[redacted]

GroundTruth Exploration Inc.
Box 70, Dawson YT, Y0B 1G0 (867) 993-5612

GEOPHYSICAL REPORT
on the
Carlisle Creek
Placer Prospecting Lease

Whitehorse, Yukon Territory

Carlisle Creek:
Lease No.: IW00340 – Owner: John McGrath 100%

NTS # 115J/13

Latitude: 62° 59 N Longitude: 139° 32.5 W

Whitehorse Mining District

WORK PERFORMED: September 24th, 2013
DATE OF REPORT: October 20th, 2013

Table of Contents

Summary

A High Resolution Resistivity survey and coincident detailed Total Magnetic Field ground survey was conducted on the Carlisle Creek placer lease to map bedrock profile and classify overburden material. The lease is located 120km South of Dawson on Independence Creek which flows directly into the Yukon River (figure 1).

The survey was conducted by Groundtruth Exploration on September 24th, 2013. The property was accessed by helicopter based at the mouth of Coffee Creek. A total of 2 resistivity profiles were set up and read using 3 separate arrays. A detailed ground magnetic survey was ran for one day over the resistivity profiles at 25m line spacing parallel to the resistivity profile. The Resistivity Survey was read using a Supersting R84 resistivity meter with 84 electrodes spaced at 3m then 1.5m. The MAG survey was done using a GEM Systems GSM-19T Proton Magnetometer in 'walk mode', with a GPS tagged reading being recorded every 0.5 of a second.

The resistivity survey was successful in profiling bedrock depth and detecting permafrost depth interval. The detail mag survey was successful in focusing magnetic placer channel interpreted location over resistivity profile.

1.0 Location and Access

The prospecting lease is located 120km South of Dawson City within the Yukon river drainage system in west-central Yukon Territory. It is centered at 62° 59 N, 139° 32.5 W, on NTS mapsheet 115J/13 (Figure 1*)*. It is accessible in winter on the Yukon river via snowmobile, and accessible by helicopter year round. Neighbouring Thistle Creek (~10km to the north) has placer mines which are currently accessed from Dawson City by barge on the Yukon River to the mouth of Thistle creek.

2.0 Property

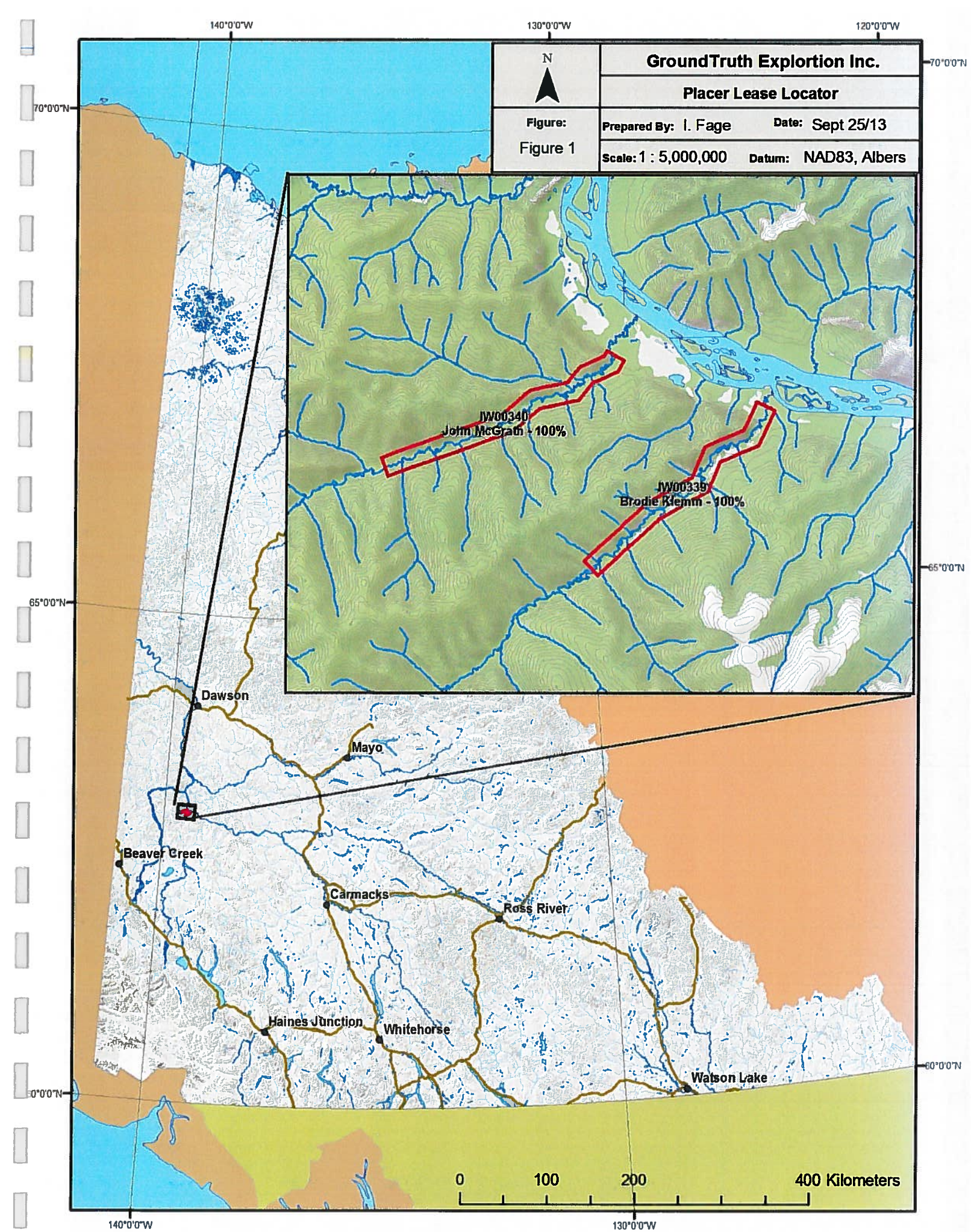
The Carlisle Creek Placer Prospecting lease Tenure:

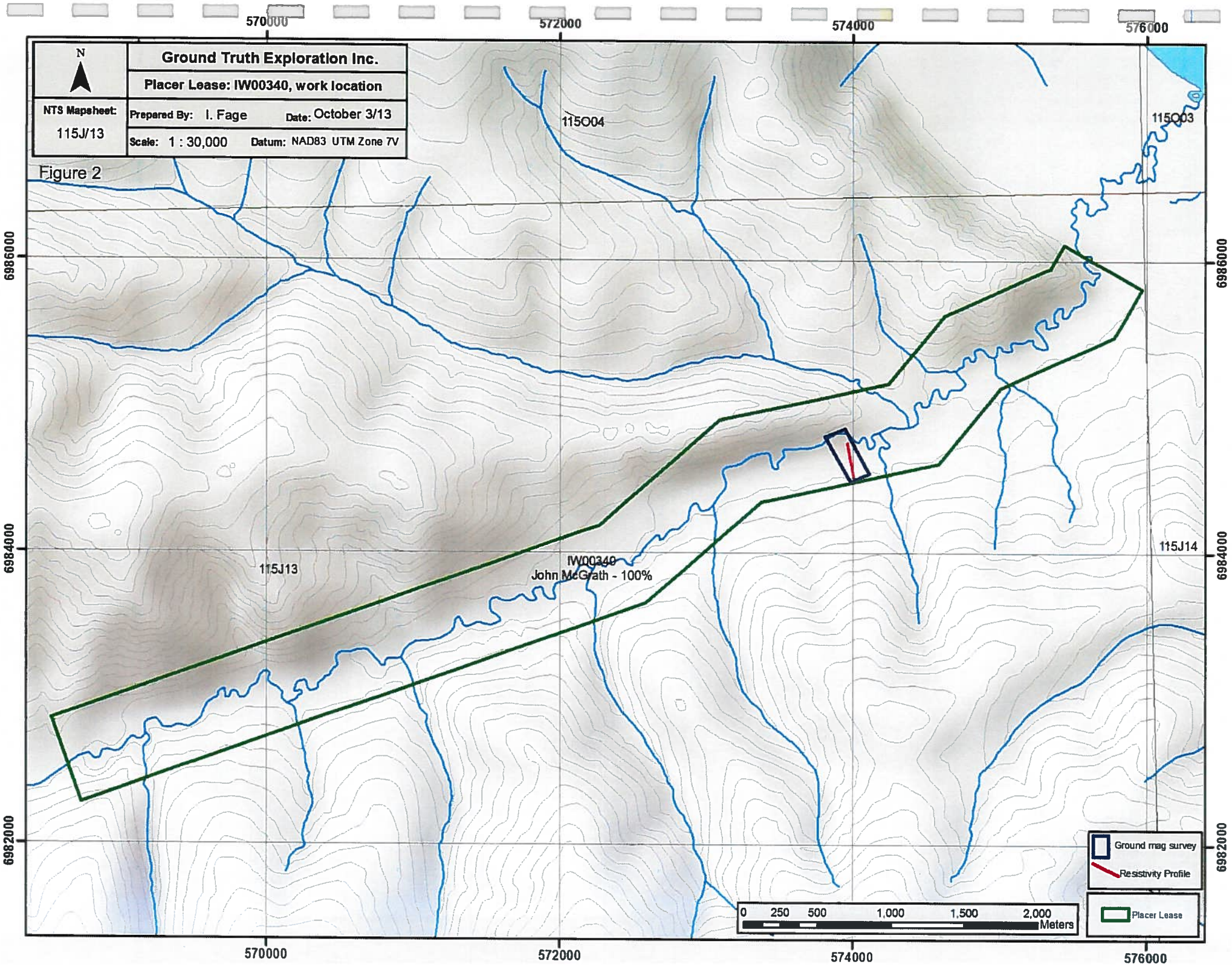
Location: Carlisle Creek, IW0040

Length: 5 miles

Expiry: October 3/2013 (renewed)

(Figure 2)


N
GroundTruth Explortion Inc.
Placer Lease Locator
Figure:
Figure 1
Prepared By: I. Fage
Date: Sept 25/13
Scale: 1 : 5,000,000
Datum: NAD83, Albers
140°0'0"W
130°0'0"W
120°0'0"W
70°0'0"N
65°0'0"N
60°0'0"N
JW00340
John McGrath - 100%
JW00339
Brodie Klemm - 100%
Dawson
Mayo
Beaver Creek
Carmacks
Ross River
Haines Junction
Whitehorse
Watson Lake
0
100
200
400 Kilometers


N
Ground Truth Exploration Inc.
Placer Lease: IW00340, work location
NTS Mapsheet: 115J/13
Prepared By: I. Fage
Date: October 3/13
Scale: 1 : 30,000
Datum: NAD83 UTM Zone 7V
Figure 2
570000
572000
574000
576000
6986000
6984000
6982000
115O04
115O03
115J13
115J14
IW00340
John McGrath - 100%
Ground mag survey
Resistivity Profile
Placer Lease
0 250 500 1,000 1,500 2,000
Meters

3.0 Physiology and Geology

The Carlisle Creek placer prospecting lease is located within the Yukon-Tanana Terrane. The landscape is composed broad valleys bordered by moderately sloped, tree covered hills ranging in elevations from 1200 to 5000 feet. The area experiences typical climatic conditions for central Yukon Territory with short, warm and dry summers and cold winters. Temperatures range from -20°C to -60°C in the winter and +10°C to +30°C in the summer.

The Carlisle Creek placer lease is completely underlain by a Devonian-Mississippian metamorphic unit. The southern headwaters of Carlisle creek are underlain by an early Jurassic plutonic unit but this is outside of the placer lease (approx. 10km away). See Figure 3.

Legend for Figure 3: Regional Geology:

Devonian-Mississippian

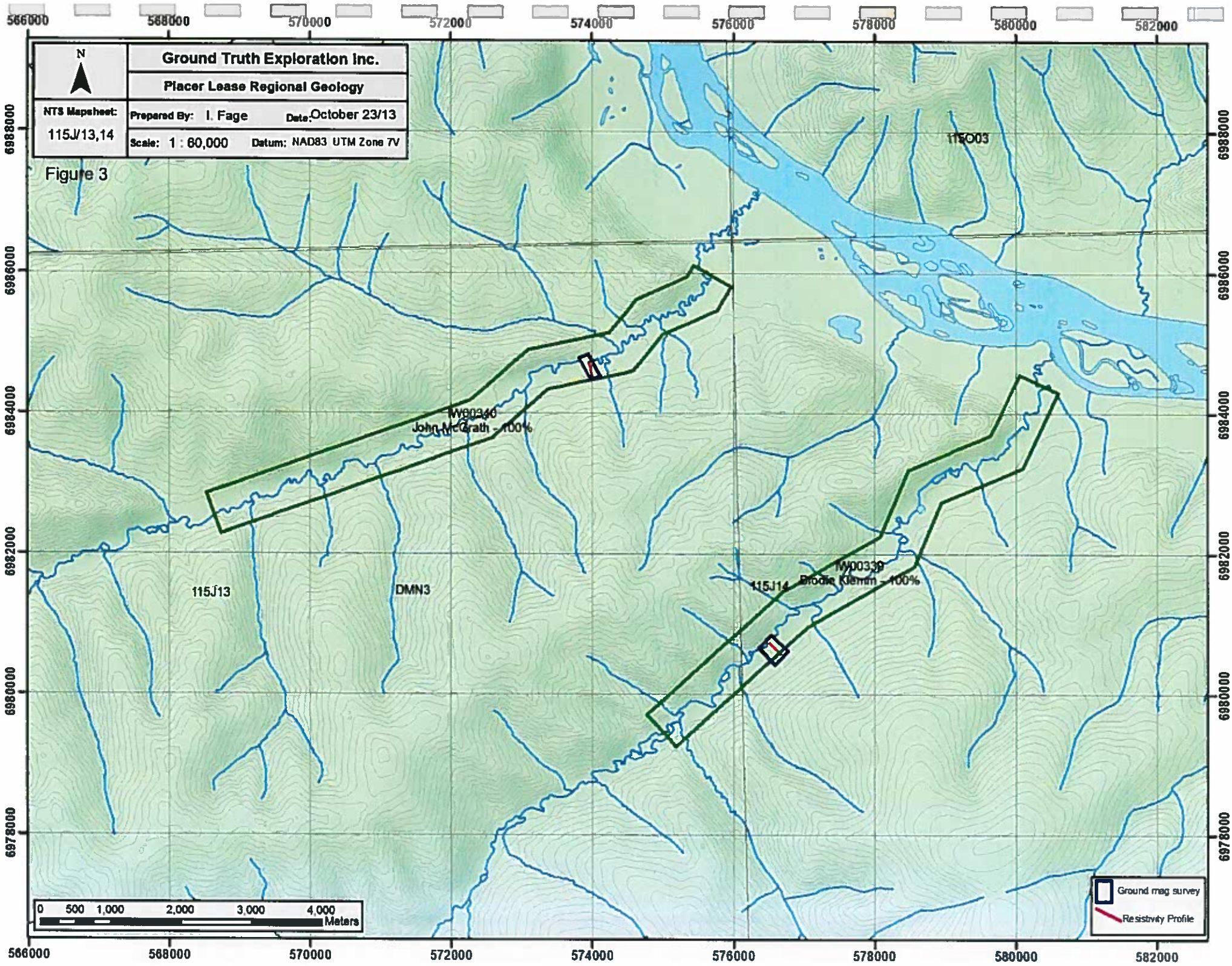
DMN3	**DMN3**: NASINA: quartzite, micaceous quartzite, quartz muscovite (chlorite; feldspar augen) schist, and minor metaconglomerate and metagrit as in (1), but may locally include significant Nisling Assemblage

Early Jurassic

EJgA	**EJgA:** AISHIHIK SUITE: medium- to coarse- grained, foliated biotite-hornblende granodiorite; biotite-rich screens and gneissic schlieren; foliated hornblende diorite to monzodiorite with local K-feldspar megacrysts; may include unfoliated monzonite of the Long Lake Suite (Aishihik Suite)
EJqL	**EJqL**: LONG LAKE SUITE: massive to weakly foliated, fine to coarse grained biotite, biotite-muscovite and biotite-hornblende quartz monzonite to granite, including abundant pegmatite and aplite phases; commonly K-feldspar megacrystic (Long Lake Suite)

Upper Cretaceous

uKC1	**uKC1:** CARMACKS: augite olivine basalt and breccia; hornblende feldspar porphyry andesite and dacite flows; vesicular, augite phyric andesite and trachyte; minor sandy tuff, granite boulder conglomerate, agglomerate and associated epiclastic rocks (Carmacks Gp., Little Ridge Volcanics, Casino Volcanics)


N
Ground Truth Exploration Inc.
Placer Lease Regional Geology
NTS Mapsheet:
115J/13,14
Prepared By: I. Fage
Date: October 23/13
Scale: 1 : 60,000
Datum: NAD83 UTM Zone 7V
Figure 3
566000
568000
570000
572000
574000
576000
578000
580000
582000
6988000
6986000
6984000
6982000
6980000
6978000
115O03
W00340
John McGrath - 100%
W00339
Brodie Klemm - 100%
115J13
DMN3
115J14
0 500 1,000 2,000 3,000 4,000
Meters
Ground mag survey
Resistivity Profile

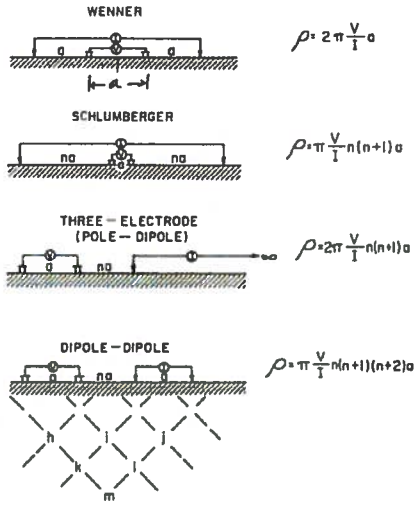
4.0 Resistivity Survey Procedure(s)

Ground Truth crews used a 206-L helicopter based out of the Coffee Project camp to gain access to the placer leases surveyed. The pre-arranged traverses were located using Ashtech GPS, then cut & chained at 5M, for the 415M traverses .

The DC Resistivity survey was completed using Advanced Geoscience Inc., Supersting instrument (Instr. specs. Addendum). The instrument is placed at a center point of the traverse; **referred to as electrode #42**, with 42 electrodes on either side. The Supersting gathered apparent Resistivity component only, using the -following arrays:

1. Schlumberger Inverted **Si3 Array** (with expanding AB and MN dipoles) A=1.5
2. Schlumberger Inverted **Si3 Array** (with expanding AB and MN dipoles) A= 3M
3. Extended Dipole Dipole DD **Array** (with expanding AB and MN)
4. Strong Gradient sG **Array**

The equipment comprises; Supersting (combined transmitter/ receiver), switch box, motor generator with 6 x 14 electrode cable= 84 electrodes.



When doing small A spacings <3M, the stainless electrodes are put into the ground at a lesser depth to help avoid coupling.

Contact Resistances (CRS) are the governing factor for collecting good data, giving high Signal/Noise ratio.

CRS are taken before survey, and attempts always put forward to keep them below the 2 kohm threshold when doing IP effects simultaneously.

The traverse is also surveyed using differential GPS to produce an accurate terrain file, for post processing.

The survey result is presented here-in using Earth Imager, and Surfer software.

4.1 Resistivity Survey Theory Applied to Placer Exploration

High Resolution DC Resistivity surveys can be applied to placer exploration by exploiting unique petrophysical properties of overburden and bedrock material. Measurement of the apparent resistivity at depth on continuous profiles provides a method to discriminate between overburden (muck/gravel) and bedrock interface. The results are mapped in symbolized section figures and interpreted. Ideally

these interpretations should be validated by drilling or test pits to confirm the resistivity based interpretation.

5.0 Magnetic Survey Procedure

The Equipment necessary to complete the survey consisted of:

Magnetometer Field Unit:	GEM Systems GSM-19T Proton Magnetometer
Base Station:	GEM Systems GSM-19T Proton Magnetometer
Data Processing	Laptop Computer
Software:	GEM Systems proprietary magnetometer upload, download software, MapInfo mapping software, Oziexplorer for grid planning and GPS interface.
Grid Establishment:	Garmin map76cx GPS (x3)
	Machete, Flagging, Marker

The magnetometer survey was conducted according to the following specifications:

Field Magnetometer Observation Frequency: 1 reading per 0.5 of a second.

Base Station Magnetometer: Set to record an observation every 20 seconds for the duration of the survey.

Levelling: None required

5.1 Magnetic Field Theory Applied to Placer Exploration

In a placer setting, magnetite derived from bedrock weathering is concentrated in the main channel of a creek or river where the water flow has the highest velocity and the greatest turbulence. As a result, minerals with high specific gravity (magnetite, ilmenite, gold, etc.) are preferentially concentrated in this region of the stream, while material with lower specific gravity is winnowed from the sediment. High concentrations of "black sand" (magnetite, ilmenite, chromite) are often recorded in auriferous pay streaks where the stream bed has remained relatively immobile from some period, permitting hydraulic concentration to build up a significant volume of these materials.

The materials comprising black sand are magnetically susceptible. Magnetite has a very high magnetic susceptibility of 1200-19200 x 10^{-3} SI units, ilmenite ranges from 300-3500 x 10^{-3} SI units, and chromite measures from 3-1100 x 10^{-3} SI units. Average magnetic susceptibilities for sedimentary, igneous (excluding ultramafic) and metamorphic rocks are: 0-10, 3-160 and 0-70 x 10^{-3} SI units respectively. Fluvial sediments register magnetic susceptibility in the range of 0-2 x 10^{-3} SI units. There is consequently a significant susceptibility contrast between gravels enriched with black sand and average gravels/ underlying bedrock.

6.0 Resistivity and Magnetic RESULTS

DC Resistivity Surveys:

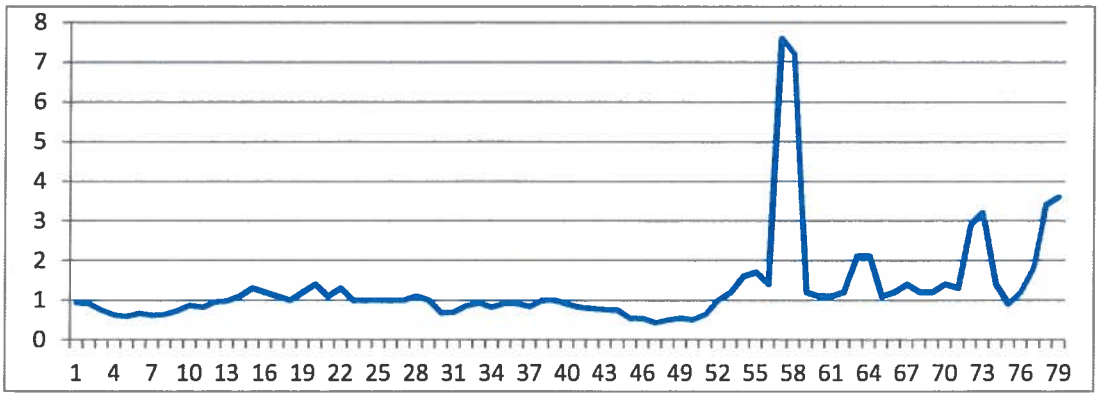
Survey 1: 84 Electrodes spaced at 1.5m, 126m horizontal length

Arrays Read: (1) Inverse Schlumberger (Si3A), (2) Strong Gradient

Survey 2: 84 Electrodes spaced at 3.0m, 252m horizontal length

Arrays Read: (1) Inverse Schlumberger (Si3A), Dipole-Dipole (xDD)

Contact Resistance:



CONTACT RESISTANCES (CRS) in Kohm's/3M (measured by electrode # 1-84)

No difficulties encountered placing the 84 electrodes along the traverse. The Highest CRS were supplemented by doubling electrodes.

Crews simply pushed electrodes by hand, limiting depth as to avoid coupling for these smaller dipole surveys.

Photos from Carlisle Field survey.

6.1 DC Resistivity Interpretation:

The strong gradient array pseudo section insinuates a buried ridge depth continuation plunging southerly towards Carlisle creek (20M south of traverse S limit). A vertical response at the south infers a cross cutting structure at this south limit. The horizontal high resistivity layer originating from the north (where buried bedrock high / or higher is suspect) thins near the said vertical structure. Several geometric spacing's render noise, under the assumed permafrost. Field observation along with a mean low CRS correlates with a thin low resistivity superpose.

The 1.5M Si3 array penetration is bound by the interpreted permafrost layer.

The 3M Si3 array has coupling effects under the permafrost disposed to certain geometric dipole separations. A narrow vertical anomaly under 165 on the pseudo section occurs where a surface depression is water saturated.

The extended dipole dipole gives superior detail in a narrow horizontal high resistivity mapping an inferred permafrost layer throughout averaging 5M think. The conductance delineates a very narrow superpose of low resistivity throughout.

(See interpretation Figures 4-7)

Figure 4

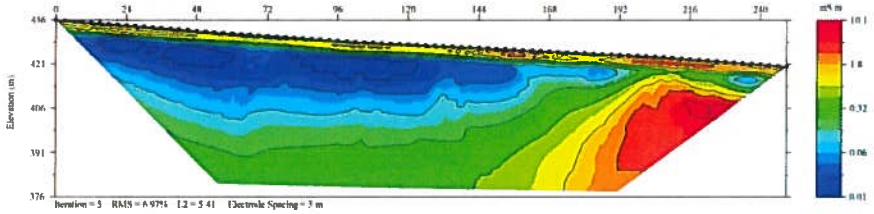
Placer Lease IW 00340 (Carlisle Creek)

DC Resistivity Imaging
Schlumberger Inverted Array- SI-3
AB=expanding MN=expanding

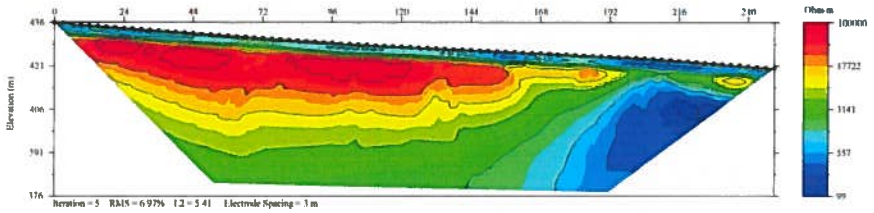
FIGURE sI3B-I
3M

LOOKING WEST

Conductance
Inverted Conductivity Section

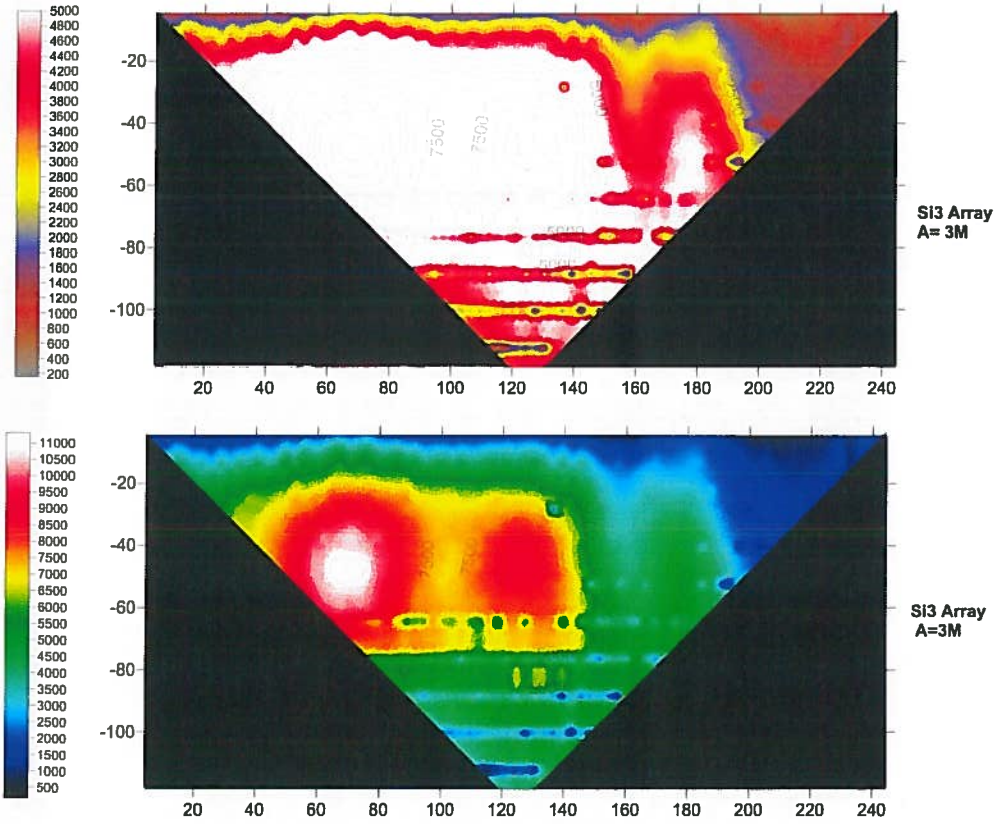


Resistivity
Inverted Resistivity Section



INVERSION

FIGURE Si3B-P
3M



PSEUDO SECTION

1616 data pt. read: Range 157 to 11315 ohm/ 5M. 5094 ohm/5M mean.

Figure 5

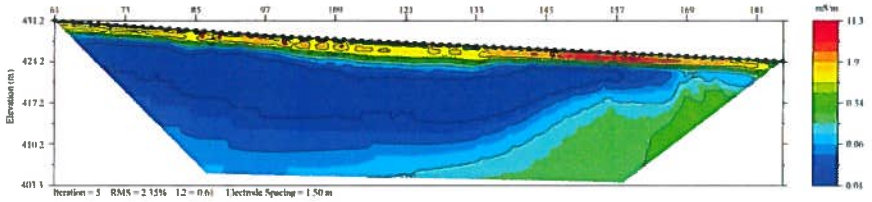
Placer Lease IW 00340 (Carlisle Creek)

DC Resistivity Imaging
Strong Gradient Array
AB=expanding MN=expanding

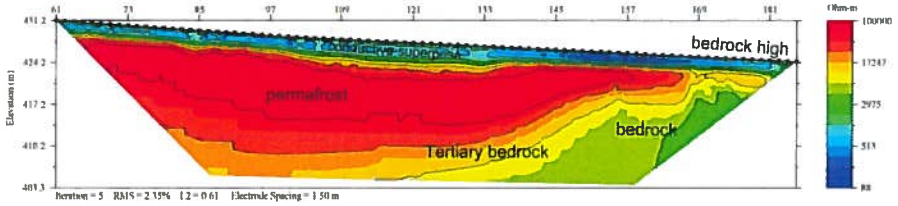
FIGURE sGA-I
1.5M

LOOKING NORTH

Conductance

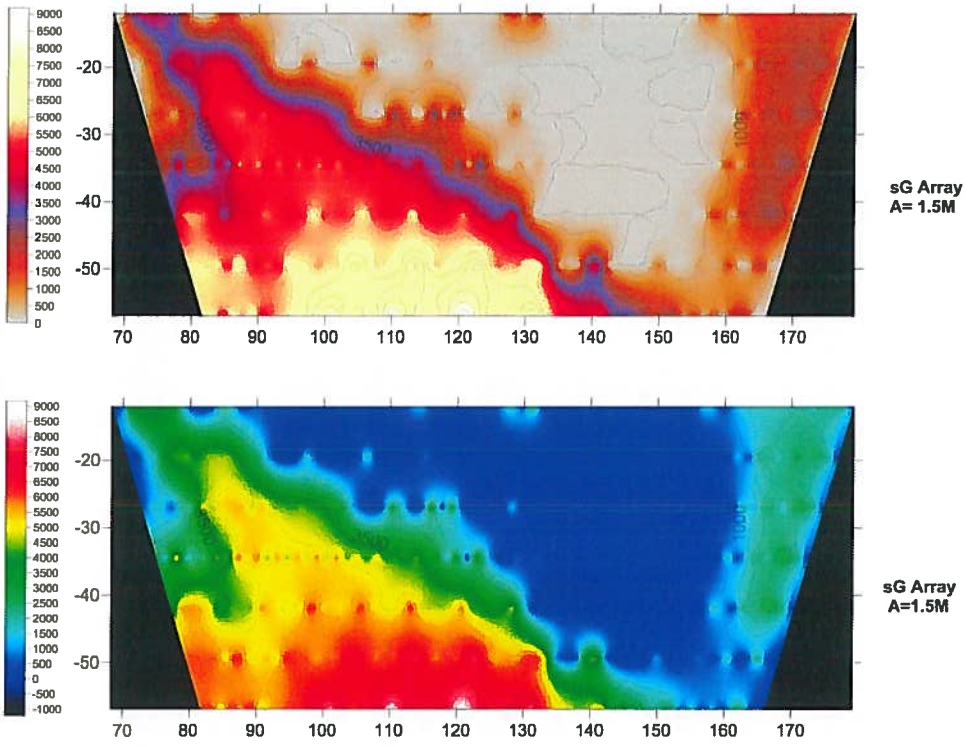


Resistivity



INVERSION

FIGURE sGA-P
1.5M



PSEUDO SECTION

2126 data pt. read: Range 1.8 to 10031 ohm/ 1.5M. 3238 ohm/5M mean.

Figure 6

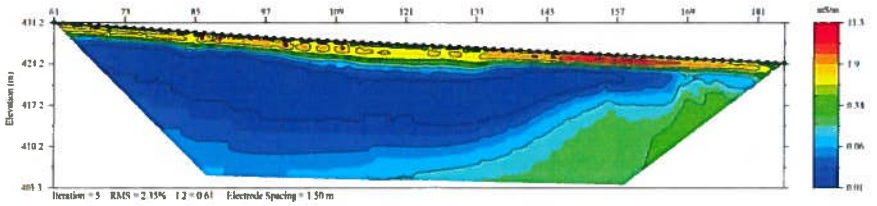
Placer Lease IW 00340 (Carlisle Creek)

DC Resistivity Imaging
Schlumberger Inverted Array- SI-3
AB=expanding MN=expanding

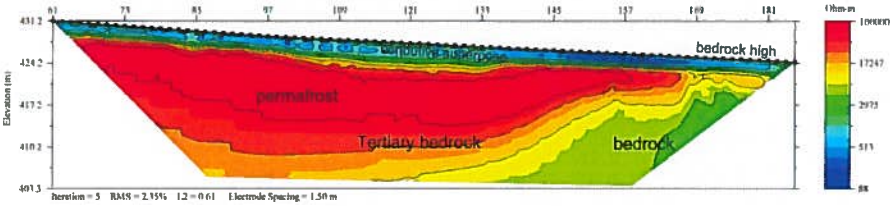
FIGURE sI3A-I
1.5M

LOOKING WEST

Conductance

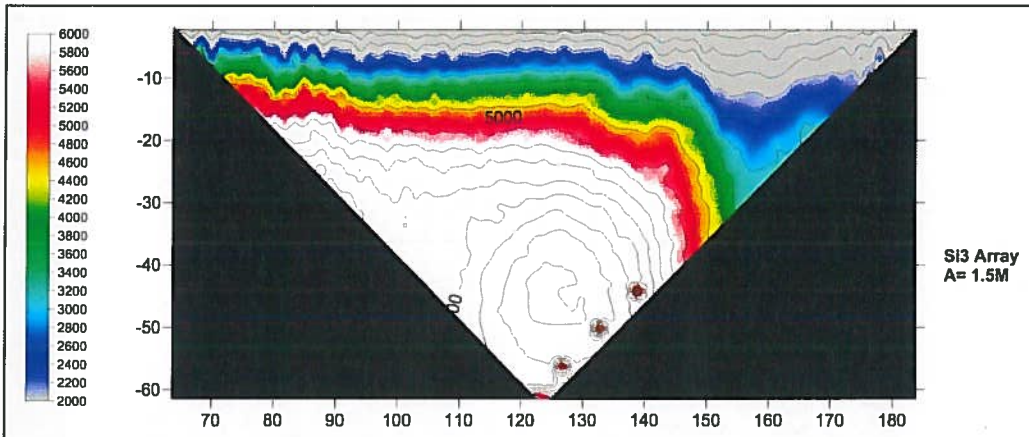


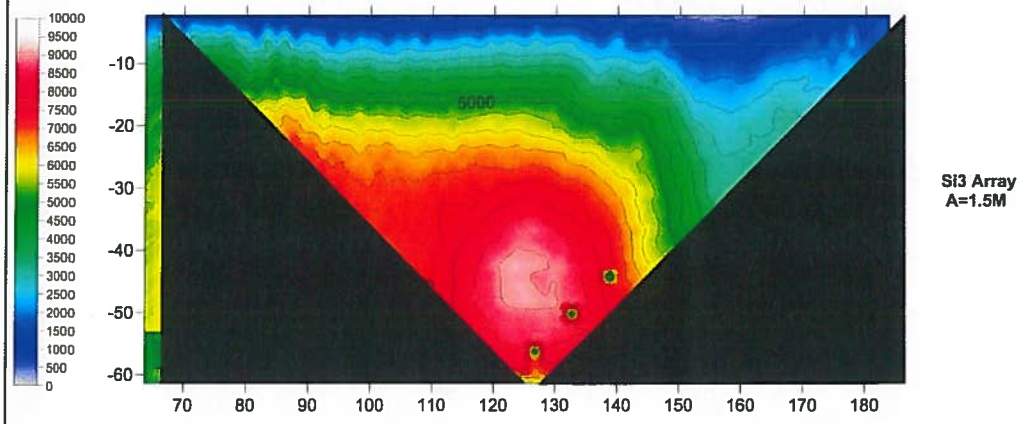
Resistivity



INVERSION

FIGURE Si3A-P
1.5M





PSEUDO SECTION

1679 data pt. read: Range 287 to 9245 ohm/ 5M. 4876 ohm/5M mean.

Figure 7

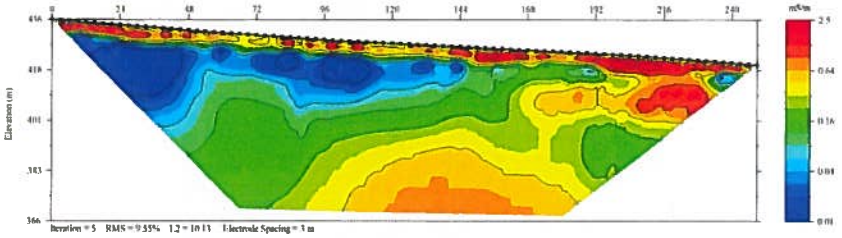
Placer Lease IW 00340 (Carlisle Creek)

DC Resistivity Imaging
Extended Dipole Dipole Array
AB=expanding MN=expanding

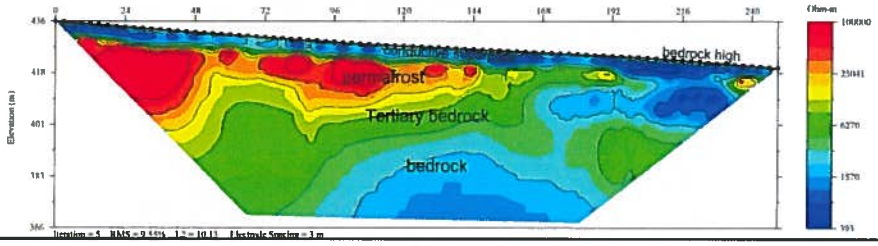
FIGURE xDD-I
3M

LOOKING WEST

Conductance

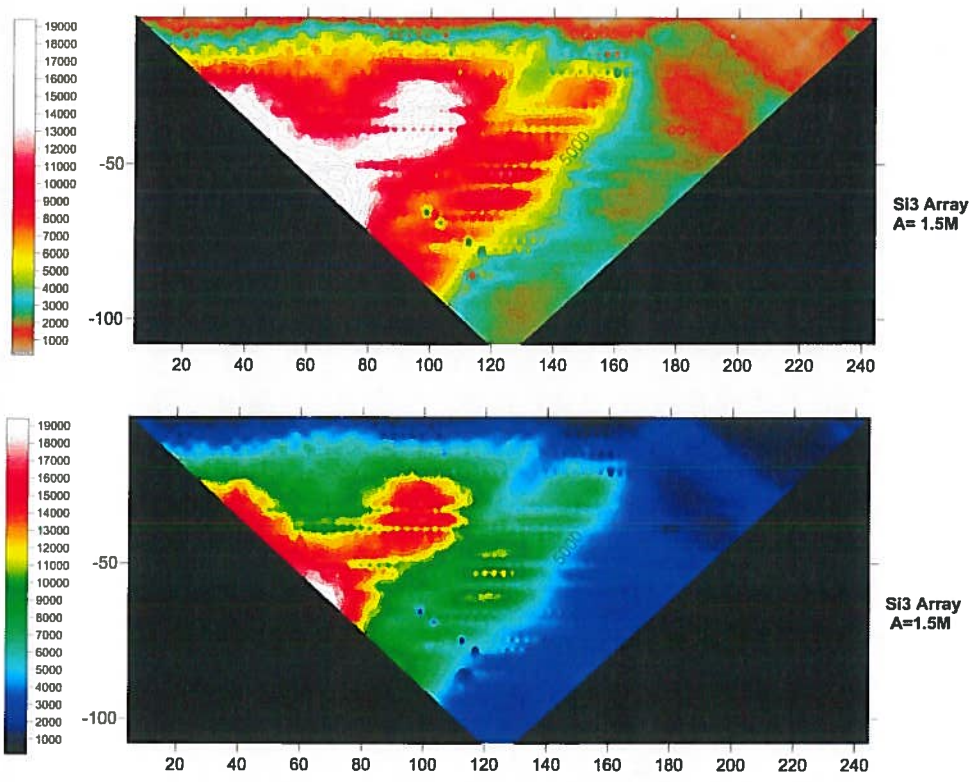


Resistivity



INVERSION

FIGURE xDD-P
3M



PSEUDO SECTION

1679 data pt. read: Range 287 to 9245 ohm/ 5M. 4876 ohm/5M mean.

6.2 Magnetic Survey Results:

The survey is comprised of a total of 1,374 geo-referenced magnetometer readings. The detail survey was successful in locating a creek parallel magnetic high lineament that is interpreted to be associated with magnetite bearing placer channel. See Figure 8

6.3 Combined Interpretation:

Bedrock depth is interpreted to exist variably at 35-20m depth along the 252m profile. There is an interpreted entrapment zone with deeper interpreted bedrock basement (~30m) and coincident cross cutting magnetic high lineament at 170-190m. This can be interpreted as a historic channel in the drainage. From 200-250m, extremely low resistivity was encountered at surface with saturated black muck in hummocks. Ground it interpreted to be thawed here and highly saturated, inconclusive bedrock depth.

See figure 8 and 9 for interpretation with Inverted Resistivity.

7.0 Conclusion/ Recommendations

Additional work is left to the client's discretion. Results need to be proofed by follow-up. The 1.5 and 3M surveys make a good composite. The sG array favors north plunging underlying bedrock compared to Si3 and xDD. Perhaps it is the better penetrating array reading through the resistive permafrost layer averaging near 10M thickness. The Si3 1.5M survey infers the coldest spot being over 100ft down under 125N. Magnetic data correlates reasonably well with prospective Resistivity zone at 170-190m. Additional flanking lines can build confidence in this interpretation. Drill testing along profile can confirm interpreted results from Res/Mag survey.

8.0 Statement of Expenditures

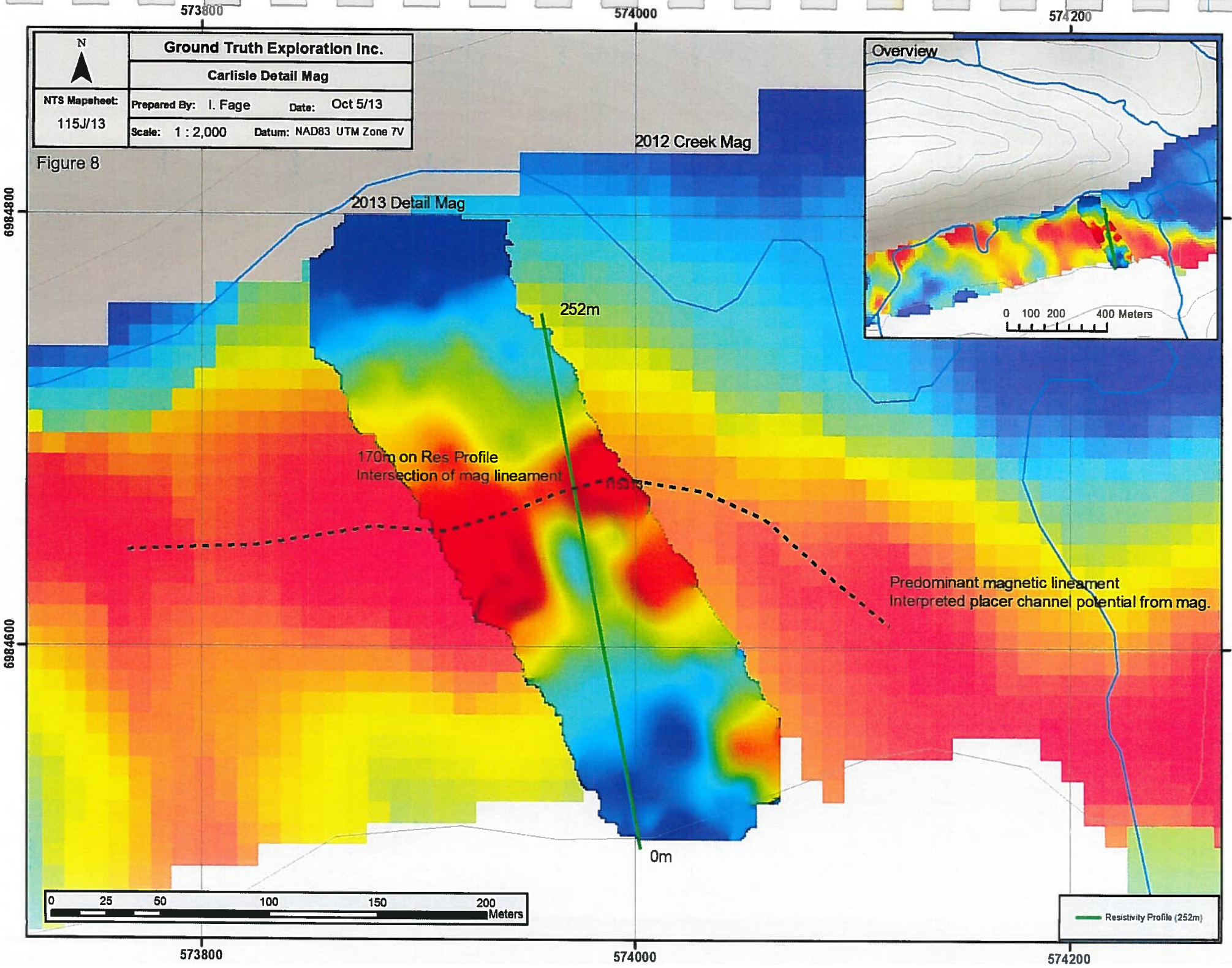
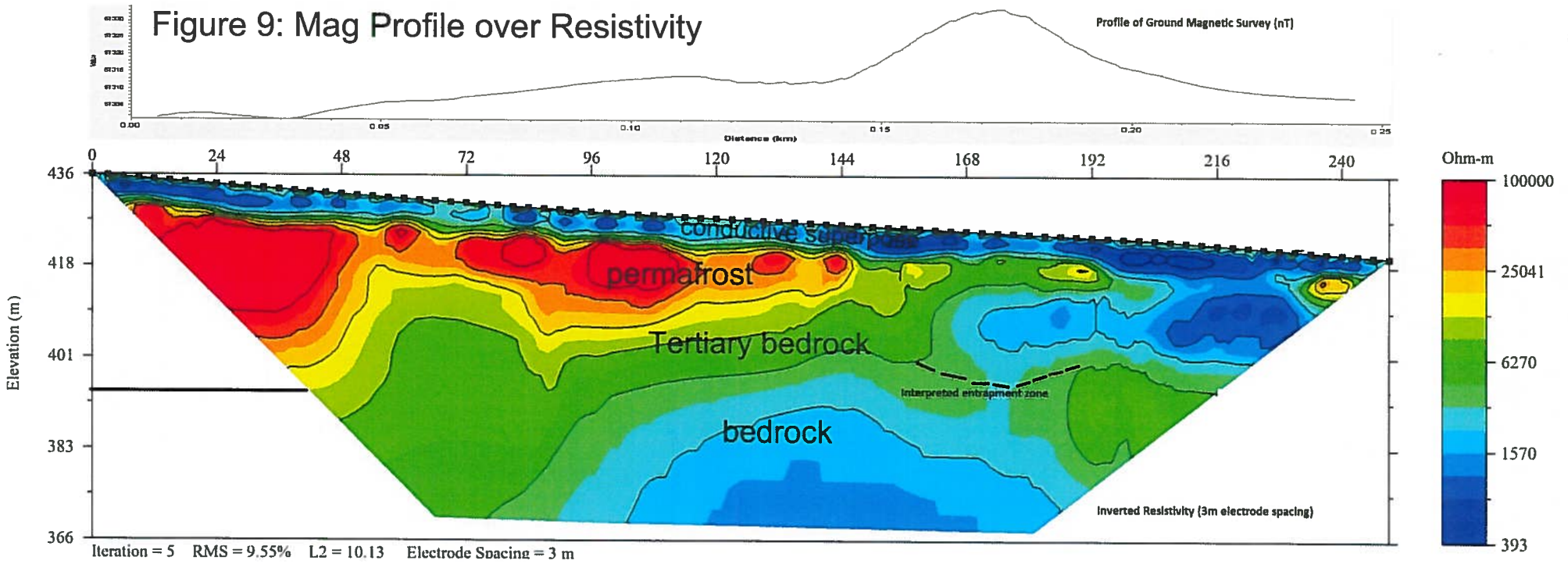

N
Ground Truth Exploration Inc.
Carlisle Detail Mag
NTS Mapsheet: 115J/13
Prepared By: I. Fage
Date: Oct 5/13
Scale: 1 : 2,000
Datum: NAD83 UTM Zone 7V
Figure 8
573800
574000
574200
6984800
6984600
2012 Creek Mag
2013 Detail Mag
252m
170m on Res Profile
Intersection of mag lineament
Predominant magnetic lineament
Interpreted placer channel potential from mag.
0m
Overview
0 100 200 400 Meters
0 25 50 100 150 200 Meters
Resistivity Profile (252m)

Figure 9: Mag Profile over Resistivity



Resistivity Survey: On 5 mile Placer Lease: IW00340

GROUNDTRUTH EXPLORATION

Survey Date: September 24, 2013

Work Performed:

2 Resistivity lines set up and read plus one day of ground magnetic survey on IW00340 lease.

Survey 1: 84 electrodes spaced at 1.5m and 126m horizontal length.
Arrays: Inverse Schlumberger, Strong Gradient

Survey 2: 84 electrodes spaced at 3.0m and 252m horizontal length.
Arrays: Inverse Schlumberger, Extended Dipole-Dipole

Survey 3: Ground magnetic survey over IP profile line plus 8 mag lines ran at 25m line spacing on either side of IP profile

Survey Operation Daily Cost:

Wages:	
1 Geophysical Operator * $450/day	$450
4 Field Assistants * $350/day	$1,400
Daily Data Processing: 1h*$60/h	
Dowload survey, DGPS, QC Field Data, Package and email to Client/Geophysicist	$60
Food/Camp:	
Food: Crew of 5 * $50/day	$250
Camp: Crew of 5* $35/day	$175
Survey Equipment:	
IP/Resistivity Meter: Supersting 8 Channel meter w/cables, electrodes	$600
Precision GPS: Ashtech Promark 100 differential GPS	$75
Laptop w/Inversion and Mag processing software for nightly dowload and review	$50
Iridium Sat Phone	$35
Chainsaw	$50
Radios $5/day * 5	$25
Consumable Supplies:	
Electrodes: wear & tear- 2 per profile, $6 ea	$12
Calcium Chloride: 4kg per profile, $2/kg	$8
Pickets every 50m: 9 per profile, $1/picket	$9
Spray paint: 1 can per profile, $10/can	$10
Total Cost:	***$3,209***

Ground Magnetic Survey: Operator $400, Walk Mag $200, Base $100, Camp $35, Food $50	***$785***
Processing of Magnetic Data: 2 hours @ $60/hour	***$120***
Assessment Report for Placer Lease: $1000	***$1,000***

Total Expenditures for Assessment on Lease:	***$5,114***

Oct 3/13

9.0 Certification

I, Richard Daigle of Thorold, Ontario certify that I am a graduate Certified Electronic Technologist. I have been practicing Geophysics since 1980.

R. J Daigle **October 2013**

I, Isaac Fage of Dawson, Yukon Territory certify that I hold an Advanced Diploma in GIS/Remote Sensing from the Centre of Geographic Sciences (COGS). I am an owner and President of GroundTruth Exploration Inc. I have been working in the Mineral Exploration continuously since 2004.

I. Fage **October 2013**

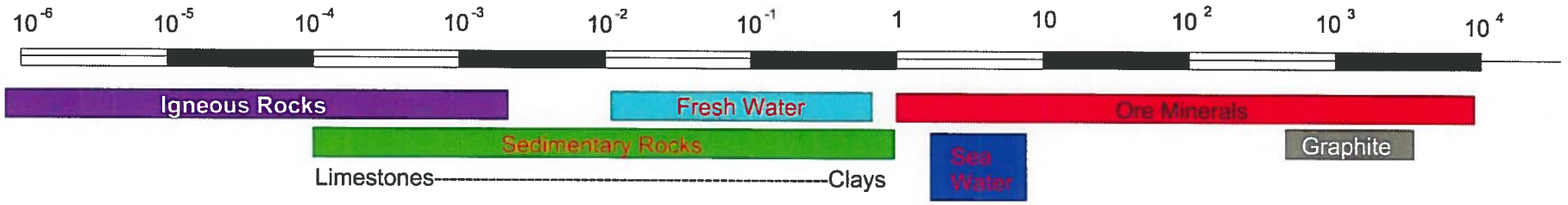
10.0 List of Figures

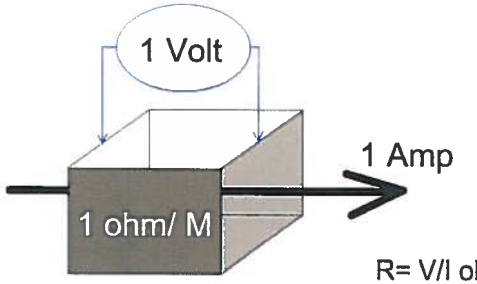
11.0 Supersting R8 IP Technical Specifications

from www.agiusa.com

Measurement modes	Apparent resistivity, resistance, induced polarization (IP), battery voltage.
Measurement range	+/- 10V.
Measuring resolution	Max 30 nV, depends on voltage level.
Output current intensity	1mA - 2000 mA continuous, measured to high accuracy.
Output voltage	800 Vp-p, actual electrode voltage depends on transmitted current and ground resistivity.
Output power	200W.
Input channels	Eight channels.
Input gain ranging	Automatic, always uses full dynamic range of receiver.
Input impedance	>150 MOhm.
Input voltage	Max 10 V.
SP compensation	Automatic cancellation of SP voltages during resistivity measurement. Constant and linearly varying SP cancels completely (V/I and IP measurements).
Type of IP measurement	Time domain chargeabilitiy (M), six time slots measured and stored in memory.
IP current transmission	ON+, OFF, ON-, OFF.
IP cycle times	0.5, 1, 2, 4 and 8 s.
Noise suppression	Better than 100 dB at f >20 Hz.
Powerline noise suppression	Better than 120 dB at power line frequencies (16 2/3, 20, 50 & 60 Hz) for measurement cycles of 1.2 s and above.
Total accuracy	Better than 1% of reading in most cases (lab measurements). Field measurement accuracy depends on ground noise and resistivity. Instrument will calculate and display running estimate of measuring accuracy.

Crude apparent ***CONDUCTIVITY/ RESISTIVITY*** classification





R= V/I ohm's law.

Resistance	Voltage (V) / Current (I) in ohms	Ω (ohm)
Resistivity	Resistance per unit volume in ohms	ρ (rho)
Conductivity	1/R	σ (siemens)