

ROSEBUTE CREEK PLACER PROPERTY

DAWSON MINING DISTRICT, YUKON TERRITORY

Yukon Mineral Exploration Program (YMEP)

Final Report for YMEP16-051

Target Evaluation Module

by

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Geoplacer Exploration Ltd.

For
La Tierra Resources Ltd.

Location of property: 63°30'04"N to 63°32'02"N and 139°13'12"W to 139°18'12"W
NTS map sheet: 115O/11
Mining District: Dawson
Date: January 21, 2017

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Executive Summary

The following is the final report for YMEP16-051, a project funded under the Yukon Mineral Exploration Program, Target Evaluation Module, on behalf of La Tierra Resources Ltd.

Rosebute Creek is a right limit tributary of the Yukon River, located in central Yukon approximately 65 km by air south of Dawson City, Yukon. The Rosebute Creek Placer Property is located on the uppermost reach of the right fork of Rosebute Creek. Access to the property can be gained by rotary wing aircraft or by summer road. The total road distance from Dawson City to the Rosebute Creek placer lease is approximately 128 kilometres. An improved road is being constructed as part of the Kaminak (now Goldcorp) Coffee Creek mine. The route now includes a Black Hills creek bypass, which has shortened the existing Rosebute Creek road access from Dawson City by several kilometres.

Mackenzie and Craw (2010), Mackenzie and Craw (2012), Mackenzie et al. (2008), Wainwright et al. (2011) and Paulsen (2010) hypothesize that there is a spatial association between linear magnetic anomalies, bedrock faults and bedrock gold mineralization in the south Klondike district.

A comparison of first vertical derivative magnetics and bedrock geology at the location of the Rosebute property shows that bedrock type (meta-intrusive) is consistent throughout the extent of the property, and the distinctive linear geophysical anomalies which cross the drainage are therefore not likely due to lithological contacts. There is a possibility that these features may be structural breaks, which could contain mineralized veins and faults. There are at least five of these structures present.

A bedrock source of gold likely underlies the Rosebute Creek property. Associated placer gold values, derived from local bedrock sources, would likely therefore also occur within the surficial materials.

In 2016, an exploration program was undertaken which included aerial imagery and DEM mapping, magnetometer surveys, resistivity surveys and ground penetrating radar surveys. This program was successful in defining bedrock contacts, depths to bedrock, paleochannels and placer magnetic anomalies.

The ground magnetometer survey showed a major placer magnetic anomaly which trends east-west along the bench on the right limit of the valley. This magnetic anomaly has been displaced (by fluvial/colluvial processes) towards the valley at the location of the right limit tributary. This magnetic anomaly is coincident with faults in bedrock outlined in both the resistivity and ground penetrating radar surveys. Both the resistivity surveys and the ground penetrating radar surveys outlined bedrock contacts as well as overburden versus alluvial material. However, the ground penetrating radar surveys did not distinguish between permafrost and thawed ground, or different types of bedrock. In addition, the resistivity surveys tended to show paleochannels at a shallower depth than the ground penetrating radar surveys. This was especially evident where the two methods overlapped.

Verification of channel depths and testing of the paleochannels for placer gold is recommended. Initially, drilling methods such as auger (6 inch or larger), R/C (Reverse circulation) or RAB (Rotary Air Blast) may be used. This should be followed up by excavator test pitting, bulk processing of alluvial gravels and finally full scale mining, should results be favourable.

Introduction

The following is the final report for YMEP16-051, a project funded under the Yukon Mineral Exploration Program, Target Evaluation Module, on behalf of La Tierra Resources Ltd. The project is a joint venture between La Tierra Resources Ltd. and Geoplacer Exploration Ltd.

Location and Access

Rosebute Creek is a right limit tributary of the Yukon River, located in central Yukon approximately 65 km by air south of Dawson City, Yukon (Figure 1). The Rosebute Creek Placer Property is located on the uppermost reach of the right fork of Rosebute Creek.

The extent of the current property is 63°30'04"N to 63°32'02"N and 139°13'12"W to 139°18'12"W; on NTS map sheet 1150/11, in the Dawson Mining District (Figure 2, Figure 3 and Figure 4).

Access to the property can be gained by rotary wing aircraft or by summer road. Surface access is via secondary gravel roads - the usual route runs from Dawson City along the Klondike Highway, then along Hunker Creek to King Solomon Dome, and down Sulfur Creek to Indian River (approximately 68 kilometres). From the Indian River intersection, travel along Indian River and Eureka Creek to Eureka Dome, then down Black Hills Creek to the Henderson road turnoff on the west side of Black Hills Creek, an additional distance of approximately 42 kilometres. From this intersection head due west towards Henderson Dome a distance of 12 kilometers. At this point the Rosebute Creek road heads north from a fork in the road, towards Henderson Dome. An ATV trail intersects the Rosebute Creek road at approximately 16 kilometres along this road. The ATV trail is approximately 1.6 km long and leads to the centre of the Rosebute Property. The total road distance from Dawson City to the Rosebute Creek placer lease is approximately 128 kilometres.

An improved road has been constructed as part of the Goldcorp (formerly Kaminak Gold Corporation) Coffee Creek mine. The route includes a Black Hills creek bypass, which shortens the existing Rosebute Creek road access from Dawson City. This is shown on Figure 2 and on Figure 3.

Personnel and Dates of Work

The 2016 exploration program was designed and supervised by William LeBarge of Geoplacer Exploration Ltd. and Bud Davis of La Tierra Resources Ltd. The aerial imagery survey was conducted on June 24, 2016 by Groundtruth Exploration Inc., who also conducted the ground magnetometer survey on July 3, 2016. The prospecting lease was staked to claims by Duncan General Contracting on July 18-19, 2016. The resistivity geophysical surveys were conducted by Kryotek Arctic Innovation Inc. on August 27, 2016. The ground penetrating radar surveys were conducted by 47129 Yukon Inc. (Boris Logutov) on October 13, 2016. The final report was completed by William LeBarge of Geoplacer Exploration Ltd.

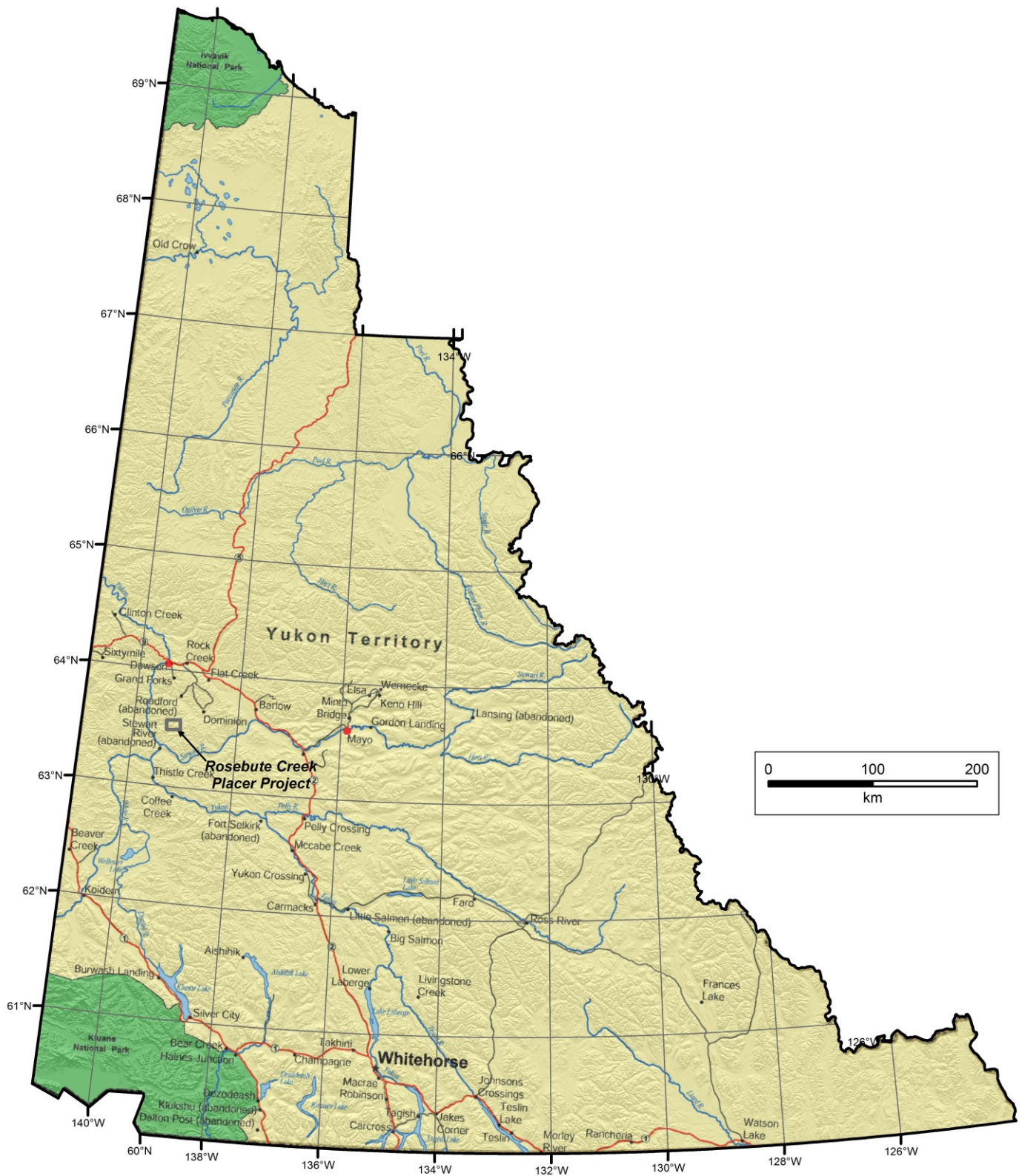


Figure 1 - General Location of Rosebute Creek Project, Yukon.

Placer Tenure

The Rosebute Creek placer property is shown on Figures 2, 3 and 4. Four-mile prospecting lease ID01338 was staked by Bud Davis for La Tierra Resources Ltd. on September 20, 2015. After the completion of the first year's assessment work, the lease was staked to claims on July 18, 2016.

Table 1 shows a summary of the current claim status for Rosebute Creek property.

Table 1 - Claim status, Rosebute Creek property.

Claim Name	Grant Number	Claim Owner	Recording Date	Staking Date	Expiry Date	Status	Lease	NTS Map Number
Blueberry 1	P 517972	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 2	P 517973	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 3	P 517974	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 4	P 517975	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 5	P 517976	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 6	P 517977	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 7	P 517978	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 8	P 517979	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 9	P 517980	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 10	P 517981	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 11	P 517982	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 12	P 517983	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 13	P 517984	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 14	P 517985	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 15	P 517986	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 16	P 517987	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 17	P 517988	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 18	P 517989	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 19	P 517990	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 20	P 517991	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 21	P 517992	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 22	P 517993	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 23	P 517994	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 24	P 517995	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 25	P 517996	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 26	P 517997	La Tierra Resources Ltd. - 100%	7/25/2016	7/18/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 27	P 517998	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 28	P 517999	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 29	P 518000	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 30	P 518001	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 31	P 518002	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 32	P 518003	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11

Claim Name	Grant Number	Claim Owner	Recording Date	Staking Date	Expiry Date	Status	Lease	NTS Map Number
Blueberry 33	P 518004	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 34	P 518005	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 35	P 518006	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 36	P 518007	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 37	P 518008	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 38	P 518009	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 39	P 518010	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 40	P 518011	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 41	P 518012	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 42	P 518013	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11
Blueberry 43	P 518014	La Tierra Resources Ltd. - 100%	7/25/2016	7/19/2016	7/25/2017	Pending	ID01338	115O11

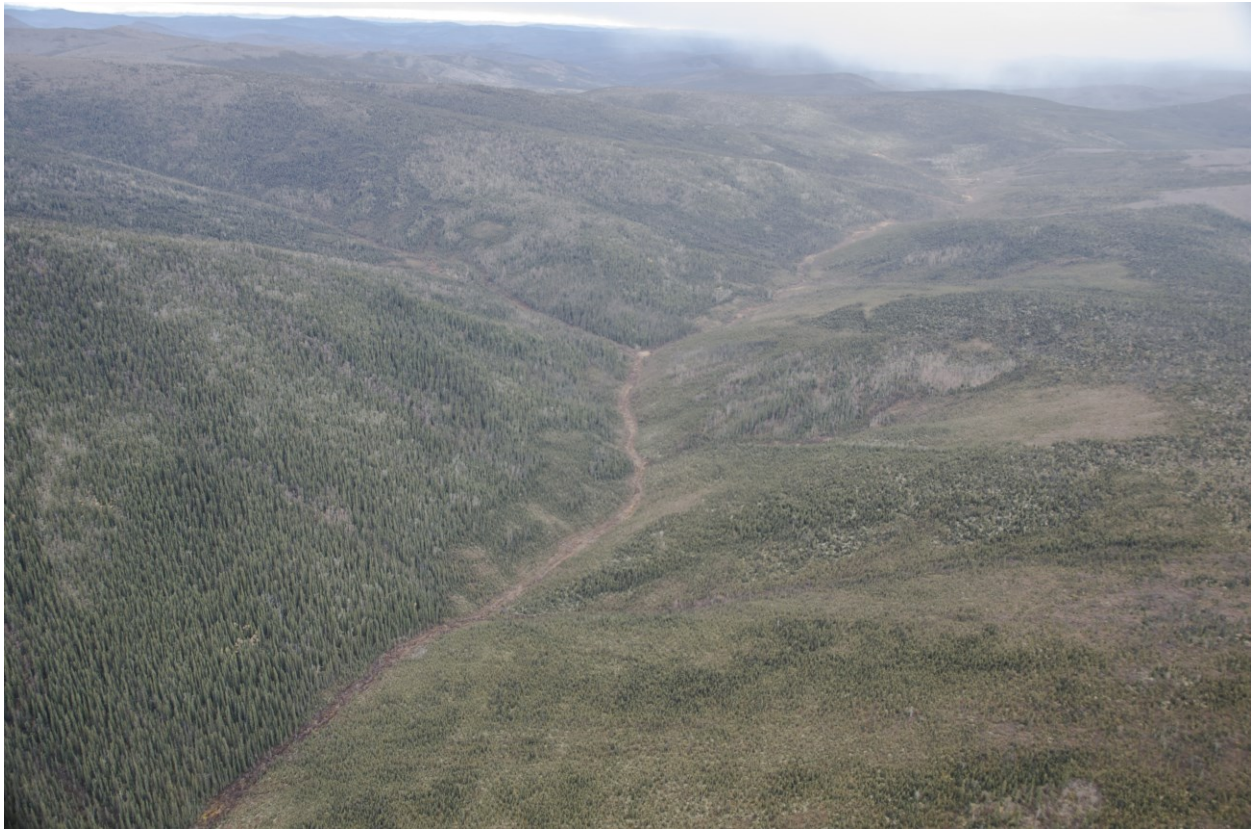


Plate 1- View looking east (upstream) on Rosebute Creek at the downstream extent of the Rosebute Creek placer property. Photo taken September 20, 2015.

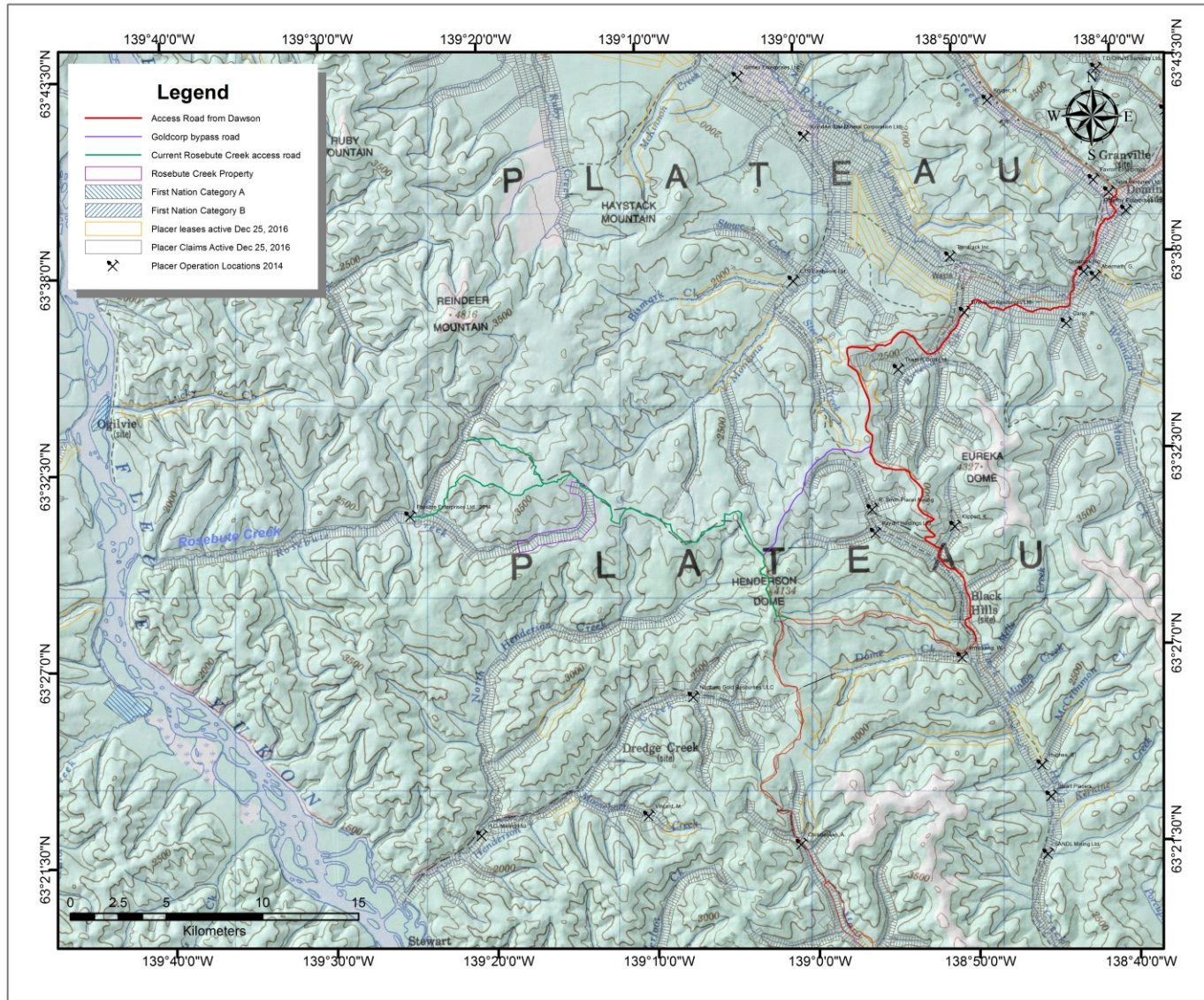


Figure 2 – Location of Rosebute Creek Placer Project and South Dawson region placer tenures.

Preferred Route – Via Dawson City - Overview

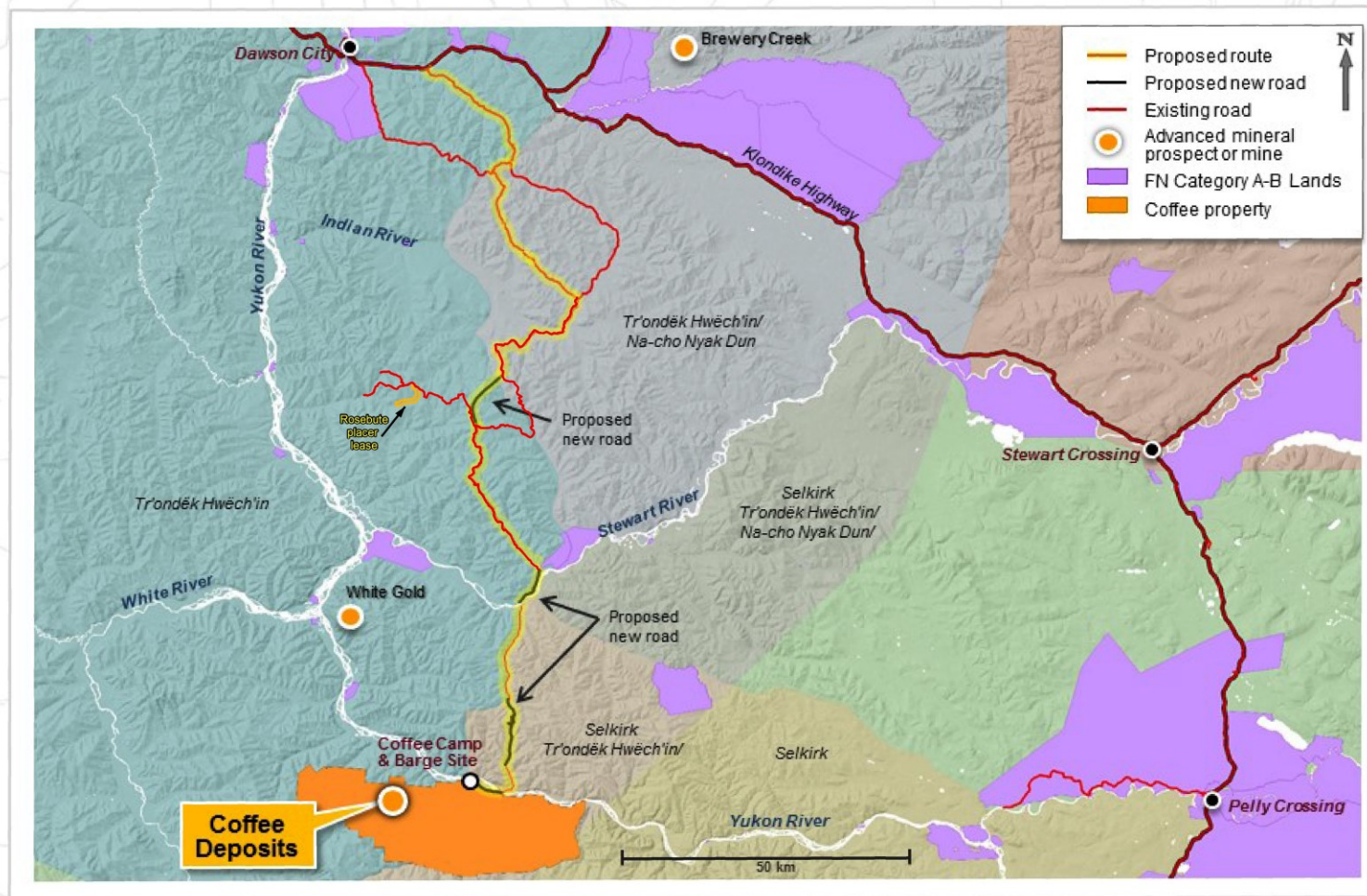


Figure 3 - Proposed new road to the Coffee Creek mine owned by Goldcorp (previously Kaminak Gold Corporation) from News Release, December 2015. The Black Hills creek bypass road is nearly completed and will be fully operational in the 2017 season. This will significantly shorten the existing Rosebute Creek road access from Dawson City.

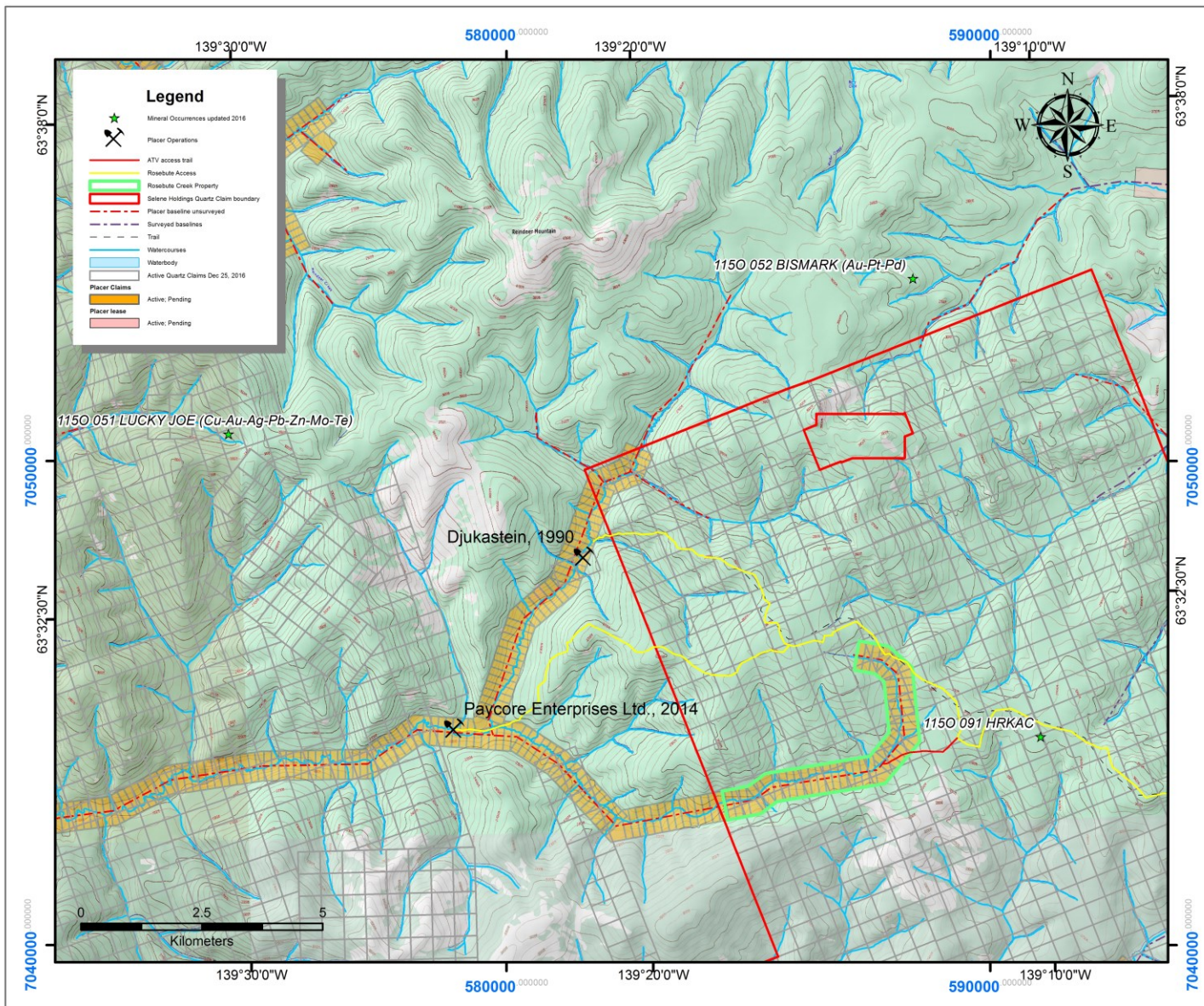


Figure 4 - Rosebute Creek active quartz claims and placer claims (Dec 2016), mineral occurrences, placer mining operations and local access roads.

Quartz Tenure and Exploration Activity

Figure 4 shows active quartz claims in the upper Rosebute Creek area. The claims underlying the Rosebute placer property are owned by Selene Holdings LP. Other claims in the area are held by Golden Predator Mining Corp., Independence Gold Corp., Geo Zone Exploration Ltd., and Taku Gold Corp.

Local quartz exploration has been focused on two main areas; the Lucky Joe property (Minfile 115O 051), and the JP Ross property previously owned by Kinross Gold Corporation and currently owned by Selene Holdings LP (JP claims). The JP Ross property encompasses a broad northwest-trending zone from Maysy May Creek, through Henderson Creek, to the upper reaches of Rosebute Creek. The area of the Rosebute Creek placer project overlaps with the northern extent of the JP Ross property.

The JP Ross property has had extensive exploration in recent years (Paulsen, 2010; Hollis, 2011; Hollis and Bayliss, 2011) including airborne geophysical surveys, soil geochemical surveys, trenching and geological mapping. The Lucky Joe property (Minfile 115O 051) had extensive exploration in earlier years (Carlson, 2006) which included soil geochemical surveys and diamond drilling.

Soil geochemical and geophysical data from the above-mentioned quartz exploration activities have been garnered from the available reports and are a useful tool in placer exploration. This data has been digitized, georeferenced and overlain on the series of maps which follow in this report.

History of Exploration and Mining – Rosebute Creek

According to Debicki (1982), there were active prospecting leases held on Rosebute Creek in 1940 and 1941. In 1944, the operators of a dredge on Clear Creek (Clear Creek Placers Ltd.) optioned part of Rosebute Creek as part of a Yukon-wide expansion program. In 1946, Yukon Gold Placers Ltd. employed 6 workers in a prospect drilling program on Rosebute Creek. The location of this activity is not known.

No further activity is documented until 1990, when Torfinn Djukastein mined an unnamed right-limit tributary of Rosebute Creek. The deposit was described as shallow and frozen, and several cuts were mined on the left limit and centre of the creek. Equipment used at the time included a Caterpillar D7E bulldozer, Caterpillar 966B loader and a Derocker wash plant (LeBarge, 2007). The gold was described as fine-grained, with a purity of 800-810. This operation location is shown on Figure 4 and Figures 6 to 12.

Paycore Enterprises Ltd. conducted an auger drill program in 2013 with 50 holes on middle Rosebute Creek (Van Loon and Bond, 2014). In 2014, five claims were stripped across the valley bottom. A crew of five miners and one camp personnel operated two daily 12 hour shifts and mined progressively upstream throughout the season. Mining continued in 2015 and 2016 under Tim Nixdorf of Paydirt Holdings Ltd.



Plate 2 - View looking north (upstream) of the upper reaches of Rosebute Creek. Photo taken September 20, 2015. An ATV trail which leads from the main Rosebute Creek access road can be discerned in the middle of the photo.

Regional Bedrock Geology

Figure 5 shows that the project area is situated within the Yukon-Tanana terrane, an accreted pericratonic sequence that covers a large part of the northern Cordillera from northern British Columbia to east-central Alaska (Gordey and Ryan, 2005; Colpron and Nelson, 2006). The Yukon Tanana Terrane consists of Paleozoic schist and gneiss that were deformed and metamorphosed in the late Paleozoic, and intruded by several suites of Mesozoic intrusions that range in age from Jurassic to Eocene (Colpron and Nelson, 2006). The Paleozoic rocks are pervasively foliated with at least two overprinting fabrics (MacKenzie and Craw, 2010; MacKenzie et al, 2008). During Late Permian to Early Jurassic time these rocks were tectonically-stacked along thrust faults which were parallel to regional foliation. Later tensional-extensional tectonics occurred during the mid-Cretaceous, and this resulted in brittle fracture of the Paleozoic rocks, which is likely responsible for structurally-controlled gold mineralization in the south Klondike area including the White Gold exploration camp (MacKenzie et al, 2008; MacKenzie and Craw, 2010; MacKenzie and Craw, 2012).

Regional Geophysics and Major Structures

Enhanced Residual Total Magnetic Field is shown in Figure 6, and First Vertical Derivative of Enhanced Magnetic Field is shown in Figure 7 (after Hayward et. al. 2012). The maps also show fault traces overlain from Yukon Geological Survey (2016); Lucky Joe Cu and Au soil anomalies (>80th percentile) digitized from Carlson (2006); and Kinross Au ppm in soils from Hollis and Bayliss, 2011. Figure 7 additionally shows a detailed First Vertical Derivative magnetic survey overlain from a recently released assessment report by Hollis, 2011.

It is evident that in Figure 6 there is a broad, northwest-trending zone of similar magnetic response across the project area. The strong, diffuse magnetic high to the east of the mapped thrust fault correlates with areas of the Carmacks Volcanics, while the more subdued response in the centre is correlative with the Simpson Range meta-intrusive rocks.

Conversely, the First Vertical Derivative map (Figure 7) shows several sharp, north to northwest-trending magnetic highs. These have been interpreted by researchers and explorationists (Mackenzie and Craw, 2012; Paulsen, 2010) to coincide with major structures and lineaments. These structures and their associated cross-faults are thought to be important controls for the gold mineralization in brittle units of the Yukon Tanana Terrane including orthogneiss, amphibolite and quartzite (MacKenzie and Craw, 2010). Prominent examples of this type of mineralization include the gold occurrences in the White Gold and Coffee Creek area to the south of the project area (Wainwright et al., 2011).

The recently-released First Vertical Derivative detailed magnetic survey conducted by Kinross (Hollis, 2011) serves to focus and enhance the more diffuse interpretation outlined by Hayward et. al., 2012; and as such is a valuable tool to further define structures and lithological contacts. Several structures are evident in the project area, which were not previously obvious with prior government geophysical surveys.

Figure 7 shows that the 1990 placer mining operation of Djukastein is located exactly where one of the linear magnetic anomalies transects the drainage, and this spatial relationship may demonstrate a genetic association between this structure and both bedrock and placer gold values. It is also evident in Figure 7 that the Rosebute Property is crossed by at least five similar north to northwest-trending linear magnetic highs, which may correspond with structural breaks hosting potential bedrock gold mineralization and associated placer gold values.

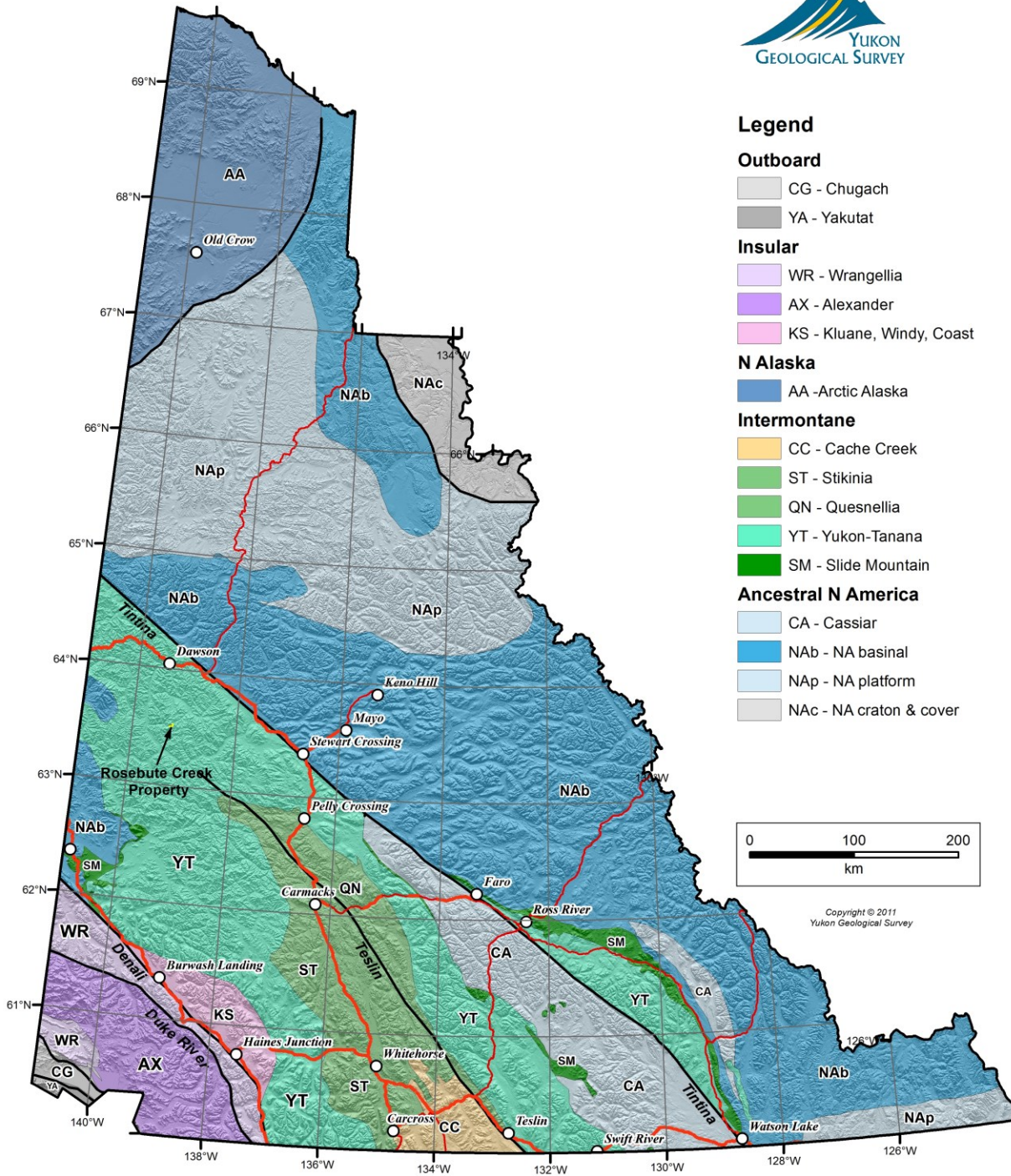


Figure 5 - Bedrock geology of the Yukon showing the location of the Rosebute Creek project, from Yukon Geological Survey (2016).

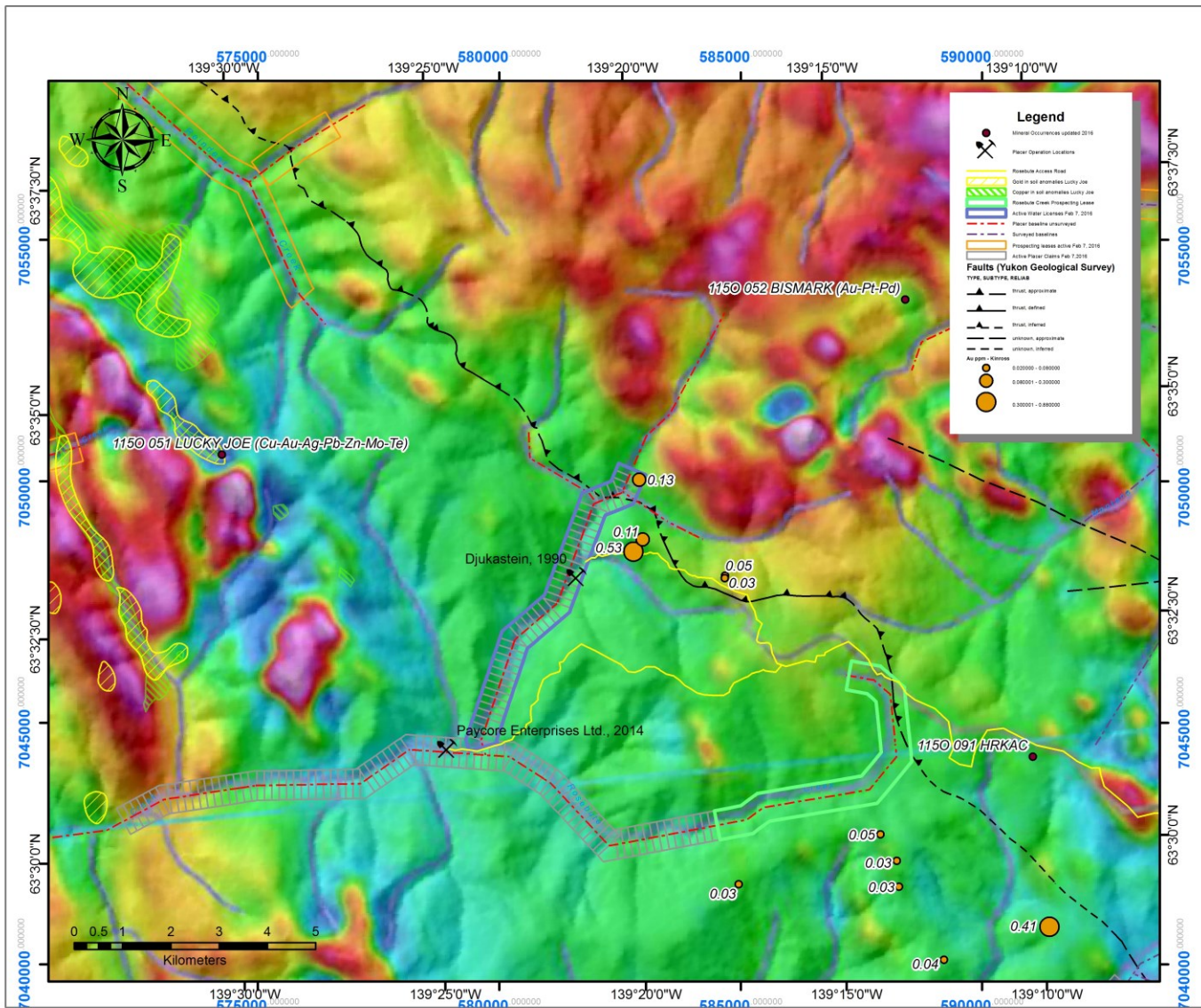


Figure 6 – Enhanced Residual Total Magnetic Field, Rosebute Creek area, modified from Hayward et. al. (2012). Fault traces overlain from Yukon Geological Survey (2016); Lucky Joe Cu and Au soil anomalies (>80th percentile) digitized from Carlson (2006), Kinross Au ppm in soils from Hollis and Bayliss, 2011.

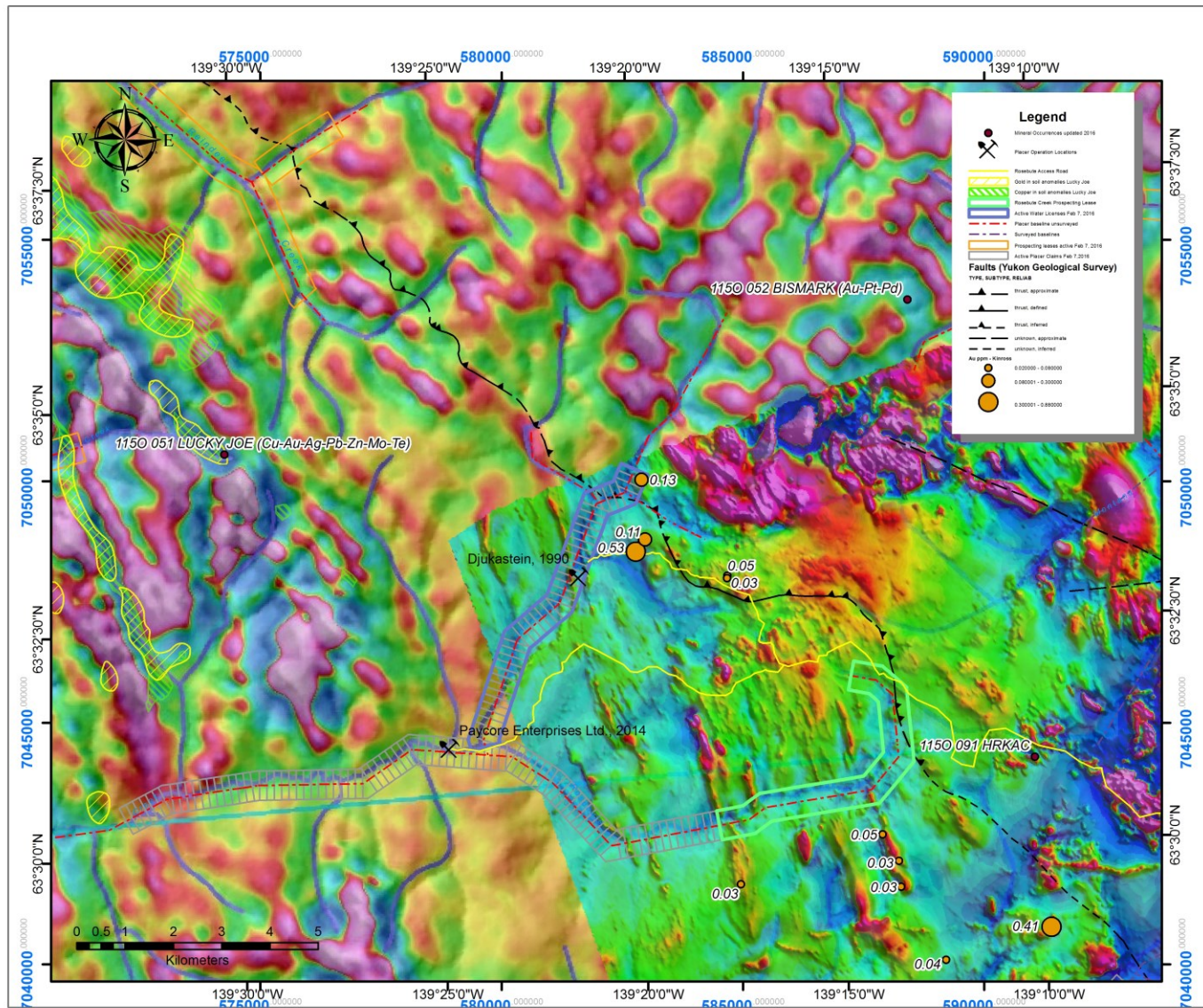


Figure 7 –First Vertical Derivative of the Enhanced Magnetic Field, Rosebute Creek, modified from Hayward et. al. (2012). Fault traces overlain from Yukon Geological Survey (2016); Lucky Joe Cu and Au soil anomalies (>80th percentile) digitized from Carlson (2006); Au ppm in soils from Hollis and Bayliss, 2011; Detailed First Vertical Derivative magnetic survey overlain from Hollis, 2011.

Local Bedrock Geology, Mineral Occurrences and Mineral Potential

Rosebute Creek area bedrock is mapped as several metamorphic, metaplutonic and volcanic bedrock types (Figure 8). These include Late Proterozoic clastics and marble of the Snowcap Assemblage (map units PDS1 and PDS2); Devonian-Mississippian mafic volcanic rocks, quartzite, carbonate and serpentinite (map units DMF1, DMF3, DMF5 and DMF6); Late Devonian granite, granodiorite, tonalite and diorite - orthogneiss (map unit MgSR); middle Permian Sulphur Creek quartz monzonite gneiss (map unit PgS); Late Triassic/Early Jurassic Minto Suite intrusives (map unit LTrEJgM); lower Cretaceous Indian River conglomerate (map unit IKIR), and Upper Cretaceous Carmacks volcanics (map unit uKC3).

The most recent map by Yukon Geological Survey (2016) shows that a northwest-trending thrust fault transects the uppermost part of Rosebute Creek, which separates the Late Devonian meta-intrusives (orthogneiss) in the southwest from the Late Proterozoic Snowcap clastics to the northeast. The Snowcap clastics also outcrop at the Lucky Joe mineral occurrence (115O 051) on the northwestern extent of the project area, as well as in a broad slope above the Rosebute Property. An outcrop of Late Triassic/Early Jurassic Minto Suite gabbro occurs on the slope just to the south of the lease.

Yukon Minfile mineral occurrences (Yukon Geological Survey, 2016) that occur in the Rosebute Creek area are shown in Table 2. The closest occurrence to the Rosebute Property is Minfile number 115O091, which was staked over Eocene conglomerate and sandstone, likely as a gold paleoplacer target. No results are known from any exploration at this occurrence.

The Lucky Joe mineral occurrence (115O 051) has had extensive exploration in recent years, and it has been described as a metamorphosed Cu-Au porphyry (Carlson, 2006). A series of northwest-trending linear copper and gold soil anomalies are coincident with linear magnetic highs across the Lucky Joe deposit; in fact new government open files showing these magnetic high anomalies were a causal factor in the resurgence of exploration activity at that deposit. The Lucky Joe soil anomalies and overlapping geophysical signatures are shown on Figures 6 and 7. Figures 8 to 11 also show these soil anomalies in relation to local bedrock and surficial geology.

The extent of the JP Ross property (formerly owned by Kinross) is shown on Figures 10 and 11. Recently released soil geochemical and geophysical data (Hollis, 2011; Hollis and Bayliss, 2011) has been georeferenced and overlain on the bedrock geology (Yukon Geological Survey, 2016). Several new mineral occurrences and anomalous areas were discovered during the Kinross exploration program, and these are shown in a broad, northwest-trending zone on the map which roughly follows the mapped thrust fault and includes not only the Rosebute property but the Patton Creek and Candace Creek placer properties owned by Geoplacer Exploration Ltd. and Candace Creek Mining Ltd., respectively.

The new anomalous areas in the JP Ross property include the Rebecca, X-man, North Frenzy, Frenzy, Stage Fright, Life Boat, Sabotage, Psycho, Vertigo, Suspicion and Spellbound occurrences. Geoplacer Exploration Ltd. correctly predicted the existence of the Spellbound mineral occurrence above Patton Creek during its recent exploration programs (LeBarge, 2016); this has now been confirmed by the release of the Kinross report by Hollis and Bayliss (2011). In addition, the Kinross report shows a large soil anomaly (2.44 ppm Au) above Candace Creek, which supports the hypothesis that structurally-controlled mineralization crosses both Patton and Candace Creek, as indicated in Figure 10.

Soil surveys were done near the Rosebute property during the Kinross exploration program. Several anomalous soils were identified, including a northwest-trending series south of the Rosebute lease which varies between 30 and 50 ppb gold in soil. These are plotted in Figures 6 to 12.

Table 2 - Minfile mineral occurrences in the Rosebute/Henderson Creek area.

Minfile Number	Full Name	Deposit Type	Deposit Status	Producer	Commodity (s)	NTS Map Number
1150 052	1150 052 BISMARK (Au-Pt-Pd)	Vein Au-Quartz	Anomaly	N	Gold, Platinum, Palladium	115011
1150 160	1150 160 HEN (As-Au)	Unknown	Anomaly	N	Arsenic, Gold	115006
1150 091	1150 091 HRKAC	Unknown	Unknown	N	Unknown	115011
1150 167	1150 167 LJS (Au-Zn-Pb)	Unknown	Anomaly	N	Gold, Zinc, Lead	115006
1150 051	1150 051 LUCKY JOE (Cu-Au-Ag-Pb-Zn-Mo-Te)	Unknown	Drilled Prospect	N	Copper, Gold, Silver, Lead, Zinc, Molybdenum, Tellurium	115012

Quaternary History

Most of the Klondike region has not been glaciated (Duk-Rodkin, 1999), and this certainly includes the upper reaches of Rosebute Creek (Jackson et al., 2001). The south Klondike region is dominated by colluvium on the upper slopes and ridges, variably-buried Tertiary to Late Pleistocene alluvial terraces in mid-slope reaches and Late Pleistocene to modern alluvial fans, stream complexes and gulch deposits in the lowermost points of valleys (Jackson, 2005a; Jackson, 2005b). Major trunk valleys such as the Stewart and Yukon rivers were the locale for meltwater channels during the Pleistocene glaciations and contain glaciofluvial terraces well beyond the maximum extent of the Cordilleran ice, however these did not affect most major tributaries (such as Maisey May, Henderson and Rosebute creeks) except at their confluence.

Surficial Geology

Along the mid and upper reaches of Rosebute Creek are surficial units of several ages and types, as mapped by Jackson (2005a, 2005b) and shown in Figure 9. These include: CEaP/AtT (Pleistocene Colluvial-Aeolian sediments overlying Tertiary Alluvial Terrace sediments), CEaP (Pleistocene Colluvial-Aeolian sediments), AtP (Pleistocene Alluvial Terrace), ACxP (Pleistocene Alluvial/Colluvial complex), Ax (Alluvial Complex), Cx (Colluvial Complex), Cl (Landslide) and Cb-v (Colluvial blanket-veneer). In general, the AtT (Tertiary alluvial terrace) becomes more prominent downstream, whereas upstream reaches are dominated by ACxP (Pleistocene Alluvial/Colluvial complex) and Cx (colluvial complex).

Most of the valley centre at the location of the Rosebute lease is mapped as ACxP (Pleistocene Alluvial/Colluvial complex). The upper half of the lease has three occurrences of AfP (Pleistocene Alluvial Fans) which occur at the margins of minor left and right-limit tributaries. In addition, field examination by the author in September 2015 revealed that there is a narrow remnant terrace on the north side of the valley which should be mapped as CEaP/AtT (Pleistocene Colluvial-Aeolian sediments overlying Tertiary Alluvial Terrace sediments). Jackson (2005b) shows several Tors above the valley of Rosebute Creek immediately north of the Rosebute Property; these demonstrate the lack of any Pleistocene glaciation in the area.

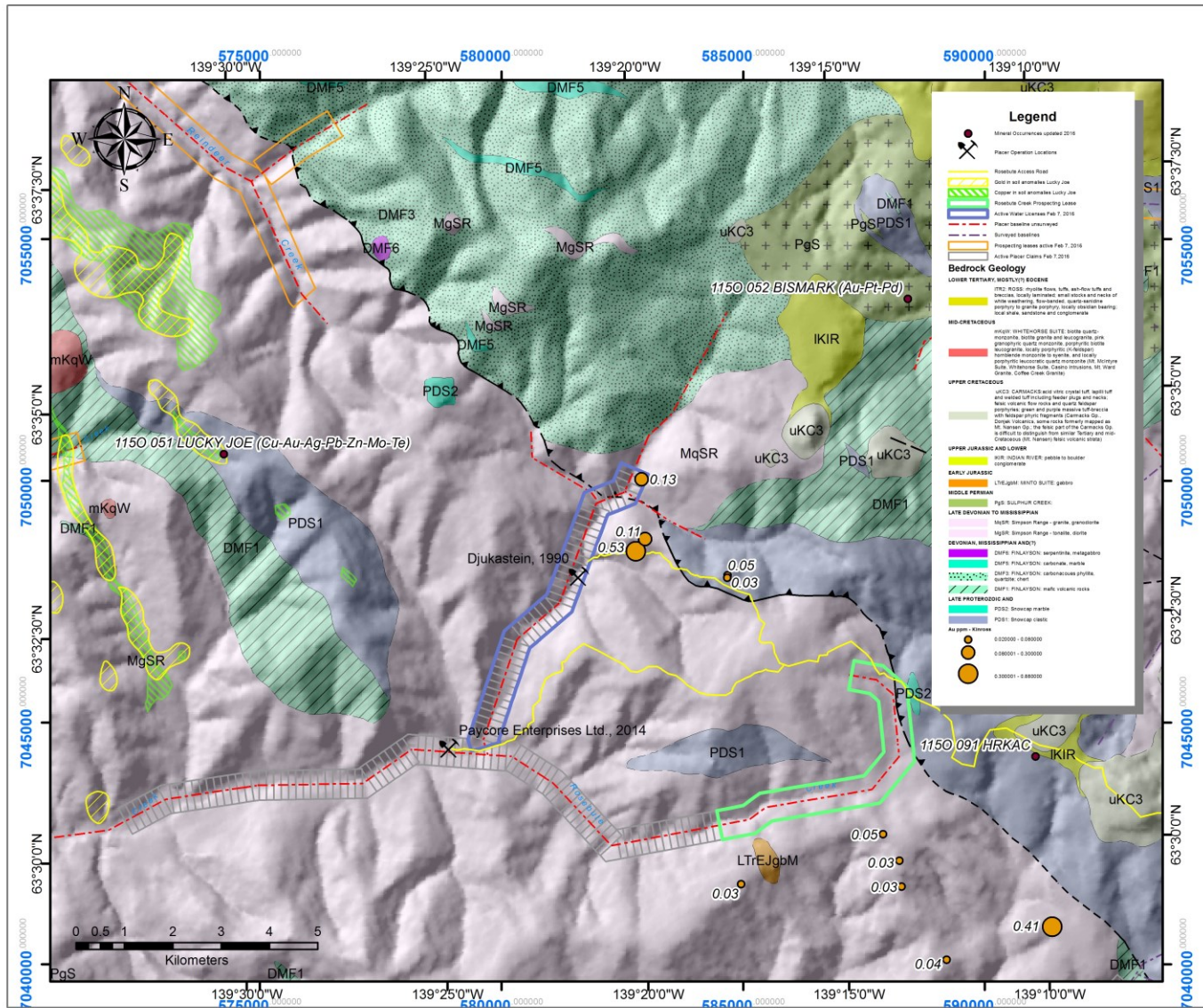


Figure 8 - Bedrock Geology of Rosebute Creek area, after Yukon Geological Survey (2016). Bedrock unit legend also described in text. Cu and Au soil anomalies (>80th percentile) digitized from Carlson (2006). Kinross Au ppm in soils from Hollis and Bayliss, 2011.

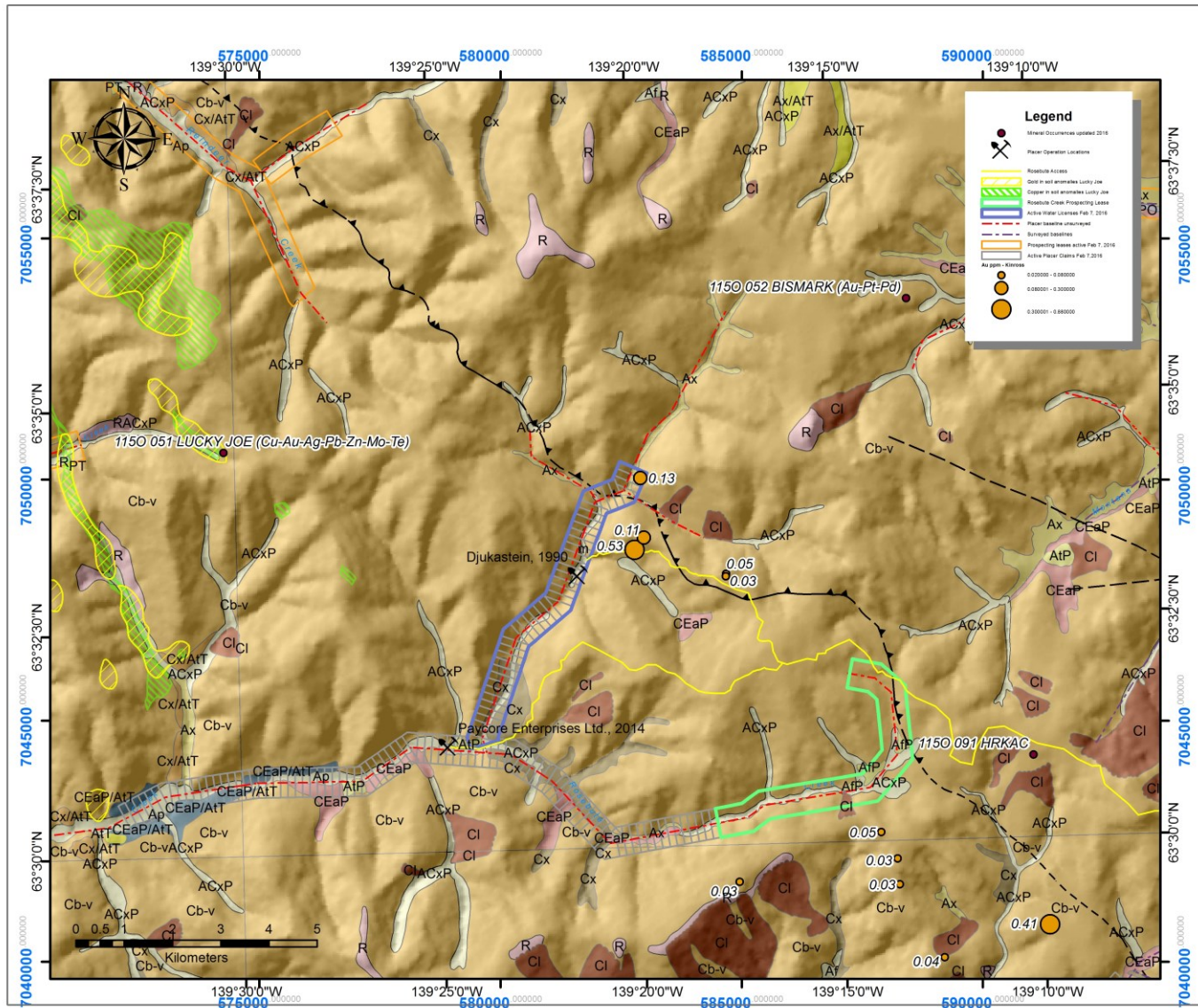


Figure 9 - Surficial Geology, Rosebute Creek, after Jackson (2005a, 2005b) overlain with major faults and Minfile mineral occurrences (Yukon Geological Survey, 2016). Also shown are Cu and Au soil anomalies (>80th percentile) digitized from Carlson (2006) and Kinross Au ppm in soils, from Hollis and Bayliss, 2011.

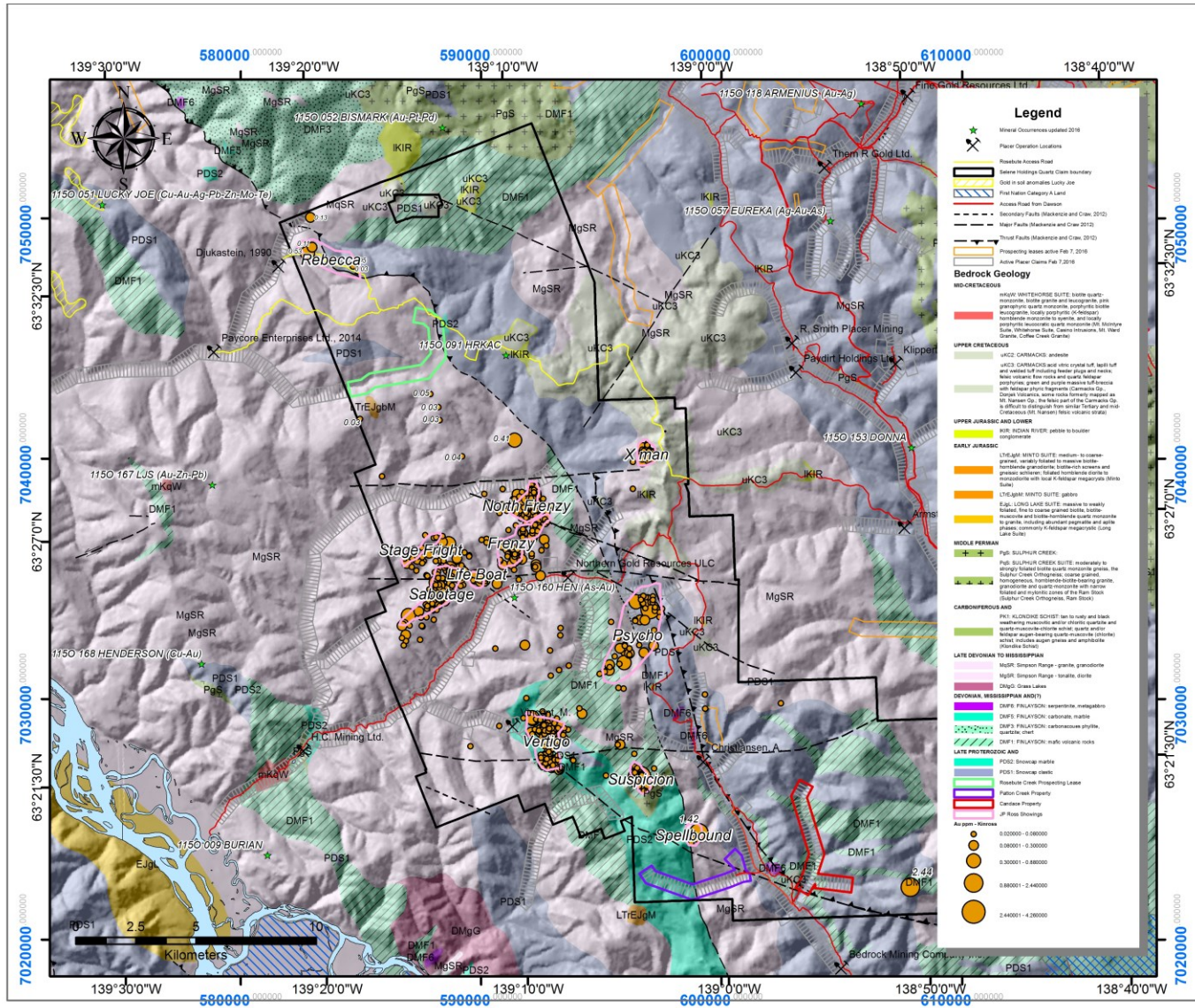


Figure 10 - Compilation map of the area including the JP Ross property held by Selene Holdings, LP. Bedrock geology is shown along with new data from Kinross (Hollis and Bayliss, 2011) with discovered showings and gold-in-soil anomalies.

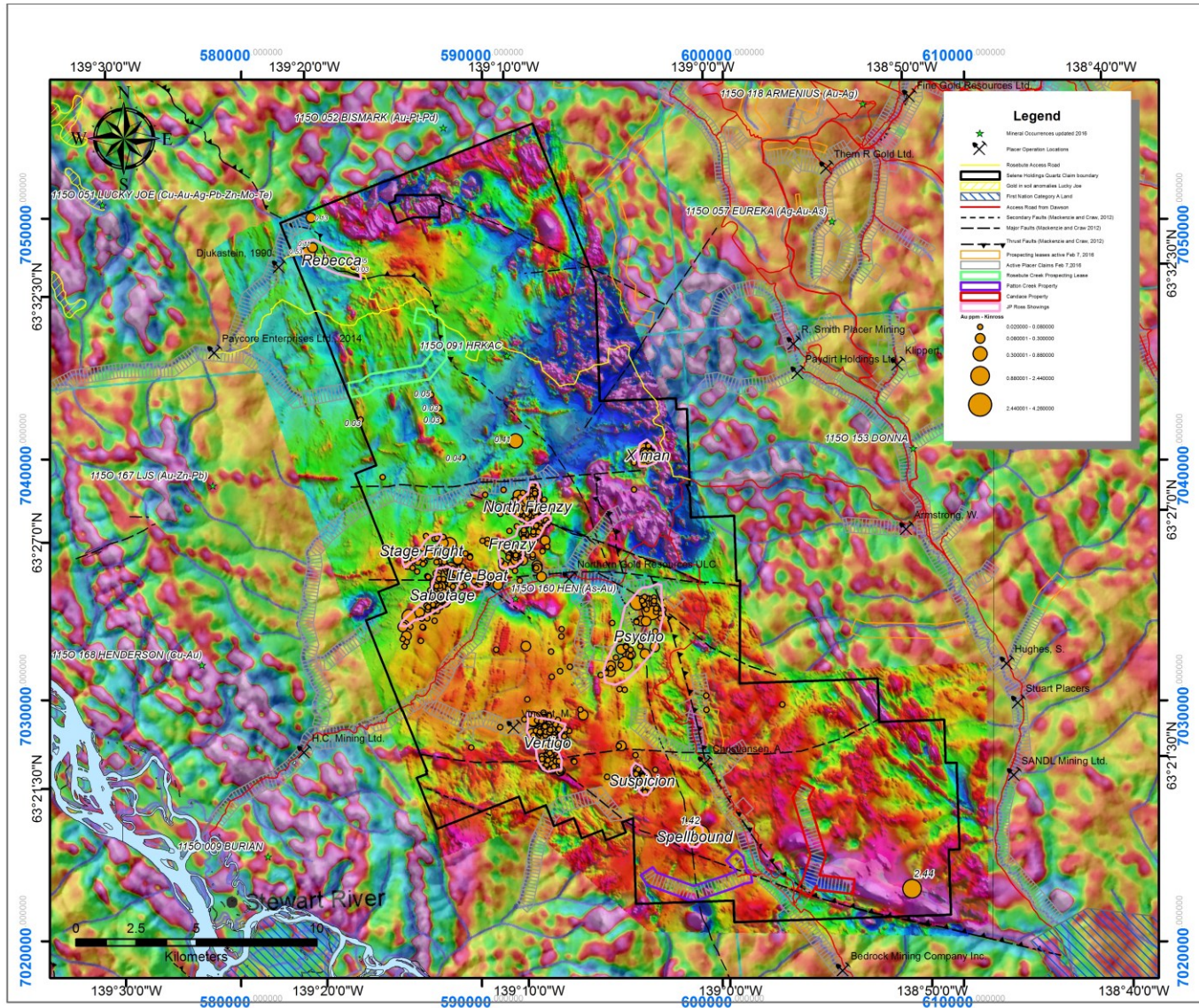


Figure 11 - Compilation map of the area including the JP Ross property held by Selene Holdings, LP. First Vertical Derivative magnetic response is shown along with new geophysical data from Kinross (Hollis, 2011) with discovered showings and gold-in-soil anomalies (Hollis and Bayliss, 2011).

Rationale for Exploration

Mackenzie and Craw (2010), Mackenzie and Craw (2012), Mackenzie et al. (2008), Wainwright et al. (2011) and Paulsen (2010) hypothesize that there is a spatial association between linear magnetic anomalies, bedrock faults and bedrock gold mineralization in the south Klondike plateau. Prominent examples of this mineral deposit model include the White Gold property and the Coffee Creek mine under development by Kaminak.

Copper and gold in soil anomalies which were discovered at the Lucky Joe mineral occurrence (Carlson, 2006) have been digitized and georeferenced, and are shown in Figures 6 to 11. These anomalies occur in the same bedrock type (MgSR - Simpson Range granodiorite and tonalite) which is mapped beneath upper Rosebute Creek.

Figures 10, 11 and 12 show data for the JP Ross property which was publicly released in March 2016 (Hollis, 2011; Hollis and Bayliss, 2011). When overlain on government bedrock and geophysical base data, it is clear that there is a spatial association between the newly-identified JP Ross mineral occurrences and the structures in the underlying bedrock, as highlighted by several north and northwest-trending linear magnetic anomalies. Kinross has successfully used this structural/geophysical affiliation in their exploration methodology.

As illustrated in Figure 12 and additionally shown on Figure 7 (first vertical derivative magnetics) and Figure 8 (bedrock geology), the bedrock type is consistently MgSR (Simpson Range granodiorite and tonalite) throughout the extent of the Rosebute Property. There are several distinctive linear geophysical anomalies visible which cross the drainage. These are not likely due to the presence of lithological boundaries, but rather these features may be structural breaks which could contain mineralized veins and faults. There are at least five of these north-trending structures present. In addition, a series of gold-in-soil anomalies (shown in Figures 6 to 12) occur on the ridge to the south of upper Rosebute Creek. These may originate due to underlying bedrock gold mineralization along these structures.

Furthermore, the 1990 placer mining operation of Djukastein on the north fork of Rosebute Creek (shown on Figures 6 to 11) is located at the exact point where a north-trending linear magnetic anomaly crosses the drainage. It is possible that this placer deposit may have been enriched in gold values due to a structurally-related bedrock source at that location.

The foregoing evidence supports a hypothesis that structurally-related bedrock gold mineralization and associated placer gold values may exist on upper Rosebute Creek. This was the locale for the exploration program in 2016.

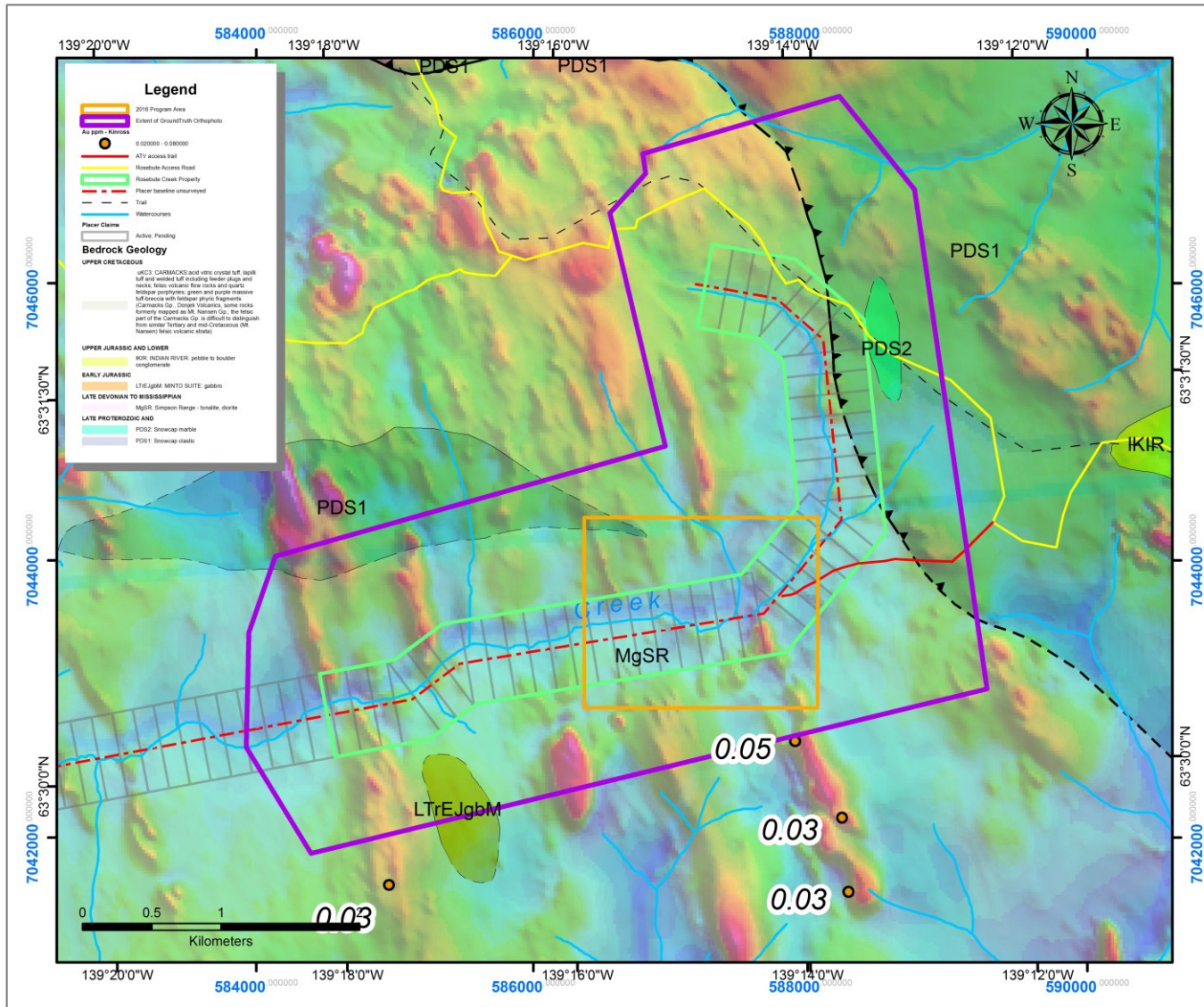


Figure 12 - Compilation map of Rosebute Creek showing the physical extent of the 2016 exploration program. Detailed First Vertical Derivative magnetic survey overlain from Hollis, 2011; Au soil anomalies in ppm overlain from Hollis and Bayliss, 2011. Bedrock geology from Yukon Geological Survey (2016).

2016 Placer Exploration Program

The 2016 placer exploration program consisted of orthophoto and DEM generation, ground magnetometer surveys, resistivity surveys and ground penetrating radar surveys. Figure 12 shows both the footprint of the GroundTruth orthophoto and DEM; and the local area where the magnetometer, resistivity and ground penetrating radar surveys were conducted.

Orthophoto Imagery

GroundTruth Exploration Ltd. flew the aerial imagery and DEM survey on June 24, 2016. These were used as basemaps for the 2016 exploration program. Figure 12 shows the extent of the orthophoto image and DEM.

Methodology

The aerial survey is usually completed using either a UAV drone, or an aircraft. This survey was completed with an aircraft.

Data Processing

The imagery data is processed and the initial orthorectified image product is generated by an automated process. This image is then cleaned up manually by visually checking for low quality portions of the image and selecting another overlapping image for that location. The final Image and DEM are georeferenced to NAD83 UTM projection.

Standard data output:

- Imagery: Georeferenced Orthoimage (.geotiff/.ecw format)
- Digital Elevation Model: Gridded Elevation model (geotiff/ .grd format)

Claim staking

After the first year of assessment work was filed, the prospecting lease was staked to claims on July 18 and 19, 2016, and recorded on July 25, 2016.

Magnetometer Geophysical Survey

The ground magnetometer survey was conducted on July 3, 2016. The ground magnetometer survey was intended to show placer accumulations of magnetite in the alluvial material, and possibly show local bedrock structures. The magnetometer survey is shown on Figure 13, along with the local magnetic anomalies from the regional airborne magnetic survey of Kinross (Hollis, 2011).

There is a small amount of correlation of the two surveys, mainly on the south side of the Rosebute Creek valley. However, for the most part the orientations and the locations of the two sets of anomalies do not overlap – the ground magnetometer anomalies mainly trend along the valley, while the Kinross airborne magnetic anomalies cross-cut the valley. Therefore, the ground magnetometer survey is likely reflective of placer accumulations of magnetite.

In this respect, the main placer anomaly from the ground magnetometer survey appears to trend east-west along the bench on the right limit of the valley. This magnetic anomaly appears to have been displaced (by fluvial/colluvial processes) towards the valley at the location of the right limit tributary (orange arrow, at claim Blueberry 22). This is also the location of resistivity profile RB4. Coincidentally, profile RB4 shows a possible subsurface displaced bedrock fragment with associated nearby faulting.



Figure 13 – Compilation map of 2016 exploration program on Rosebute Creek, showing Kinross regional magnetic anomalies (Hollis, 2011) overlain on the 2016 ground magnetometer survey. The locations of the ground penetrating radar lines and resistivity survey lines are also shown.

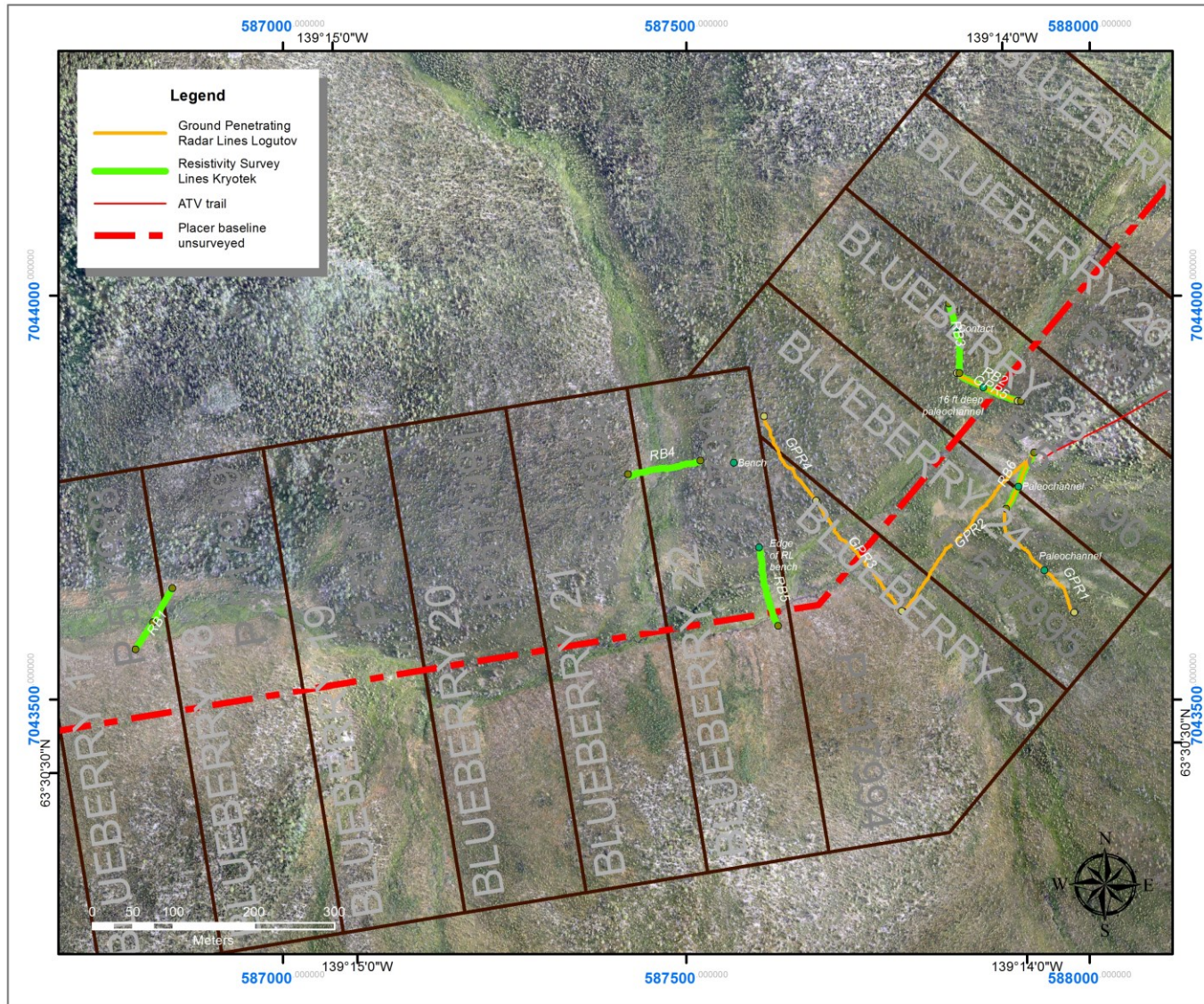


Figure 14 - Location of the 2016 Kryotek resistivity survey lines and the Logutov ground penetrating radar survey lines on upper Rosebute Creek.

Resistivity Geophysical Surveys

Kryotek Arctic Innovation Inc. conducted a total of six (6) geophysics surveys on the Rosebute Creek placer property on August 27th, 2016. The survey lines were conducted using a Lippmann 4-point Resistivity System, and personnel consisted of James Coates and Aaron Mendelssohn of Kryotek Inc.

The coordinates of the endpoints of the resistivity geophysical surveys are given in Table 3.

Table 3 - Coordinates of the endpoints of the 2016 Kryotek resistivity surveys on upper Rosebute Creek.

Endpoint	Northing	Easting	Zone	Latitude	Longitude
RB1 start	7043562	586816.96	7	63° 30' 34.870" N	139° 15' 19.384" W
RB1 midpoint	7043595	586839.04	7	63° 30' 35.925" N	139° 15' 17.722" W
RB1 end	7043638	586863.07	7	63° 30' 37.276" N	139° 15' 15.900" W
RB2 start	7043904	587838.39	7	63° 30' 45.013" N	139° 14' 4.849" W
RB2 end	7043869	587914.39	7	63° 30' 43.818" N	139° 13' 59.424" W
RB3 start	7043904	587838.39	7	63° 30' 45.013" N	139° 14' 4.849" W
RB3 end	7043991	587825.35	7	63° 30' 47.813" N	139° 14' 5.620" W
RB4 start	7043796	587517.33	7	63° 30' 41.797" N	139° 14' 28.281" W
RB4 end	7043779	587427.49	7	63° 30' 41.327" N	139° 14' 34.811" W
RB5 start	7043688	587589.93	7	63° 30' 38.259" N	139° 14' 23.245" W
RB5 end	7043591	587613.71	7	63° 30' 35.110" N	139° 14' 21.719" W
RB6 start	7043806	587931.04	7	63° 30' 41.755" N	139° 13' 58.346" W
RB6 end	7043736	587896.12	7	63° 30' 39.539" N	139° 14' 1.010" W

Methodology

Resistivity was used for this area as the electrical properties of overburden, bedrock and mineralized fault systems are distinct and easily definable. A Lippmann 4- point Resistivity System was used. This system allows over 100 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 on the processed data.

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 resistivity can be produced.

Data Interpretation

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

Limitations and Disclaimer

The electrical resistivity and induced polarizations method provide an estimate of subsurface conditions only at the specific locations where lines were conducted and only to the depths penetrated, and within the accuracy of the method. 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.

LEFT LIMIT

Inverted Resistivity Section

RIGHT LIMIT

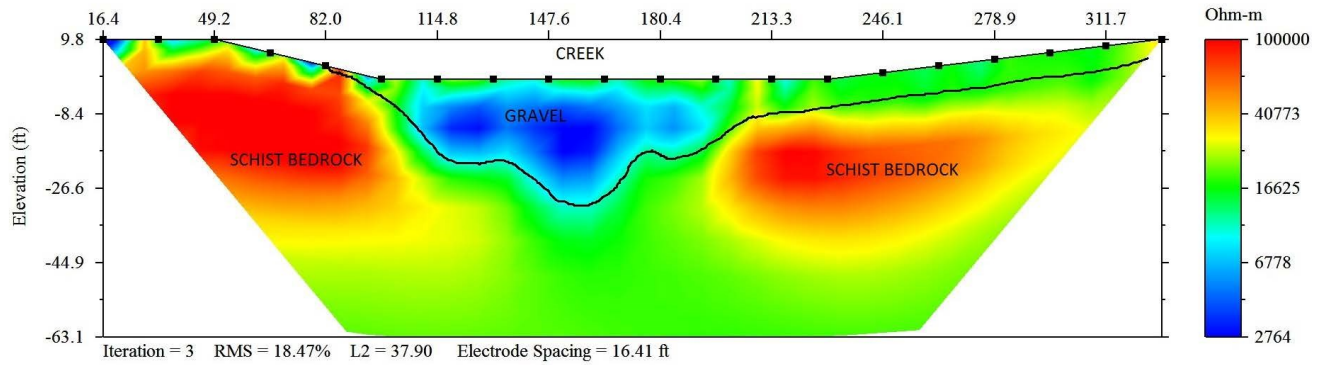


Figure 15 - Resistivity profile RB1.

Profile RB1 runs south to north across Rosebute Creek. The valley walls are steep at this point, with a hummocky, swampy valley bottom and deeply incised creek channel. The survey shows the main creek channel to be roughly 25 feet deep and well-defined, with two secondary channels 15 feet deep on either side. A layer of frozen black muck likely overlies the alluvial gravels.

RIGHT LIMIT

Inverted Resistivity Section

LEFT LIMIT

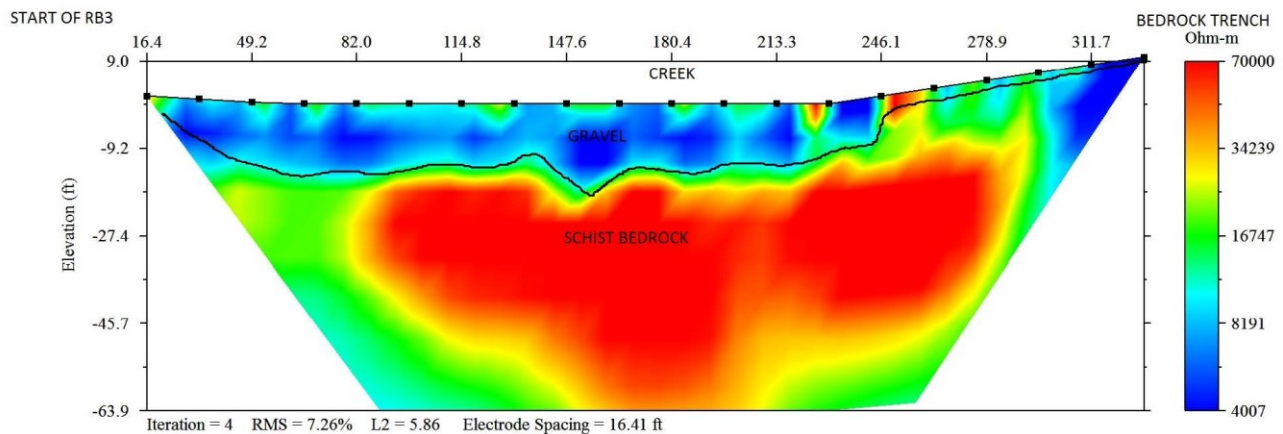


Figure 16 - Resistivity profile RB2.

Profile RB2 runs west to east across Rosebute Creek. The survey ends near the bedrock trenches at the termination of the access road. Schist is exposed in these trenches. The creek valley surface is level, with a narrow, deeply-incised creek channel. Permafrost is present across the survey with the exception of the bedrock at the far end of the left limit, where active layers may be very deep. The survey shows bedrock beneath the creek to be relatively flat, 10-12 feet deep and gently undulating. An incised channel roughly 12-15 feet deep is visible in the center of the image. A layer of frozen black muck likely overlies the alluvial gravels.

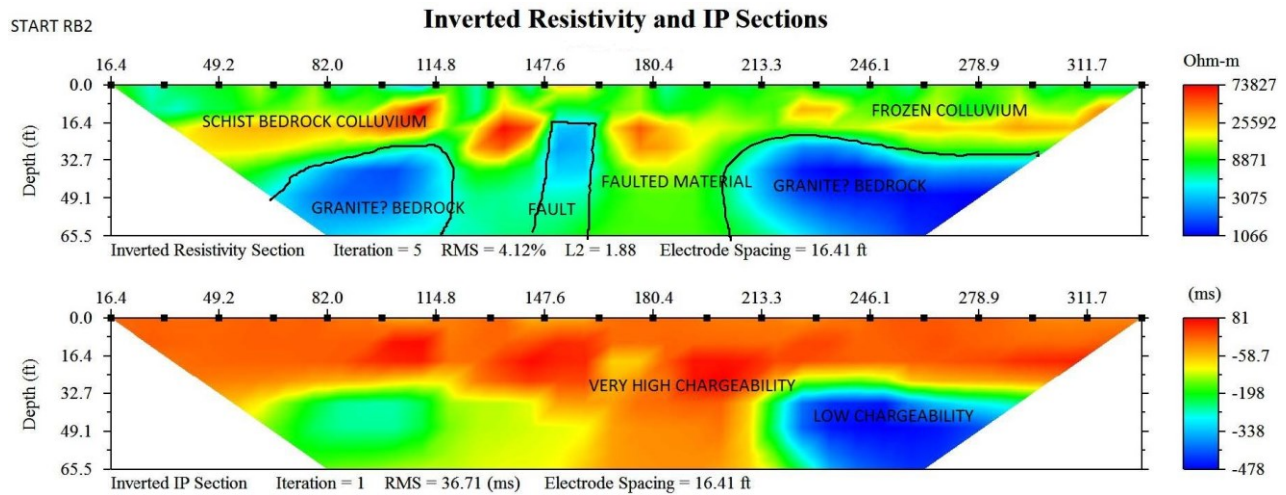


Figure 17 – Resistivity and IP sections for profile RB3.

Profile RB3 begins at the same point as RB2, but runs uphill and in the opposite direction. The survey shows colluvium, heavily weathered bedrock and ice-rich permafrost in the upper 20 feet. A vertical low resistance structure in the centre of the image may be fault-related. Bedrock below 30 feet in depth is extremely low resistivity compared with other schist bedrock in the area and is likely a granitic intrusion or heavily faulted structure which has been hydrothermally altered. The contrast between high and low IP chargeability zones corresponds perfectly with the contacts in the resistivity profile, indicating a well-defined bedrock contact.

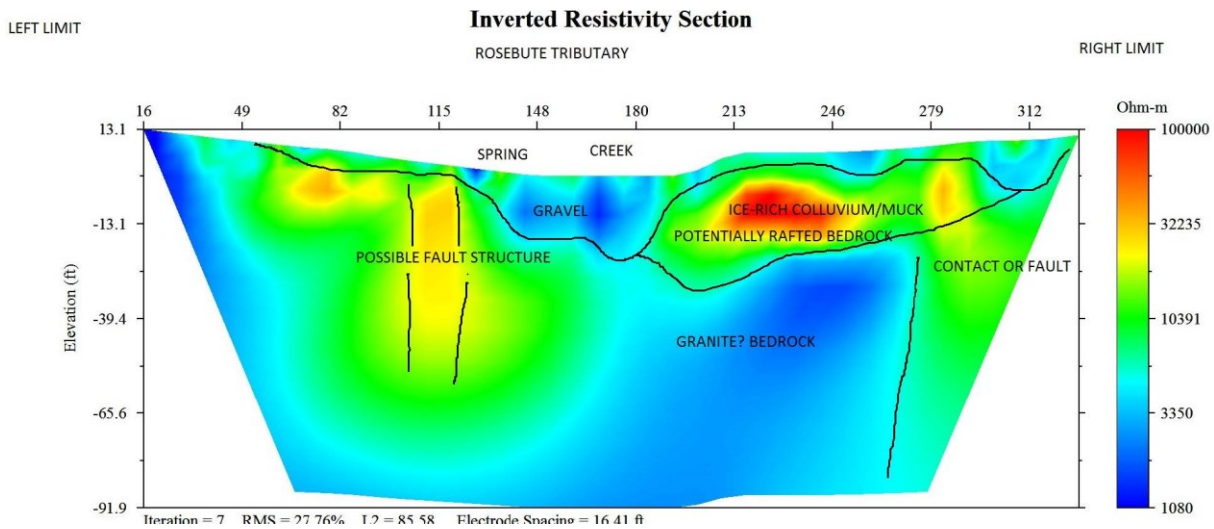


Figure 18 - Resistivity profile RB4.

Profile RB4 runs across a small RL tributary to Rosebute Creek. The image was intended to identify alluvial gravels in the creek channel as well as deeper bedrock structures. The alluvial channel is 13-15 feet deep, well-defined and located in the center of the valley (180 feet on the horizontal scale). There is another potential channel showing very high resistivity at 213-246 on the horizontal scale. This may be very ice-rich fine-grained material or rafted schist bedrock overlying granitic bedrock. Bedrock may be alternating schist (green) and granite (blue) with a possible vertical fault structure at 115 on the horizontal scale. Another vertical fault or contact is present at 279 on the horizontal scale. A small artesian spring was discovered at 140 on the horizontal scale, indicating subsurface water flow or potential groundwater movement associated with the fault system.

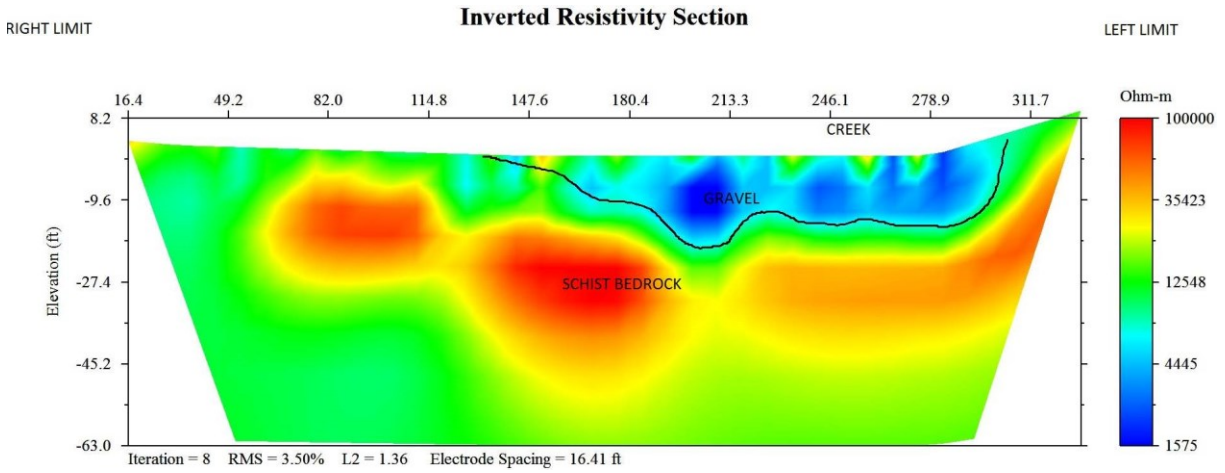


Figure 19 - Resistivity profile RB5.

Profile RB5 runs north-south across Rosebute Creek between the access road and the tributary imaged in RB4. Bedrock is frozen schist across the image without any indications of the granitic intrusions seen in the other surveys. The north-facing hillside on the left limit is quite steep at this point, while the valley bottom is flat and swampy. A well-defined and incised bedrock channel is 15-20 feet deep is found at 210 on the horizontal scale. A secondary channel 12-15 feet deep is found at the extreme left limit. Both would be good drill targets. Bedrock in the valley bottom is otherwise flat and 10-12 feet deep. A layer of black muck 5-7 feet deep likely overlies the fluvial gravels in the valley bottom.

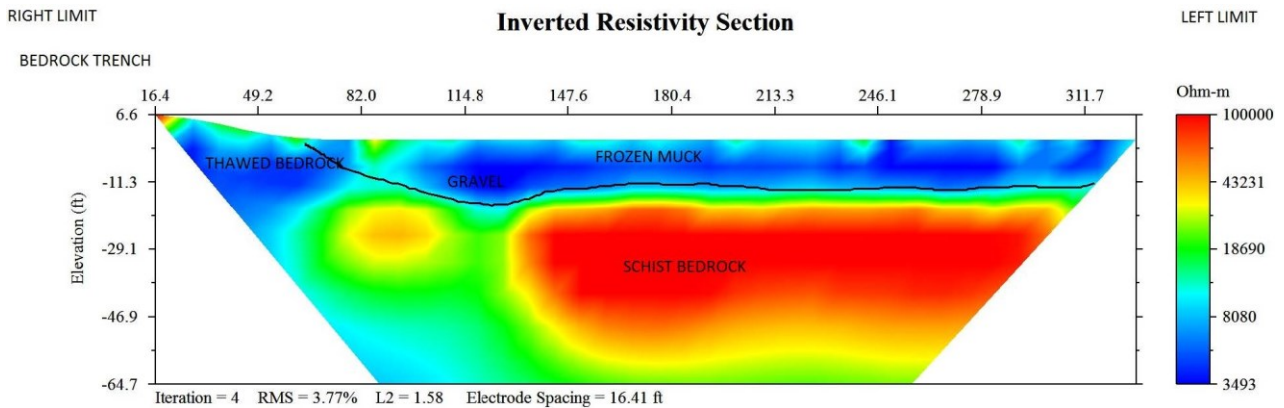


Figure 20 - Resistivity profile RB6.

Profile RB6 runs across a left limit tributary to Rosebute creek immediately adjacent to the termination of the access road and bedrock trenches. The bedrock trenches at the start of the line show weathered thawed schist. The survey shows flat, level frozen schist bedrock at roughly 12 feet below surface. There is one poorly defined incised bedrock channel on the extreme right limit, which is only 1-2 feet deeper than the rest of the survey. A layer of frozen black muck extends at least 7 feet from the surface from the center of the survey to the left limit.

Ground Penetrating Radar Surveys

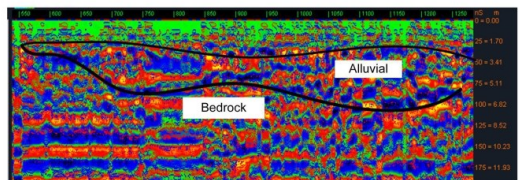
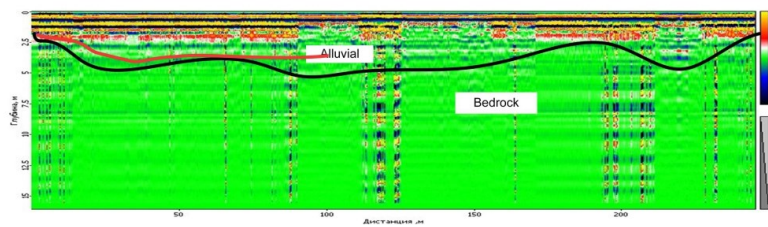
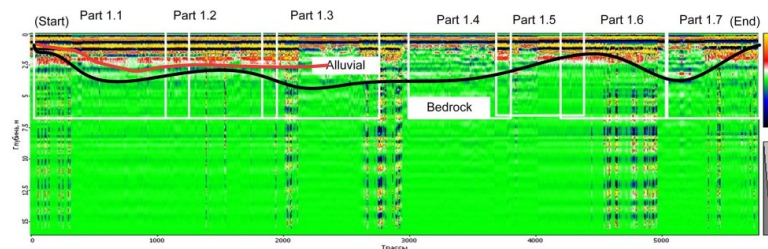
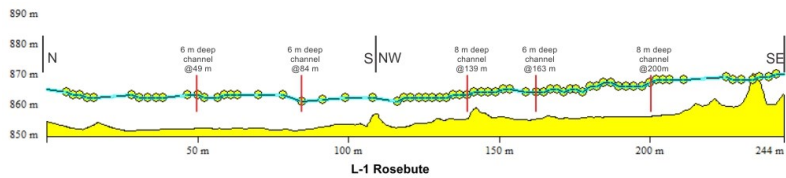
The ground penetrating radar surveys were conducted on the property by 47129 Yukon Inc. on October 13, 2016. Five (5) lines were surveyed. The combined total length of the 5 lines is 900 metres. The location of the surveyed lines is shown on Figures 13 and 14, and the coordinates of the endpoints are given in Table 4.

Table 4 - Ground Penetrating Radar Lines endpoints, Rosebute Creek.

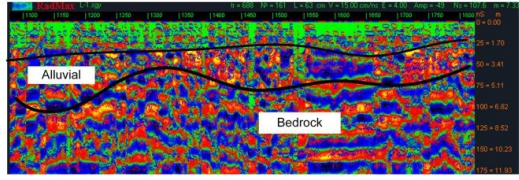
GPR line endpoint	UTM Northing	UTM Easting	Zone	Latitude	Longitude
GPR1 start	7043805.874	587931.0435	7N	63° 30' 41.755" N	139° 13' 58.346" W
GPR1 end	7043607.724	587980.901	7N	63° 30' 35.311" N	139° 13' 55.137" W
GPR2 start	7043805.874	587931.0435	7N	63° 30' 41.755" N	139° 13' 58.346" W
GPR2 end	7043608.503	587768.713	7N	63° 30' 35.525" N	139° 14' 10.477" W
GPR3 start	7043609.35	587767.066	7N	63° 30' 35.554" N	139° 14' 10.594" W
GPR3 end	7043744.429	587662.418	7N	63° 30' 40.010" N	139° 14' 17.892" W
GPR4 start	7043746.295	587660.7199	7N	63° 30' 40.071" N	139° 14' 18.011" W
GPR4 end	7043850.898	587596.1985	7N	63° 30' 43.507" N	139° 14' 22.468" W
GPR5 start	7043869.392	587910.7222	7N	63° 30' 43.824" N	139° 13' 59.689" W
GPR5 end	7043904.356	587835.2521	7N	63° 30' 45.020" N	139° 14' 5.076" W

The electro-magnetic survey was conducted by using the GPR “EasyRad PRO+” equipped with antenna with a working frequency of 100 MHz with a resolution 0.2m. The results of the survey were analyzed using Prism 2.0 and 2.5 software. The actual effective depth of the survey is estimated to be up to 10 m.

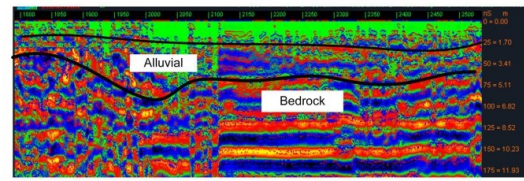
A number of paleochannels were interpreted by the Ground Penetrating Radar on each profile. These are plotted along the cross-valley profiles shown above each line in the figures following, along with their depths below the surface.



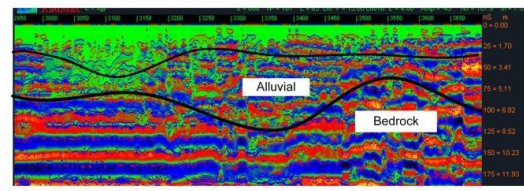
Part 1.1



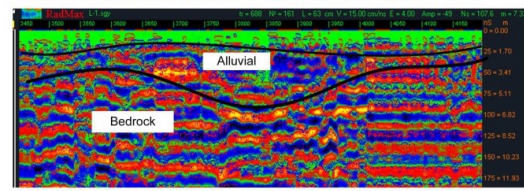
Part 1.2



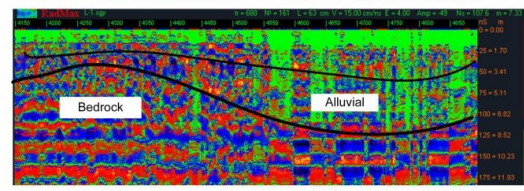
Part 1.3



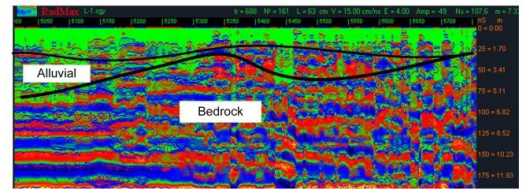
Part 1.4



Part 1.5



Part 1.6



Part 1.7

Figure 21 - Ground Penetrating Radar Line 1, Rosebute Creek. The orange line on the profile represents the bedrock contact interpreted from Resistivity line RB6, which was surveyed partially on the same line.

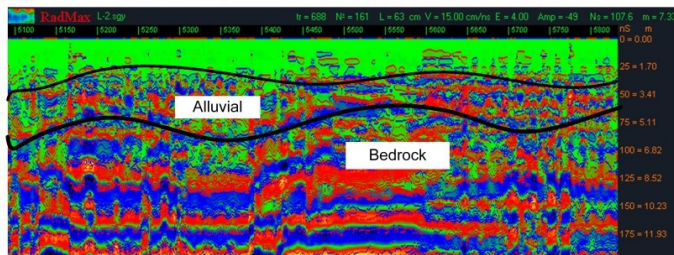
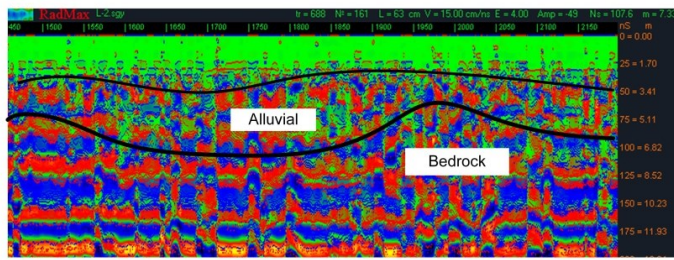
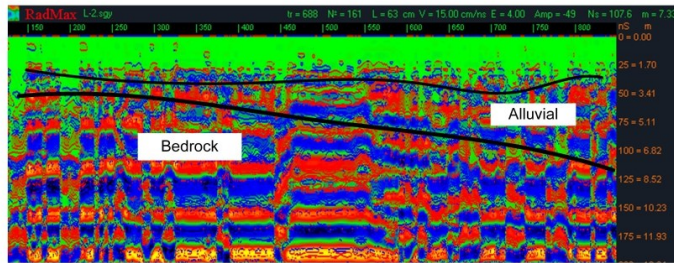
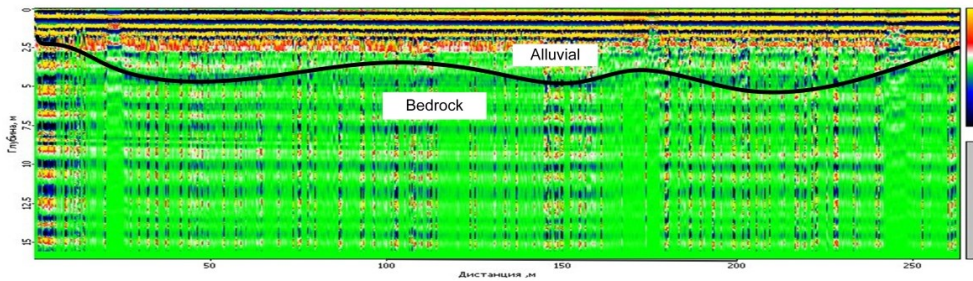
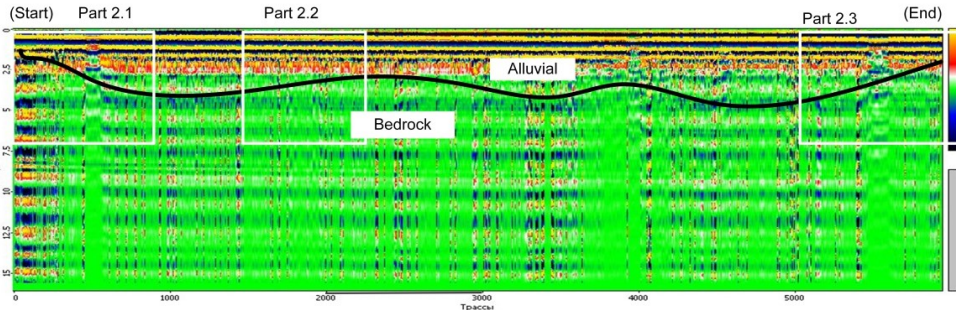
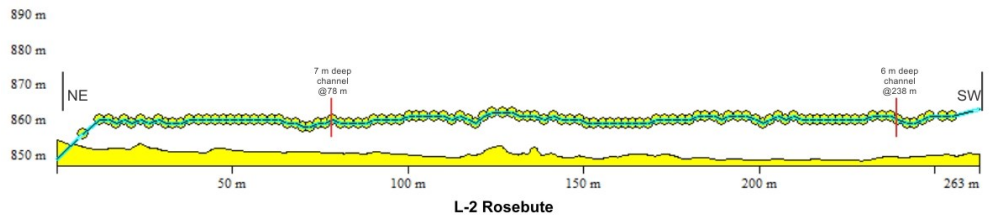


Figure 22 - Ground Penetrating Radar Line 2, Rosebute Creek.

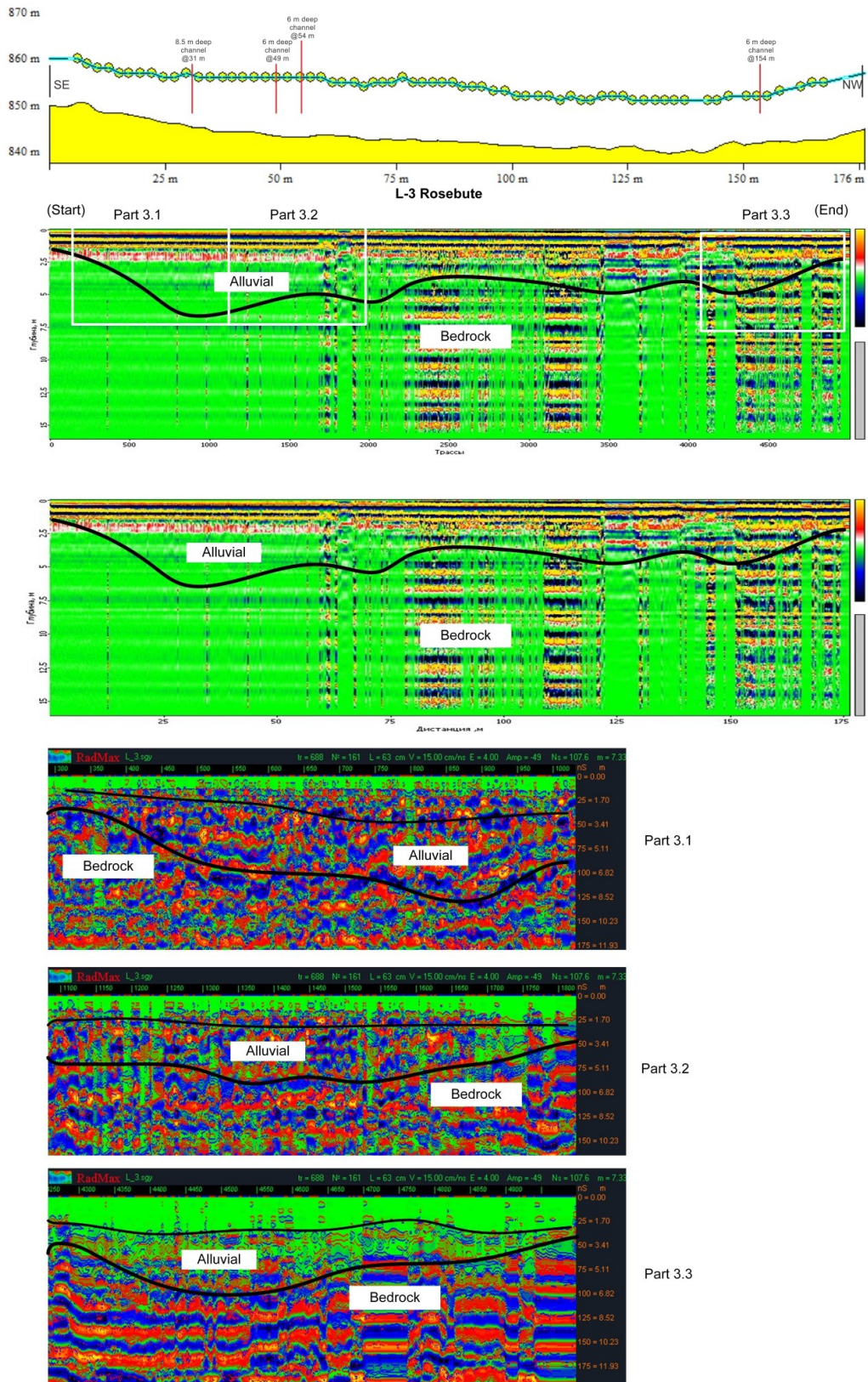


Figure 23 – Ground Penetrating Radar Line 3, Rosebute Creek.

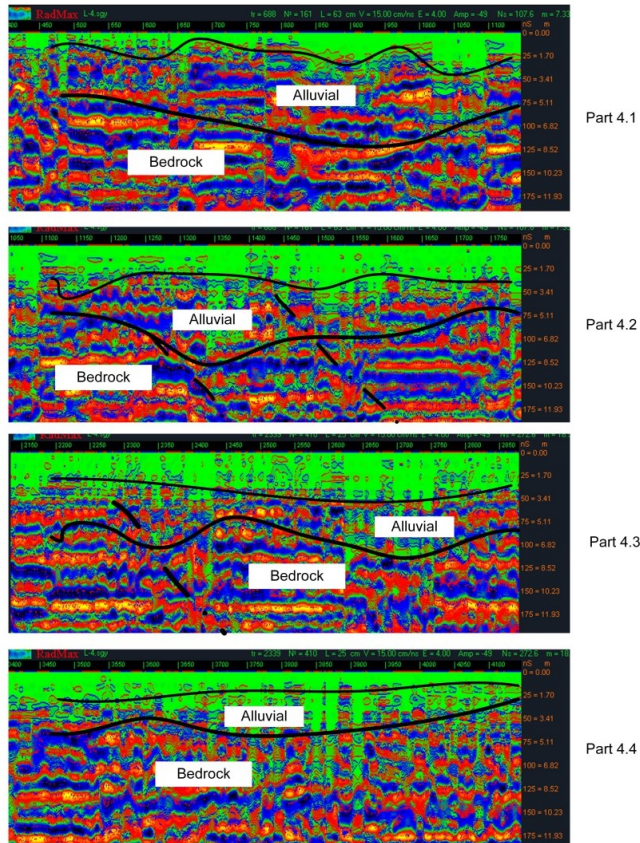
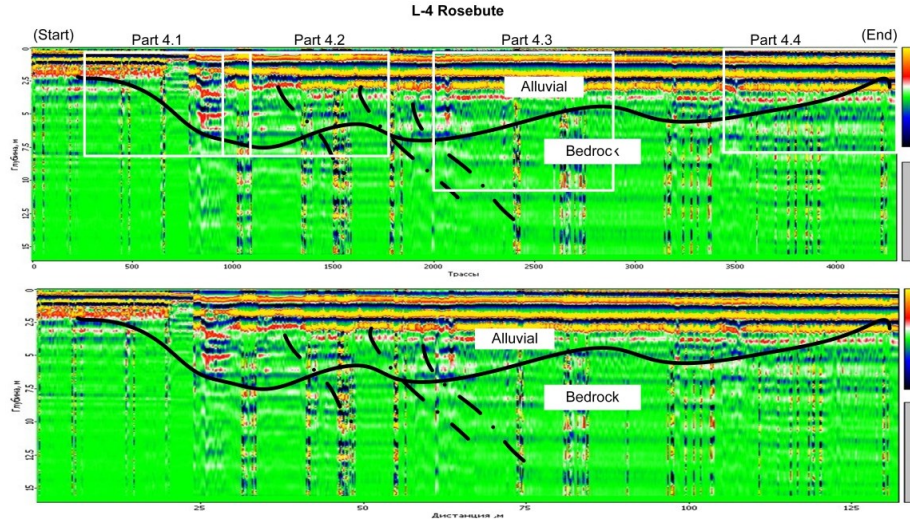
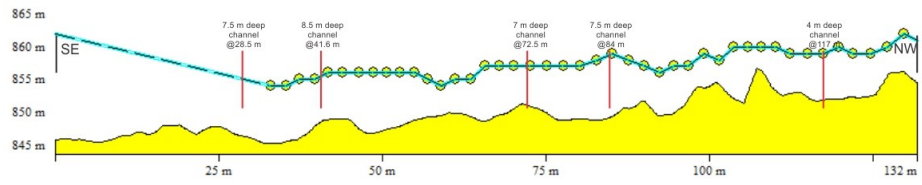


Figure 24 - Ground Penetrating Radar Line 4, Rosebute Creek.

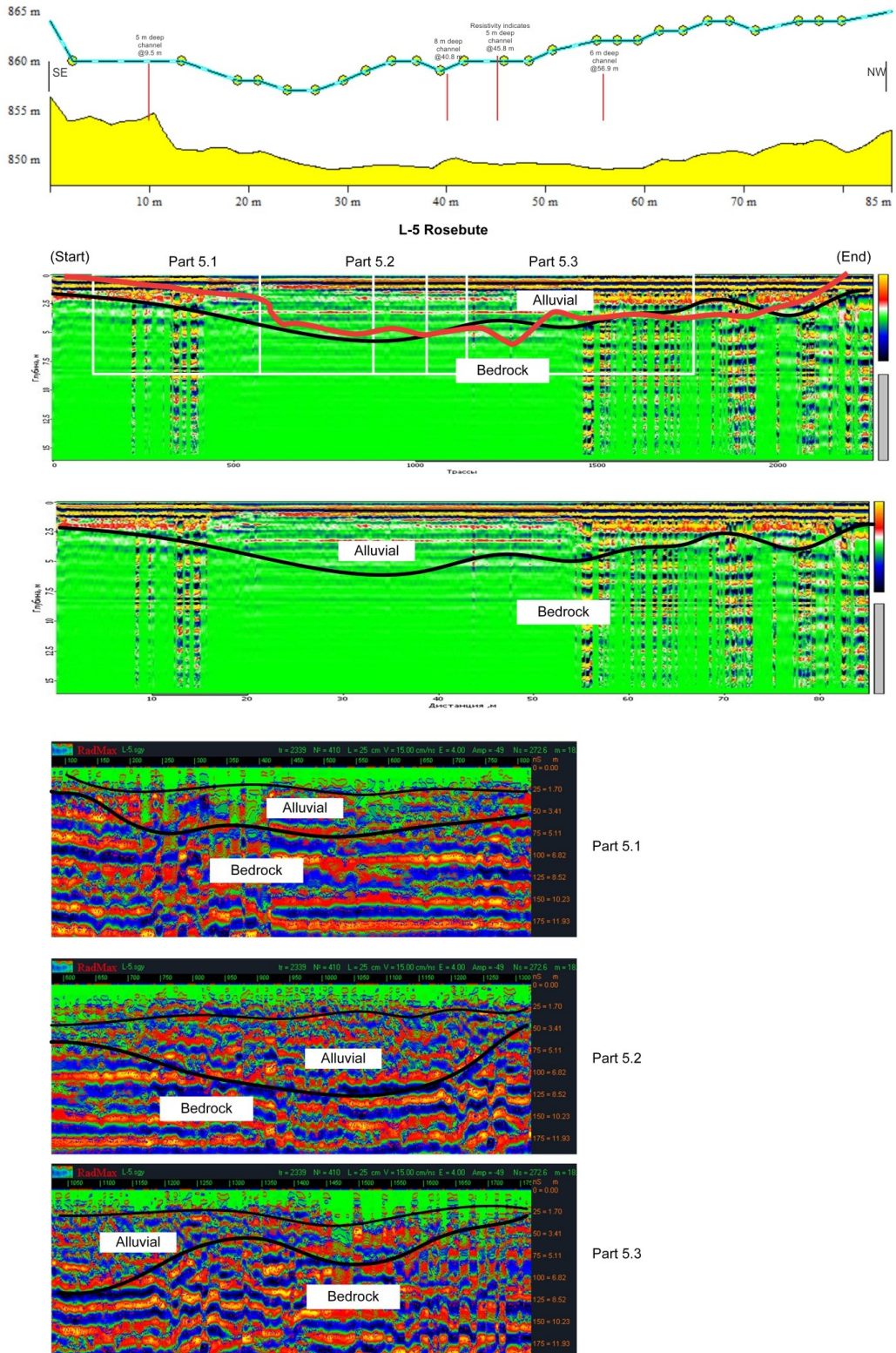


Figure 25 - Ground Penetrating Radar Line 5, Rosebute Creek. The orange line on the upper profile represents the bedrock contact interpreted from Resistivity line RB2 which was surveyed in the same location.

Table 5 below shows the locations and depths of paleochannels which were interpreted from the geophysical surveys. The depths of the channels below surface varied between 4 metres and 8.5 metres.

Table 5 - Locations, depths and elevations of targets interpreted from Ground Penetrating Radar and Resistivity Geophysics, Rosebute Creek.

On Line	Target Rank	Feature	Depth of channel (m)	Depth of channel (ft)	Elevation channel (m)	Elevation channel (ft)	Latitude	Longitude
GPR 4	1	bench/fault	8.5	27.9	840.3	2756.9	63° 30' 41.115" N	139° 14' 19.829" W
RB 5	2	valley paleochannel	6.1	20.0	829.7	2722.1	63° 30' 36.288" N	139° 14' 22.587" W
GPR 3	3	valley paleochannel	6.0	19.7	836.0	2742.8	63° 30' 39.513" N	139° 14' 17.351" W
GPR 5	4	valley paleochannel	8.0	26.2	842.3	2763.3	63° 30' 44.337" N	139° 14' 2.375" W
RB 2	4	valley paleochannel	4.6	15.0	845.0	2772.4	63° 30' 44.415" N	139° 14' 2.733" W
GPR 2	5	tributary paleochannel	7.0	23.0	843.3	2766.5	63° 30' 39.999" N	139° 14' 2.255" W
GPR 1	6	tributary paleochannel	6.0	19.7	846.4	2776.9	63° 30' 40.353" N	139° 13' 59.928" W
GPR 4	6	bench	7.0	23.0	844.0	2769.0	63° 30' 41.848" N	139° 14' 21.109" W
GPR 4	6	bench	7.5	24.6	841.5	2760.7	63° 30' 42.199" N	139° 14' 21.366" W
GPR 4	6	bench	4.0	13.1	848.0	2782.2	63° 30' 43.140" N	139° 14' 22.235" W
GPR 1	6	tributary paleochannel	6.0	19.7	845.8	2774.9	63° 30' 39.280" N	139° 14' 1.159" W
GPR 1	6	tributary paleochannel	8.0	26.2	850.4	2789.9	63° 30' 37.866" N	139° 13' 59.327" W
GPR 4	6	bench	7.5	24.6	838.9	2752.4	63° 30' 40.804" N	139° 14' 19.244" W
GPR 5	6	valley low bench	5.0	16.4	849.2	2786.0	63° 30' 43.944" N	139° 14' 0.318" W
GPR 5	6	valley paleochannel	6.0	19.7	843.0	2765.6	63° 30' 44.586" N	139° 14' 3.358" W
RB 1	6	valley paleochannel	7.6	25.0	801.4	2629.2	63° 30' 36.187" N	139° 15' 17.369" W
GPR 1	6	tributary paleochannel	6.0	19.7	849.5	2787.2	63° 30' 37.335" N	139° 13' 58.416" W
GPR 1	6	tributary paleochannel	8.0	26.2	848.2	2782.7	63° 30' 36.495" N	139° 13' 56.554" W
GPR 2	6	valley low bench	6.0	19.7	843.2	2766.5	63° 30' 36.110" N	139° 14' 9.360" W
GPR 3	6	valley low bench	8.5	27.9	836.7	2745.0	63° 30' 36.328" N	139° 14' 11.960" W
GPR 3	6	valley low bench	6.0	19.7	837.4	2747.3	63° 30' 36.797" N	139° 14' 12.587" W
GPR 3	6	valley low bench	6.0	19.7	836.9	2745.8	63° 30' 36.966" N	139° 14' 12.811" W
RB 4	6	tributary paleochannel	4.6	15.0	835.6	2741.6	63° 30' 41.503" N	139° 14' 32.012" W
RB 6	6	tributary paleochannel	4.3	14.0	847.1	2779.3	63° 30' 40.762" N	139° 13' 59.533" W

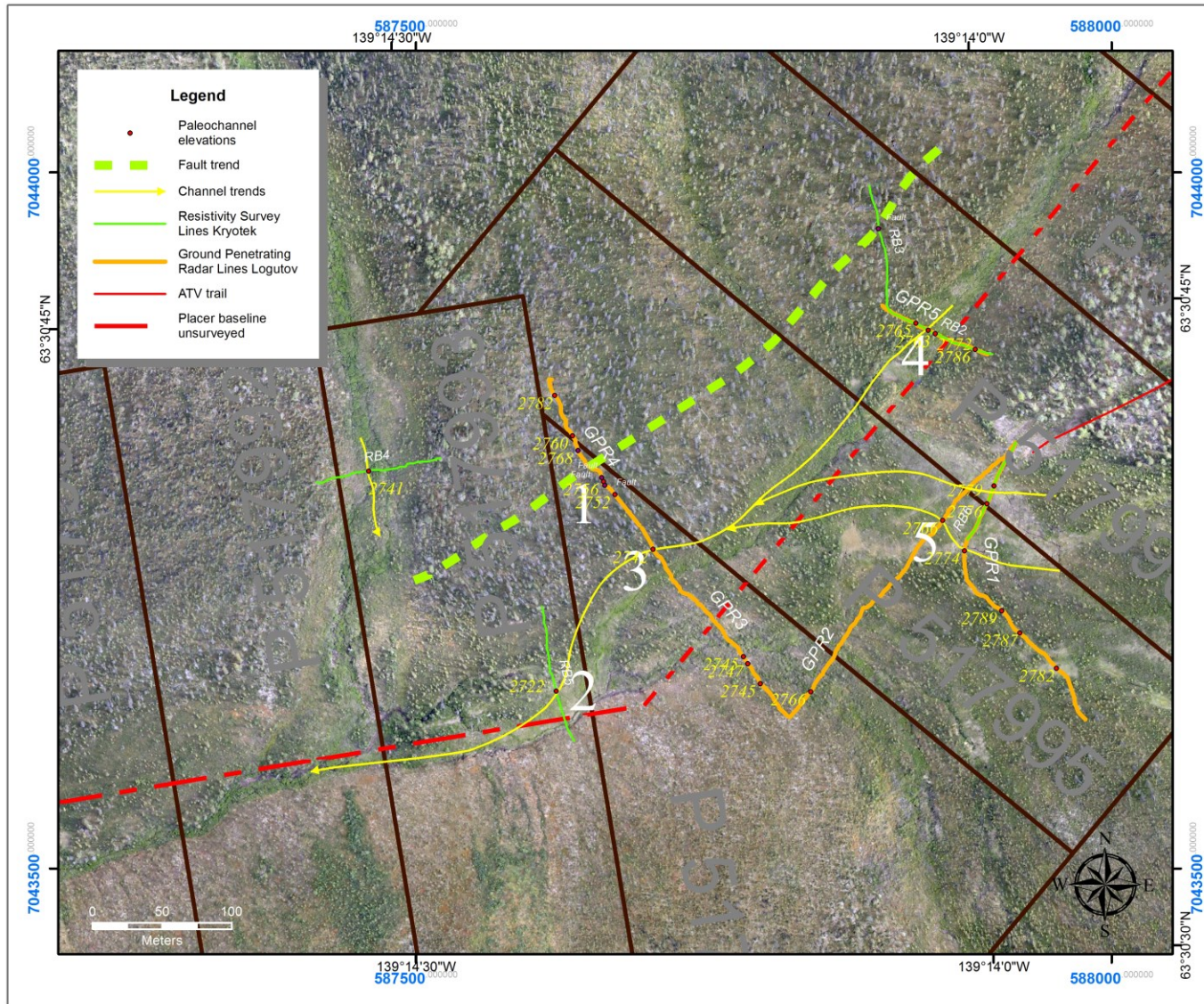


Figure 26 - Compilation map of main field area, Rosebute Creek, showing paleochannel elevations and fault trends interpreted from geophysics. The highest priority target areas are shown by numbers 1-5.

Conclusions and Recommendations

Figure 26 is a compilation map showing the resistivity and ground penetrating radar lines, the elevations of interpreted paleochannels and the general trends of the paleochannels and faults interpreted from the surveys. It also shows the highest priority targets for testing as numbers 1 to 5.

Both the resistivity surveys and the ground penetrating radar surveys outlined bedrock contacts as well as overburden versus alluvial material. However, the ground penetrating radar surveys did not distinguish between permafrost and thawed ground, or different types of bedrock. In addition, the resistivity surveys tended to show paleochannels at a shallower depth than the ground penetrating radar surveys. This was especially evident where the two methods overlapped, such as on lines GPR 1/RB 6 and GPR 5/RB 2.

The ground magnetometer survey is likely reflective of placer accumulations of magnetite, as it does not follow the regional magnetic bedrock trend. The main placer anomaly appears to trend east-west along the bench on the right limit of the valley. Interestingly, this magnetic anomaly appears to have been displaced (by fluvial/colluvial processes) towards the valley at the location of the right limit tributary, in the vicinity of resistivity profile RB4.

This right-limit bench magnetic anomaly is coincident with faults in bedrock outlined in both the resistivity and ground penetrating radar surveys.

Verification of channel depths and testing of the paleochannels for placer gold is recommended. Initially, drilling methods such as auger (6 inch or larger), R/C (Reverse circulation) or RAB (Rotary Air Blast) may be used. This should be followed up by excavator test pitting, bulk processing of alluvial gravels and finally full scale mining, should results be favourable.

Statement of Costs, 2016 Placer Exploration Program, Rosebute Creek

Table 6 - Statement of Costs, Placer Exploration, Rosebute Creek Property

2016 Placer Exploration Program Statement of Costs	Rate	Subtotal	GST	Total	Invoice #
PHASE 1					
Groundtruth Exploration Inc. Drone Survey	as per invoice	\$2,500.00	\$125.00	\$2,625.00	ROS2016-01
Groundtruth Exploration Inc. Magnetometer Survey	as per invoice	\$1,600.00	\$80.00	\$1,680.00	ROS2016-02
Duncan Contracting Ltd. – Claim staking	as per invoice	\$5,140.00	\$0.00	\$5,140.00	#686018
Fireweed Helicopters	as per invoice	\$1,158.12	\$57.91	\$1,216.03	#12839
Total Cost Phase 1		\$10,398.12	\$262.91	\$10,661.03	
PHASE 2					
Trans North Helicopters	as per invoice	\$2,574.88	\$128.74	\$2,703.62	#4509
Kryotek Resistivity Survey	as per invoice	\$5,300.00	\$265.00	\$5,565.00	#LT2016A
Total Cost Phase 2		\$7,874.88	\$393.74	\$8,268.62	
PHASE 3					
Geoplacer Exploration including 47129 Yukon Inc.	as per invoice	\$3,217.20	included	\$3,217.20	#2016-09
Trans North Helicopters	as per invoice	\$2,691.92	\$134.60	\$2,826.52	#4679
Camp costs YMEP rate	4 person days @ \$100/day	\$400.00	n/a	\$400.00	n/a
Geoplacer Exploration Final Report Costs	as per invoice	\$2,500.00	\$125.00	\$2,625.00	#2017-01
Total Cost Phase 3		\$8,809.12	\$259.60	\$9,068.72	
Total Cost		\$27,082.12	\$916.25	\$27,998.37	

Statement of Qualifications

William LeBarge

I, William LeBarge, of 13 Tigereye Crescent, Whitehorse, Yukon, Canada, DO HEREBY CERTIFY THAT:

1. I am a Consulting Geologist with current address at 13 Tigereye Crescent, Whitehorse, Yukon, Canada, Y1A 6G6.
2. I am a graduate of the University of Alberta (B.Sc., 1985, Geology) and the University of Calgary (M.Sc., 1993, Geology – Sedimentology)
3. I am a Practicing Member in Good Standing (#37932) of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC).
4. I have practiced my Profession as a Geologist continuously since 1985.
5. I am President and sole shareholder of Geoplacer Exploration Ltd., a Yukon Registered Company.


Dated this 20th day of January, 2017

William LeBarge, P. Geo.



Boris Logutov

Mr. Boris Logutov (born in Perm, Russia, in 1966) is a geophysicist/geologist post-graduate (Master) at Perm State University (Russia). Since 2012 he has been the president of 47129 Yukon Inc., an exploration company based in Whitehorse and operating throughout the Yukon. His geophysical work has been utilized by several placer mining companies operating in the Klondike.



Boris Logutov

James Coates

I, James Coates of 173-108 Elliott Street, Whitehorse, Yukon, Canada DO HEREBY CERTIFY THAT:

1. I am a Consulting Geomorphologist with current address at 173- 108 Elliott Street, Whitehorse, Yukon, Canada, Y1A 6C4.
2. I am a graduate of the University of Calgary (B.Sc., 2004, Geography) and the University of Ottawa (M.Sc., 2008, Geography)
3. I have practiced my Profession as a Geomorphologist continuously since 2008.
4. I am President and shareholder of Kryotek Arctic Innovation Inc., a Yukon Registered Company.

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