4763 NWT LTD.

PLACER EXPLORATION PROGRAM AT THE CALDER CREEK PROPERTY, KLONDIKE AREA, YUKON TERRITORY

Mike Power, M.Sc. P.Geo.

Location: 63° 50' N 139° 10' W
NTS: 115 O 14 (a & b)
Mining District: Dawson, Yukon
Work Performed: August 2, 2012, to March 9, 2013
Date: 14 Mar 2013

SUMMARY

The Calder Creek Property is located 50 km from Dawson City and consists of 12 placer claims staked under the Yukon Placer Mining Act. The property is on Calder Creek in the Dawson Mining District and is owned by Panarc Resources Ltd. It is under option to 4763 NWT Ltd.

Calder Creek is considered prospective to host Tertiary placer gold deposits and is surrounded by other placer-bearing creeks. To date there has been no commercial production from the creek. Work conducted to date indicates that the modern creek has not incised the overlying black muck and barren upper red gravels; as a consequence, there is no gold found in the modern creek bed. Examination of airphotos suggests that there is potential for stranded Pleistocene deposits in the upper portions of the creek and for buried Tertiary bench and main channel deposits in the lower portions of the creek. Historic exploration of the creek, to the extent it is known, suggests that no systematic exploration for these targets has been conducted to date.

This report describes the results of an exploration program consisting of line cutting, ground penetrating radar (GPR) and shaft sinking program conducted between August 2, 2012 and March 9, 2013. The field crew worked from a camp on Calder Creek near the shaft site. The geophysical grid covered 3.1 line-km and consists of a central base line and 12 survey lines perpendicular to the local drainage direction. The lines were cleared to 1.5 m wide and marked with tagged survey pickets at topographic inflection points. These stations were surveyed to determine their location and elevation and then used to register the GPR data. The GPR survey was performed at both 25 and 50 MHz in two passes across the entire grid. Survey line markers were registered to the radar data and used to convert depths in the radargrams to elevations above mean sea level by topographically correcting the radar data. The radar data appear to indicate the location of a paleochannel northeast (to the left limit) of Calder Creek.

A single shaft was excavated to 25 feet, intersecting red gravel at 12 feet and bedrock at 21 to 22 feet. Samples were collected over two foot intervals from 12 to 18 feet and at 1 foot intervals from there to bedrock. Samples at 21 feet returned 5 pin head sized gold grains. A 200 litre sample returned 4.9 mg or 0.245 g/m^3.

The results of the work conducted to date are promising and suggest that additional work be focused on testing locations in the main channel as indicated by the re-interpreted GPR data. A work program consisting of additional shaft sinking or drilling is recommended.

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1.0 INTRODUCTION

This report describes placer exploration work conducted on the Calder Creek Property held under option by 4763 NWT Ltd. in the Dawson Mining District, Yukon Territory. This work was conducted to locate and explore placer gold deposits on the property.

2.0 LOCATION AND ACCESS

The Calder Creek Property is located on Calder Creek, a tributary of Quartz Creek in the southern portion of the Klondike Placer District in the Dawson Mining District, Yukon. The property is centred at approximately 63^{o} 50' N 139^{o} 10' W (Figure 1). The property is 61 km by road from Dawson City with a 4x4 truck. The road route to the property is as follows:

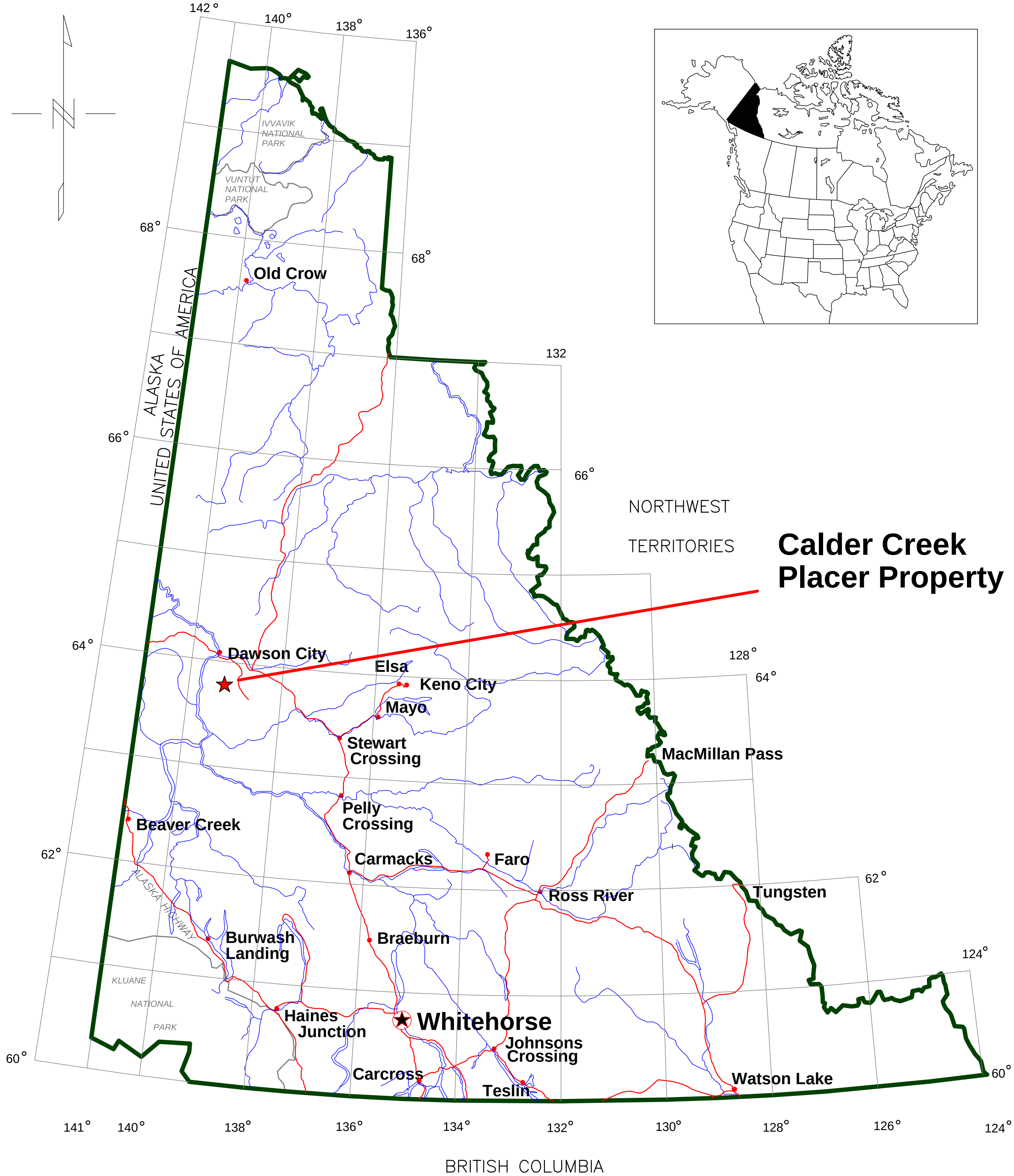
From / to	Distance (km)	Remarks
Dawson - Hunker Road	14.7	Highway
Hunker Road to Summit	25.6	Maintained gravel road
Hunker Summit to Quartz Creek Road turnoff	7.5	Maintained gravel road
Quartz Creek Road turnoff to Calder Creek Road	11.4	Miner’s road
Calder Creek Road junction to southern property boundary	2.0	Miner’s road

There are open areas on the property which would serve as landing zones for light helicopters. The nearest helicopter charter bases are in Dawson City.

3.0 PROPERTY DESCRIPTION

The Calder Creek Property consists of 13 un-surveyed Placer Claims staked under the Yukon Placer Mining Act and recorded in the Dawson Mining District (Figure 2). Claim information is summarized below[1]:

[1] Claim information as of 21 Mar 2012 as posted on the Yukon Mining Recorders website (www.yukonminingrecorders.ca). Claim expiry dates do not reflect the value of work documented in this report.



100000 0 100000

(meters)

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CALDER CREEK PLACER PROPERTY

Figure 1. Property Location Map

NTS: 115O14	Mining District: Dawson
Datum: NAD83	Projection: UTM Zone 7N
Job: PRL-11503-YT	Date: 28 Feb 11

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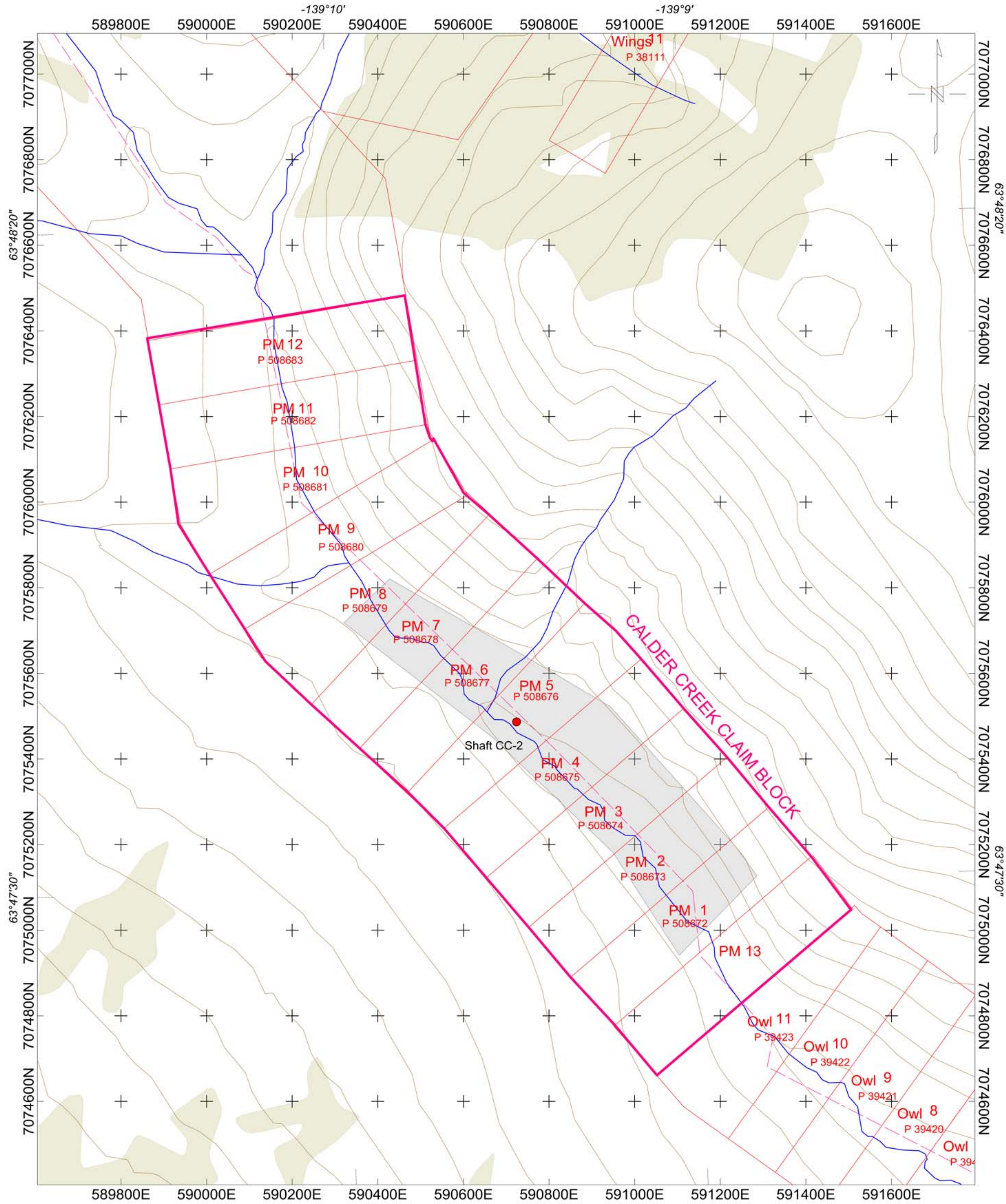

Placer shaft

Area covered by geophysical grid

Scale 1:9500

100 0 100 200 300

(meters)

NAD83 / UTM zone 7N

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CALDER CREEK PROPERTY **Staking - March 2012** **Figure 2. Claims & workings**
NTS: 115 0 14   Mining District: Dawson Datum: NAD83   Projection: UTM Zone 7N Job: PRL-12560-YT   Date: 12 Mar 2013
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Claim name	Record Number	Expiry date
PM 1-12	P 508672 - P 508683	6 Mar 2013
PM 13	Pending	19 Feb 2014

The claims are owned 100% by Panarc Resources Ltd. and are under option by 4763 NWT Ltd. The claims can be maintained in good standing indefinitely by performing $200 per claim per year of assessment work and by paying associated filing fees of $5 per claim. The claims are located on Crown Land and surface rights are retained by the Crown.

4.0 EXPLORATION HISTORY

The Calder Creek Property is located on Calder Creek, a tributary of Quartz Creek in the Klondike District. The creek has been explored in a cursory and intermittent manner since the discovery of gold in the Klondike, most recently in the 1980's (Laberge, 2002). There is no recorded production in the portion of the creek covered by the claims. G. Lee (2011 *pers. comm.*) stated that the last extensive exploration in the area occurred in the 1980's. J. Simcox drilled on the upper reaches of Calder Creek above the currently staked leases but reported no significant results. On the lower reaches of Calder Creek, there is a large cleared area and a trench in the upper (red) gravels on the right limit of Calder Creek on the Calder Creek Placer Property. This trench was sited to test an apparent bench gravel southwest of the main channel of Calder Creek. In addition, one old shaft near the main channel of the creek at the upper (upstream) end of the Calder Creek Placer Property was located during the 2012 exploration program. It likely dates from the 1970's based on the artifacts found there. It had no significant muck pile and likely was quite shallow.

5.0 PHYSIOGRAPHY & CLIMATE

The Calder Creek Property is located in the Yukon Plateau on the south flank of King Solomon's Dome. Topography in the area consists of convex, rounded hills with steep, incised creeks at elevations above 500 m and with broader valleys and more gentle creek gradients below this elevation. Elevation on the property ranges from 900 m on the surrounding hills and ridges to 450 m in the lower reaches of Calder Creek. Outcrop is very sparse and bedrock exposures are limited largely to cuts along the access road. Permafrost is common on north facing slopes; no depth to the base of permafrost has been documented in the area.

The property area is covered by black spruce on north facing slopes and a mixture of black spruce and poplars on south facing slopes. Large areas of thick willows and alders are found in the creek bottoms in burned over areas. The property is below tree line which occurs at about 1000 m in this area.

The climate in the property area consists of long, cold winters, short hot dry summers and short spring and fall seasons. At Dawson City, the closest nearby community, average monthly temperatures range from -22.5C in January to +23.1C in July. The area receives annual precipitation of 32.4 cm of rain and snow (rain equivalent) (Environment Canada, 2011).

6.0 REGIONAL BEDROCK GEOLOGY

The regional geology in the property area is summarized by Gordey & Makepeace (1999) and by Debicki (1985). The property lies in the Yukon-Tanana Terrane of the Cordillera, south of the Tintina Fault. The following surficial units and bedrock formations are mapped in the property area:

Formation (Age)	Description
Overburden (Quaternary - Holocene)	Talus, organic and elluvial soil, boulder till.
White Channel Gravels (Tertiary (?Miocene))	Benches of white, clay altered gravel topped by frozen loess confined to higher elevations bordering the lower reaches of the major drainages.
Klondike Schist (Upper Paleozoic)	Quartz-feldspar sericite schist.

There are no major faults mapped in the property area. Air photo analysis suggests that both Eldorado Creek on the north side of King Solomon's Dome and Calder Creek on the south side of the dome are strands of a common lineament which may be a steeply dipping fault.

7.0 PROPERTY PLACER GEOLOGY

Figure 3 is an extract from Yukon Geological Survey Open File 2002-6, a resource appraisal map of placer potential in the Stewart River Map sheet area. Calder Creek, together with the greater majority of the prolific placer creeks in the Klondike Placer District is underlain by Klondike Schist (Lowey *et. al.*, 2002). In view of this, Lowey *et. al.* (ibid) classified Calder Creek as "moderately suggestive" to host placer gold with a score of 3-0-1-0. The creek has favourable Pleistocene to Holocene gravel deposits (first score of 3) and known placer potential from prospecting and test mining on the lower reaches (third score of 1). Lowey's crew did not recover gold from the creek and there are no known bedrock gold occurrences on the creek; these factors account for the remaining zero scores.

Figure 4 is an extract from Yukon Geological Survey Open File 2001-36 (Lipovsky *et. al.* 2001) showing Calder Creek in relation to other producing creeks in the Klondike area. It is worthy of note that Calder Creek and Eldorado Creek drain a common NNW striking lineament which may be a bedrock fault of minimal horizontal displacement.

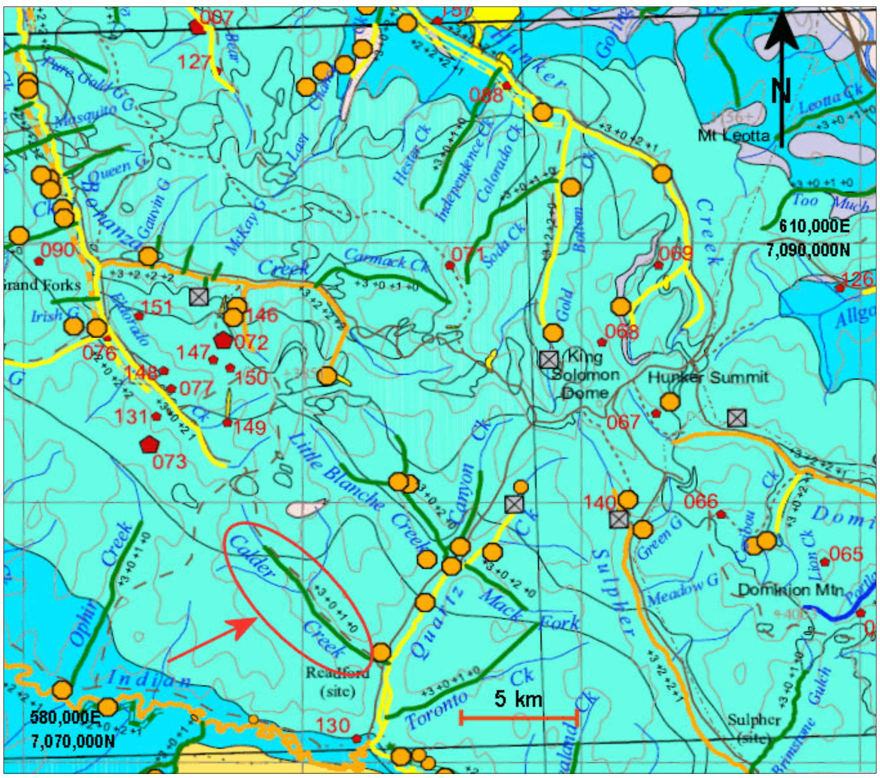


Figure 3. Extract from Lowey *et. al.* (2002) showing Calder Creek in relation to nearby placer creeks. Calder and Eldorado are strands of a common airphoto lineament. Calder Creek is rated as having moderate placer potential with the lower rating due to an absence of government placer sample results, lack of past production and the lack of a bedrock gold showing in the drainage.

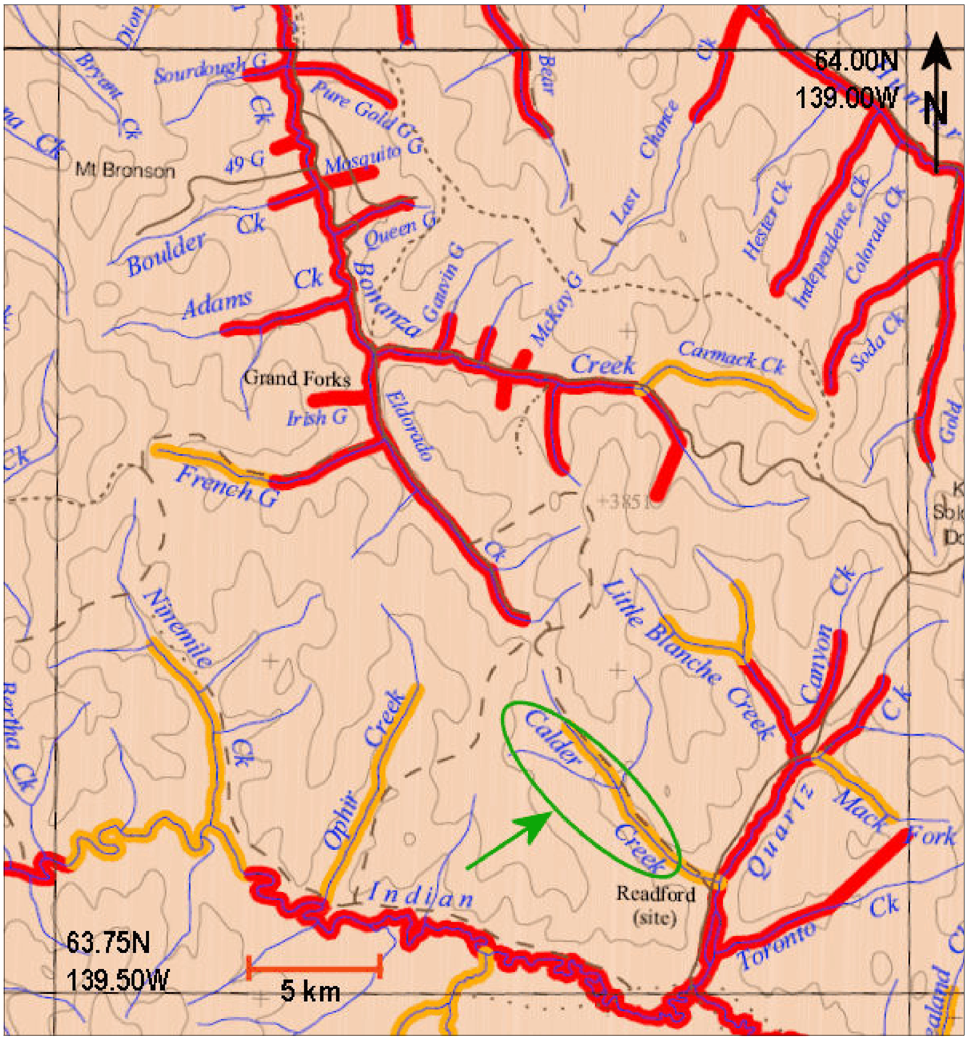


Figure 4. Extract from Lipovsky *et. al.* (2001) showing placer producing creeks (red) and creeks with known placer occurrences (orange).

Figure 5 illustrates the stream gradient along Calder Creek in the property area. The marked inflection in the creek drainage at A occurs near the junction of two creeks at the upper (upstream) end of the Calder Creek Placer Property with Calder Creek in the area of the Tertiary bench target which is furthest upstream. This inflection point in the creek drainage is a likely spot to locate shallow placer gold in a recent bench or channel deposit. Below this point, any preserved placer deposits will likely be found at depth either on adjacent benches or beneath thick main channel gravels (Tyrrell, 1912)

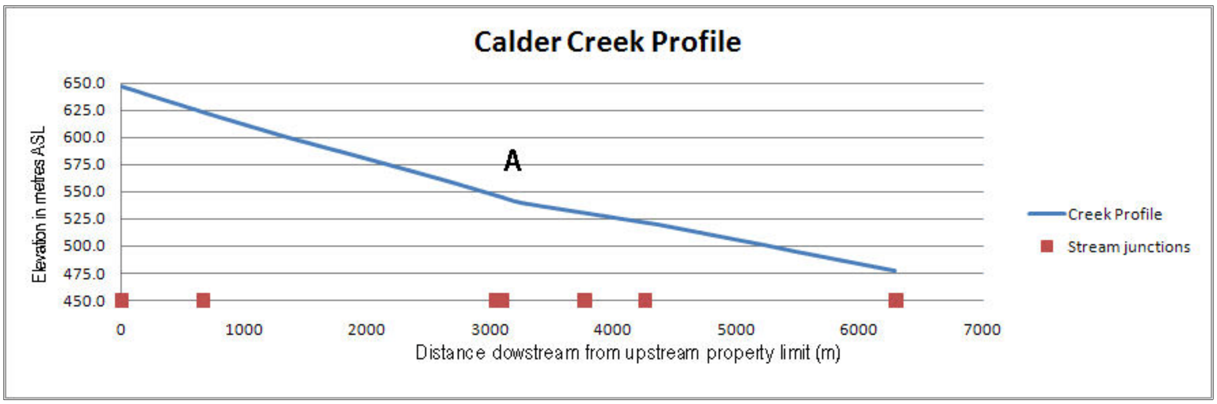


Figure 5. Stream profile along Calder Creek from a point 2 miles upstream of the property boundary to the downstream southern property boundary. Inflection point at A is located at the upper (upstream) property boundary where two small streams join Calder Creek. Below point A, the drainage changes from deeply incised to a more broad valley fill cross sectional profile.

Figure 6 is a perspective view of the Calder Creek Property looking NW towards King Solomon's Dome. This figure illustrates several prospective placer targets in Calder Creek:

- *Pleistocene placers*. There are several shoestring benches, parallel to the modern channel of Calder Creek in the upper reaches of the creek. They lie on the right limit of the creek and appear to be stranded above the current creek channel. They are likely frozen and are interpreted to be gravels stranded by post-Pleistocene isostatic rebound and uplift.

- *Tertiary benches.* In the lower reaches of Calder Creek, below Point A in the stream profile and in the area where the stream gradient is lower, there is a large area on the right limit (southwest side) mantled by gently dipping overburden. This area may contain buried placer bench deposits above the elevation of the current creek. The most significant historical work on the Calder Creek Placer Property is an excavator trench on the right limit of the creek, sited to test a potential bench. This trench is about

10 feet deep and intersected subangular poorly sorted red gravels. Bedrock was not intersected in the trench. In 2011, a shaft (CC-1) was sited to explore for bench gravels downstream of the historic trench. It intersected 4 feet of overlying muck and 7 feet of clay rich colluvium with angular bedrock clasts increasing in size and frequency towards the base of the shaft. The shaft did not reach bedrock.

- *Tertiary main channel gravels.* The decrease in gradient along Calder Creek below point A and the associated widening of the creek below this location suggests that the lower section of the creek are an area of net deposition. This suggests that there is potential for buried placer deposits near the main channel of Calder Creek. The work described in this report was conducted to test this target.

Shaft sinking in 2011 and 2012 has exposed the following overburden units:

Black muck — This unit overlies both colluvium and red gravels. In shaft CC-1 sited to test the bench target above Calder Creek, 6 feet of black muck was intersected. In shaft CC-2 in the main creek channel, 12 feet of black muck was intersected. At higher elevations (CC-1), the muck is dominantly a massive silt unit with little organic material, soil or ice. At lower elevations in the creek channel, the sequence is thicker and more complex. In shaft CC-2, the sequence consisted of upper silt, ground ice "dykes" and "sills", several buried soil profiles and a basal, organic rich silt / clay layer containing logs up to 6" in diameter.

Colluvium — This unit was intersected in shaft CC-1 sited to test the bench target. The colluvium is a dark grey, silt and clay dominated, poorly sorted unit with bimodal clay/silt and gravel / cobble clasts. Clay and silt comprise 80 to 90% of the unit. Clasts of angular schist and quartzite increase in both size and frequency in the section encountered in CC-1. At the base, bedrock fragments up to 25 cm in diameter were excavated. Bedrock was not intersected in the shaft and the thickness of this unit is unknown.

Red gravel — On the right limit of Quartz Creek immediately upstream of the mouth of Calder Creek, there is an excellent exposure of gravel in a placer cut. Here, about 5 feet of black muck overlies a poorly sorted, red to grey, subangular gravel unit. This "red gravel" is about 20 to 30 feet thick and overlies well sorted, rounded white gravels beneath. In shaft CC-2, located near the modern channel of Calder Creek, a unit similar in appear to be the “red gravels” in the Quartz Creek cut was intersected. In shaft CC-2, this consists of poorly sorted, subangular, clast supported gravels and subordinate grey matrix supported clay rich gravels with occasional decomposed logs or branches. Shaft CC-2 bottomed in this gravel at 22'. This unit may be a younger gravel overlying a well sorted, rounded to subrounded older gravel beneath. Reasoning by analogy from mining in Quartz Creek, this underlying unit would likely host any significant placer deposit.

On the Calder Creek Placer Property, Calder Creek appears to flow on top of black muck and has not incised and exposed any of the older gravels. This may explain the absence of gold reported in the creek and the lack of any mining activity on the creek. If there is a significant placer deposit in the lower reaches of Calder Creek, it is buried.

In profile from southwest (right limit) to left limit (northeast), the profile of Calder Creek is asymmetric. On the right limit, there is a broad low angle slope down from the hills terminating in a sharp steep slope into the modern creek bed. On the left limit, the terrain slopes gently upwards from the modern creek channel for 100 to 200 m before steepening. A Tertiary main channel buried placer deposit would lie in this area, indicated in red in Figure 6.

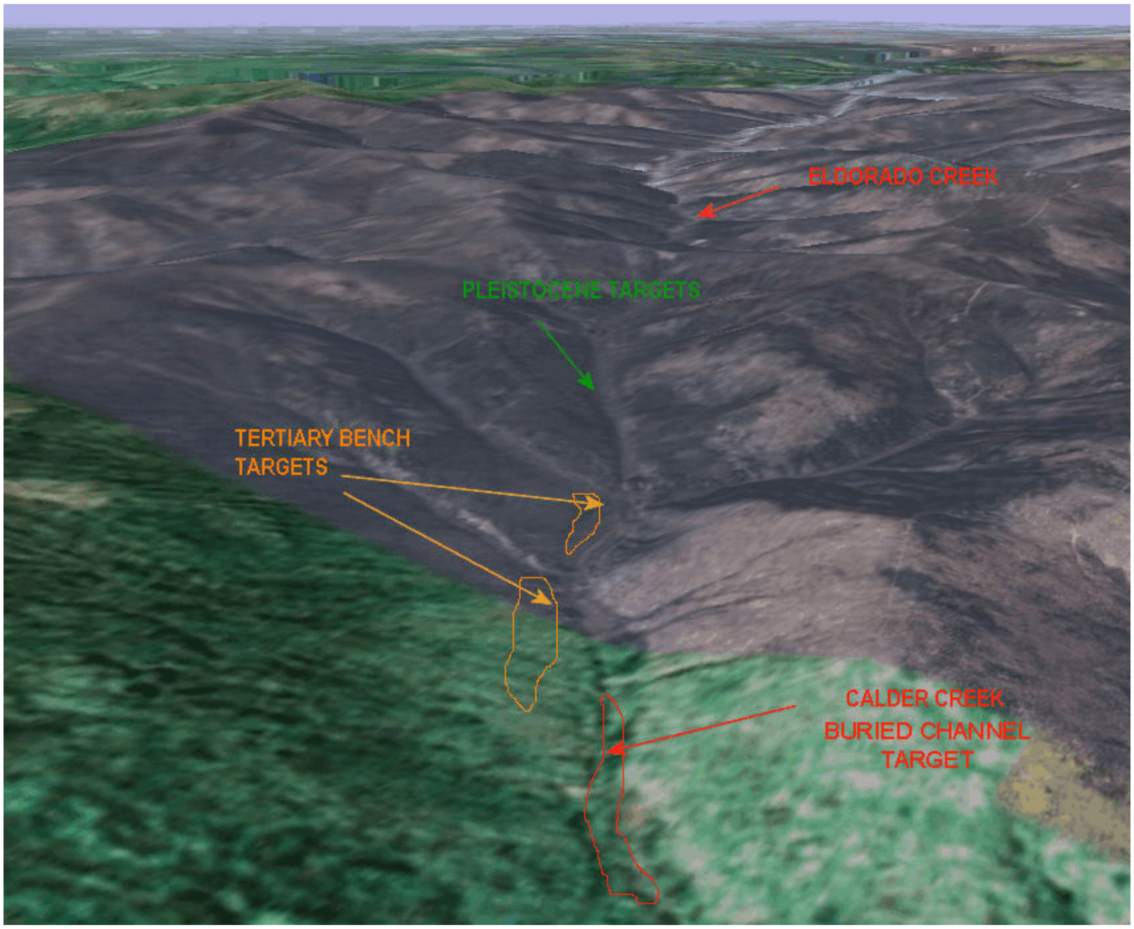


Figure 6. Google Earth™ view of Calder Creek looking upstream and illustrating prospective placer targets on the creek.

8.0 GEOPHYSICAL SURVEY

This section describes grid establishment and ground penetrating radar (GPR) surveys conducted on the Property in August and October, 2012.

8.1 Crew and equipment.

The geophysical survey grid was cut between August 2 and 12, 2012. The work program was conducted by the following personnel:

Crew chief:	Mike Power
Laborers:	Luke Power Murray Nelson

The crew were equipped with the following equipment:

Equipment:	2 - Husqvarna 430 chain saws 2 - Non-differential Garmin GPS 1 - Laser range finder w/ level
Other:	1 - 2 man camp 2 - 2 KW generator1 - Satellite phone
Vehicles:	1 - 1 Ton truck

The ground penetrating radar (GPR) survey was conducted between October 17 to 20, 2012. The work program was conducted by the following personnel:

Crew chief:	Andre Lebel
Technician:	Dmitri Spassov

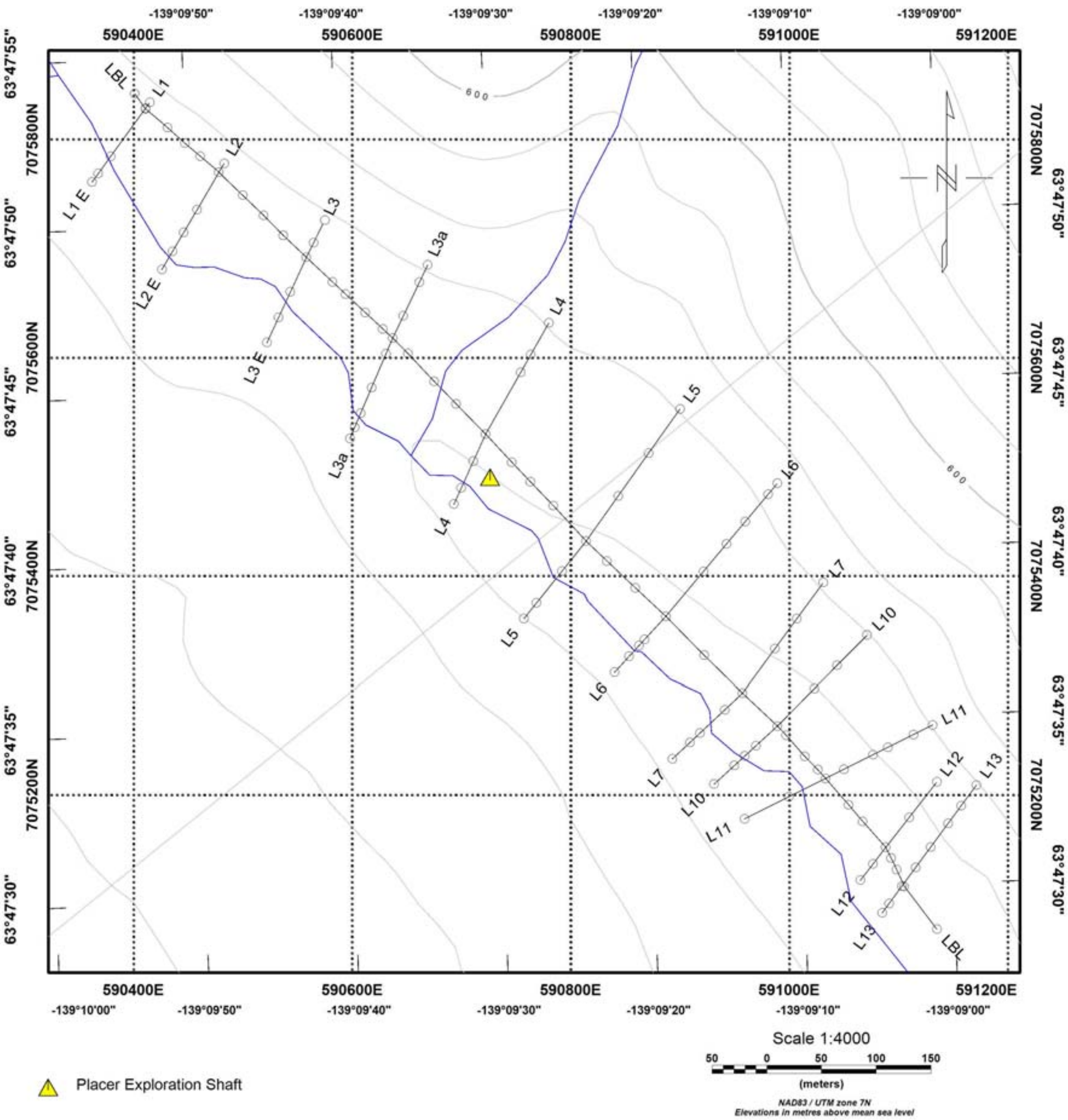
The crew were equipped with the following equipment:

Instruments:	1 - Ramac II GPR control unit 1 - Ramac XV11 monitor 1 - 25 MHz rough terrain antenna 1 - 50 MHz rough terrain antenna
Other:	1 - Field laptop - full software load
Vehicles:	1 - 1 Ton truck

8.2 Survey grid

The geophysical survey grid consists of 3.07 line-km and is shown in Figure 7. It was installed according to the following specifications:

Line registration:	Non-differential GPS positions of line ends and base line intersections were recorded, stacked a minimum of 10 times
Alignment:	Compass (initial bearing) and sight pickets thereafter.
Station marking:	Bush pickets, flagged with metal tags on which the station designations were written.
Station interval:	At inflection points in topography.
Elevation survey:	Elevation differences between stations were recorded with a laser rangefinder / level using a sight prism at operator height.
Elevation datum:	The elevation of the NW end of the base line (BL station 0) was assigned an elevation of 539 m ASL based on stacked non-differential GPS measurements. All elevations are expressed relative to this datum.



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CALDER CREEK PROJECT
FIGURE 7. GRID MAP

DAWSON MINING DISTRICT, YT, CANADA / NTS : 115 O/14
DATUM : NAD 83 / PROJECTION : UTM ZONE 7N
DATE SURVEYED : OCT , 2012 / SURVEYED BY : AL, DS
DATE DRAWN:FEB 1st, 2012 / DRAWN BY: AL

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The GPR lines were laid out perpendicular to the local axis of the creek and spaced so as to provide well distributed coverage of the bedrock surface beneath the creek in the survey area. Line cutting and topographic surveys were conducted between August 7 to 11, 2012.

8.3 GPR Survey

The ground penetrating radar survey was performed according to the following specifications:

<u>Coverage:</u>	Full grid including base line / 2 passes (25 MHz / 50 MHz) - 6.14 line-km.
<u>Frequencies:</u>	25 MHz 50 MHz
<u>Trace intervals:</u>	0.25 m - 25 MHz 0.10 m - 50 MHz
<u>Triggering:</u>	The GPR was triggered by hip chain at the specified trace interval.
<u>Recording intervals:</u>	25 MHz - 700 ns 50 MHz - 400 ns
<u>Registration:</u>	Line control pickets were indexed to traces in the radargrams by the operator as the unit passed by them.

8.3 Data processing

The GPR data was imported into REFLEXW software package developed by Sanmeier Scientific Software Ltd. The radargrams were processed using a series of steps to clarify the reflections of the bedrock and muck – gravel interface. The processing consisted of the following sequential procedures:

1. Move the start time: Moves the start time that the time zero is the first arrival of the ground wave.

2. Dewow: Low frequency temporal filter to remove the low frequency antenna to antenna reverberations below the first trough.

3. Marker Interpolation: Corrects the distance between the markers to the distances measured by the laser range finder. It uses a set trace increment and adds or removes traces to get the correct distances.

4. X flip: It flips the location of the traces so that the distances increase as the line increases to the northwest.

5. Manual gain y: Increases the amplitude of the signal using a manually chosen gain for the time window. This boosts the signal in the time window in which reflections arrive.

6. Band-pass filter: High frequency lateral surface reflections from trees, rock and other objects were removed with a high cut / band pass filter.

7. Kirchhoff migration: Abundant diffraction hypberbolas were generated by trees. This procedure collapses diffraction curves to points, and corrects the angular exaggeration of dipping reflections.

8. Predictive Deconvolution: A filter that removes multiples and reduces reverberations by collapsing the multiple wave train to a single reflection.

9. f-k filtering: A filter which removes dipping events depending on its wavenumber and its frequency.

10. Scaled window gain (x): A gain that equalizes the energy differences between traces. This balances the response between traces in the window of interest to mitigate local surface attenuation of signals which causes deeper reflections to fade in or out in portions of the radargrams.

11. Velocity analysis (summarized below).

11. Static corrections: A correction that vertically adjusts the radargram to the time that corresponds to elevation change on the two way travel time at a chosen section velocity.

The conversion of the radargram reflections, recorded in nanoseconds (ns) after triggering to depths to these reflectors requires a determination of the local ground radar velocity. Velocity analysis was performed by fitting theoretical diffraction hyperbolas to observed diffraction hyperbolas using velocities on a trial and error basis. In addition, linear arrivals (diffraction hyperbola legs or asymptotes) were fitted by lines whose attitude and location were adjusted by modifying the start time and section velocity. These measurements are summarized in the tables below:

Table I. Summary of velocity determinations through hyperbola / linear fitting - 25 MHz

Line	V m/ns	Sample	Center Trace
1	0.07	142	119
1	0.1	195	220
2	0.1	255	427
3a	0.13	175	686
3a	0.13	121	685
3a	0.12	262	144
3a	0.12	261	131
3a	0.1	226	264
4	0.12	168	780
4	0.12	178	641
4	0.12	265	237
5	0.13	199	926
5	0.11	230	749
5	0.11	150	581
6	0.1	119	270
6	0.1	129	624
6	0.1	119	638
7	0.1	272	230
12	0.12	219	142
13	0.07	122	471
BL	0.11	115	2121
BL	0.1	171	1637
BL	0.13	171	3742
BL	0.13	345	3362

Table II. Summary of velocity determinations through hyperbola / linear fitting - 50MHz

Line	V m/ns	Sample	Center Trace
2	0.15	41	541
2	0.12	102	93
3	0.14	174	302
3	0.1	251	439
3	0.13	211	180

3a	0.12	179	562
3a	0.12	126	1296
3a	0.12	202	1058
4	0.14	204	578
4	0.14	219	723
4	0.1	214	130
6	0.1	81	1063
6	0.1	134	1176
6	0.11	101	296
10	0.12	227	1765
10	0.11	207	821
11	0.13	114	336
11	0.13	173	1860
11	0.13	203	1393
0	0.1	243	5408
0	0.15	185	4829
0	0.1	225	5650
0	0.1	210	7468

No systematic variations in radar velocity were observed across the grid and a single section velocity was assigned to all sections in the grid. The average velocity measurement, 0.11 ± 0.02 m/ns was used as the section velocity in all static corrections. All depths shown in the radargrams are calculated with this interval velocity.

8.4 Results

The following products are appended to this report in Appendix D (paper copies) and in the digital archive stick in the following locations:

\raw\	files of raw data
\Final Data\ Calder Creek Bedrock and Gravel picks.gdb Calder Creek Bedrock and Gravel picks.csv Calder Creek Grid.gdb Calder Creek Grid.csv	Digitized gravel picks and bedrock picks in Geosoft .gdb and ASCII .csv format
\Radargrams\ BL 25Hz Radargram.pdf BL 25Hz Radargram w bedrock picks.pdf L1 25Hz Raydargram.pdf	Radargrams in .pdf all printed to the same scale of X 1:700 and Y 1:500. The same radargrams in .pdf with the

L1 25Hz Radargram w bedrock picks.pdf picks in pink
L2 25Hz Radargram.pdf
L2 25Hz Radargram w bedrock picks.pdf
L3 25Hz Radargram.pdf
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\figures\
Grid map.pdf — Maps in .pdf form
Gravel elevation map.pdf
Bedrock elevation map.pdf
Bedrock Depth map.pdf
Muck thickness map.pdf

Two sets of radargrams are appended to this report in .pdf format. One set of radargrams is the final processed data with picks and annotations and the second is the final data. The white squares on the radargrams are the station markers and correspond to circles on the grid map, bedrock elevation map and the gravel elevation map. The scale of the radargrams is X = 1:700 and Y=1:500.

The bedrock reflections were often difficult to pick and follow across the radargrams. Below is a list of the interpretations of the radargrams.

Baseline

The bedrock reflector is distinct only in certain areas such as L7 to the SE end of the radargram. Afterwards the bedrock reflections on the lines are correlated to reflections seen on radargrams of the lines. From L7 to L11 a series of diffraction hyperbolas can be followed that make up the bedrock reflection. From L3 to L7 the reflector isn't as apparent but it can still be followed. At L2 the bedrock reflection looks like a series of diffraction curves and there is the appearance that the bedrock rises in this area and then drops back down when it intersects L1.

Line 1

The bedrock reflector was not distinct for L1, but the baseline picks indicates that it dropped down to below 200ns at the baseline intersection. The correlated reflector is then followed across the radargram. Strong crossing airwaves make it difficult pick the bedrock reflector from the 50m to 70m marks.

Line 2

The bedrock reflector was fairly distinct from 0 to 70m as the second reflector below the upper reflector which is believed to be the gravel reflector. In the middle of the radargram there are airwaves that mask location bedrock reflector, so it was interpolated to the other side of the airwaves and a less distinct reflector is then followed to the north end of the radargram.

Line 3

There is outcropping bedrock up to 10m, so the bedrock level was picked at surface up to 10m mark and then it is interpreted to drop down to meet a faint reflector at approximately 518m of elevation, however the ramp down was not apparent. The bedrock reflection could then be followed to the 60m mark where it is lost due to waves from an ice reflector. The reflection was interpolated across the ice events and a week reflection was followed to the north end of the radargram.

Line 3a

The bedrock reflector is fairly distinct up to the 80m mark where the reflection is lost in airwaves, which makes it difficult to correlate to the bedrock reflection on the baseline. At the 120m mark of L3a the bedrock reflection is interpreted to continue on the northwestern end of the radargram.

Line 4

The bedrock reflector is fairly distinct on L4 although reverberations mask it in places. It is interpreted as second reflector at an elevation of 516m at the baseline intersection. The shaft is 20m off line of the 37m mark on L4 however bedrock was not intersected at this current date. The interpreted bedrock intersection is at 16.7m or 55 ft.

Line 5

The bedrock reflector on L5 is not distinct. The reflection that was picked on the baseline was then matched with a weaker reflector at the same of elevation 514m. That event was then picked for the length of the radargram , however the confidence is not as high as other lines.

Line 6

The bedrock reflector is fairly distinct from approximately 80 m to the northwestern end of the radargram. At the baseline intersection the bedrock reflector is visible at an elevation of 514 m. From 0 m to 80m the reflection is not as distinct therefore the reflection was traced following the same event.

Line 7

The bedrock reflector is not as distinct in L7 as compared to the other lines however it is visible at the baseline intersection at an elevation 512m which correlates well with the bedrock reflection on the baseline. The reflector is not as distinct up to 80m where there are many events that are of equal amplitude.

Line 10

The bedrock reflector is distinct throughout the radargram it is interpreted to be the second set of reflections at an elevation of 512 m at the baseline intersection. From 70 to 100m there is an airwave that crosses the reflection however the bedrock reflection can be seen crossing it.

Line 11

The bedrock reflector is distinct from the base line intersection to the northeastern end of the radargram. At the baseline intersection the reflection is picked at a depth of 512m. The pick was traced back from 60m to 0m by following the same event from 60 to 0m although reflection is not as distinct.

Line 12

The bed rock reflector is fairly distinct throughout the radargram. The bedrock reflector is interpreted to be the second set of reflections at approximately 510 m of elevation where the line intersects the baseline. At 74 m the amplitude of reflection fades.

Line 13

The bedrock reflector is visible and distinct in the radargram and can be matched up with the bedrock reflector on the baseline at an elevation around 508m where the baseline is intersected. The reflector is visible up to a distance of 110 m where there are a few airwaves that make it less apparent. A weaker reflector can be seen on the other side of the airwaves and can be followed to the end of the section.

9.0 SHAFT SINKING

This section describes shaft sinking conducted on the Calder Creek Property from February 14 to March 9, 2013 .

9.1 Personnel & equipment.

The work program was conducted by the following personnel:

Crew chief:	Kel Sax
Laborers:	Dmitry Spassov

The crew were equipped with the following equipment:

Drill	2 - Hilti TE-750-AVR electric breaking hammer
Equipment:	1 - 2 man camp 2 - 2 KW generator 2 - Chain saws 1 - Satellite phone
Vehicles:	2 - Snowmachines (Tundra / Arctic Cat) 1 - 1 Ton truck 1 - Trailer

The survey log in Appendix B includes the names and addresses of all persons employed and a detailed description of daily operations. A statement of costs is compiled in Appendix C.

9.2 Specifications.

A single shaft was sunk during the exploration program. The location of this shaft is shown in Figure 7. Shaft sinking was conducted according to the following specifications:

Location:	590,724E 7,075,487N (NAD83 UTM Zone 7N)
Dimensions:	3' wide by 4' deep
Shaft depth:	Excavated to 25 feet measured from top of surface sill logs.

Security & reclamation: The shaft was opened with dimensions of 4' wide by 5' long and reduced with sill logs at a depth of 2 feet. Upon completion of the spring program, the shaft was covered at a depth of 2 feet with green logs, spruce boughs in a tarp and covered by muck to ground level. Thereafter, a fence of local construction was placed around the shaft and a “DANGER” sign was attached to it.

Logging: The shaft was logged as dug, recording lithology, orientation of structures and location of samples.

Figure 8. Shaft CC-2 at 19 feet on 17 Mar 12

Figure 9. Shaft on opening - February 2013.

Figure 10. Shaft CC-2, shaft cover at two foot depth.

Figure 11. Shaft, covered and ready for final backfill - Mar 2013.

The shaft was completed to 19 feet in March 2012 but backfilled with ice and silt to about 6 feet below surface. In February 2013, the shaft was reopened and sunk from 6' to a total depth of 25'. The crew sampled at 2 foot intervals from 12 to 19 feet and at 1 foot intervals from 19' to total depth. Gold was noted at 21 feet and the texture and hardness of the shaft material changed below this depth. By the time the crew had excavated to 25 feet, it appeared that they were in solid bedrock. The bedrock / gravel contact appears to be at around 21 feet. The crew took a 200 litre bulk sample from the sides of the shaft at 21' over a 1' interval where gold had been encountered, and then capped, backfilled and secured the shaft before abandoning it (Figures 9 and 10).

9.3 Sample analysis.

Samples of the intersected gravels were collected from the top of gravel at a depth of 12 feet in the shaft. Samples were collected over two foot vertical intervals. Each sample consisted of a volume of gravel sufficient to fill a 16 litre pail.

Samples were processed in the field using the following procedures:

1. A fixed volume of sample (16 litres) was extracted.

2. The sample was panned to a concentrate by hand using a Roto-Pan and riffle pan.

3. A gold grain count was performed.

4. The recoverd gold was weighed and a grade (g / m^3) calculated.

In addition, a 200 litre bulk sample was taken at the gravel contact (21') to determine a more representative grade of this material. This was reduced using the same procedure described above.

9.4 Data.

The shaft log and sample results are contained in Appendix E. The 200 litre sample recovered 4.9 mg of gold for a calculated grade of 0.245 g/m^3 or about $12 / m^3 at current gold prices.

10.0 DISCUSSION & CONCLUSIONS

Exploration work conducted to date has confirmed that gold bearing gravel is present in Calder Creek. The initial interpretation of the GPR data, made without any subsurface control appears to have correctly located the base of muck but picked the bedrock / gravel at too great a depth. Figures 12 and 13 show extracts from the GPR radargrams for Line 4 at 50 MHz and 25 MHz respectively. In both sections, the shaft section (muck / gravel / bedrock) has been projected onto the radargram section. The shaft is located about 20 m east of Line 4 and is not coincident with it. In Figure 12 (50 MHz data) the base of the muck is a clear strong reflection, with a response similar to the muck / gravel interface noted downstream on Quartz Creek and elsewhere in the Klondike (Power, 1992). There is no strong clear bedrock / gravel contact reflection in either radargrams. The semi-continuous response at about 15 m in Figure 23 (25 MHz) was interpreted to be bedrock but it appears from the shaft sinking results that this reflection is too deep and is not the bedrock reflection. There is no clear bedrock reflection at 25 MHz but at 50 MHz (Figure 12) there is a weak reflection coincident with bedrock (as projected onto Line 4).

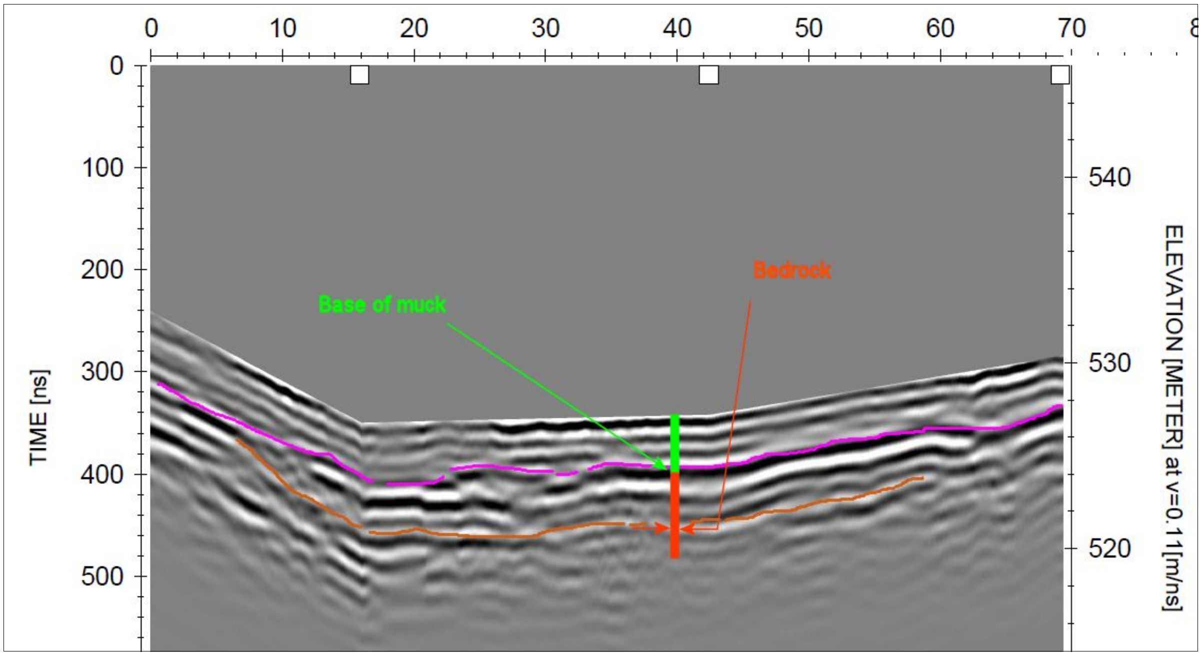

Figure 12. Extract from Line 4 / 50 MHz radargram showing shaft section superimposed on the radargram. Green - muck / red - gravel & bedrock. Bedrock / gravel contact indicated by arrows near the base of the shaft section. Muck reflector is in purple; reflector apparently associated with bedrock is indicated in brown.

If correct, the results of the GPR survey and the shaft sinking suggest that the main paleochannel may not be too far offset from the current stream channel, at least in the area of Line 4. It is also apparent that the GPR data cannot be used without shaft or drill hole verification to accurately map the bedrock surface and locate paleochannels. In view of the results in Shaft CC-2, it would be best to locate new shafts or drill holes on adjoining lines, using the results of the current work to re-interpret the GPR data.

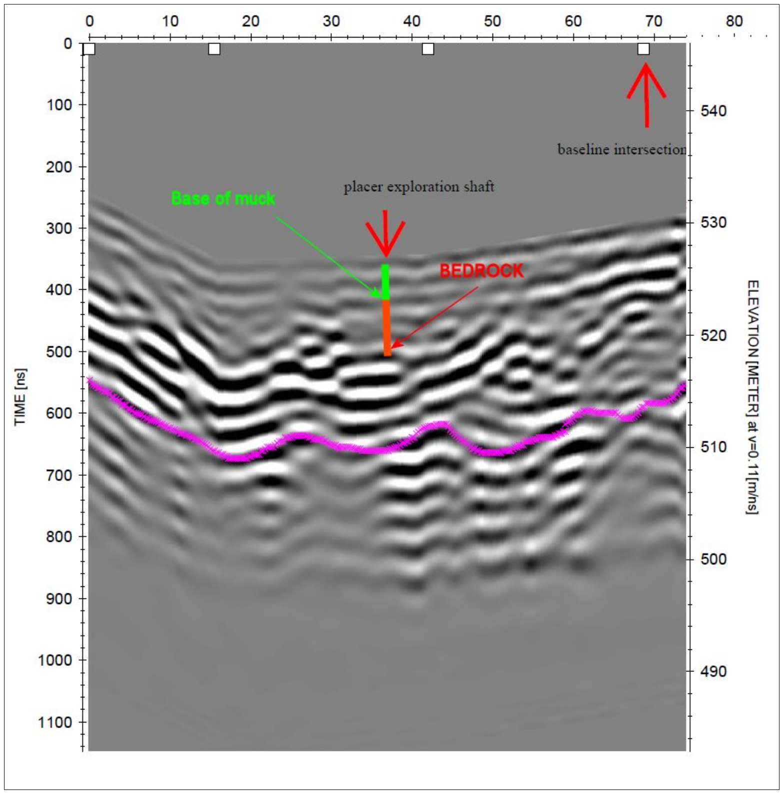

Figure 13. GPR radargram at 25 MHz with shaft section superimposed. Green - muck / orange - gravel & bedrock. Bedrock contact indicated by the arrow. Shaft projected 20 m onto section. Purple indicates the reflector initially picked as bedrock.

In summary, the results of the shafting program conducted to date on the Calder Creek Property support the following conclusions:

a. The flood plain of Calder Creek on the Calder Creek Placer Property is underlain by black muck in the area of shaft CC-1 and likely along the length of the flood plain. Strong reflections from the base of black muck are seen in all of the radargrams collected at 50 MHz in the centre of the creek valley. The modern creek has incised neither the black muck nor the underlying barren red gravels. This likely accounts for the reported lack of gold in the modern creek channel.

b. Bedrock appears to have been intersected at a relatively shallow depth of 21 to 22 feet in Shaft CC-2. There is no clear radar signature from the bedrock / gravel contact but there is a coincident reflection when the shaft is projected onto Line 4, the nearest line, 20 m to the west.

c. The GPR reflections in the 50 MHz data suggest that shaft CC-2 was located northeast of the likely paleoplacer channel and the grades intersected may be lower than values in the centre of the channel.

d. Gold was intersected at the bedrock contact in Shaft CC-2 in the sample from the bottom foot. The gold was fine (< 1 mm) and generally flattened but not exclusively flour sized. While the thickness and grade of the gravel encountered in the shaft are sub-economic, the sample confirms the presence of placer gold in Calder Creek and suggests there is potential to find an economic placer deposit at a reasonable depth here.

11.0 RECOMMENDATIONS

The following recommendations, based on the conclusions of this report are made for additional work on this property:

a. Shafts should be sited and sunk on Lines 3 and 5 in locations where the 50 MHz GPR data, interpreted in light of the results on Line 4, indicate the location of a paleochannel.

Respectfully submitted,
AURORA GEOSCIENCES LTD.

Mike Power M.Sc. P.Geo.
Geologist

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APPENDIX A. CERTIFICATE

I, Michael Allan Power, M.Sc. P.Geo., P.Geoph., with business and residence addresses in Whitehorse, Yukon Territory do hereby certify that:

1. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia (registration number 21131) and a professional geophysicist registered by the Northwest Territories Association of Professional Engineers, Geologists and Geophysicists (licensee L942).

2. I am a graduate of the University of Alberta with a B.Sc. (Honours) degree in Geology obtained in 1986 and a M.Sc. in Geophysics obtained in 1988.

3. I have been actively involved in mineral exploration the Northern Cordillera since 1988.

Dated this 14th day of March, 2013 in Whitehorse, Yukon.

Respectfully Submitted,

Michael A. Power M.Sc. P. Geoph.

APPENDIX B. OPERATIONS LOG

AURORA GEOSCIENCES

JOB PRL-12560-YT CALDER CREEK
OPERATIONS LOG

Thu 02 Aug 12	Crew (MP, LP, MN) mobilizes to Calder Creek; getting stuck for the night on the Calder Creek road in heavy showers.
Fri 03 Aug 12	Set up camp on Calder Creek Road; locate new camp site.
Sat 04 Aug 12 to Sun 06 Aug 12	New camp construction (not billed to YMIP program)
Tue 07 Aug 12 to Thu 09 Aug 12	Line cutting: BL and Lines 1 - 12.
Fri 10 Aug 12 to Sat 11 Aug 12	Topographic survey of GPR lines
Sun 12 Aug 12	Demobe to Whitehorse
Tue 16 Oct 12	GPR crew preparation. Crew consists of AL, LP and DS. Test instruments in Whitehorse.
Wed 17 Oct 12	Mobe to property and setup. Crew left Whitehorse at 0630 hrs, arriving on the property in the afternoon. Stashed gear at the cabin and near the shaft location; set up for the survey.
Thu 18 Oct 12	GPR Survey - 25 MHz
Fri 19 Oct 12	GPR Survey - 50 MHz
Sat 20 Oct 12	Tear down, secure equipment, left property and returned to Whitehorse in the late evening.
Wed 13 Feb 13	Shaft sinking crew (KS & DS) - prepare equipment, purchase supplies.
Thu 14 Feb 13	Crew and CTN mobilize to Dawson; spend the night in Dawson at the Bonanza.

Fri 15 Feb 13	Crew spent the day breaking trail and hauled one load into Calder Creek
Sat 16 Feb 13	Crew hauled the remaining gear into Calder Creek, camp operational by evening.
Sun 17 Feb 13	Crew located and opened up the shaft; CTN staked PM-13 claim, returned to Dawson that evening.
Mon 17 Feb 13	Shaft sinking: Begin re-excavating the shaft from the 6' depth. CTN returns by truck to Whitehorse.
Tue 18 Feb 13 - Tues 26 Feb 13	Shaft sinking.
Wed 27 Feb 13	KS snowmachines into Dawson to pick up new drill while DS cuts firewood.
Thu 28 Feb 13 - Tue 05 Mar 13	Shaft sinking to total depth of 25'; last few feet very slow as it became apparent the crew was in bedrock.
Wed 06 Mar 13 - Thu 07 Mar 13	Bulk sample at 21'; cap the shaft, backfill and abandon shaft. Close in the camp.
Fri 08 Mar 13	Demobe to Dawson
Sat 09 Mar 13	Demobe to Whitehorse

Personnel

Mike Power (MP)	1 Bates Crescent Whitehorse, YT Y1A 4T8
Luke Power (LP)	1 Bates Crescent Whitehorse, YT Y1A 4T8
Murray Nelson (MN)	c/o 34A Laberge Road Whitehorse, YT Y1A 5Y9
Andre Lebel (AL)	c/o 34A Laberge Road Whitehorse, YT Y1A 5Y9

Dmitry Spassov (DS)	c/o 34A Laberge Road Whitehorse, YT Y1A 5Y9
Charles Turanich-Noyen (CTN)	c/o 34A Laberge Road Whitehorse, YT Y1A 5Y9
Kel Sax	Box 433 Faro Yukon Y0C 1G0

APPENDIX C. STATEMENT OF COSTS

STATEMENT OF EXPENDITURES

Line cutting & topographic survey		
Crew & equipment preparation:	$350.00	
Crew chief (M. Power): 8 days @ $350	$2,800.00	
Labourer (L. Power): 8 days @ $275	$2,200.00	
Labourer (M. Nelson): 8 days @ $275	$2,200.00	
Truck: 1180 km @ $0.61	$719.80	
Living allowance: 24 man-days @ $100	$2,400.00	
Total - Line cutting & topo survey	*$10,669.80*	$10,669.80
Ground penetrating radar (GPR) survey		
GPR survey: (AGL Invoice 11365)	$8,147.60	
Living allowance: 8 man-days @ $100	$800.00	
Canadian North cargo	$675.56	
Air North cargo	$436.97	
Data processing & radargrams: 32 hrs @ $75	$2,400.00	
Total - GPR Survey	*$12,460.13*	$12,460.13
Shaft sinking & testing		
Crew & equipment preparation:	$400.00	
Crew chief (Kel Sax): 24 days @ $400	$9,600.00	
Laborer (D. Spassov): 24 days @ $350	$8,400.00	
Hilti drill rentals: 24 days @ $120	$2,880.00	
Snowmobiles: 2 machines / 24 days @ $50	$2,400.00	
Trucks: 2435 km @ $0.61	$1,485.35	
Living allowance: 48 man-days @ $100	$4,800.00	
Total - shaft sinking & testing	*$29,965.35*	$29,965.35
Report		
Report preparation & drafting	$1,500.00	
Total - Report preparation & drafting	*$1,500.00*	$1,500.00
TOTAL PROJECT EXPENDITURES		***$54,595.28***

I certify that this statement of expenses is complete and correct to the best of my knowledge.

M. A. Power, M.Sc., P.Geo.
Geologist

APPENDIX D. GPR RADARGRAMS & SUMMARY MAPS

APPENDIX E. SHAFT LOG & SAMPLE RESULTS

CALDER CREEK
SHAFT CC-2

From	To	From_m	To_m	Unit	Gold	Description
0.00	0.75	0.000	0.229	Soil	nil	Brown, root bearing, frozen, clay-silt with about 50% organics.
0.75	3.50	0.229	1.067	MUCK	nil	Light grey. Rusty laminations (bedding) and faces at high angles to bedding. Massive with very fine laminations on 1-3 mm spacing. No organics or ice.
3.50	4.50	1.067	1.372	MUCK	nil	SOIL: Rhythmic soil profiles covered by silt, repeated 3x. Brown-red soil with flat top at the top of the sequence. This contains abundant organics including twig and branches to 4 cm thick. Soil has an irregular base; beneath is finely laminated light grey silt as above. Each sequence is about 10 cm thick.
4.50	5.80	1.372	1.768	MUCK	nil	ICE: in brown dirt. Sharp, flat upper contact with overlying silt. Irregular basal contact with ice including an ice "vein" that cross cuts all stratigraphy below it. Brown soil contains roots and twigs to several cm in diameter. Dominantly these are a thin brown bark, white to yellow straight wood.
5.80	10.50	1.768	3.201	MUCK	nil	SILT: Medium light grey, horizontal laminations 1-2 cm apart (?bedding), some cross cutting ground ice and very rare organics (small twigs).
10.50	12.00	3.201	3.659	MUCK	nil	SILT: Silt & clay with abundant organics. Medium-dark grey, dominantly clay with some ice and about 40% organic material including large branches and trees laid horizontally in jack-straw pattern. Some trees up to 18 cm across, together with roots. Organic material is not decomposed but trees lack bark.
12.00	13.50	3.659	4.116	GRAVEL	nil	GRAVEL: Red, clast-supported, angular, moderately sorted, poorly stratified gravel with minor decomposed organic material up to branch size.
13.50	18.00	4.116	5.488	GRAVEL	nil	DIAMICTON: Grey to black, dominantly clay, very poorly sorted diamicton with subangular, irregularly oriented clasts of quartz and schist up to 20 cm. Clasts greater than clay or fine silt size comprise a variable proportion of the unit with bed of coarser, near gravel and finer beds of dominantly clay. Individual beds are in the order of 30 cm thick and dip gently NW.
18.00	20.00	5.488	6.098	GRAVEL	nil	CONGLORMERATE of angular micaceous phyllites and schists gravel to boulders ~80%. White to rusty qtz sweats pebbles to cobbles 10%. Micaceous coarse sand 10%.
20.00	21.00	6.098	6.402	GRAVEL	nil	GRAVEL: Rusty brown to grey clay, sand and gravel (50%) supported poorly sorted agglomerate, with rounded to subangular pebbles, cobbles and boulders qtz schist 20%, and micaceous schist/phyllite 30%.
21.00	22.00	6.402	6.707	GRAVEL	5 colors (<0.5 mm)	CONGLOMERATE: Rusty brown to green grey matrix supported, unsorted agglomerate, silt and clay 20%, sand 30%, micaceous phyllite gravel to cobbles 20%, qtz feldspar porphyry cobble to boulders 30%.
22.00	23.00	6.707	7.012	BEDROCK	nil	REGOLITH: Matrix volume decreased markedly, largely consisting of brown to rusty clay, with no visible sorting. Qtz feldspar porphyry cobbles to boulders predominate.
23.00	25.00	7.012	7.622	BEDROCK	nil	REGOLITH: Qtz feldspar porphyry cobbles to boulders, angular to subrounded, ~70%, in clay matrix, with no visible sorting. Appears like C horizon.