

Ministry of Energy and Mines
BC Geological Survey

Assessment Report
Title Page and Summary

TYPE OF REPORT [type of survey(s)]: Geophysical Modeling

TOTAL COST: \$15,037.42

AUTHOR(S): Jacques Houle, P.Eng.

SIGNATURE(S): 

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): MX-8-231

YEAR OF WORK: 2017

STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 5661489, 5670471, 5670605

PROPERTY NAME: Jasper

CLAIM NAME(S) (on which the work was done): 342740, 546913, 546919, 546921, 546926, 546927, 546930, 546931, 546932

COMMODITIES SOUGHT: Cu,Pb,Zn,Ag,Au

MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092C037, -080, -081, -088, -174, -175, -176, -243, -254, -256

MINING DIVISION: Victoria

NTS/BCGS: 092C15E / 092C088

LATITUDE: 48 ° 50 '12 " LONGITUDE: 124 ° 35 '3 " (at centre of work)

OWNER(S):

1) Nitinat Minerals Corporation

2)

MAILING ADDRESS:

70 York Street, Suite 1710

Toronto, Ontario M5J 1S9

OPERATOR(S) [who paid for the work]:

1) Nitinat Minerals Corporation

2)

MAILING ADDRESS:

70 York Street, Suite 1710

Toronto, Ontario M5J 1S9

PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude):

intermediate volcanics, felsic volcanics, mafic volcanics, basalt, andesite, basaltic andesite, dacite, rhyodacite, lapilli tuff, crystal tuff, massive, breccia, granodiorite, quartz diorite, stocks, Triassic, Jurassic, volcanogenic massive sulphides, epithermal veins, quartz-calcite-sulphide veins, fiammi, flow banding, shearing, foliation, silica, calcite, chlorite, epidote, hematite, magnetite, pyrite, chalcopyrite, sphalerite, galena

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 642,2163,3025,3649,3671,5857,5965,10388, 11196,12260,12530,13916,16700,16813,17105,24087,24232,24716,25863,26467,26798,27088,27322,27657,29659,30452,31000

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
GEOLOGICAL (scale, area)			
Ground, mapping	_____		
Photo interpretation	_____		
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic	_____		
Electromagnetic	_____		
Induced Polarization	_____		
Radiometric	_____		
Seismic	_____		
Other Mag. & EM Modeling and Inversion (6615 ha)		all claims pre-reductions/abandonment	\$15,037.42
Airborne	_____		
GEOCHEMICAL (number of samples analysed for...)			
Soil	_____		
Silt	_____		
Rock	_____		
Other	_____		
DRILLING (total metres; number of holes, size)			
Core	_____		
Non-core	_____		
RELATED TECHNICAL			
Sampling/assaying	_____		
Petrographic	_____		
Mineralographic	_____		
Metallurgic	_____		
PROSPECTING (scale, area)			
PREPARATORY / PHYSICAL			
Line/grid (kilometres)	_____		
Topographic/Photogrammetric (scale, area)	_____		
Legal surveys (scale, area)	_____		
Road, local access (kilometres)/trail	_____		
Trench (metres)	_____		
Underground dev. (metres)	_____		
Other	_____		
		TOTAL COST:	\$15,037.42

**2017 Assessment Report for
Geophysical Modeling**

June 2017 – October 2017

On the

Jasper Property

Victoria Mining Division

**BCGS 092C088
NTS 092C/15E**

UTM Zone 10N 5410500N 383750E

For

Nitinat Minerals Corporation

70 York Street, Suite 1710, Toronto, Ontario M5J1S9

Report written by

Jacques Houle, P.Eng.

Mineral Exploration Consulting

6552 Peregrine Road, Nanaimo, B.C. V9V 1P8

October 25, 2017



October 25 2017

Contents

	Page
Introduction	
Property location, access and physiography	3
Property definition, owner, operator, geology and history	3
List of claims and work completed	6
Technical data, interpretation, conclusions and recommendations	7
Author's Qualifications	10
References	11
Tables:	
Table 1 – Cell Mineral Claims & Status as of October 25, 2017	4
Table 2 – Proposed Work Program for the Jasper Property	9
Figures:	
Jasper Property Location – MTO Map – 1:1,000,000 scale	Figure 1
Jasper Property Location – MTO Map – 1:100,000 scale	Figure 2
Jasper Property Infrastructure – MapPlace – 1:100,000 scale	Figure 3
Jasper Property BC MINFILE – MapPlace – 1:100,000 scale	Figure 4
Jasper Property RGS Gold – MapPlace - 1:100,000 scale	Figure 5
Jasper Property RGS Silver – MapPlace – 1:100,000 scale	Figure 6
Jasper Property RGS Copper – MapPlace – 1:100,000 scale	Figure 7
Jasper Property RGS Lead – MapPlace – 1:100,000 scale	Figure 8
Jasper Property RGS Zinc – MapPlace – 1:100,000 scale	Figure 9
Jasper Property RGS Moly – MapPlace - 1:100,000 scale	Figure 10
Jasper Property BCGS 2005 Geology – MapPlace – 1:100,000	Figure 11
Jasper Property Aeromagnetics – MapPlace – 1:100,000 scale	Figure 12
Jasper Property Residual Ttl. Mag. Field – MapPlace – 1:100,000	Figure 13
Jasper Property 1 st Vert. Deriv. Aeromag.– MapPlace. – 1:100,000	Figure 14
Jasper Main Grid 2004-2010 Gold in Soils – 1:10,000 scale	Figure 15
Jasper Main Grid 2004-2010 Silver in Soils – 1:10,000 scale	Figure 16
Jasper Main Grid 2004-2010 Copper in Soils – 1:10,000 scale	Figure 17
Jasper Main Grid 2004-2010 Lead in Soils – 1:10,000 scale	Figure 18
Jasper Main Grid 2004-2010 Zinc in Soils – 1:10,000 scale	Figure 19
Jasper Main Grid 2004-2010 Moly in Soils – 1:10,000 scale	Figure 20
Jasper Main Grid 2008 Total Magnetic Intensity (RTP) – 1:10,000	Figure 21
Jasper Main Grid 2008 Tilt Deriv. of Ttl. Mag. Intensity – 1:10,000	Figure 22
Jasper Main Grid 2008 Aerotem Z0 Off-time – 1:10,000 scale	Figure 23
Jasper Main Grid 2017 Compilation Map – 1:10,000 scale	Figure 24
Jasper Main Grid 2017 Proposed Drill Sites – 1:10,000 scale	Figure 25
Appendices:	
2015 Jasper Geophysical Interpretation Report	Appendix 1
2015 Assessment Cost Data	Appendix 2
2015 Title Data	Appendix 3

Introduction

Property location, access and physiography

The Jasper Property claims are in the Victoria Mining Division, west-central Vancouver Island, BC, Canada, as shown in Figures 1 and 2. The Property is approximately 80 kilometres northwest of Victoria and is centered at latitude 48° 50' and longitude 124° 35' in NTS 092C 15E or BCGS 092C 088. The southern portion of the claims overlie most of Four Mile Creek and its tributaries, which flow south to the Caycuse River. The northern portion of the claims overlie most of Jasper Creek, Granite Creek, and their tributaries which flow northwest into the Nitinat River.

Steep incised drainages with rugged relief to approximately 300 meters characterize the physiography of the area. Much of the region has been logged in recent years and young second growth forest and logging roads occur over most of the claims, shown in Figure 3. Climatic conditions are temperate with abundant rainfall in fall, winter and spring. Snow is seasonally present on the upper elevations during the period of mid-December to mid-February. Summer conditions can be dry and hot from mid-July to the end of August. Local temporary closures of the woods may occur during times of extreme forest fire danger. Generally, mild West Coast climatic conditions allow for a long exploration field season.

All weather logging road access is from the north via Port Alberni, approximately 45 kilometres, or from the east via Cowichan Lake (25 kilometres) and Duncan (50 kilometres) with driving times of about 90 minutes from either Port Alberni or Duncan to the Property. The Jasper Creek and Granite logging roads access the northern portion of the Property and Caycuse Main the southern portion. The Jasper and Granite roads have been partially deactivated and helicopter or foot access is currently required to access much of the northern property, including the Jasper Showing. Caycuse Main logging road from Lake Cowichan was recently made inaccessible to motor vehicles by a landslide in 2013 or 2014 which washed out a bridge on the southern part of the property, and helicopter or foot access is currently required to access the Pan Showing and all the Main Grid area of the property.

Property definition, owner, operator, geology and history

The Jasper Property consists of the Jas 3 legacy mineral claim and eight un-named cell mineral claims that together comprise nine contiguous claims which cover 3978 hectares (Table 1 - Mineral Title Status). The Property is 100% owned and operated by Nitinat Minerals Corporation., Free Miners License No. 232291. The Jasper Property is subject to a purchase agreement dated December 1, 2007 whereby Nitinat acquired 100% interest in the Property from Inspiration in exchange for special warrants. The Jas 3 legacy mineral claim is in good standing until August 25, 2022, seven cell mineral claims until August 25, 2019 and cell mineral claim 546913 until June 6, 2018.

The surface rights over the mineral claims of the Jasper Property are held by the B.C. government as crown land. Crown timber licenses over much of the Property are held by various logging companies. Indian Reserves of the Dididat First Nation are situated

along the mouths of the Nitinat and Caycuse Rivers where they drain into Nitinat Lake, northwest and southwest of the Property respectively. A No Staking Reserve extends from these reserves along the northern and western boundaries of the Jasper Property.

Table 1 – Jasper Mineral Claims Title Status

Title Number	Claim Name	Owner	Title Type	Issue Date	Good To Date	Status	Area (ha)
342740	JAS 3	232921 (100%)	Mineral	1995/DEC/19	2022/AUG/25	GOOD	300
546913		232921 (100%)	Mineral	2006/DEC/08	2018/JUN/06	GOOD	1743.823
546919		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	148.78
546921		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	233.8995
546926		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	63.8048
546927		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	42.5453
546930		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	425.2334
546931		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	488.8157
546932		232921 (100%)	Mineral	2006/DEC/08	2019/AUG/25	GOOD	531.1546
Totals	9 claims						3978.056

The Jasper Property is hosted in a belt of rocks mapped as upper Triassic to lower Jurassic Bonanza group, shown in Figure 12. The belt trends southeasterly from Nitinat Lake through Gordon River, south of Cowichan Lake. The Bonanza belt is flanked to the west and east by Paleozoic Sicker Group rocks which host the economically important Myra Falls Massive Sulphide district located approximately 120 kilometres to the northwest, and the Lara Massive Sulphide district located approximately 50 kilometres to the east, respectively. Geophysical signatures for the area are shown in Figures 12 -14.

The Bonanza Group in the area of the Jasper Property consists of a variety of maroon to gray-green, feldspar phyric basalt and andesite flows and dacite and felsic lapilli tuff containing various minor gabbro, andesite and dacite dykes. There is a lack of lithological continuity and distinct marker beds are absent. In the basal part of the sequence, sedimentary rocks are found interbedded with lapilli and crystal tuffs, indicating a sub-aqueous environment. It may be significant that work in 2005-06 by G.T. Nixon of the B.C. Geological Survey ("BCGS") has proposed this same geological horizon in northern Vancouver Island as a favourable setting for volcanogenic massive sulphide deposits.

Granodiorite Island Intrusion stocks surround the Jasper Property, and are mapped in the northeast portions of the property. The coeval stocks are regular to elongate in shape with steep sides, and are generally exposed as rounded outcrops. The major lithology is granodiorite to quartz-diorite and most of the stocks are rich in mafic inclusions, particularly in marginal zones where magmatic intrusive breccias occur.

Numerous RGS anomalies and MINFILE occurrences are found in the Alberni-Cowichan area and both porphyry and VMS styles of mineralization have been reported by BCGS geologists, shown in Figures 4 to 10. Porphyry style Cu-Mo occurrences are commonly associated with high level sub-volcanic dykes and sills belonging to the Island Intrusion or Catface intrusive suites. The Lara VMS belt occurs in the eastern portion of the region hosted in rocks mapped as Sicker Group. Massey and Friday (BCGS) note VMS mineral potential where reported "sulphidic argillites are found interbedded with tuffs" in the basal part of the Bonanza sequence in the Alberni - Cowichan area.

No Property scale geologic map has been compiled for the various MINFILE occurrences from the detailed mapping that has been done on a local scale by various companies over the years. A compilation of this nature goes beyond the scope of this technical report and would best be done by correlation of geologic units with 2015 mapping information and inputting data into a GIS spatial database system.

From historical mapping, the Property geological setting can be described as follows:

The Jasper Property is mainly underlain by mafic to felsic volcanic rocks that have been previously mapped as Bonanza group. The north-central portion of the Property (Jasper showing) is underlain by a northwest trending sequence of intermediate flows and flow breccias that are flanked to the east by mafic flows. Units appear to have a moderate dip to the southwest. A wedge-shaped body of felsic volcanic flows overlies the mafic rocks to the east. Felsite dykes intrude the intermediate and mafic volcanics, some of which may be feeders to the younger felsic flows. The intermediate and mafic flows and flow breccias are massive and bedding orientation is impossible to determine. Minor thin intercalations of pyritic argillite are present locally within the volcanic sequence.

The central and southern portions of the Property (Jasper 1, Tam 16, South Four Mile Creek, Camp View, Camp Creek, South Camp Creek Road and Pan showings) are underlain by mafic and intermediate volcanic sequences. Felsic volcanics occur at higher elevations on the eastern portion of the claims. Local foliation is oriented north-south. Within the alteration zone, protoliths are obliterated in macroscopic outcrop scale and individual units are difficult to correlate and map.

The northeast portions of the Property (Avallin prospect and Tenas and Gillespie showings) are sequentially underlain by Triassic Vancouver Group rocks consisting of mafic volcanics, tuffs and breccias of the Triassic Karmutsen Formation, limestone of the Quatsino Formation, and black argillites of the Parson Bay Formation. All rocks are highly folded, faulted and intruded by lower Jurassic intermediate to mafic dykes that are coeval with the Bonanza volcanics and by felsite dykes, either Jurassic or younger.

An apparent major fault suture cuts Vancouver Island from the mouth of the Carmanah River on the West Coast to Parksville on the East. All the MINFILE occurrences lie along this major fault structure. A north trending gossanous alteration zone with a strike length greater than four kilometers underlies the Jasper Property along the fault from the Caycuse Creek drainage in the south to the Nitinat Valley in the north. The alteration zone is characterized by moderate to intense argillization and silicification accompanied by ubiquitous pyrite flooding. The alteration zone is generally concordant with the foliation and stratigraphy throughout its strike length. Based on the huge volume of intensely altered rock present, a very major period of hydrothermal activity has taken place along the strike length of the system. The Main Grid area is partially underlain by the intense alteration zone. In the Pan area, ferricrete and locally thick till commonly overlie the alteration zone and have the effect of "masking" residual soil anomalies.

Steeply dipping, cross cutting, north trending fractures, shears and fault gouge zones are prevalent within the alteration zone and form the recessive valley containing Four Mile Creek. Coincident narrow fault and fracture zones often emanate as a conjugate set at right angles to the main north trending fault system and control second order drainages that are the side creeks of the main Four Mile Creek drainage system.

Offsets of all structures are not known as units had not been mapped across structures until 2015. Local brittle faulting commonly causes minor offsets to massive sulphide lenses in outcrop at the Jasper Showing.

Approximately twelve Cu, Zn +/- Pb, Ag, Au sulphide showing areas had been relocated or discovered, and sampled by the Arnex/Inspiration programs carried out between 1994 and 2004 (Birkeland, 2004 ARIS 27657). The two showings of principal interest in the central portion of the Property are the Jasper Showing (MINFILE 092C080) and the Pan Showing (MINFILE 092C088). In 2007, Inspiration completed geochronology work (Houle, 2008 ARIS 29659) establishing the Jurassic age of sulphide mineralization at Jasper. In 2008, Inspiration completed a magnetic and electro-magnetic airborne geophysical survey over the Jasper Property (Houle, 2008 ARIS 30452), shown in Figures 21 to 23. In 2010, airborne geophysical anomalies were prospected, an additional copper skarn showing was relocated and sampled (Avallin MINFILE 092C 037), and additional new Cu, Zn +/-Pb, Ag, Au sulphide showings were discovered and sampled (Burgert and Houle, 2010 ARIS 31908), and soil geochemistry coverage of the Main Grid area started in the early 2000's was completed, shown in Figures 15 to 20. In 2011 mechanized trenching and detailed geological mapping and rock chip sampling was completed at four road-accessible sulphide showings, and a three-hole 162 metre definition diamond drilling program was completed at the Pan South Showing (Houle, 2011 ARIS 32906). In 2015, detailed 1:2000 scale GPS grid-based geological mapping and concurrent whole rock litho-geochemical sampling was completed over the Main Grid Area, a new Zn +/- Cu, Pb, Ag, Au, Cd, Te, Bi massive sulphide occurrence (Zincy) in subcrop was discovered and sampled (Houle, 2015 ARIS 35671).

This reports documents all the work completed in 2017, and includes some data from earlier work programs, shown where appropriate.

List of claims and work completed

From June 12 to August 31, 2017 intermittently the author, Jacques Houle P.Eng., researched, established, executed and documented a strategy to maintain the core portion of the Jasper Property in good standing for Nitinat Minerals Corp. Since Nitinat currently lacked sufficient funding to complete any portion of the diamond drilling program recommended in the 2015 technical assessment report, it was determined that modeling and inversion of the 2008 aeromagnetic and electromagnetic survey data might help both guide the reduction of the Jasper Property, and refine diamond drilling targets. Trent Pezzot, P.Geo. of Geosci Data Analysis Ltd. was engaged to complete the geophysical modeling and inversion work over all the property claims, which he commenced on July 14, 2017 and continued intermittently until October 23, 2017. The key aspects of the geophysical modeling and inversion work appear in Appendix 1, all of which has been assigned to the portions of the titles maintained in good standing.

This technical report was subsequently completed by Jacques Houle intermittently from September 1, 2017 to October 25, 2017. The 2017 cost statement for the technical assessment work program appears in Appendix 2; and the MTO statements of work, claim reductions, abandonment and other events supported by and described in this technical report appear in Appendix 3.

Technical Data, Interpretation, Conclusions and Recommendations

2017 Geophysical Modeling Highlights:

The reader is referred to Appendix 1 of this report which contains the Geophysical Interpretation Report by Trent Pezzot, P.Geo., in its entirety. The author has utilized and interpreted portions of this report for completing this technical report.

2017 Title Reduction Highlights:

The 2017 geophysical modeling and inversion program was commenced by Trent Pezzot on the 2008 aeromagnetic data only, with preliminary results presented to the author on August 22, 2017. This work showed that known mineral occurrences in the northeast part of the property and in the centre of the property along Four Mile Creek valley correlate with 3 of 4 bodies of low magnetic susceptibility, closely surrounded by narrow, pipe-like bodies of high magnetic susceptibility. Together these were interpreted by the author to represent possible mineralization and alteration signatures for different possible deposit types underlying the core portion of the Jasper Property to be maintained. The 4th body of low magnetic susceptibility correlates with the Caycuse River valley along the southern part of the property, interpreted by the author to be fault-related, and beyond the core portion of the property. The lack of magnetic responses in the northeast part of the property and along the southeast property boundary were interpreted by the author as beyond the core portion of the property. Therefore, on August 23, 2017 the author reduced the Jasper Property area by 40% from 6615 hectares to 3978 hectares to maintain only the interpreted core portion of the property, including and centred on all MINFILE and other occurrences and the Main Grid where all recent soil geochemistry, geological mapping and diamond drilling had been completed.

The 2017 geophysical modeling and inversion program was continued primarily on the EM (electromagnetic) data by Trent Pezzot in September and October 2017 with the final results presented to author on October 23, 2017. This work showed a pervasive near-surface high resistivity layer across the property, locally underlain by a flat-lying to undulating but overall gently south-dipping low resistivity (conductive) layer at depths of 300 to 600 metres from surface. The full areal extent of this conductive layer is not apparent since the EM modeling and inversion was completed in 6 blocks each covering only key portions of the geophysical survey area. Therefore, the author has not reduced the Jasper Property any further based on the results of the EM modeling and inversion. It may be possible that the conductive layer extends beyond the current and even the pre-reduction boundary of the Jasper Property.

2017 Diamond Drill Targeting Highlights:

The 2017 geophysical modeling and inversion program, particularly the EM work, has identified a previously unknown sub-horizontal conductive horizon at depths of 300 to 600 metres below surface underlying portions of the Jasper Property. This horizon does not appear to be exposed at surface, and has never been tested by diamond drilling. In the Main Grid area of the property, modeled in Block 5 by Trent Pezzot, the conductive

layer is very gently south-dipping and lies approximately 500 metres below surface. It appears to be slightly off-set by NW-SE trending cross faults, which also appear to constrain the low magnetic susceptibility body underlying the soil geochemistry and mineral occurrences along the Four Mile Creek valley.

Conclusions and Recommendations:

Several key new observations with resulting conclusions are now possible for the Jasper Main Grid area resulting from the successful completion of the 2017 geophysical modeling and inversion program, with reference to Figures 24 and 25:

1. Lithological contacts strike N-S, are offset by cross faults which strike NW-SE, and have unknown tops orientations, and uncertain but probably westerly dip directions
2. Main lithology is intermediate volcanics (andesite or basaltic andesite), and two other apparently conformable lithological horizons occur, 250 to 500 apart and each 250 to 500 metres in horizontal thickness, including an eastern felsic volcanic (dacite or rhyodacite) horizon and a western mafic volcanic (basalt) horizon separated by a central intermediate volcanic horizon
3. The lithological horizons are offset by three cross faults 1 to 1.5 km apart, with the southern fault having a left-lateral apparent displacement, the central fault a right-lateral apparent displacement, and the northern fault an undetermined displacement; no evidence was found for the inferred major N-S fault suggested in previous work
4. Fifteen polymetallic sulphide zones discovered in rocks over a 2.75 km. strike length, of which eleven zones occur within or along the contacts of the central intermediate volcanic horizon, one zone occurs within the eastern felsic volcanic horizon, and three zones occur within or immediately west of the western mafic volcanic horizon
5. The 2.25 km. length by 0.5 km wide polymetallic soil geochemistry anomaly is coincident with the polymetallic zones in rocks, also coincident with areas of low magnetic susceptibility, roughly coincident with the central intermediate volcanic horizon, and appears to be truncated into two sub-zones by the central fault
6. A pervasive sub-horizontal conductive horizon at depths of 300 to 500 metres below surface has been interpreted to exist beneath much of the Jasper Property, and possibly beyond the property boundary, but has never been tested by drilling
7. Possible target deposit types are many and variable, and may include the following:
 - a. Noranda/Kuroko Massive Sulphide Cu-Pb-Zn – BC Deposit Profile G06
 - b. Epithermal Au-Ag-Cu High Sulphidation – BC Deposit Profile H04
 - c. Epithermal Au-Ag Low Sulphidation – BC Deposit Profile H05
 - d. Polymetallic Veins Ag-Pb-Zn-Au – BC Deposit Profile I05
 - e. Cu+/-Ag Quartz Veins – BC Deposit Profile I06
 - f. Cu Skarns – BC Deposit Profile K01
 - g. Pb-Zn Skarns – BC Deposit Profile K02
 - h. Subvolcanic Cu-Ag-Au (As-Sb) – BC Deposit Profile L01
 - i. Porphyry Cu-Mo-Au – BC Deposit Profile L04

A road-based reconnaissance diamond drilling program is recommended to adequately test the sub-horizontal conductive horizon where it is coincident with the area of low magnetic susceptibility and underlies the soil geochemical anomalies and 14 of 15 known polymetallic mineral occurrences with 4 widely spaced near-vertical NQ holes, each up to 750 m. in depth. Downhole EM surveys should be included as part of the drilling program. Prior to the drilling program, a property-wide isopach map of the conductive horizon should be generated by a qualified and experienced geophysicist to better interpret the lateral extent, depth and varying thickness of the that horizon.

The drilling program will require rehabilitation of the Caycuse Main Road on the Jasper Property to provide access either from Port Alberni via Nitinat Lake in the west or from Lake Cowichan in the east, and establishing a temporary camp at the 2004 Camp Site near the centre of the main grid and proposed drilling area. Although the eastern access from Lake Cowichan has been used in the recent past, it is a 90-minute drive each way by pickup truck to the site of the recent washout along the eastern side of Four Mile Creek. The western access from Nitinat Lake has been inaccessible for many years due to one or more washouts along western side of Four Mile Creek, but if that road was rehabilitated and/or realigned it would be a much shorter distance and driving time from Nitinat Lake to the Property. A foot reconnaissance survey by a qualified and experienced road engineer of both possible road routes is recommended prior to deciding which route is best to rehabilitate.

The alternative to repairing either access road route is to complete the proposed drilling program using helicopter support, based from a staging area with road access from either Lake Cowichan or Alberni from a camp at the staging area or on the Property. No cost estimate has been made for a helicopter-supported drilling program.

Table 2 – Proposed Work Program for the Jasper Property

Item	Units	Unit Cost	Schedule	Program Cost
Project planning	10 days for 1 senior geologist	\$1,000 per day	Spring	\$ 10,000
Geophysical modeling	10 days for 1 senior geophysicist	\$1,500 per day	Spring	\$ 15,000
Access road survey	10 days for 1 senior road engineer	\$1,000 per day	Spring	\$ 10,000
Access road rehab.	15 days backhoe + bridges, culverts	\$10,000 per day	Summer	\$ 150,000
Diamond Drilling	4 holes 3,000 metres + downhole EM	\$200 per metre	Summer	\$ 600,000
Compilation, Reports	10 days for 1 sr. + 1 jr. geologist	\$1,500 per day	Winter	\$ 15,000
Contingency	estimate			\$ 50,000
Totals				\$ 850,000

Additional work programs may be recommended conditional upon results.

Respectfully submitted by:



Jacques Houle, P.Eng.

Author's Qualifications

I, Jacques Houle, P.Eng. do hereby certify that:

I am currently self-employed as a consulting geologist by:
Jacques Houle, P.Eng. Mineral Exploration Consulting
6552 Peregrine Road, Nanaimo, British Columbia, Canada V9V 1P8

I graduated with a Bachelor's of Applied Science degree in Geological Engineering with specialization in Mineral Exploration from the University of Toronto in 1978.

I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia, the Society of Economic Geologists, the Association for Mineral Exploration British Columbia, the Association of Applied Geochemists, and the Vancouver Island Exploration Group; I am also a member of the Technical Advisory Committee for Geoscience B.C., and of the advisory committee for the Earth Science Department of Vancouver Island University.

I have worked as a geologist for 39 years since graduating from university, including 5 years as a mine geologist in underground gold and silver mines, 15 years as an exploration manager, 3 years as a government geologist and 15 years as a mineral exploration consultant.

I previously worked on the Jasper Property in 2004, 2009, 2010, 2011 and 2015; and I am independent of Nitinat Minerals Corporation.

Dated this 25th day of October, 2017



Signature of Author

Jacques Houle, P.Eng
Printed name of Author



References

B. C. Ministry of Energy and Mines websites:

Assessment Reports

<http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx>

Landowner Notification

<http://www.empr.gov.bc.ca/Titles/MineralTitles/Admin/Notices/Pages/LandownerNotification.aspx>

MapPlace

<http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/Pages/default.aspx>

Mineral Deposit Profiles

<http://www.empr.gov.bc.ca/Mining/Geoscience/MineralDepositProfiles/Pages/default.aspx>

MINFILE

<http://www.em.gov.bc.ca/Mining/Geolsurv/Minfile/>

Ministry Publications

<http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/Pages/default.aspx>

Mineral Titles Online

<https://www.mtonline.gov.bc.ca/mtov/home.do>

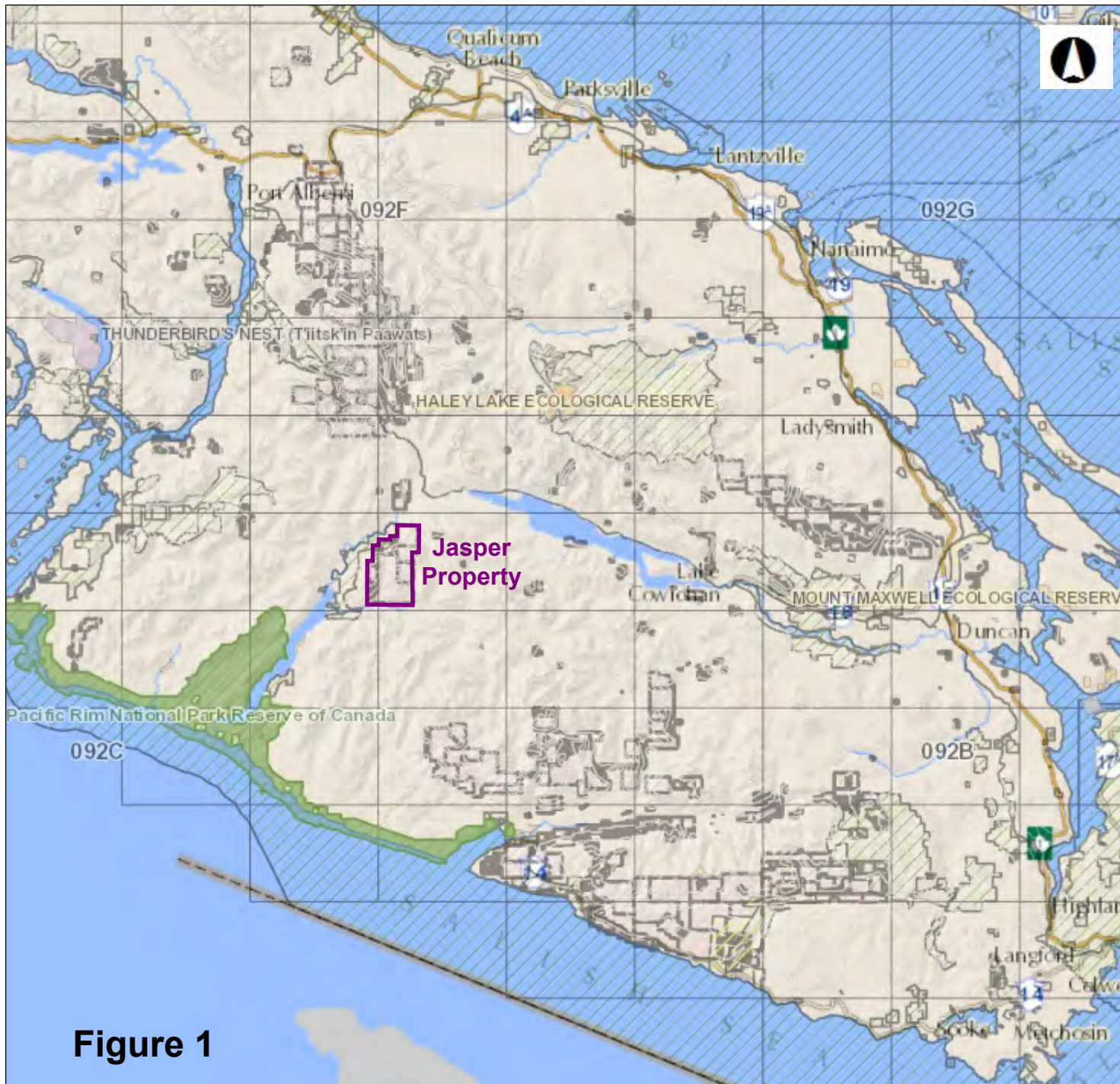


Figure 1



Jasper Property Location

Legend

- National Parks - Outlined
- National Parks - Colour Fill
- Ecological Reserves - Tanta
- Protected Areas - Tantalis -
- Recreation Areas - Tantalis
- Conservancy Areas - Tantal
- Mapsheet Grid (1:20,000)
- Mapsheet Grid (1:250,000)
- Contours - (1:250,000)
- FCODE**
- Contour - Index
- Contour - Intermediate
- Area of Exclusion
- Area of Indefinite Contours

0 20.32 40.64 km



1: 1,000,000

Copyright/Disclaimer

The material contained in this web site is owned by the Government of British Columbia and protected by copyright law. It may not be reproduced or redistributed without the prior written permission of the Province of British Columbia. To request permission to reproduce all or part of the material on this web site please complete the Copyright Permission Request Form which can be accessed through the Copyright Information Page

CAUTION: Maps obtained using this site are not designed to assist in navigation. These maps may be generalized and may not reflect current conditions. Uncharted hazards may exist. DO NOT USE THESE MAPS FOR NAVIGATIONAL PURPOSES.

Datum: NAD83

Projection: Web Mercator

Key Map of British Columbia



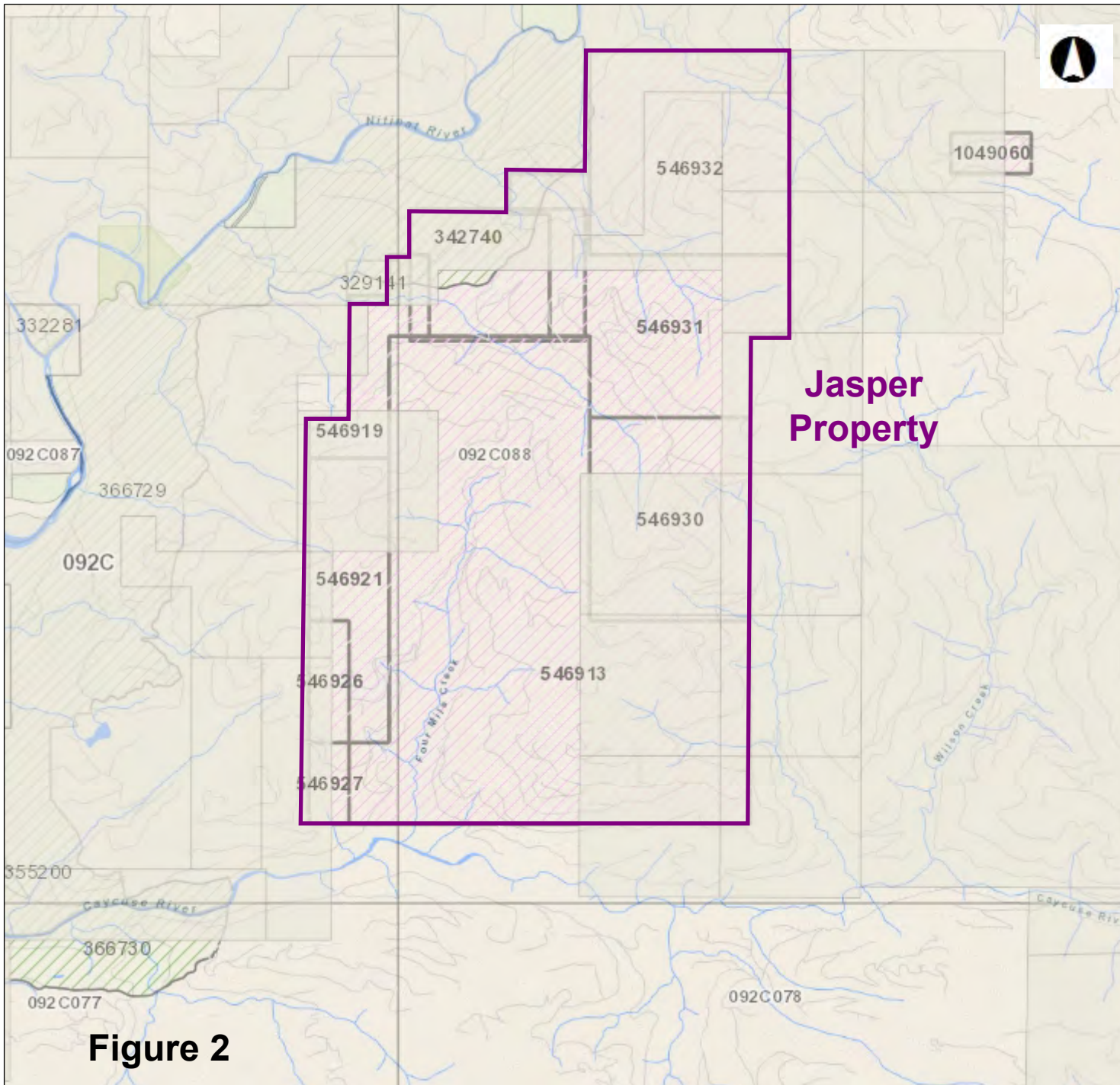


Figure 2



Jasper Property Location

Legend

- National Parks - Outlined
 - National Parks - Colour Fill
 - Ecological Reserves - Tanta
 - Protected Areas - Tantalis -
 - Recreation Areas - Tantalis -
 - Conservancy Areas - Tantal
 - Mapsheet Grid (1:20,000)
 - Mapsheet Grid (1:250,000)
 - Land Act Primary Parcels - Filled
- Contours - (1:250,000)
- FCODE
 - Contour - Index
 - Contour - Intermediate
- Area of Evulsion
- 0
 - 2.03
 - 4.06 km

1: 100,000

Copyright/Disclaimer

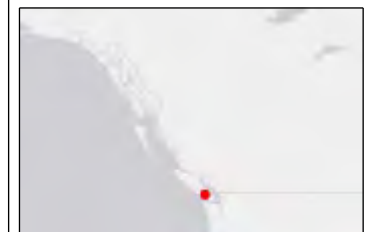
The material contained in this web site is owned by the Government of British Columbia and protected by copyright law. It may not be reproduced or redistributed without the prior written permission of the Province of British Columbia. To request permission to reproduce all or part of the material on this web site please complete the Copyright Permission Request Form which can be accessed through the Copyright Information Page

CAUTION: Maps obtained using this site are not designed to assist in navigation. These maps may be generalized and may not reflect current conditions. Uncharted hazards may exist. DO NOT USE THESE MAPS FOR NAVIGATIONAL PURPOSES.

Datum: NAD83

Projection: Web Mercator

Key Map of British Columbia



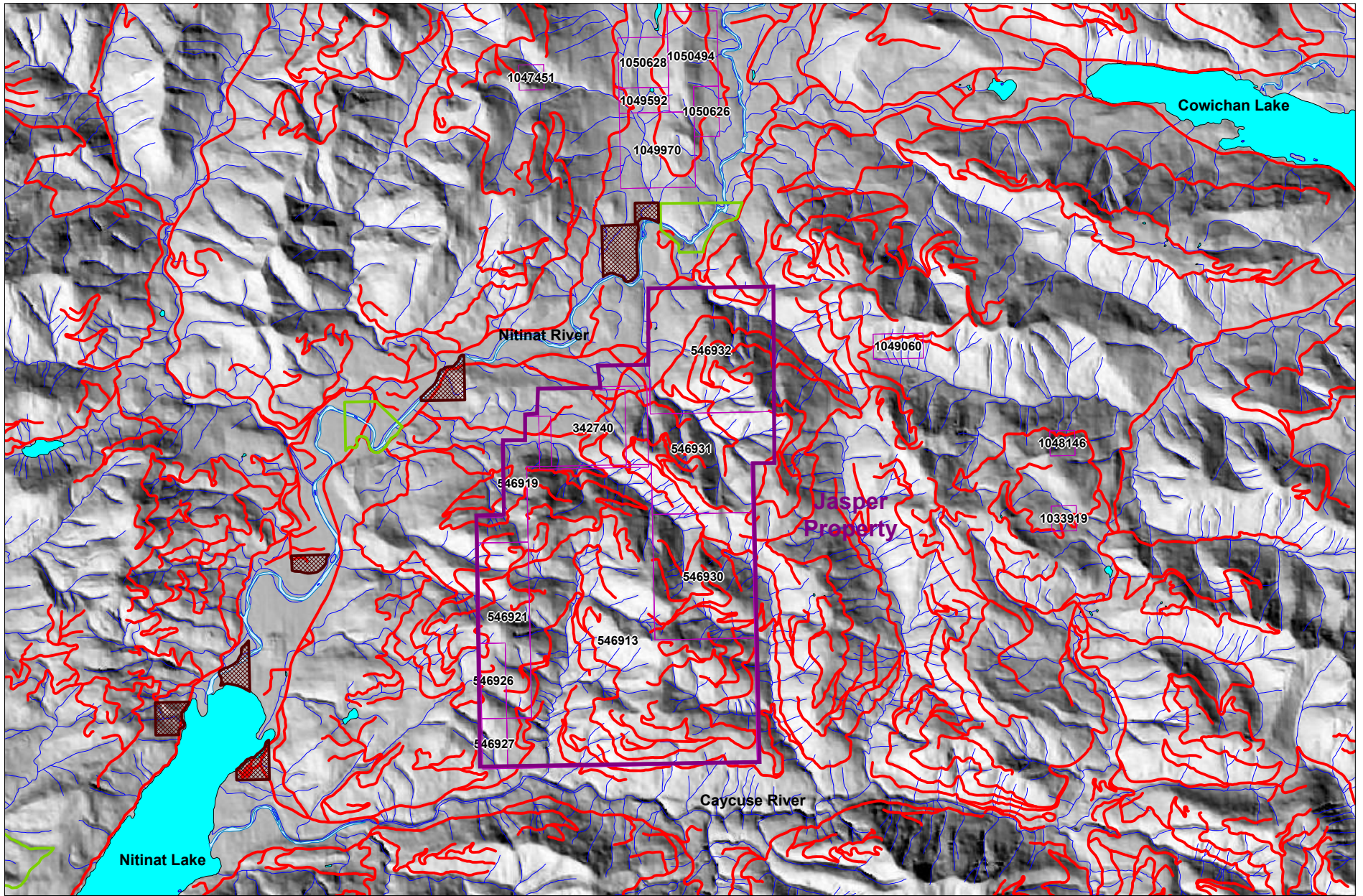
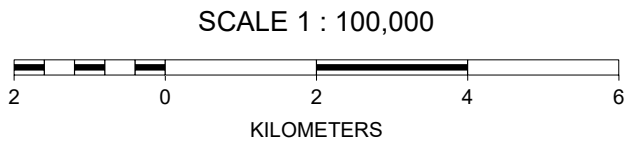


Figure 3



Jasper Property Infrastructure

Legend from BC MapPlace



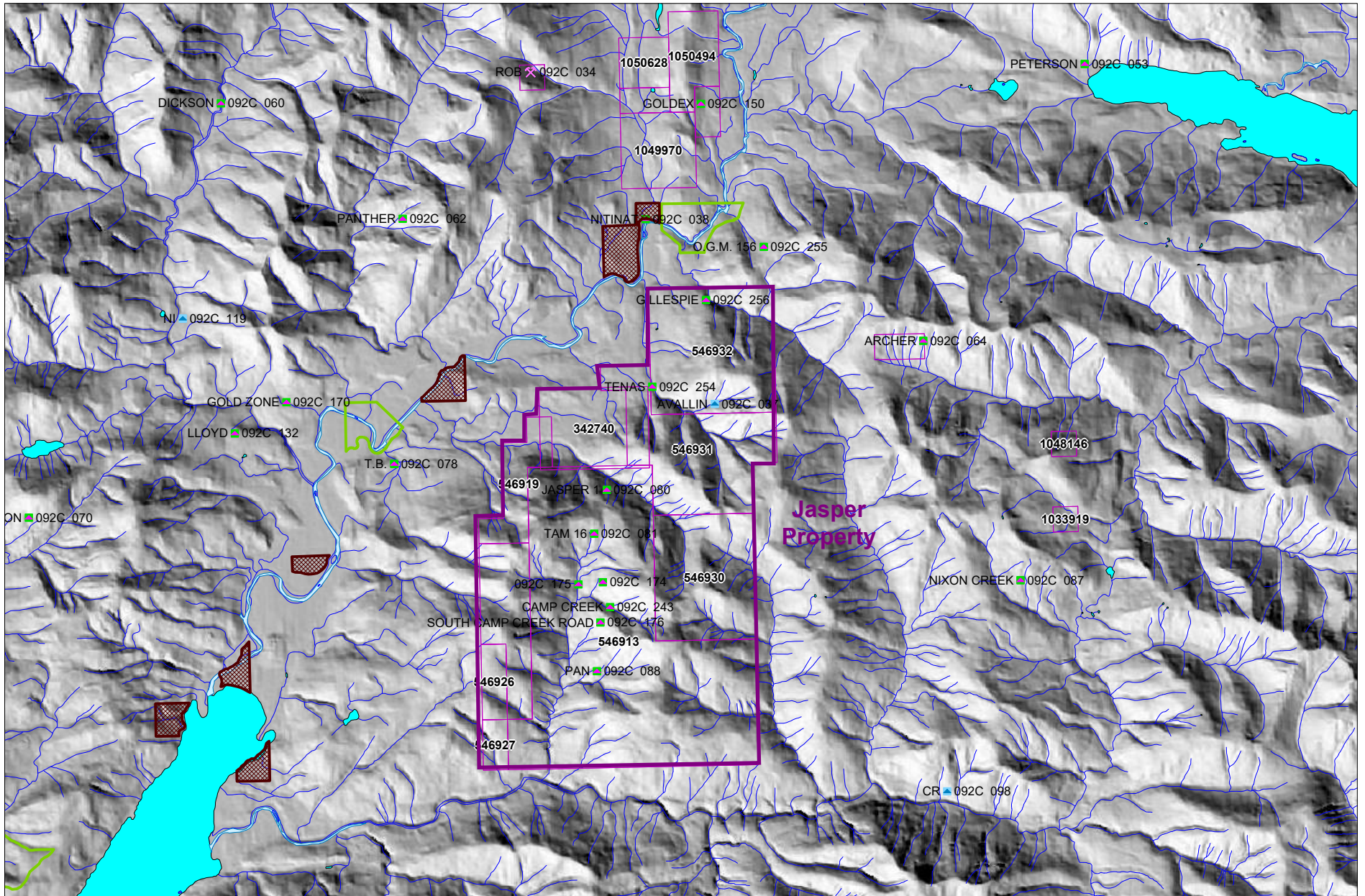
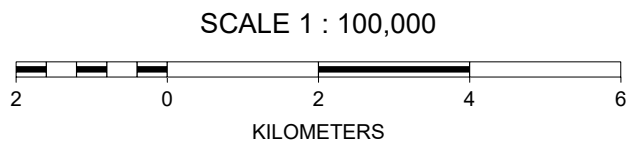


Figure 4



Jasper Property MINFILE's

Legend from BC MapPlace



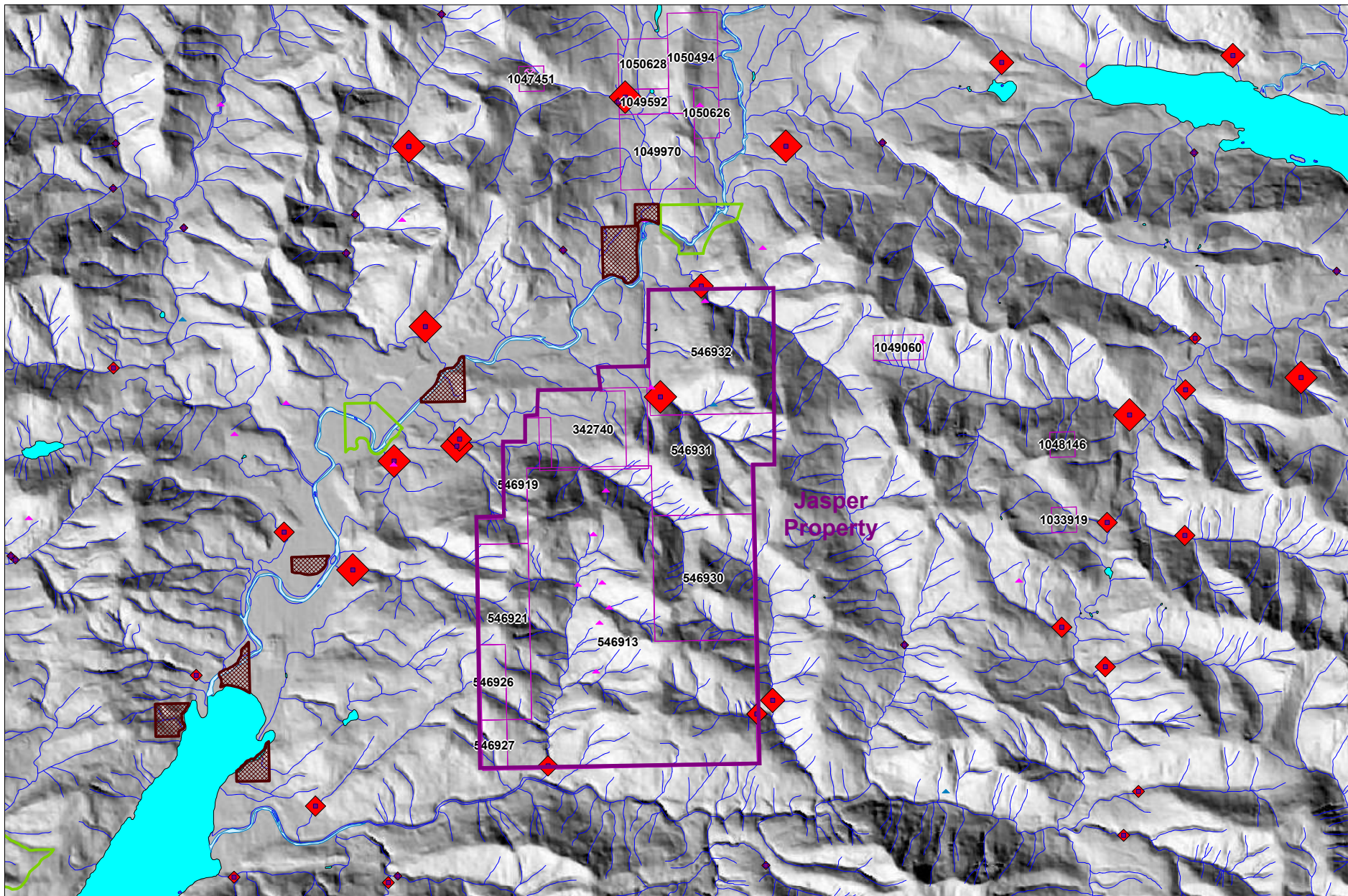
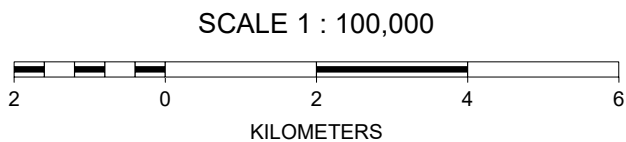


Figure 5



Jasper Property RGS Gold
Legend from BC MapPlace



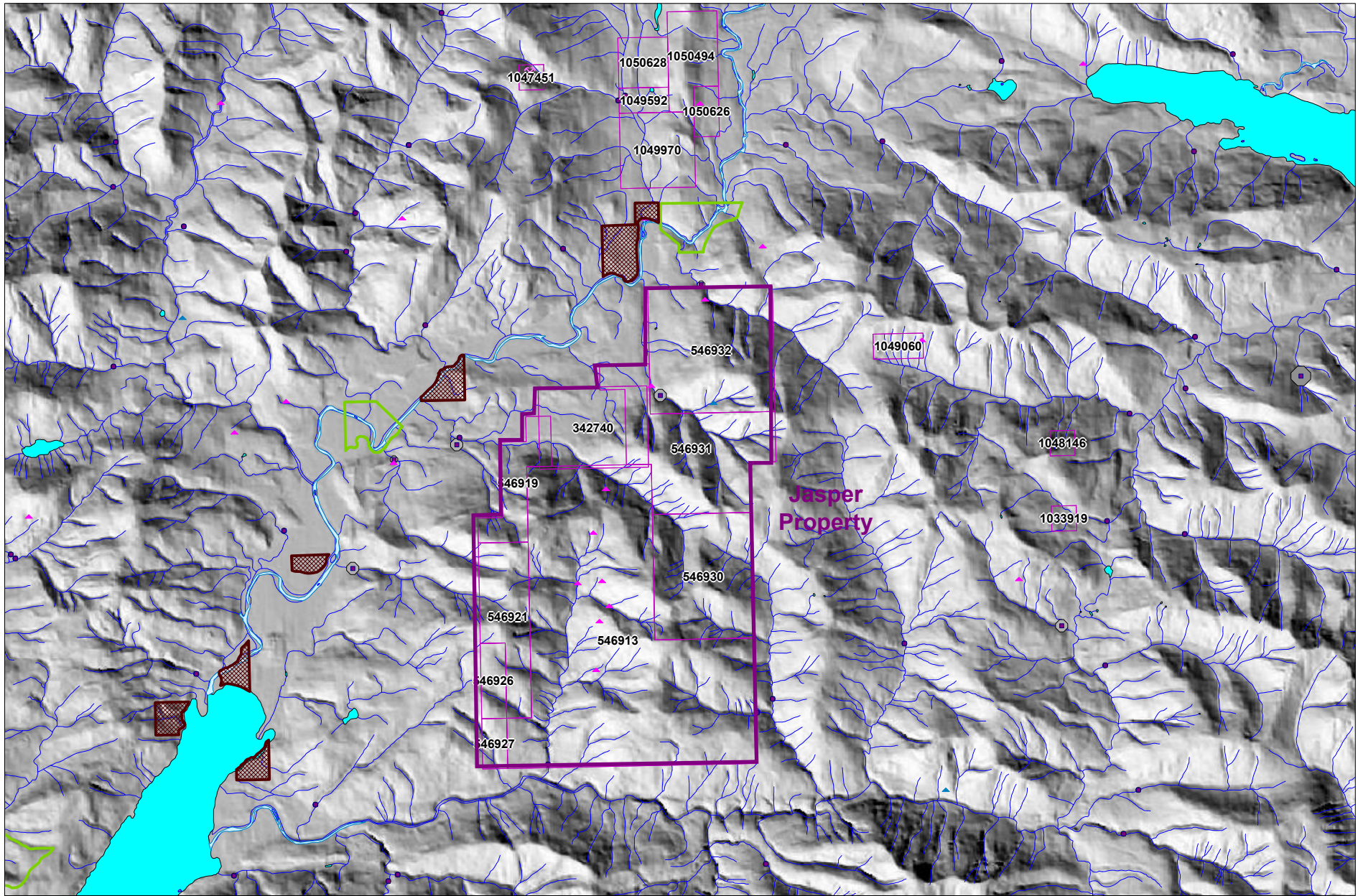
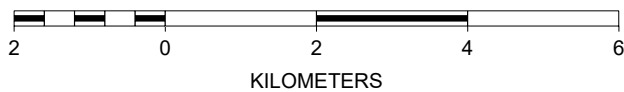


Figure 6

SCALE 1 : 100,000



Jasper Property RGS Silver

Legend from BC MapPlace



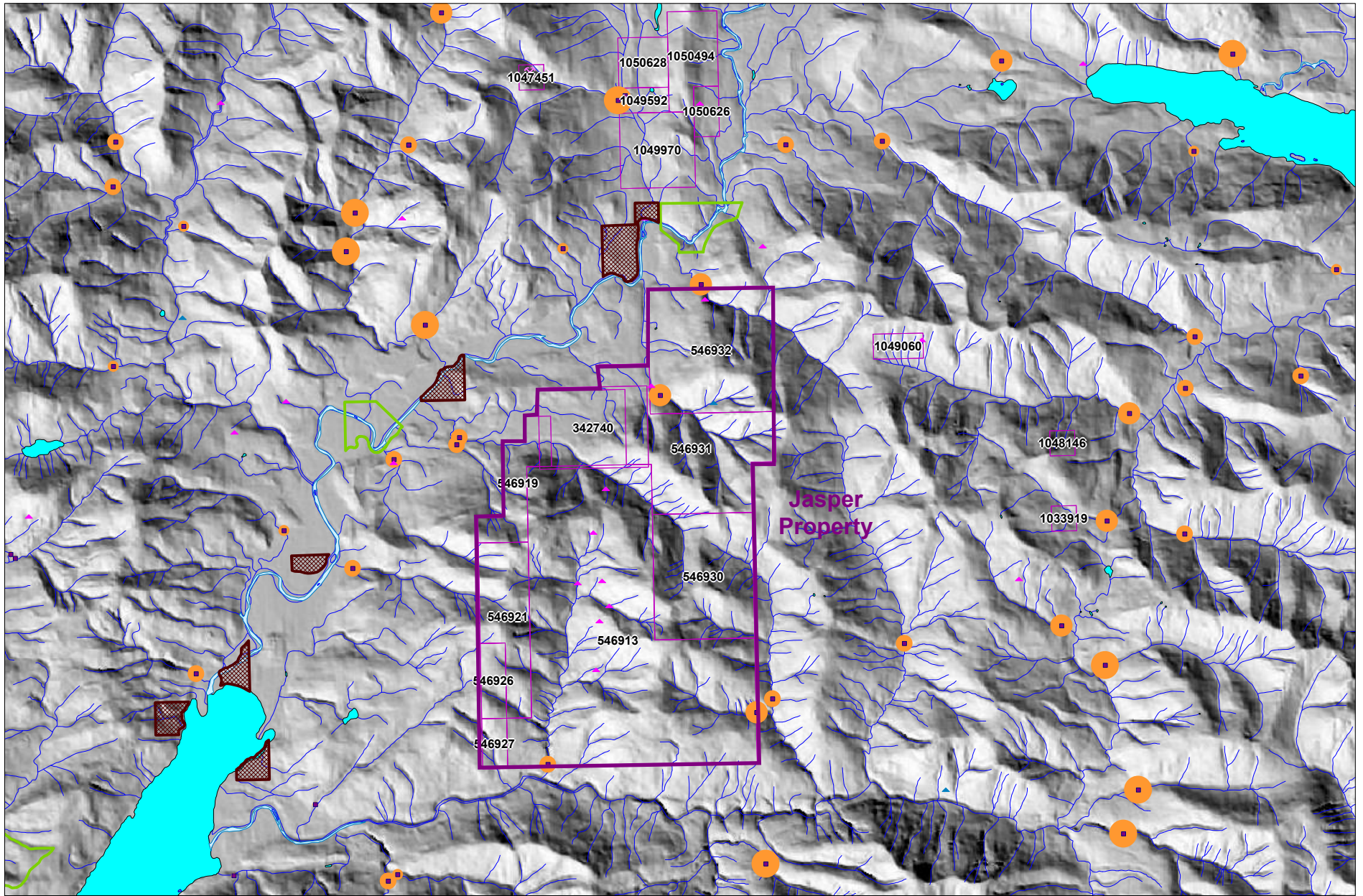
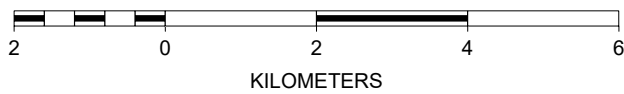


Figure 7

SCALE 1 : 100,000



Jasper Property RGS Copper

Legend from BC MapPlace



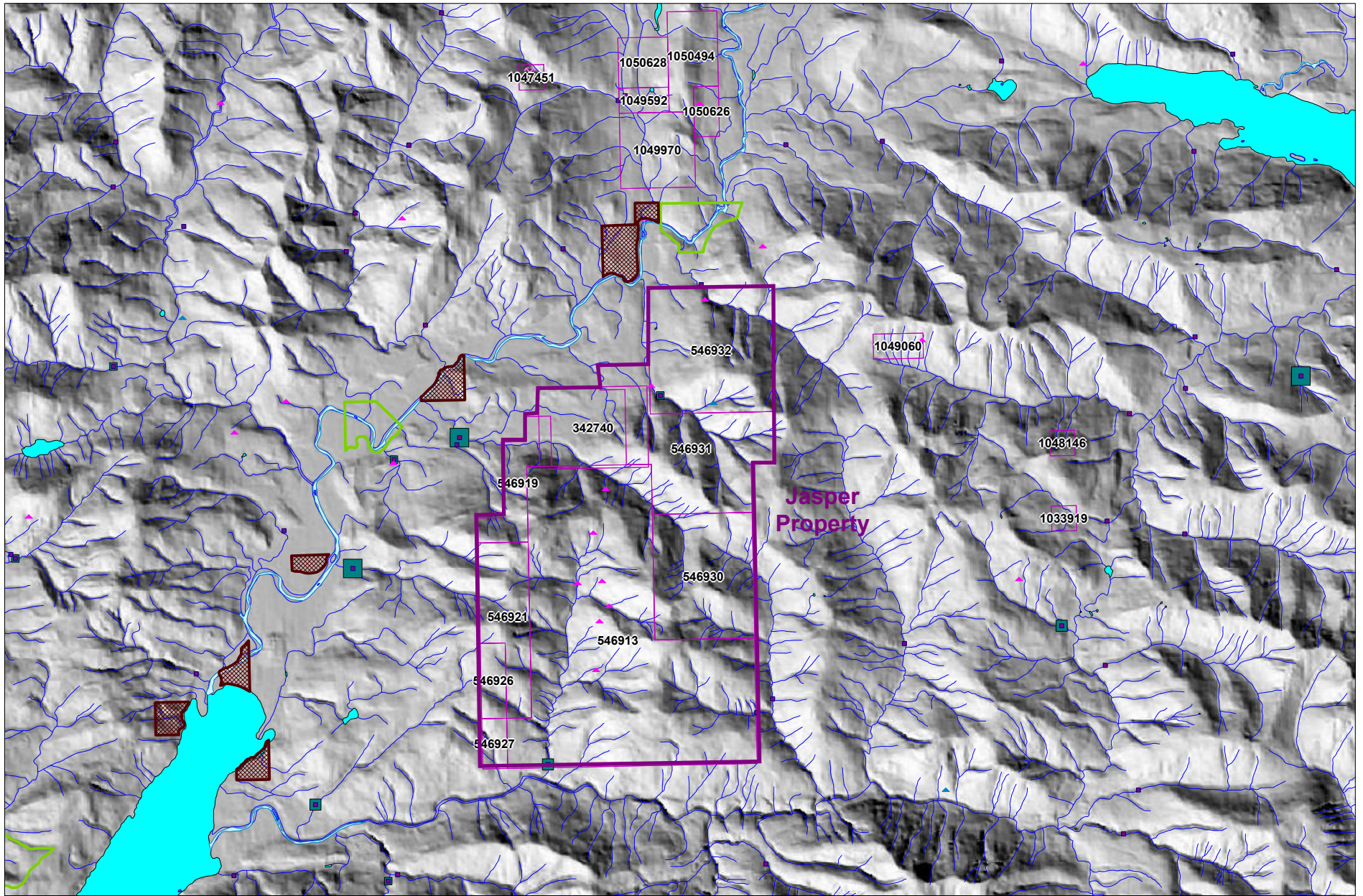
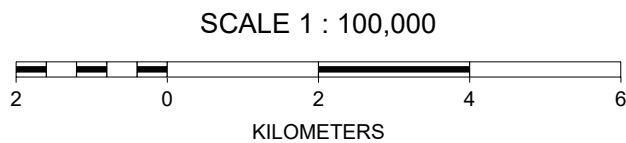


Figure 8



Jasper Property RGS Lead
Legend from BC MapPlace



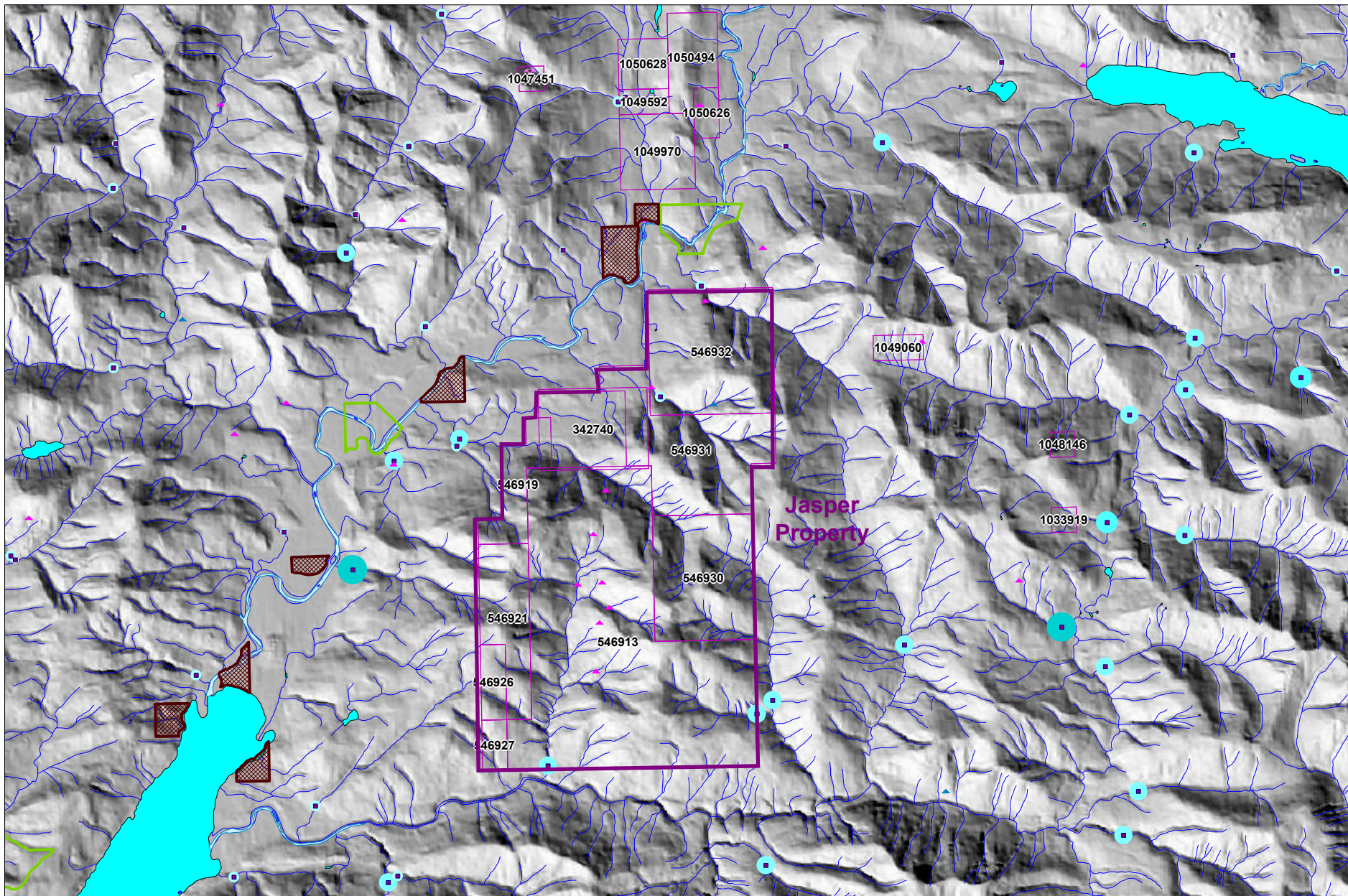
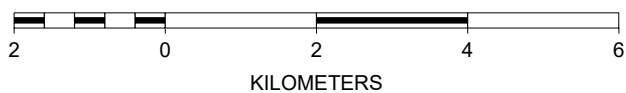


Figure 9

SCALE 1 : 100,000



Jasper Property RGS Zinc

Legend from BC MapPlace



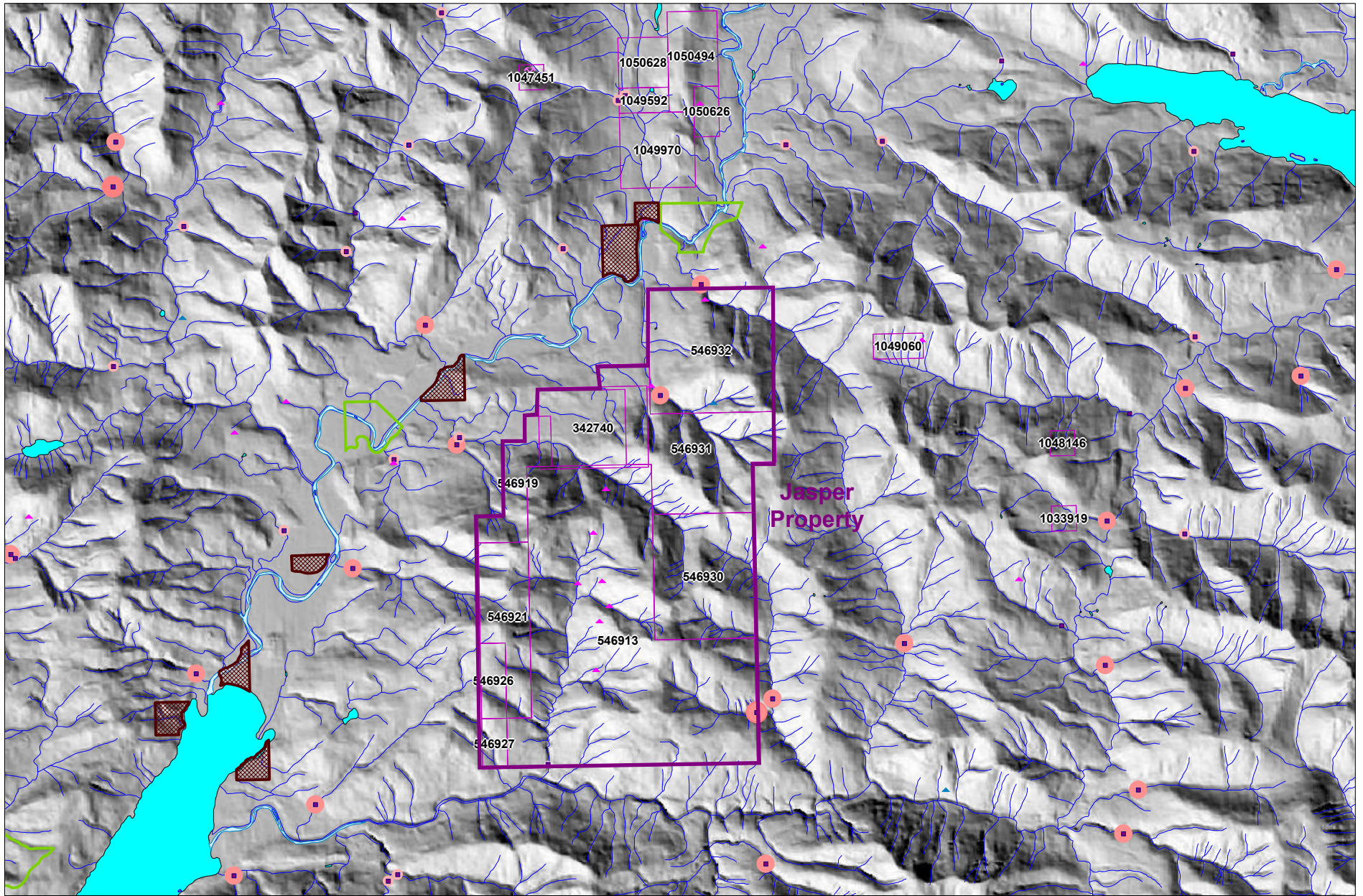
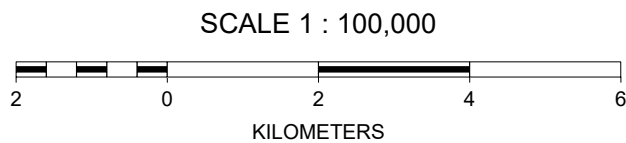


Figure 10



Jasper Property RGS Molybdenum

Legend from BC MapPlace



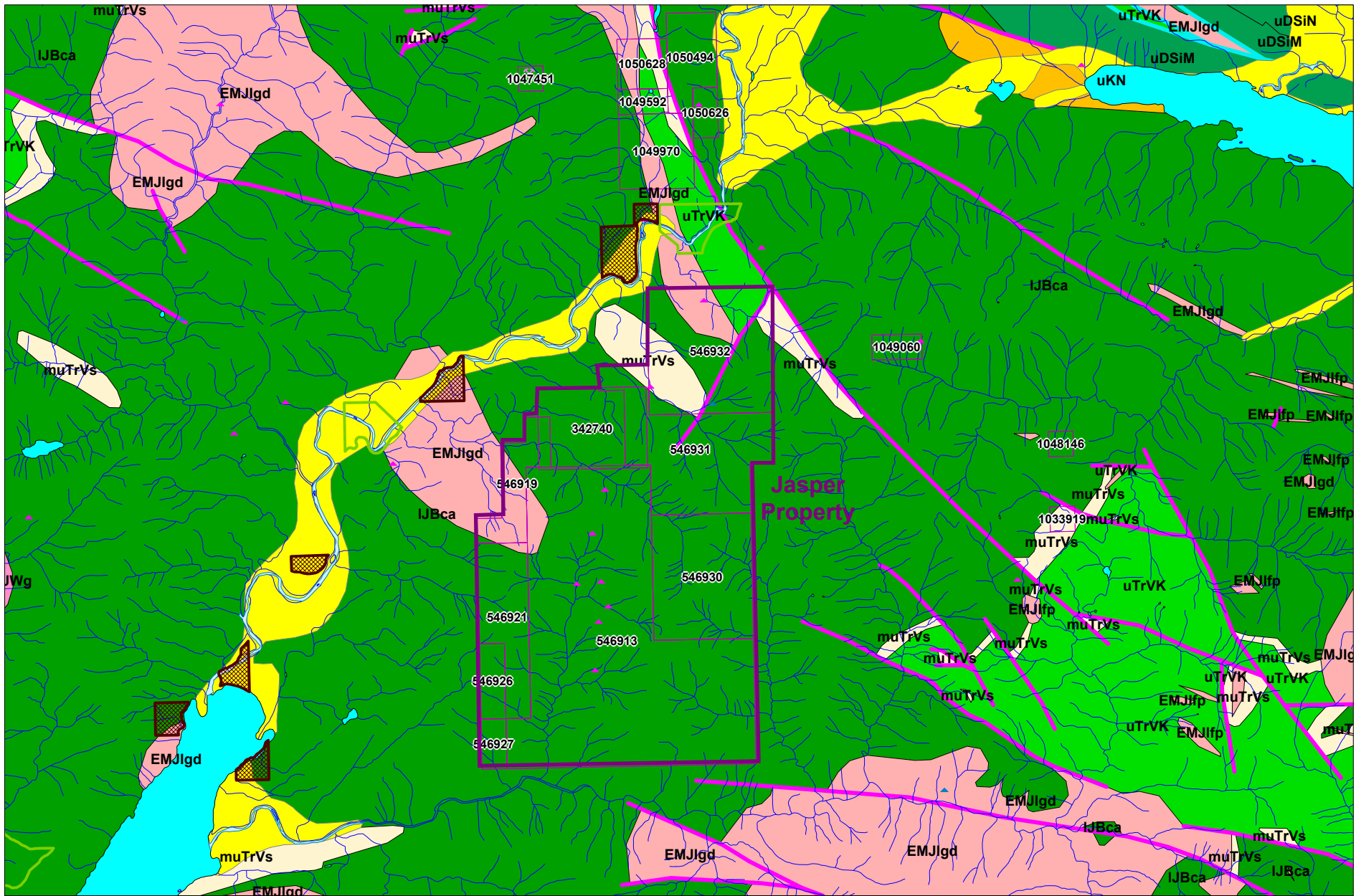
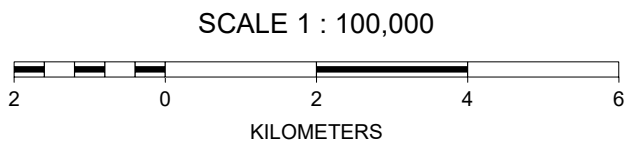


Figure 11



Jasper Property BCGS 2005 Geology

Legend from BC MapPlace



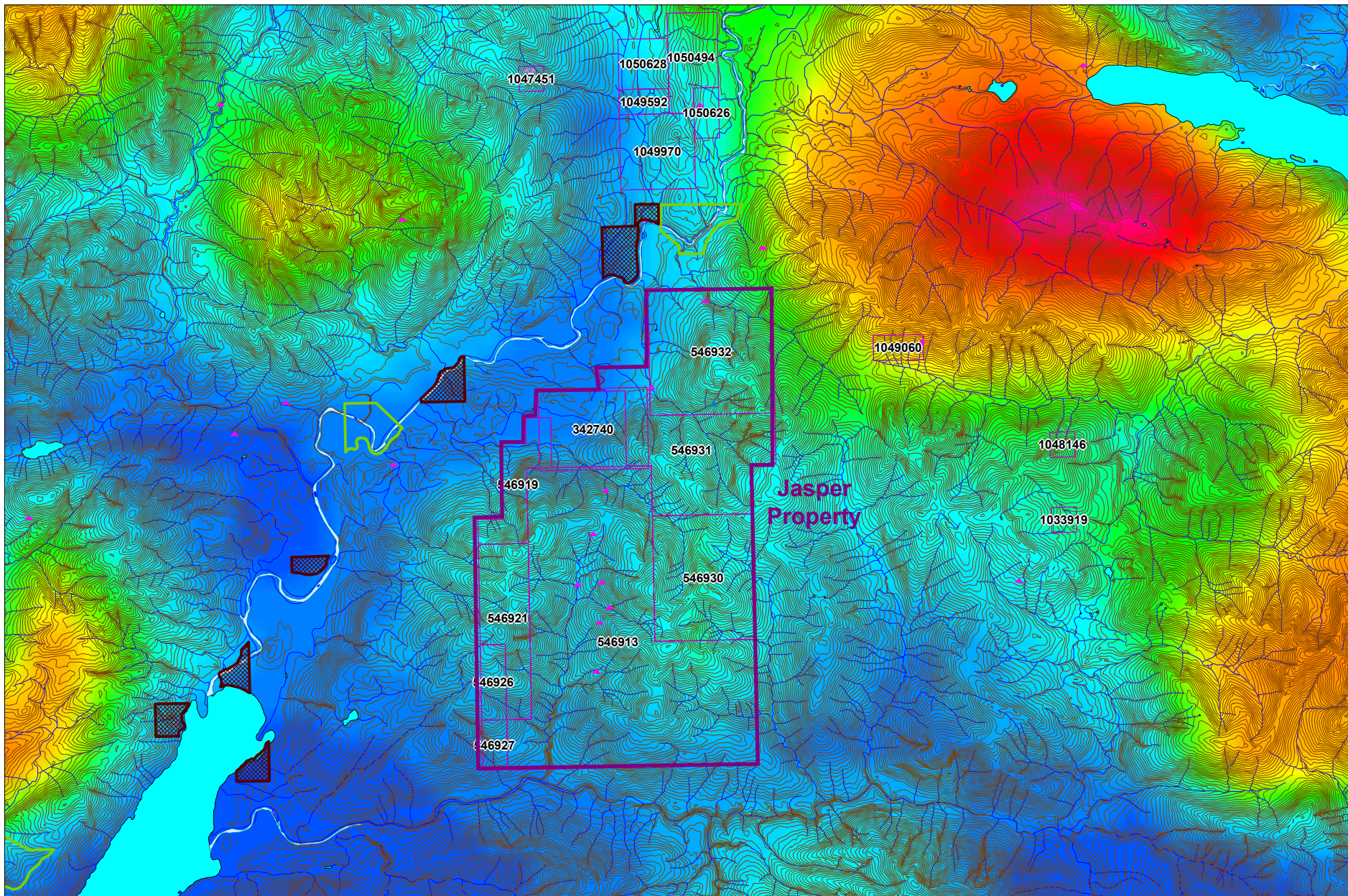
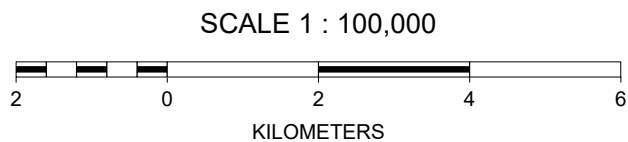


Figure 12



Jasper Property Aeromagnetics

Legend from BC MapPlace



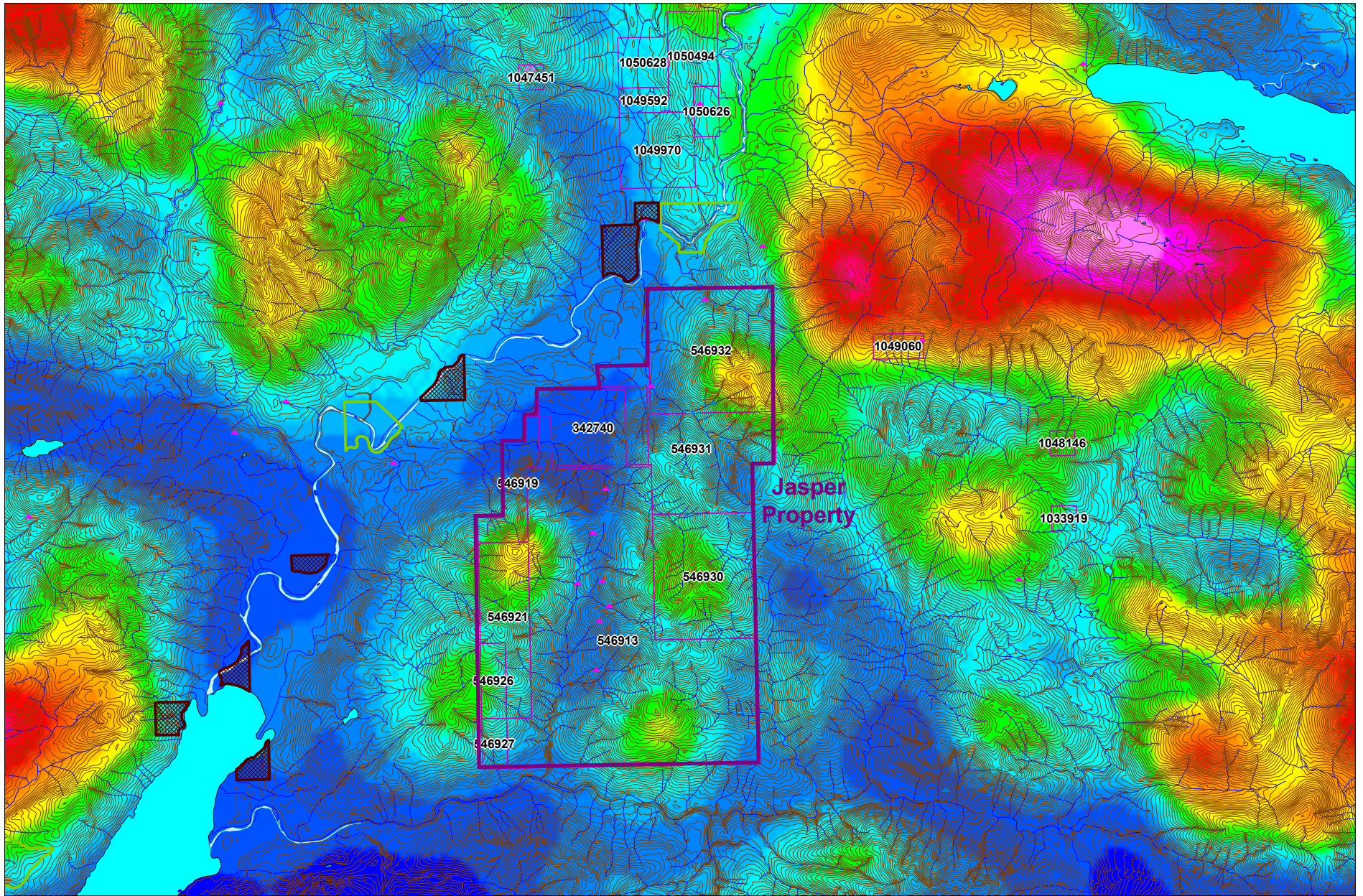
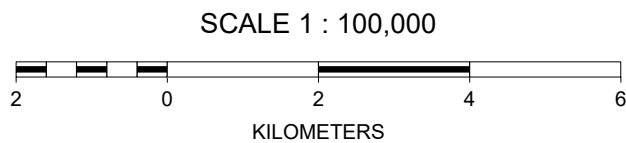


Figure 13



**Jasper Property Residual
Total Magnetic Field**
Legend from BC MapPlace



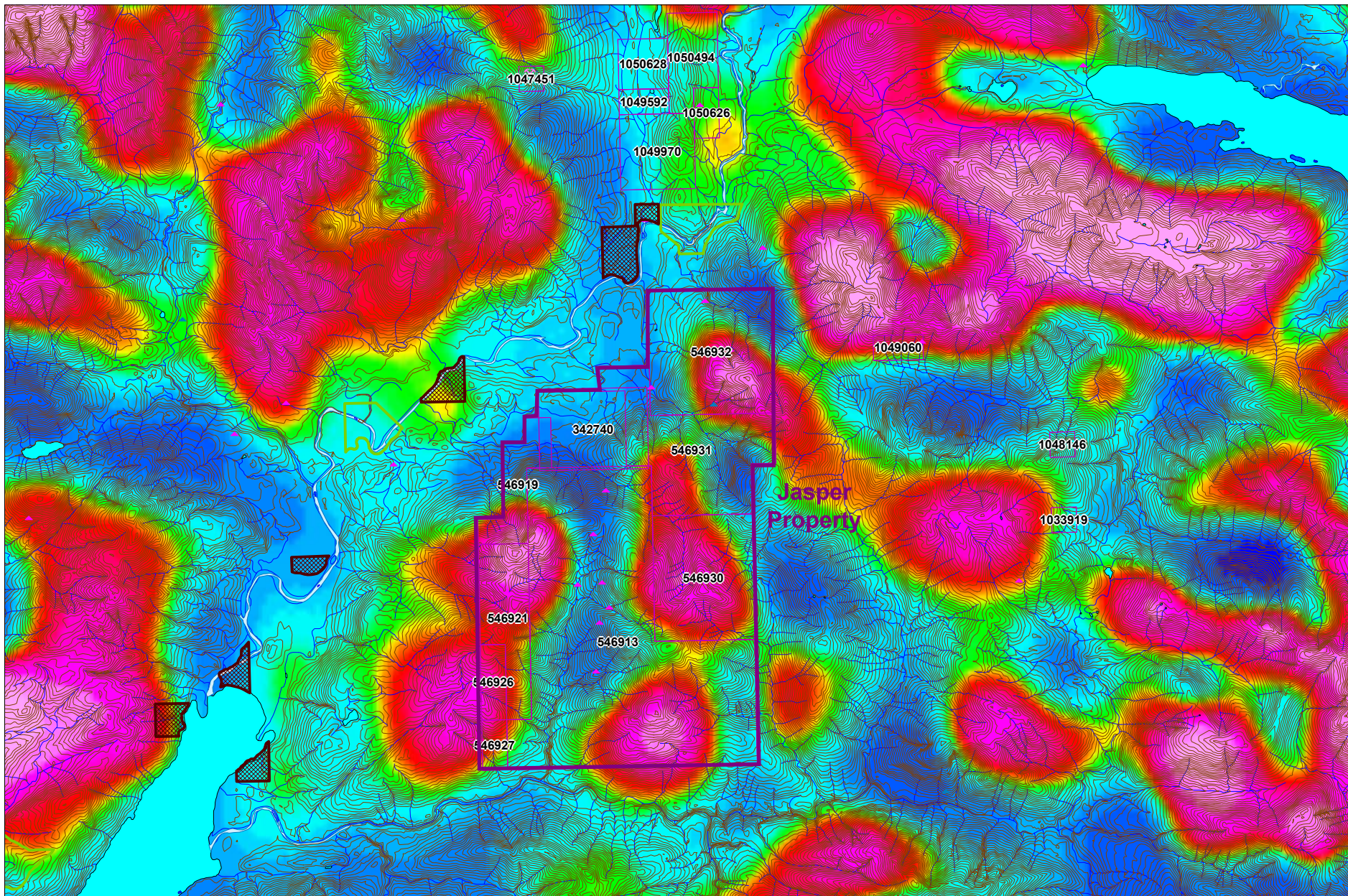
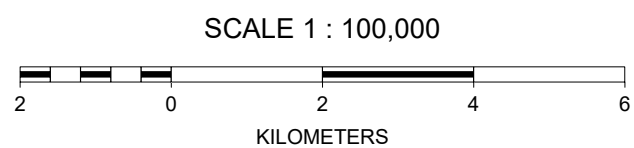


Figure 14



Jasper Property 1st Vertical Derivative Aeromagnetics
 Legend from BC MapPlace



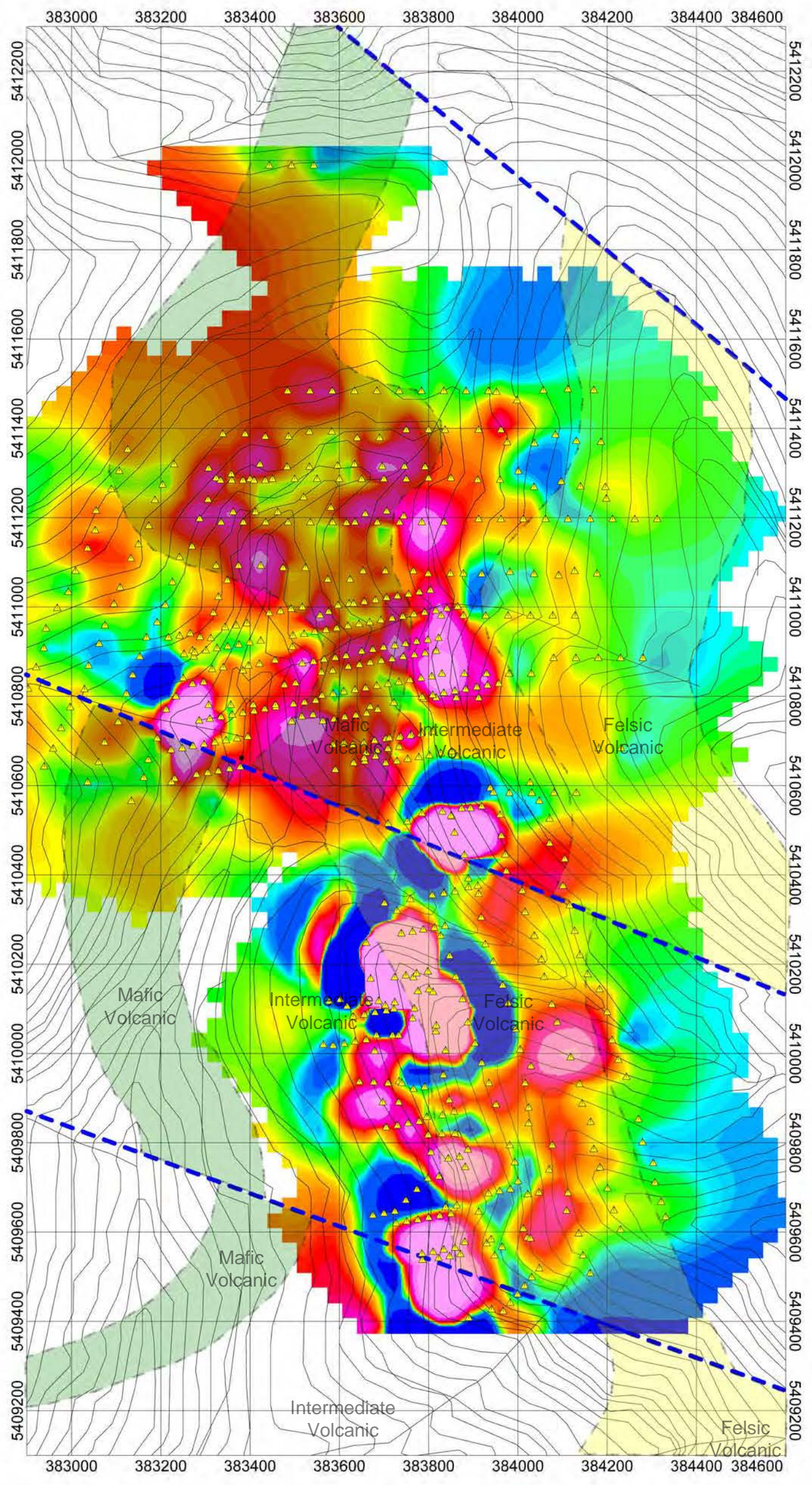
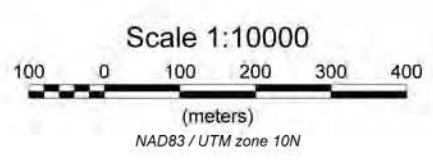


Figure 15



2004 and 2010 Soil Samples
 ▲ Soil Geochemistry Sample Site (n=605)

Nitinat Minerals Corporation
 Jasper Property Main Grid
 2004-2010 Gold in Soil Samples
 Jacques Houle, P.Eng.

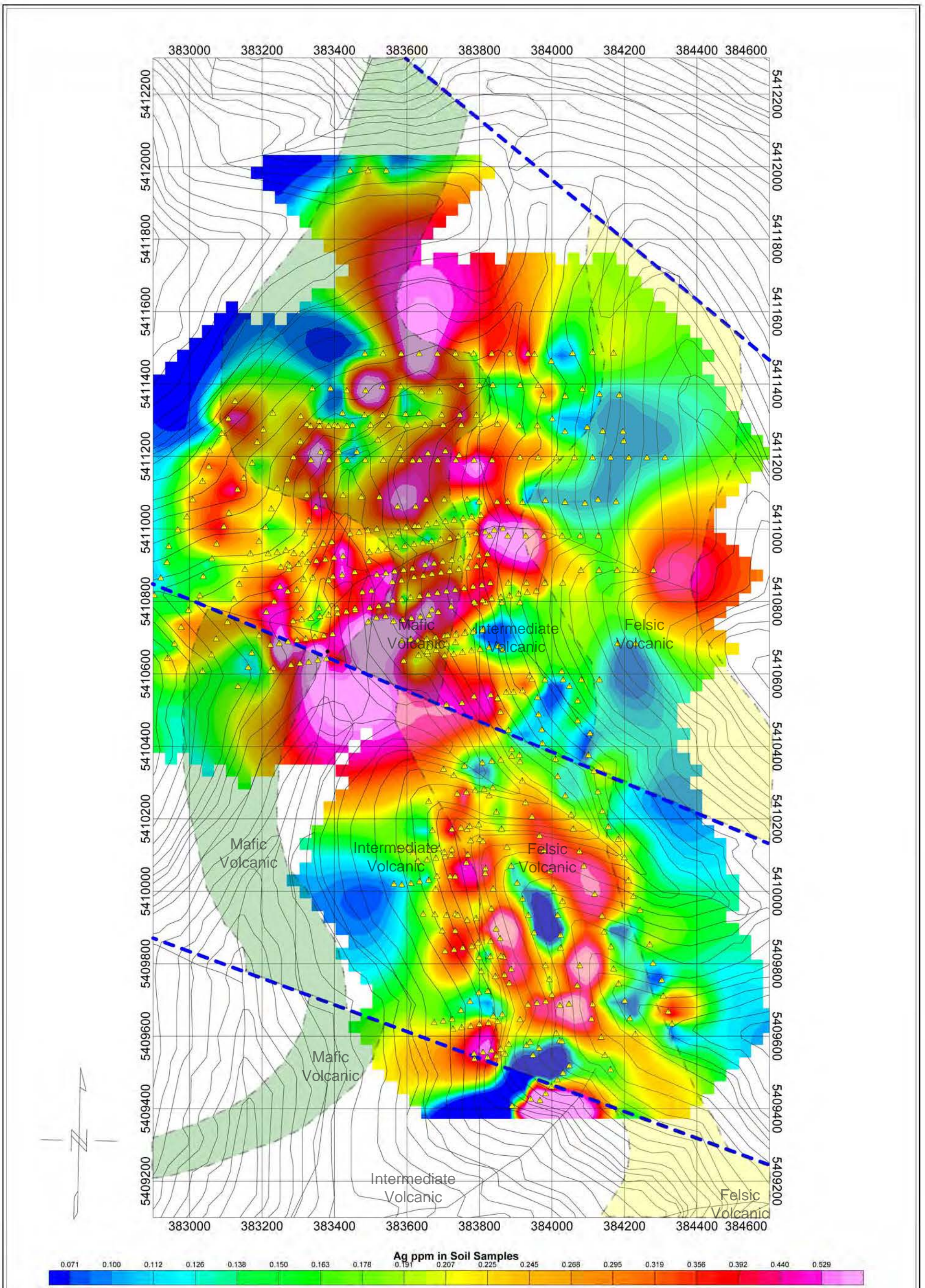
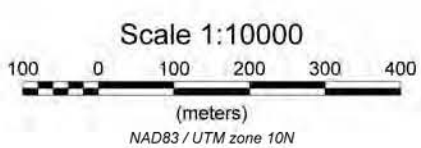


Figure 16

Nitinat Minerals Corporation

Jasper Property Main Grid
2004-2010 Silver in Soil Samples

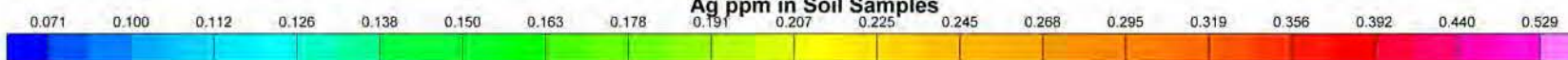
Jacques Houle, P.Eng.



2004 and 2010 Soil Samples

▲ Soil Geochemistry Sample Site (n=605)

Ag ppm in Soil Samples



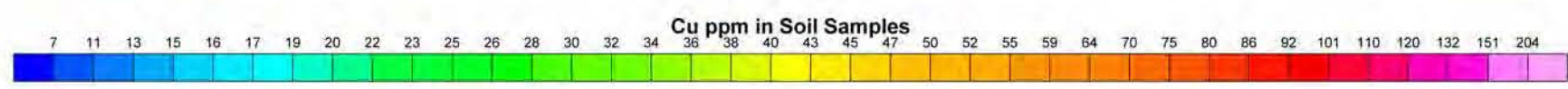
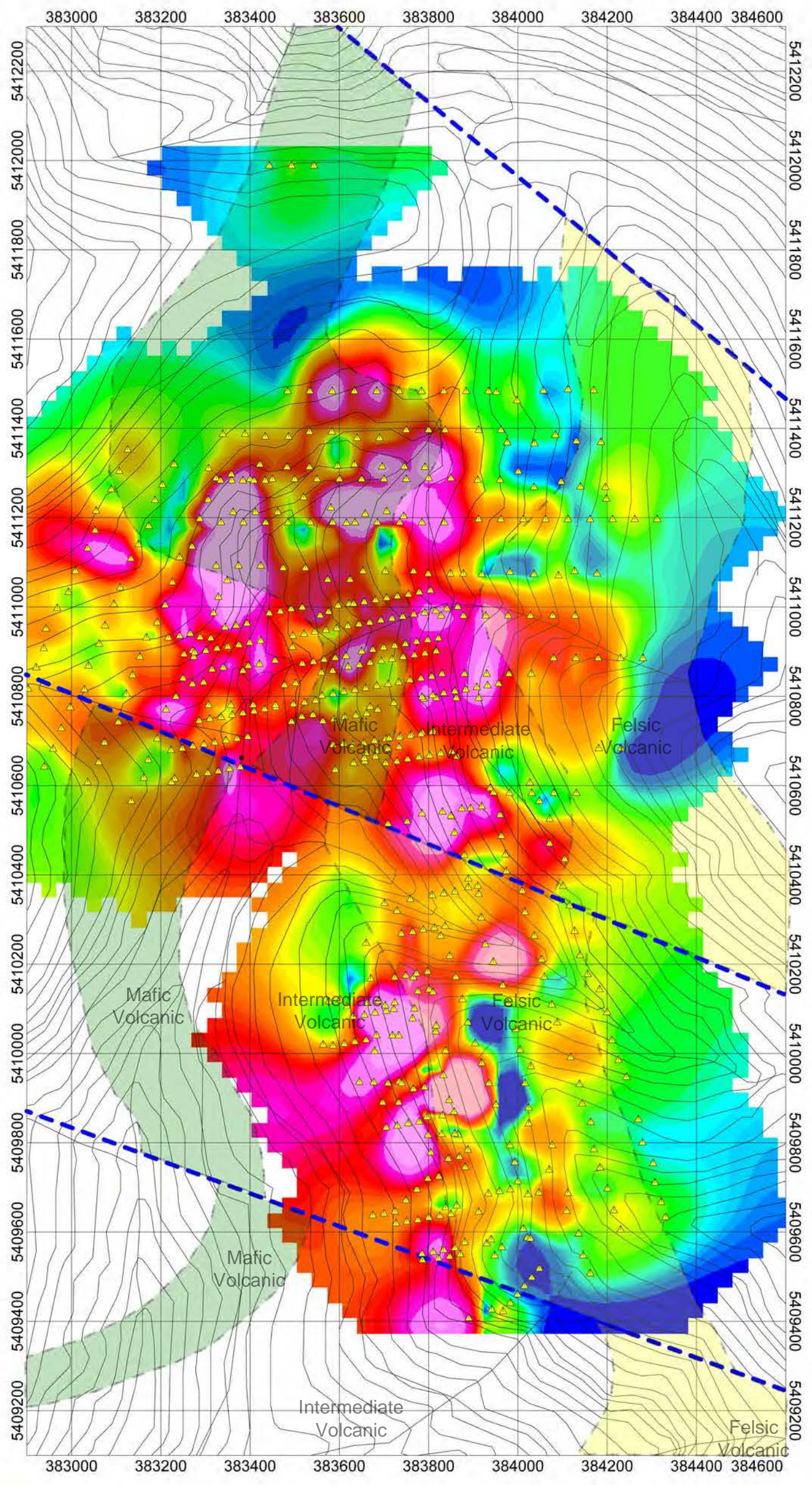
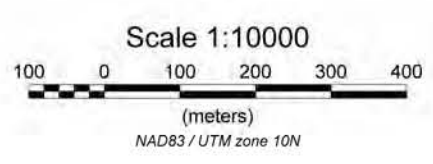


Figure 17



2004 and 2010 Soil Samples
 ▲ Soil Geochemistry Sample Site (n=605)

Nitinat Minerals Corporation
 Jasper Property Main Grid
 2004-2010 Copper in Soil Samples
 Jacques Houle, P.Eng.

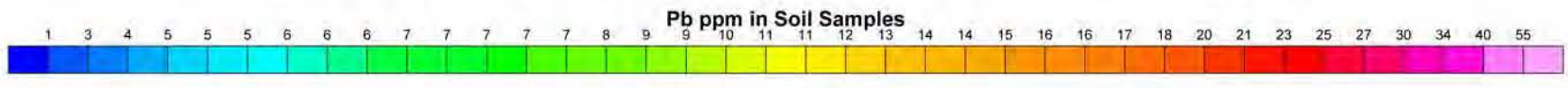
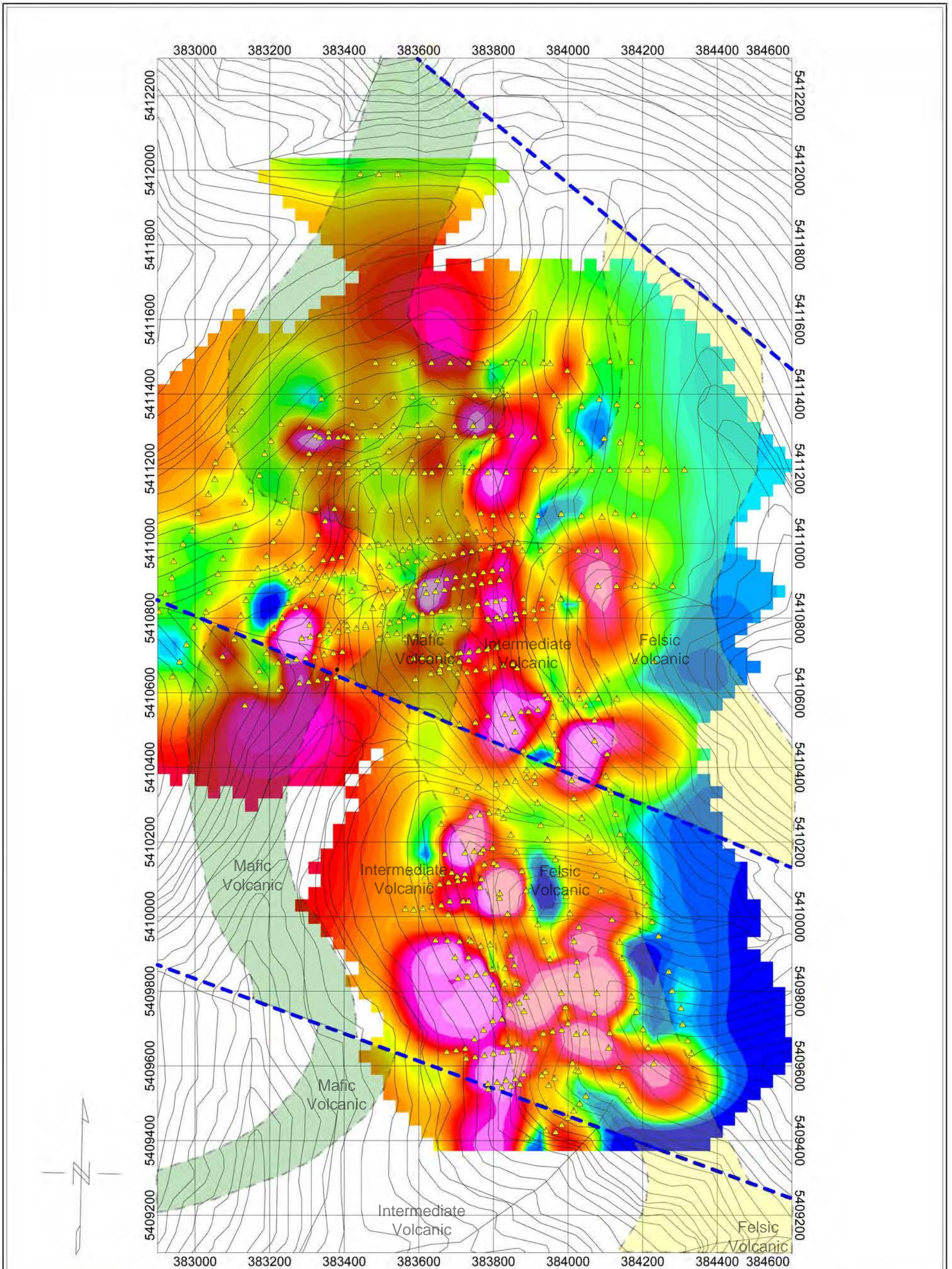


Figure 18

Scale 1:10000

100 0 100 200 300 400 (meters)

NAD83 / UTM zone 10N

2004 and 2010 Soil Samples

▲ Soil Geochemistry Sample Site (n=605)

Nitinat Minerals Corporation

Jasper Property Main Grid
2004-2010 Lead in Soil Samples

Jacques Houle, P.Eng.

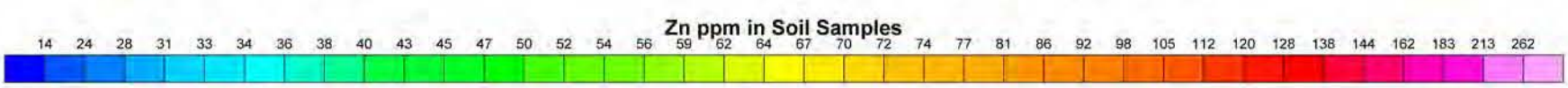
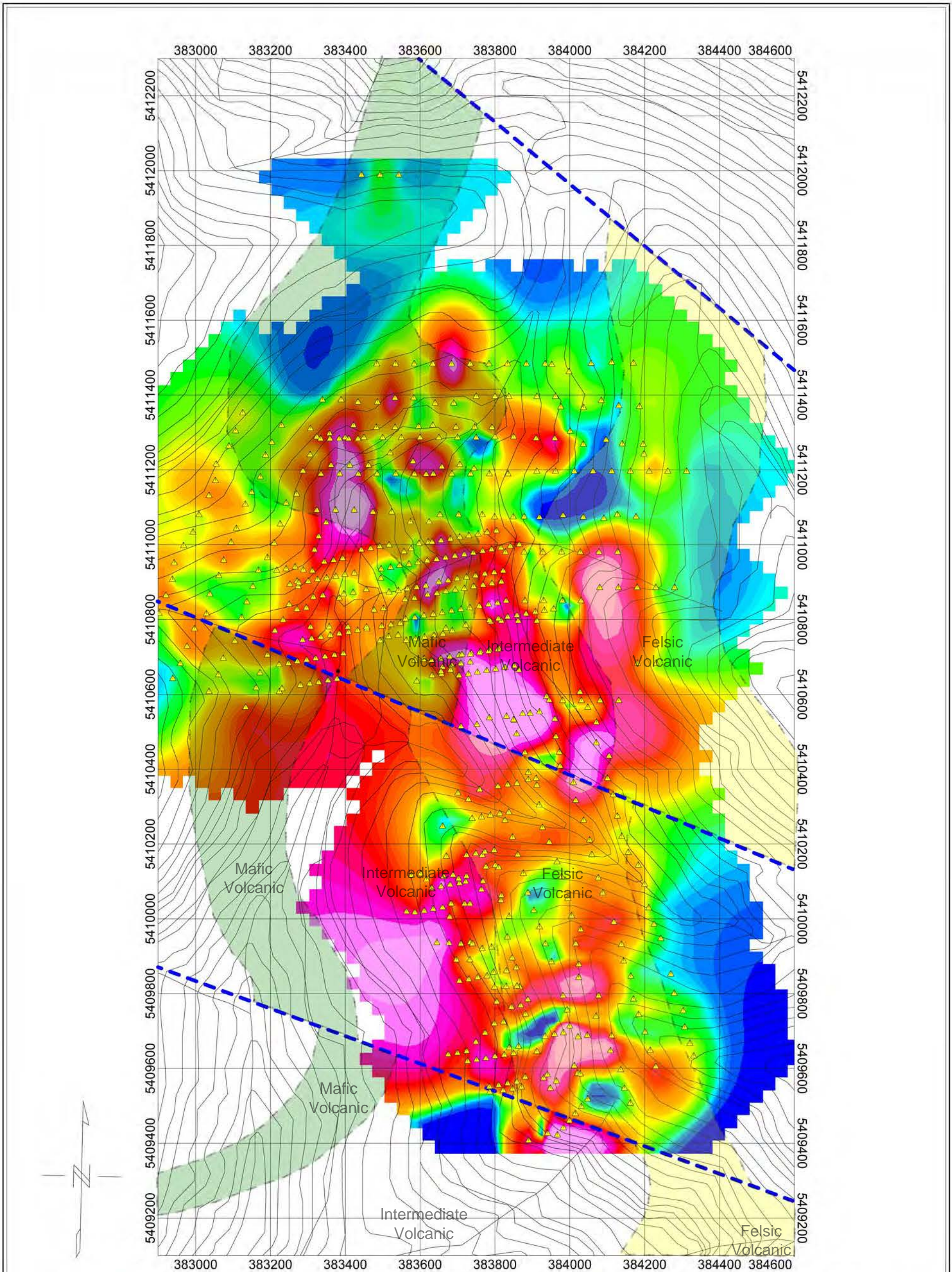
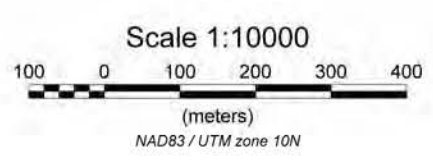


Figure 19



2004 and 2010 Soil Samples
 ▲ Soil Geochemistry Sample Site (n=605)

<p>Nitinat Minerals Corporation</p> <p>Jasper Property Main Grid</p> <p>2004-2010 Zinc in Soil Samples</p> <p><i>Jacques Houle, P.Eng.</i></p>

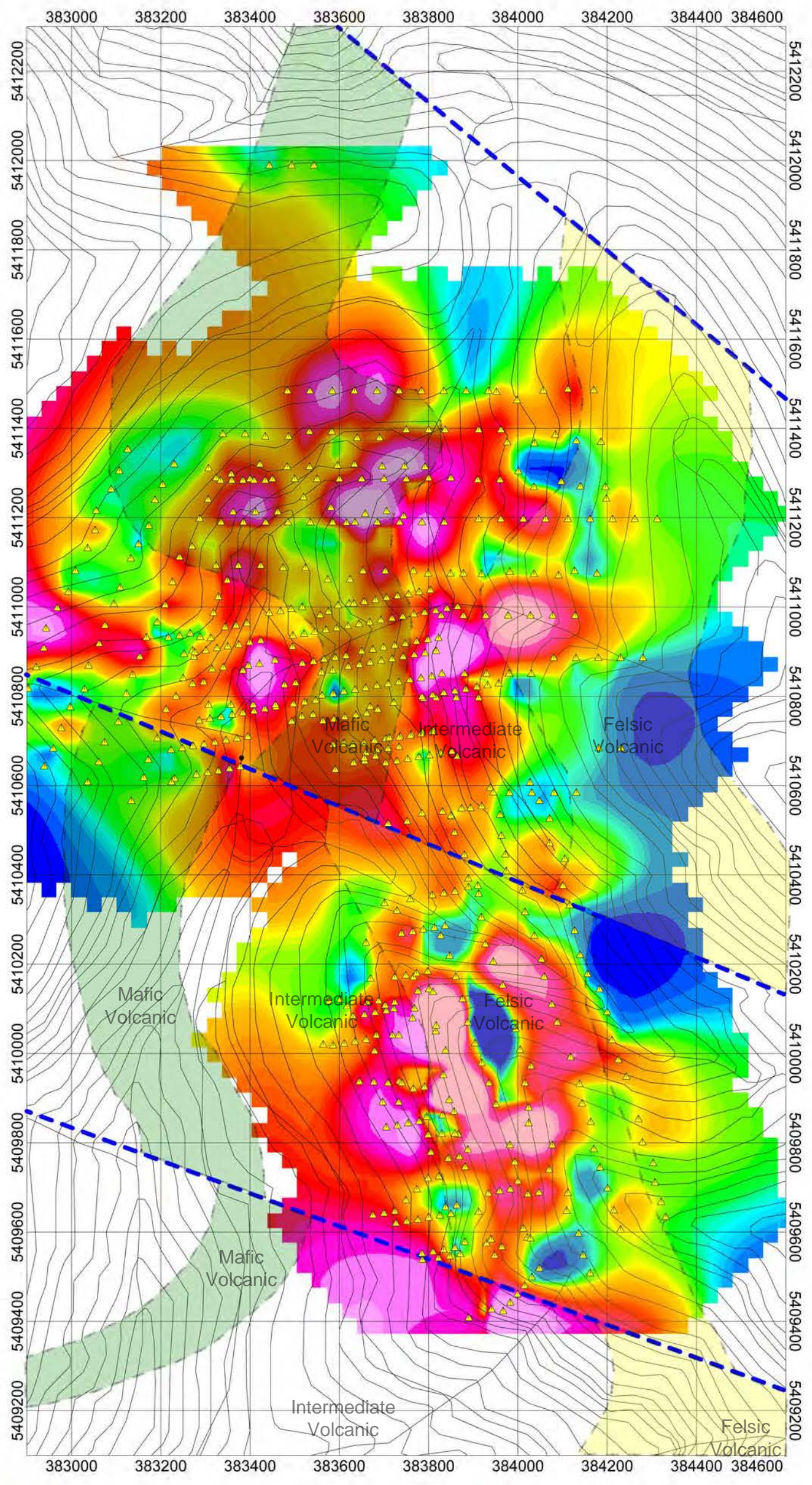
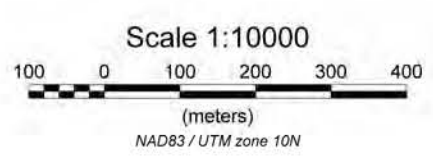


Figure 20



2004 and 2010 Soil Samples
 ▲ Soil Geochemistry Sample Site (n=605)

Nitinat Minerals Corporation
Jasper Property Main Grid
2004-2010 Molybdenum in Soil Samples
Jacques Houle, P.Eng.

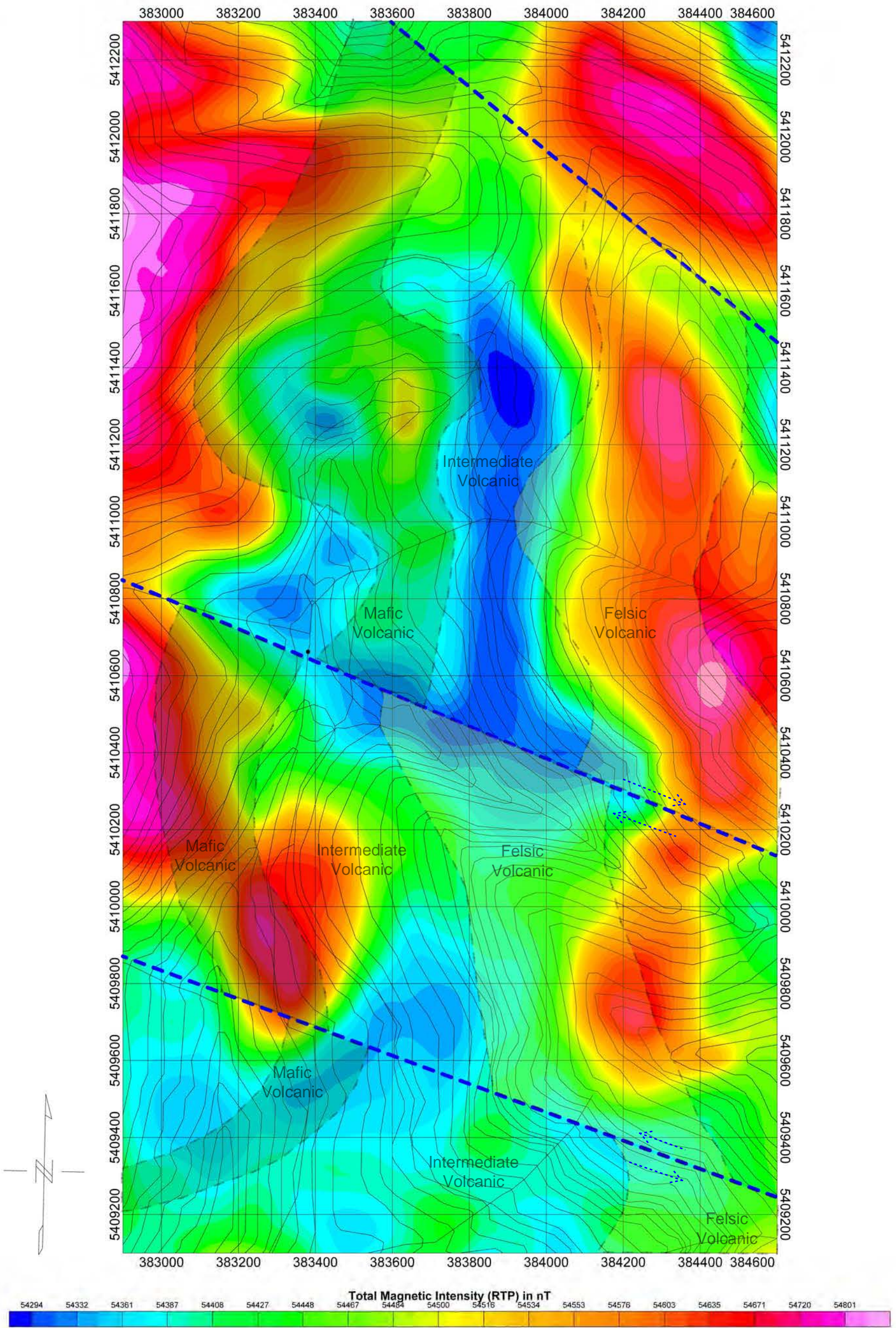


Figure 21

Scale 1:10000
 100 0 100 200 300 400
 (meters)
 NAD83 / UTM zone 10N

2008 Airborne Magnetic &
 EM Survey by Aeroquest

Nitinat Minerals Corporation
Jasper Property Main Grid 2008 Total Magnetic Intensity (Reduced to Pole)
Jacques Houle, P.Eng.

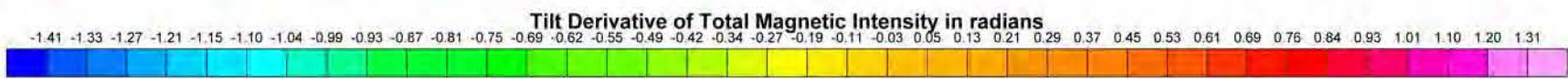
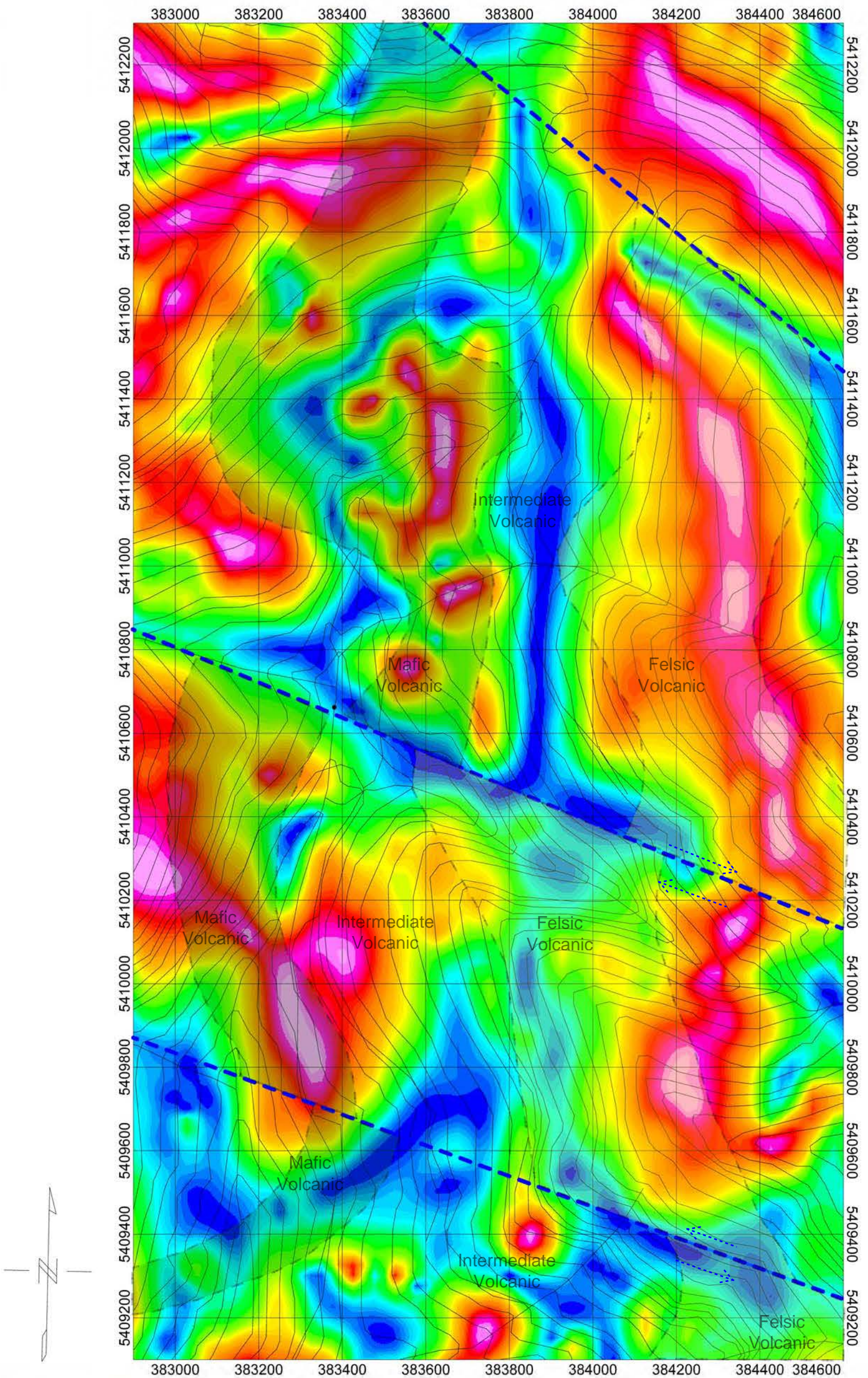
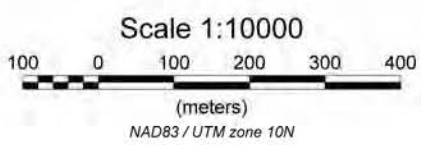


Figure 22



2008 Airborne Magnetic & EM Survey by Aeroquest

Nitinat Minerals Corporation
Jasper Property Main Grid
2008 Tilt Derivative of Total Magnetic Intensity
Jacques Houle, P.Eng.

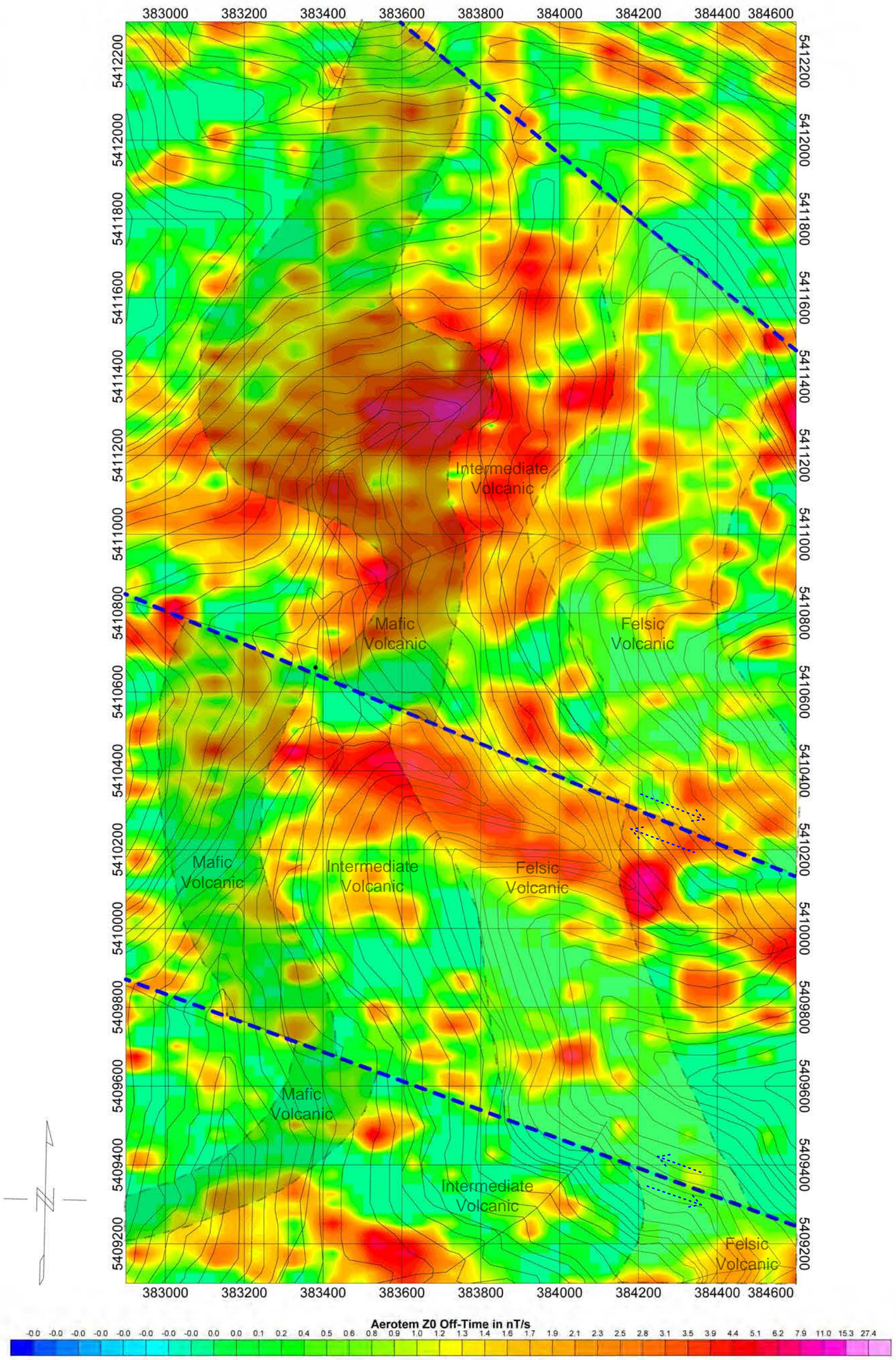
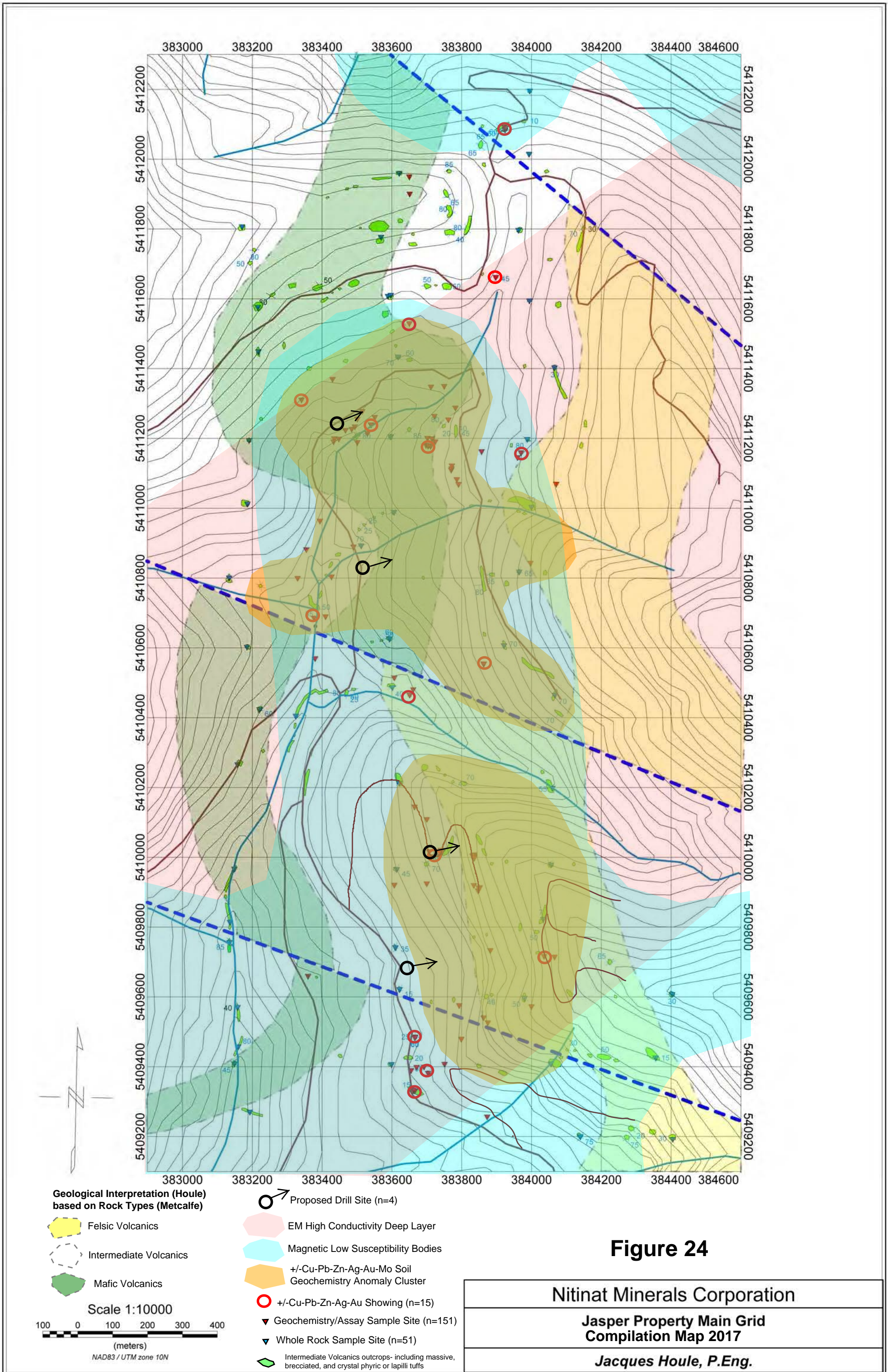


Figure 23

Scale 1:10000
 100 0 100 200 300 400
 (meters)
 NAD83 / UTM zone 10N

2008 Airborne Magnetic & EM Survey by Aeroquest

Nitinat Minerals Corporation
Jasper Property Main Grid 2008 Aerotem Z0 Off-Time
Jacques Houle, P.Eng.



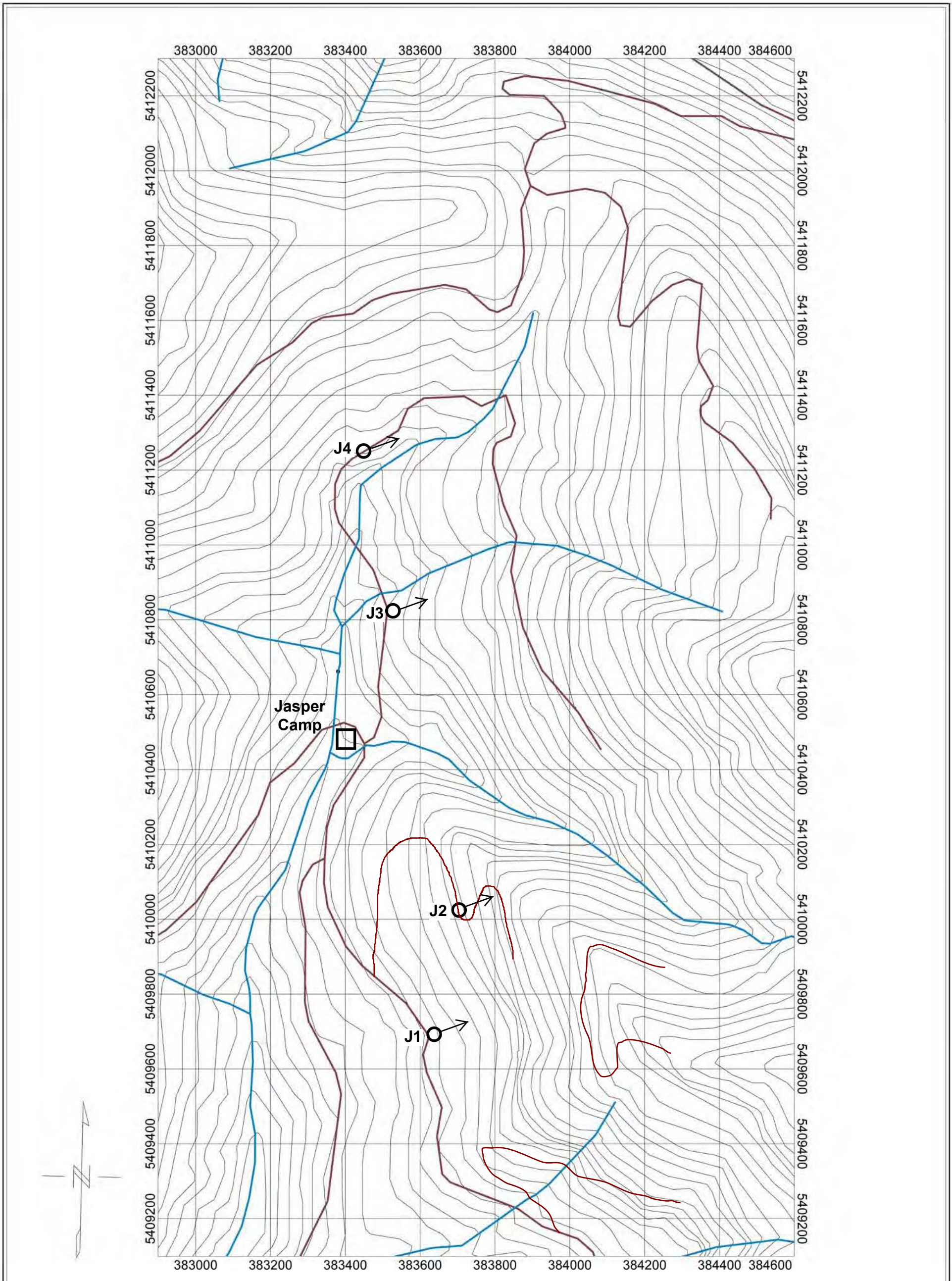
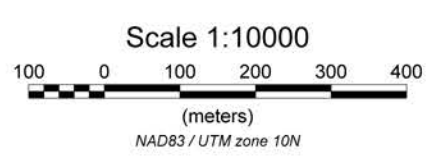


Figure 25

Proposed Drill Site (n=4)



Nitinat Minerals Corporation
Jasper Property Main Grid Proposed Drill Sites 2017
Jacques Houle, P.Eng.

2017 Jasper Assessment Report

Appendix 1 – Geophysical Data

Geophysical Interpretation Report

on an

Airborne Magnetic and Electromagnetic Survey

for

Nitinat Minerals Corporation

on the

Jasper Project

48°50' N, 124°35' W

Victoria Mining Division

N.T.S. 92C/15E

British Columbia, Canada

by

E. Trent Pezzot, P.Geo.

October 15, 2017

TABLE OF CONTENTS

	Page
1 SUMMARY	1
2 INTRODUCTION.....	1
3 PROPERTY LOCATION, ACCESS AND PHYSIOGRAPHY	1
4 GEOLOGY	5
5 AIRBORNE SURVEY DATA.....	7
5.1 Data Processing	9
5.2 Magnetic Interpretation	10
5.2.1 3D Magnetic Inversion.....	14
5.3 EM Interpretation.....	19
5.4 2,5D EM Inversions.....	22
5.4.1 Block 1	25
5.4.2 Block 2	28
5.4.3 Block 3	30
5.4.1 Block 4.....	32
5.4.2 Block 5.....	33
5.4.3 Block 6.....	35
6 CONCLUSIONS AND RECOMMENDATIONS	36
6.1 Recommendations:.....	38
7 APPENDIX 1 – STATEMENT OF QUALIFICATIONS E. TRENT PEZZOT	39
8 APPENDIX 2 – REFERENCES	40

List of Figures: These maps are inserted with the text of this report.

FIGURE 1: LOCATION MAP	3
FIGURE 2: CLAIM OUTLINE MAP	4
FIGURE 3: BC GEOLOGY MAP	6
FIGURE 4: AEROTEM AIRBORNE SURVEY GRID MAP	8
FIGURE 5: TOTAL MAGNETIC FIELD DRAPED OVER TOPOGRAPHY – 3D PERSPECTIVE ELEVATED VIEW FROM SOUTH-SOUTHEAST	10
FIGURE 6: TOTAL MAGNETIC FIELD INTENSITY COLOUR CONTOUR MAP (LINEAR COLOR DISTRIBUTION) 11	
FIGURE 7: TOTAL MAGNETIC FIELD INTENSITY COLOUR CONTOUR MAP (HISTOGRAM EQUALIZATION COLOR)	12
FIGURE 8: TILT DERIVATIVE GREYSCALE SHADOW MAP	13
FIGURE 9: MAG3D HIGH SUSCEPTIBILITY ISOSURFACE DISPLAY – SIDE VIEW FROM SOUTH LOOKING NORTH.	15
FIGURE 10: MAG3D HIGH SUSCEPTIBILITY ISOSURFACE DISPLAY – SIDE VIEW BELOW SURFACE LOOKING FROM NORTH TO SOUTH	16
FIGURE 11: MAG3D HIGH SUSCEPTIBILITY ISOSURFACE DISPLAY – SIDE VIEW FROM BELOW SURFACE LOOKING FROM WEST TO EAST	16
FIGURE 12: MAG3D ISOSURFACE DISPLAY – TOP VIEW LOOKING DOWN.	17
FIGURE 13: MAG3D LOW SUSCEPTIBILITY ISOSURFACE DISPLAY – SIDE VIEW FROM BELOW SURFACE LOOKING FROM EAST TO WEST	18
FIGURE 14: ZOFF[0] COLOUR CONTOUR MAP. LINEAR COLOUR DISTRIBUTION.	20
FIGURE 15: COMPARISON OF ZOFF[0] AND TFM RESPONSES OVER TYPE 1 AND TYPE 2 EM ANOMALIES.	21
FIGURE 16: ZOFF[0] COLOUR CONTOUR MAP DRAPED OVER TOPOGRAPHY. VIEW FROM NORTHWEST	22
FIGURE 17: ZOFF[0] COLOUR CONTOUR MAP. CUSTOM LOGARITHMIC COLOUR DISTRIBUTION	24
FIGURE 18: LINE 10870E. ZOFF PROFILE (CH 0-4), TOPO PROFILE, MAGNETIC PROFILE, EM INVERSION CROSS-SECTION.	25
FIGURE 19: 2D INVERSION CROSS-SECTIONS: BLOCK 1 AREA. LINES 10830E TO 10890E	26
FIGURE 20: LINE 10720. ZOFF PROFILE (CH 0-4), TOPO PROFILE, MAGNETIC PROFILE, EM INVERSION CROSS-SECTION.	27
FIGURE 21: LINE 10720. ZOFF PROFILE (CH 0-4), TOPO PROFILE, MAGNETIC PROFILE, EM INVERSION CROSS-SECTION.	28
FIGURE 22: 2D INVERSION CROSS-SECTIONS: BLOCK 2 AREA. LINES 10660E TO 10900E	29
FIGURE 23: LINE 10720. ZOFF PROFILE (CH 0-4), TOPO PROFILE, MAGNETIC PROFILE, EM INVERSION CROSS-SECTION.	30
FIGURE 24: 2.5D INVERSIONS BLOCK 3 LINES 10790E TO 10900E. CROSS-SECTIONS LOOKING WEST	31
FIGURE 25: 3D IMAGE - 2.5D INVERSION LINES 10810E – MH-1 PIPE	31
FIGURE 26: BLOCK 4 – EM INVERSION CROSS-SECTIONS LINES 10600E TO 10200E. VIEW FROM EAST	32
FIGURE 27: BLOCK 4 LINE 10470E, EM INVERSION CROSS-SECTION.	33
FIGURE 28: BLOCK 5 LINE 10650E, EM INVERSION CROSS-SECTION.	34
FIGURE 29: BLOCK 5 LINE 10550E, EM INVERSION CROSS-SECTION.	34

FIGURE 30: BLOCK 6 LINE 10150E, EM INVERSION CROSS-SECTION.35
FIGURE 31: BLOCK 6 LINE 10300E, EM INVERSION CROSS-SECTION. MAG3D INVERSION CROSS-SECTION.
VIEW FROM EAST.36

1 Summary

Geosci Data Analysis Ltd. was commissioned by Nitinat Minerals Corporation to interpret data from an airborne magnetic and electromagnetic survey completed over the Jasper Property in west central Vancouver Island. The intention of the study was to use the geophysical data to assist in the geological mapping of the area and identify any anomalous responses that might be related to massive sulphide mineralization observed in outcrop and drill core.

Analysis focused on the application of 3D magnetic and 2.5D EM inversion programs. These programs build models showing possible subsurface distributions of the magnetic and resistivity/conductivity properties that might produce the observed data.

The magnetic study identified several large vertical structures that could be related to intrusive and/or faulting. Large, low susceptibility basin structures were mapped underlying three of the four recorded minfile occurrences on the property.

The EM study suggests the presence of a deeply buried, sub-horizontal conductive layer underlying most of the property. This unit may represent a source of the massive sulphide mineralization found on the property.

2 Introduction

This report is based on an analysis of airborne magnetic and electromagnetic survey data, gathered across the Jasper property in February, 2008. It is written with the intention of being submitted as an appendix to an assessment report. Readers are referred to that assessment report for details concerning topics such as the property ownership and description, geology, historical work and cost breakdown. These subjects are discussed only briefly in this report as required for the context of this interpretation. Similarly, details concerning the survey logistics, instrumentation, processing and map products are contained in the airborne contractors logistics report and earlier assessment reports as listed in the References section and are not reproduced with this document.

3 Property Location, Access and Physiography

The Jasper property claims are centred approximately 80 kilometres northwest of Victoria, in the southern portion of Vancouver Island. The property consists of 9 mineral claims and covers approximately 3978 hectares.

The approximate geographical coordinates of the centre of the study area are 48°50'N and 124°35'W. The property lies in the Victoria Mining Division and NTS map sheet 92C/15E. Coordinates for all maps in this report are registered either latitude/longitude or the NAD83 datum and Zone 10 UTM projection.

All weather logging road access is from the north via Port Alberni, a distance of approximately 45 kilometres, or from the east via Cowichan Lake (25 kilometres) and Duncan (50 kilometres) with driving times of about 90 minutes from either Port Alberni or Duncan to the Property. The Jasper Creek and Granite logging roads access the northern portion of the Property and Caycuse Main the southern portion. The Jasper and Granite roads have been partially deactivated and helicopter or foot access is currently required to access much of the northern property, including the Jasper Showing. The Caycuse Main logging road from Lake Cowichan was recently made inaccessible to motor vehicles by a landslide in 2013 or 2014 which washed out a bridge on the southern part of the property, and helicopter or foot access is currently required to access the Pan Showing and all of the Main Grid area of the property.

The project area consists of rugged terrain with elevations ranging from 10m to almost 1000m above sea level. Steep incised drainages with rugged relief to approximately 300 meters characterize the physiography of the area. Much of the region has been logged in recent years and young second growth forest is present over most of the claims.

Climatic conditions are temperate with abundant rainfall in fall, winter and spring. Snow is seasonally present on the upper elevations during the period mid-December to mid-February. Summer conditions can be dry and hot during mid-July to the end of August. Local temporary closures of the woods may occur during times of extreme forest fire danger. Generally, mild West Coast climatic conditions allow for a long exploration field season.

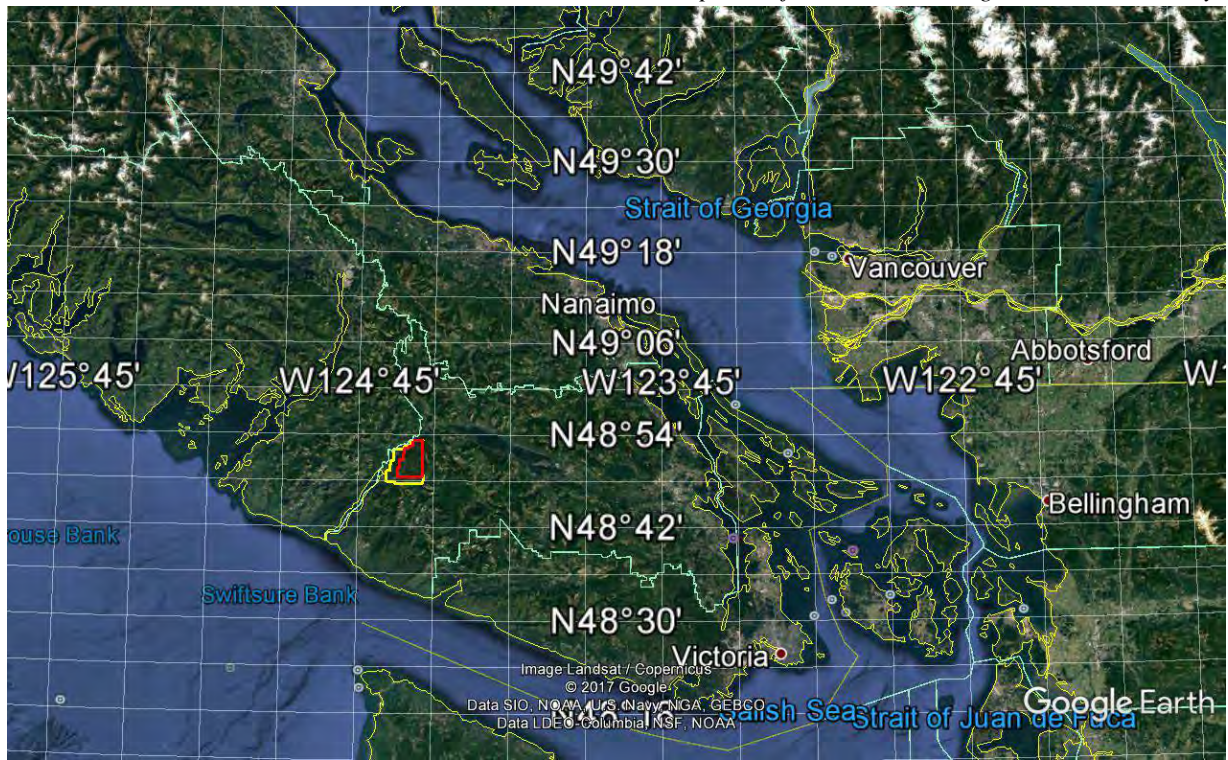


Figure 1: Location Map

Google Earth Image – Claim group outlined in red. Airborne Survey outline in yellow.

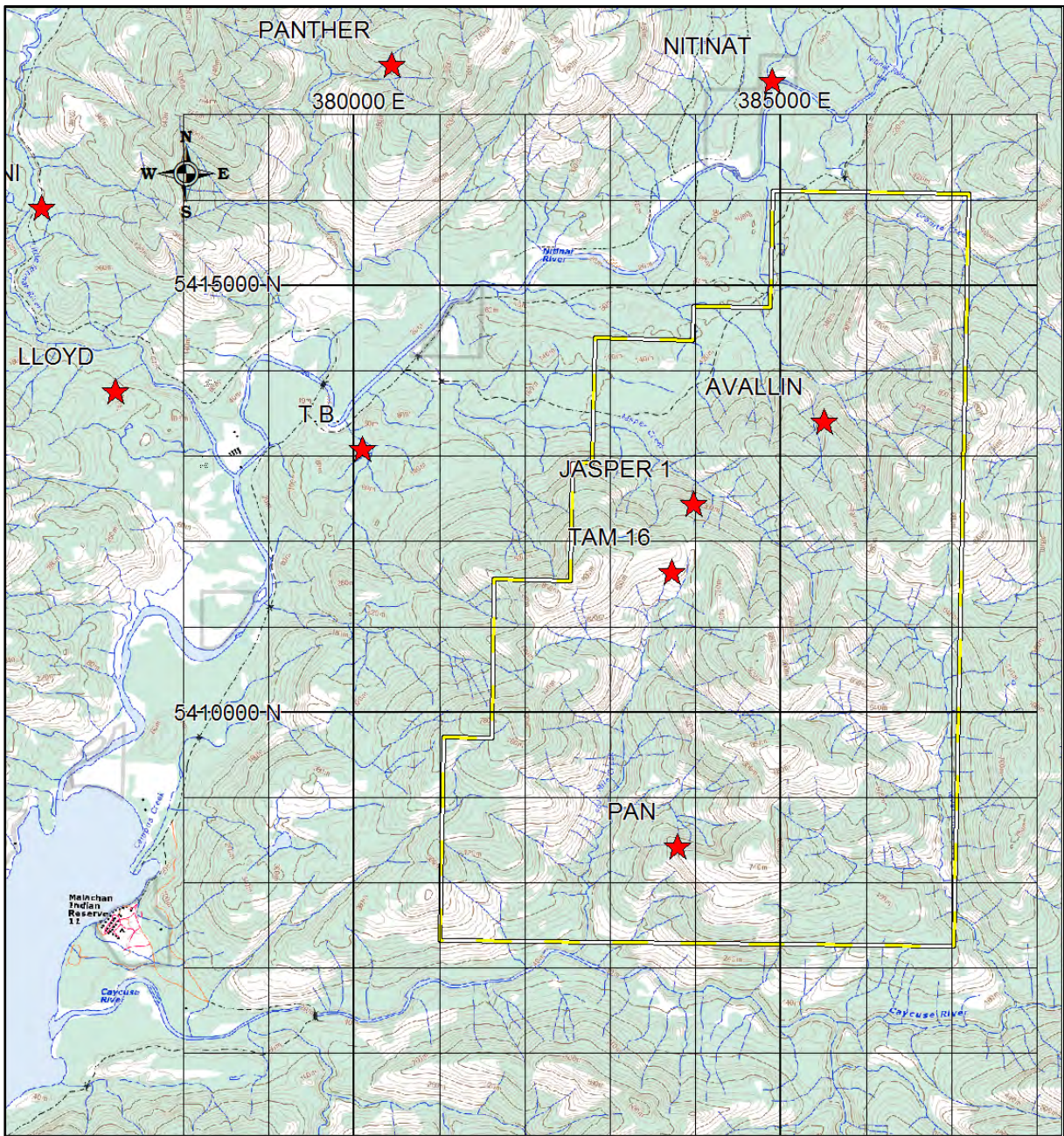


Figure 2: Claim Outline Map

092C/015 Topographic Base map – Yellow-White Line = Jasper Property Claim Outline (revised July, 2017) – Red Stars = Minfile Occurrences.

4 Geology

BCGS mapping shows the claims as being underlain primarily by calc-alkaline rocks of the Lower Jurassic Bonanza Group. These are flanked to both the east and west by Palaeozoic Sicker Group rocks which host known massive sulphide districts on the island. Granodiorite Island Intrusion stocks occur in the area, with occurrences straddling the northern and northwestern borders of the claims.

The Jasper Property hosts 4 minfile occurrences identified as the Jasper 1, Tam 16, Pan and Avallin showings.

The northern portion of the property (Jasper occurrence) is underlain by a northwest trending sequence of intermediate flows and flow breccias that have a moderate dip to the southwest. The central and southern portions of the property (Tam and Pan Occurrences) are underlain mafic and intermediate volcanic sequences. Felsic volcanics occur at higher elevations on the eastern portion of the claims. All rocks are intruded by “andesite and gabbro” dykes.

A late major fault suture that cuts Vancouver Island from the mouth of the Carmanah River on the west coast to Parksville on the east coast crosses the Jasper property. The Pan and Tam 16 occurrences along Four Mile Creek and the J-Branch Main showing on Jasper ridge occur along this major fault structure. A four kilometre long, north trending gossanous alteration zone underlies a fault from the Caycuse Creek drainage in the south to the Nitinat Valley in the north. This suggests a major period of hydrothermal activity has taken place along the system.

Geologic and geochemical studies have identified the following deposit types as potential targets on the Jasper property.

- a. Noranda/Kuroko Massive Sulphide Cu-Pb-Zn – BC Deposit Profile G06
- b. Epithermal Au-Ag-Cu High Sulphidation – BC Deposit Profile H04
- c. Epithermal Au-Ag Low Sulphidation – BC Deposit Profile H05
- d. Polymetallic Veins Ag-Pb-Zn-Au – BC Deposit Profile I05
- e. Cu+/-Ag Quartz Veins – BC Deposit Profile I06
- f. Porphyry Cu-Mo-Au – BC Deposit Profile L04

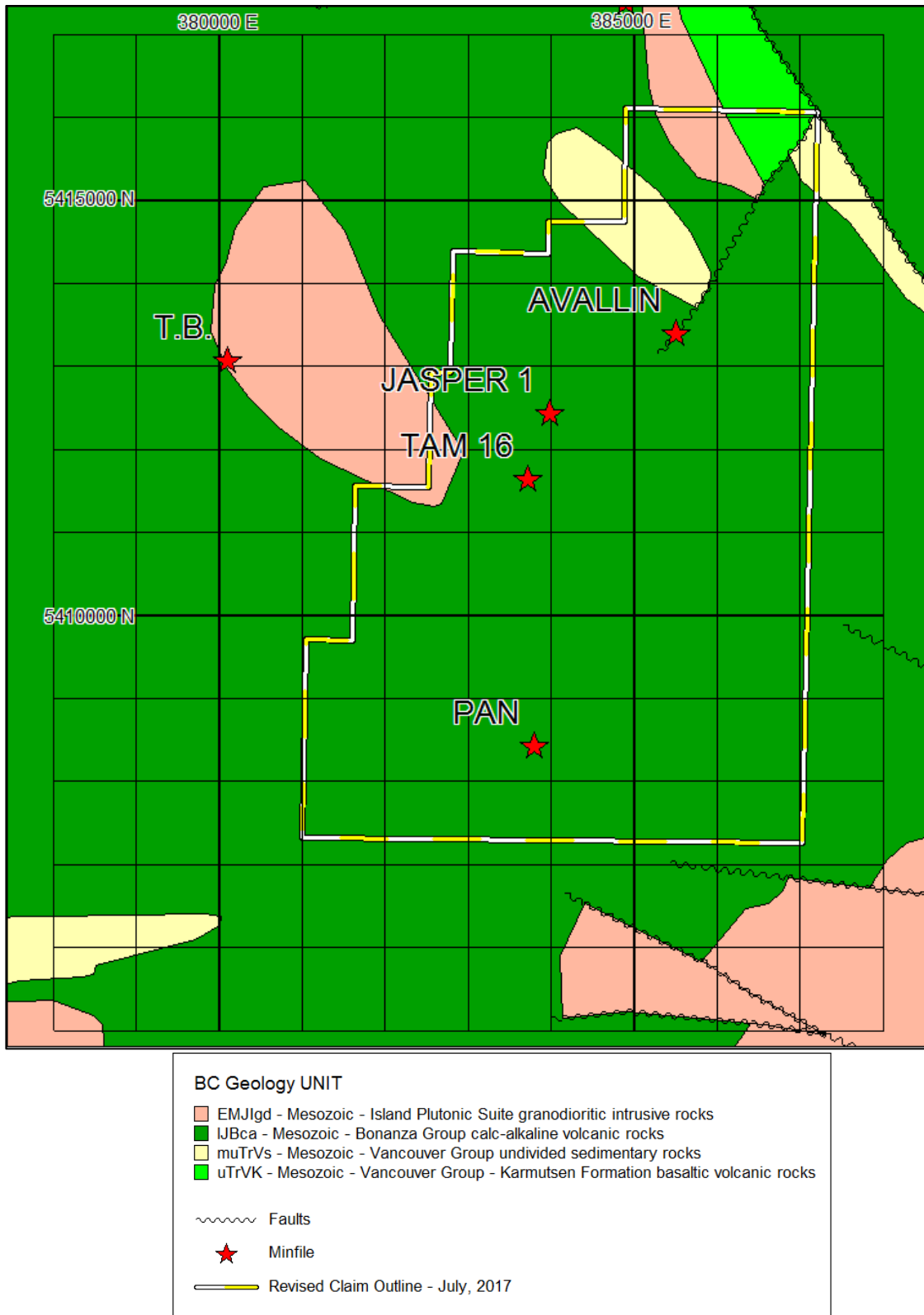


Figure 3: BC Geology Map

Revised Claim outline (July 2017) outlined Yellow-Black Line – Minfile occurrences as red stars – UTM grid at 1000 metres

5 Airborne Survey Data

In February, 2008, Aeroquest International conducted an airborne magnetic and electromagnetic survey across the Nitinat project on behalf of Inspiration Mining Corporation. The principal geophysical sensor was the Aero TEM II time domain helicopter electromagnetic system which was employed with a high sensitivity caesium vapour magnetometer. Ancillary equipment included real-time differential GPS, radar altimeter, video recorder and a base station magnetometer. Full waveform EM data was streamed at 36,000 samples per second and comprised the transmitted waveform and the X and Z component of the resultant field at the receiver.

The total survey coverage was 817.9 line-km, of which 789.1 line-km fell within the defined claim area at the time of the survey. The flight lines were oriented north-south at spacings of 100 metres, and the control (tie) lines were flown east-west at spacings of 1000 metres. The nominal terrain clearance of the EM bird was 30 metres, although this was higher in more rugged terrain due to safety considerations and the capabilities of the aircraft. The magnetometer sensor was mounted in a smaller bird and towed some 17 metres above the EM bird.

A report completed by Aeroquest (dated April, 2008) details the survey and instrument specifications. This report also briefly summarized the magnetic and EM responses. Aeroquest identified 22 anomalous EM responses. These anomalies appear to have been selected by an automated interpretation algorithm that identifies combinations of responses in the X and Z component profiles that are associated with common conductive geometries.

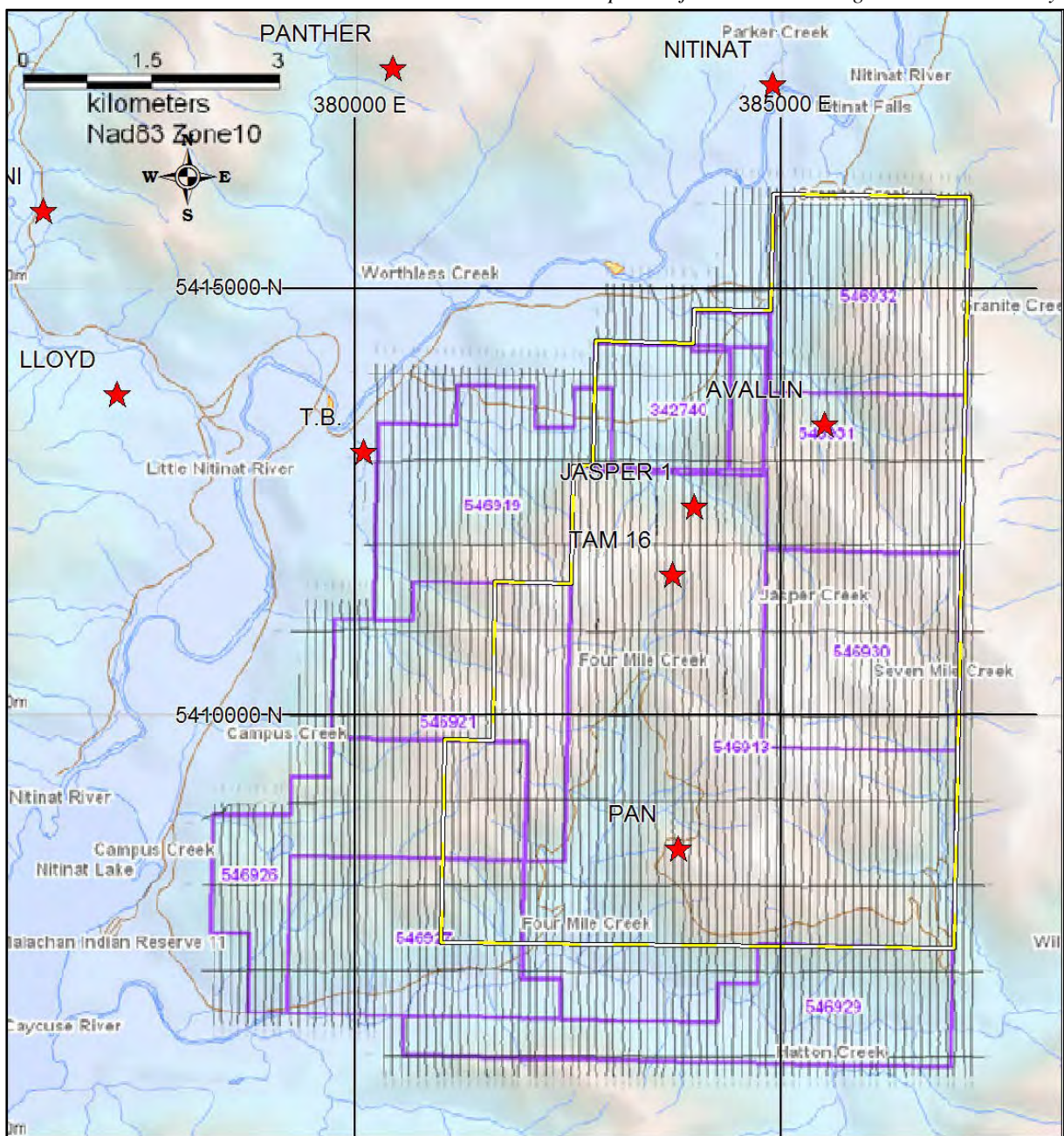


Figure 4: AeroTEM Airborne Survey Grid Map

92G/015 – Shaded Topographic Base Map (1:50000) airborne survey lines in black – UTM grid at 5000m (NAD83 Zone 10N). Purple Outline shows claims at time of survey (February, 2008), Yellow-White outline shows revised claims (July, 2017).

5.1 Data Processing

Standard reduction procedures were applied by Aeroquest to the raw data for both geophysical techniques. Final levelled data was provided as selected colour contour plan maps, geosoft formatted grid and map files and a geosoft formatted digital database. Data was referenced to flight, line, fiducial, utctime and GPS coordinates (easting and northing in NAD83, UTM Zone 10N). The 1:10000 scale plan maps of the geophysical data produced by Aeroquest have not been reproduced here.

The final Aeroquest data was imported to Geosoft Oasis Montaj for further processing. Stacked profile and plan colour contour maps were made of the magnetic and Zoff component data. Magnetic data was exported into UBC inversion format files. EM Zoff and Xoff array data was expanded into their component parts and selected survey configuration parameters were added to the database which was then exported into a csv formatted file. The EM data was reformatted for input to the ArjunAir 2.5D inversion program. A digital elevation model for the area was extracted from the Geobase DEM and used for the 3-D draping and 3-D inversion processing.

The magnetic data was input to a 3D inversion algorithm that generates a 3D voxel model showing a subsurface distribution of the rocks' magnetic susceptibility parameter that could produce the observed data. A regional inversion, including the entire data set was completed using input data grid to 100 metre cells and modelled with a 50 metre voxel mesh. This study reveals characteristics about the major geological structures and lithologies.

The EM data was input to the ArjunAir 2.5D EM Inversion algorithm that generates a 2D cross-section showing the subsurface distribution of the ground resistivity/conductivity parameter below the survey line. Input data, provided at 10 metre intervals along the survey lines were analysed and modelled to a horizontal mesh of 50 metres and vertical mesh of 10 meters.

These models are best viewed in a 3D viewing program that allows the user to visualize the interpreted models from different angles and perspectives, generate depth slices or cross-sections at any angle and isolate specific responses based on threshold or isocontour values. Magnetic inversion models are input as 3D voxel models. EM inversion models are input as vertical cross-sections that are properly registered into the 3D space.

Final mapping was completed in MapInfo and 3D model files were converted into VTK format for 3-D visualization in the Paraview and Mayavi2 programs.

5.2 Magnetic Interpretation

Maps and displays included as images with the text of this report include UTM coordinates (NAD83, Zone 10N), grid lines and/or the claim outline which can be used to reference and scale the applicable features. The digital files (MapInfo format) used to generate these maps are provided and can be used to produce scaled plots.

The magnetic data is presented in colour contour format, draped over topography as Figure 5. This 3D perspective, viewed from an elevated position from the south-southeast reveals the general correlation between high magnetic amplitudes associated with the hills and lower magnetic amplitudes with the valleys. It also illustrates that this correlation is not absolute and numerous examples are evident where localized magnetic highs and lows are positioned along the slopes. These non-topography related anomalies are most likely reflecting geology.

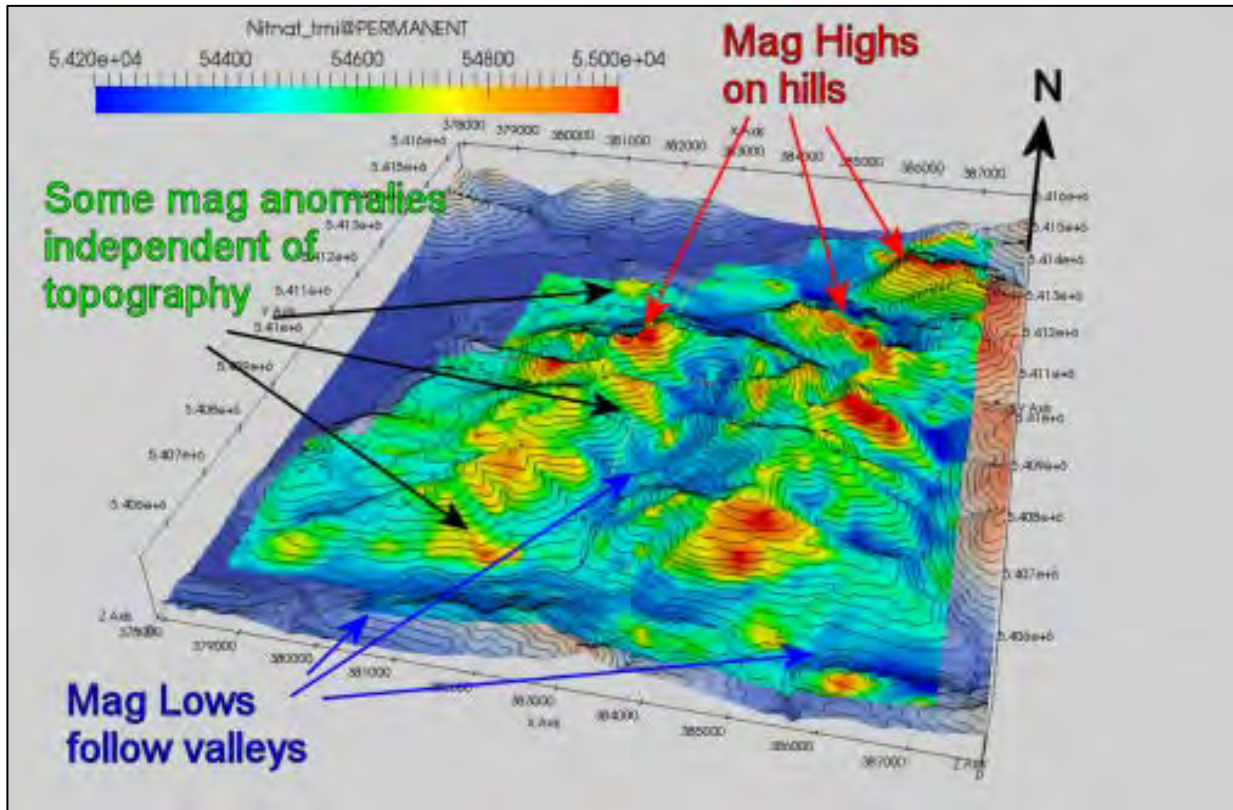


Figure 5: Total Magnetic Field draped over Topography – 3D Perspective elevated view from South-southeast.

The magnetic data is presented in plan colour contour format as Figure 6 (linear colour distribution) and Figure 7 (histogram equalization colour distribution). Figure 6 highlights the extreme high and low responses while Figure 7 enhances more subtle features.

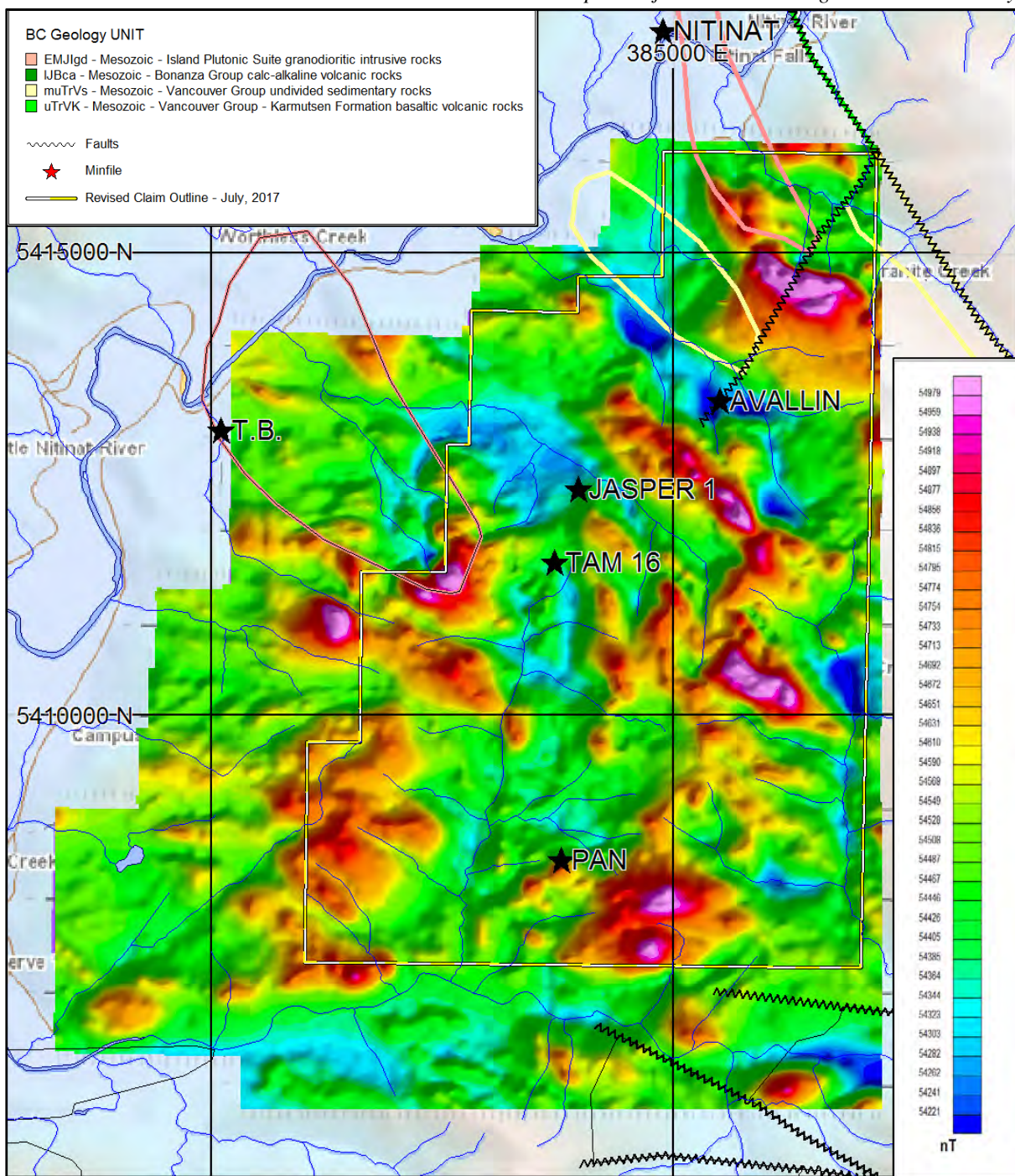


Figure 6: Total Magnetic Field Intensity Colour Contour Map (Linear Color Distribution)
 Shadow Enhanced with illumination from SE. Minfile Occurrences – black stars. Claim outline – yellow-white line. BC Geology - color coded lines.

Considerable magnetic relief across the property suggests there is significantly more complex geology than the single, Bonanza Group volcanic unit shown as covering most of the area. It is likely that the magnetic responses are mapping facies changes within the rock group. The large granodiorite intrusion straddling the northwest corner of the claims appears as a relatively quiet magnetic area of moderate intensity. The northwest elongated ellipsoid of

undivided sedimentary rocks in the northeast corner of the survey coincides with a relatively quiet and low amplitude magnetic response.

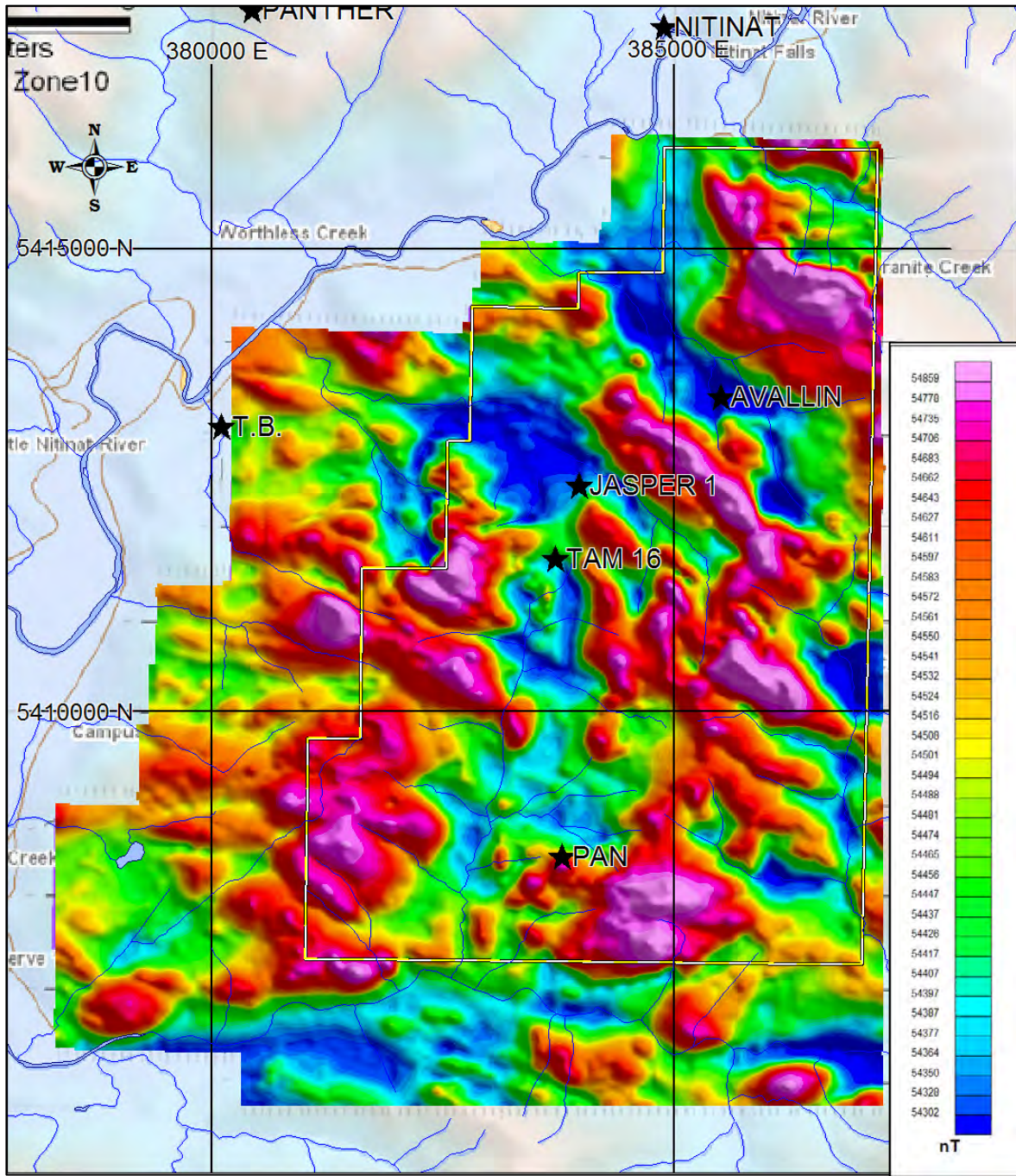


Figure 7: Total Magnetic Field Intensity Colour Contour Map (Histogram Equalization Color) Shadow Enhanced with illumination from NE. Minfile occurrences – black stars. Claim outline – yellow-white line.

There are two NNE trending bands of high magnetic values evident. One runs along the hills west of Four Mile creek, straddling the western edge of the property. The other follows the hills to the east of Four Mile creek and extends to the northeast corner of the claim group.

These trends fall along a projection of the Bonanza Group – Island Plutonic intrusive contact mapped to both the south and north of the property. Each of these trends is comprised of small magnetic features which generally form 1 to 2 km long northwesterly elongated pods. These anomalies include several very high amplitude features.

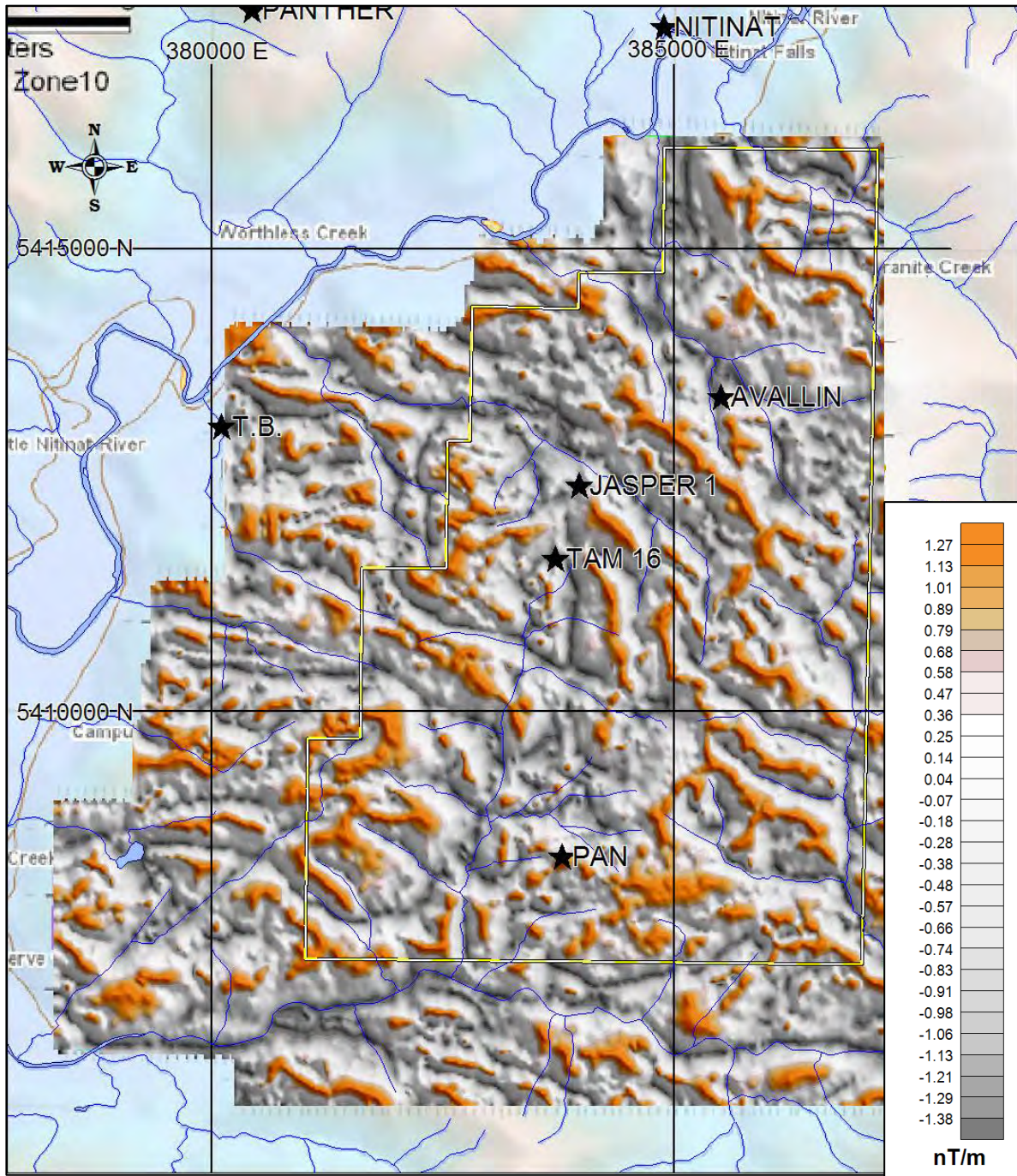


Figure 8: Tilt Derivative greyscale shadow map

Shadow Enhanced with illumination from NE; Geology contacts as colored lines. Mineral Showings – black stars. Claim outline – yellow-white line.

The northwesterly orientation of the individual magnetic anomalies that comprise the larger NNE trends is evident across the entire property. These trends are clearly reflected on the tilt derivative map, Figure 8. The tilt derivative filter is applied to the reduced to the pole magnetic data and enhances the smaller wavelength magnetic features which define shallow basement structures.

Figure 8 reveals that many of the negative tilts (black) coincide with streams and the positive tilts (orange) with ridges. However, it also delineates many shorter and weaker trends that are not as evident on the total field map displays. The fabric evident on this display highlights the underlying northwesterly trending structures. Breaks and discontinuities of these northwest striking linears tend to align to form northerly and northeasterly striking lineations that likely reflect faulting.

5.2.1 3D Magnetic Inversion

A 3D Inversion of the magnetic data was completed of the entire airborne data set to build a 50m voxel mesh model to show one possible subsurface distribution of the rocks magnetic susceptibility values that might produce the observed survey data. The scale of this model was designed to reveal characteristics of the major geological structures and lithologies. Ground magnetic data gathered, along more closely spaced survey lines, may provide further insights as to the nature of localized, near surface structures.

Digital data files of this inversion model are provided that can be used in several different 3D visualization. For this project, the Paraview software, which uses the virtual toolkit format (vtk), has been used to analyse and display the inversion results.

The two major NNE striking high magnetic trends that follow the hills flanking Four Mile Creek appear to be comprised of a series of large, vertically oriented bodies that merge at depth. These may represent deep basement structures (Figure 9)

The regional features contain narrow, high susceptibility pipes that either reach or approach the ground surface below the higher amplitude magnetic anomalies seen on the colour contour plan maps (Figure 10).

Figure 11 illustrates the five strongest of these high susceptibility cores. Each exhibits slightly different characteristics.

- MH-1 is located in the extreme northeast corner of the survey and exhibits the largest and most consistent core, extending from surface to over 2 km depth.
- MH-2 forms a narrow, NW striking plate like body that follows (or controls) a topographic ridge. The source appears to extend for approximately 2 km strike-length, 500 metres depth and dip steeply to the north-northeast.

- MH3 is located near the centre of the eastern trend. It forms a slightly NW elongated cylindrical body that plunges steeply to the NW. Unlike MH-1, the high susceptibility core of this body is strongest at the surface and gradually decreases in size with depth, eventually fading out near 1 km depth.
- MH-4 is at the southern end of the eastern trend. It differs from the other anomalies in that the central high susceptibility core does not reach the ground surface, but appears to form a vertical ellipsoid buried approximately 350 metres below the surface.
- MH-5 is located at the northern end of the western trend. It is most similar to MH-3, showing the same relative size and intensity, but appears to have a limited depth extent.

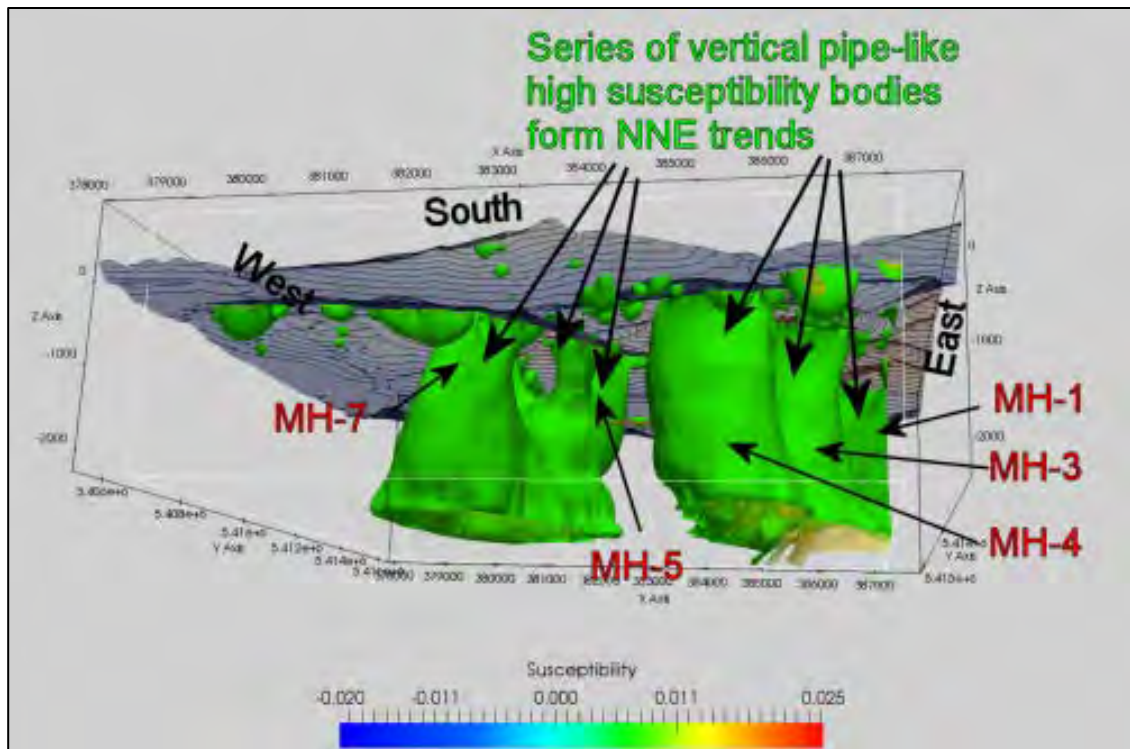


Figure 9: Mag3D High susceptibility Isosurface Display – Side view from south looking north.
Green Isosurface = +0.0075 SI.

Two weaker magnetic highs are also flagged along the western trend.

- MH-6 forms a smaller and lower amplitude version of the MH-5 anomaly, located some 1.1 km west-southwest. This anomaly lies just outside the reduced claim block and appears to form an apophysis from the deeper trend.
- MH-7 appears as a combination of the MH-3 and MH-4 anomalies in that it forms a large, cylindrical pipe, like MH-3 but the central core does not appear to reach the ground surface, like MH-4.

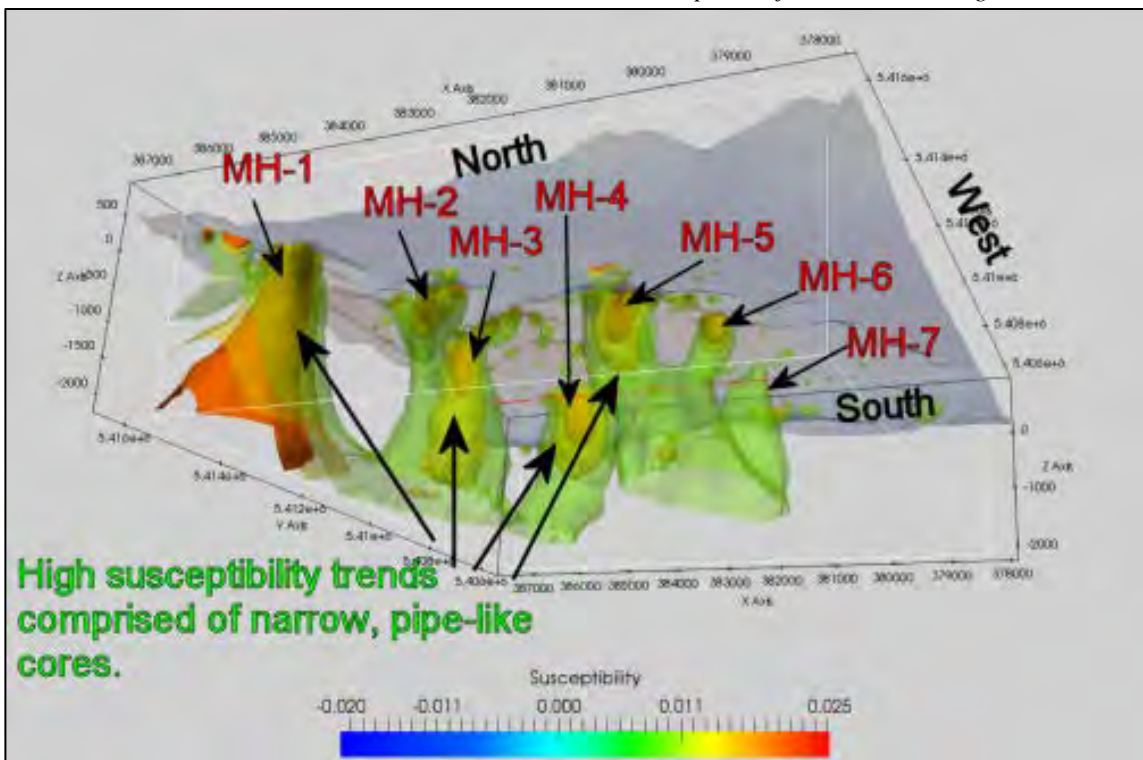


Figure 10: Mag3D High Susceptibility Isosurface Display – Side view below surface looking from north to south.

Isosurfaces: Green = +0.01 SI. Yellow = +0.015 SI. Orange = +0.02 SI.

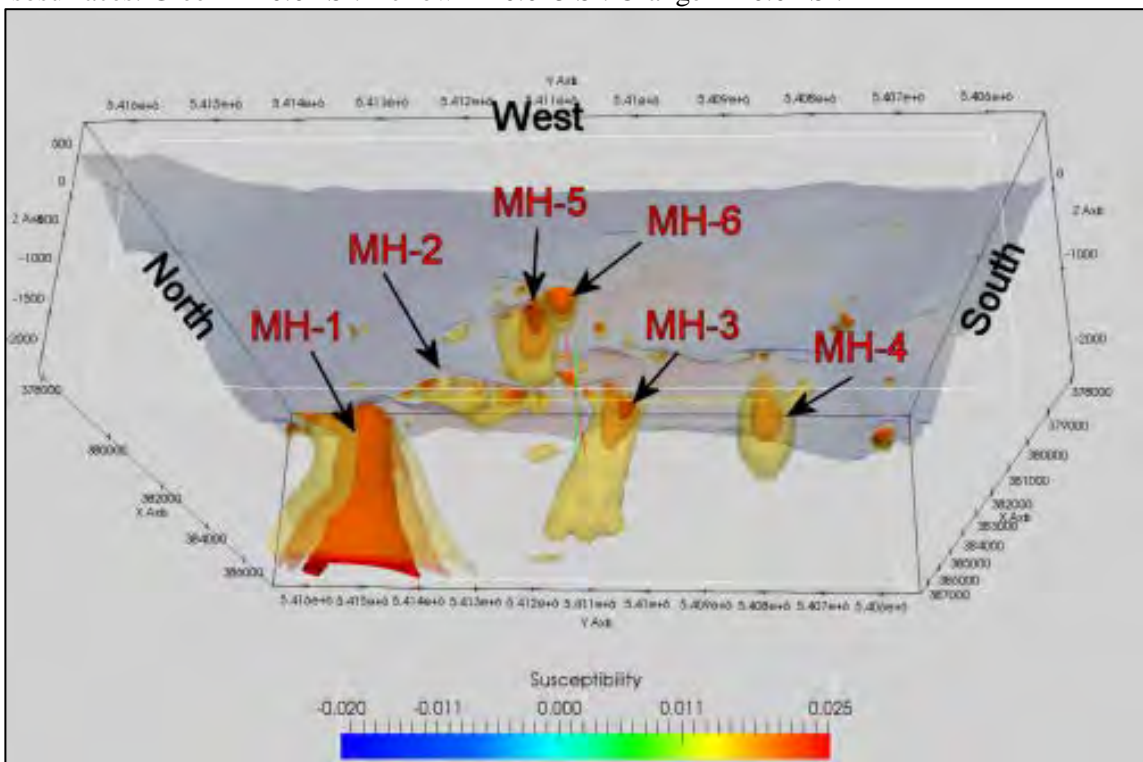


Figure 11: Mag3D High Susceptibility Isosurface Display – Side view from below surface looking from west to east.

Isosurfaces: Yellow = +0.015 SI. Orange = +0.02 SI. Red = +0.025 SI

Additional structures and lithologies are revealed by examining the low susceptibility portions of the inversion model. In addition to numerous small, near surface pods, which are likely too small to be accurately delineated by the airborne survey, there are four, large low susceptibility bodies apparent. Two of these (ML-2 and ML-3) form basin like structures. The other, two reflect narrow, plate-like bodies.

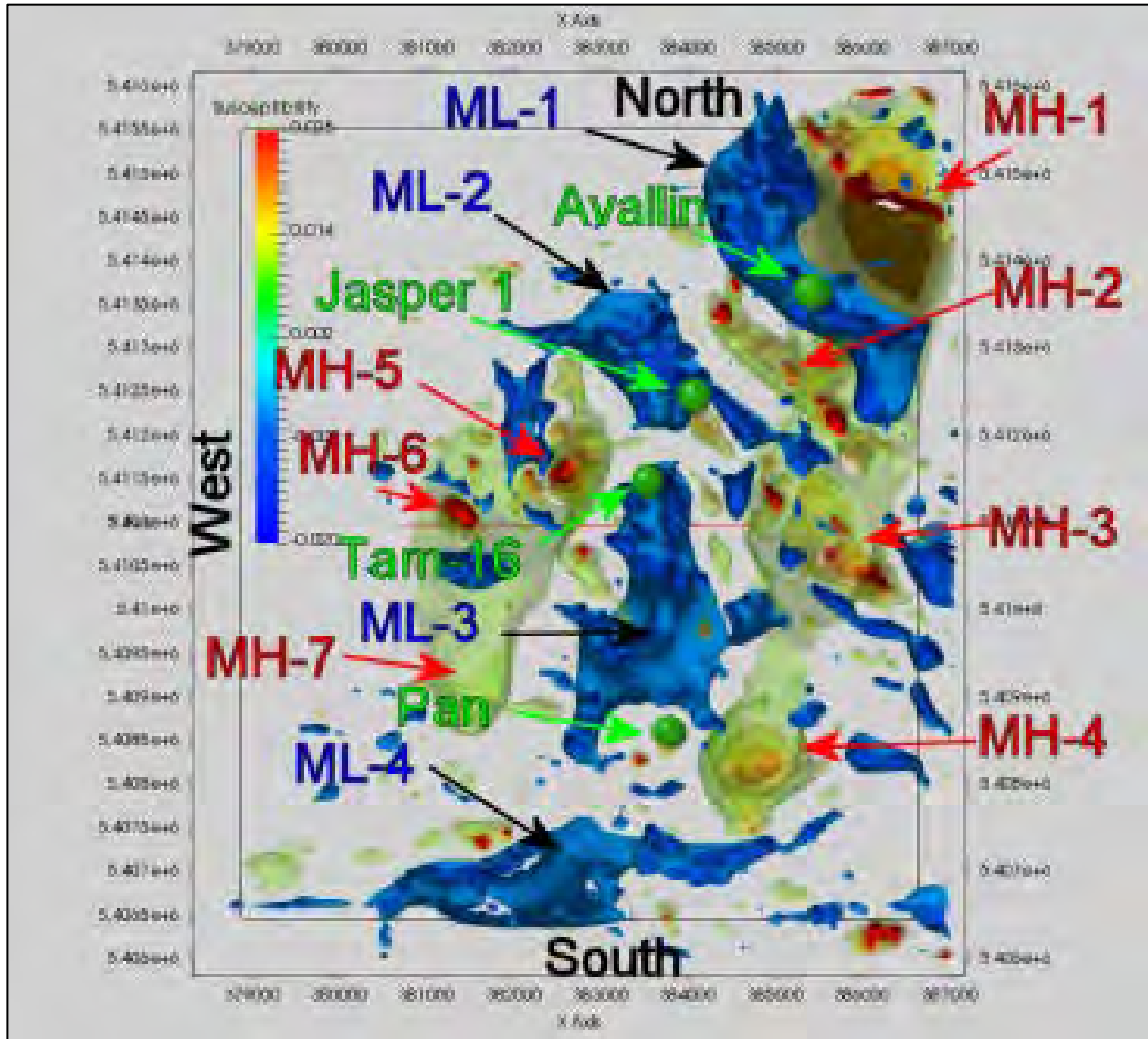


Figure 12: Mag3D Isosurface Display – Top View looking down.

Isosurfaces: Blue = -0.006 SI shows large, low susceptibility features.

Translucent Green = +0.01 SI shows main NNE high susceptibility regional trends.

Translucent Yellow – red = +0.015 to +0.025 SI high susceptibility pipes.

Minifile occurrences as green balls.

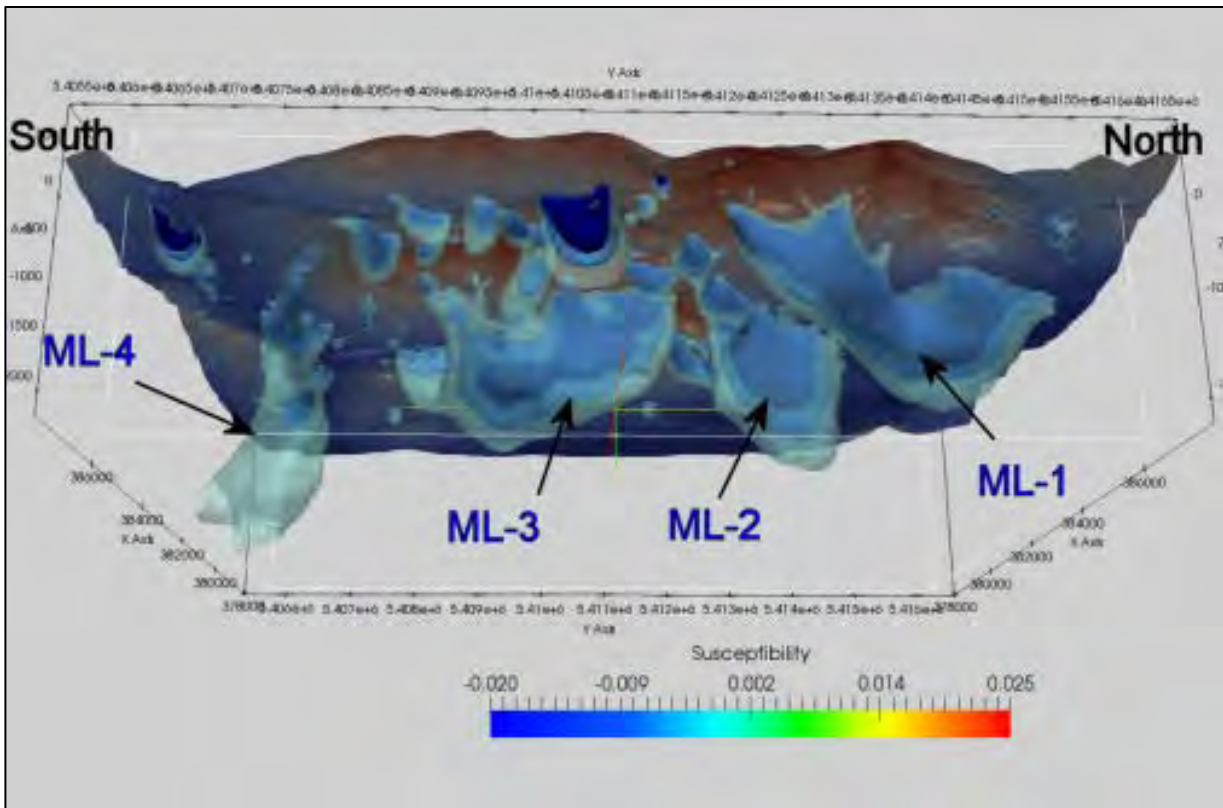


Figure 13: **Mag3D Low Susceptibility Isosurface Display – Side view from below surface looking from east to west.**

Isosurfaces: Translucent Light Blue = -0.006 SI, Translucent moderate blue = *0.008 SI, Dark Blue = -0.01 SI.

- ML-1 forms an arcuate, “S” shaped plate like lineation that closely follows Tenas Creek, a northwesterly flowing drainage in the northeastern corner of the property. The central core of the anomaly appears to be a near vertical, thin plate that extends from ground surface to a kilometre in depth. The anomaly appears to be related to a large body of Vancouver Group sedimentary rocks shown on the BC Geology Map. The Avallin mineral showing (copper – silver skarn) is located near the midpoint of this anomaly.
- ML-2 forms a basin like pod centred on Jasper Creek. The pod is approximately 1500m NW x 800m NE and up to 1000m deep. The Jasper-1 minfile occurrence (Noranda/Kuroko style massive sulphide mineralization with Cu, Pb and Zn) is located at the southeastern tip of this anomaly. The abrupt termination of the anomaly and similar structural breaks to both the northeast and southwest, suggest this showing may be related to a northeasterly striking fault zone.
- ML-3 is the largest of the low susceptibility bodies and forms a southerly striking and southerly plunging basin like body that lies below Four Mile Creek. The Tam-16

minfile showing (Noranda/Kuroko style massive sulphide mineralization with Cu, Pb and Zn) is located at the northern tip of this body where it appears to outcrop.

- ML-4 forms a narrow, plate-like body that follows the westerly flowing Caycuse Creek immediately south of the newly revised claim outline. The response appears to map a steep southerly dipping structure.

5.3 EM Interpretation

The AeroTEM system is designed to map changes in the electrical conductivity of the ground. These effects are correlated with other geophysical and exploration data in an attempt to assist in the geological mapping of the study area. In addition to detecting lithological variations, they can sometimes also directly detect conductive bodies that may be discrete exploration targets.

Aeroquest's study of the EM data identified twenty-two (22) low conductance anomalous responses across the property. Nineteen (19) of these combine to form 3 conductive lineations, varying from 500 to 1000 metres in length as shown on Figure 14. The northernmost conductor, near the Avallin minfile showing is interpreted as a thin, vertical conductor while the other two are interpreted as thick vertical conductors. This classification is based on the characteristics of the profile response.

Figure 14 is a colour contoured plan view of the signal amplitude for the first time window after current shutoff for the Z component receiver (Zoff[0]). This is representative of the responses seen in the first 4 to 5 time channels. At later times the TEM signals are very low amplitude and essentially reflect background noise.

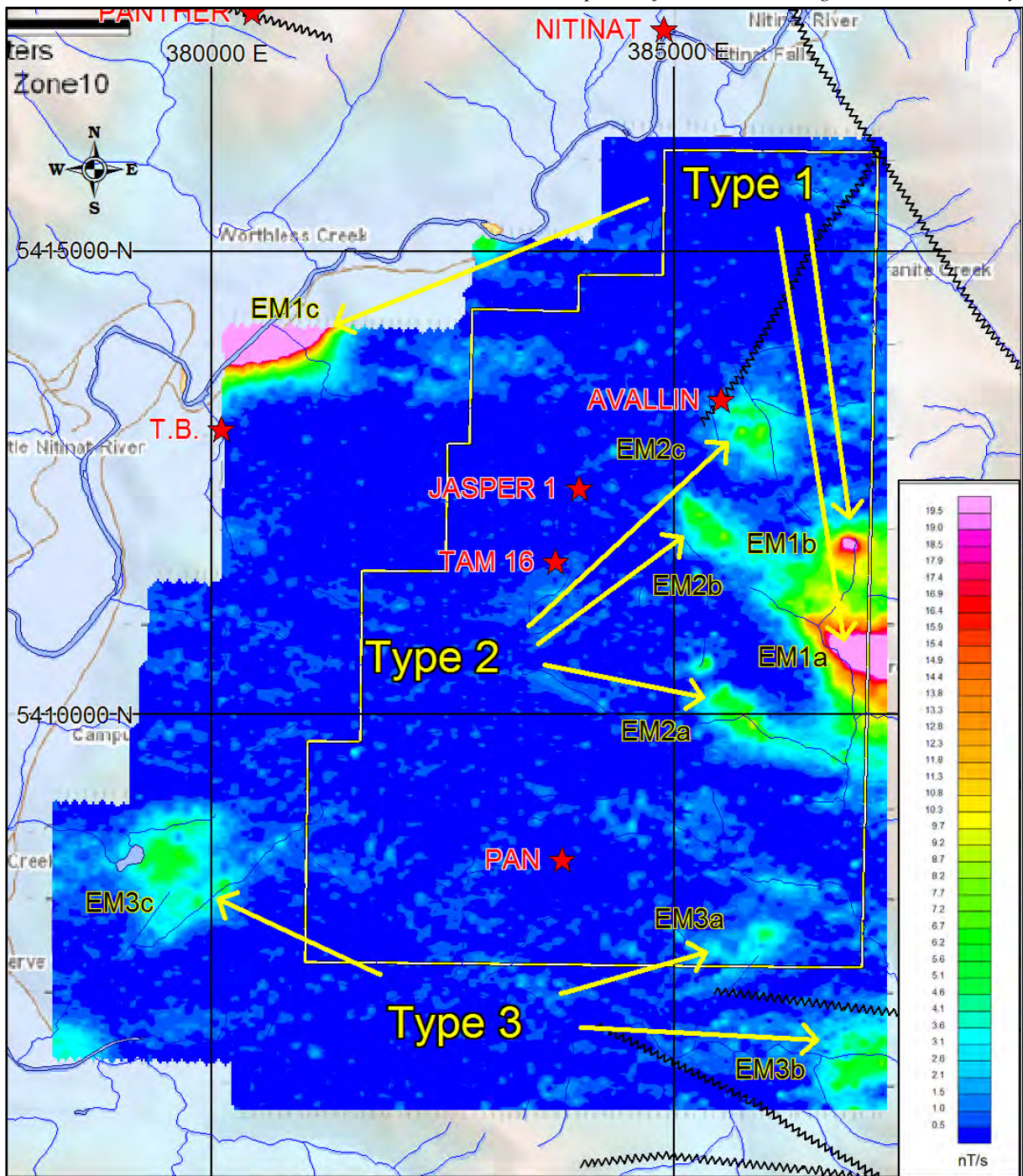


Figure 14: Zoff[0] Colour Contour Map. Linear Colour Distribution.

Minifile occurrences as Red Stars. Aeroquest TEM anomalies as white circles. Claim outline as yellow-white line.

This display shows the bulk of the property reflects very low TEM signals, indicative of a resistive near surface environment.

Several areas exhibiting higher amplitudes are evident across the area. These can be separated into three different types.

- Type 1 is associated with the highest amplitude responses (> 50 nT/s). Three examples of this type are evident. EM1c is located in the northwest corner of the grid. It lies outside the claim area and within the no staking reserve. It is only partially defined on the northern ends of lines 10200E to 10320E. This response is likely associated with the Nitinat River. EM1a and EM1b are located along a southerly facing slope near the eastern claim boundary and surrounded by a moderate amplitude (> 20 nT/s) halo some 2.6 km long (N-S) and at least 600m wide that is open to the east.

- Type 2 anomalies are characterized by low amplitude responses that form westerly to northwesterly elongated features. Three instances of this anomaly are noted and all are associated with the vertical, plate conductive lineations flagged by Aeroquest. EM2a, the southernmost of these anomalies follows a southeasterly flowing drainage. EM2b and EM2c are located at the lower elevations along either side of a northwesterly trending ridge. The northern of these (EM2c) is associated with the Avallin minfile showing. The ridges proximal to anomalies are all delineated as strong magnetic highs. The magnetic inversion modelling interprets EM2a as flanking a near vertical, northeasterly elongated pipe-like body that extends to depth (MH-3). Mag3D modelling shows the ridge separating EM2b and EM2c follows a thin, northwesterly striking dyke-like body (MH-2).

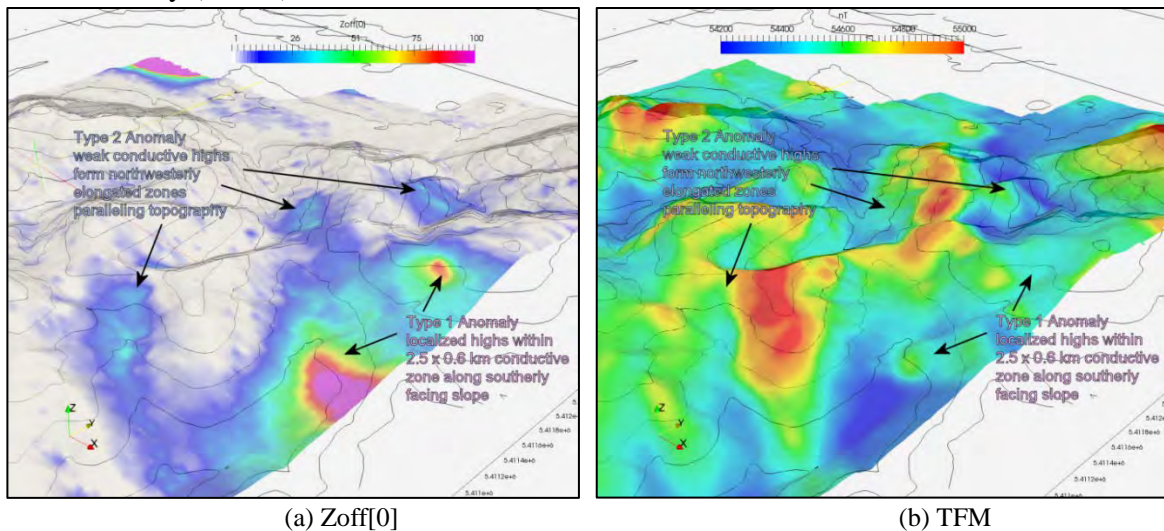


Figure 15: Comparison of Zoff[0] and TFM responses over Type 1 and Type 2 EM anomalies. Colour Contour Plan maps draped over topography. View from southeast, looking northwest.

- Type 3 anomalies are similar amplitude to the Type 2 but form circular features. Three instances of these anomalies are flagged. EM3a, the weakest of the three is located in the extreme southeast corner of the (reduced) property. The others are located outside the current property. EM3b, in the extreme southeast corner of the survey grid lies along the Caycuse River valley. EM3c, the strongest of the three, is located in

the southwest corner of the survey grid, along a subtle plateau in the southeasterly facing slope some 300 metres above the Nitinat River.

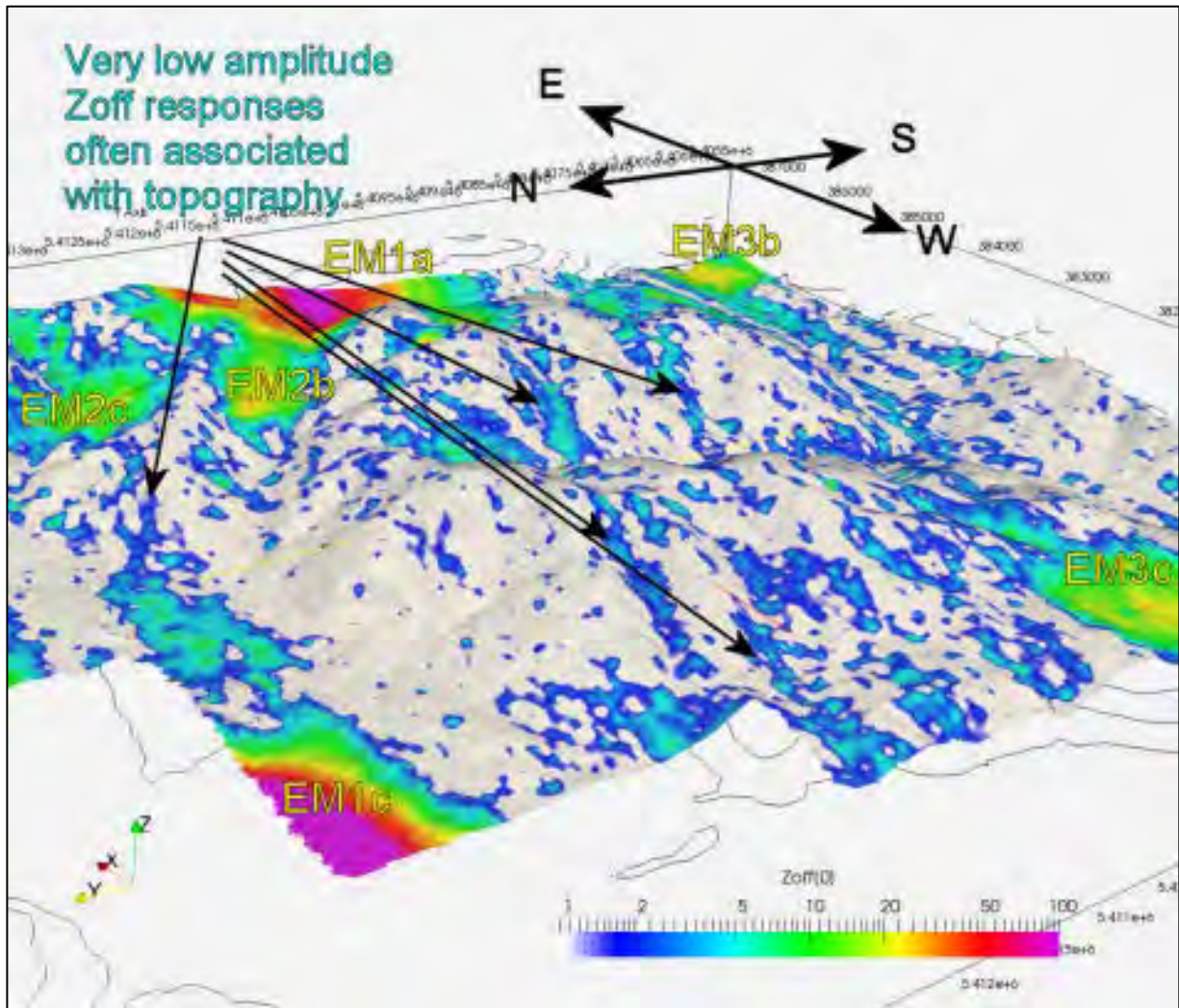


Figure 16: Zoff[0] Colour Contour Map draped over Topography. View from northwest.

A closer examination of the low amplitude background responses reveals several linear patterns. Draping the Zoff[0] colour contour map over surface topography (Figure 16) shows these lineations typically follow or mirror the drainage and ridge patterns. While some may be reflecting very minor resistivity variations at the ground surface, most of them are attributed to variations in the height of the EM sensors. None of these features should be considered exploration targets unless they can be corroborated by other exploration methods.

5.4 2.5D EM Inversions

The ArjunAir 2.5D inversion software was used to analyse the EM data. This software builds a 2D cross-section that shows one possible distribution of the ground conductivity/resistivity below the survey line that could generate the observed responses. The

cross-section displays have been converted into vtk format in order to be properly positioned within the 3D voxel model for comparison to the magnetic inversion models.

Selected EM data from 6 areas was analysed with this technique as outlined on Figure 17.

- Block 1 includes lines 10660E to 10900E, from 5409200N to 5414200N. It includes the Type1 and Type2 anomalies interpreted in the east-central portion of the claims.
- Block 2 includes the southern portions of the same lines as block 1 (10660E to 10900E), extending from 5405720N to 5409600N. It covers the type 3 anomalies in the southeastern part of the property.
- Block 3 overlaps and extends lines 10790E to 10900E to the north of block 1, from 5413700N to 5416200N. This area was chosen to model a very weak EM amplitude response.
- Block 4 covers the northwestern corner of the survey grid, including lines 10200E to 10600E, from 5412850N to 5415260N. It includes the strong Type 1 anomaly to the northwest of the property and a weak EM trend that straddles the northwestern claim boundary.
- Block 5 extends across lines 10490E to 10650E, from 5408000N to 5413300N. This block does not include any obvious EM anomalies but covers three minfile occurrences (Jasper 1, Tam 15 and Pan) and the large, low magnetic susceptibility body ML-3 that underlies the northerly trending alteration zone following Four Mile Creek.
- Block 6 extends across lines 10060E to 10350E, from 5407100N to 5410150N and covers the strong Type 3 EM anomaly in the southwestern corner of the survey block. While most of these lines lie outside the reduced claim block, analysis of the anomaly leads to a better understanding of the data.

One hundred sixty-two (162) line segments were run through the ArjunAir inversion program, covering both background and anomalous TEM responses. The majority of these inversions delineated some variation of a 2 layer earth model, consisting of a thick high resistivity surface layer overlying a thin, low resistivity layer. The surface zone was typically mapped with resistivities of greater than 10,000 ohm-m and varied from 200 to >1000 metres thickness. The basement layer typically maps with a resistivity of < 1000 ohm-m and usually contains a very thin layer with a resistivity of < 200 ohm-m.

Several instances were mapped where a thin, vertically oriented zone of moderate conductivity disrupts the resistive surface layer. In many instances, these features are

associated with distortions and undulations of the basement conductive layer and with magnetic anomalies.

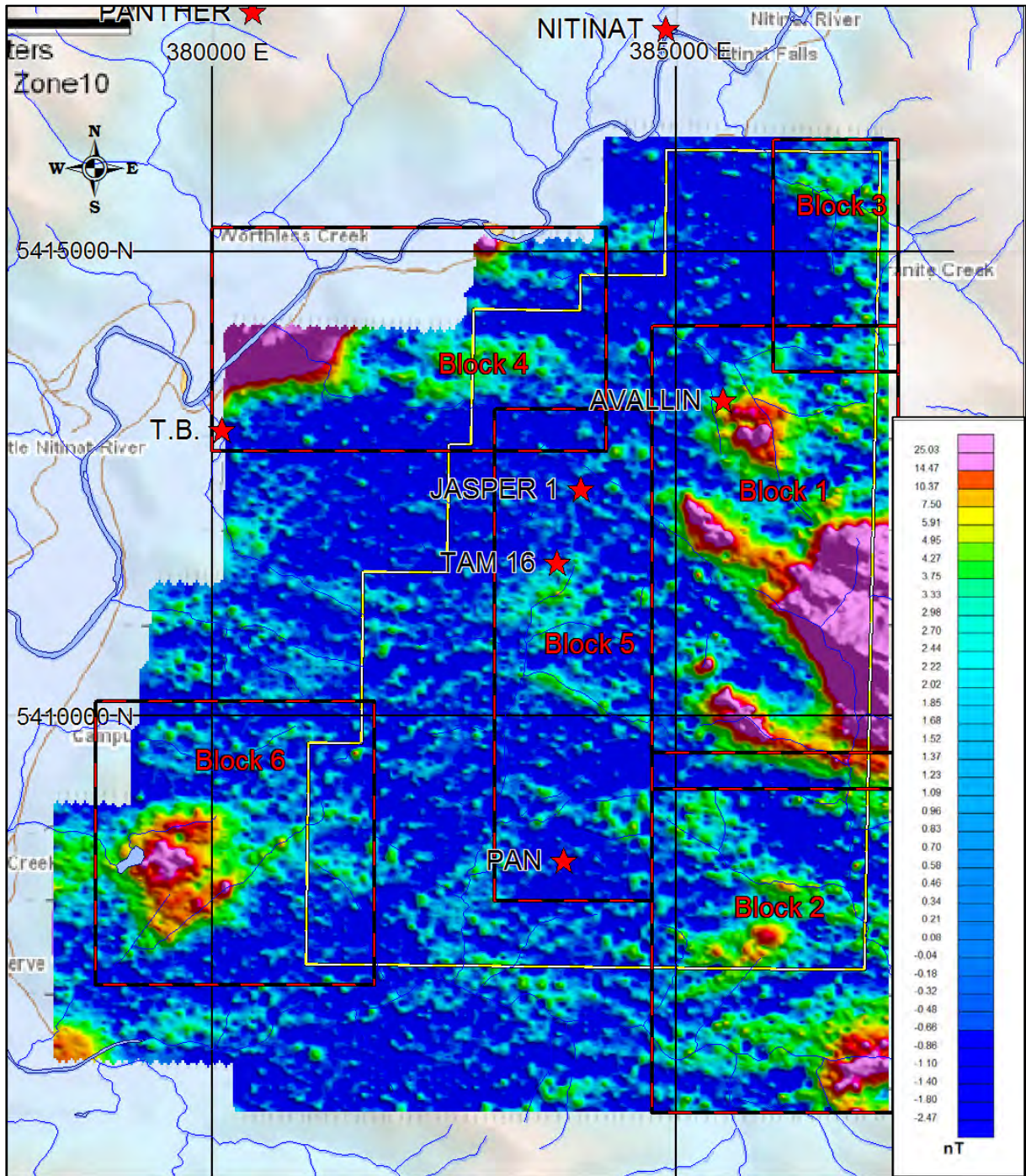


Figure 17: Zoff[0] Colour Contour Map. Custom Logarithmic Colour Distribution. Minfile Occurrences as Red Stars. Claim outline as yellow-white line. EM Inversion study blocks outlined in red-black.

5.4.1 Block 1

EM1a, the highest amplitude anomaly in the Block 1 area is located along line 10870E at 5410700N. The EM data reveals two separate responses. The broad, low amplitude response seen in the southern half of this line segment is indicative of a horizontal conductive layer. The gradual slopes at each end suggest the source is buried at depth. This bell-shaped high superimposed over broader low amplitude anomaly reflects a vertically oriented, thick conductive plate. This interpretation is supported by a cross-over response in the Xoff component (not shown).

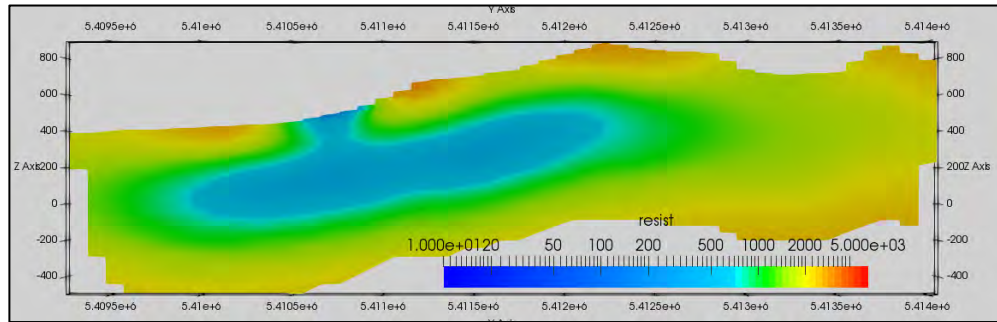
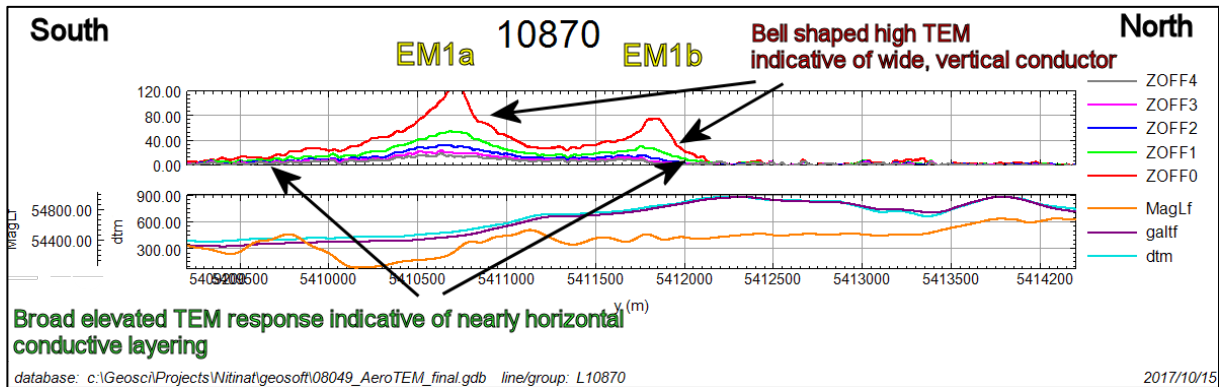
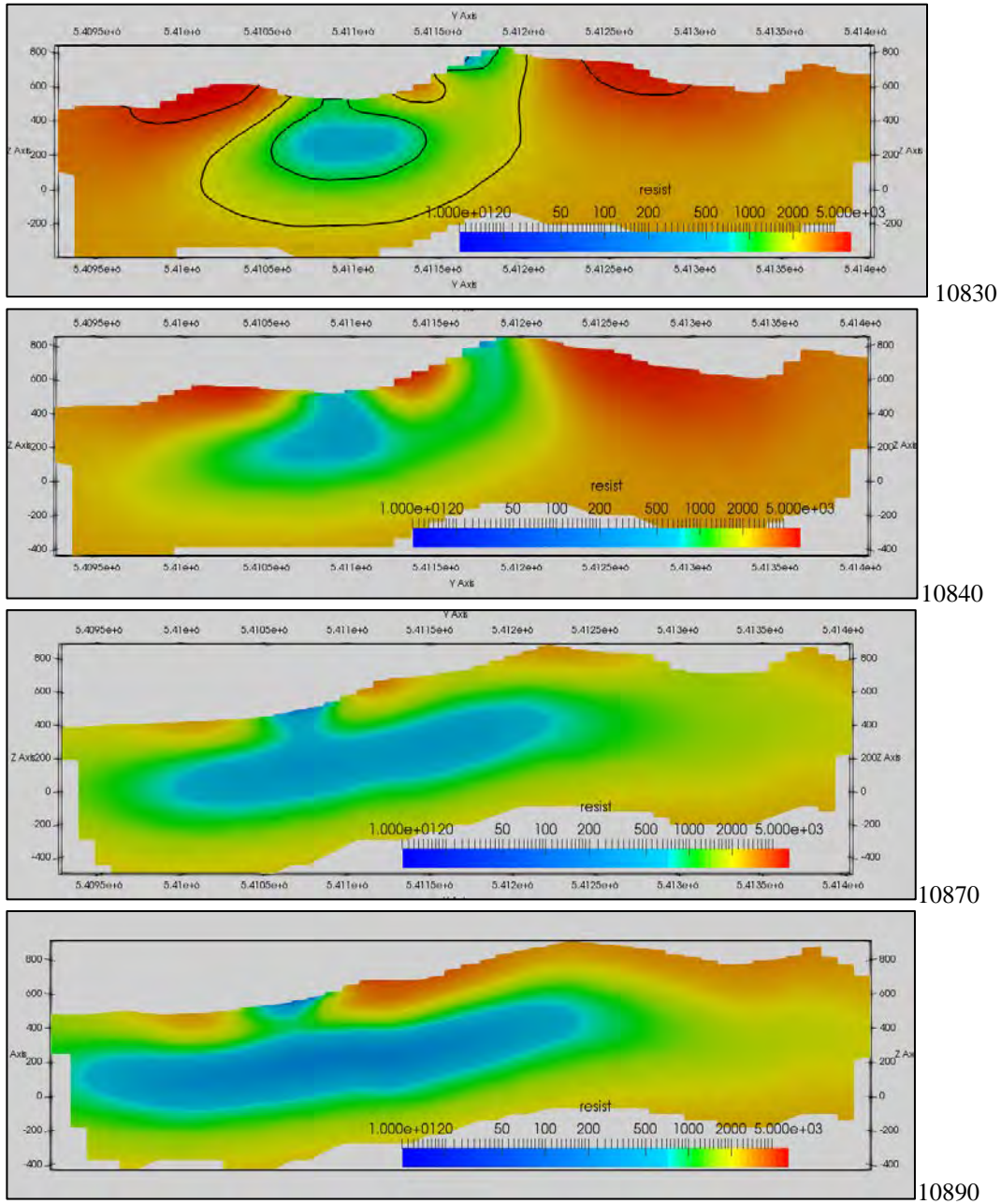


Figure 18: Line 10870E. Zoff Profile (Ch 0-4), Topo Profile, Magnetic Profile, EM Inversion Cross-section.

The inversion modelling confirms the interpretation based on the profile response. The broad background anomaly models as a shallow, southerly dipping low (<300 ohm-m) resistivity zone, lying approximately 300 metres below ground surface in the vicinity of lines 10870E to 10900E. This layer generally underlies the southerly facing slope but may extend to the north past the topographic peak near 5412200N and approach the ground surface along the north facing slope. EM1a, the strong high amplitude early time anomaly centred near northing coordinate 5410660N, models as a wide, surface conductive layer. The modelling implies this zone is some 650 metres wide on line 10890E and narrows to the west. The near vertical sides to this abrupt sides of this surface zone suggest it may be fault controlled, possibly reflecting an upwardly displaced section of the deeper conductive sheet.

As you proceed to the west, the low resistivity layer decreases in size and eventually pinches out in the vicinity of line 10830. At the same time, the resistivity of the surface layer increases gradually approaching the 10000 ohm-m levels observed across most of the survey area.



South

North

Figure 19: 2D Inversion Cross-sections: Block 1 area. Lines 10830E to 10890E

The three Type 2 anomalies have also been modelled by the Block 1 group. The inversion for line 10720E crosses the two southern Type 2 anomalies, EM2a at 5410000N and EM2b at 5412000N and the western edge of the third anomaly (EM2c) at 5413200N. The inversion modelling suggests EM2a is underlain by a flat lying low resistivity layer (< 800 ohm-m) centred approximately 500m below the surface and a thinner layer of similar material at the surface. EM2b appears to be associated with a similar deep layer, however in this instance it appears to reflect a shallow northerly dip. This layer may unit may come very close to the ground surface near the base of the ridge separating EM2b and EM2c.

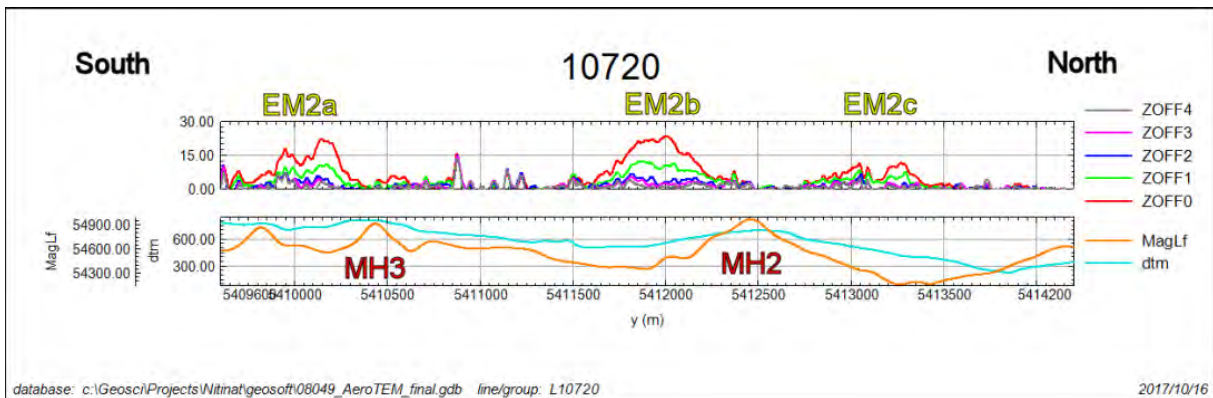


Figure 20: Line 10720. Zoff Profile (Ch 0-4), Topo Profile, Magnetic Profile, EM Inversion Cross-section.

EM2c is more clearly delineated on line 10750E which crosses near the centre of the anomaly. In this area the broad, low amplitude portion of the anomaly models as the updip edge of a nearly flat, deep conductive layer. The negative peak superimposed on the larger background response (and the asymmetric highs flanking it) is characteristic of a thin, vertical conductive plate. The inversion supports this interpretation, modelling a narrow conductive plate that appears to dip steeply to the south.

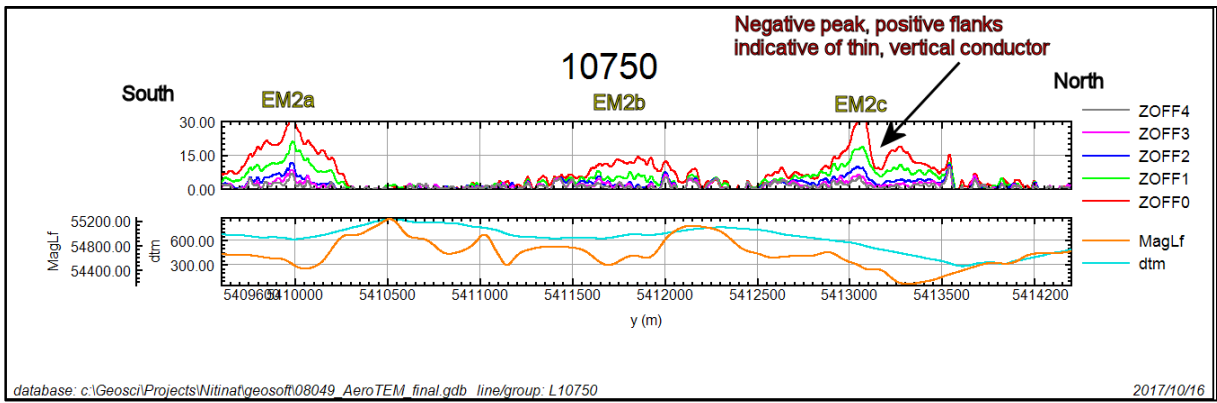
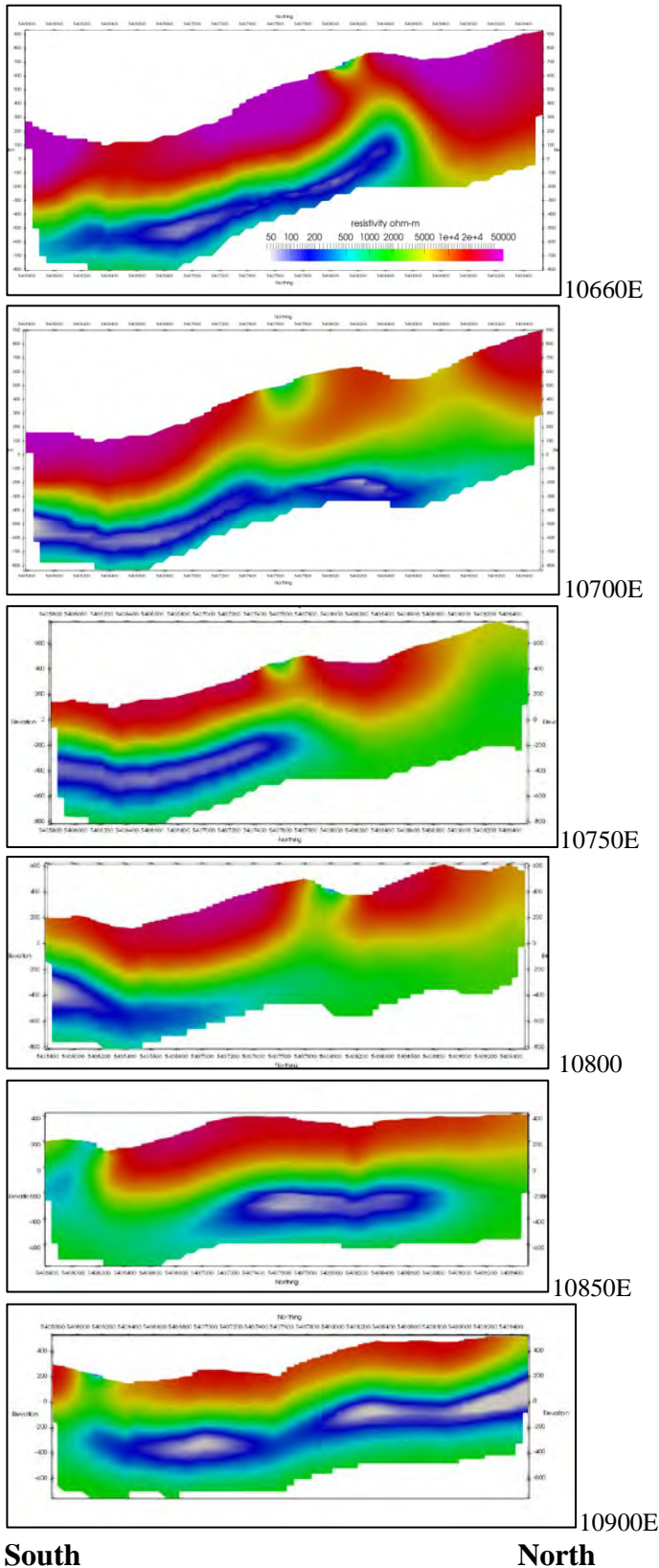


Figure 21: Line 10720. Zoff Profile (Ch 0-4), Topo Profile, Magnetic Profile, EM Inversion Cross-section.

5.4.2 Block 2

Over block2, in the southeast portion of the survey, 2.5D EM inversions were completed over 25 lines. The area includes two of the weak, early time amplitude increases identified as the type 3 anomalies. With the exception of a couple of lines, where the EM inversion did not converge properly, the inversion models reflect a common response across the entire Block 2 area.



The inversions delineate a thick (> 300 m) surface layer of high resistivity (>10000 ohm-m) overlying a lower resistivity layer (<1000 ohm-m). The lower layer often includes a relatively thin layer of very low resistivity (<200 ohm-m) that typically lies around 600 metres below surface. This very low layer varies in shape and amplitudes across lines.

Subsequent modelling across Blocks 3 to 6 shows that variations of this two-layered resistivity model are found to exist across most of the property.

**Figure 22: 2D Inversion Cross-sections: Block 2 area.
Lines 10660E to 10900E**

The slightly elevated TEM readings flagged as the type 3 anomalies do not appear to be related to the deep, conductive layer. They may be indicating areas where the conductor comes a little closer to ground surface but this association is not clear. It is more likely that these responses are reflecting areas where the surface layer is less resistive.

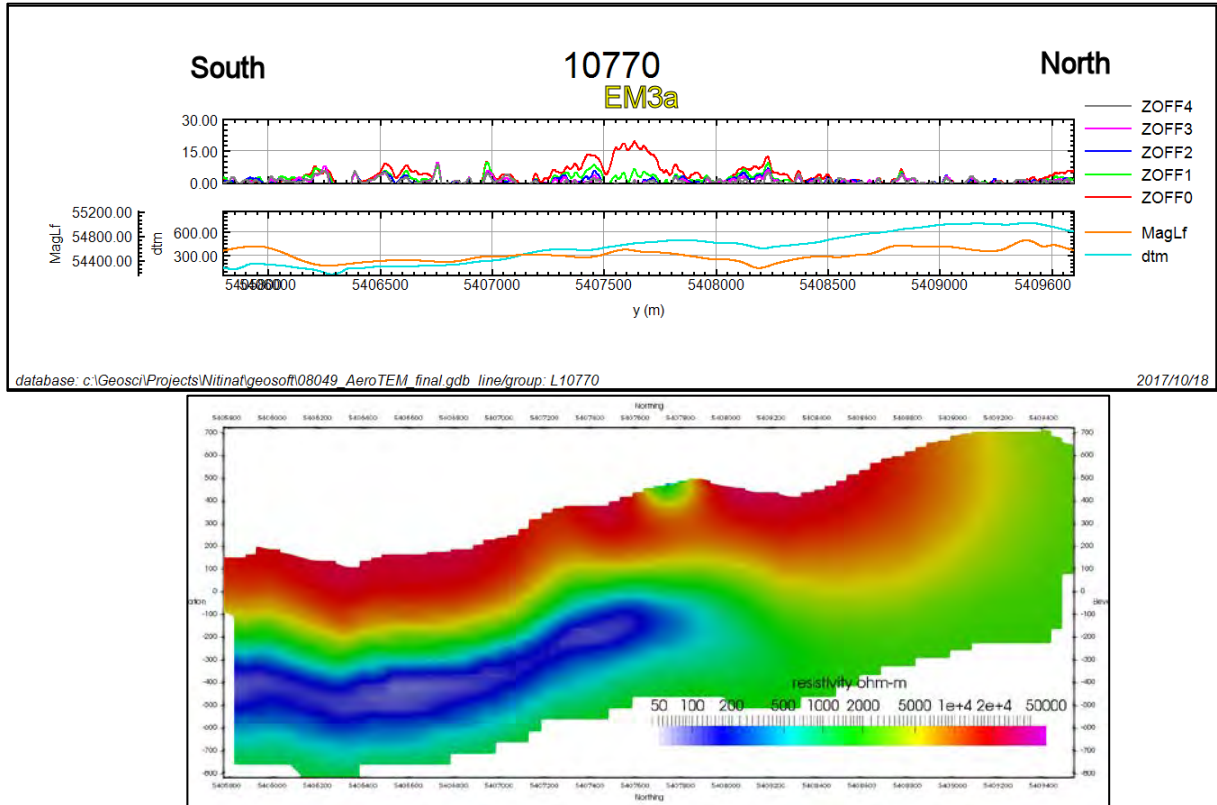
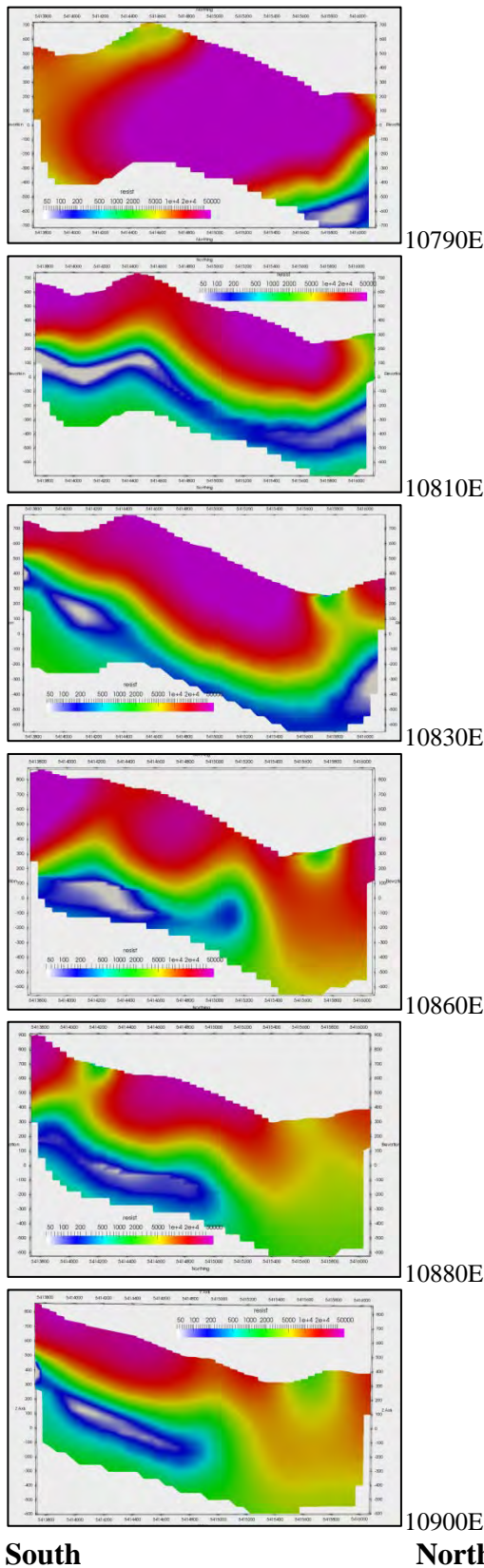


Figure 23: Line 10720. Zoff Profile (Ch 0-4), Topo Profile, Magnetic Profile, EM Inversion Cross-section.

5.4.3 Block 3

This block covers the extreme northeast corner of the survey associated with a very weak amplitude increase, similar to but smaller than the one associated with the Type 3 anomalies. Inversions were run to determine whether any structural features might be detected.



South North
Figure 24: 2.5D Inversions Block 3 Lines 10790E to 10900E. Cross-sections looking west.

The inversions reveal a similar response to those seen elsewhere where a high resistivity surface layer overlies a low resistivity basement. On the eastern lines (10900E to 10830E) the structures dip moderately to the north, paralleling the north facing slope. As you proceed to the west, the surface layer becomes thicker and the lower conductive layer eventually flattens out and begins to rise to the north. Around line 10810E the structure gives the impression of a synformal structure.

There are no obvious near surface high conductivity bodies mapped in this area.

An inflection in the structure is noted near line 10810E. This coincides with the high susceptibility pipe identified as MH-1.

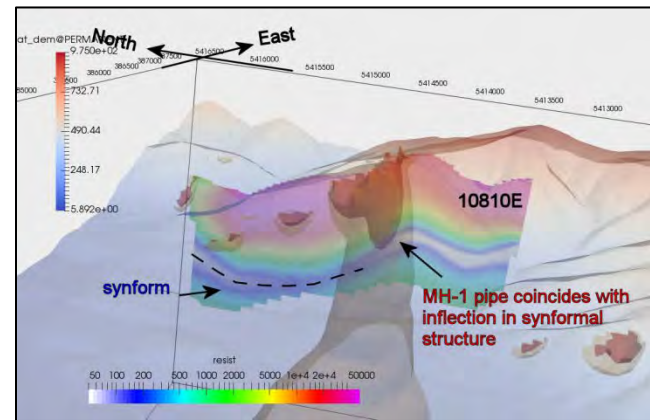


Figure 25: 3D Image - 2.5D Inversion Lines 10810E – MH-1 pipe.

View from southwest looking northeast.
 Magnetic Isosurfaces: Dark orange = +0.03 SI,
 Translucent orange = +0.025 SI

5.4.1 Block 4

Block 4 was outlined to model the EM structures in the northwest portion of the survey. It includes the strong EM1c anomaly just outside the original claim group however the anomaly is only partially defined and cannot be inverted properly. Across the eastern side of this block, the TEM data delineates a very low amplitude early time response, similar to the one observed in the Block 3 area.

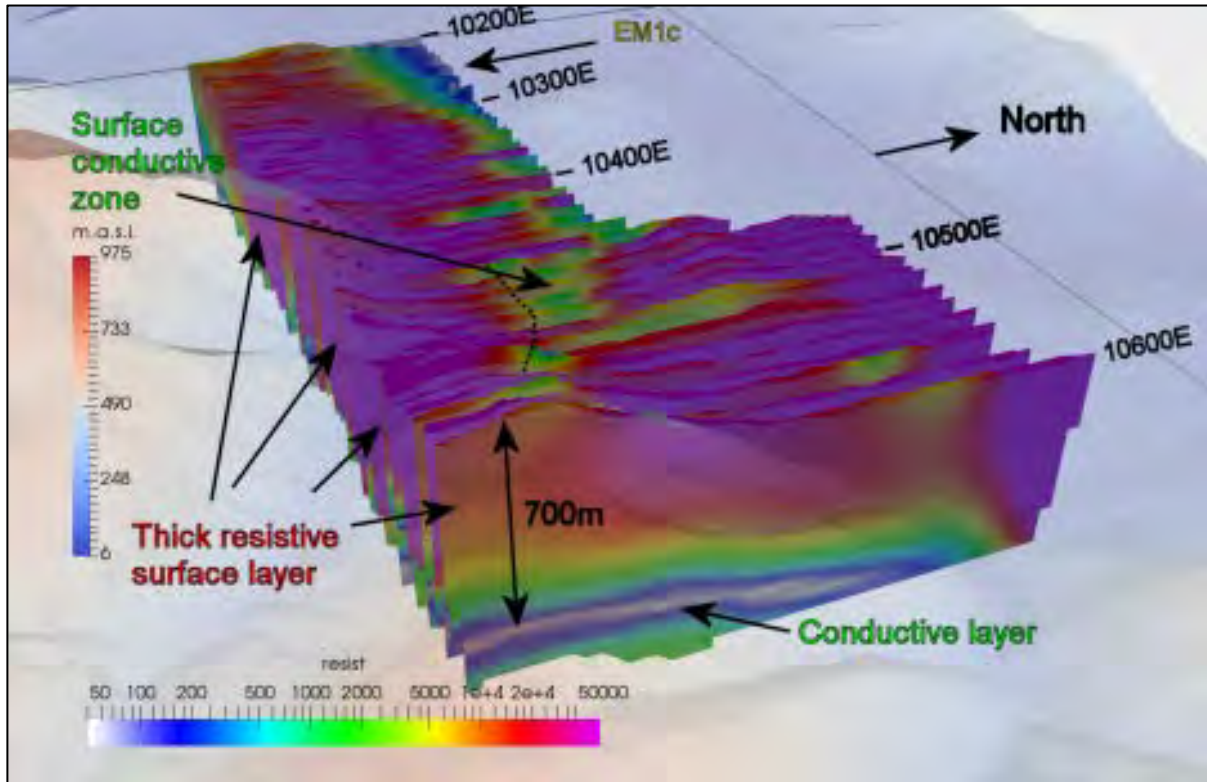


Figure 26: Block 4 – EM Inversion Cross-sections Lines 10600E to 10200E. View from east.

The block area is underlain by the same 2 layered resistivity section seen on the other blocks. The high resistivity surface layer is pervasive across this block, typically greater than 600 metres thick. The conductive basement layer appears to form a broad basin, reaching its deepest point of >1000m around line 10570E.

There is a weak, near surface conductive lineation mapped striking east-west near UTM coordinate 5413500N extending from line 10510 to 10470E for some 400 metres length. The inversion modelling suggests this feature forms a steep southerly dipping plate, some 200 metres wide (Figure 27). It may reflect a fault zone that uplifts the basement conductive layer closer to ground surface on its northern side. Although there are no strong magnetic responses

in this area, the tilt-derivative map reveals subtle lineations in this area that parallel this EM defined structure.

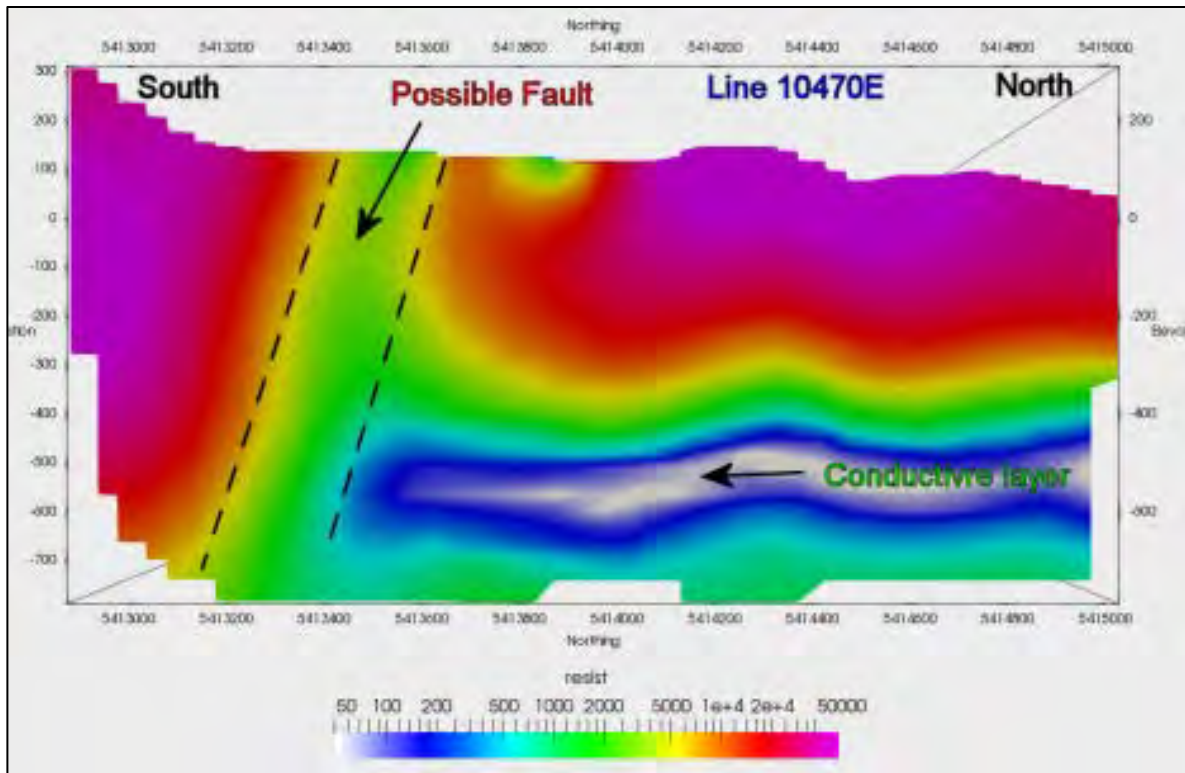


Figure 27: Block 4 Line 10470E, EM Inversion Cross-section.

5.4.2 Block 5

Block 5 covers the Four Mile Creek valley, and includes survey lines crossing three of the four minfile occurrences on the property. There are no strong EM responses in this area that suggest the presence of any near surface, high conductivity targets.

The inversion modelling, consistently models a shallow southerly dipping 2 layer resistivity section across this block. As elsewhere, the surface layer reflects a relatively high (> 10000 ohm-m) resistivity and the low resistivity basement includes a thin very low resistivity (<200 ohm-m) layer. At the outside edges of this block, lines 10650E and 10490E the inversion models are very similar, revealing a depth to a reasonably consistent and continuous conductive basement layer on the order of 600-800 metres.

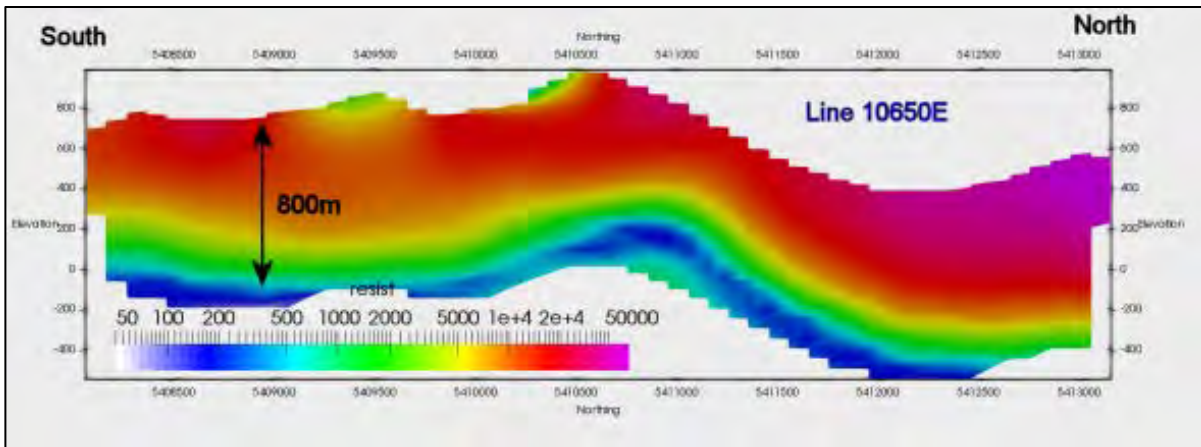


Figure 28: Block 5 Line 10650E, EM Inversion Cross-section.

In the middle of the block the basement conductive layer exhibits more character. It appears to undulate up and down and contain smaller pods of higher conductivity. On line 10550E (Figure 29) the EM defined conductive layer matches well with the low magnetic susceptibility basin referred to as ML-3. Two weak conductive zones that disrupt the high resistivity surface layer coincide with narrow low susceptibility plates that connect the ground surface to the buried ML-3 zone. The combined EM and magnetic responses suggest the presence of near vertical fault zones near these locations. Coincidentally, extensions of these faults to depth intersect the edges of the high conductivity pods within the basement conductive layer. The northernmost of these faults closely coincides with the Tam 16 minfile showing. A similar signature is noted on line 10570E at the Jasper 1 minfile showing. It is possible that these responses are mapping portions of or splays to the major fault suture known to cross this property.

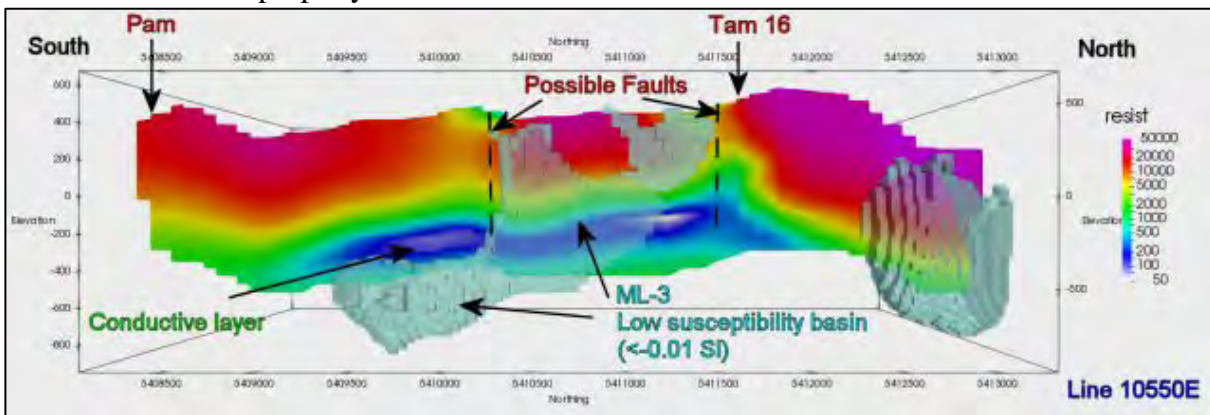


Figure 29: Block 5 Line 10550E, EM Inversion Cross-section.

Good correlation between the low susceptibility basin anomaly (ML-3) and conductive basement layer.

5.4.3 Block 6

Block 6 was established to compare the anomalous EM3c response to the general background however it also modelled two weak EM lineations that extend eastward from the EM3c anomaly on the reduced claim block. Modelling across this block reveals three distinct responses.

At the extreme east and west lines (10060E and 10330E) the inversions map the thick high resistivity layer overlying a thin low resistivity layer common to the property.

Across the EM3c anomaly (lines 10090E to 10160E) the high resistivity surface layer is replaced by a wide, steeply sided moderate resistivity zone. Delineation of the low resistivity basement layer below this moderate surface zone is not clear. It is present on some of the lines but not all.

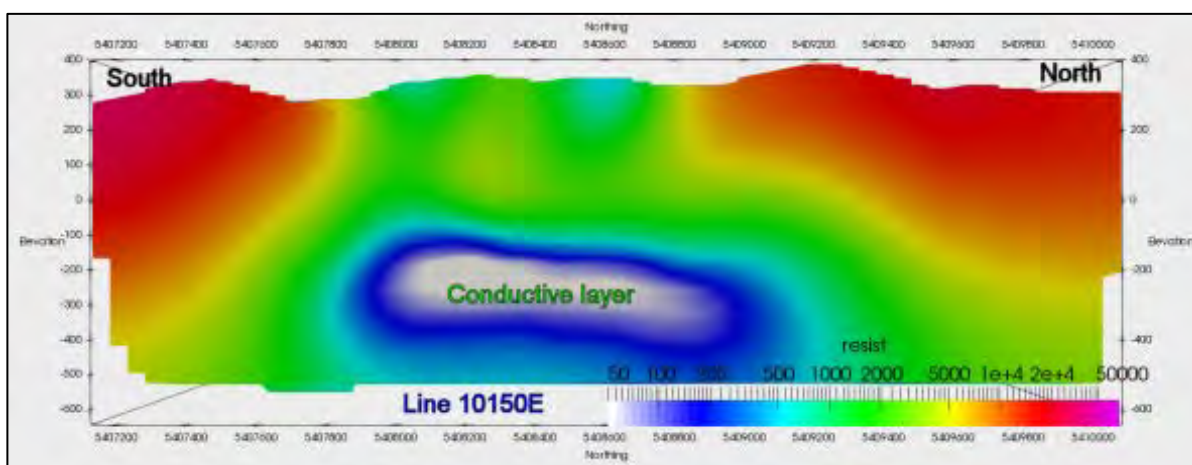


Figure 30: Block 6 Line 10150E, EM Inversion Cross-section.

From the EM3c anomaly eastward, the high resistivity surface layer is present but cut by one or two narrow, vertical plates that typically extend from surface through the high resistivity layer and into the basement conductor. As was observed on Block 5, these vertical structures appear to displace and or disrupt the deep conductor, giving the impression that they are reflecting near vertical fault structures. The vertical pipe-like magnetic high anomaly MH-7 coincides with this interpreted fault structure in the vicinity of line 10300E, implying there may be possible magnetite enrichment along a fault.

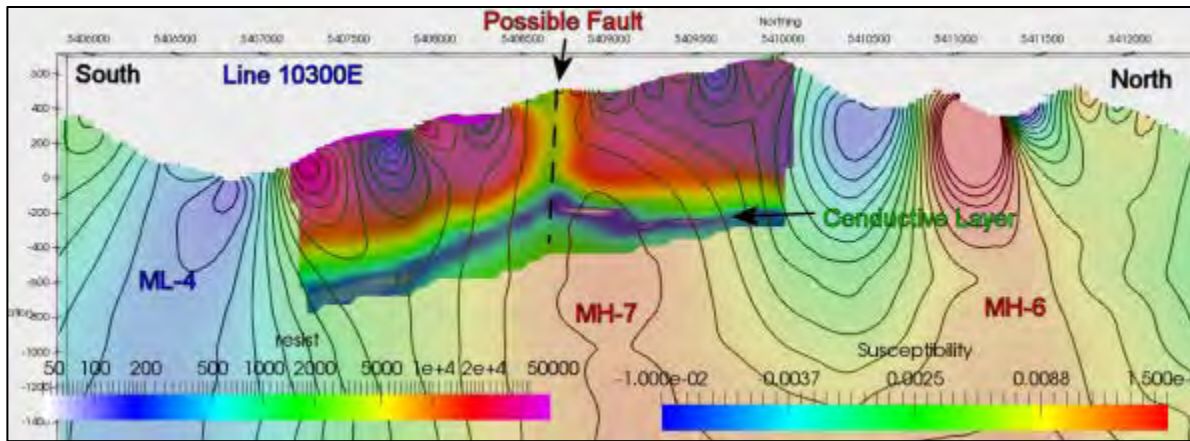


Figure 31: Block 6 Line 10300E, EM Inversion Cross-section. Mag3d Inversion Cross-section. View from east.

EM- Cross-section in vibrant colours. Magnetic 3D Inversion Cross-section in pastel colours, with contours of magnetic isolines (-0.01 to +0.02 in steps of .002).

6 Conclusions and Recommendations

The magnetic data reflects a considerably more complex geology than is suggested by the BC Geological Mapping. Two broad magnetic high amplitude trends are mapped striking NNE along either side of the Four Mile Creek valley. These trends fall along a projection of the Bonanza Group – Island Plutonic contact that are mapped both to the north and south of the property. The 3D magnetic inversion models these trends a being comprised of a series of high susceptibility, near vertical pipe and dyke like bodies. These could represent apophyses of intrusive material extending upwards from a deeply buried intrusive mass. There is also evidence that supports the source as being related to near vertical faulting, possibly associated with a magnetite enriched alteration zone.

The magnetic contour maps are comprised of a large number of short-strike length features that delineate a strong northwesterly orientation that follows the ridge and valley patterns. These likely reflect the dominant structural trends within the Bonanza Group volcanic unit and map bedding, contacts, foliations and facies variations.

The northwesterly oriented magnetic lineations are cut, terminated and displaced by a large number of northerly to northeasterly trending magnetic lows. These are primarily attributed to faulting. Due to the northerly oriented survey lines and the relatively high terrain clearance of the magnetometer sensor, it is likely that these northerly trending faults are not accurately defined. Mapping of these features would likely be improved by a ground survey.

The magnetic inversion model also reflects several large bodies associated with relatively low magnetic susceptibility material. The most interesting of these is a narrow, northerly

trending basin like feature that plunges to the south at a shallow angle below Four Mile Creek. This anomaly may be related to the Tam 16 mineral showing, which occurs at the northern end of the anomaly.

Aeroquest analysed the EM data and flagged 22 anomalies as possible vertical, plate-like bodies based on the Zoff and Xoff profile responses. A review of the EM profiles at this time did not detect any additional anomalies fitting the Aeroquest criteria. However, several areas were noted that showed a broad, low amplitude increase in the early time responses indicative of a horizontal, low resistivity near surface layer. Analysis of the data through the ArjunAir 2.5D EM inversion program was undertaken to study these anomalies.

EM inversions were completed on segments of survey lines reflecting the background, plate-like and near surface horizontal layering responses. Modelling of the plate-like conductors supported the interpretation based on the profile analysis.

The most interesting results of the modelling was that the EM data consistently maps some variation of a two layer resistivity earth model across the property, consisting of a high resistivity surface layer overlying a thin conductive zone. The surface layer typically models with a resistivity of greater than 10000 ohm-m and thicknesses typically greater than 500 metres. There are local variations but the layer commonly thickens to both the west and south. The thin conductive basement layer generally reflects a gradual southerly dip but it often exhibits an undulating structure. There are numerous instances mapped where this unit shows abrupt elevation shifts indicative of fault displacement. Many of these shifts coincide with vertical magnetic bodies mapped in the mag3D inversion models.

There are several areas mapped where the thick high resistivity layer is absent. These coincide with the broad, low amplitude early time anomalies identified on the profile analysis. In these areas, definition of the deep conductive layer is inconsistent. This is likely related to the reduced contrast between the resistivity of the surface and buried units and not the absence of the deep conductor.

One of the objectives of this study was to identify a conductivity response that might be related to many small, isolated massive sulphide veins found in outcrop and drill core on the Jasper Property. No responses were observed that suggest the presence of a cluster of these veins however the deep, sub-horizontal conductive layer that appears to underlie most of the property may represent the metallic sulphide target being sought. It could be related to a VMS, epithermal or volcanic horizon. It may be reflecting a conductive sedimentary layer. At the very least, it likely represents a marker unit that can be used to map the deep, underlying structures in the area.

6.1 Recommendations

This interpretation should be reviewed by the project geologists with the intention of flagging any of the structures and features that support the current geological exploration models.

The magnetic data should be used as a guide for geological mapping. The complicated magnetic lineation patterns should be compared to any detailed geological prospecting and mapping that identifies faulting.

Confirmation and identification of the deep, conductive layer underlying the property should be a priority. Due to the projected depth of this target, a large loop EM survey is recommended to confirm the presence of the layer and obtain a second interpretation of its' depth and physical characteristics. This type of survey would also be more likely to detect any buried clusters of the massive sulphide veins than the airborne survey.

It is expected that drilling will be required to identify the target. At that time, it is strongly recommended that downhole EM surveying be included in the drill program.

Contingent upon favourable results from the ground EM and drilling programs, additional modelling of the EM data may be warranted. One objective of this study would be to produce a property wide isopach map of the conductive layer. Another would be to identify any localized conductivity changes within the layer.

Respectfully submitted,

per Geosci Data Analysis Ltd.



E. Trent Pezzot, BSc., P.Geo,

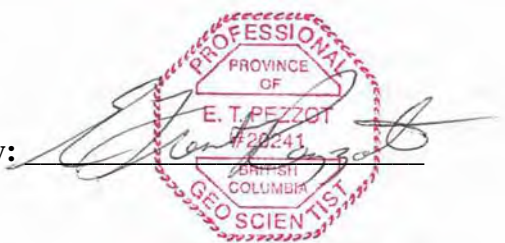
Geophysics, Geology

7 Appendix 1 – Statement of Qualifications E. Trent Pezzot

I, E. Trent Pezzot, of the city of Surrey, Province of British Columbia, hereby certify that:

- 1) I graduated from the University of British Columbia in 1974 with a BSc. degree in the combined Honours Geology and Geophysics program.
- 2) I have practised my profession continuously from that date.
- 3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia.
- 4) I have no interest in Nitinat Minerals Corporation or any of their subsidiaries or related companies, nor do I expect to receive any.

Signed by:

A red circular professional seal for the Association of Professional Engineers and Geoscientists of British Columbia. The seal contains the text: "PROFESSIONAL", "PROVINCE OF", "E. T. PEZZOT", "#28241", "BRITISH COLUMBIA", and "GEO SCIENTIST". A handwritten signature in black ink is written over the seal.

E. Trent Pezzot, BSc., PGeo.

Geophysics, Geology

8 Appendix 2 – References

Aeroquest International. Report on a Helicopter-Borne AeroTEM System Electromagnetic & Magnetic Survey, Aeroquest Job #08049, Nitinat Project for Inspiration Mining. April, 2008.

British Columbia Ministry of Energy and Mines websites including:

MapPlace (<http://www.empr.gov.bc.ca/Mining/Geoscience/MapPlace/Pages/default.aspx>)

MINFILE (<http://www.empr.gov.bc.ca/Mining/Geoscience/MINFILE/Pages/default.aspx>)

ARIS (<http://www.empr.gov.bc.ca/Mining/Geoscience/ARIS/Pages/default.aspx>)

BC Digital Geology:

(<http://www.empr.gov.bc.ca/Mining/Geoscience/BedrockMapping/Pages/BCGeoMap.aspx>)

Houle, Jacques. Assessment Report for an Airborne Geophysical Survey flown in February, 2008 covering the Jasper Property. September 4, 2008. BC Assessment Report 30452

Houle, Jacques. 2011 Assessment Report for Prospecting, Trenching, Geochemistry, Geology and Diamond Drilling, May 2011 – March 2012 on the Jasper Property. April 3, 2012. BC Assessment Report 32906

Houle, Jacques. 2015 Assessment Report for Geology and Geochemistry. April 2015 – September, 2015 on the Jasper Property. September 22, 2015 BC Assessment Report 35671

2017 Jasper Assessment Report
Appendix 2 – Assessment Cost Data

Jasper Property 2017 Assessment Cost Report

Exploration Work type	Comment	Days			Totals
Office Studies	List Personnel (note - Office only, do not include field days)				
General research	Jacques Houle, P.Eng. - Jun 12 - Aug 31 2017	1.3	\$831.60	\$1,081.08	
Geophysical modeling	Trent Pezzot, P.Geo. - Jul 14 - Oct 24 2017	8.3	\$1,575.00	\$13,000.00	
Report preparation	Jacques Houle, P.Eng. -Sep 1 - Oct 31 2017	1.2	\$831.60	\$956.34	
				\$15,037.42	\$15,037.42
TOTAL Expenditures					\$15,037.42
Assessment Item	Assessment Event and Filing Date		Applied	PAC debit	Expenditures
100% PAC withdrawal	MTO Event 5659219 August 3, 2017		\$60,000.00	\$60,000.00	\$0.00
Expend.+30% PAC Jun 12 - Aug 22	SOW Event 5661489 August 23, 2017		\$6,247.66	\$1,840.02	\$4,407.64
Expend.+30% PAC Aug 23 - Oct 22	SOW Event 5670471 October 23, 2017		\$8,565.35	\$2,569.60	\$5,995.75
Expend.+30% PAC Aug 23 - Oct 24	SOW Event 5670605 October 24, 2017		\$6,593.08	\$1,959.05	\$4,634.03
100% PAC withdrawal	MTO Event 5670606 October 24, 2017		\$123,570.85	\$123,570.85	\$0.00
Totals			\$204,976.94	\$189,939.52	\$15,037.42
Remaining PAC	As of October 25, 2017			\$76,032.59	

