

Upper Duncan Creek Placer Property

MAYO MINING DISTRICT, YUKON TERRITORY

**Assessment Report on the
July 2016 Placer Exploration Program**

on the

**SAM 1-15 Placer Claims
Grant Numbers P514448-P514462**

for

Earth and Iron Inc.

By

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Geoplacer Exploration Ltd.
with contributions from
Groundtruth Exploration Inc.**

Location: Latitude 63°52'10" N, Longitude 135°15'37" W

NTS: 105M14

Mining District: Mayo

Date: November 18, 2016

Dates of work: July 6 to July 13, 2016

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Executive Summary

Earth and Iron Inc. and its affiliates hold 127 placer claims and ten placer prospecting leases in the Mayo Mining District. The main placer property is located in central Yukon, on Upper Duncan Creek near Keno City, approximately 480 km by road from Whitehorse. A Type B Water Use Licence (PM16-015) for Placer Mining, and a Class 4 Mining Land Use Permit (AP16015) are in place for the Upper Duncan Creek portion of the claim holdings. The Water License and Mining Land Use Permits are valid until June 1, 2026.

The July 2016 exploration program consisted of resistivity geophysical surveys, auger drilling, ground magnetometer surveys, excavator test-pitting and RAB (Rotary Air Blast) drilling. William LeBarge of Geoplacer Exploration Ltd. oversaw the initial phase of the testing program between July 6 and July 13, 2016. Geophysical and RAB drilling crews of Groundtruth Exploration Inc. were onsite before and after the above dates.

The resistivity geophysical surveys appeared to define contacts which were traceable from one profile to the next, in cross-valley directions up and down-valley and parallel to the valley.

Drill holes and test pits aided the calibration of the lithological contacts in the profiles, however discontinuous permafrost and variable groundwater content complicated interpretations. More drilling and test pitting along the resistivity profiles are recommended in order to confirm depths to bedrock and other contacts over larger distances in the valley.

Central to the project area is an alluvial fan, which heads in a right limit tributary of Upper Duncan Creek. The alluvial fan consists mainly of boulder cobble gravels, overlying either bedrock (at the fan apex) or side-valley glaciofluvial gravels (likely of Reid age) and Reid age till (on the lower fan). Significant, possibly economic placer gold values have been obtained from the limited testing of the alluvial fan. Placer gold values are spread throughout the stratigraphy, with similar values on bedrock as within the gravel section above bedrock.

Prospective areas for placer gold are spatially-related to the fault-bounded Keno Hill quartzite, especially where this unit crosses the Upper Duncan Creek valley and therefore has increased potential to shed gold-bearing bedrock into alluvial or glacial material.

Eight placer exploration targets are recommended for further investigation, including 1) expansion of the pits on the main alluvial fan; 2) paleochannels trending along the valley upstream and downstream of the alluvial fan; 3) modern alluvium overlying the Reid till in the main valley; 4) modern alluvium just downstream of locations where the thrust faults cross the main valley of Upper Duncan Creek; 5) and 6) two McConnell-age glacial moraines which overlap the Keno Hill quartzite and its thrust fault boundaries; 7) the canyon gravels upstream of the right limit alluvial fan; and 8) alluvial gravels on an upstream left limit tributary where the mapped thrust fault traverses along its extent.

Introduction

The following is a report on the July 2016 exploration program on the Upper Duncan Creek placer property owned by Earth and Iron Inc. and its affiliates. The program consisted of resistivity geophysical surveys, auger drilling, ground magnetometer surveys, excavator test-pitting and RAB (Rotary Air Blast) drilling. Orthophoto generation from aerial surveys and DEM (Digital Elevation Model) constructions were done by Groundtruth Exploration Inc. previous to this program, and this information was used in the current compilation. The costs associated with the resistivity program were submitted to the Mayo Mining Recorder in July, 2016.

Personnel and Dates of Work

William LeBarge of Geoplacer Exploration Ltd. oversaw the initial phase of the testing program between July 6 and July 13, 2016. Geophysical and RAB drilling crews of Groundtruth Exploration Inc. were onsite during the above dates.

Location and Access

The property is located in central Yukon approximately 480 km by road from Whitehorse (Figure 1). Access to the claims is gained from Whitehorse via Stewart Crossing on the Klondike Highway (353 km), then a distance of 52 km east to Mayo. From Mayo to Keno City travel a distance of 65 km, then 3.7 km from Keno City down the Duncan Creek road to the Upper Duncan road turnoff. A final 6.3 km leads to the main camp and staging area on the claims.

Placer Tenure

The holdings of Earth and Iron Inc. in the Mayo area comprises 127 placer claims in good standing and ten placer prospecting leases. The placer claims and leases are given in Appendix 1, and both the claims and the prospecting leases are shown in Figure 3.

Permitting

A Type B Water Use Licence (PM16-015) for Placer Mining and a Class 4 Mining Land Use Permit (AP16015) are in place for the Upper Duncan Property. The Water License and Mining Land Use Permits are valid until June 1, 2026.

Quartz Tenure

Figure 4 shows the active quartz claims in the Upper Duncan and Granite Creek drainages, including those that overlap with the placer property owned by Earth and Iron Inc. Earth and Iron Inc. and its affiliates hold no quartz tenure in the area.

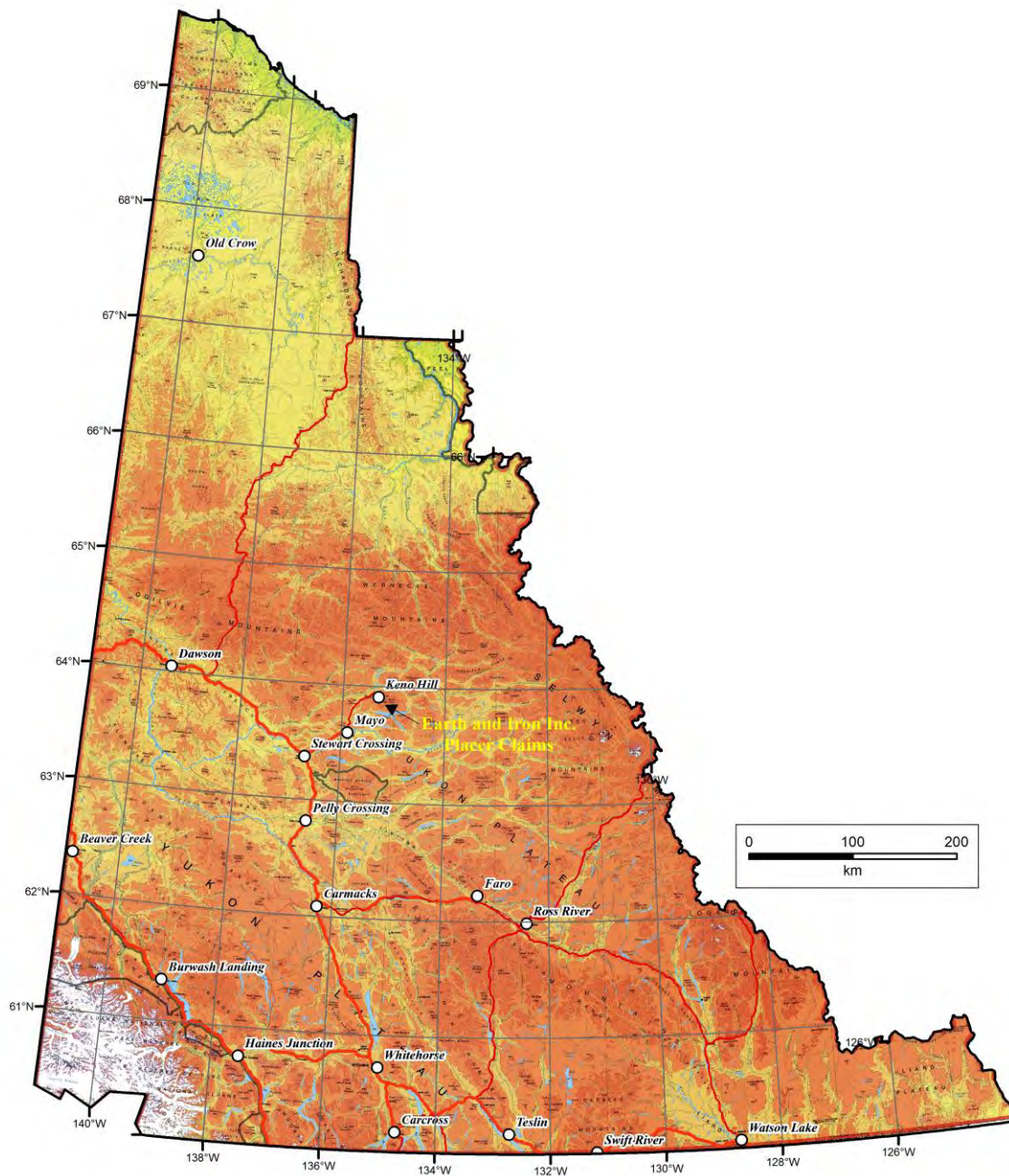


Figure 1 - General Location of Upper Duncan Creek Placer Project, Yukon.

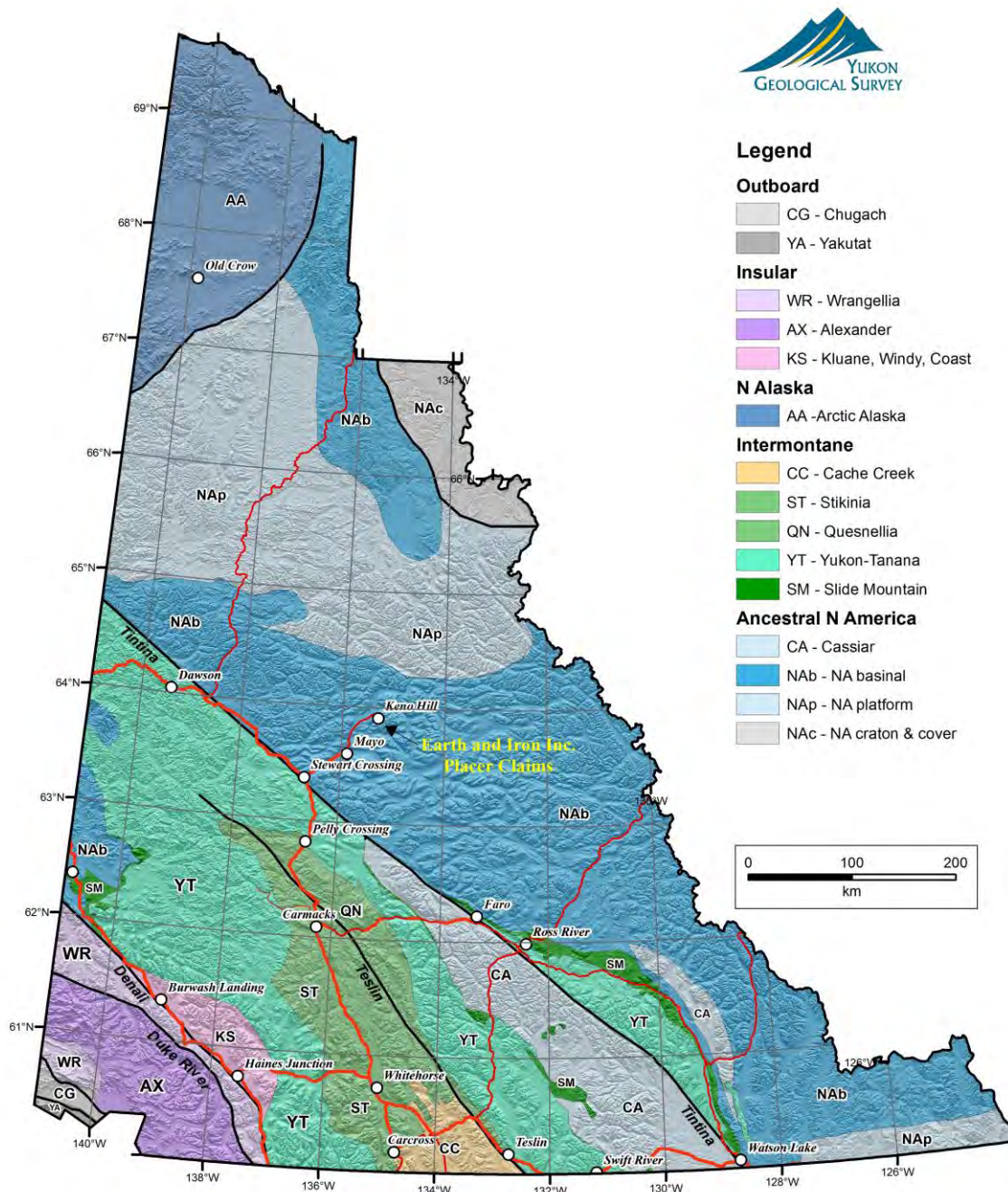
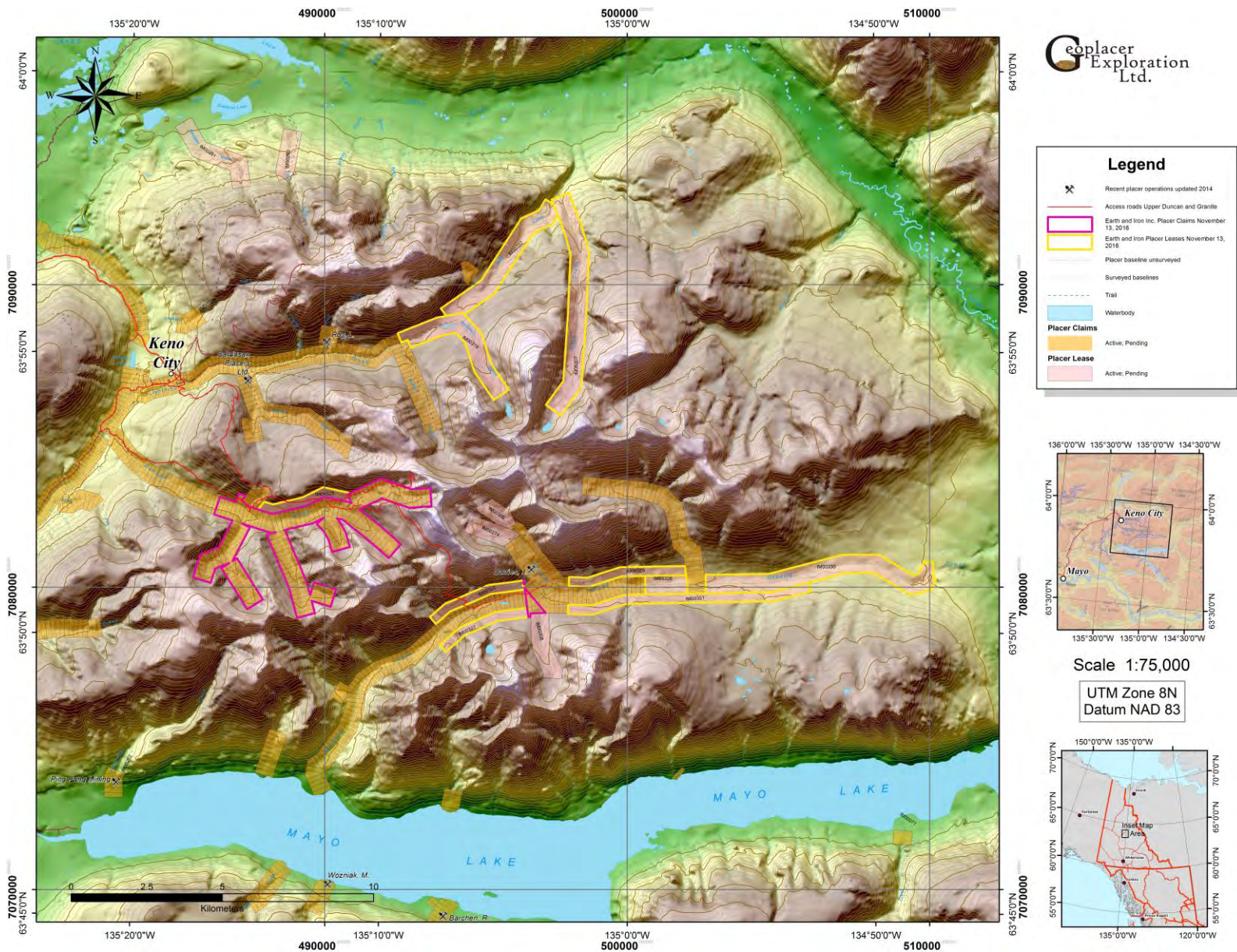
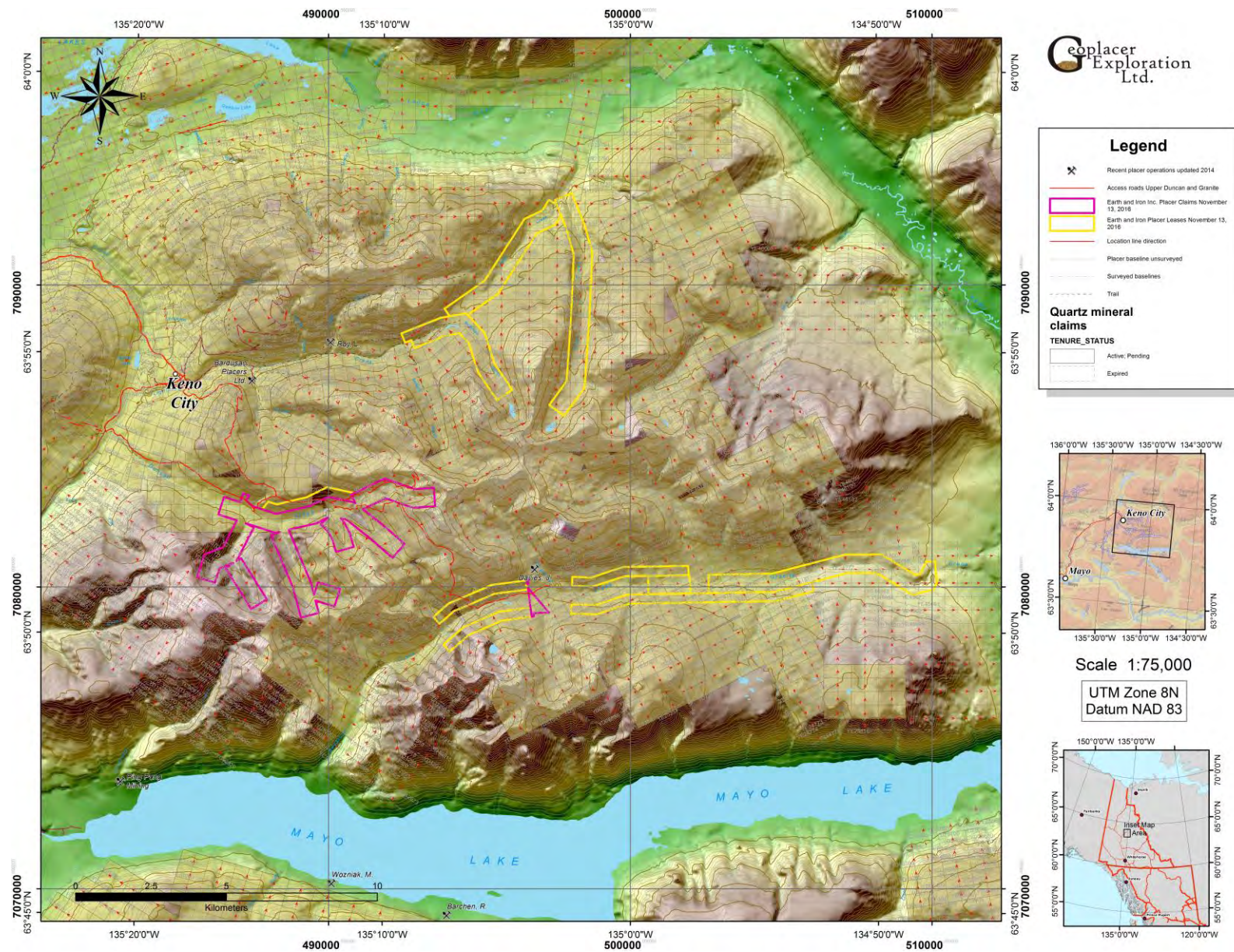


Figure 2 - Geological Map of Yukon, showing major bedrock terranes and structural elements. Modified after Yukon Geological Survey, 2016.







Regional Bedrock Geology

Murphy (1997) mapped and described the McQuesten and Keno Hill area, and various researchers (Stephens et al., 2004; Hart et al., 2002; Colpron and Ryan, 2010) have described the tectonic setting and mineral deposits throughout the region.

Figure 2 is a geological map of Yukon, showing major bedrock terranes and structural elements. The Earth and Iron Inc. property in the Keno Hill district is shown east of the Tintina Fault, within Ancestral North America in the *Nab* (North American basinal) terrane. In that part of the western Selwyn basin, dominantly clastic sedimentary rocks were deposited in an off-shelf setting in a period from the latest Neoproterozoic to the Carboniferous (Stephens et al., 2004).

The Keno Hill district is part of the Tombstone Gold Belt (Stephens et al., 2004), a subset of the Tintina Gold Province (Hart et al., 2002). This area is characterized by a northerly-directed, fold-and-thrust belt which developed in the Late Jurassic to Early Cretaceous (Roots, 1997a, 1997b; Murphy, 1997). The Dawson, Tombstone and Robert Service thrusts are the products of this deformation across the northern part of the basin (Murphy and Roots, 1996; Roots, 1997a).

The Robert Service Thrust sheet contains Hyland Group (Late Proterozoic to Cambrian) sandstone and grit with rare limestone and minor maroon argillite, overlain by a Cambrian to Middle Devonian succession of dark coloured siltstone, limestone and chert. These strata, a component of the regional Selwyn Basin, are unconformably overlain by Upper Devonian Earn Group argillite, chert and chert pebble conglomerate (Murphy, 1997; Roots, 1997a, 1997b).

To the north, the Tombstone Thrust sheet consists of highly strained Earn Group carbonaceous phyllite, felsic meta-tuff and metaclastic rocks, succeeded by Carboniferous Keno Hill quartzite that is thickened by internal recumbent folds or thrusts in the north central part of the map area. These units host the Ag-Pb-Zn veins of the Elsa-Keno Hill camp and the Au veins of the Mount Hinton area (Roots, 1997a, 1997b).

Jurassic (?) and Cretaceous contraction produced regionally developed penetrative fabrics and folds of various scales as well as thrust faulting. A domain of intensely-developed foliation and lineation underlies the northern half of the map area, imparted during two or more phases of movement on the Tombstone Thrust (Roots, 1997a, 1997b).

Two main intrusive suites of rock were emplaced into the western Selwyn basin after the regional deformation; the McQuesten Intrusive Suite, and the Tombstone Plutonic Suite (Murphy, 1997). The Tombstone Suite was emplaced around 92 Ma, and its rocks are associated with the Tombstone Gold Belt deposits in Yukon (Brewery Creek, Dublin Gulch, Scheelite Dome and Clear Creek) as well as the Pogo, Fort Knox and Donlin Creek deposits in Alaska (Hart et al., 2002).

Mineral Occurrences

The Roop Lakes batholith, which outcrops 11 km due east of the Upper Duncan drainage, is a late Cretaceous granite, quartz monzonite and granodiorite intrusion of the Tombstone Suite. It is widely-held to be the probable heat source for epi- and meso-thermal veins of the Elsa-Keno Hill mining camp (Roots, 1997a, 1997b).

Table 1 lists YUKON MINFILE mineral occurrences in the Upper Duncan/Keno Hill district. Most of these occurrences are polymetallic veins, consisting of silver, lead and zinc with various amounts of accessory gold. The host rock is mainly the Carboniferous Keno Hill Quartzite, however some veins are hosted in carbonaceous phyllite, felsic meta-tuff and metaclastic rocks of the Devonian Earn Group. A few mineralized polymetallic veins are hosted in the metaclastic rocks of the Late Proterozoic to Cambrian Hyland Group.

Table 1 – Selected Mineral Occurrences, Keno Hill and Upper Duncan area, from MINFILE (Yukon Geological Survey, 2016).

MINFILE NUMBER	DEPOSIT TYPE	STATUS
105M 001 KENO HILL - HISTORIC (Pb-Ag-Zn-Cd-Au-Sn)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 002 FAITH (Au-Zn-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 003 DUNCAN (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 004 GOLDEN QUEEN (Sb-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 005 SILVER BASIN (Ag-Pb-Au)	Vein Polymetallic Ag-Pb-Zn+/-Au	Prospect
105M 006 NABOB (Au-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 007 MONUMENT (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 008 COMSTOCK (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 009 APEX (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 010 VANGUARD (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 011 HOMESTAKE (Au-Zn-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 012 CHRISTINE (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Prospect
105M 013 MO (Au-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 014 MAYBRUN (Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 015 HOGAN (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 016 RUNER (Pb-Zn-Au-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 017 WERNECKE (Au-Zn-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 018 FORMO (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 020 PADDY (Pb-Ag-Zn-Au)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 021 EAGLE (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 022 FISHER (Au-Zn-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Anomaly
105M 023 PARENT	Unknown	Anomaly
105M 024 CREAM AND JEAN (Pb-Zn-Cu-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 025 NORD (As-Zn-Ag-Pb-Au)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect

MINFILE NUMBER	DEPOSIT TYPE	STATUS
105M 047 MT ALBERT (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 050 NERO (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 052 MT HINTON (Au-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 053 AVENUE	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 055 YONO (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 061 CHRISTAL (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 062 SEGSWORTH (Pb-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 063 IRON CLAD	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 069 GAMBLER (Pb-Zn-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Past Producer
105M 070 HAVRENAK (Au-Ag-Pb)	Vein Polymetallic Ag-Pb-Zn+/-Au	Drilled Prospect
105M 073 BEMA (Au-Ag)	Vein Polymetallic Ag-Pb-Zn+/-Au	Showing
105M 082 BELLEKENO (Pb-Ag-Zn-Au-Sn-Cd)	Vein Polymetallic Ag-Pb-Zn+/-Au	Producer
105M 084 ONEK (Ag-Pb-Au-Zn-In)	Vein Polymetallic Ag-Pb-Zn+/-Au	Deposit
105M 085 LUCKY QUEEN (Ag-Pb-Zn-Au)	Vein Polymetallic Ag-Pb-Zn+/-Au	Deposit
105M 087 FLAME & MOTH (Au-Ag-Pb-Zn)	Vein Polymetallic Ag-Pb-Zn+/-Au	Deposit

Local Bedrock Geology

Figure 5 shows the bedrock geology and mineral occurrences of the Upper Duncan creek and Keno Hill area, modified from Roots, 1997b and Yukon Geological Survey, 2016. Mineralized vein/faults have been added from Wengzynowski, (2008).

The area of the Upper Duncan Creek placer claims is mapped as PCH1 (Proterozoic Hyland group (Yusezyu Formation) clastic metasediments, psammite and marble; CT2 (Carboniferous to Permian Keno Hill Quartzite) and TrG (Triassic Galena Suite hornblende diorite and gabbro). Nearby mineral occurrences include the Mt. Hinton gold-silver veins in the headwaters (MINFILE 105M 052) and the gold-silver vein occurrence (105M 013) in the divide between Upper Duncan Creek and Thunder Gulch.

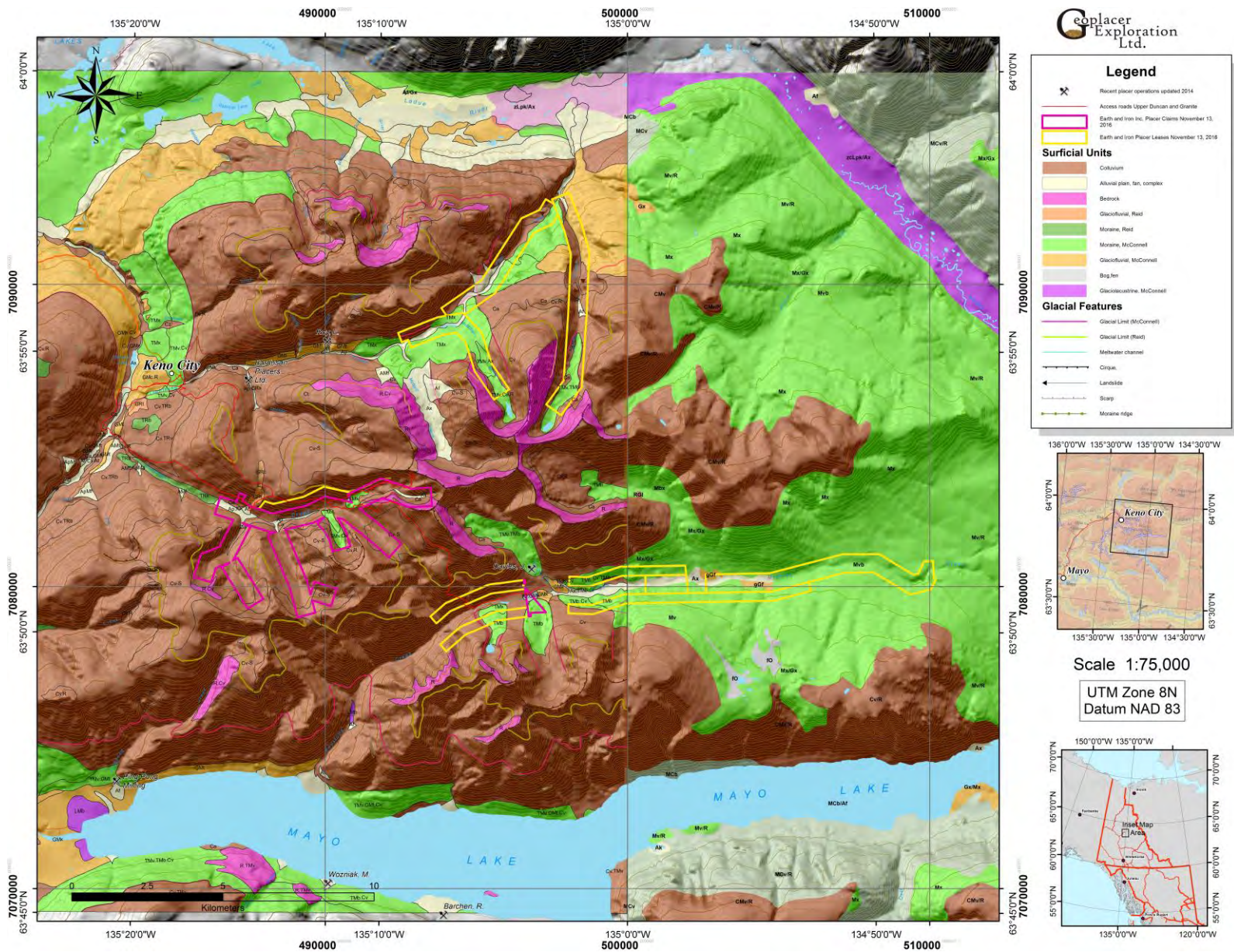
Quaternary History

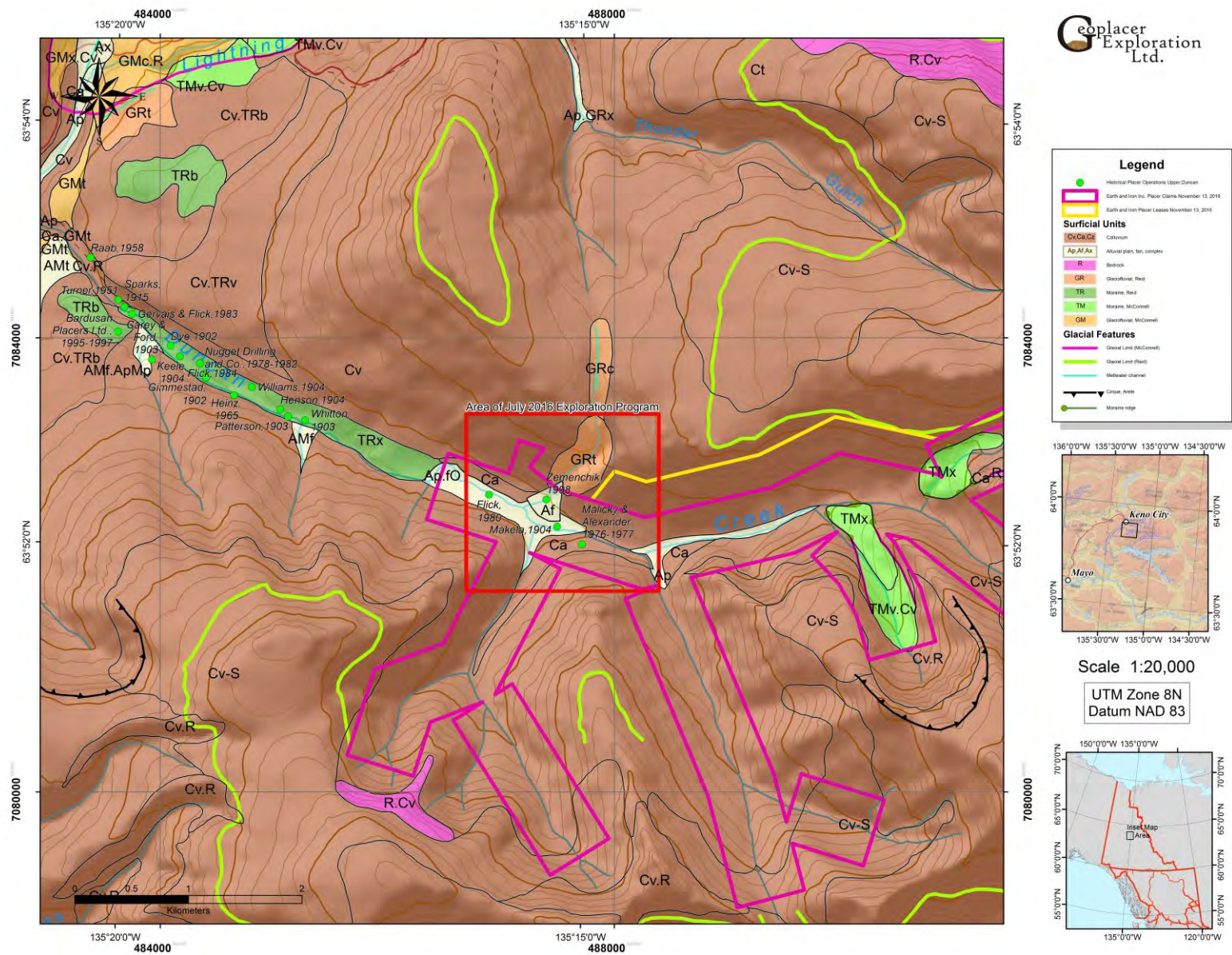
In the Mayo area, a minimum of four regional glaciations and two interglacial periods have influenced the deposition and erosion of sediments over the last 2.5 million years (Duk-Rodkin et. al., 2010; LeBarge et. al., 2002; Bond, 1996, 1997; Jackson et al., 2001). Glaciations include the pre-Reid (multiple early to mid-Pleistocene glaciations), Reid (130,000 years), and McConnell (14,000 -29,600 years). Warm, interglacial periods are indicated by relict paleosols such as the pre-Reid Wounded Moose paleosol (Tarnocai and Schweger, 1991) and the Reid Diversion Creek paleosol (Bond and Lipovsky, 2010).

During their maximum extent, pre-Reid ice sheets completely covered the Mayo/Keno Hill area. Undifferentiated pre-Reid surficial materials (moraine, glaciofluvial and glaciolacustrine deposits) are thick in the lowlands of Klondike Plateau and Tintina Trench, especially in areas proximal to the terminus of the pre-Reid glaciations.

During the subsequent Reid glaciation, glacial ice advanced from cirques formed in topographic highs such as Mount Hinton and Mt. Haldane, and coalesced in the Stewart River valley and Tintina Trench. The Reid ice sheet terminated at Reid Lakes in the Tintina Trench.

During the most recent (McConnell) glaciation, ice once again advanced from cirques in mountainous centres, however their advance was much less extensive than during previous glaciations. In most cases, McConnell ice advanced only short distances down-valley from their origins in the valley heads, depositing terminal moraines in the upper reaches of most valleys.





Surficial Geology

Figure 6 is a 1:75,000 scale map of the surficial geology of the Upper Duncan and Keno Hill area (modified after Bond, 1998; and Yukon Geological Survey, 2016). Differences in units between the east and west sides of the map are attributable to the different scales of mapping which were conducted on each side.

Figure 7 is a 1:20,000 scale surficial map of the Upper Duncan drainage (modified after Bond, 1998) which also shows historical placer mining operations (after LeBarge, 2007).

Unconsolidated sediments in the Gustavus Range and the surrounding plateaus consist mainly of deposits from Cordilleran valley glaciers (continental ice sheet), alpine glaciers (local montane glaciers), colluvium, and minor alluvium. The surficial geology of the project area is complex, which is a result of the multiple glacial events that have occurred there over the last 1.5 million years.

The hills above the main drainages of Duncan, Upper Duncan and Lightning Creeks are mantled with colluvial deposits (veneers, blankets and aprons), while glacial erratics are found in the ridge tops and uppermost slopes. These were deposited when the pre-Reid glacial ice overtopped the hills in the region (LeBarge et.al., 2002; Bond, 1998).

Within and below the Reid glacial limit (shown as the red line in Figures 6 and 7), remnant deposits of Reid-age till line the valley bottoms and edges, and Reid glaciofluvial outwash channels lie along valley edges and on intervalley divides between third and fourth order drainages. In the lower reaches of Upper Duncan Creek, Reid-age till lies at the surface and confines the extent of the modern alluvial plain.

McConnell-age till forms moraines in the headwaters of most local drainages including Upper Duncan Creek (Mount Hinton) and Granite Creek. Deposits of McConnell glaciofluvial outwash lie along the valleys of Lightning Creek and Duncan Creek, and along the McQuesten River valley. McConnell-age alluvial and periglacial fans occur at the confluences of first order and second-order streams.

Modern alluvial fans, plains and complexes occur in all valleys, but are most prominent in larger, third to fourth order drainages. In some cases, alluvial fans have formed from re-activation and reworking of older deposits such as glaciofluvial terraces and eskers of Reid to McConnell age.

Early Placer Exploration and Mining History

The initial discovery of placer gold on Duncan Creek was in the area just downstream of the canyon, where Upper Duncan Creek joins Duncan Creek. Most of the hand-mining in the early days took place at this location and farther upstream on Upper Duncan Creek (LeBarge, 2007). According to royalty records at the Government of Yukon, nearly 40,000 crude ounces of gold have been mined from Duncan Creek since 1898.

The initial discovery in 1898 is credited to Mr. Gustavus Gustavusen and his two sons. These three were very secretive, and to help conceal the location of their ground they decided not to stake or record claims over it. They began to arouse curiosity and one day a party of four prospectors - Colin Hamilton, Duncan Patterson, Allan McIntosh and Jacob Davidson went looking for their ground. After a long search, the Scotsmen found the Swedes' workings. On the 15th of September 1901, they located a Discovery Claim in the canyon on what was named Duncan Creek. This claim was staked during the absence of the Swedes and included the ground already worked by them. The Gustavusen's, finding their ground legally staked, soon left the country.

By the end of 1902 Duncan Creek was staked from the headwaters to the mouth. Numerous cabins were built and preparations were made to develop the ground. The government constructed a wagon road from the mouth of the Mayo River to Duncan Creek. Two town-sites were located: one at Mayo River and one at Gordon Landing on the bank of the Stewart River.

During 1902, at Claim #104 Below Discovery (approx. 4.3 miles (7 km) below the canyon) a shaft was sunk a depth of 138 ft. (42 metres) without hitting bedrock. Other attempts were made in the area and numerous shafts reached 108 ft. (33 metres) in depth without reaching bedrock, mostly due to flooding by ground water. During 1903, at Claim #53 Below Discovery, a shaft sunk on the left limit hit bedrock at 105 ft. (32 metres). Drifting towards the creek was started, but just as the drift began to hit good pay, the groundwater became more than the pump could handle and the drift was abandoned. Total clean-up for this operation was \$1200.

The busiest year on Upper Duncan Creek was 1903, with \$30,000 produced from the canyon claims. Much work was also done in 1904, with \$15,000 being produced from the canyon. Lower Duncan Creek produced very little during the early years, mostly due to excessive ground water.

During the period 1913-1916, J. A. Walsh, W. L. Bramley and J. Adair did considerable developmental work as well as some mining on Lower Duncan Creek, and some prospecting was done on the benches. By 1915, nine men were working; five on Upper Duncan, one near the forks (canyon) and three on Lower Duncan. By 1932 only one operation existed, on Upper Duncan Creek.

In 1940-41 Mr. C.E. Fisher mined ground worth 50 cents per yard above the bridge, and Mr. Ellis Johnson worked Claim #54 Above Discovery reporting "good prospects" on bedrock at 92 feet (28 metres). The locations of these operations are undocumented but they may be on Upper Duncan Creek.

By the end of the 1950's, interest was renewed on Duncan Creek. Fred Taylor began testing a one mile lease on lower Duncan Creek, and several United Keno Hill Mine employees started small operations in the canyon.

During 1965-1966 Mr. and Mrs. Heinz prospected and test-mined two one-mile leases on Upper Duncan Creek, producing 50 ounces.

In the 1960's, drilling by United Keno Hill Mines showed gravels to be about 167 ft. (51 metres) thick one mile (1.6 km) below Lightning and about 98 ft. (30 metres) thick 2 miles (3 km) below the confluence of Lightning and Duncan creeks. Some gold values were reported.

Between 1975 and 1977, Frank Taylor and J. Brooks (working as Duncan Creek Golddusters Ltd.) worked the left limit of lower Duncan Creek 1.5 miles (2.5 km) from the mouth.

Between 1978 and 1982, six operations were active at various locations along Duncan Creek and Upper Duncan Creek, including C. French and N. Bunka, D. Flick and G. Gervais, M. Alexander, Frank Taylor and Nugget Drilling. Four operations were active between 1983 and 1984, including N. Bunka, C. Deeks and E. Jarvis; D. Flick and G. Gervais; and Frank Taylor. Between 1985 and 1990, Frank Taylor and his family mined on lower Duncan Creek.

From 1989 to 1990, Sasha Mining mined on lower Duncan Creek. In 1996, Bruce Rittel hand-trenched on a terrace along lower Duncan Creek.

Bardusan Placers Ltd. mined a cut on Upper Duncan Creek just above the canyon between 1996 and 1997. Mr. Zemenchik did a small exploratory mining cut on Upper Duncan Creek in the vicinity of a right limit alluvial fan between 1998 and 2000.

Between 2001 and 2002, some claims located immediately below the waterfalls were leased to Larry Arnevik and Ricker Anderson by Joe Raab. Two cuts were completed in 2001. The narrow channel and tight, steep canyon walls made these claims a challenge to mine.

Mr. Mel Zeiler conducted testing operations on lower Duncan Creek from 2003 to 2005 and in 2007 and 2008.

Duncan Creek Golddusters is the only continuously active mining operation on Duncan Creek in recent history, and they are currently mining in the 2016 mining season.

Table 2 - Historical placer mining operations, Upper Duncan Creek. These are plotted on Figure 7.

Operation	Status
Nugget Drilling and Co., 1978-1982	Recent Producer 1978-present
Bardusan Placers Ltd., 1995-1997	Recent Producer 1978-present
Zemenchik, 1998	Exploratory
Flick, 1984	Recent Producer 1978-present
Gervais & Flick, 1983	Recent Producer 1978-present
Flick, 1980	Recent Producer 1978-present
Malicky & Alexander, 1976-1977	Historical Producer
Heinz, 1965	Historical Producer
Raab, 1958	Historical Producer
Turner, 1951	Historical Producer
Sparks, 1915	Historical Producer
Keele, 1904	Historical Producer
Henson, 1904	Historical Producer
Makela, 1904	Historical Exploratory
Williams, 1904	Historical Producer
Patterson, 1903	Historical Exploratory
Carey & Ford, 1903	Historical Producer
Whitton, 1903	Historical Exploratory
Dye, 1902	Historical Exploratory
McKinnon and McIntosh, 1902	Historical Exploratory
Gimmestad, 1902	Historical Producer

2016 Placer Exploration Program

Introduction

In July 2016, the exploration program consisted of geological evaluation and targeting of potential placer gold zones, limited auger drilling, resistivity geophysical surveys, RAB (rotary air blast) drilling, excavator test-pitting and ground magnetometer surveys. Several bulk samples were processed and analyzed for gold character and content.

Auger drilling

Two auger drills were collared on the property, but were only able to drill approximately 35 feet. They are named SAM 9.5 hole 1 and SAM 9.5 hole 2, and are shown on Figure 8. The drill samples have not been processed.

Resistivity Geophysical Surveys

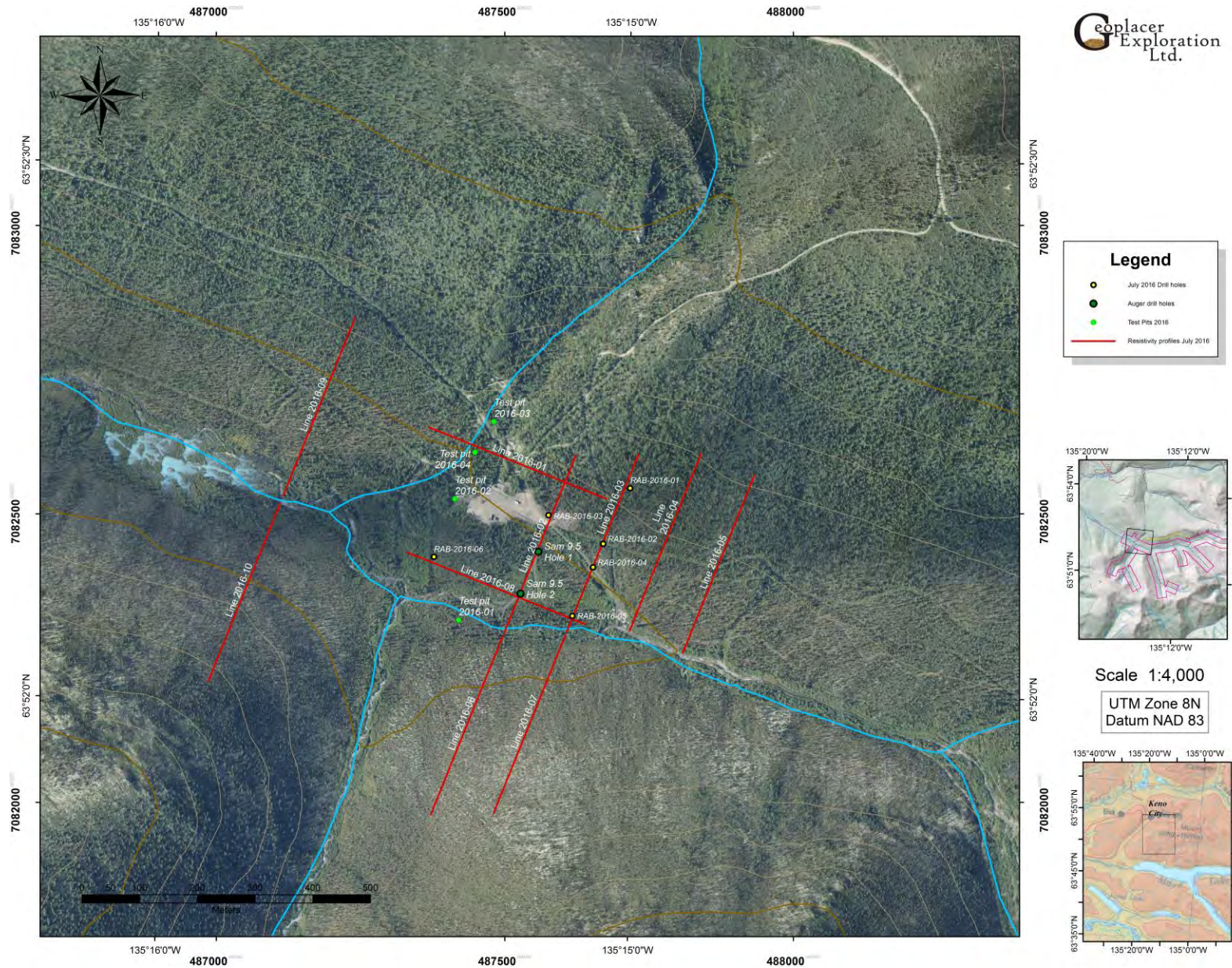
Groundtruth Exploration Inc. ran a total of 10 lines of resistivity geophysical surveys on the property in the vicinity of the SAM 5 to SAM 10 placer claims. The trace of these lines are shown on Figure 8, and the profiles are given as Figures 9 to 18.

RAB Drilling

A total of 6 RAB drill holes were collared on the property, most along the resistivity geophysical lines. These are listed in Table 3 below. Appendix 2 contains the drill logs for the drill holes. Bedrock and other lithological contacts were picked from the drill logs, and the drill holes were plotted on the resistivity profiles (Figures 9 to 18). Rough estimates of possible contacts were drawn on each of the resistivity profiles using the known contacts in the RAB drill holes. The resultant interpretation is preliminary and should be used only as a rough guide to further exploratory test pits or drilling.

Table 3 - RAB Placer Drill holes, Upper Duncan Creek, July 2016

Drill Hole number	UTM Zone	UTM Easting	UTM Northing	Elevation (m)	Hole Start Date	Bedrock Depth (ft.)
RAB2016-01	08N	487717	7082545	1108	2016-07-13	45
RAB2016-02	08N	487670	7082448	1090	2016-07-13	55
RAB2016-03	08N	487576	7082497	1079	2016-07-13	53
RAB2016-04	08N	487653	7082407	1070	2016-07-14	53
RAB2016-05	08N	487617	7082323	1086	2016-07-15	75
RAB2016-06	08N	487377	7082426	1078	2016-07-16	>83



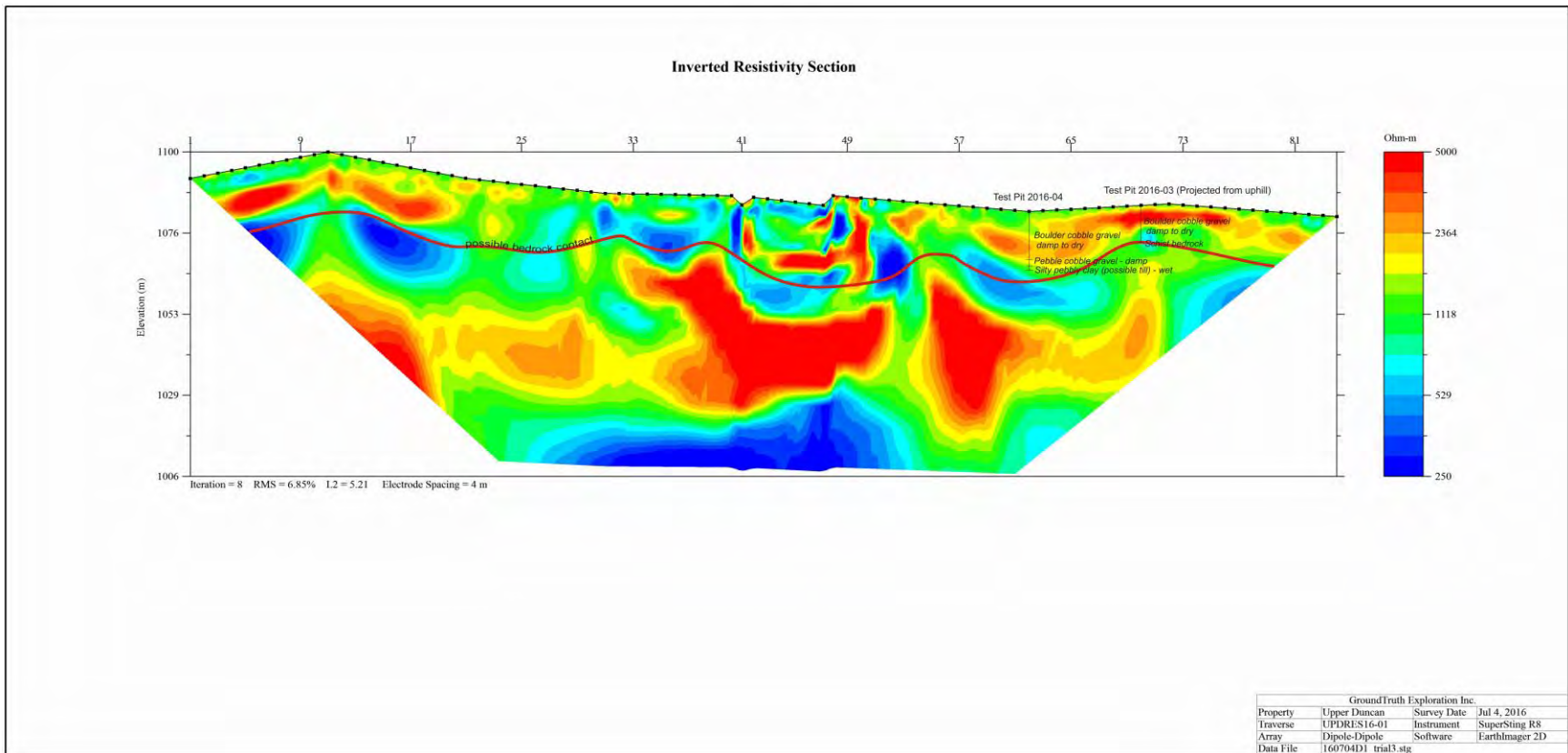


Figure 9 - Resistivity profile Line 2016-01 runs parallel to the upper extent of the alluvial fan, and is shown on Figure 8.

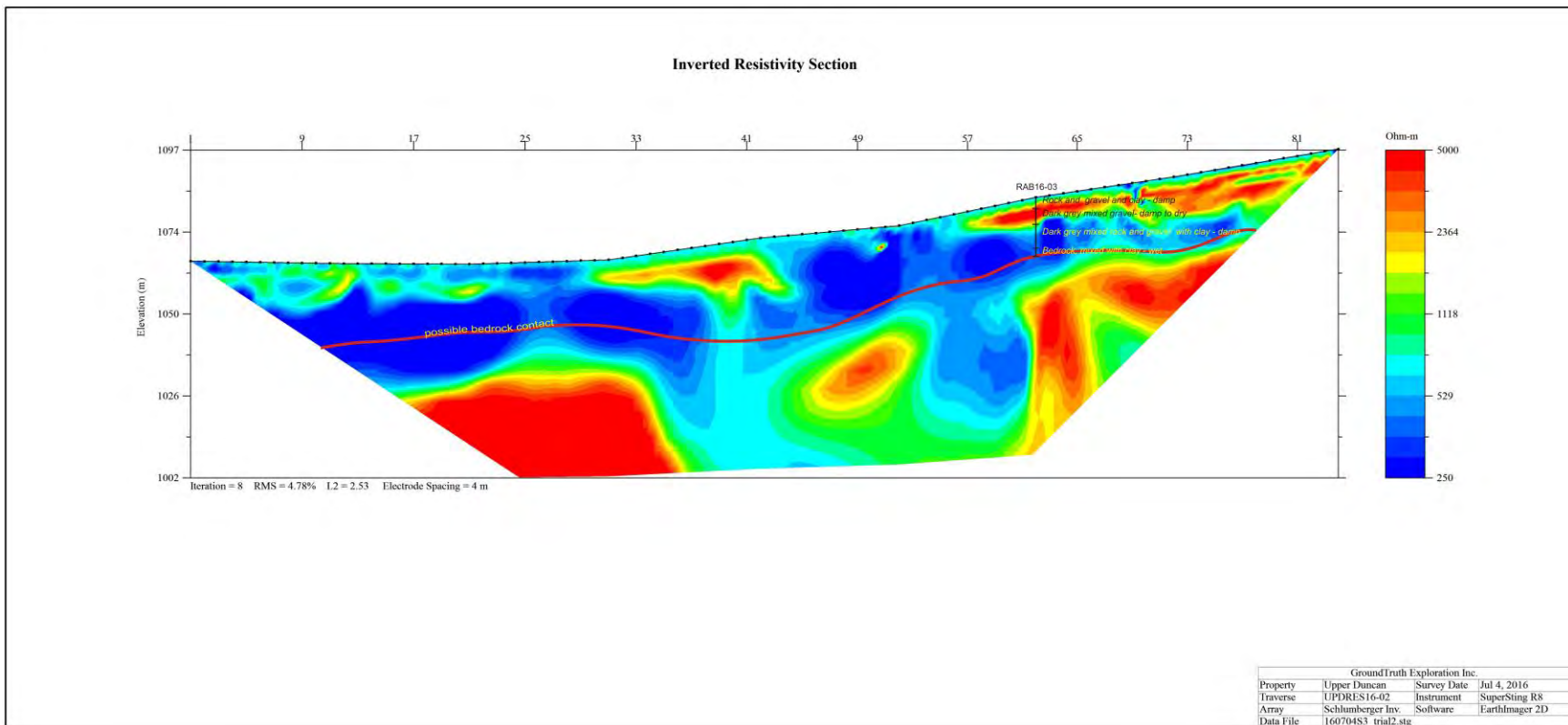


Figure 10 - Resistivity profile Line 2016-02 is located on the north side of the Upper Duncan Creek valley upstream of the alluvial fan.

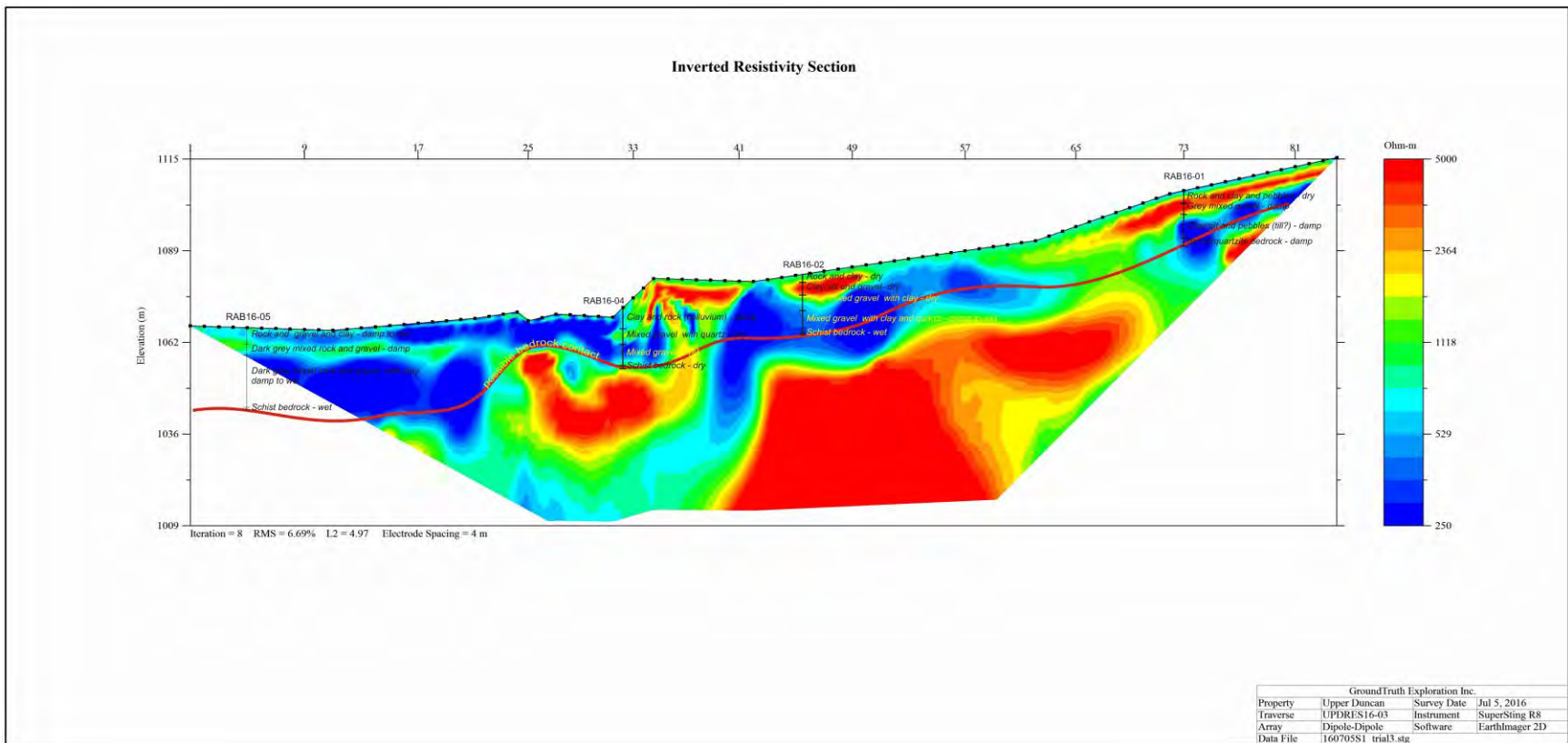


Figure 11 - Resistivity profile Line 2016-03 is located on the north side of the Upper Duncan Creek valley upstream of Line 2016-02.

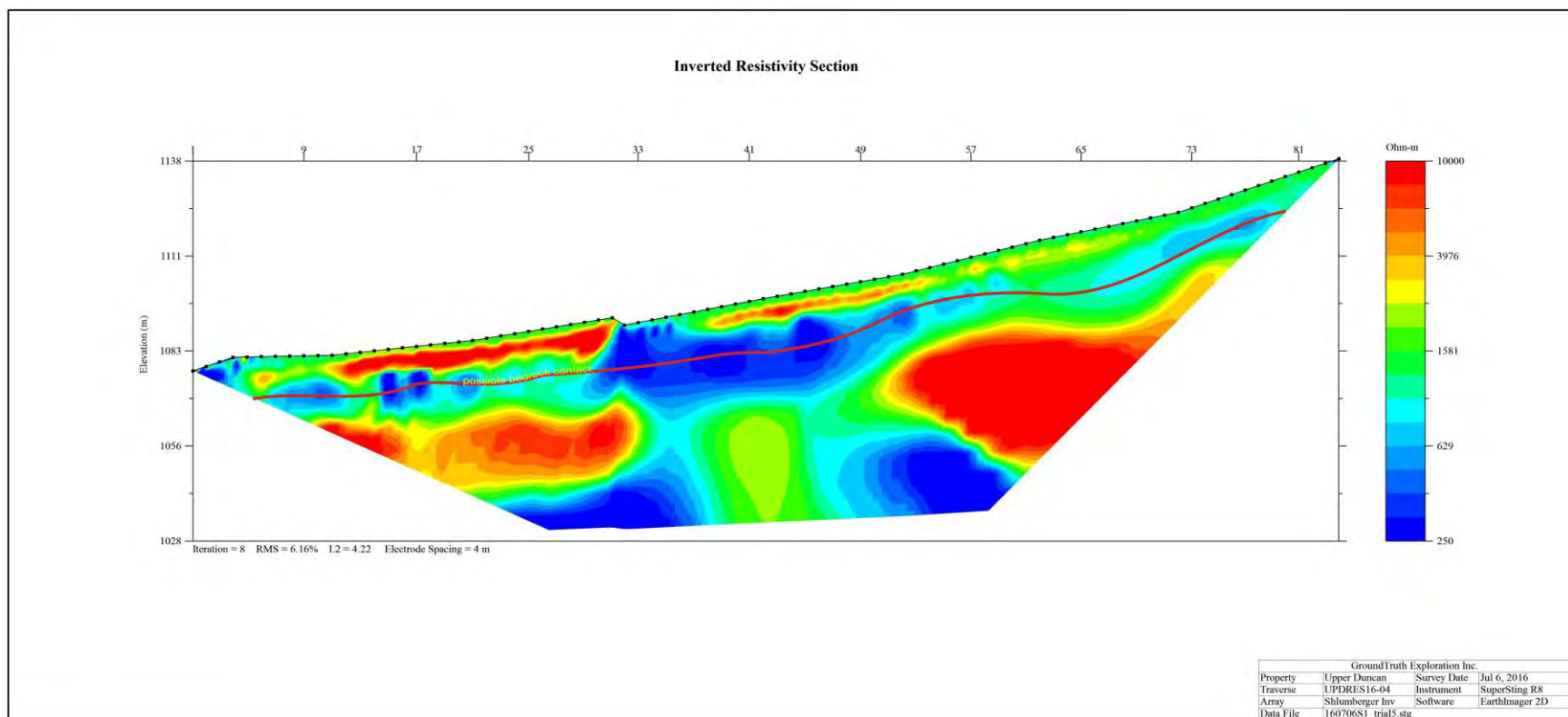


Figure 12 - Resistivity profile Line 2016-04 is located upstream of Line 2016-03, on the north side of the Upper Duncan Creek valley.

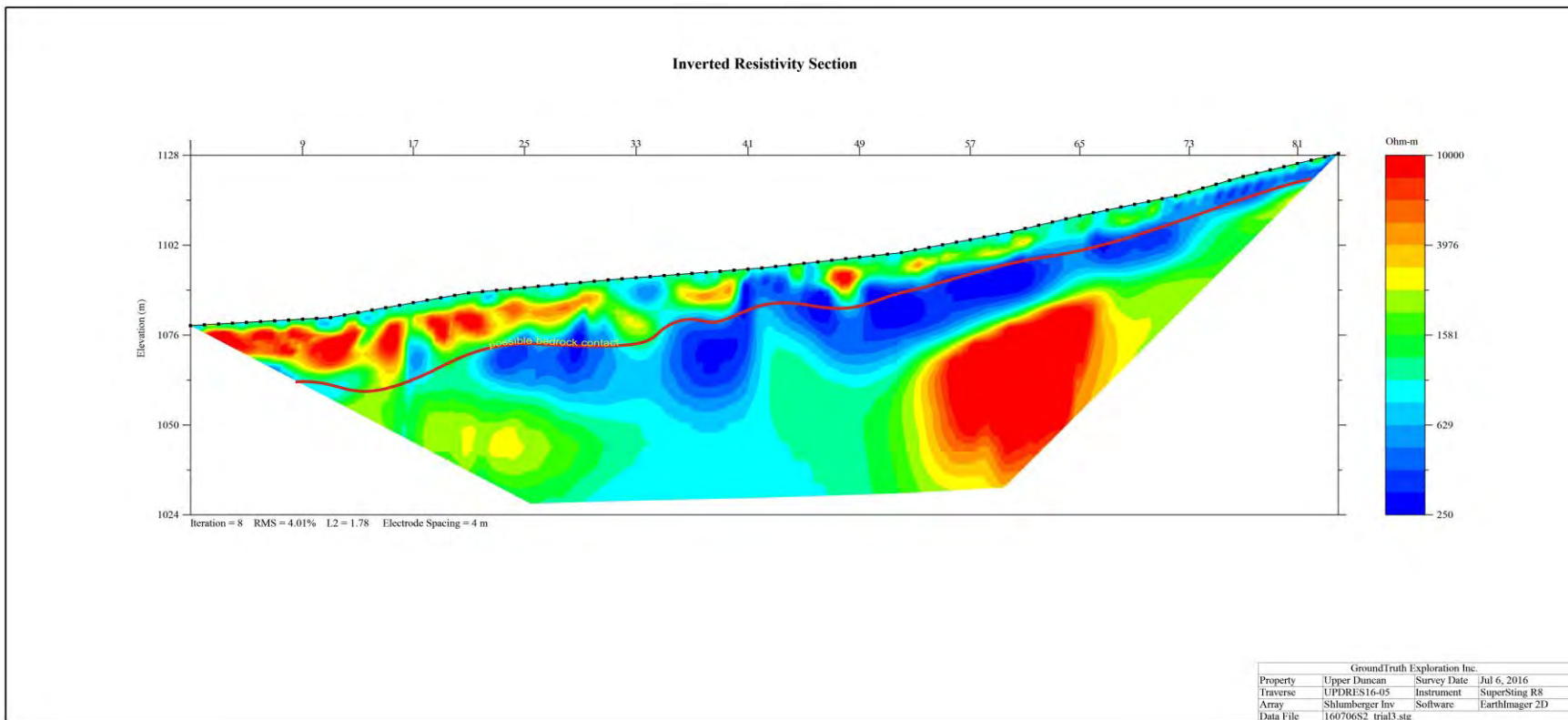


Figure 13 - Resistivity profile Line 2016-05 is located upstream of profile 2016-04, on the north side of the Upper Duncan Creek valley.

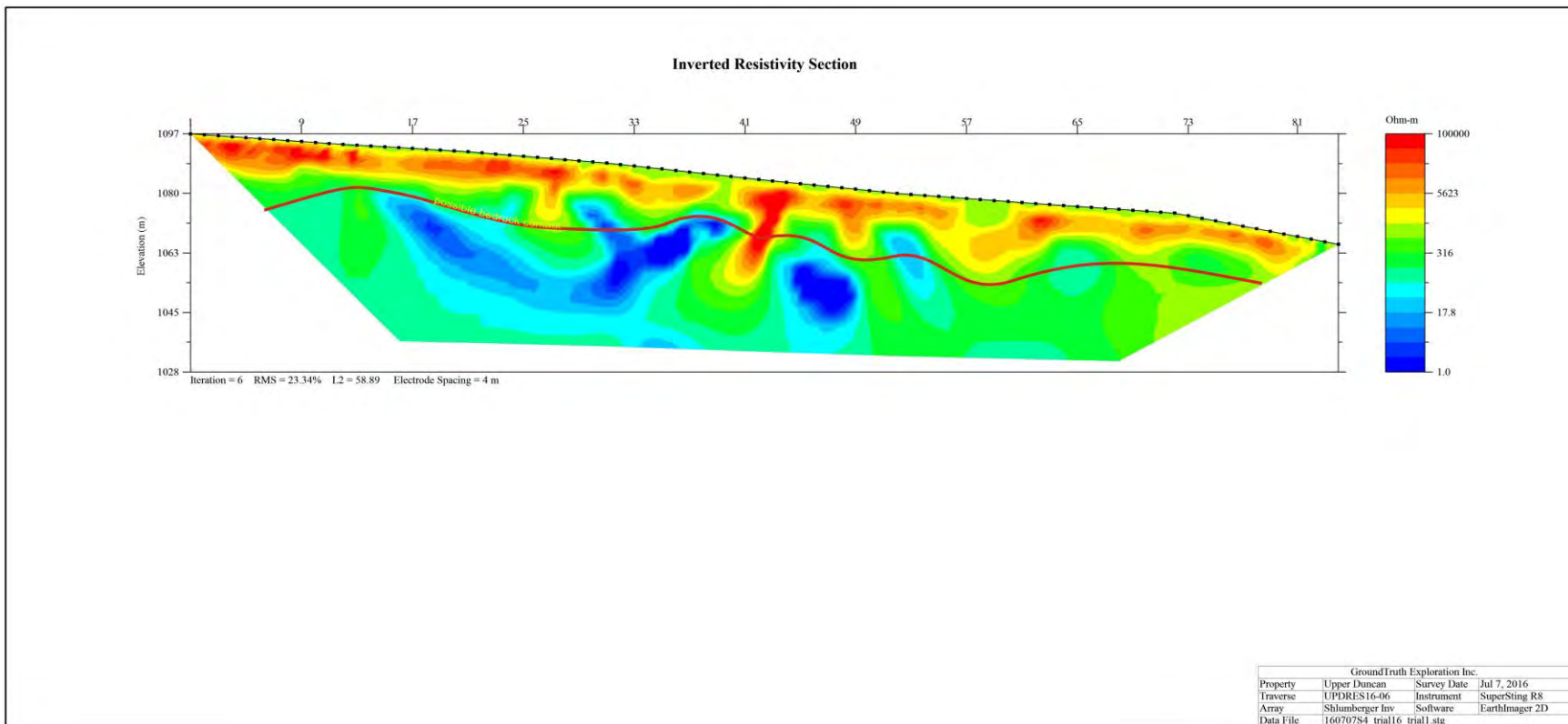


Figure 14 - Resistivity profile Line 2016-06 is located on the south side of Upper Duncan Creek valley, across from Line 2016-02.

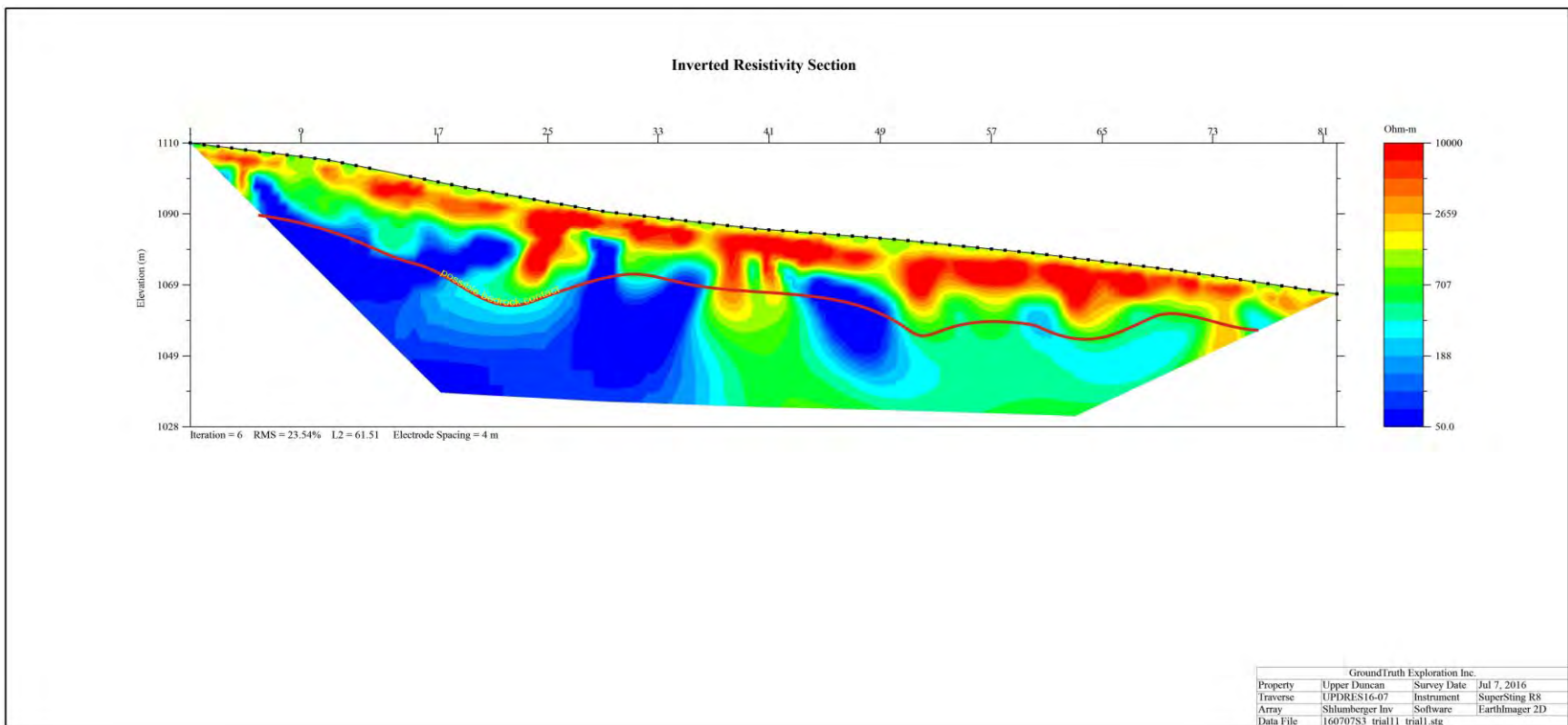


Figure 15 - Resistivity profile Line 2016-07 is located on the south side of Upper Duncan Creek valley, upstream of Line 2016-06.

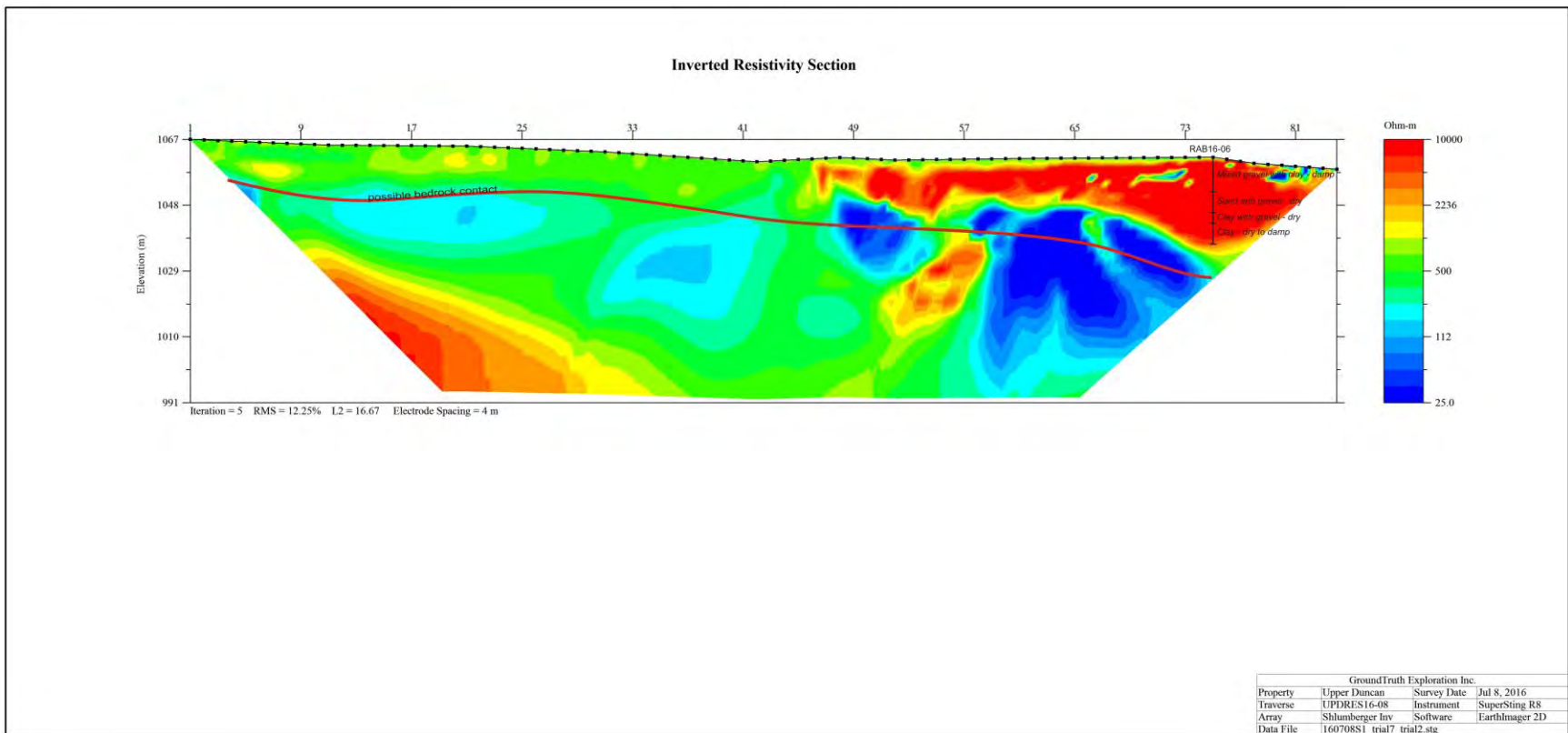


Figure 16 - Resistivity profile Line 2016-08 is located on the lower part of the alluvial fan, and runs parallel to the Upper Duncan Creek valley. This profile view is facing down-fan (south).

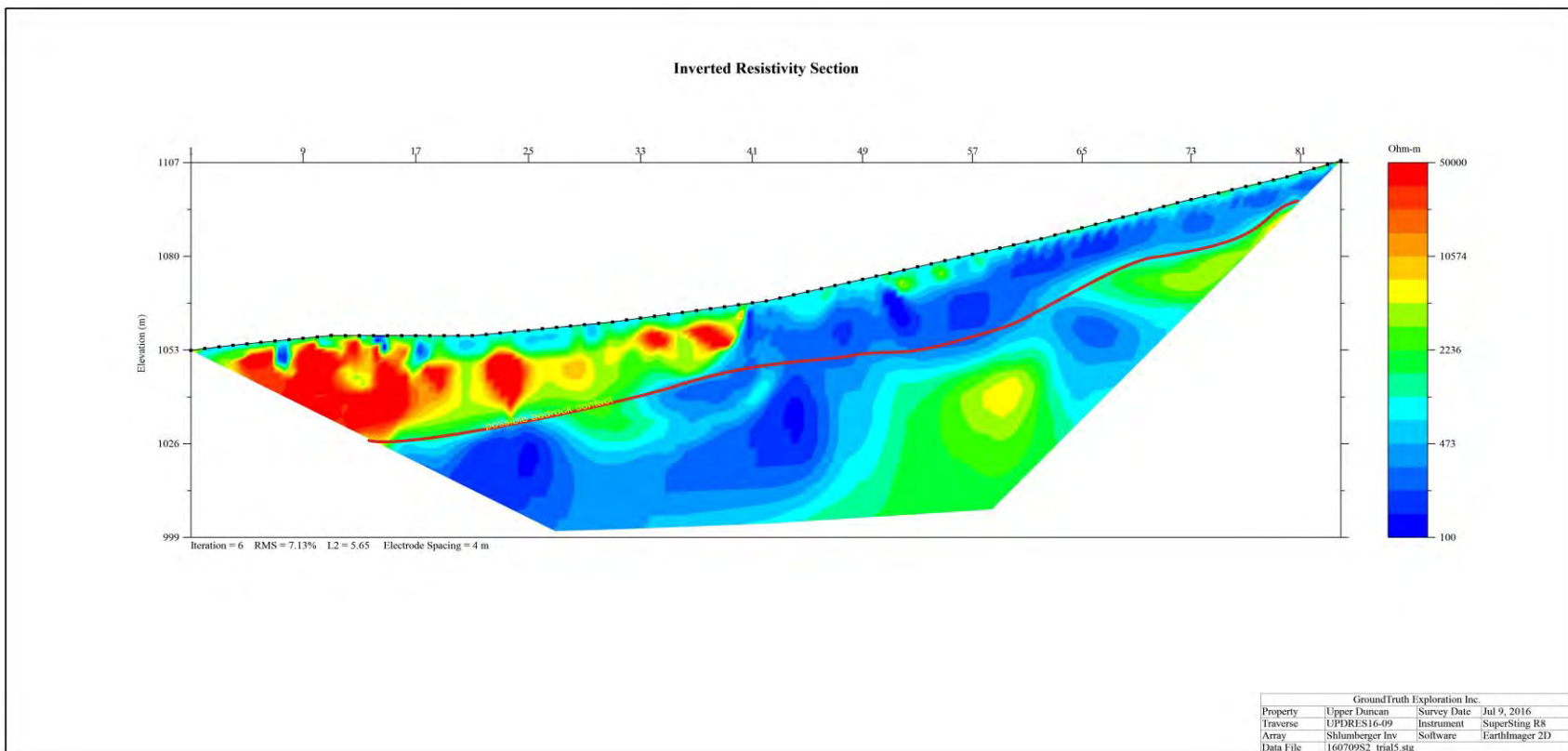


Figure 17 - Resistivity profile Line 2016-09 is located on the north side of Upper Duncan Creek valley, downstream of the alluvial fan.

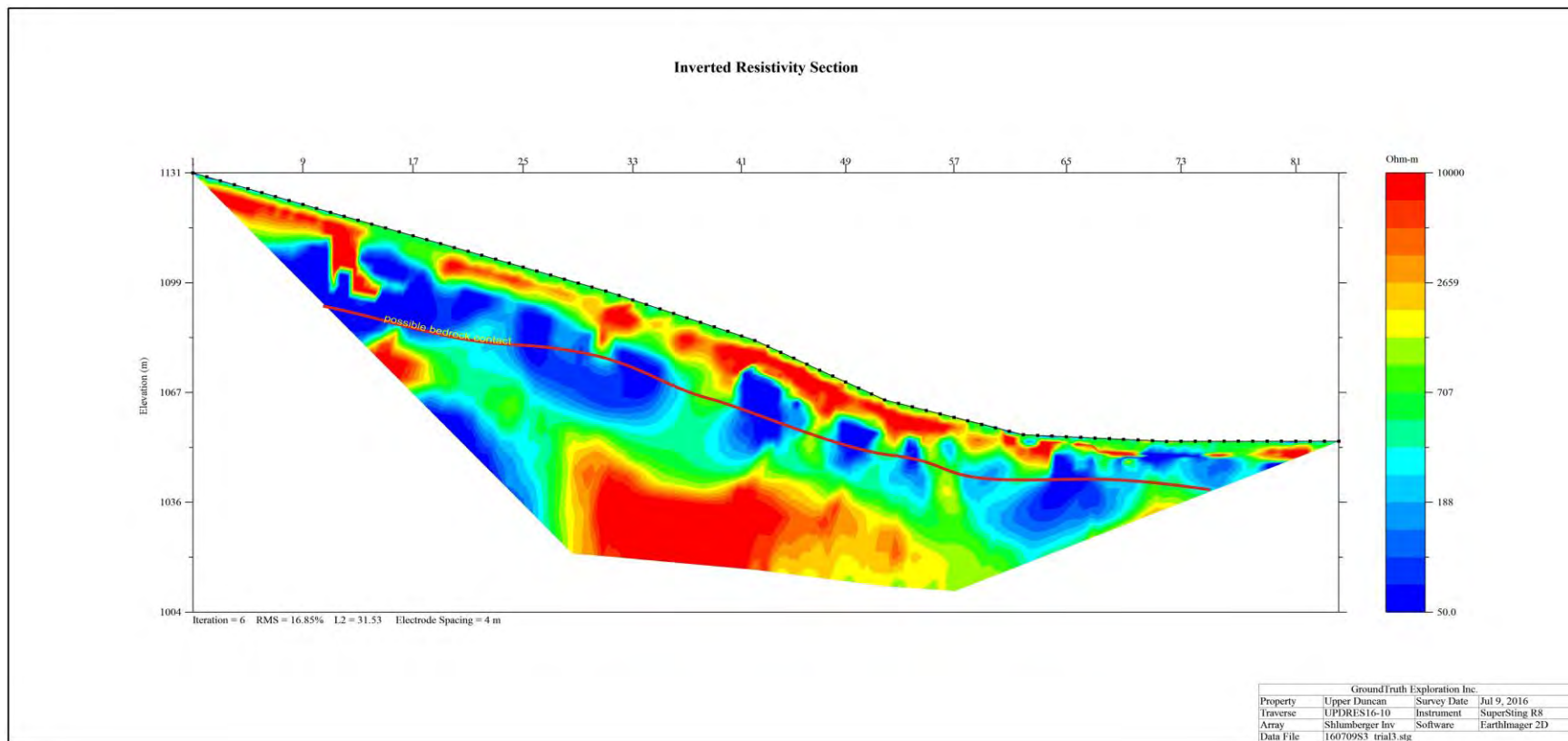


Figure 18 - Resistivity profile Line 2016-10 is located on the south side of the Upper Duncan Creek valley, across from Line 2016-09.

Excavator Test Pitting

A total of 4 test pits were excavated in July 2016 at various target areas including the alluvial fan. These are the 2016-01 to 2016-04 pits, shown on Figure 8. A description of each test pit follows below along with annotated photos.

Table 4 - 2016 Test pit sample numbers, processed volumes, sample depths and gold characteristics.

Sample	Test Pit	Volume (yd3)	Volume (m3)	Depth (ft.)	Gold Weight (g)	Grade (g/m3)	Gold characteristics
2016-01	2016-01	not measured	not measured	10-28	not weighed	not calculated	granular
2016-02	2016-02	20	15.29	20-25	not weighed	not calculated	angular, wiry
2016-03A	2016-03	15	11.47	4-16	not weighed	not calculated	angular, wiry
2016-03B	2016-03	15	11.47	16-25	not weighed	not calculated	angular, granular
2016-04A	2016-04	15	11.47	12-20	2.99	0.260	angular, granular
2016-04B	2016-04	30	22.94	44-50	1.64	0.071	angular, granular
2016-04C	2016-04	30	22.94	20-44	1.78	0.077	angular, granular

Test pit 2016-01



Figure 19 - Test Pit 2016-01 was excavated in the valley south of the current course of Upper Duncan Creek. This pit consisted of 20 feet of boulder cobble creek gravel overlying 8 feet of pebbly clay, which is likely a Reid age till.

Test pit 2016-02



Figure 20 - Test Pit 2016-02 was excavated in a creek channel within the alluvial fan. This pit was excavated approximately 25 feet into boulder cobble creek and alluvial fan gravels.

Test pit 2016-03



Figure 21 - Test pit 2016-03 was excavated near the apex of the alluvial fan, uphill from resistivity line 2016-01. This pit consisted of 24 feet of boulder cobble gravel overlying schist bedrock. The bottom gravels on bedrock were slightly finer with more clay content.

Test pit 2016-04



Figure 22 - Test pit 2016-04 was excavated on the alluvial fan near Resistivity Line 2016-01, electrode 62. This pit intersected 44 feet of boulder cobble alluvial fan gravel overlying 6 feet of finer pebble cobble gravel, over 5 feet of pebbly silty clay.

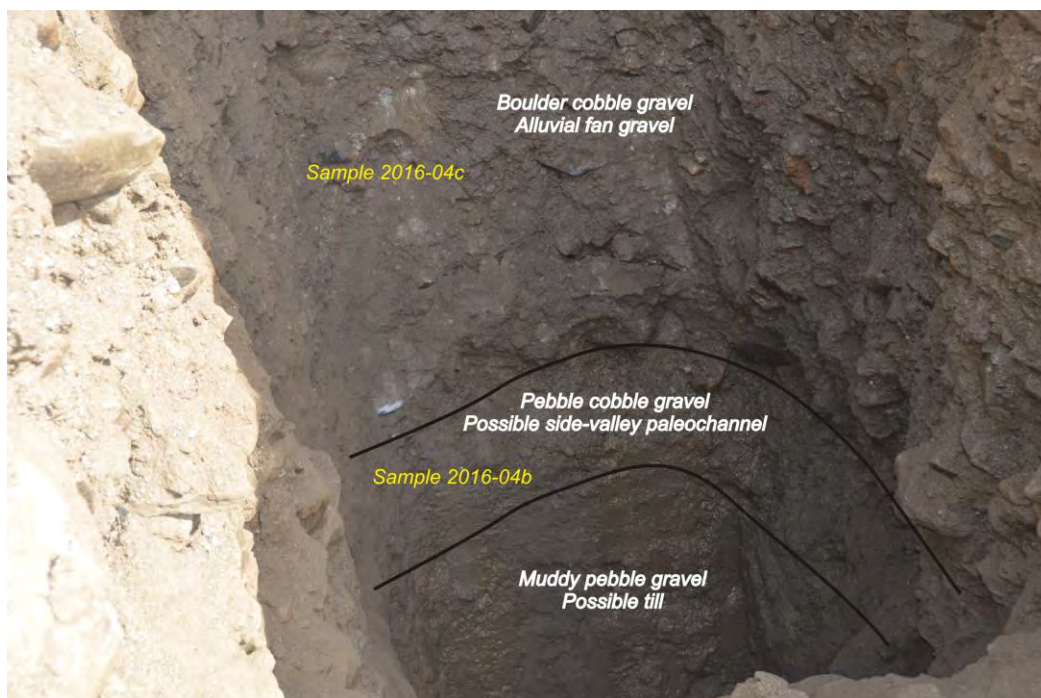


Figure 23 - At the base of test pit 2016-04, a muddy pebbly unit (probably till) was intersected below a pebble gravel layer. These were both overlain by thick (44 feet) boulder cobble gravels of the fan.

Sample Processing

Test pit samples were subdivided on the basis of their stratigraphic position in the pits, and processed initially with a field test plant which was fed by an excavator. The first stage concentrates were collected from the sluice run of the test plant and processed in a Keene sluice box. Final concentrates were hand-panned, with the gold separated out, cleaned, dried and weighed on a digital scale.



Figure 24 - The field test plant was fed directly by an excavator.

Gold Characteristics

The placer gold recovered to date from the area of the alluvial fan (Test Pits 2016-02, 03 and 04) is granular, angular and wiry, which indicates a relatively short distance of travel from the bedrock source.



Figure 25 - Sample 2016-3a (above) was derived from upper gravels near the apex of the alluvial fan, and contained several angular and wiry grains.



Figure 26 – Sample 2016-4a (above) contained angular and granular grains with several wires.

Ground Magnetometer Survey

Groundtruth Exploration Inc. conducted a ground magnetometer survey in the area of the alluvial fan on July 10 and 11, 2016. Approximately 6.25 line km of data was acquired, 4.75 km in traverse lines and a 1.4 km tie line. IGRF (International Geomagnetic Reference Field) values for the survey area were calculated based on the date of acquisition and Z coordinate was derived from the GPS altitude. A digital elevation model (DEM) was created from the GPS altitude. The final TMI grid was produced from diurnal-corrected and IGRF-reduced data, and an 8m grid cell size was used. Geosoft Oasis Montaj and custom auxiliary software were used for the data processing.

Figure 27 is a map of the ground magnetometer survey by Groundtruth Exploration Inc. It appears to show the area of the alluvial fan as a significant magnetic anomaly, with other, lesser linear magnetic anomalies running parallel to the valley of Upper Duncan Creek.

In contrast, the most recent available total field magnetic survey of the project area (Wengzynowski, 2008) is shown in Figure 28. There appears to be a broad high in the field area, which roughly corresponds to the trend of the geological contacts but doesn't correspond exactly to any one geological unit or fault. The area of the ground magnetometer survey by Groundtruth Exploration Inc. has a muted total field magnetic response in the survey by Wengzynowski (2008).

As a result, a comparison of the two surveys supports the theory that the strong magnetic anomaly evident in the ground magnetometer survey is a result of magnetic mineral (magnetite) accumulations in the alluvial material, rather than from a bedrock feature. In association with the placer magnetite, there are likely associated placer gold accumulations, both centred on the alluvial fan and within paleochannels trending along the Upper Duncan Creek valley.

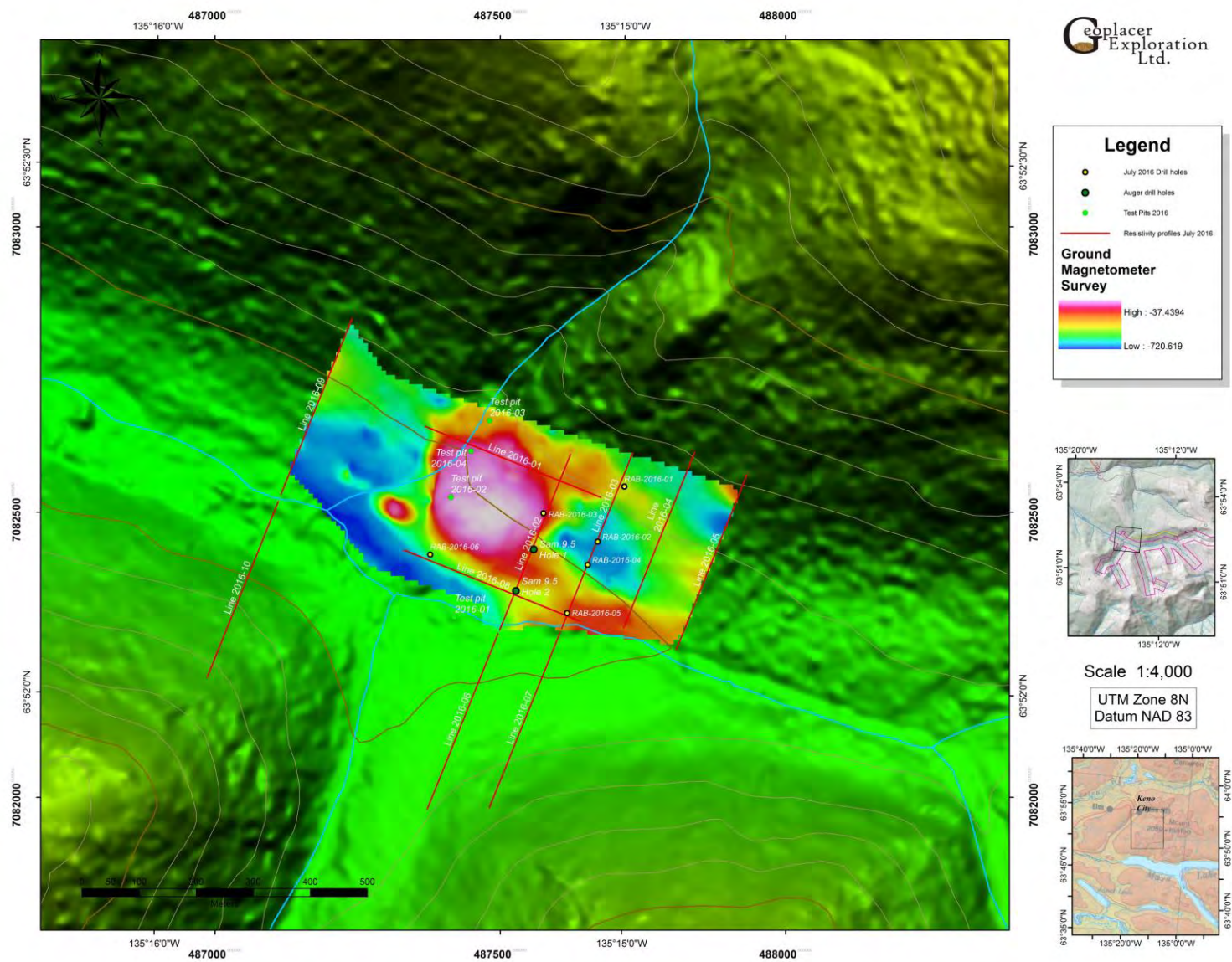
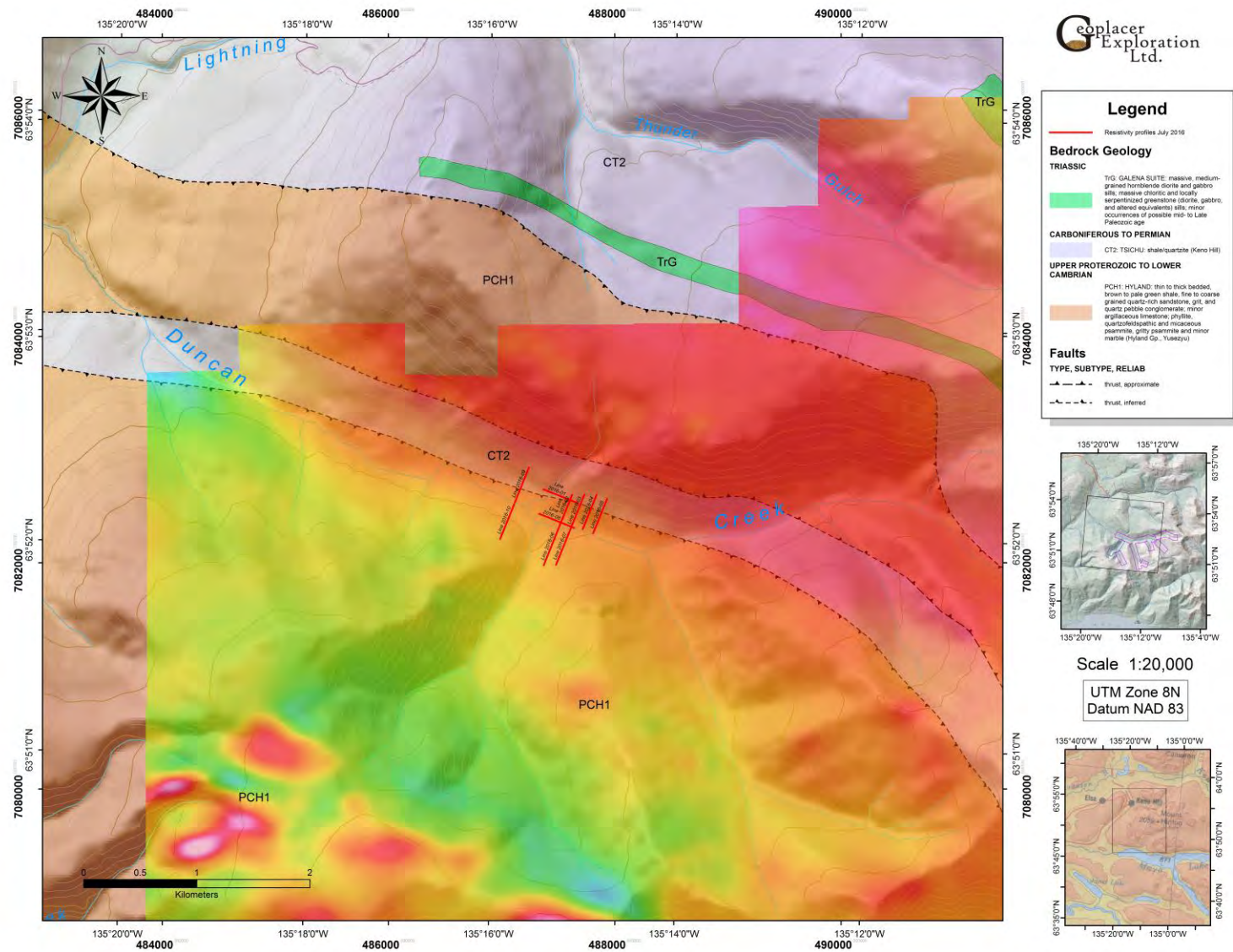


Figure 27 – The ground magnetometer survey conducted by Groundtruth Exploration Inc. is shown overlain against the DEM of Upper Duncan Creek.



Stratigraphy and Placer Gold Potential

The surficial mapping by Bond (1998), the placer studies by LeBarge et.al. (2002) and the current placer exploration results allow an initial stratigraphic framework to be described.

Central to the project area is an alluvial fan, which heads in a right limit tributary of Upper Duncan Creek. The alluvial fan consists mainly of boulder cobble gravels, overlying either bedrock (at the fan apex) or side-valley glaciofluvial gravels (likely of Reid age) and Reid age till (on the lower fan). The fan has been more or less active since the end of the Reid glaciation, and includes material up to and including modern age gravels. Its source area lies in a canyon which was cut by a meltwater channel at the end of the Reid glaciation, and this canyon dissects a fault-bounded block of Keno Hill quartzite, the most common host for mineralized veins in the Keno Hill district.

Significant, possibly economic placer gold values have been obtained from the limited testing of the alluvial fan, which for the most part appears to be thawed throughout the section. As is common in this type of placer deposit, the placer gold values are spread throughout the stratigraphy, with similar values on bedrock as within the gravel section above bedrock. There is an association of higher placer gold values with the presence of larger boulders, which would be a function of the high stream-flow process where a “lag” concentration of the larger and/or heavier particles is formed as lighter and smaller particles are transported further downstream.

The valley sides immediately upstream and downstream of the alluvial fan are covered by an apron or veneer of colluvium, overlying a buried glaciofluvial terrace of probable Reid age. This is more evident on the south side of the valley where a remnant bench may be discerned beneath the colluvial cover.

In the main project area and immediately downstream, the main valley floor is underlain by Reid age till (possibly on top of bedrock), and this is in turn overlain by a complex of reworked glaciofluvial gravel, modern alluvium, alluvial fan sediments and colluvium.

The most likely bedrock source of gold is the Keno Hill quartzite, which lies in the canyon above the alluvial fan. Either splay faults within the Keno Hill quartzite, or the thrust faults which mark the boundaries of the unit are mineralized structures which are supplying gold to the local alluvium. This is most evident from the angular, untraveled nature of the placer gold found in the testing of the alluvial fan materials to date. Angular, unworn gold has also been reported from Thunder Gulch, which lies immediately to the north of the canyon (Roots, 1997a). In addition, MINFILE occurrence 105M14 MO (Au-Ag-Pb vein) lies in the saddle dividing Upper Duncan Creek from Thunder Gulch.

Prospective areas for placer gold are spatially-related to the fault-bounded Keno Hill quartzite, especially where this unit crosses the valley and therefore has increased potential to shed gold-bearing bedrock into alluvial or glacial material. Of particular interest is the McConnell age glacial moraine upstream on Upper Duncan Creek, which lies downhill and downstream of the Keno Hill quartzite unit. As documented by Van Loon and Bond (2014), a similar glacial moraine is being mined for placer gold on nearby Granite Creek. Additionally, several E-NE trending mineralized vein-faults (shown on Figure 5) were documented by Wengzynowski (2008), and placer potential exists where these veins have been eroded into nearby drainages.

Conclusions and Recommendations

The resistivity geophysical surveys appeared to define contacts which were traceable from one profile to the next, in cross-valley directions up and down-valley and parallel to the valley along the alluvial fan. Drill hole and test pit calibrations aided in the discernment of contacts in the profiles, however discontinuous permafrost and variable groundwater content added complications to the possible interpretations. More drilling and test pitting along the resistivity profiles will need to be conducted in order to confirm depths to bedrock and other contacts over larger distances.

Figure 29 is a compilation map which shows both surficial geology and bedrock geology, as well as proposed placer exploration targets. The descriptions of Targets 1 to 8 as shown on the map follow:

- 1) Further test pitting is recommended throughout the alluvial fan, specifically near the apex where bedrock is shallowest and placer gold values may increase due to the widening of the valley.
- 2) The paleochannels which roughly spatially coincide on both the ground magnetic survey and the resistivity profiles should be bulk tested, especially where they have apparently been confirmed in the RAB drilling (such as in RAB2016-02). This should be done at locations both upstream and downstream of the alluvial fan.
- 3) The modern alluvial material overlying the Reid till in the main valley may have significant placer gold values, especially at the gravel/till interface, so further testing is recommended in this area.
- 4) The thrust faults cross the main valley of Upper Duncan Creek upstream of the project area. Modern alluvium just downstream of the lowest contact should be tested.
- 5) The lowermost McConnell-age moraine which overlaps portions of the fault-bounded Keno Hill quartzite should be tested;
- 6) Similarly, the uppermost McConnell-age moraine which overlaps portions of the Keno Hill quartzite and its thrust fault boundaries should be tested. If the thrust faults as hypothesized are a source of bedrock gold, the moraines and any reworked gravels derived from them would be prospective for placer gold values.
- 7) Although off-claims, the canyon gravels above the alluvial fan should be bulk tested if the ground is acquired.
- 8) The alluvium on this left limit tributary where the thrust fault traverses the valley should be tested.

Statement of Costs

Table 5 below is a statement of costs for assessment credit on the SAM 1-15 claims. These costs have been filed with the Mayo Mining Recorder.

Table 5 - Statement of Costs, Earth and Iron Inc. Upper Duncan Creek Program, July, 2016.

	Rate	Subtotal	GST	Total	Invoice #
Groundtruth Exploration Inc. Resistivity Geophysical Survey	As per invoice	\$26715.20	\$1335.76	\$28,050.96	UPD2016-03
Groundtruth Exploration Inc. Magnetometer Geophysical Survey	As per invoice	\$2387.70	\$119.39	\$2507.09	UPD2016-04
Total		\$29102.9	\$1455.15	\$30558.05	

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Statement of Qualifications

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.

Dated this 17th day of November, 2016

William LeBarge, P. Geo.



Appendix 1 – Placer Claim and Prospecting Lease Status, Earth and Iron Inc. and affiliates.

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 513512	Placer	Pending	James 1	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513513	Placer	Pending	James 2	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513514	Placer	Pending	James 3	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513515	Placer	Pending	James 4	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513516	Placer	Pending	James 5	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513517	Placer	Pending	James 6	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513518	Placer	Pending	James 7	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513519	Placer	Pending	James 8	Western Heavy Haul Inc. - 100%	7/10/2016	7/13/2016	11/30/2018	Mayo
P 513520	Placer	Pending	James 9	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513521	Placer	Pending	James 10	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513522	Placer	Pending	James 11	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513523	Placer	Pending	James 12	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513524	Placer	Pending	James 13	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513525	Placer	Pending	James 14	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513526	Placer	Pending	James 15	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 513527	Placer	Pending	James 16	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513528	Placer	Pending	James 17	Western Heavy Haul Inc. - 100%	7/11/2016	7/13/2016	11/30/2018	Mayo
P 513540	Placer	Pending	James 18	Western Heavy Haul Inc. - 100%	7/13/2016	7/15/2016	11/30/2018	Mayo
P 513724	Placer	Pending	James 19	Dean Gray - 100%	9/11/2016	9/12/2016	9/12/2017	Mayo
P 513529	Placer	Pending	Lindsey 1	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513530	Placer	Pending	Lindsey 2	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513531	Placer	Pending	Lindsey 3	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513532	Placer	Pending	Lindsey 4	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513533	Placer	Pending	Lindsey 5	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513534	Placer	Pending	Lindsey 6	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513535	Placer	Pending	Lindsey 7	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513536	Placer	Pending	Lindsey 8	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513537	Placer	Pending	Lindsey 9	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513538	Placer	Pending	Lindsey 10	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513539	Placer	Pending	Lindsey 11	Earth & Iron Projects Inc. - 100%	7/13/2016	7/13/2016	11/30/2018	Mayo
P 513541	Placer	Pending	JLSJ 1	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513542	Placer	Pending	JLSJ 2	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 513543	Placer	Pending	JLSJ 3	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513544	Placer	Pending	JLSJ 4	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513545	Placer	Pending	JLSJ 5	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513546	Placer	Pending	JLSJ 6	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513547	Placer	Pending	JLSJ 7	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513548	Placer	Pending	JLSJ 8	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513549	Placer	Pending	JLSJ 9	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513550	Placer	Pending	JLSJ 10	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513551	Placer	Pending	JLSJ 11	Earth & Iron Inc. - 100%	7/14/2016	7/15/2016	11/30/2018	Mayo
P 513580	Placer	Pending	Stuart 1	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513581	Placer	Pending	Stuart 2	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513582	Placer	Pending	Stuart 3	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513583	Placer	Pending	Stuart 4	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513584	Placer	Pending	Stuart 5	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513585	Placer	Pending	Stuart 6	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513586	Placer	Pending	Stuart 7	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513587	Placer	Pending	Stuart 8	Earth & Iron Inc. - 100%	7/12/2016	7/22/2016	11/30/2018	Mayo
P 513588	Placer	Pending	Stuart 9	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513589	Placer	Pending	Stuart 10	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513590	Placer	Pending	Stuart 11	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513591	Placer	Pending	Stuart 12	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513592	Placer	Pending	Stuart 13	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513593	Placer	Pending	Stuart 14	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513594	Placer	Pending	Stuart 15	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513595	Placer	Pending	Stuart 16	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513596	Placer	Pending	Stuart 17	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513597	Placer	Pending	Stuart 18	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo
P 513598	Placer	Pending	Stuart 19	Earth & Iron Inc. - 100%	7/14/2016	7/22/2016	11/30/2018	Mayo

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 513723	Placer	Pending	Stuart 0 0	Dean Gray - 100%	9/11/2016	9/12/2016	9/12/2017	Mayo
P 513632	Placer	Pending	L.J. 0	Ashliegh Gray - 100%	8/5/2016	8/5/2016	11/30/2018	Mayo
P 513633	Placer	Pending	L.J. 2	Earth & Iron Inc. - 100%	8/5/2016	8/5/2016	11/30/2018	Mayo
P 513635	Placer	Pending	Jimmy	Earth & Iron Inc. - 100%	8/11/2016	8/22/2016	11/30/2018	Mayo
P 513728	Placer	Pending	Jillian 1	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513729	Placer	Pending	Jillian 2	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513730	Placer	Pending	Jillian 3	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513731	Placer	Pending	Jillian 4	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513732	Placer	Pending	Jillian 5	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513733	Placer	Pending	Jillian 6	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513734	Placer	Pending	Jillian 7	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513735	Placer	Pending	Jillian 8	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513736	Placer	Pending	Jillian 9	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513737	Placer	Pending	Jillian 10	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513738	Placer	Pending	Jillian 11	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513739	Placer	Pending	Jillian 12	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513740	Placer	Pending	Jillian 13	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513741	Placer	Pending	Jillian 14	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513742	Placer	Pending	Jillian 15	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513743	Placer	Pending	Jillian 16	Dean Gray - 100%	9/14/2016	9/15/2016	11/30/2018	Mayo
P 513776	Placer	Pending	Key 1	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 513777	Placer	Pending	Key 2	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 513778	Placer	Pending	Key 3	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 513779	Placer	Pending	Key 4	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 513780	Placer	Pending	Key 5	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 513781	Placer	Pending	Key 6	Earth & Iron Inc. - 100%	11/1/2016	11/4/2016	11/4/2017	Mayo
P 514448	Placer	Active	Sam 1	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514449	Placer	Active	Sam 2	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 514450	Placer	Active	Sam 3	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514451	Placer	Active	Sam 4	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514452	Placer	Active	Sam 5	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514453	Placer	Active	Sam 6	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514454	Placer	Active	Sam 7	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514455	Placer	Active	Sam 8	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514456	Placer	Active	Sam 9	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514457	Placer	Active	Sam 10	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514458	Placer	Active	Sam 11	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514459	Placer	Active	Sam 12	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514460	Placer	Active	Sam 13	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514461	Placer	Active	Sam 14	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 514462	Placer	Active	Sam 15	Earth & Iron Inc. - 100%	7/10/2015	7/13/2015	11/30/2018	Mayo
P 513725	Placer	Pending	Sam 2 16	Ashleigh Gray - 100%	8/28/2016	9/12/2016	9/12/2017	Mayo
P 513726	Placer	Pending	Sam 2 17	Darren Gray - 100%	8/28/2016	9/12/2016	9/12/2017	Mayo
P 513727	Placer	Pending	Sam 2 18	Dean Gray - 100%	8/28/2016	9/12/2016	9/12/2017	Mayo
P 514748	Placer	Active	Izzie 1	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514749	Placer	Active	Izzie 2	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514750	Placer	Active	Izzie 3	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514751	Placer	Active	Izzie 4	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514752	Placer	Active	Izzie 5	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514753	Placer	Active	Izzie 6	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514754	Placer	Active	Izzie 7	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514755	Placer	Active	Izzie 8	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514756	Placer	Active	Izzie 9	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514757	Placer	Active	Izzie 10	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514758	Placer	Active	Izzie 11	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514759	Placer	Active	Izzie 12	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo

GRANT NUMBER	TENURE	STATUS	CLAIM NAME	OWNER	STAKING DATE	RECORDED DATE	EXPIRY DATE	DISTRICT
P 514760	Placer	Active	Izzie 13	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514761	Placer	Active	Izzie 14	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514762	Placer	Active	Izzie 15	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514763	Placer	Active	Izzie 16	Earth & Iron Inc. - 100%	4/4/2016	4/5/2016	11/30/2018	Mayo
P 514765	Placer	Active	Gray 1	Western Heavy Haul Inc. - 100%	4/22/2016	4/22/2016	11/30/2018	Mayo
P 514766	Placer	Active	Gray 2	Earth & Iron Inc. - 100%	4/22/2016	4/22/2016	11/30/2018	Mayo
P 514767	Placer	Active	Gray 3	Earth & Iron Projects Inc. - 100%	4/22/2016	4/22/2016	11/30/2018	Mayo
P 514768	Placer	Active	Gray 4	Susan Gray - 100%	4/22/2016	4/22/2016	4/22/2018	Mayo
P 514769	Placer	Active	Gray 5	Jillian Gray - 100%	4/22/2016	4/22/2016	4/22/2018	Mayo
P 514770	Placer	Active	Gray 6	Earth & Iron Inc. - 100%	4/22/2016	4/22/2016	11/30/2018	Mayo
P 514771	Placer	Active	Gray 7	Western Heavy Haul Inc. - 100%	4/22/2016	4/22/2016	11/30/2018	Mayo

Grant number	Tenure	Status	Length	Owner	Staking Date	Recorded Date	Expiry Date	District
IM00325	Prospecting lease	Pending	2 MILES	Dean Gray - 100%	9/11/2016	9/12/2016	9/12/2017	Mayo
IM00326	Prospecting lease	Pending	1 MILE	Elizabeth (Liz) Gardner - 100%	9/16/2016	9/19/2016	9/19/2017	Mayo
IM00327	Prospecting lease	Pending	2 MILES	Jillian Gray - 100%	9/21/2016	9/21/2016	9/21/2017	Mayo
IM00332	Prospecting lease	Pending	4 MILES	Larry Bauman - 100%	9/16/2016	9/19/2016	9/19/2017	Mayo
IM00328	Prospecting lease	Pending	2 MILES	Susan Gray - 100%	9/21/2016	9/21/2016	9/21/2017	Mayo
IM00319	Prospecting lease	Pending	3 MILES	Western Heavy Haul Inc. - 100%	7/21/2016	7/21/2016	7/21/2017	Mayo
IM00331	Prospecting lease	Pending	5 MILES	Earth & Iron Projects Inc. - 100%	9/16/2016	9/19/2016	9/19/2017	Mayo
IM00330	Prospecting lease	Pending	5 MILES	Earth & Iron Inc. - 100%	9/16/2016	9/19/2016	9/19/2017	Mayo
IM00329	Prospecting lease	Pending	3 MILES	Dean Gray Enterprises Ltd. - 100%	9/16/2016	9/19/2016	9/19/2017	Mayo
IM00307	Prospecting lease	Pending	5 MILES	Stuart Gray - 100%	7/9/2016	7/13/2016	7/13/2017	Mayo

Appendix 2 - RAB Placer Drill Logs

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415001	2.5	5	10	Dry	Brownish yellow, soil with mixed gravel
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415002	5	7.5	15	Dry	Brownish yellow, soil with mixed gravel
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415003	7.5	10	15	Dry	Brownish yellow, soil with mixed gravel
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415004	10	12.5	15	Dry	Brownish yellow, soil with mixed gravel
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415005	12.5	15	20	Dry	Grey/Brown with streaks of cream colour, change in colour to red layer part way through sample, multiple layers of colour, mixed gravel with soil
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415006	15	17.5	20	Damp	Greyish Blue in colour, mixed rock cuttings with some schist intervals
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415007	17.5	20	18	Damp	Greyish Blue with cream colour intervals, mixed gravel cuttings. Some clay present
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415008	20	22.5	20	Damp	Greyish Blue, multiple changes in cuttings from quartzite to schist with mixed rock layers
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415009	22.5	25	20	Damp	Dark grey, mixed gravel with soil and some clay

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415010	25	27.5	15	Damp	Dark Grey with streak of cream colour part way through sample. Mixed gravel with quartzite and schist cuttings.
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415011	27.5	30	12	Dry	Greyish Blue in colour, mixed gravel with soil
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415012	30	32.5	10	Dry	Greyish Blue, mixed cuttings with soil and some clay
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415013	32.5	35	8	Dry	Greyish brownish in colour, mixed gravel with soil and some clay
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415014	35	37.5	10	Damp	Grey brown in colour, mixed gravel or till with soil and clay.
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415015	37.5	40	12	Damp	Greyish blue, mixed gravel with clay
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415016	40	42.5	20	Dry	Greyish blue in colour mixed gravel. End of sample is possible bedrock due to change in consistency.
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415017	42.5	45	20	Dry	Greyish brownish in colour, angular cuttings with schist
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415018	45	47.5	20	Dry	Colour change to reddish brown, possibly bedrock due to high volume of sample with schist cuttings.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415019	47.5	50	20	Dry	Consistent color of light reddish brown, cuttings of schist and quartzite. Bedrock interface.
UPD	2016-07-13	16UPD001	1	Tom Griffiths TG01	1415020	50	52.5	20	Dry	Consistent with previous samples colour light brown to cream. Bedrock interface. End of Run
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415022	2.5	5	10	Dry	Dark brown soil with gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415023	5	7.5	15	Dry	Dark brown soil with gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415024	7.5	10	12	Dry	Dark brown soil with gravel and some clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415025	10	12.5	15	Dry	Greyish brown soil with some gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415026	12.5	15	15	Dry	Greyish brown soil with gravel and some clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415027	15	17.5	15	Dry	Dark Grey soil with some gravel and clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415028	17.5	20	10	Dry	Greyish brown soil with gravel and some clay present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415029	20	22.5	15	Dry	Dark Grey mixed gravel

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415030	22.5	25	15	Dry	Grey mixed gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415031	25	27.5	15	Dry	Dark Grey mixed gravel with clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415032	27.5	30	15	Dry	Dark Grey mixed gravel with clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415033	30	32.5	15	Dry	Dark Grey mixed gravel with clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415034	32.5	35	5	Dry	Grey Mixed gravel quartz present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415035	35	37.5	20	Damp	Grey mixed gravel with clay
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415036	37.5	40	20	Damp	Mixed gravel with clay. Quartz present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415037	40	42.5	15	Dry	Mixed gravel quartz present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415038	42.5	45	20	Dry	Mixed gravel with clay quartz present. Pink gravel present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415039	45	47.5	15	Dry	Mixed gravel with clay. Quartz present. Pink gravel present

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415040	47.5	50	5	Wet	Mixed gravel with clay. Quartz present
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415041	50	52.5	7	Dry	Water present. Dark grey gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415042	52.5	55	15	Dry	Water present. Grey mixed gravel
UPD	2016-07-13	16UPD002	2	Tom Griffiths TG01	1415043	55	57.5	15	Wet	Water present. Schist bedrock
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415076	2.5	5	15	Damp	Dark brown in colour with mixed rock and gravel. Soil and clay mix
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415077	5	7.5	15	Damp	Dark brown in colour with mixed rock and gravel with soil and clay
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415078	7.5	10	15	Damp	Dark brown in colour with mixed rock and gravel with soil and clay mix, colour change half way through sample to light brown or cream in colour
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415079	10	12.5	15	Damp	Light brown in colour with mixed rock and gravel with soil and clay mix
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415080	12.5	15	20	Damp	Light brown in colour with mixed rock and gravel with soil and clay mix. Color change to dark brown at end of sample

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415081	15	17.5	20	Damp	Dark Grey mixed gravel with clay colour change at end of sample to light brown
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415082	17.5	20	20	Damp	Dark Grey with blueish hues, mixed gravel with soil and clay mix
UPD	2016-07-13	16UPD003	3	Chris Miller CM02	1415083	20	22.5	20	Damp	Light brown in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415084	22.5	25	20	Dry	Dark brown in colour with mixed rock and gravel with soil and clay mix. Color change to light brown at end of sample
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415085	25	27.5	20	Damp	Light brown in colour with mixed rock and gravel with soil and clay mix. Color change to dark grey at end of sample
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415086	27.5	30	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415087	30	32.5	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415088	32.5	35	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415089	35	37.5	20	Damp	Dark Grey to blackish blue in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415090	37.5	40	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415091	40	42.5	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415092	42.5	45	20	Damp	Dark Grey with blueish hues, mixed gravel cuttings with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415093	45	47.5	20	Damp	Dark Grey to blackish blue in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415094	47.5	50	20	Wet	Wet mud with clay mix. Brown in colour.
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415095	50	52.5	20	Wet	Wet mud with gravel and rock mix, clay and soil mix. Low sample recovery added water to casing to blow out mud ring and cuttings to improve sample recovery. (W. LeBarge note: although not stated here, this is the bedrock contact)
UPD	2016-07-14	16UPD003	3	Chris Miller CM02	1415096	52.5	55	15	Wet	Wet mud with clay particulate. Small sample size used water to rods and casing to increase sample size.
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415097	2.5	5	7	Dry	Dark brown soil with some clay
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415098	5	7.5	7	Damp	Dark brown soil with some clay and rock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415099	7.5	10	7	Damp	Dark brown soil with some clay and rock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415100	10	12.5	10	Dry	Dark brown soil with some clay and rock

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415101	12.5	15	10	Damp	Dark brown soil with some clay and rock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415102	15	17.5	10	Dry	Dark brown soil with some clay and rock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415103	17.5	20	20	Wet	Water present. Brown soil with mixed gravel. Light and dark grey rock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415104	20	22.5	15	Dry	Water present. Dark brown soil with mixed gravel.
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415105	22.5	25	20	Wet	Water present. Brown soil with some clay and mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415106	25	27.5	15	Dry	Water present. Brown soil with mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415107	27.5	30	15	Dry	Water present. Brown soil with mixed gravel. Quartz present
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415108	30	32.5	10	Dry	Water present. Brown soil with mixed gravel.
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415109	32.5	35	35	Dry	mixed gravel. Water present
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415110	35	37.5	30	Wet	Water present. Mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415111	37.5	40	40	Dry	Mixed gravel. Water present
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415112	40	42.5	30	Wet	Water present. Mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415113	42.5	45	30	Dry	Water present. Mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415114	45	47.5	10	Wet	Water present. Mixed gravel.
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415115	47.5	50	8	Wet	Water present. Mixed gravel.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415116	45	50	10	Wet	Water present. Mixed gravel
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415117	52.5	55	20	Dry	Bedrock
UPD	2016-07-14	16UPD004	4	Chris Miller CM02	1415118	55	57.5	12	Dry	Bedrock
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415226	2.5	5	7	Damp	Dark brown in colour with mixed rock and gravel with soil and clay mix. Begins to encounter water
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415227	5	7.5	7	Wet	Dark brown in colour with mixed rock and gravel with soil and clay. Water encounter
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415228	7.5	10	7	Wet	Dark brown in colour with mixed rock and gravel with soil and clay mix. Water encountered.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415229	10	12.5	10	Wet	Dark brown in colour with mixed rock and gravel with soil and clay mix. Water encountered
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415230	12.5	15	12	Wet	Dark brown in colour with mixed rock and gravel with soil and clay mix. Water encountered.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415231	15	17.5	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415232	17.5	20	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415233	20	22.5	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415234	22.5	25	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415235	25	27.5	20	Wet	Water encountered. Dark brown to grey mixed gravel with rock and soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415236	27.5	30	20	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415237	30	32.5	20	Wet	Dark brown in colour with mixed rock and gravel with soil and clay mix. Water encountered
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415238	32.5	35	20	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1416239	35	37.5	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415240	37.5	40	20	Damp	Dark Grey in colour with mixed rock and gravel with soil and clay mix.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415241	40	42.5	20	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415242	42.5	45	10	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Additional water was add to aid in sample recovery.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415243	45	47.5	20	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415244	47.5	50	20	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered in large amounts.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415245	50	52.5	40	Wet	Dark Grey in colour with mixed rock and gravel with soil and clay mix. Water encountered.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415246	52.5	55	40	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415247	55	57.5	35	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered large volumes.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415248	57.5	60	35	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415249	60	62.5	20	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415250	62.5	65	20	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts. Possible bedrock interface.

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415051	65	67.5	20	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts. Possible bedrock interface.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415052	67.5	70	20	Wet	Dark brown in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts. Possible bedrock interface.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415053	70	72.5	20	Wet	Dark brown in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts. Possible bedrock interface
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415054	72.5	75	20	Wet	Dark Grey in colour with mixed rock and gravel with sand and clay mix. Water encountered in large amounts. bedrock interface.
UPD	2016-07-15	16UPD005	5	Chris Miller CM02	1415055	75	77.5	20	Wet	Dark Grey in colour with mixed rock cuttings of schist and Quartzsite with some clay and sand mix. Water encountered in large amounts. Bedrock interface. End of run
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424751	2.5	5	7	Dry	Brown soil with mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424752	5	7.5	7	Damp	Brown soil with mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424753	7.5	10	10	Damp	Mixed gravel

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424754	10	12.5	10	Dry	Mixed gravel. Brownish Grey
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424755	12.5	15	10	Damp	Brownish Grey mixed gravel. Some water present. Some clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424756	15	17.5	10	Damp	Brownish Grey mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424757	17.5	20	10	Damp	Brownish Grey mixed gravel with clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424758	20	22.5	10	Damp	Mixed gravel with clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424759	22.5	25	10	Dry	Mixed gravel with clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424760	25	27.5	10	Dry	Dark brown mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424761	27.5	30	10	Damp	Mixed gravel with clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424762	30	32.5	10	Damp	Sand with some mixed gravel and clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424763	32.5	35	15	Damp	Sand with mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424764	35	37.5	15	Dry	Sand with some mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424765	37.5	40	20	Dry	Sand with mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424766	40	42.5	20	Dry	Sand with mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424767	42.5	45	10	Dry	Mixed gravel with some sand
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424768	45	47.5	10	Dry	Mixed gravel with sand
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424769	47.5	50	10	Dry	Sand and gravel with some clay

Project	Date	Hole ID	Hole #	Technician	Sample ID	From ft.	To ft.	Recovery Litres	Sample Condition	Remarks
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424770	50	52.5	10	Dry	Sand and clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424771	52.5	55	10	Dry	Brownish Grey clay. Some mixed gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424772	55	57.5	15	Dry	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424773	57.5	60	10	Dry	Clay with some gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424774	60	62.5	10	Dry	Clay with some gravel
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424775	62.5	65	20	Damp	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424776	65	67.5	20	Damp	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424777	67.5	70	20	Damp	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424778	70	72.5	20	Dry	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424779	72.5	75	10	Damp	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424780	75	77.5	5	Dry	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424781	77.5	80	20	Damp	Clay
UPD	2016-07-16	16UPD006	6	Chris Miller CM02	1424782	80	82.5	5	Damp	Clay (W. LeBarge note: lost hole)