KRYOTEK

Geophysical Survey of Subsurface Conditions for Placer Exploration

Bedrock Creek, Little Gold Creek
60-Mile River Area
Yukon

Draft Report

Submitted to:

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K-1 Mines

Submitted by:

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Y1A 6C4

Date:

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1.0 General

1.1 Introduction

The following report has been prepared by Kryotek Arctic Innovation Inc. (Kryotek Inc.) for Mike McDougall of K-1 Mining Ltd. The objective of the surveys was to use resistivity geophysics to determine the likely locations of gold-bearing gravels, depths to bedrock, and thicknesses of overburden.

Depths to bedrock and thicknesses of overburden were confirmed through drilling using a 5" diameter Simco SK-1 2400 solid-stem auger drill.

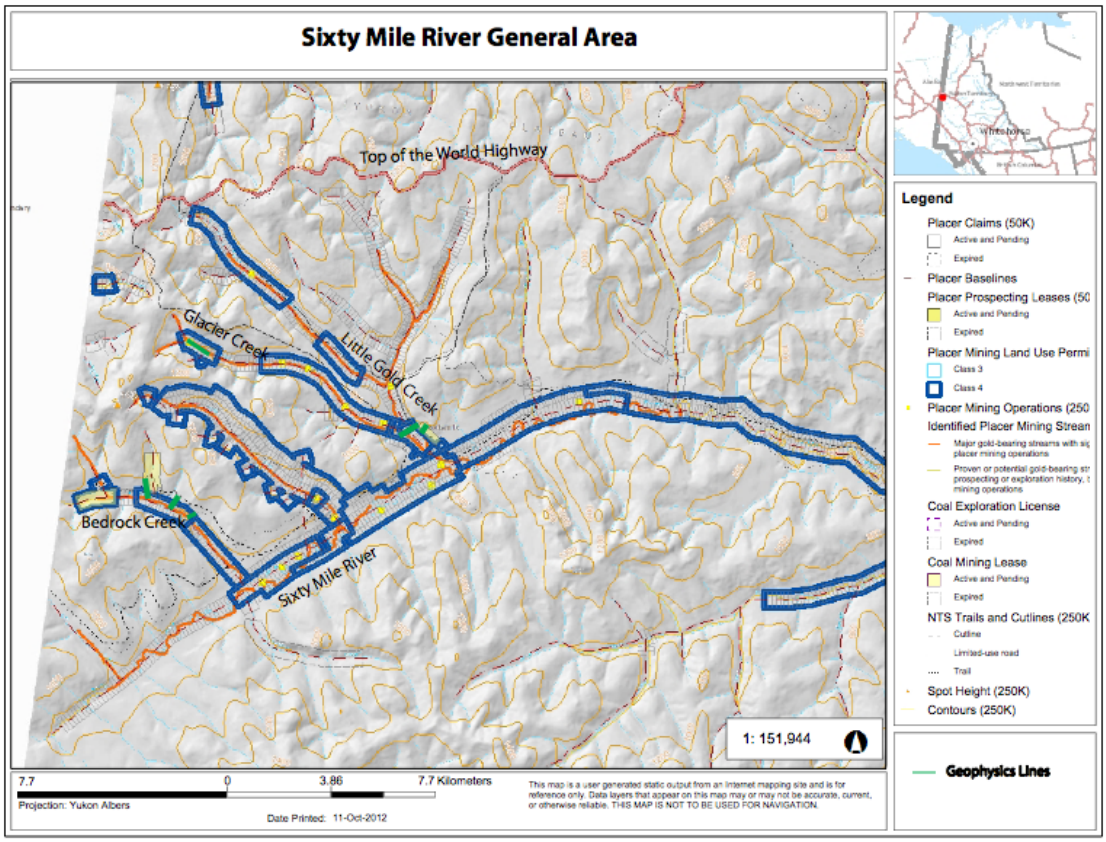
Fieldwork took place from July 14 to July 17, 2012 and from September 14 to September 21, 2012. Personnel on site included James Coates, Sky Pearson and Astrid Grawehr of Kryotek Inc.

A total of fifteen (15) sites were surveyed for the study, of which twelve (12) are included in this report.

Geophysical surveys were conducted alongside and perpendicular to Bedrock Creek west of the 60-Mile River Camp and at Little Gold Creek, northeast of 60-Mile River camp, at several pre-determined locations.

1.2 Setting

The local geography consists of rolling hills extending to alpine ridges, cut by v-shaped, erosion-formed valleys. The area is un-glaciated except for isolated local valley glaciers and is underlain by extensive discontinuous permafrost. Hill slopes are covered in one to two meters of colluvium over degraded schist bedrock. Valley bottoms are infilled with fluvial gravels and windblown loess deposits. Often there is a significant organic percentage to the loess and valley deposits may be covered with a colluvial apron at the base of steeper slopes. Gold is located at the base of the fluvial gravels and may extend several meters into bedrock. Abandoned creek channels containing alluvial gold may be found perched on hill slopes several hundred meters upslope of the current stream level.


Sixty Mile River General Area
Top of the World Highway
Glacier Creek
Little Gold Creek
Bedrock Creek
Sixty Mile River
1: 151,944
7.7
0
3.86
7.7 Kilometers
Projection: Yukon Albers
Date Printed: 11-Oct-2012
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.
Legend
Placer Claims (50K)
Active and Pending
Expired
Placer Baselines
Placer Prospecting Leases (50
Active and Pending
Expired
Placer Mining Land Use Permi
Class 3
Class 4
Placer Mining Operations (250
Identified Placer Mining Strean
Coal Exploration License
Active and Pending
Expired
Coal Mining Lease
Active and Pending
Expired
NTS Trails and Cutlines (250K
Cutline
Limited-use road
Trail
Spot Height (250K)
Contours (250K)
Geophysics Lines

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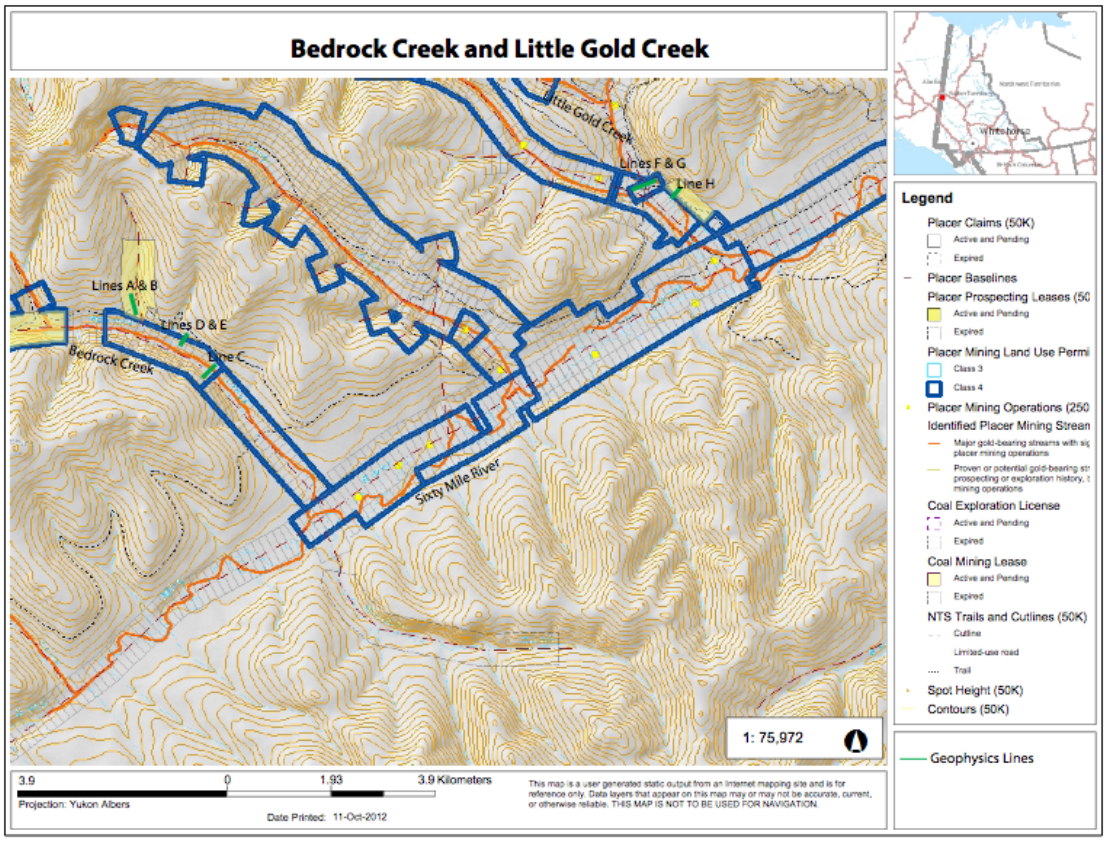

Bedrock Creek and Little Gold Creek
Little Gold Creek
Lines F & G
Line H
Lines A & B
Lines D & E
Line C
Bedrock Creek
Sixty Mile River
1: 75,972
3.9
0
1.93
3.9 Kilometers
Projection: Yukon Albers
Date Printed: 11-Oct-2012
This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.
Whitehorse
Legend
Placer Claims (50K)
Active and Pending
Expired
Placer Baselines
Placer Prospecting Leases (50
Active and Pending
Expired
Placer Mining Land Use Permi
Class 3
Class 4
Placer Mining Operations (250
Identified Placer Mining Strean
Major gold-bearing streams with sig placer mining operations
Proven or potential gold-bearing str prospecting or exploration history, mining operations
Coal Exploration License
Active and Pending
Expired
Coal Mining Lease
Active and Pending
Expired
NTS Trails and Cutlines (50K)
Cutline
Limited-use road
Trail
Spot Height (50K)
Contours (50K)
Geophysics Lines

2.0 Methodology

2.1 Overview

Geophysics

Resistivity was selected for this area as the electrical properties of silt, gravel, and schist bedrock are distinct and easily definable. The equipment was calibrated to results of the initial boreholes and very good agreement between the resistivity tomograms and boreholes was achieved. All geophysics lines were marked with fluorescent orange survey tape. Locations of individual electrodes are marked on the tape. Channel centers were also marked on tape.

A Lippmann 4-point Resistivity System was used. This system allowed up to 20 m of depth penetration. Data was collected and inverted using AGI Earth Imager 2D software. Noisy data points and electrodes with poor contact resistance were removed and data was filtered for spikes or depressions in resistivity. The software produced two-dimensional tomograms using a smoothed, least squares damped, and robust inversion parameters. Preliminary interpretations were conducted.

DC Electrical Resistivity Tomography

This technique injects a direct electrical current into the ground surface, and then measures the voltage that remains at a number of distances from the injection point. As different soils have different resistances to electrical current, a tomogram (subsurface diagram) of resistivities can be produced. This technique is useful for displaying the high-resistance regions of bedrock and ground-ice.

Earth Imager 2D Software

Earth Imager 2D software by Advanced Geosciences Inc. was used to invert and process the geophysics data. This software produced two-dimensional tomograms of resistivity data. The images were processed using both smoothed and robust inversion parameters in order to clarify transitions between material types as well as resistivity properties of those materials.

The images were interpreted by James Coates and features such as thawed regions, ice-rich permafrost, competent schist bedrock, degraded schist bedrock and top of bedrock contours were identified.

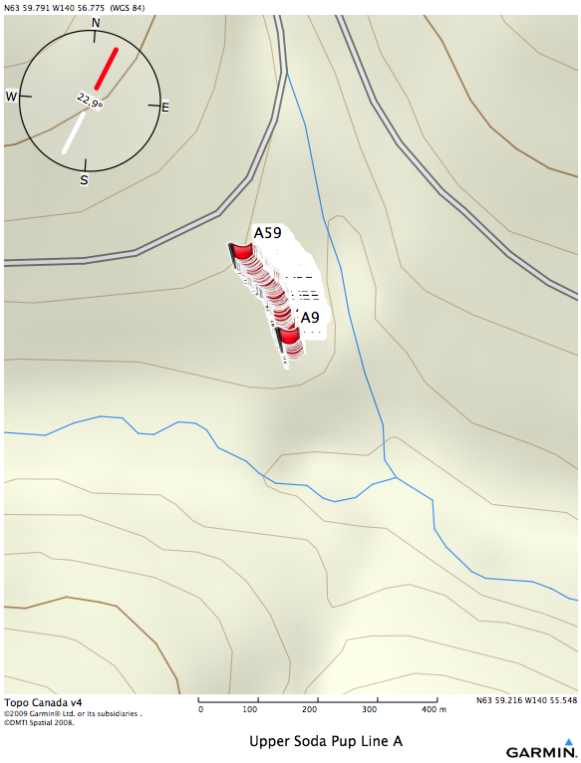
The images are included in this report (refer to section 3.0). Rough text interpretation is also included.

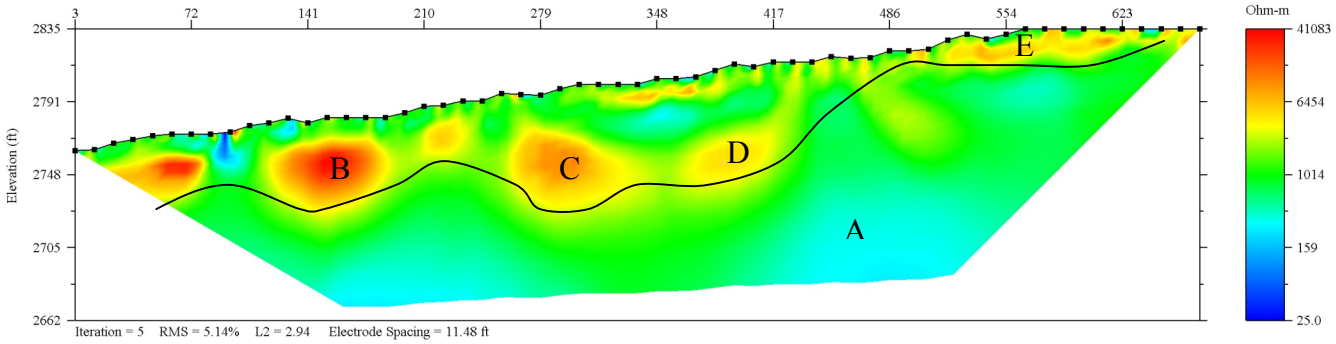
2.2 Geophysical Disclaimer

Subsurface information shown on these drawings was obtained solely for use in establishing design controls for the project. The accuracy of this information is not guaranteed and it is not to be construed as part of the plans governing construction of the project. It is the bidder's responsibility to inquire of the owner if additional information is available, to make arrangements to review the same prior to bidding, to conduct whatever site investigation or testing may be required, and to make his own determinations as to all subsurface conditions. James Coates and Kryotek Arctic Innovation Inc. accept no liability whatsoever for any use or application of this information by any and all authorized or unauthorized parties.

3.0 Interpreted Resistivity Tomograms

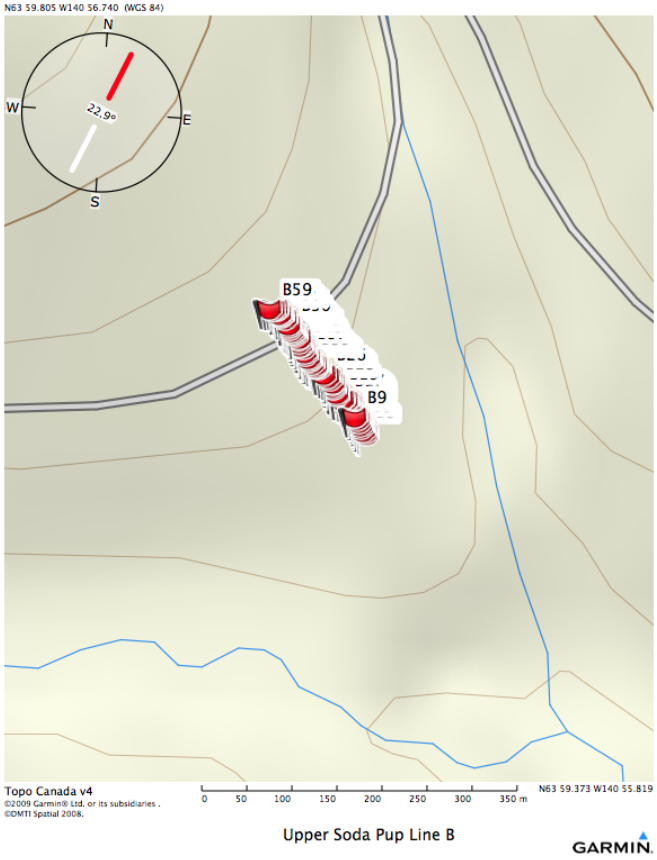
3.1 Line A, Soda Pup

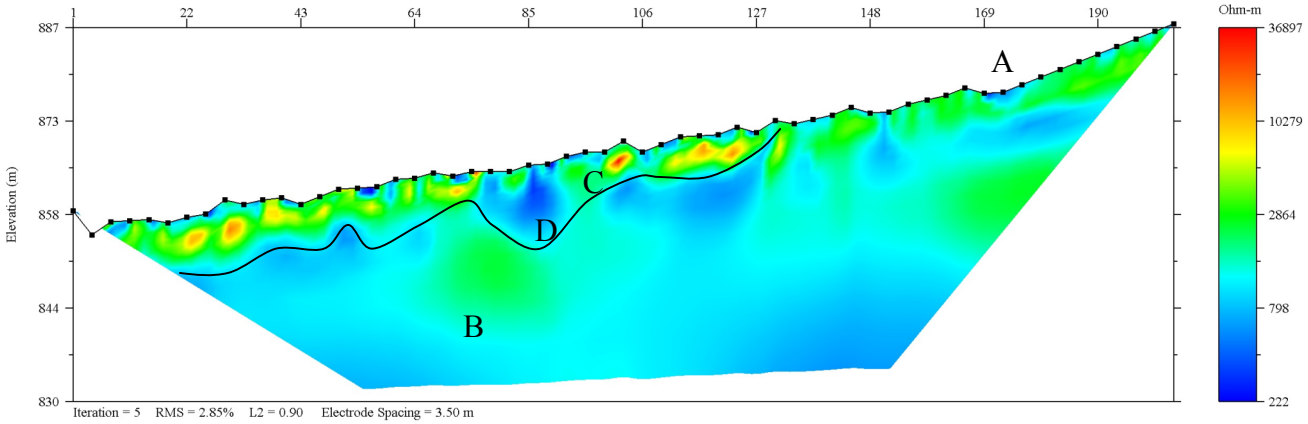




This transect runs alongside the northwest rim of Soda Pup, a tributary to Bedrock Creek. Schist bedrock (A) is found at the base of the image. Several areas of high resistivity (B), (C), and (D) are interpreted as frozen gravels. These may be paleochannels and should be drilled to confirm. Bedrock rises to the uphill end of the image and is quite close to the surface with a layer of high-resistance frozen silt and colluvium or slide rock (E).

3.2 Line B, Soda Pup





This transect runs uphill from Soda Pup Line A, extending across the old ditchline at (A). Schist bedrock (B) is found beneath a surficial layer of frozen degraded permafrost (C). Surficial fluvial material may be found at (C) as well. There appears to be an old incised (and possibly thawed) channel at (D). Drilling is required to confirm the presence of this channel.

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Bedrock Creek Potential Upper Bench Deposits

Initial geophysical work on upper bench deposits was conducted in 2009. Geophysics were conducted along several existing excavations which revealed the presence of fluvial gravels up to 30 m above the level of the present-day Bedrock Creek. The initial investigation revealed two potential fluvial channels along either side of Winter's Pup. Geophysics conducted in 2012 re-examined two of the 2009 transects and produced similar results. Channels were found at elevations of approximately 2800 and 2750 feet above sea level. Detailed geophysics using a 1.0 m electrode spacing were used to investigate one of the two channels. One channel was drilled using the Simco auger rig and depths were found to match those indicated by the geophysics.

Elevations were determined using a Garmin GPS. As GPS elevations are not precise, all elevation data has a 30 to 50 foot accuracy.

There is a strong likelihood of fluvial channels extending across the east slope of the bedrock creek valley at consistent elevations. Evidence of these channels was located by geophysics at five locations extending from upstream of Soda Pup to several hundred meters downstream of Winter's Pup. The channels generally decrease in elevation downstream, giving an indication of the paleostream gradients. Drilling and existing excavations have confirmed the presence of these channels near Winter's Pup, but more drilling is required to confirm the channels at other locations. Another channel was found in the stripped area downstream of the old camp on Bedrock Creek at an elevation of approximately 2580 feet.

Approximate Potential Channel Elevations (feet above sea level)

Line	Channel A	Channel B	Channel C
Soda Pup	2808	2805	-
North Winter's Pup	2750	2685	2650
South Winter's Pup	2750	2690	-
Hannah D	2730	-	-
Bedrock Stripped Area	-	-	2600

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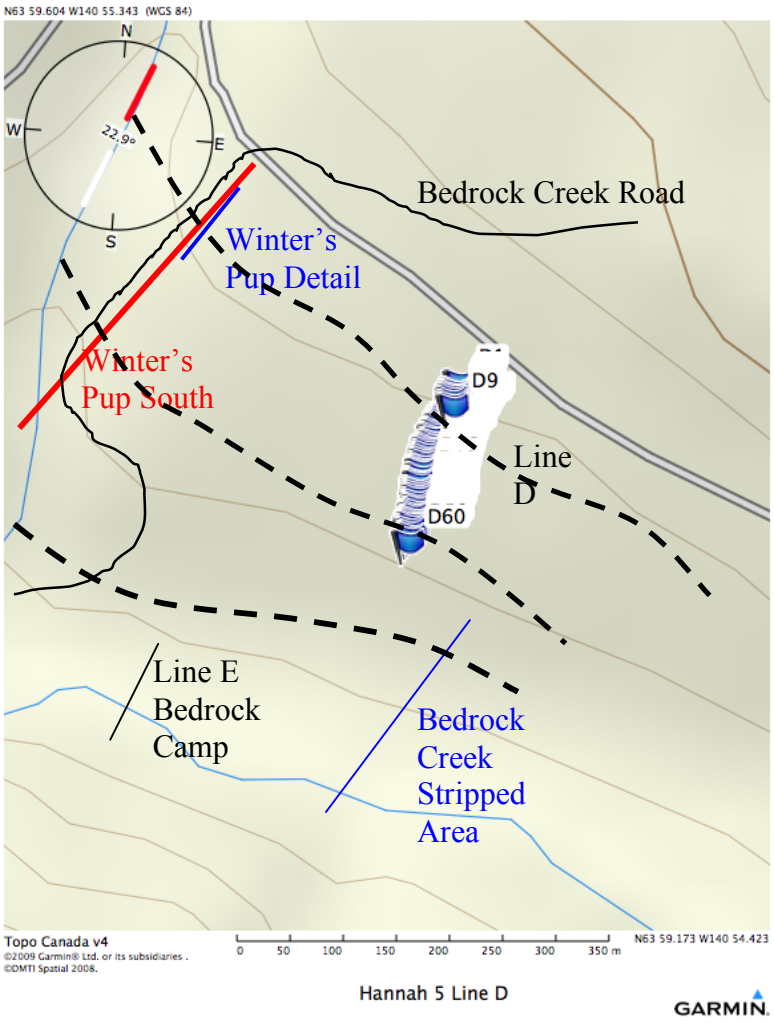
Geophysics Transects near Bedrock Creek Road and Locations of Possible Bench Deposits



Dashed Lines Indicate Possible Channel Locations

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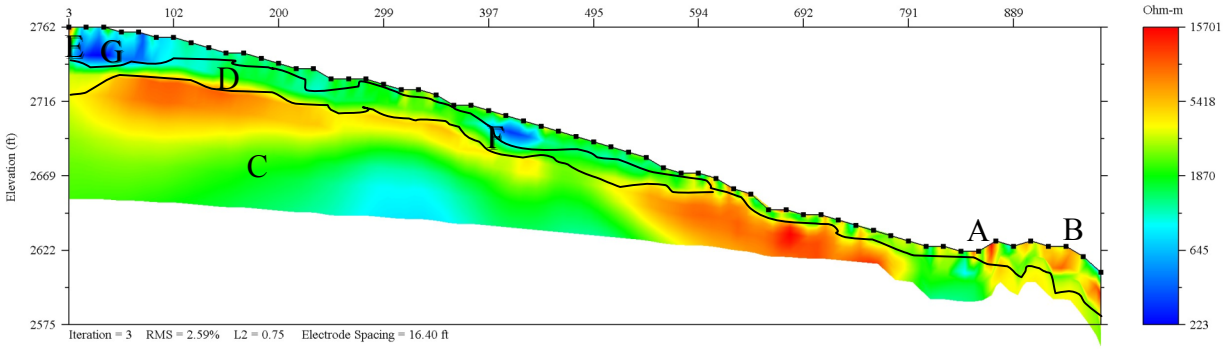
Bedrock Creek Road and

(Winter's Pup South)



This transect runs down the centre of the road leading down to Bedrock Creek alongside Winter's Pup. Near the bottom, the line crosses Winter's Pup (A) and extends over a waste gravel pile (B) before ending at the base of the pile. Bedrock is schist (C), highly degraded near the surface (D). Two channels were identified at (E) and (F). These are likely continuations of the fluvial gravel channels incised into bedrock located upstream. Drilling at (G) indicated a 20 foot depth to bedrock. This agrees with and confirms the resistivity readings.

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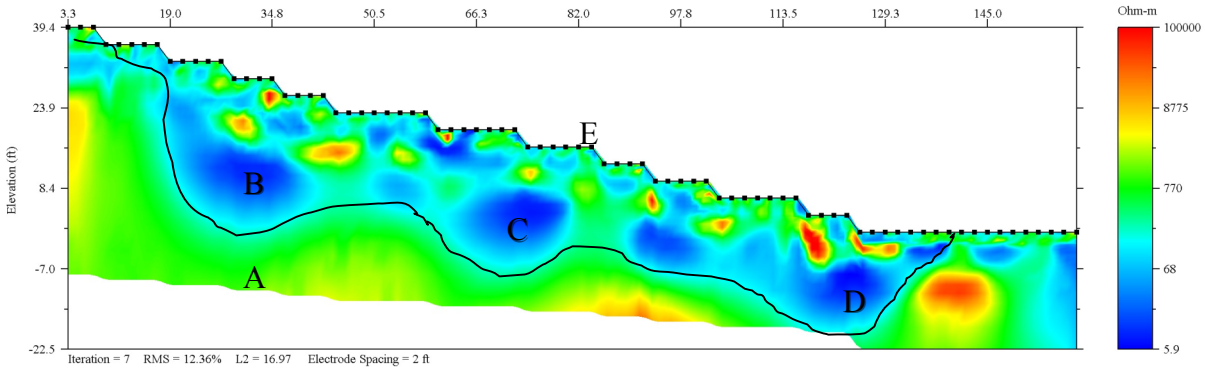
Bedrock Creek Road Detail

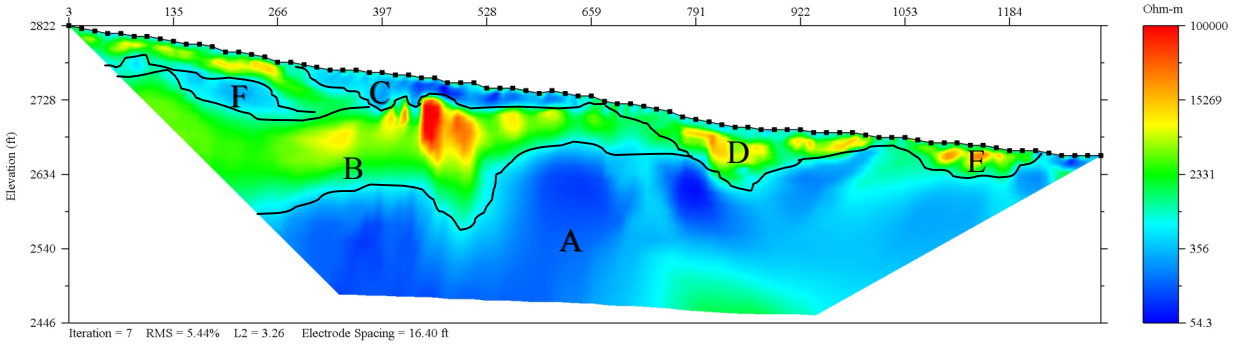
(Detail image of Upper Channel at Location E)



This transect is a high-resolution image detailing the upper channel along the Bedrock Creek road. The channel is incised into degraded soft schist bedrock (A). It is 15-25 feet in depth and around 120 feet wide. Three distinct sub-channels are visible at (B), (C) and (D). These consist of thawed, wet sands and gravels. Pockets of silt and permafrost are found near the surface. This area is beneath the road and has likely thawed as a result of the road clearing. While no gold was found in the drill hole at (E), drilling into the centers of the channels is recommended, as these are the most likely locations for gold deposits.

Winters Pup North

(Along stripped area to north of and parallel to Winter's Pup)



This transect runs down the center of the cleared area to the north of and parallel to Winters Pup from three hundred feet above the cleared area to the road which runs along the bottom of Bedrock Creek. This is a complex image, which shows thawed schist bedrock near the base of the image (A), likely with groundwater. Above this is frozen schist (B). Three potential gravel channels were identified at (C), (D) and (E). Another potential channel exists at (F), but is complicated by the presence of permafrost. Elevations of the main channels are at approximately 2750 feet, 2700 feet, and 2650 feet.

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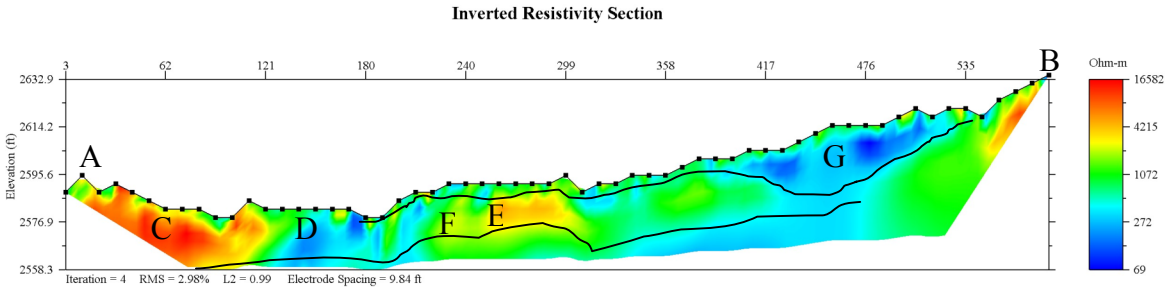
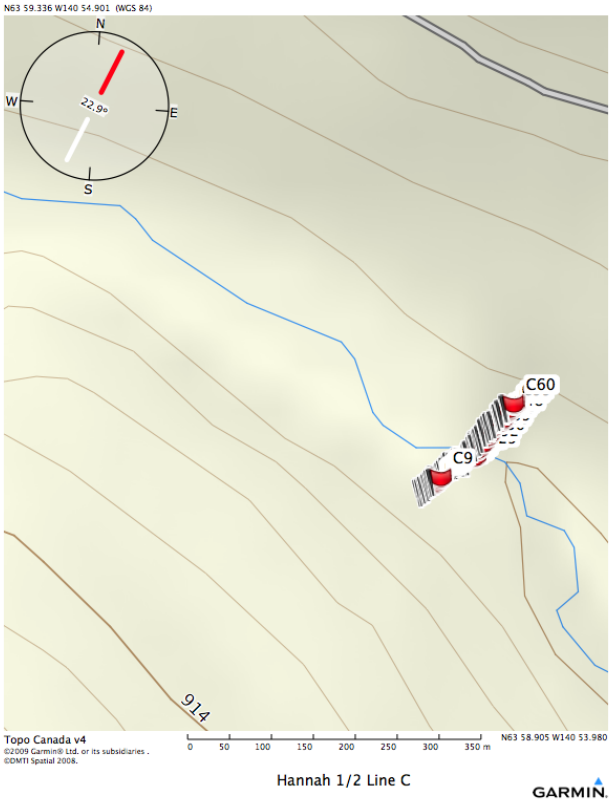
Bedrock Creek Stripped Area

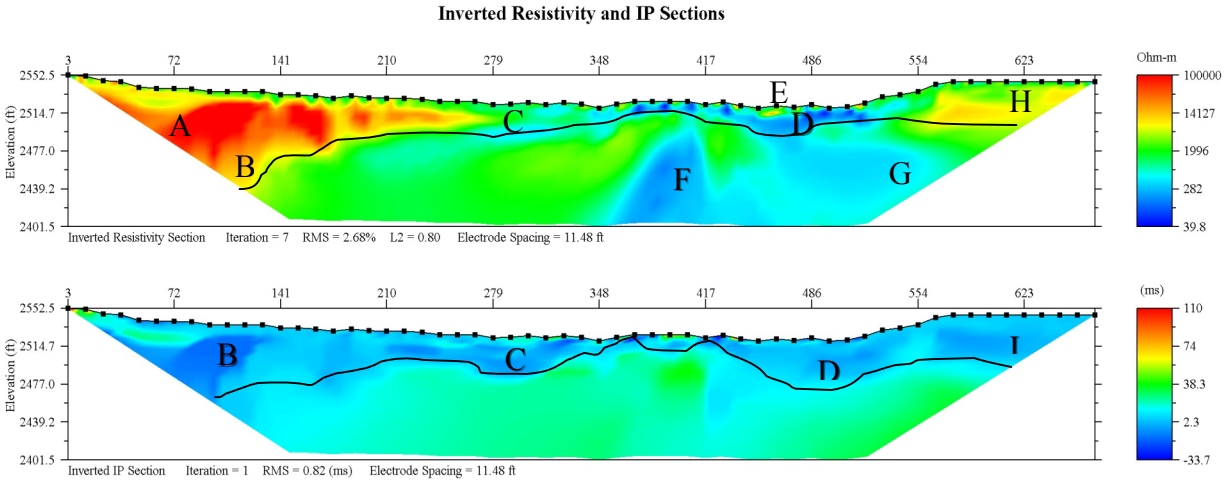


This transect crosses bedrock creek just downstream of the old camp at the base of Winter's Pup. It extends from the base of the north-facing hillside (A) to above the top of the stripped area on the east side of the creek (B). Deep, cold permafrost at (C) makes differentiating gravel from bedrock difficult. It is likely that this is unmined gravel at least 20 feet deep. At (D), the gravel has been mined and is unfrozen. Upslope, there are two possible bedrock locations indicated by black lines (E) and (F). (E), the shallower of the two, is most likely. At (F), a deep channel incised into bedrock is visible beneath the stripped hillside. This channel has thawed to bedrock and appears to have a high water content (G). This channel is a good exploration target and is possibly a downstream continuation of Channel C located on the North Winter's Pup transect.

3.3 Line C, Bedrock Creek

Lower Bedrock Creek, Hannah Claims 1 and 2

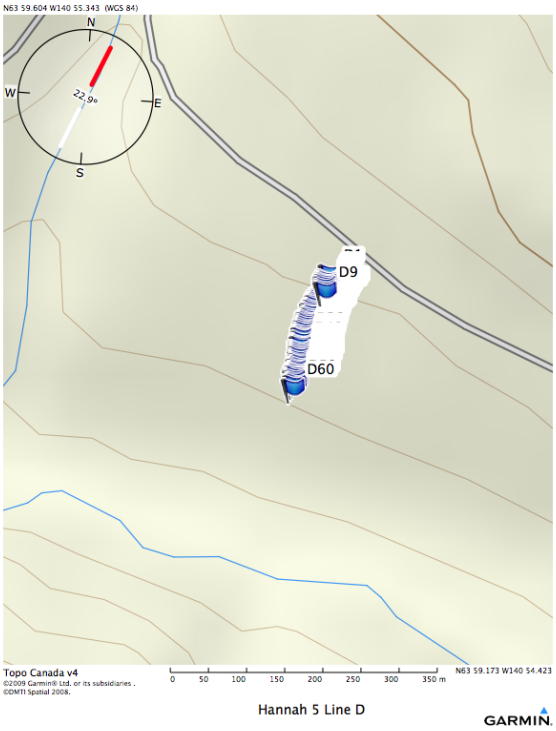




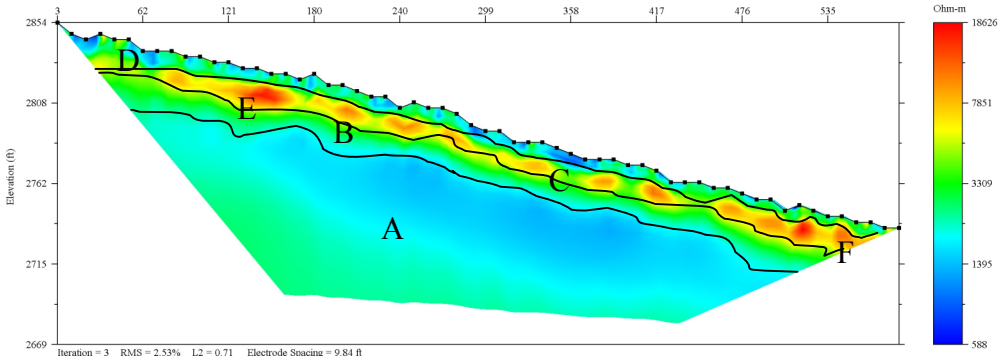
In this image, both resistivity and induced polarization geophysics techniques were used to add clarity to the bedrock location, as inconsistent permafrost may be overshadowing bedrock contact and gravel locations. On the left side of the image, a large high resistance region indicates permafrost (A). Both the IP and resistivity images indicate an old channel over bedrock at (B). Other channels appear to be found at (C) and (D). The

region below the creek near (E) appears to be thawed from (F) to (G), possibly with groundwater flow. Permafrost is present on the right side of the images as well (H) (west side of Bedrock Creek). An area of high resistivity near the right side of the image at (I) appears to be a deep channel as well.

3.4 Line D, Bedrock Creek

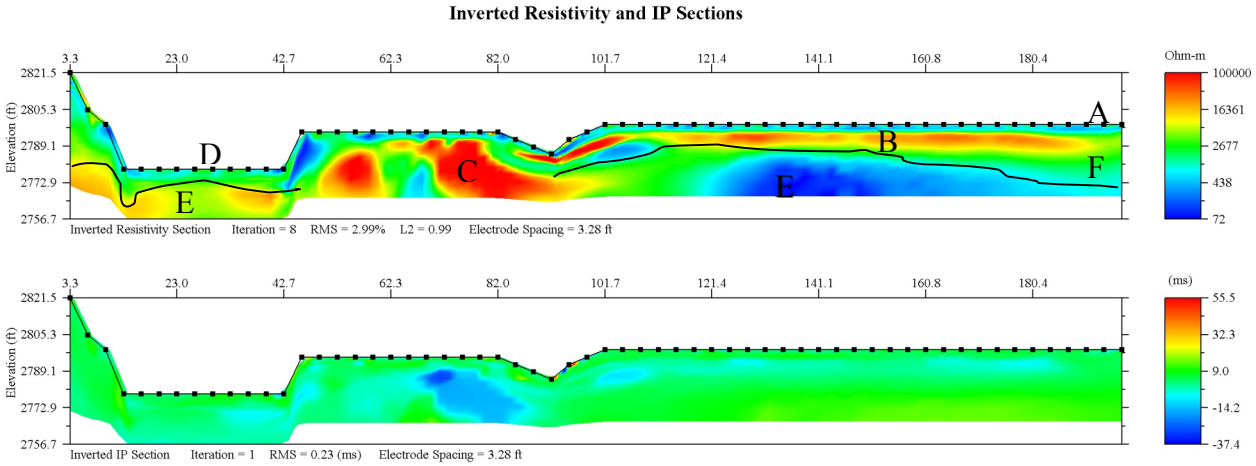


Inverted Resistivity Section



This transect was conducted on the slope of Bedrock Creek several hundred meters downstream of Winter's Pup. The aim was to identify channels located upstream on the South Winter's Pup line. Frozen competent schist bedrock (A) is overlain by degraded bedrock (B), possible fluvial gravels (C), and silt/colluvium (D). Areas of high resistivity were found at (E) and (F) and may be frozen paleochannel gravels. However, these are much less defined than those seen near Winter's Pup.

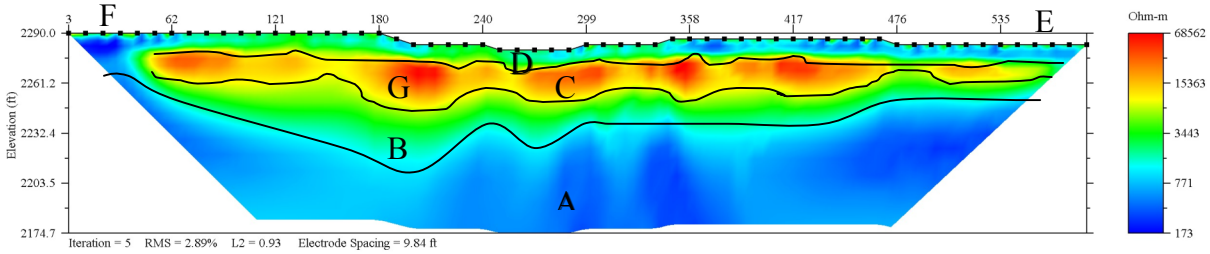
3.5 Line E, Bedrock Creek



This transect runs across Bedrock Creek just downstream of the old camp. This area was mined in the 1950s using small bulldozers. Bedrock was observed at the base of the cut where the creek currently flows. Several large piles of gravel

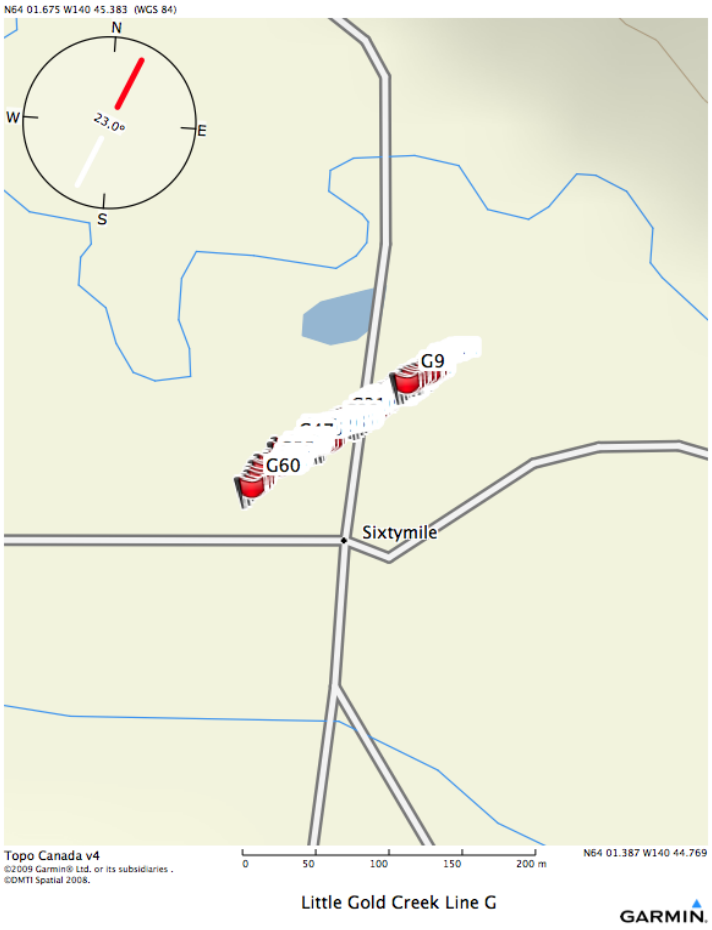
Permafrost was observed on the west side of the valley (A). Cold, ice-rich and fine-grained material creates the high-resistance layer found near the surface at (B). Dry, frozen gravels are found at (C). These were likely not mined. Mining likely only took place in the cut at (D), where bedrock is exposed in the creek bottom. Using the IP and resistivity images together, a bedrock (E) surface is inferred and indicated by the black line. It is not clear due to the disturbed nature of the ground and the presence of ice-rich permafrost and gravel the exact depth of bedrock across the image. As bedrock depth is unclear here, it is not marked on the image. A potential channel is found at (F) on the west side of the valley. This may only be an area of deeply weathered bedrock and should be drilled to confirm.

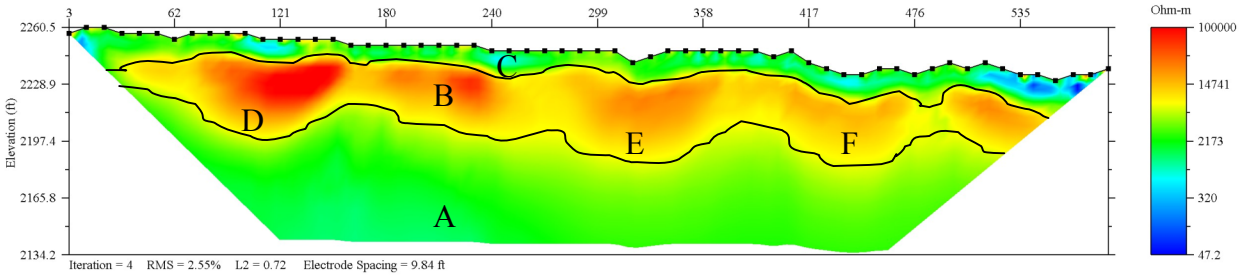
3.6 Line F, Little Gold Creek



This transect extends from Little Gold Creek to the 60 Mile Road. Bedrock and overburden definition is very consistent and was verified with boreholes. The results from this transect are considered to be very reliable. The blue area at the base of the image is competent schist bedrock (A). Above this is decomposed schist bedrock 10-15 feet thick (B). Frozen gravel 15-20 feet thick is found above bedrock (C), with 7-10 feet of frozen silt extending to the surface (D). A deep channel is found at (G). Little Gold Creek is located at (E) and the 60 Mile Road is found at (F). Boreholes are labeled on the image.

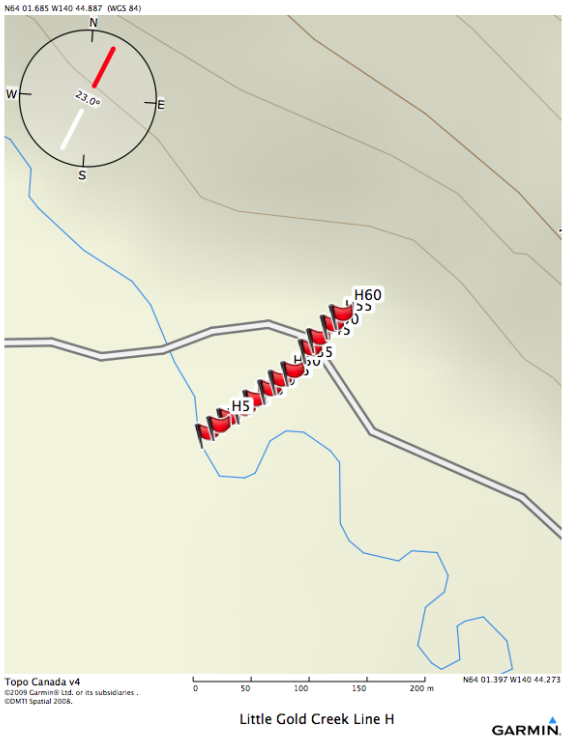
3.7 Line G, Little Gold Creek

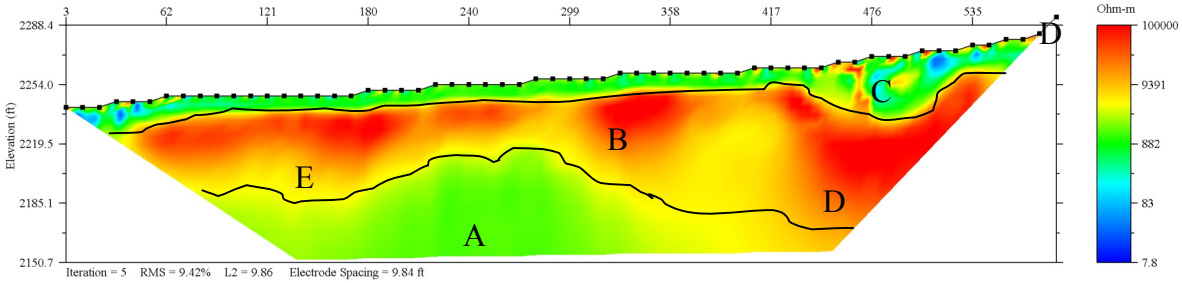




This transect extends from the 60 Mile road up to the Glacier Creek road near the Radius camp. Depth to bedrock is well-defined and can be considered to be reliable. Schist bedrock is found at the bottom of the image (A) at depths of 40 to 60 feet. Above the schist is a layer of frozen gravels (B) 15 to 20 feet thick. This is overlain by frozen silt (C) 7to 12 feet thick. Well-defined channels are found at (D), (E), and (F).

3.8 Line H, Little Gold Creek, Kiwi Lease





This transect ran across the Kiwi claim block, uphill and to the east of Little Gold Creek. Schist bedrock (A) is found at depths of 35 to 60 feet. Frozen gravels are found above bedrock (B). These are overlain by 5 to10 feet of frozen silt (C). Two channels are found at (D) and (E). Channel (D) may be an area of deeply weathered bedrock rather than an incised fluvial channel. This area requires further drilling to determine if this is an extremely deep incised channel or not. As bedrock is found near the upper end of the transect at (D), drilling is required to confirm the presence of the channel. There is an area of deep silt at (C). This may also be a thawed, shallow gravel channel if the area below at (D) is determined by drilling to be a region of deeply weathered bedrock.

4.0 Geophysics Data

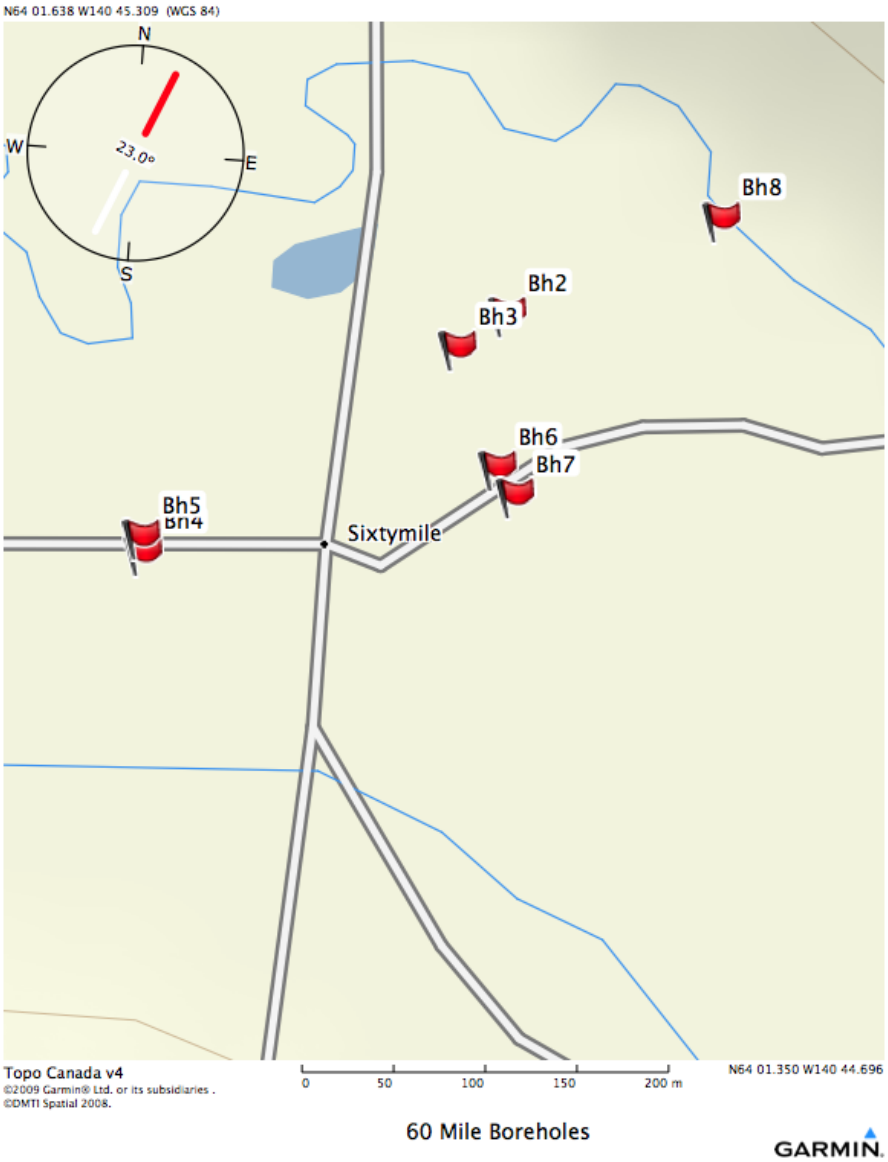
4.1 Line Locations

Geophysical surveys were conducted by Kryotek Inc. using a Lippmann 4-point Resistivity System, for Mike McDougal of K-1 Mines from July 14-17, 2012 and September 14-27, 2012.

Geophysics Survey Line	UTM (start of line)	UTM (end of line)	Notes
A	N 0503130 W 7096094	N 0503036 W 7096253	
B	N 0503073 W 7096209	N 0502960 W 7096341	
C	N 0504680 W 7095252	N 0504772 W 7095360	
D	N 0504233 W 7095969	N 0504197 W 7095815	
E	N 0504233 W 7095966	N 0504213 W 7095909	
F	N 0512221 W 7099928	N 0512357 W 7100003	
G	N 0512205 W 7099925	N 0512088 W 7099834	
H	N 0512501 W 7099818	N 0512604 W 7099929	

4.1 Boreholes

A trailer-mounted Simco SK1 2400 auger drill and track machine-mounted GeoProbe540MT were used. 4.5" solid stem auger tooling with 5" ballistic carbide bits were used. A downhole hammer system was used on one hole, but the compressor encountered mechanical problems and use had to be discontinued.
One borehole was drilled on the hillside above Bedrock Creek along the Bedrock Creek road to test the channel identified in the "Bedrock Creek Detail" resistivity image. Seven boreholes were drilled along Glacier and Little Gold Creek.



60 Mile Boreholes

Borehole Results

Borehole	Silt	Frozen?	Gravel	Bedrock	Hard Bedrock	Gold	Water
2	0-3m	Yes 1m	3-9 m	10m	11m	11 flakes	-
3	0-2.5m	No	2.5-6.5m	7m clay	8m	5 flakes	-
4	1.5-5m	No	0-1.5, 5-7m	8m clay	10m	None	5m
5	1-6m	No	0-1,6-9m	12m	15m	5 flakes	-
6	0-5m	No	5-8m	8m	9m	None	6.5m
7	0-2.5m	Yes 1m	0-2.5m	2.5-7m clay	7-9m	None	-
8	0-1.5m	Yes	1.5-5m	10m	10m	None	-
9	0-1.0m	No	1.0-6m	7m	7m	None	-

5.0 Conclusion

Eight boreholes were drilled on Little Gold, Glacier and Bedrock creeks. All boreholes reached bedrock and encountered silt, gravel and decomposed schist bedrock. Gold was recovered from three boreholes.
Twelve resistivity geophysics surveys were conducted on Bedrock, Little Gold and Glacier Creeks. These surveys identified the approximate depths to bedrock, frozen and unfrozen sections, areas of decomposed bedrock and likely paleochannel locations. Of particular interest are two channels found high on the eastern slope of the Bedrock Creek Valley and one possible deep channel near the eastern slope of Little Gold Valley on the Kiwi claims. Further drilling is required to confirm these channels.

Jim Coates BSc, MSc
President
Kryotek Arctic Innovation Inc.