120457

Geophysical Report on the Cali Creek Placer Prospecting Lease

Dawson Mining District

NTS: 116C/01 & 116C/02
Latitude: 64.05086° N Longitude: -140.50646° W

Cali Creek

Lease No: ID01640

Owner: Wildwood Exploration Inc. - 100%

Work Performed: October 15,2019
Date of Report: October 24, 2019
Author of Report: Allison Feduk

Summary

This report summarizes one ground geophysical survey completed by GroundTruth Exploration on October 15th, 2019 on Cali Creek which flows south into the Sixty Mile River. The geophysical survey on placer lease ID01640, which is located 53 kms west of Dawson City, traverses perpendicularly across the valley to highlight the bedrock structure for placer target zones.

The ground geophysical survey included one high resolution DC resistivity and induced polarization survey using and Advanced Geosciences SuperSting R8 Resistivity/IP meter. Results from the 2019 resistivity survey has shown a contrast at the bedrock interface, which will be confirmed with drilling in the future.

Box 70, DAWSON, YT
Y0B 1G0

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1.0 Introduction

The geophysical survey, undertaken by GroundTruth Exploration Inc., of Dawson City, YT, was conducted on placer prospecting lease ID01640 and executed on the 15th of October, 2019. One RES/IP profile was carried out with 2 m electrode spacing, resulting in a total line length of 166 ground meters. The survey is intended to measure the depth to bedrock and to map underlying lithology thickness to determine if any paleochannels favorable to gold deposition could be detected.

2.0 Previous Investigations

The Sixty Mile River area has been explored for placer gold since 1892 and placer gold mining is active in the present day. Previous work reported on the Cali Creek lease includes resistivity and induced polarization surveys performed by GroundTruth Exploration Inc. in the field season of 2018.

3.0 Location and Access

The prospecting lease is located approximately 53 km west of Dawson City located within the Sixty Mile drainage system in west-central Yukon Territory. The targets is centered at latitude 64.05086° N and longitude -140.50646° W, and located on NTS map sheets 116C/01 and 116C/02 (Figure 1). The lease is accessible by helicopter year-round and can be accessed in the winter by snowmobile via the Yukon and Sixty Mile Rivers.

4.0 Property

Placer Prospecting Lease Tenure:
ID01640 - Wildwood Exploration Inc. - 100% - expiry October 24, 2019 (Figure 2)

Box 70, DAWSON, YT
Y0B 1G0

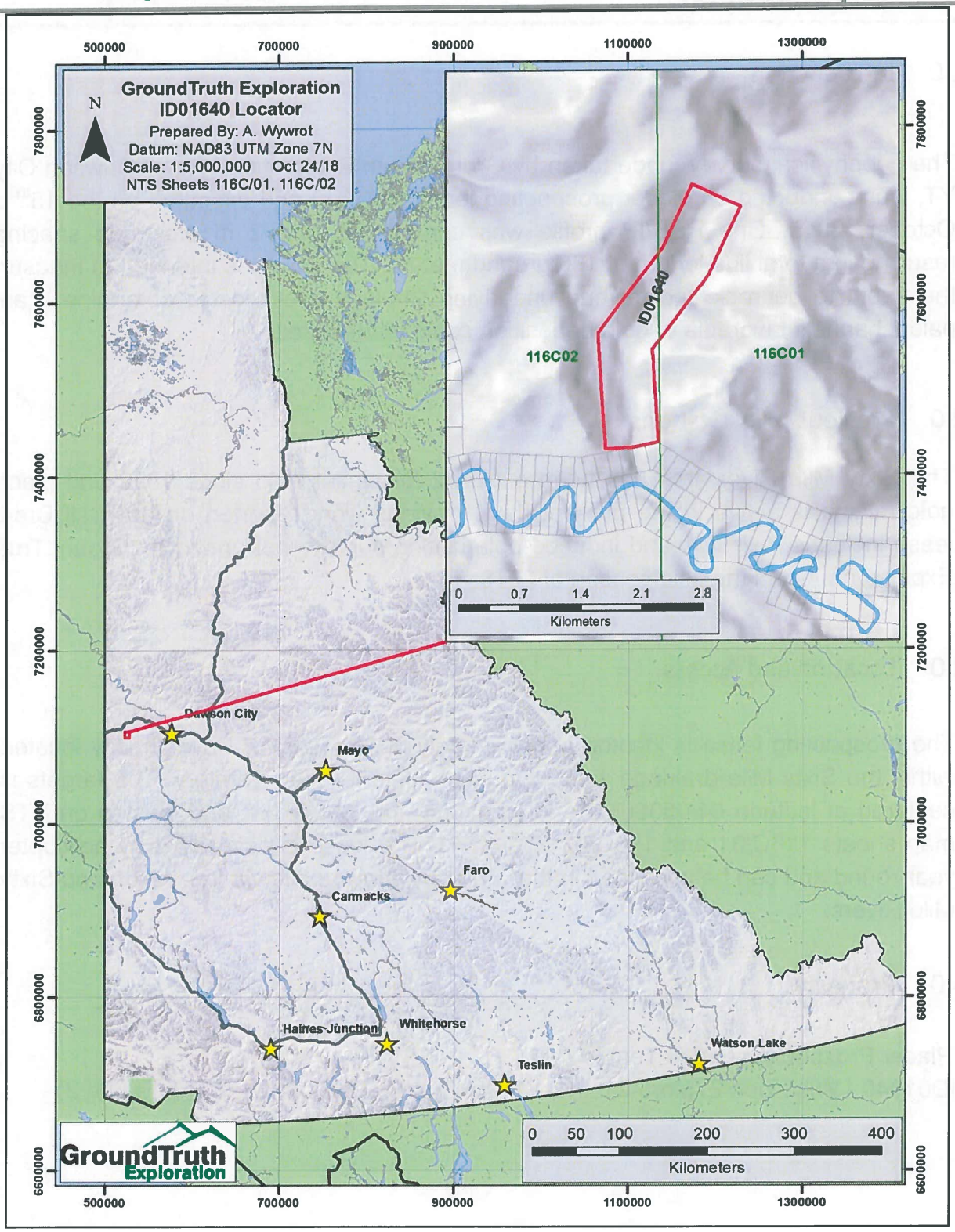

Figure 1: Property Location

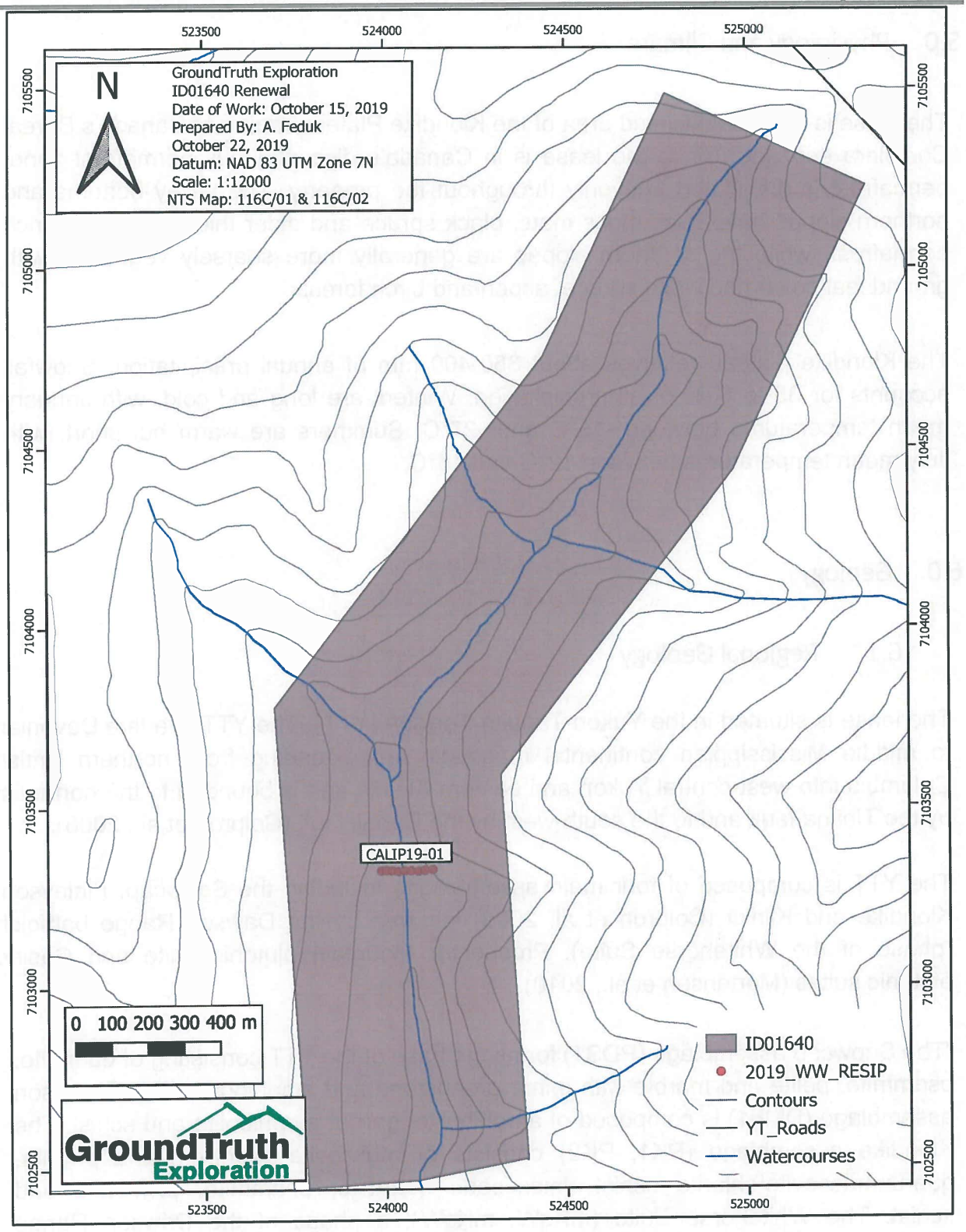

Figure 2: Detail of Lease and Location of RES/IP Survey

5.0 Physiology and Climate

The lease is in an unglaciated area of the Klondike Plateau region of Canada's Boreal Cordillera ecozone. Since the lease is in Canada's discontinuous permafrost zone, permafrost is distributed unevenly throughout the property. The valley bottoms and northern slopes have thick moss mats, black spruce and alder thickets over ice rich permafrost, while the southern slopes are generally more sparsely vegetated with ground leaf cover and white spruce, aspen and birch forests.

The Klondike plateau receives about 350-400 mm of annual precipitation. Snowfall accounts for 35 to 60% of all precipitation. Winters are long and cold, with January mean temperatures between -15°C and -27°C. Summers are warm but short, with July mean temperatures between 12°C and 15°C.

6.0 Geology

6.1 Regional Geology

The lease is situated in the Yukon-Tanana Terrane (YTT). The YTT is a late Devonian to middle Mississippian continental magmatic arc extending from northern British Columbia into west-central Yukon and eastern Alaska and is bounded to the northeast by the Tintina fault and to the south-west by the Denali fault (Colpron et al., 2006).

The YTT is composed of four main assemblages including the Snowcap, Finlayson, Klondike and Klinkit (Colpron et al. 2006) intruded by the Dawson Range batholith (phase of the Whitehorse Suite), Prospector Mountain plutonic suite and Casino plutonic suites (Mortensen et al., 2010).

"The Snowcap assemblage (PDS1) forms the base of the YTT consisting of quartzite, psammite, pelite and marble with minor greenstone and amphibolite. The Finlayson assemblage (DMF1) is composed of amphibolite, garnet amphibolite and schist. The Klondike assemblage (PK1, PK2) consists of muscovite-chlorite quartz phyllite, quartz-muscovite-chlorite schist, micaceous quartzite, psammite, phyllonite and schist. The Whitehorse Suite (mKqW, mKgW), a phase of the Dawson Range Batholith, consists of biotite quartz monzonite, biotite granite, leucogranite,

monzogranite, granodiorite, diorite, granite and tonalite." (Ryan et al., 2013). The Klinkit (CK1) is composed of mafic to intermediate metavolcaniclastic and metavolcanics rocks, with minor limestone and conglomerate (Colpron et al., 2006; Roots et al, 2004).

6.2 Property Geology

Most of the lease is underlain by Paleozoic-era metamorphic rocks of the Simpson Range Suite (MgSR), this orthogneissic unit of the Carboniferous period consists of hornblende-bearing metagranodiorite, metadiorite, metatonalite (Mortensen, unpublished). The very northwest edge of the lease is underlain by Devonian-Carboniferous period metamorphic rocks of the Finlayson Assemblage (DMF3) consisting of dark grey to black carbonaceous metasedimentary rocks, metachert, and quartz-muscovite-chlorite-schist (Mortensen, 1996, Figure 3). The north-northeast trending Sixtymile-Pika fault separates the Simpson Range Suite in the south from the Finlayson Assemblage in the north.

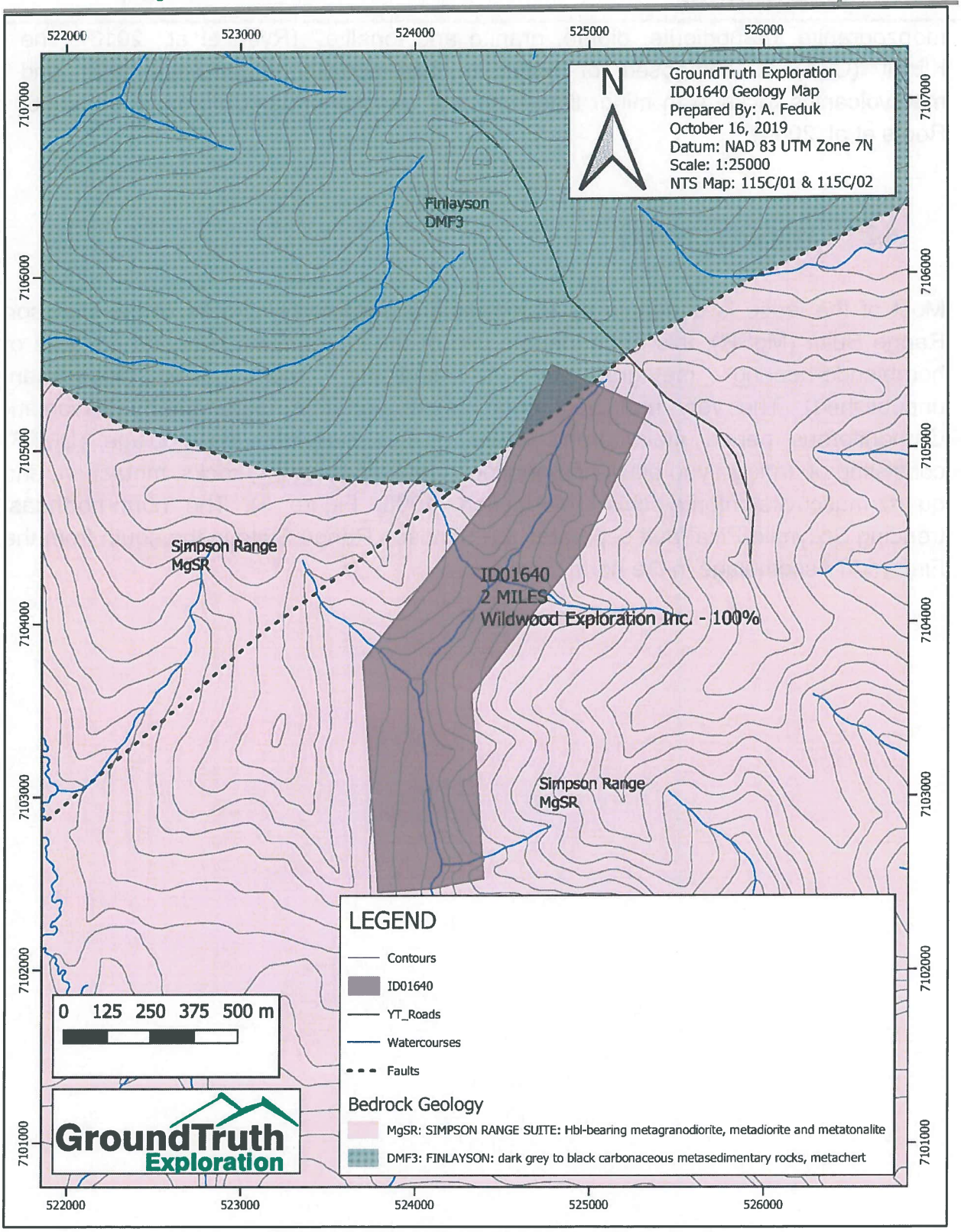

Figure 3: Bedrock Geology of Cali Creek

7.0 Resistivity and Induced Polarization Survey

7.1 Work Performed

The DC Resistivity and Induced Polarization (RES/IP) survey was conducted on the 15th of October 2019, on lease ID01640 (Figure 4). The goal of the survey is to define the fluvial deposits such as muck, sand, and gravel, and define important contacts such as the permafrost table and bedrock surface.

Survey traverse CALIP19-01 is composed of 84 electrodes spaced at 2 m. This electrode spacing results in a total line length of 166 ground meters, a horizontal resolution of 1 m and a potential depth of investigation of 17.2 m.

The RES/IP surveys is done using Advanced Geoscience's SuperSting high-resolution resistivity meter and passive cables. A modified Schlumberger Inverse array was used on all survey lines. This array is a sounding array optimized to delineate horizontal structures such as bedrock contacts and lithological units, has the best overall signal-to-noise ratio and the most lateral coverage. It is an ideal array for finding depths to stratigraphic layers such as muck, sand, gravel, and bedrock.

The traverse location was surveyed with a differential GPS unit capable of sub-meter accuracy. This data was used to both map the traverses and to create the terrain file that models elevation within the resistivity processing.

7.2 Operating Procedure

- A crew of 5 is deployed to run survey.
- The midpoint of a traverse is located and the line is sighted-in using a DGPS.
- Minimal brush is cut along line to sight pickets and lay cables
- Crew places electrodes at 2 m spacing with measuring tape
- Electrodes are hammered to a depth of up to 50cm (10% of electrode spacing)
- Cables are laid and attached to the electrodes
- Contact resistance test is conducted
- Calcium Chloride (25% solution) added to all electrodes >2k ohms. CRT reread.
- Extra electrodes added to high CR electrodes. CRT reread.
- With satisfactory Contact Resistance, Resistivity survey is Read.

- Operator surveys the traverse using DGPS and marks the traverse with pickets every 10 electrodes.

7.3 Data Processing

The collected data is downloaded in the field after every array and checked for integrity. This allows any field errors to be identified before moving the equipment. The RES data is processed daily by the lead operator using EarthImager2D software provided by Advanced Geosciences Inc. Resistivity data-misfits are removed and the cleaned data-set is inverted. The same process is done with the IP data. Terrain corrections collected using a differential GPS are applied to the inversions. The DGPS data is processed using GNSS Solutions software. A .csv is created containing the DGPS traverse points collected. All instrument raw data from the DGPS and SuperSting are archived. An ESRI shape file is created containing the traverse points collected.

7.4 Results

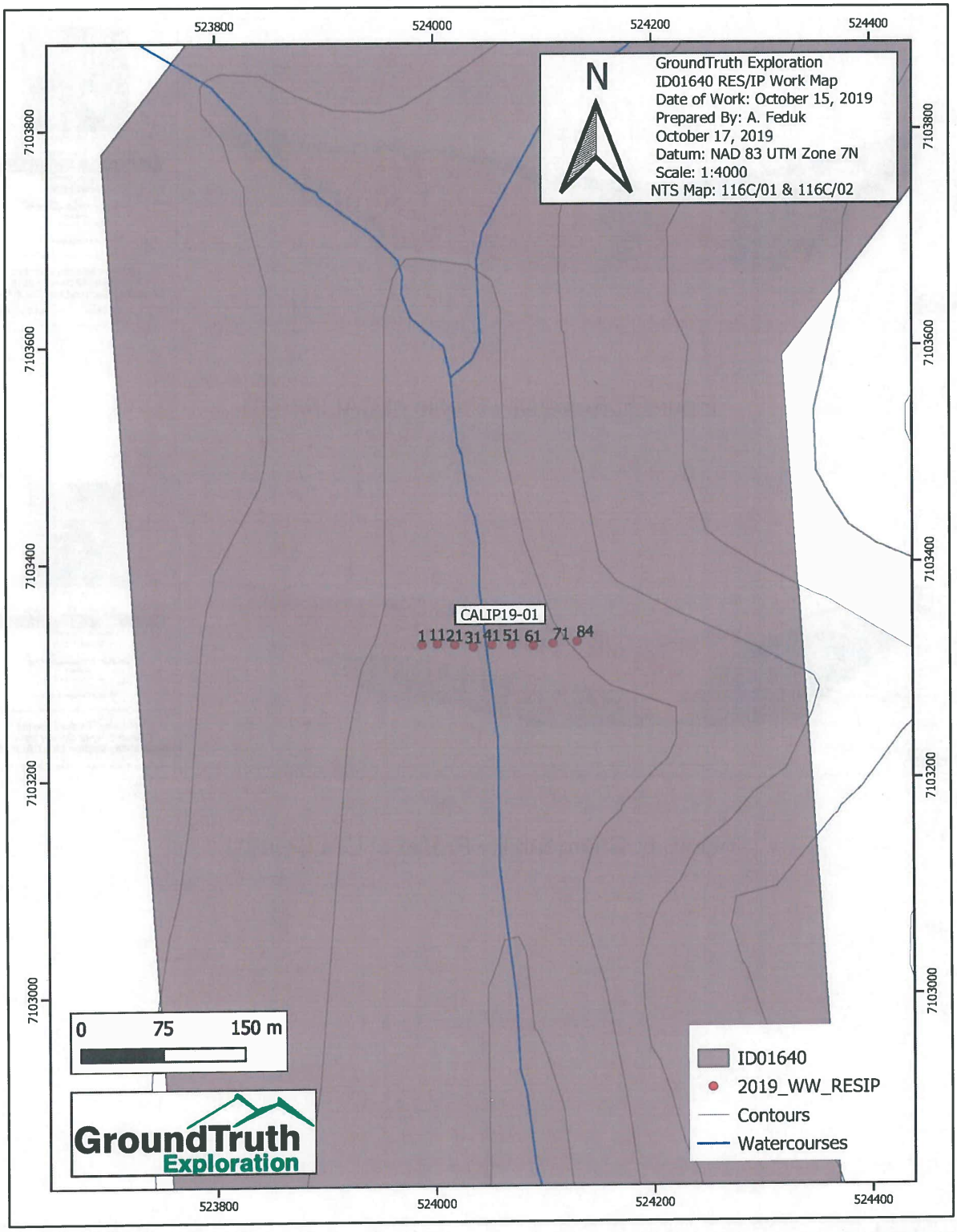
523800
524000
524200
524400
7103800
7103600
7103400
7103200
7103000
N
GroundTruth Exploration
ID01640 RES/IP Work Map
Date of Work: October 15, 2019
Prepared By: A. Feduk
October 17, 2019
Datum: NAD 83 UTM Zone 7N
Scale: 1:4000
NTS Map: 116C/01 & 116C/02
CALIP19-01
1 11 21 31 41 51 61 71 84
0 75 150 m
GroundTruth Exploration
ID01640
2019_WW_RESIP
Contours
Watercourses

Figure 4: West to East Resistivity and Chargeability Survey with Electrodes

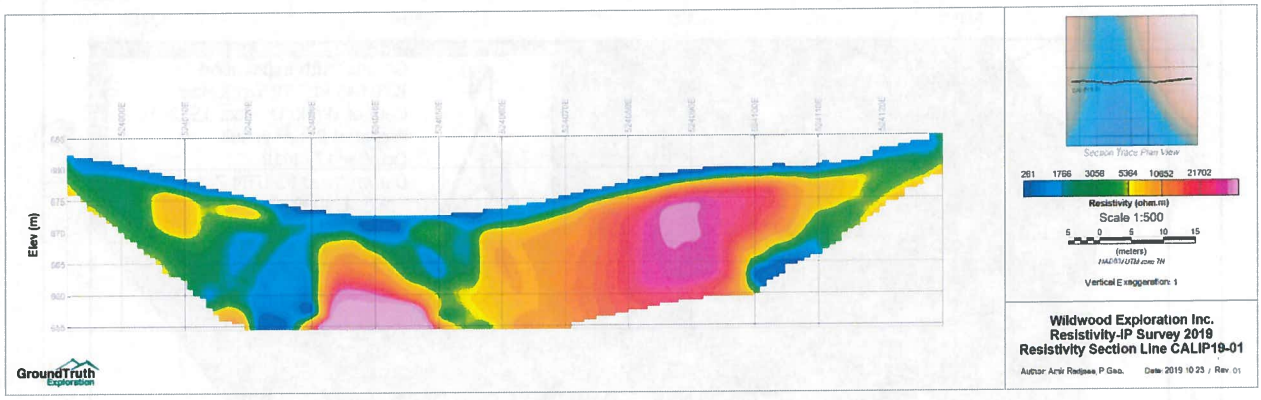

Figure 5: Resistivity Profile of CALIP19-01

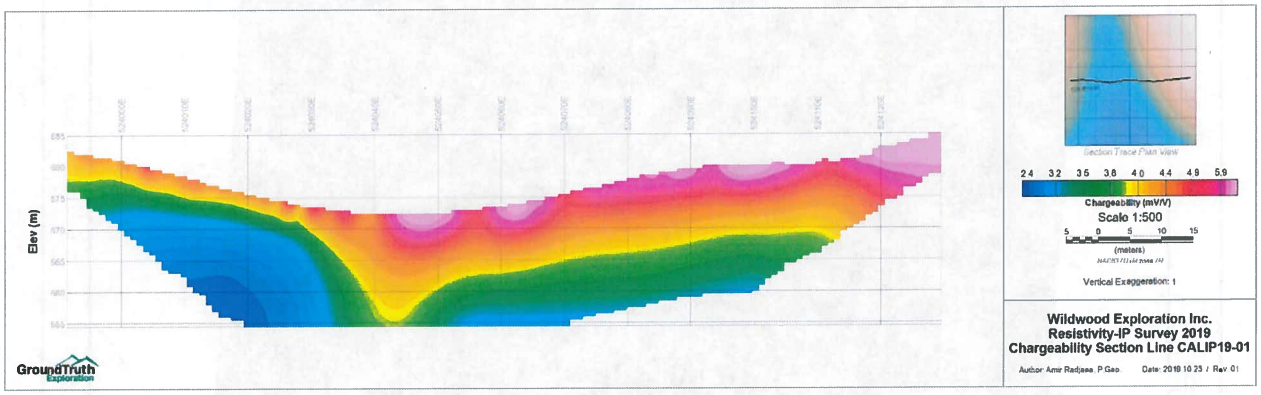

Figure 6: Chargeability Profile of CALIP19-01

8.0 Interpretation

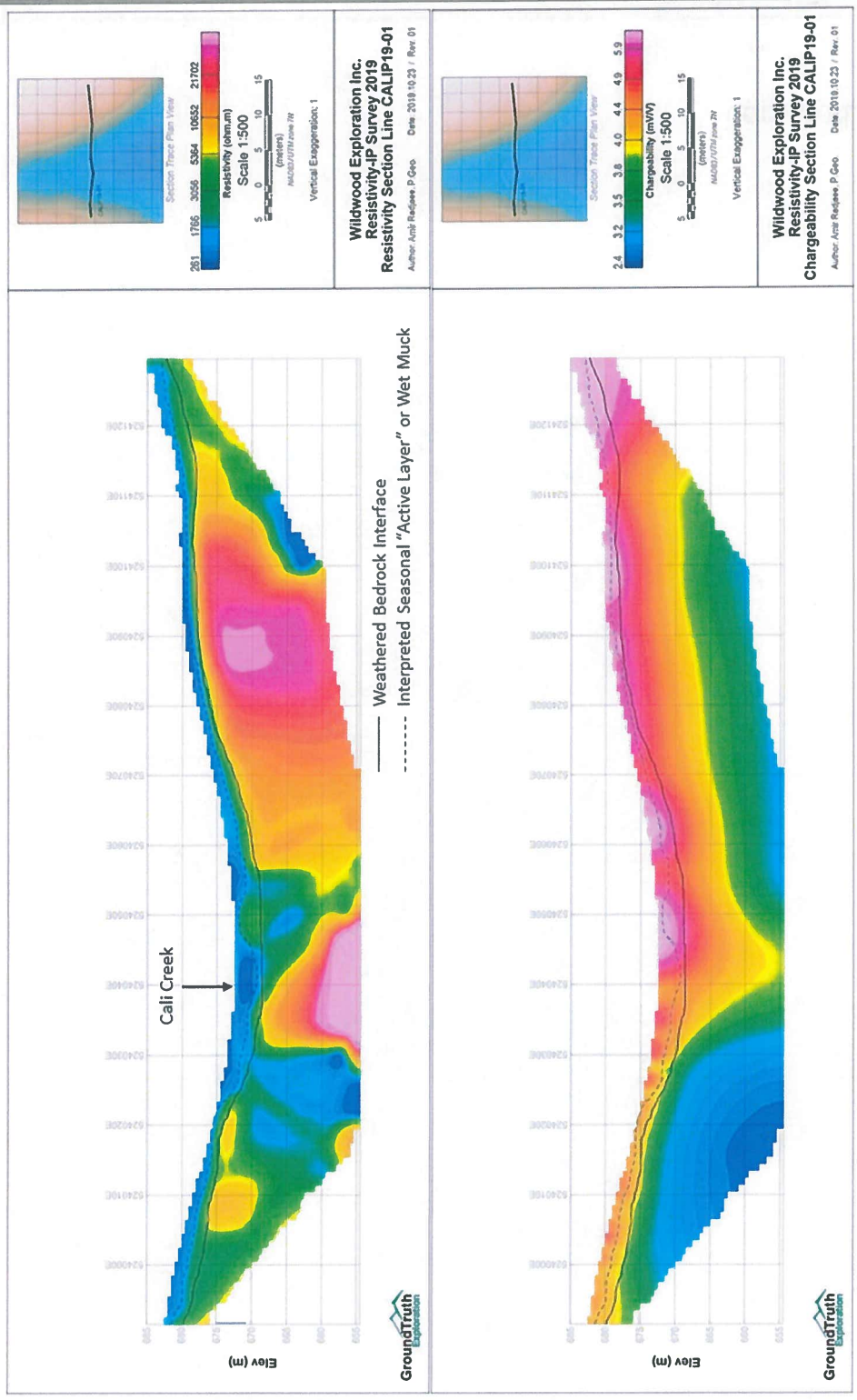

Figure 7: Interpretation of Resistivity and Chargeability Profile for CALIP19-01

9.0 Conclusions and Recommendations

The survey conducted on placer lease ID01640 was successful. It is recommended to complete a drill line on the resistivity and chargeability profile. Drilling will confirm the depth to bedrock and depth to permafrost and will be useful in planning future exploration operations.

10.0 Statement of Expenditures

Overview: ID01640 Resistivity/IP Survey
1 profile surveyed

Invoice: ***GT-CAL-2019-01***
Survey Date: ***15-Oct-19***

GEOPHYSICAL SURVEYS - IP -DC RESISTIVITY BREAKDOWN	Charge out	Units	Costs	Totals	15-Oct
Wages					**Tues**
1 Geophysical Operator	$ 550.00	1	$ 550.00		1
1 Assistant Operator/DGPS Surveyor	$ 440.00	1	$ 440.00		1
2 Field Assistants	$ 385.00	2	$ 770.00	$ 1,760.00	2
IP-Res Survey Equipment					
IP/Resistivity Meter: Supersting 8 Channel meter w/cables, 84 electrodes	$ 600.00	1	$ 600.00		1
Precision GPS: Ashtech Promark 100 differential GPS	$ 50.00	1	$ 50.00		1
Field Laptop/Software for download	$ 75.00	1	$ 75.00		1
Sat Phone, Delorme, Radios (per day)	$ 100.00	1	$ 100.00		1
Chainsaw for helipads/trails (per day)	$ 50.00	1	$ 50.00	$ 875.00	1
Consumable Supplies					
Stainless Electrodes: wear & tear- 2 per profile, $6 ea *1 profile/day	$ 12.00	1	$ 12.00		1
Calcium Chloride: 4kg per profile, $2/kg*1 profile/day	$ 8.00	1	$ 8.00		1
Pickets/Spray Paint, 9 per profile, $1/picket*1 profile/day	$ 9.00	1	$ 9.00	$ 29.00	1
Additional Supplies and Support					
Satellite Internet - per day (connected by Staff)	$ 45.00	1	$ 45.00		1
Assessment Report and Data Processing @$75/hr	$ 75.00	6	$ 450.00	$ 495.00	1

DC IP-Resistivity Survey Expense:	**$ 3,159.00**

11.0 Statement of Qualification

I, Allison Feduk with a business address in Dawson City, Yukon, and residential address in Carlyle, Saskatchewan, do herby certify that:

1. I graduated from the University of Regina in the fall of 2011 with a Bachelor of Science in Geology.

2. From 2012 to present I have been actively engaged in mining and mineral exploration in Alberta and the Yukon Territory.

3. I have been an employee of GroundTruth Exploration Inc. since July of 2018.

4. I am not aware of any material fact or material change with respect to the subject matter of this report, the omission to disclose which makes this report misleading.

Dated this 24th day of October, 2019.

Respectfully submitted,

Allison Feduk

12.0 References

Mineral Titles: Yukon Mining Recorder, Mining Claims Database – www.yukonminingrecorder.ca

Topographic data: Natural Resources Canada, The Atlas of Canada - Toporama- http://atlas.gc.ca/toporama/en/index.html

Property Geology: Yukon Mining Recorder, Mining Map Viewer - http://mapservices.gov.yk.ca/Mining/Load.htm

Colpron, M., Israel, S., Murphy, D.C., Pigage, L.C., and Moynihan, D., 2016. Yukon Bedrock Geology Map. Yukon Geological Survey, Open File 2016-1.

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Survey, Geological Survey of Canada, Open File 4630.

Ryan, J. J., Zagorevski, A., Williams, S. P., Roots, C., Ciolkiewicz, W., Hayward, N., and Chapman, J. B., 2013. Geology of Stevenson Ridge (northeastern part), Yukon; Geological Survey of Canada, Canadian Geoscience Map 116 and 117.

Additional review of various published scientific and reporting papers on the geology and mineral deposits of the region for indirect reference.