonite packing from 3.88 m to 4.13



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
14											
15				RC	--		99	78			
16											
17	5										
18											No. 2 silica sand packing from 4.13 m to 8.09
19											
20	6	Medium gray/green andesite with chlorite, biotite, trace pyrite, interstitial calcite reaction, minor quartz/calcite mixed veins, and minor epidote associated with calcite dominant veins									
21											
22							99				
23	7										0.03 m dia. PVC screen from 5.03 m to 8.03 m
24											
25											
26											Pointed screw-on



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-06

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			60
27		End of Borehole	412.3	RC	-		99	76				end cap at 8.09 m
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	404.8										
0.1		SPT: 2 / 1 / 1 / 2 Top 0.10 m Grey brown silty sand		SS	1	2	50						
0.2		0.10 m Clay/silt											
0.3		0.10 m Silt or fine sand											
2.5		SPT: 51 for 0.08 m (Refusal) Silty sand with some clay	404.2	SS	2	51	56						
2.6		Fine sand with some small gravel		OB	--								
3.0		Advancing casing		OB	--		66						
3.5		Overburden	403.6										
5.0				RC	--		95	75					
6.0													
7.0		Light to medium gray/green andesite, shearing evident, distorted calcite veins and minor calcite pheno's. Trace blebby pyrite											
10.0			401.7										
11.0								94					
12.0													
13.0													

No. 2 silica sand packing from 0.00 m to 1.58 m

0.03 m dia. PVC riser from 0.00 m to 5.68 m (Shallow Well)

Bentonite packing from 1.58 m to 2.23 m

2:1 ratio sand to bentonite packing from 2.23 m to 5.12 m



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14		Light tan tuffaceous section, moderate pink potassic alteration, quartz veins, minor brecciation		RC	--	94	65					0.03 m dia. PVC riser from 0.00 m to 9.25 m (Deep Well)		
15														
16														
17	5				RC	--	100							No.2 silica sand packing from 5.12 m to 7.30 m
18														
19														
20	6													
21				RC	--	88	55							
22												Pointed screw-on end cap at 7.12 m		
23	7													
24												Bentonite packing from 7.30 m to 7.59 m		
25			397											
26												2:1 ratio sand to bentonite packing from 7.59 m to 8.19 m		



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-07R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 16-17, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description					
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60								
27																		
28																		
29																		
30	9	Medium gray andesite with silicification, quartz veins and minor shearing. 1% disseminated pyrite		RC	--	100	70											
31																		
32																		
33	10																	
34																		
35			394															
36	11	End of Borehole																
37																		
38																		
39																		



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	400.8											
1		SPT: 1 / 0 / 0 / 0 Peat		SS	1	0								
2			400.2											
		Advancing casing		OB	--									
3	1	SPT: 1 / 0 / 1 / 0 No recovery		SS	2	1	0							
4			399.5											
		Advancing casing	399.4	OB	--									
5														
6		SPT: 1 / 0 / 0 / 0 No recovery		SS	3	0	0							
7	2		398.8											
		Advancing casing	398.6	OB	--									
		Shear vane test	398.4	SV	1									
8		Shelby tube *Overlapped 0.29 m with SV1	398.2	ST	1		82							
9														
		Advancing casing		OB	--									
10	3		397.7											
11		SPT: 6 / 15 / 14 / 19 Clay and sand		SS	4	29								
12			397.1											
13		SPT: 13 / 16 / 18 / 5												

1:1 ratio bentonite to sand packing from 0.00 m to 2.72 m

0.03 m dia. PVC riser from 0.00 m to 4.31 m (Shallow well)

Bentonite packing from 2.72 m to 3.02 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14			396.5	SS	5	34								
14		SPT: 51 for 0.05 m (Refusal) SS6: "N" Value = 51; Recovery = 0%		SS	6	51	0							
15				OB	--		59							No. 2 silica sand packing from 3.02 m to 5.87 m
16														
17	5			RC	--		100							0.03 m dia. PVC screen from 4.31 m to 5.81 m (Shallow well)
18														
19														Pointed screw-on end cap at 5.87 m
20	6	Calcite/sericite/chlorite flooded/sheared schist. Shearing at 40 degrees to core axis. Chloritic shears/slickensides, disrupted calcite veins on shears. Black submetallic mineral, non magnetic, 5% coarse, disseminated, some cubes, some hexagonal												Bentonite packing from 5.87 m to 6.35 m
21														
22								90						2:1 ratio sand to bentonite packing from 6.35 m to 7.89 m
23	7													
24														0.03 m dia. PVC riser from 0.00 m to 9.53 m (Deep well)
25														
26			392.8											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-08R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 20-21, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27				RC	--		90	30					Bentonite packing from 7.89 m to 8.30 m
28													
29													
30	9												
31		Calcite/sericite/chlorite flooded/sheared schist. Shearing at 40 degrees to core axis. Chloritic shears/slickensides, disrupted calcite veins on shears. Black submetallic mineral, non magnetic, 5% coarse, disseminated, some cubes, some hexagonal											
32				RC	--		92	27					No. 2 silica sand packing from 8.30 m to 11.20 m
33	10												
34													
35													
36	11												0.03 m dia. PVC screen from 9.53 m to 11.03 m (Deep well)
37			389.6										Pointed screw-on end cap at 11.09 m
38		End of Borehole											
39													



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	400.4											
1		SPT: 1 / 1 / 0 / 1 No recovery		SS	1	1	0							1:1 ratio bentonite to sand packing from 0.00 m to 1.07 m
2		Advancing casing	399.8	OB	--									0.03 m dia. PVC riser from 0.00 m to 1.44 m (Shallow well)
3			399.4											
4		SPT: 1 / 3 / 2 / 4 0.10 m: Peat 0.28 m: Sand with some peat and small gravel		SS	2	5	46							Bentonite packing from 1.07 m to 1.42
5			398.8											No. 2 silica sand packing from 1.42 m to 2.94 m
6		SPT: 2 / 3 / 31 / 63 0.14 m: Fine sand with peat 0.28 m: Flakey bedrock *SS3 overlapped 0.24 m with SS2		SS	3	34	70							
7		SPT: 4 / 51 for 0.13 m (Refusal) 0.15 m: Washed gravel, coarse sand		SS	4	51	87							
8		0.08 m: Fractured bedrock *SS4 overlapped 0.05 m with SS3		OB	--									0.03 m dia. PVC screen from 1.44 m to 3.00 m (Shallow well)
9		Advancing casing	397.9											Pointed screw-on end cap at 3.00 m
10														
11		Chlorite/sericite/carbonate metasedimentary. fg chl altered groundmass with mg-cg sericite altered fragments stretched out parallel to foliation. Dis mag throughout		OB	--		86							Bentonite packing from 3.01 m to 3.26 m
12														
13			396.4											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 3

Project: Geotechnical Investigation

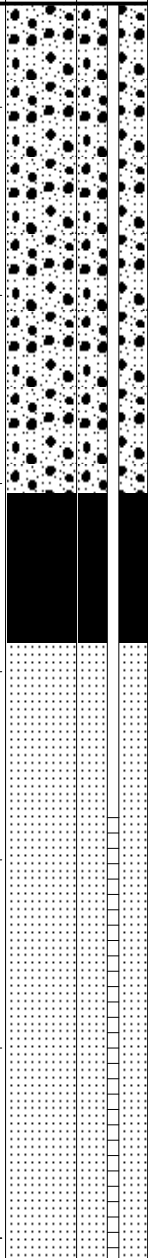
Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Chlorite/sericite/carbonate metasedimentary. fg chl altered groundmass with mg-cg sericite altered fragments stretched out parallel to foliation. Dis mag throughout										<p>2:1 ratio sand to bentonite packing from 3.26 m to 5.59 m</p> <p>0.03 m dia. PVC riser from 0.00 m to 6.64 m (Deep well)</p> <p>Bentonite packing from 5.59 m to 6.08 m</p> <p>No. 2 silica sand packing from 6.08 m to 8.20 m</p> <p>0.03 m dia. PVC screen from 6.64 m to 8.14 m (Deep well)</p>	
15				RC	--	83	20						
16	5												
17													
18													
19				RC	--	91	29						
20	6												
21													
22													
23	7												
24													
25						92							
26													



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-PS-09R1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 22-23, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
27		End of Borehole	392.2	RC	--		92	32						Pointed screw-on end cap at 8.20 m
28														
29														
30	9													
31														
32														
33	10													
34														
35														
36	11													
37														
38														
39														



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	399.3										
1		SPT: 1 / 0 / 0 / 0 No recovery		SS	1	0	0						Bentonite packing from 0.00 m to 1.20 m
2			398.6										
3		SPT: 1 / 1 / 2 / 1 Peat, some spruce/fir needles *SS2 overlapped 0.04 m with SS1		SS	2	3	16						0.03 m dia. PVC riser from 0.00 m to 1.44 m (Shallow well)
4			397.9										
5		SPT: 1 / 0 / 0 / 1 Peat		SS	3	0	7						
6			397.2										No. 2 silica sand packing from 1.20 m to 3.01 m
7													
8		SPT: 1 / 0 / 0 / 0 No recovery *SS4 overlapped 0.08 m with SS3		SS	4	0	0						0.03 m dia. PVC screen from 1.44 m to 2.94 m (Shallow well)
9			396.5										
10		Advancing casing	396.4	OB	--								Pointed screw-on end cap at 3.00 m
11		SPT: 1 / 4 / 6 / 16 0.00 m to 0.08 m: Peat 0.08 to 0.36 m Grey sticky clay		SS	5	10	60						Bentonite packing from 3.01 m to 3.26 m
12			395.8										
13		SPT: 8 / 4 / 2 / 2 Soft sticky clay					74						



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
14			395.1	SS	6	6	74					3:1 ratio sand to bentonite packing from 3.26 m to 5.59 m
		Shelby tube overlapped 0.16 m with SS6	394.9	ST	1							
15		Shear vane test overlapped 0.25 m with ST1	394.7	SV	1							
16		Advancing casing	394.4	OB	--							0.03 m dia. PVC riser from 0.00 m to 6.64 (Deep well)
17		SPT: 6 / 4 / 13 / 7 Grey sand with gravel and silt		SS	7	17						
18			393.8									Bentonite packing from 5.59 m to 6.08 m
19		SPT: 51 for 0.08 m (Refusal) SS8: "N" Value = 51; Recovery = 100% Washed gravel *SS8 overlapped 0.07 m with SS7		RC	--		66	30				
20												No. 2 silica sand packing from 6.08 m to 11.25 m
21												
22												
23								98				0.03 m dia. PVC screen from 6.64 m to 8.14 m (Deep well)
24		fg-cg conglomerate with stretched, ellipsoidal fragments parallel to foliation										
25												
26												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-11

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 25-26, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27				RC	--		98	71				Pointed screw-on end cap at 8.20 m	
28			390.6										
29	9	fg chlorite altered mafic volcanics. Fault gouge from 8.70 m to 9.20 m		RC	--		90	48					
30													
31													
32													
33	10												
34				RC	--		98	76					
35													
36	11												
37			388										
38		End of Borehole											
39													



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
0		Ground Surface (GS)	395.2									
1		SPT: 0 / 0 / 0 / 1 Peat *Split-spoon sank 0.26 m into soft sediments prior to start	394.4	SS	1	0	6					2:1 ratio sand to bentonite packing from 0.00 m to 1.51 m
3	1	SPT: 1 / 0 / 1 / 1 Peat with some woodchips *SS2 overlapped 0.16 m with SS1	393.9	SS	2	1	16					0.03 m dia. PVC riser from 0.00 m to 1.82 m (Shallow well)
5		SPT: 1 / 0 / 0 / 3 0.08 m: peat 0.23 m: coarse to silty sand *SS3 overlapped 0.05 m with SS2	393.3	SS	3	0	51					Bentonite packing from 1.51 m to 1.71 m
6		SPT: 51 for 0.14 m (Refusal) Grey silt/clay and sand	393.2	SS	4	51	71					
7	2	Advancing casing	392.9	OB	--							0.03 m dia. PVC screen from 1.82 m to 3.32 m (Shallow well)
10	3	Medium gray, heavily sheared conglomerate. Shearing at 40-50 degrees to core axis. Moderately calcareous groundmass. Clasts of aphanitic felsic volcanic and porphyry. Trace disseminated pyrite	391.2					100				No. 2 silica sand packing from 1.71 m to 3.37 m Pointed screw-on end cap at 3.37 m Bentonite packing from 3.37 m to 3.71 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14													
15				RC	--		100	96					2:1 ratio sand to bentonite packing from 3.71 m to 5.53 m
16													
17	5												0.03 m dia. PVC riser from 0.00 m to 6.58 m (Deep well)
18													
19													
20	6	Medium gray, heavily sheared conglomerate. Shearing at 40-50 degrees to core axis. Moderately calcareous groundmass. Clasts of aphanitic felsic volcanic and porphyry. Trace disseminated pyrite											Bentonite packing from 5.53 m to 6.06 m
21													
22							100						
23	7												No. 2 silica sand packing from 6.06 m to 8.21 m
24													
25													
26													0.03 m dia. PVC screen from 6.66 m to 8.16 m (Deep well)



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF1-12

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 30, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			
27		End of Borehole	387	RC	--	100	93					Pointed screw-on end cap at 8.21 m
28												
29												
30	9											
31												
32												
33	10											
34												
35												
36	11											
37												
38												
39												



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
0		Ground Surface (GS)	401.5											
1		SPT: 1 for 0.33 m / 3 / 11 Top 0.18 m: Clay Bottom 0.05 m: Silty clay with fine sand	400.9	SS	1	3	38							No. 2 silica sand packing from 0.00 m to 0.15 m Bentonite packing from 0.15 m to 0.65 m
2		Advancing casing		OB	--									0.03 m dia. PVC riser from 0.00 m to 0.74 m (Shallow well)
3	1		400.4											
4		SPT: 44 / 51 for 0.03 m (Refusal) Coarse sand, rock chip in shoe	400.2	SS	2	51	29							No. 2 silica sand packing from 0.65 m to 2.43 m
5		Advancing casing	400.1	OB	--									
6				RC	--		72	20						
7	2			RC	--		29							0.03 m dia. PVC screen from 0.74 m to 2.30 m (Shallow well)
8														Pointed screw-on end cap at 2.30 m
9		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm												Bentonite packing from 2.43 m to 3.50 m
10	3													
11								98						
12														2:1 ratio bentonite to sand packing from 3.50 m to 4.03 m
13			397.5											



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm		RC	--	98	39					5:0.5 ratio sand to bentonite packing from 4.03 m to 5.01 m	
15													
16	5												2:1 ratio bentonite to sand packing from 5.01 m to 5.55 m
17													
18													Bentonite packing from 5.55 m to 6.58 m
19	6												
20					RC	--	98	42					
21												No. 2 silica sand packing from 6.58 m to 9.57 m	
22													
23	7											0.03 m dia. PVC riser from 0.00 m to 8.07 m (Deep well)	
24													
25													
26			393.5										



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-13

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: July 31-August 01, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description								
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60											
27		Light green moderately to strongly calcareous metasedimentary calc/chlorite sheared/shistose altered andesite. Chloritic shears, calcite flooded, veins and strong interstitial. Strongly chloritized, with shears and chlorite veins up to 1 cm		RC	--	96	85						0.03 m dia. PVC screen from 8.07 m to 9.65 m (Deep well)								
28																					
29																					
30	9																				
31																					
32			391.9																		Pointed screw-on end cap at 9.65 m
33	10		End of Borehole																		
34																					
35																					
36	11																				
37																					
38																					
39																					



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-14

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 05-06, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60				
14														
15				RC	--		100	68						2:1 ratio bentonite to sand packing from 4.11 m to 4.87 m
16														
17														
18		Weakly silicified sericite healed breccia, chlorite flooded minor calcite on microfractures, sporadic trace coarse pyrite up to 2 cm												5:0.5 ratio sand to bentonite packing from 4.87 m to 5.91 m
19														
20														
21														2:1 ratio bentonite to sand packing from 5.91 m to 7.19 m
22								99						
23			397											0.03 m dia. PVC riser from 0.00 m to 7.88 m (Deep well)
24														Bentonite packing from 7.19 m to 7.66 m
25														
26														



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-WSF2-14

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 05-06, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27		Light green chlorite/calcite flooded sheared andesite, shears 70 degrees dominant, calcite veins and mixed calcite/quartz veins at low angle		RC	--		99	44				No. 2 silica sand packing from 7.66 m to 9.44 m	
28													
29			395.3	RC	--		96	60				0.03 m dia. PVC screen from 7.88 m to 9.38 m (Deep well)	
30	9	Weakly silicified sericite healed breccia, chlorite flooded, minor calcite on microfractures											
31			394.8									Pointed screw-on end cap at 9.44 m	
32		End of Borehole											
33	10												
34													
35													
36	11												
37													
38													
39													



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
0		Ground Surface (GS)	395.8										
1		SPT: 1 for 0.30 m / 1 for 0.25 m / 1 / 0 / 1 / 1 Peat, some wood		SS	1	1	14						
2			394.9										
3		SPT: 1 / 1 / 2 / 2 No recovery *SS2 overlapped 0.12 m with SS1		SS	2	3	0						
4			394.3										
5		SPT: 1 / 0 / 0 / 0 Peat, some wood *SS3 overlapped 0.42 m with SS2		SS	3	0	10						
6			394										
7		SPT: 1 / 0 / 0 / 0 No recovery *SS4 overlapped 0.07 m with SS3		SS	4	0	0						
8			393.5										
8		Advancing casing	393.3	OB	--								
9													
10		Shelby tube		ST	1		60						
10			392.6										
11		Shear vane test *Overlapped 0.12 m with ST1		SV	1								
11			392.4										
12		Shear vane test		SV	2								
12			392.1										
13		Shelby tube *Overlapped 0.37 m with SV2		ST	2		79						
13			391.9										

1:1 ratio bentonite to sand packing from 0.00 m to 3.40 m

0.03 m dia. PVC riser from 0.00 m to 3.71 m (Shallow well)

Bentonite packing from 3.40 m to 3.60 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
14		SPT: 1 / 1 / 1 / 1 / 2 Light grey silt/clay, some gravel *SS5 overlapped 0.12 m with ST2	391.2	SS	5	2	85					0.03 m dia. PVC screen from 3.71 m to 5.21 m (Shallow well)	
15		SPT: 2 / 3 / 3 / 4 0.09 m sticky grey clay/silt 0.25 m silt and sand *SS6 overlapped 0.10 m with SS5	390.7	SS	6	6	57					No. 2 silica sand packing from 3.60 m to 5.27 m	
16	5												
17		SPT: 6 / 51 for 0.10 m (Refusal) Top: washed gravel, sand and some silt Bottom: green silt with some sand SS7 overlapped 0.08 m with SS6	390.4	SS	7	51	75					Pointed screw-on end cap at 5.27 m	
18		Advancing casing	390.1	OB	--								
19		SPT: 46 / 51 for 0.00 m (Refusal) Green silt and gravel	390	SS	8	51	67					2:1 ratio sand to bentonite packing from 5.27 m to 6.26 m	
20	6			RC	--		63	27					
21				RC	--		91					1:1 ratio bentonite to sand packing from 6.26 m to 7.96 m	
22													
23	7											0.03 m dia. PVC riser from 0.00 m to 9.64 m (Deep well)	
24													
25								96					
26			387.8										



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 2 of 3

Project: Geotechnical Investigation

Log of Monitoring Well: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10-11, 2020

SUBSURFACE PROFILE				SAMPLE					Standard Penetration Test "N" Value per 300 mm		Well Data - Shallow	Well Data - Deep	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20	60			
27				RC	--		96	55					Bentonite packing from 7.96 m to 9.21 m
28													
29													
30	9												
31		Light green calc/chlorite altered/flooded andesite. Strong chloritic shears, local epidote alteration with calcite veins, gray metallic mineral, cubic, non metallic		RC	--		100	71					No. 2 silica sand packing from 9.21 m to 11.20 m
32													
33	10												
34													0.03 m dia. PVC screen from 9.64 m to 11.14 m (Deep well)
35													
36	11		384.6										Pointed screw-on end cap at 11.20 m
37		End of Borehole											
38													
39													



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 Fax: (709) 753-5101

Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 3 of 3

Project: Geotechnical Investigation

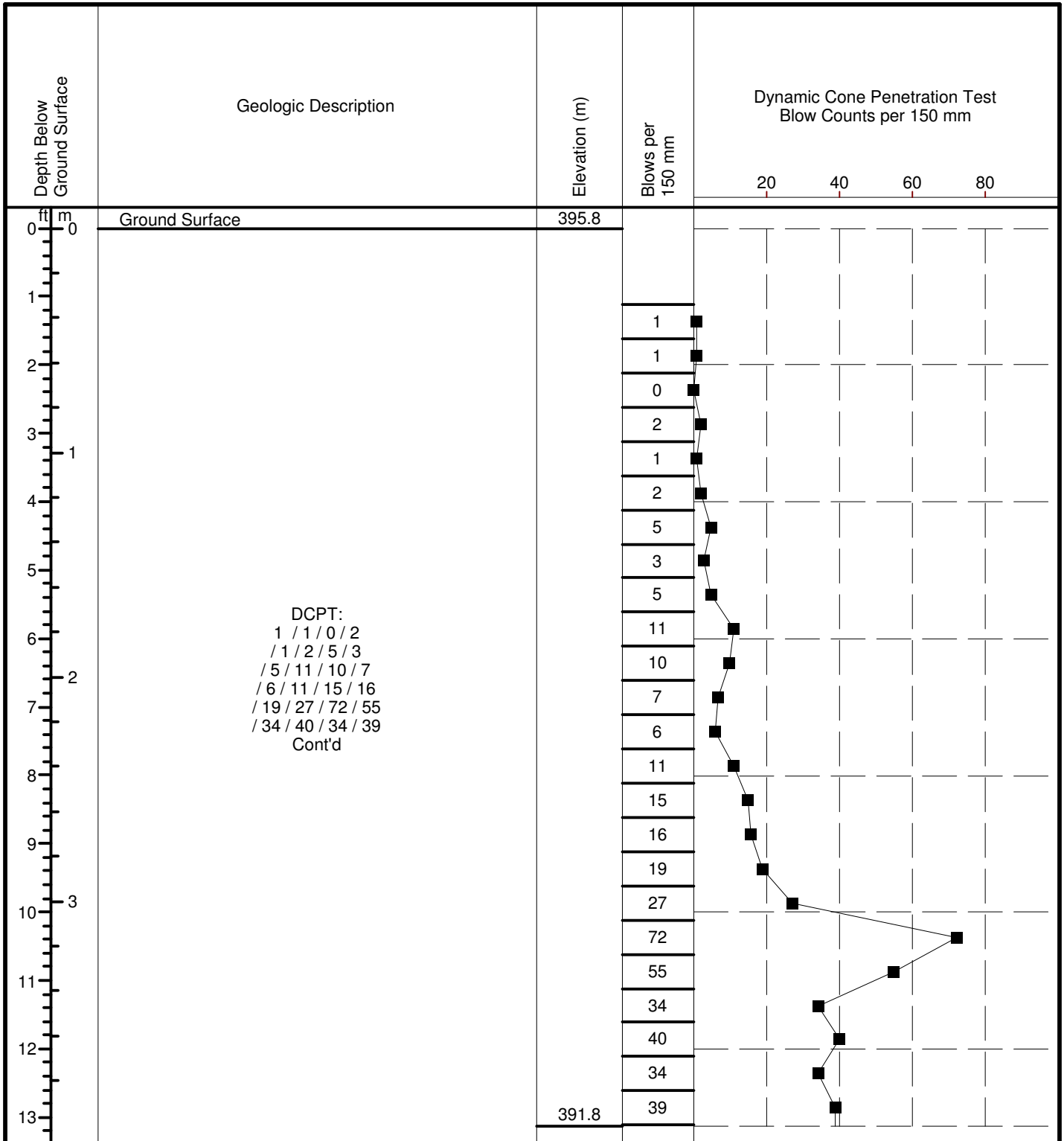
Log of DCPT: BH-TMF-15-1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020



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 Phone: (709) 739-7270
 Fax: (709) 753-5101

Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 2

Project: Geotechnical Investigation

Log of DCPT: BH-TMF-15-1

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020

Depth Below Ground Surface	Geologic Description	Elevation (m)	Blows per 150 mm	Dynamic Cone Penetration Test Blow Counts per 150 mm			
				20	40	60	80
14 15 16 17 18	Cont'd DCPT: 39 / 60 / 65 / 50 / 53 for 0.13 m (Refusal)	391	39				
			60				
			65				
			50				
			53				
16	End of Borehole						
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							



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Fax: (709) 753-5101

Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

Project: Geotechnical Investigation

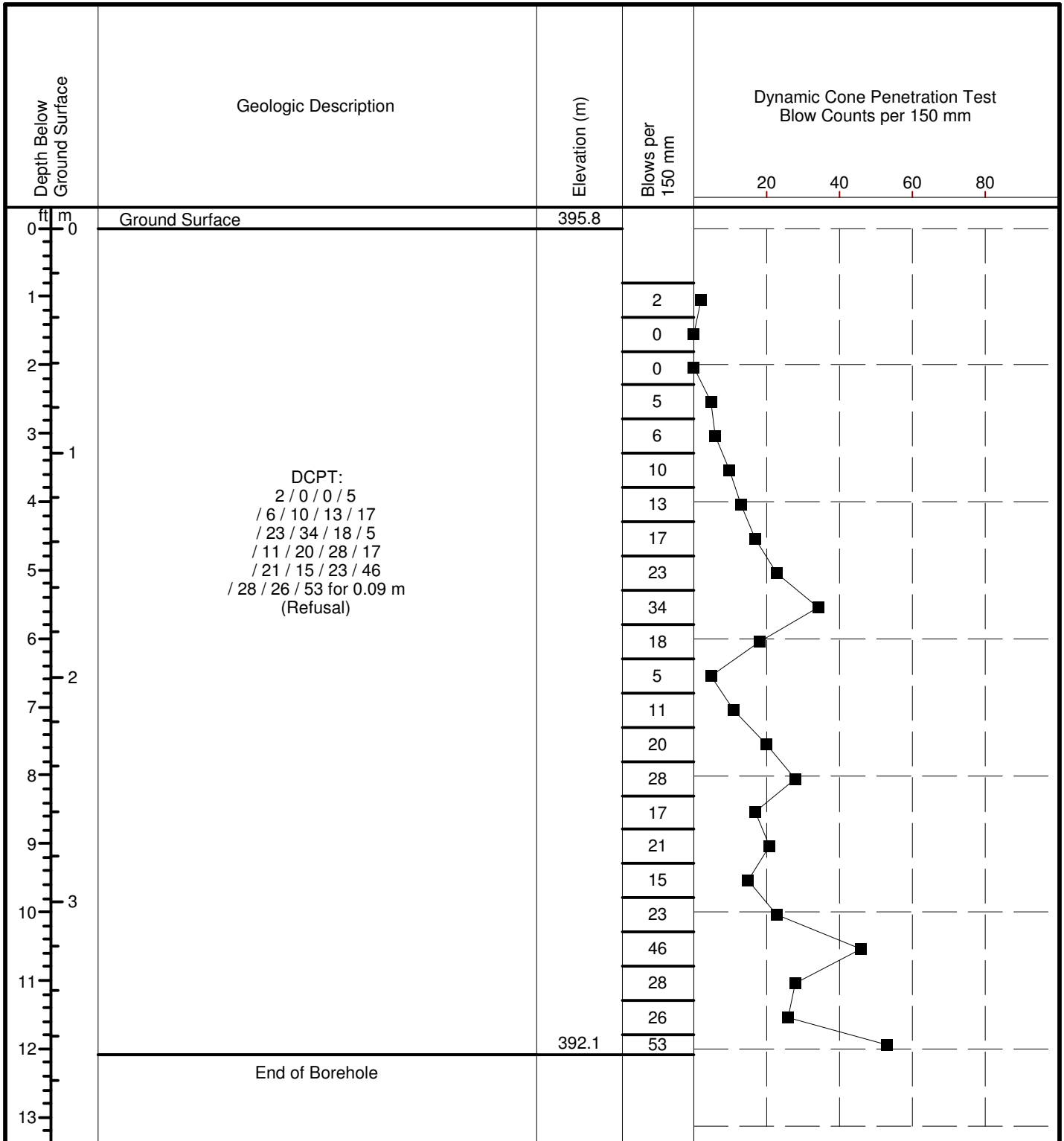
Log of DCPT: BH-TMF-15-2

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 12, 2020



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 Fax: (709) 753-5101

Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 1

Project: Geotechnical Investigation

Log of DCPT: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10, 2020

Depth Below Ground Surface	Geologic Description	Elevation (m)	Blows per 150 mm	Dynamic Cone Penetration Test Blow Counts per 150 mm			
				20	40	60	80
0	Ground Surface	395.8					
1			1				
2			0				
3			1				
4			3				
5			3				
6			2				
7			2				
8			2				
9			3				
10			3				
11			3				
12			2				
13			3				
14			3				
15			4				
16			4				
17			7				
18			6				
19			6				
20		391.8	4				

DCPT:
 1 / 0 / 1 / 3
 / 3 / 2 / 2 / 2
 / 2 / 3 / 3 / 2
 / 3 / 3 / 2 / 3
 / 3 / 3 / 4 / 4
 / 7 / 6 / 6 / 4
 Cont'd



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 Phone: (709) 739-7270
 Fax: (709) 753-5101

Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 1 of 2

Project: Geotechnical Investigation

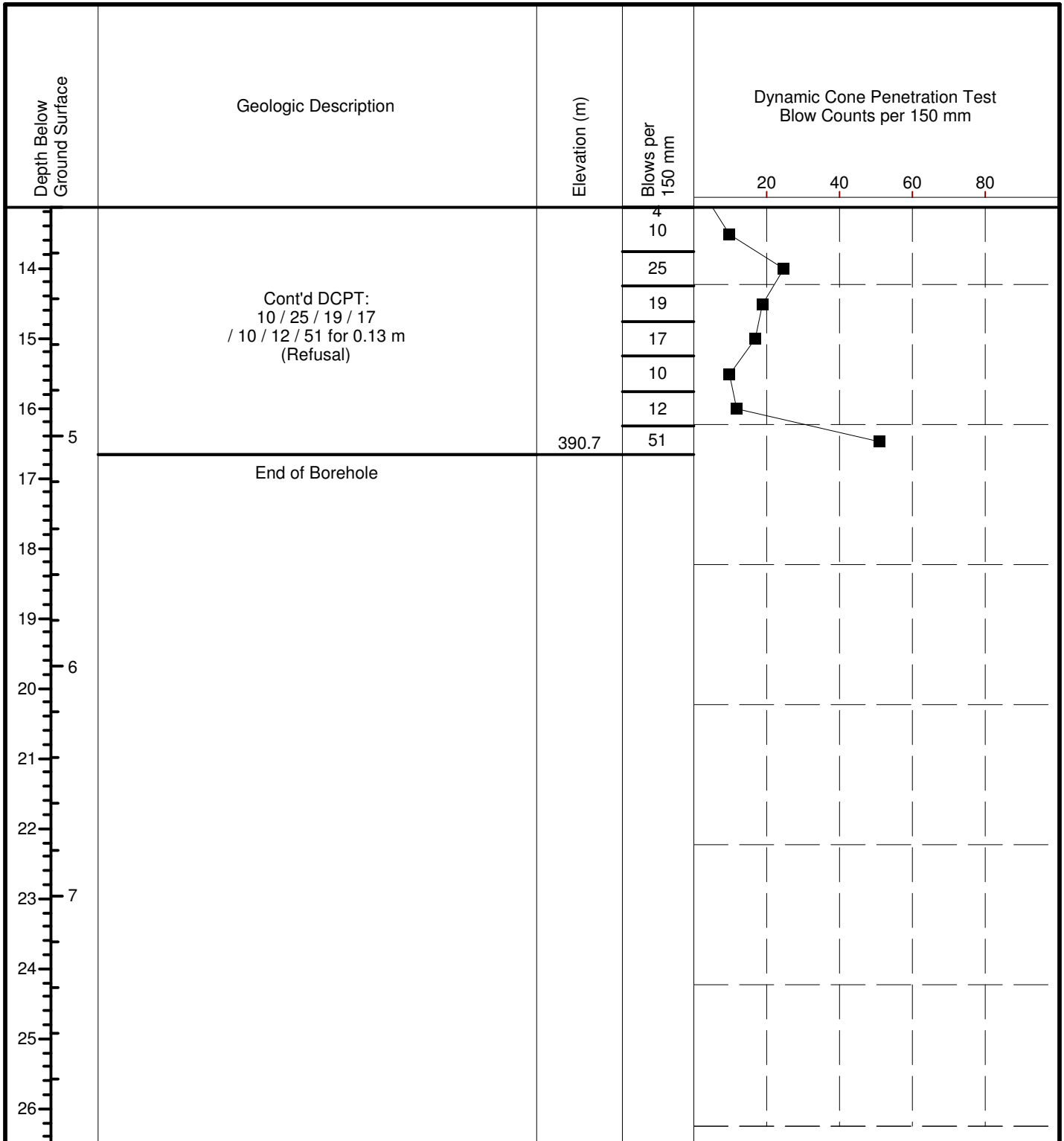
Log of DCPT: BH-TMF-15

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 10, 2020



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Drilling Method: Dynamic Cone Penetration Test

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

Project: Geotechnical Investigation

Log of Monitoring Well: TP-TMF-10

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 08, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	414.7								
0		SPT: 1 / 51 for 0.10 (Refusal) Sphagnum moss	414.4	SS	1	51	65				
1		Advancing casing	414	OB	--						
2		SPT: 6 / 17 / 51 for 0.07 m (Refusal) Top: well graded sand and silt Bottom: gravelley silt	413.6	SS	2	68					
3		Advancing casing	413.3	OB	--						
4		Bedrock		RC	--						
5				RC	--						
6		End of Borehole	412.2								
7											
8											
9											
10											
11											
12											
13											



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 1

Project: Geotechnical Investigation

Log of Monitoring Well: TP-TMF-27

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 07, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20		
0		Ground Surface (GS)	404.3								
1		SPT: 1 / 1 / 1 / 2 for 0.18 m 0.10 m Peat 0.09 m Brown grey silt	403.6	SS	1 2	28					
3		SPT: 2 / 3 / 4 / 7 0.28 m Clay/silt with sand 0.05 m Silt/sand	403	SS	2 7	71					
5		SPT: 4 / 2 / 4 / 9 Light brown fine sand and silt/clay	402.3	SS	3 6	30					
7		SPT: 19 / 20 / 51 for 0.03 (Refusal) 0.12 m Silt/sand 0.08 m Gravel and coarse sand *SS4 overlapped 0.03 m with SS3	402	SS	4 71	61					
8				RC	--						
9				RC	--						
10		Bedrock									

Original material packing from 0.00 m to 4.18 m

0.03 m dia. PVC riser from 0.00 m to 2.62 m

0.03 m dia. PVC screen from 2.62 m to 4.12 m



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Drilling Method: NW Casing NQ Coring

Driller: Rodren Drilling Ltd.

Datum: Geodetic

Sheet: 1 of 2

Project: Geotechnical Investigation


Log of Monitoring Well: TP-TMF-27

Client: First Mining Gold/Gold Canyon Resources

FFC No: FFC-NL-3134-005

Location: Springpole, ON

Date: August 07, 2020

SUBSURFACE PROFILE				SAMPLE				Standard Penetration Test "N" Value per 300 mm		Well Data	Well Description	
Depth Below Ground Surface	Symbol	Geologic Description	Elevation (m)	Sample Type	Sample Sequence	"N" Value	Recovery (%)	RQD (%)	20			60
14		End of Borehole	400.1	RC	--							Pointed screw-on end cap at 4.18 m
15												
16												
17	5											
18												
19												
20	6											
21												
22												
23	7											
24												
25												
26												



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Drilling Method: NW Casing NQ Coring

Datum: Geodetic

Driller: Rodren Drilling Ltd.

Sheet: 2 of 2

APPENDIX A

***Detailed Test Pit Logs
Winter 2020 Program***

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550395.2

Northing (UTM Zone 15): 5694180.7

Elevation (m): 407.3

Log of Test Pit: TP-WSF1-07

Project No.: 3134

Date: March 4, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							Locking J-Plug
	0.25			Root mat. Frost at 0.25 m.	--	NA ²	NA	NA	NA	NA	Stick-up of 1.4 m AGS
	0.40			Brown to grey. Silt, some sand. Non-cohesive.	SS1	Pene at 0.25 m - 0.35m: 1.0 / 1.25 / 0.75	NST ³	16.85	Sand and Silt, some Gravel, trace Clay	SM (Silty sand) (Assumed Classification)	0.05 m Dia. PVC riser from 0.0 m to 0.12 m
0.5	0.65			Orange. Fine sand and silt, trace clay, trace gravel. Non-cohesive.	SS2	Pene at 0.40 m - 0.55 m: 0.25 / 0.5 / 0.75 / 2.0	NST	11.58	Silty Sand, some Gravel, trace Clay	SM (Silty sand with gravel) (Assumed Classification)	0.05 m Dia. PVC screen from 0.12 m to 0.94 m
	0.95			Beige. Silt, trace sand, trace clay, trace gravel. Non-cohesive	SS3	Pene at 0.65 m - 0.75 m: 0.8 / 1.5 / 4.0 / 1.8	Opt. moisture: 9.9 % Max. dry unit weight: 19.03 kN/m ³	10.92	Sand and Silt, trace Gravel	SM (Silty sand) (Assumed Classification)	Water level dry (Sept. 04, 2020)
1.0				Assumed bedrock encountered at 0.95 m. End of Test Pit							Slip on end-cap at 0.95 m
1.5											Hydraulic Conductivity 8.08 E-6 m/s
2.0											

Note: 1. The values were provided by in-situ measurements
 2. Not Applicable (NA)
 3. No Sample Tested (NST)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550925.6

Northing (UTM Zone 15): 5694246.0

Elevation (m): 409.1

Log of Test Pit: TP-WSF1-08

Project No.: 3134

Date: March 4, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							
	0.10			Root mat.	-	NA ²	NA	NA	NA	NA	
	0.25			Greyish brown. Silt and sand, trace gravel. Non-cohesive.	SS1	Pene at 0.15 m - 0.25 m: 0.5 / 0.5 / 1.0 / 0.25 / 0.75	NST ³	16.35	Sand and Silt, trace Gravel, trace Clay	SM (Silty sand) (Assumed Classification)	
0.5	0.60			Brown. Sandy silt, trace gravel. Non-cohesive.	SS2	Pene at 0.50 m - 0.60 m: 1.5 / 1.5 / 0.75 / 0.75	NST	11.75	Gravelly, Silty Sand	SM (Silty sand with gravel) (Assumed Classification)	
			Note: Scale of photo with 10 cm marks.	Assumed bedrock encountered at 0.6 m. Metamorphosized sedimentary rock. End of Test Pit							

Note: 1. The values were provided by in-situ measurements
 2. Not Applicable (NA)
 3. No Sample Tested (NST)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 548427.7

Northing (UTM Zone 15): 5693763.4




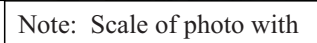
Elevation (m): 409.3

Log of Test Pit: TP-TMF-12

Project No.: 3134

Date: March 17, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							
	0.08			Root mat.	NA	NA	NA ¹	NA	NA	NA	 Water level at 0.00 m GS (Sept. 07, 2020)
											Locking J-Plug Stick-up of 1.13 m AGS 0.05 m Dia. PVC riser from 0.00 m to 0.40 m
				Dark brown to olive grey. Sand with gravel, cobbles and boulders, trace silt and clay. Frost at 0.35 m.	SS1	NA	Opt. moisture: 7.7 % Max. dry unit weight: 20.18 kN/m ³	7.79	Silty Sand, some Gravel, trace Clay	SM (Silty sand with gravel) (Assumed Classification)	0.05 m Dia. PVC screen from 0.40 m to 1.92 m Hydraulic Conductivity 7.61 E-4 m/s
2.0	2.00			Assumed bedrock encountered at 2.00 m. End of Test Pit							Threaded pointed end-cap at 2.00 m

Note: 1. Not Applicable (NA)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 549165.0

Northing (UTM Zone 15): 5692963.7



Elevation (m): 404.9

Log of Test Pit: TP-TMF-15

Project No.: 3134

Date: March 17, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							Locking J-Plug
	0.10			Root mat.	NA	NA	NA	NA	NA	NA	Stick-up of 0.91 m AGS
				Dark brown to olive grey. Well-graded sand, trace silt/clay, with gravel, cobbles and boulders. Frost at 0.30 m.	SS1	NA	Opt. moisture: 10.2 % Max. dry unit weight: 19.75 kN/m ³	10.80	Sand and Silt, trace Gravel, trace Clay	SM (Silty sand) (Assumed Classification)	Water level at 0.59 m BGS (Sept. 08, 2020)
	1.40			Assumed bedrock encountered at 1.40 m.							0.05 m Dia. PVC screen from 0.62 m to 1.38 m
	1.5		Note: Scale of photo with 10 cm marks.	End of Test Pit							Hydraulic Conductivity 2.03 E-4 m/s
	2.0										Slip on End-cap at 1.40 m

Note: 1. Not Applicable (NA)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 548423.7

Northing (UTM Zone 15): 5692282.7

Elevation (m): 403.5

Log of Test Pit: TP-TMF-16

Project No.: 3134

Date: March 16, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe	
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS		
0.0	0.0			Ground Surface							Locking J-Plug	
	0.15			Root mat.	NA ²	NA	NA	NA	NA	NA	NA	Stick-up of 1.03 m AGS
				Moist. Dark brown. Plant root residues and organic matter. Frost at 0.30 m.	SS1	NA	NST ³	11.24	Silty Sand, some Gravel, trace Clay	SM (Silty sand with gravel) (Assumed Classification)		0.05 m Dia. PVC riser from 0.00 m to 0.50 m
	0.60			Moist. Olive gray. 40% fines. Cobbles and boulders.	SS2	Pene at 0.8 m - 1.10 m: 2.5 / 2.25 / 2.25 Vane at 0.8 m - 1.10 m: 6.0 / 6.7 / 7.0	NST	17.19	Silt and Sand, some Clay	CL-ML (Sandy silty clay) (Assumed Classification)		0.05 m Dia. PVC screen from 0.50 m to 2.02 m
	1.25			Moist. Olive gray to greenish gray. Medium to fine sand. Non-cohesive.	SS3	NA	Opt. moisture: 8.7 % Max. dry unit weight: 20.08 kN/m ³	10.41	Silty Sand, some Gravel, trace Clay	SM (Silty sand with gravel) (Assumed Classification)		Water level at 1.93 m BGS (Sept. 08, 2020)
	2.10		Note: Scale of photo with 10 cm marks.	Assumed bedrock encountered at 2.10 m. End of Test Pit							Threaded pointed end-cap at 2.10 m	

Note: 1. The values were provided by in-situ measurements
2. Not Applicable (NA)
3. No Sample Tested (NST)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550371.6

Northing (UTM Zone 15): 5693641.2

Elevation (m): 392.9

Log of Test Pit: TP-SP-17

Project No.: 3134

Date: March 1, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe	
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS		
0.0	0.0			Ground Surface							Locking J-Plug	
	0.10			Root Mat	--	NA ²	NA	NA	NA	NA	Stick-up of 0.96 m AGS	
				Olive grey. Clay and silt, trace sand and gravel. Frost at 0.50 m.	SS1	NA	NA	22.09	Silt and Clay	CL (Lean clay)	0.05 m Dia. PVC riser from 0.0 m to 0.57 m	
0.5	0.55						Pene at 0.55 m - 0.65 m: 2.7 / 1.8 / 2.0 / 2.4					0.05 m Dia. PVC screen from 0.57 m to 2.09 m
1.0					Olive and light grey (barred). Silt and clay. <5% Sand or gravel.	SS2	Pene at 1.30 m - 1.50 m: 2.7 / 2.85 / 2.6	NST ³	23.48	Silt, some Clay	CL (Lean clay)	Hydraulic Conductivity 3.05 E-5 m/s
							Shear at 1.30 m - 1.50 m: 6.5 / 8.5 / 7.5 / 7.5					
	1.65			Greenish to light grey. Very fine sand and silt/clay. Wet. Non-cohesive.	SS3	NA	NST	18.66	Sandy Silt, trace Clay	ML (Silt with sand) (Assumed Classification)	Water level at 1.62 m BGS (Sept. 04, 2020)	
	1.75			Dark brown to olive grey. Fine sand, some silt/clay, trace gravel. Wet.	SS4	NA	Opt. moisture: 7.65 %	18.25	Sand, some Silt	SM (Silty sand) (Assumed Classification)		
2.0	2.00			Dark brown to olive grey. Well graded sand, trace silt/clay, trace gravel. Wet. Water seeping at 2.13 m.	SS5	NA	Max. dry unit weight: 19.78 kN/m ³	13.31	Sand, some Gravel, trace Silt/Clay	SP-SM/SP-SC (Poorly graded sand with silt/clay and gravel) (Assumed Classification)		
	2.20			Note: Scale of photo with 10 cm marks.							Threaded pointed end-cap at 2.20 m	
				Assumed bedrock encountered at 2.20 m. Sericitic altered felsic porphyry/Andesite with magnetite. End of Test Pit								

Note: 1. The values were provided by in-situ measurements
2. Not Applicable (NA)
3. No Sample Tested (NST)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550092.1

Northing (UTM Zone 15): 5693759.1


Elevation (m): 396.9

Log of Test Pit: TP-PS-18

Project No.: 3134

Date: March 5, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							Locking J-Plug
	0.10			Root mat. Snow covered.	-	NA ¹	NA	NA	NA	NA	Stick-up of 1.21 m AGS
0.5				Dark brown. Silty/clayey sand, boulders, some cobbles, some gravel. Frost at 0.55 m.	SS1	NA	Opt. moisture: 9.2 % Max. dry unit weight: 20.29 kN/m ³	6.13	Gravelly Sand, some Silt/Clay	SW-SM/SW-SC (Well- graded sand with silt/clay and gravel) (Assumed Classification)	0.05 m Dia. PVC riser from 0.0 m to 0.32 m 0.05 m Dia. PVC screen from 0.32 m to 1.09 m Water level dry (Sept. 04, 2020)
1.0	1.10			Assumed bedrock encountered at 1.10 m. End of Test Pit							Slip on end-cap at 1.10 m Hydraulic Conductivity 2.58 E-5 m/s
1.5											
2.0											

Note: Scale of photo with
10 cm marks.

Note: 1. Not Applicable (NA)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550200.0

Northing (UTM Zone 15): 5693852.3


Elevation (m): 399.8

Log of Test Pit: TP-PS-19

Project No.: 3134

Date: March 5, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							Locking J-Plug
	0.15			Root mat.	-	NA ¹	NA	NA	NA	NA	Stick-up of 0.65 m AGS
0.5				Dark brown. Silty sand, cobbles, some gravel, some boulders, trace clay. Non-cohesive. Frost at 0.55 m.	SS1	NA	Opt. moisture: 8.9 % Max. dry unit weight: 20.03 kN/m ³	7.22	Sand and Silt, trace Gravel, trace Clay	SM (Silty sand) (Assumed Classification)	0.05 m Dia. PVC riser from 0.0 m to 0.12 m 0.05 m Dia. PVC screen from 0.12 m to 0.89 m Water level dry (Sept. 04, 2020)
1.0	0.90		Note: Scale of photo with 10 cm marks.	Assumed bedrock encountered at 0.90 m. End of Test Pit							Slip on end-cap at 0.90 m Hydraulic Conductivity 6.02 E-5 m/s
1.5											
2.0											

Note: 1. Not Applicable (NA)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550527.5

Northing (UTM Zone 15): 5693625.7

Elevation (m): 396.5

Log of Test Pit: TP-PS-20

Project No.: 3134

Date: March 1, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe	
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS		
0.0	0.0			Ground Surface							Locking J-Plug	
	0.10			Root mat.	-	NA ²	NA	NA	NA	NA	Stick-up of 1.06 m AGS	
				Light brown to olive brown. Clay/silt, trace sand, trace gravel. Frost at 0.78 m.	SS1	NA	NA	27.08	Silt and Clay	CL (Lean clay)	0.05 m Dia. PVC riser from 0.0 m to 0.47 m	
	0.78			Greenish grey. Sand with some silt/clay, trace gravel.	SS2	NA	NA	6.88	Sandy Silt, trace Clay	ML (Sandy silt) ⁴	0.05 m Dia. PVC screen from 0.47 m to 1.29 m	
	0.88			Yellowish orange to beige. Silt, trace clay.	SS3	NA	NA	26.42	Sandy, Clayey Silt	CL-ML (Sandy silty clay) ⁴	Hydraulic Conductivity 1.41 E-5 m/s	
	0.89			Brown. Gravelly sand, trace silt/clay	SS4	Pene at 0.89 m - 0.98 m: 0.5 / 1.8 / 1.8 / 2.0		NST ³	2.04	Gravelly Sand, trace Silt/Clay	SW-SM/SW-SC (Well-graded sand with silt/clay and gravel)	Water level at 0.97 m BGS (Sept. 04, 2020)
	0.98			Greenish grey. Very fine sand, trace silt/clay, trace gravel.	SS5	NA	NA	3.47	Silty Sand, trace Gravel	SM (Silty sand) (Assumed Classification)	Slip on end-cap at 1.30 m	
	1.12			Olive to greenish grey. Sand with some silt, trace clay, trace gravel.	SS6	NA	Opt. moisture: 8.1 %	7.04	Silty Sand, trace Gravel, trace Clay	SM (Silty sand) (Assumed Classification)		
	1.25			Orangish red. Sand, some gravel, trace silt/clay (majority of gravel in SS7 from bedrock below during sampling).	SS7	NA	Max. dry unit weight: 19.79 kN/m ³	9.10	NA	NA		
	1.30			Assumed bedrock encountered at 1.30 m. End of Test Pit			NA					
	1.5			Note: Scale of photo with 10 cm marks.								
	2.0											

Note: 1. The values were provided by in-situ measurements
 2. Not Applicable (NA)
 3. No Sample Tested (NST)
 4. Assumed Classification

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 550529.2

Northing (UTM Zone 15): 5693579.0

Elevation (m): 396.3

Log of Test Pit: TP-PS-21

Project No.: 3134

Date: March 4, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe	
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS		
0.0	0.0			Ground Surface							Locking J-Plug	
	0.10			Root Mat.	-	NA ²	NA	NA	NA	NA	Stick-up of 0.92 m AGS	
				Light brown to olive brown. Clay, trace sand, trace gravel. Frost at 0.65 m.	SS1	Pene at 0.55 m - 0.65 m: 3.8 (Exposed wall). 4.4 (Before exposure).	NA	24.11	Clayey Silt, trace Sand	CL (Lean clay)	0.05 m Dia. PVC riser from 0.00 m to 0.61 m	
	0.65			Olive brown to light grey. Clay, trace sand, trace gravel.	SS2	Pene at 0.95 m - 1.05 m: 2.25 / 2.8 / 3.5 / 1.9 / 1.9 Shear at 0.95 m - 1.05 m: 11 / 7.5 / 13 / 11.5	NST ³	Opt. moisture: 12.6 % Max. dry unit weight: 17.65 kN/m ³	27.89	Clay and Silt, trace Sand	CH (Lean clay)	0.05 m Dia. PVC screen from 0.61 m to 1.38 m
	1.01			Greenish grey. Dry sand with silt, trace clay, trace gravel.	SS3	Pene at 1.01 m - 1.12 m: 3.8 / 3.4 / 3.3			16.69	Sandy Silt, trace Clay	ML (Silt with sand) (Assumed Classification)	Hydraulic Conductivity 4.09 E-5 m/s
	1.12			Yellowish beige to orange. Silt, trace clay.	NA	NA	NA	NA	NA	NA	NA	
	1.13			Olive grey to light brown. Silty sand, trace gravel, trace clay.	SS4	NA	NST	9.49		Silt Sand, some Gravel trace Clay	SM (Silty sand with gravel) (Assumed Classification)	
	1.29			Dark brown to reddish orange. Fractured bedrock coated in silt and sand. Assumed bedrock encountered at 1.39 m. Schist with Magnetite and Hematite.	NA	NA	NA	NA	NA	NA	NA	
	1.39		End of Test Pit								Water level at 1.15 m BGS (Sept. 04, 2020)	
	1.5		Note: Scale of photo with 10 cm marks.								Slip on end-cap at 1.39 m	
	2.0											

Note: 1. The values were provided by in-situ measurements
2. Not Applicable (NA)
3. No Sample Tested (NST)

Project: Geotechnical Investigation

Location: Springpole Lake, ON

Client: First Mining Gold/Gold Canyon Resources

Easting (UTM Zone 15): 548915.4

Northing (UTM Zone 15): 5692433.6


Elevation (m): 404.1

Log of Test Pit: TP-WSF2-26

Project No.: 3134

Date: March 16, 2020



Depth m	Depth below GS m	Symbol	Photo	Field Description	Sample No.	Field Measurement ¹	Laboratory Analysis	Moisture Content %	Soil Classification (From Laboratory Analysis)		Well / Standpipe
						Pene: Penetrometer (kg/cm ²) Shear: Shear vane (kg/cm ²)	Proctor Test		CFEM	USCS	
0.0	0.0			Ground Surface							
	0.10			Root mat.		NA ²	NA	NA	NA	NA	
0.5				Moist. Dark. Peat and organic matter. Frost at 0.50 m.	SS1	NA	NST ³	23.56	Silty, Gravelly Sand, trace Clay	SM (Silty sand with gravel) (Assumed Classification)	
0.80											
0.90				Wet. Greenish grey. Fine sand with 50% clay/silt. Water seeping at 0.85 – 0.90 m.	NA	NA	NA	NA	NA	NA	
1.0			Note: Scale of photo with 10 cm marks.	Assumed bedrock encountered at 0.9 m. End of Test Pit							
1.5											
2.0											

Note: 1. The values were provided by in-situ measurements
 2. Not Applicable (NA)
 3. No Sample Tested (NST)