2011 TECHNICAL REPORT

for the

HALL LAKE PROPERTY

Ft. Steele Mining Division
Mapsheets 82F068, 82F058
Center of Work
Latitude 49° 37’ N, Longitude 116°26’W
NTS 82F09

Prepared for

BETHPAGE CAPITAL CORP.
918 - 1030 West Georgia Street
Vancouver, B.C. V6E 2Y3

by

Stephen Kenwood, P. Geo
13629 Marine Drive,
White Rock, BC, Canada V4B 1A3

November 25, 2011

SUMMARY

The author, Stephen Kenwood, P. Geo., was retained by Bethpage Capital Corp., a private BC company, to prepare an independent Technical Report on the Hall Lake property in southeastern British Columbia. This Technical Report conforms to NI 43-101 Standards of Disclosure for Mineral Projects. The author conducted a site visit on June 14, 2011.

The Hall Lake property is located 50km west of Cranbrook, BC and consists of thirty three contiguous Mineral Titles Online (MTO) claim blocks totaling 15,283 hectares. The claims are owned 100% by Eagle Plains Resources Ltd. and carry no underlying royalties or encumbrances. There are two exploration targets on the Hall Lake property: an intrusion related gold system and Sedimentary Exhalitive (SedEx).

In the late 1990s, the British Columbia Geological Survey (BCGS) recognized the potential of southern and southeastern British Columbia to host significant gold mineralization. Two major styles of gold mineralization were subsequently considered prospective in the region: distal sediment-hosted gold mineralization similar to that found in Nevada (Carlin and related areas) (Lefebure et al., 1998), and more proximal intrusive-related gold mineralization similar to that found in Yukon and Alaska in the Tintina Gold Belt (Logan, 2000). This conclusion is based on distinctive similarities of the tectonic setting of all these regions and their location within pericratonic terranes - formed along the continental margin of the ancestral North American Craton - which have been intruded by Mesozoic magmas.

Further work of the BCGS led to identification of the mid-Cretaceous (90-115 Ma) Bayonne Plutonic Suite that forms the 50 to 75 km wide arcuate Bayonne Intrusive Belt extending roughly in a north-northwest direction from the Canada-USA border. The Bayonne Suite is one of a number of Cretaceous plutonic suites of the Omineca tectonic belt that extends for more than 1600 km along the Canadian Cordilleran interior from Alaska through Yukon to British Columbia (Logan, 2001, 2002). The plutons of these suites are known to host or control large intrusive-related gold deposits, most notably within the Tintina Gold Belt in Yukon and Alaska (e.g., Donlin Creek, Fort Knox, Ryan Lode, True North, Pogo, Brewery Creek, Dublin Gulch, etc.)

On this basis, similarities between southern and southeastern British Columbia with the Tintina Gold Belt were suggested, including the presence of mid-Cretaceous granitic intrusions, solitary, stockwork and sheeted quartz veins with Au-W-Bi metal signatures, and RGS anomalies for pathfinder elements (Logan, 1999). A second intrusive suite, the Eocene (ca. 51 Ma) Coryell Syenite Suite accompanied by gold mineralization also occurs in southeastern British Columbia. The presence of both Cretaceous and Eocene plutonic suites indicates the possibility for the existence of two distinct events of gold mineralization in the region. This also resembles the possible occurrence of two (Cretaceous and Eocene) epochs of gold mineralization in the Great Basin, Nevada.

As a result of the work conducted above, the Hall Lake property was identified by Eagle Plains' personnel as an excellent grass roots exploration target for these types of deposits. The claims cover a large Cretaceous-aged granitic intrusive known as the Hall Lake Stock, which is hosted by Aldridge and Creston formation sediments.

2004 fieldwork by Eagle Plains consisted of a rock geochemical survey and prospecting aimed to assess the geochemical character of the Hall Lake Stock as well as that of the host sediments. The most significant results from the 2004 geochemical survey and prospecting were the anomalous gold values collected from a large dyke in the sediments of the Creston Formation approximately 300 meters from the contact with the intrusive. One sample also returned anomalous values for silver. The total cost of the 2004 geochemical survey of the Hall Lake Property was $ 11,435.61.

In 2005, Solomon Resources Ltd. and Eagle Plains signed an option agreement on the Hall Lake

Property. Under the terms of the agreement Solomon funded a work program in 2005 in exchange for an exclusive, one time option to earn into the property. The 2005 Hall Lake field program consisted of contour soil sampling and rock geochemical sampling.

On September 12, 2011, Bethpage Capital Corp. ("Bethpage"), a private BC company, announced that they had entered into an Option Agreement with Eagle Plains Resources Ltd. ("Eagle Plains") whereby Bethpage can acquire a 60% right, title and interest in the Hall Lake Property. In 2011, Bethpage completed a 479.1 line km airborne geophysical survey on the property. The cost of the 2011 program was $106,860.30.

Based on the favorable geological setting, geology and alteration, the presence of anomalous gold values in rock and soil samples and the results from the 2011 airborne geophysical survey, further work is recommended on the Hall Lake Property.

A Phase 1 exploration program is recommended with a budget of $215,000 to complete a program consisting of geological mapping, soil sampling and trenching, and ground based geophysics. A 2000m Phase 2 diamond drill program, contingent on favorable results from the Phase 1 program is estimated to have a budget of $500,000 is recommended to follow up the Phase 1 program.

RESPECTFULLY SUBMITTED

November 25, 2011

PROFESSIONAL
PROVINCE OF
S. P. KENWOOD
BRITISH COLUMBIA
GEOSCIENTIST

Stephen P. Kenwood, P.Geo.

Qualified Person

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INTRODUCTION AND TERMS OF REFERENCE

Qualified Person and Participating Personnel

The author, Stephen Kenwood, P. Geo. was commissioned by Bethpage Capital Corp. of Vancouver, British Columbia to examine and evaluate the geology and mineral potential on the Hall Lake property and to make recommendations for the next phase of exploration work in order to test the economic potential of the property. The option to acquire an interest in the property will serve as Bethpage Capital Corp's Qualifying Transaction under the policies of the TSX Venture Exchange and this report has been written in support of the application.

The report describes the property in accordance with the guidelines specified in National Instrument 43-101 and is based on historical information, a review of recent exploration in the area, a review of the historic exploration programs conducted by Eagle Plains Resources and Solomon Resources and an examination and evaluation by the author on June 14, 2010. The author was accompanied in the field by Chuck Downie, P.Geo. and Tim Termuende, P. Geo., representing Eagle Plains Resources.

Terms, Definitions and Units

All costs contained in this report are denominated in Canadian dollars. Distances are reported in meters (m) and km (kilometers). GPS refers to global positioning system with co-ordinates reported in UTM grid, Zone 11, Nad 83 projection. Minfile occurrence refers to documented mineral occurrences on file with the BC Ministry of Energy, mines and Petroleum Resources public database. DDH refers to diamond drill hole. IP and EM refer to induced polarization and electromagnetic methods of geophysical surveying.

The term ppm refers to parts per million, which is equivalent to grams per metric tonne (g/t) and ppb refers to parts per billion. The abbreviation oz/ton and oz/t refers to troy ounces per imperial short ton, Mt to million tonnes and Ma to million years. The symbol % refers to weight percent unless otherwise stated. QAQC refers to quality assurance and quality control.

Elemental abbreviations used in this report include gold (Au), silver (Ag), bismuth (Bi), antimony (Sb), iron (Fe), arsenic (As), copper (Cu), tungsten (W), sulphide (S) and oxide (O). Minerals found on the property include pyrite and pyrrhotite (iron sulphides), arsenopyrite (iron, arsenic sulphide), copper (copper sulphide), scheelite (calcium tungstate), magnetite (iron oxide), galena (lead sulphide) and sphalerite (zinc sulphide).

Source Documents

- Sources of information are detailed below and include available public domain information and private company data.
- Research of the Minfile data available for the area at http://minfile.gov.bc.ca
- Research of mineral titles at http://www.empr.gov.bc.ca/Titles/MineralTitles

- Review of company reports and annual assessment reports filed with the government at http://www.em.gov.bc.ca/Mining/Geoscience/Aris
- Review of geological maps and reports completed by the BC Geological Survey or its predecessors.
- Review of published scientific papers on the geology and mineral deposits of the region and on mineral deposit types.
- Data and reports generated by the property owner Eagle Plains Resources Ltd. related to the 2004 and 2005 exploration programs on the Hall Lake property.
- A property examination by the author on June 14, 2011.

Limitations, Restrictions and Assumptions

The author has assumed that the previous documented work on the property is valid and has not encountered any information to discredit such work.

Scope

This report describes the geology, previous exploration history and mineral potential of the Hall Lake property. Research included a review of the historical work that related to the immediate and surrounding area of the property. Regional geological data and current exploration information have been reviewed to determine the geological setting of the mineralization and to obtain an indication of the level of industry activity in the area.

The property was examined by the author on June 14, 2011. Mineralized zones and historical workings were viewed by the author. Representatives of the property owners reviewed historic work on the property and located salient geological features in the field.

This report has been written in support of Bethpage Capital Corp's Qualifying Transaction under the policies of the TSX Venture Exchange.

Based on the literature review, results from the historic programs and the 2011 airborne geophysical survey, and the property examination, recommendations are made for the next phase of exploration work. An estimate of costs has been made based on current rates for geological work, diamond drilling, and professional fees in British Columbia.

Reliance on Other Experts

Although thorough checks to confirm the results of work and reports included under “Source Documents” and “References” sections have not been done, the author has no reason to doubt the correctness of such work and reports. Unless otherwise stated the author has not independently confirmed the accuracy of the data.

Further, while title documents and option agreements were reviewed for this study, this report does not constitute nor is it intended to represent a legal, or any other, opinion as to the validity of the title. The title documents reviewed were provided by http://www.empr.gov.bc.ca/Titles/MineralTitles. The option agreement reviewed was drafted by Eagle Plains Resources and Bethpage Capital Corp's legal counsel and is dated September 12, 2011.

Property Description and Location

The Hall Lake property is located on mapsheets 82F048 and 82F058, approximately 50 kilometers west of Cranbrook, B.C. (*Figure 1*). The claims are centered at Latitude 49° 37’ N, Longitude 116°26’W in the Fort Steele Mining District.

Land Tenure

The Hall Lake property consists of 33 contiguous MTO claims covering an area of approximately 15283 hectares in the Fort Steele Mining District (*Figure 2*). The claim boundaries have not been legally surveyed. The mineral claims were located using the BC government mineral tenure online (MTO) system. A table summarizing pertinent claim data follows.

Table 1 – Tenure Data: Hall Lake Property

Tenure Number	Claim Name	Ownership	Expiry Date (DD/MM/YYYY)	Mining Division	Area (ha)
509000	HL	100% EPL	30/11/2012	Fort Steele	1255.74
509004	HL	100% EPL	30/11/2012	Fort Steele	334.72
509007	HL	100% EPL	30/11/2012	Fort Steele	188.44
839088	R	100% EPL	29/11/2011	Fort Steele	476.34
839089	R	100% EPL	29/11/2011	Fort Steele	523.09
839090	R	100% EPL	29/11/2011	Fort Steele	516.52
839092	R	100% EPL	29/11/2011	Fort Steele	520.77
839093	R	100% EPL	29/11/2011	Fort Steele	497.44
839094	R	100% EPL	29/11/2011	Fort Steele	524.63
839095	R	100% EPL	29/11/2011	Fort Steele	314.68
839096	R	100% EPL	29/11/2011	Fort Steele	251.76
839099	R	100% EPL	29/11/2011	Fort Steele	503.17
839101	R	100% EPL	29/11/2011	Fort Steele	503.15
839102	R	100% EPL	29/11/2011	Fort Steele	502.99
839103	R	100% EPL	29/11/2011	Fort Steele	503.02

Tenure Number	Claim Name	Ownership	Expiry Date (DD/MM/YYYY)	Mining Division	Area (ha)
839104	R	100% EPL	30/11/2012	Fort Steele	502.88
839105	R	100% EPL	30/11/2012	Fort Steele	502.82
839106	R	100% EPL	30/11/2012	Fort Steele	523.71
839107	R	100% EPL	30/11/2012	Fort Steele	481.67
839108	R	100% EPL	30/11/2012	Fort Steele	502.61
839109	R	100% EPL	30/11/2012	Fort Steele	523.38
839110	R	100% EPL	30/11/2012	Fort Steele	418.57
839118	R	100% EPL	30/11/2012	Fort Steele	522.87
839123	R	100% EPL	30/11/2012	Fort Steele	522.68
839127	R	100% EPL	30/11/2012	Fort Steele	522.53
83931	R	100% EPL	30/11/2012	Fort Steele	522.41
839132	R	100% EPL	30/11/2012	Fort Steele	480.57
839133	R	100% EPL	30/11/2012	Fort Steele	522.38
839134	R	100% EPL	30/11/2012	Fort Steele	501.36
839135	R	100% EPL	30/11/2012	Fort Steele	313.3
8391137	R	100% EPL	30/11/2012	Fort Steele	146.8
8391140	R	100% EPL	30/11/2012	Fort Steele	272.07
846777	R	100% EPL	30/11/2012	Fort Steele	83.93
				TOTAL:	**15283**

The mineral claims are situated on Crown Land and fall under the jurisdiction of the British Columbia Government.

The west central part of the Hall Lake property covers some historical Crown Grants. A Crown land grant is the legal instrument used to convey a defined interest in land from Crown ownership to private, fee simple ownership. The Crown Grants are all in good standing and are held by third parties. Future development of the Hall Lake property may require agreements with the holders of the Crown Grants.

In order to maintain the mineral claims the holder must either record the exploration and development work carried out on that claim during the current anniversary year or pay cash in lieu. Under the new

MTO system, the cash in lieu amount is $4 / Hectare (with an additional $10 per unit recording fee) during the first three years of a claims existence, and increases to $8 / Hectare after the third year. Work performed must equal or exceed the minimum specified value per unit; excess value of work in one year can be applied to cover work requirements on the claim for additional years. As noted in Table 1, the earliest claim expiry date is November 30, 2012. Bethpage intends to file the required forms, pay the required fees and submit an assessment report based on the 2011 work program to keep the claims in good standing.

Certain types of exploration activity require a Land Use Permit, issued by the British Columbia Ministry of Forests, Lands and Natural Resource Operations prior to conducting the work on a mineral property. The current or future operations of Bethpage Capital Corp., including exploration, development and commencement of production activities on this property may require such permits. Other permits governed by laws and regulations pertaining to development, mining, production, taxes, labor standards, occupational health, waste disposal, toxic substances, land use, environmental protection, mine safety and other matters, may be required as the project progresses. The author is not aware of any existing problems or impediments that would prevent a permit from being approved and issued for the work as outlined in the Recommendations section of this report.

Surface rights would have to be obtained from the government if the property were to go into development. To the author's knowledge, the Hall Lake property area is not subject to any environmental liability. The author is not aware of any back in rights, payments, royalties or other agreements and encumbrances to which the property is subject.

On September 12, 2011, Bethpage Capital Corp. ("Bethpage"), a private BC company, announced that they had entered into an Option Agreement with Eagle Plains Resources Ltd. ("Eagle Plains") whereby Bethpage can acquire a 60% right, title and interest in the Hall Lake Property, subject to the reservation by Eagle Plains of a 4% gross metal royalty, by making $250,000 in cash payments and issuing 1,000,000 voting class common shares to Eagle Plains, and by completing $3,000,000 in exploration expenditures on the Hall Lake Property, all according to the following schedule:

1) Cash payments of $250,000 as follows:

   i.) $15,000 within 5 business days of the Effective Date of the Agreement; (Paid)
   i.) $25,000 on or before the first anniversary of Effective Date of the Agreement;
   ii.) $60,000 on or before the second anniversary of the Effective Date of the Agreement;
   iii.) $75,000 on or before the third anniversary of the Effective Date of the Agreement;
   iv.) $75,000 on the fourth anniversary of the Effective Date of the Agreement; and

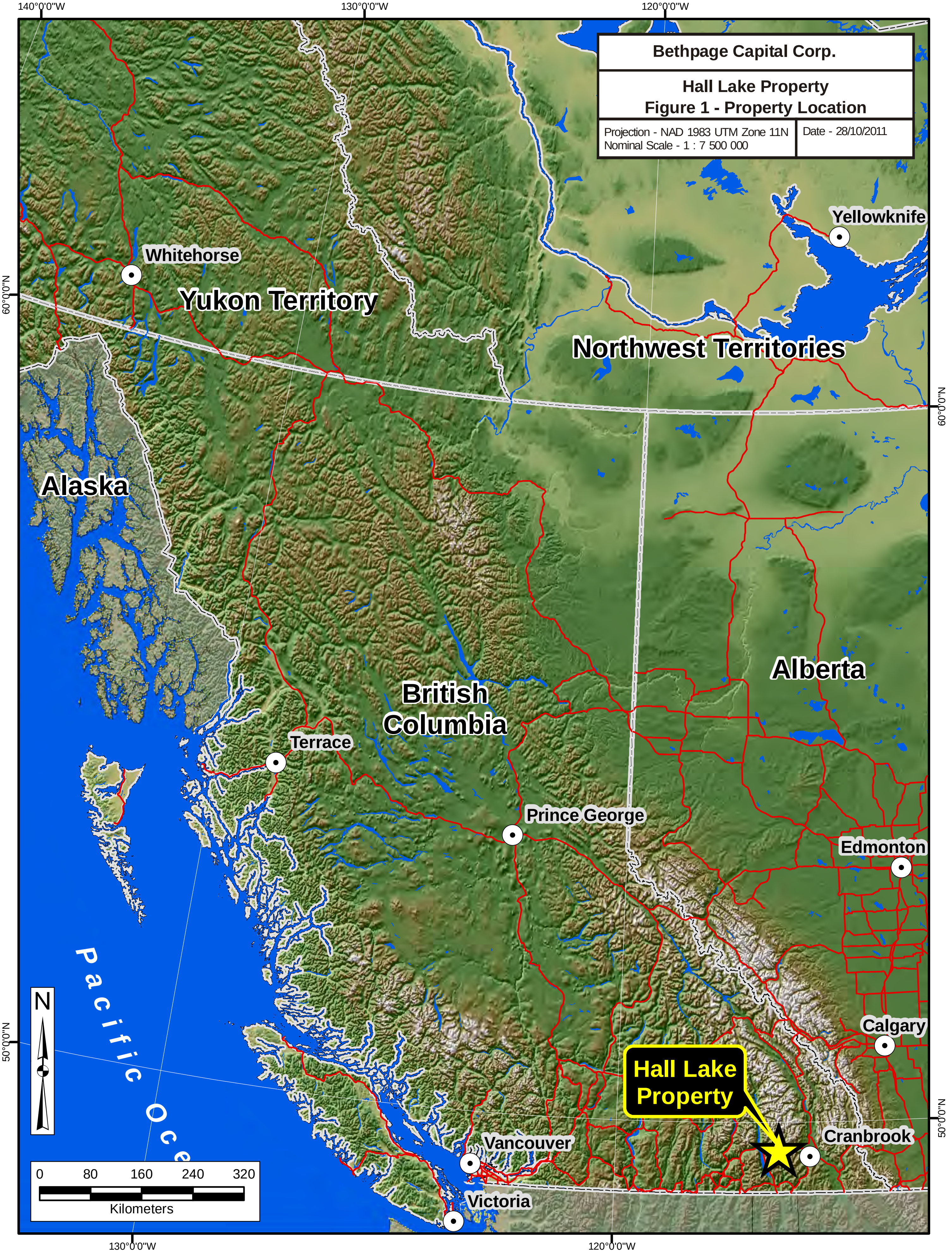
2) Share Issuances of 1,000,000 common shares of Bethpage Capital, subject to such resale restrictions as may be imposed by the applicable securities laws and the Exchange, as follows:

   i.) 100,000 shares upon Exchange approval of the Agreement;
   ii.) Additional 100,000 shares on the first anniversary of the Effective Date of the Agreement;
   iii.) Additional 200,000 shares on the second anniversary of the Effective Date of the Agreement;
   iv.) Additional 300,000 shares on the third anniversary of the Effective Date of the Agreement;

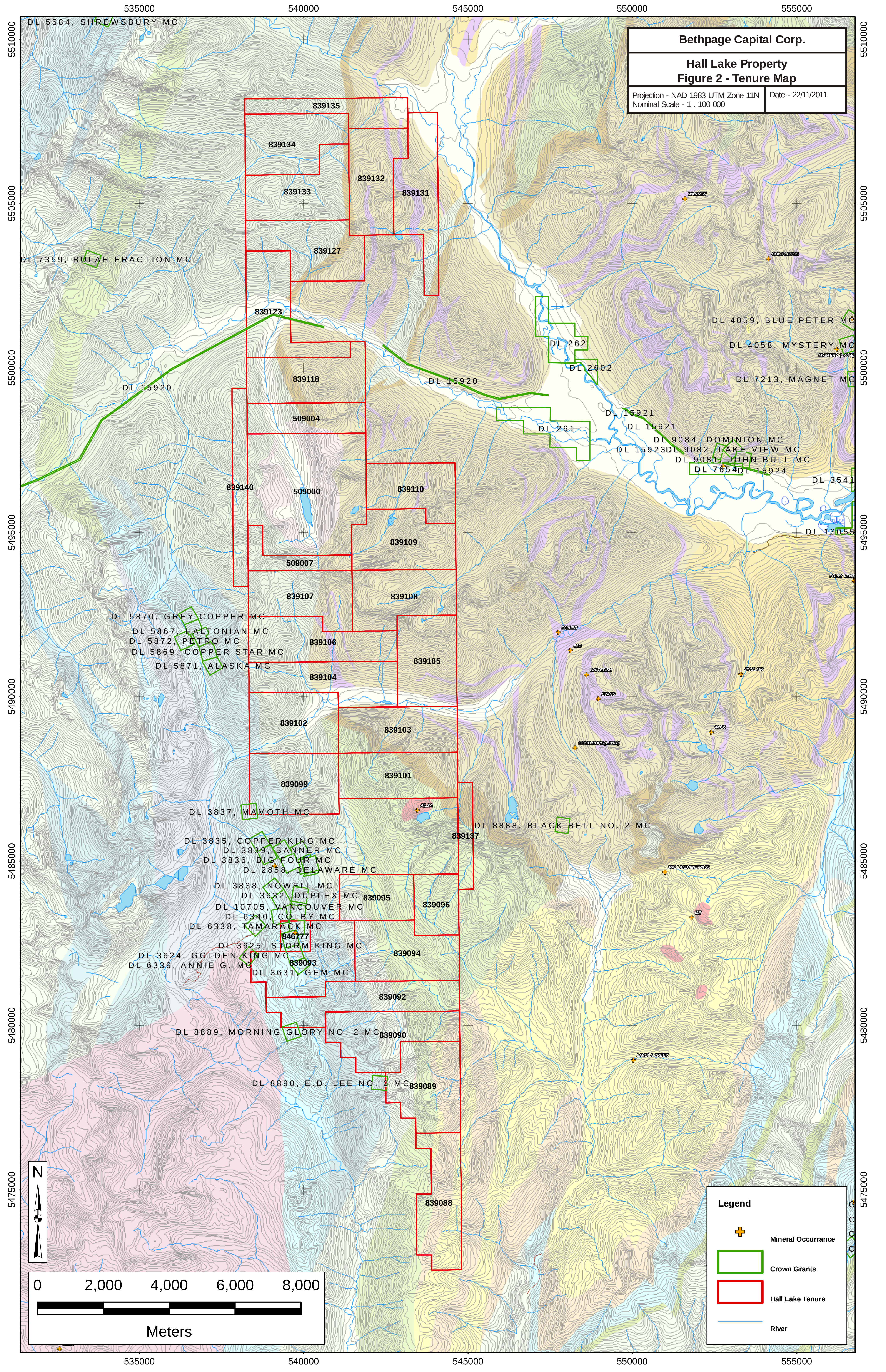
v.) Additional 300,000 shares on the fourth anniversary of the Effective Date of the Agreement; and

3) Exploration Expenditures, as follows:

i.) $100,000 on or before December 31st, 2011;
ii.) an additional $200,000 on or before December 31st, 2012;
iii.) an additional $500,000 on or before December 31st, 2013;
iv.) an additional $800,000 on or before December 31st, 2014;
v.) an additional $1,400,000 on or December 31st, 2015;



Bethpage Capital Corp.
Hall Lake Property
Figure 1 - Property Location
Projection - NAD 1983 UTM Zone 11N
Nominal Scale - 1 : 7 500 000
Date - 28/10/2011
140°0'0"W
130°0'0"W
120°0'0"W
60°0'0"N
50°0'0"N
Yellowknife
Whitehorse
Yukon Territory
Northwest Territories
Alaska
Alberta
British Columbia
Terrace
Prince George
Edmonton
Calgary
Hall Lake Property
Cranbrook
Vancouver
Victoria
Pacific Oce
N
0
80
160
240
320
Kilometers


Bethpage Capital Corp.
Hall Lake Property
Figure 2 - Tenure Map
Projection - NAD 1983 UTM Zone 11N
Nominal Scale - 1 : 100 000
Date - 22/11/2011
535000
540000
545000
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555000
5510000
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839101
839099
839137
839095
839096
846777
839093
839094
839092
839090
839089
839088
DL 5584, SHREWSBURY MC
DL 7359, BULAH FRACTION MC
DL 15920
DL 262
DL 2602
DL 261
DL 15921
DL 15923
DL 15924
DL 4059, BLUE PETER MC
DL 4058, MYSTERY MC
DL 7213, MAGNET MC
DL 9084, DOMINION MC
DL 9082, LAKE VIEW MC
DL 9081, JOHN BULL MC
DL 7654
DL 3541
DL 13055
DL 5870, GREY COPPER MC
DL 5867, HALTONIAN MC
DL 5872, PETRO MC
DL 5869, COPPER STAR MC
DL 5871, ALASKA MC
DL 3837, MAMOTH MC
DL 8888, BLACK BELL NO. 2 MC
DL 3835, COPPER KING MC
DL 3839, BANNER MC
DL 3836, BIG FOUR MC
DL 2858, DELAWARE MC
DL 3838, NOWELL MC
DL 3632, DUPLEX MC
DL 10705, VANCOUVER MC
DL 6340, COLBY MC
DL 6338, TAMARACK MC
DL 3625, STORM KING MC
DL 3624, GOLDEN KING MC
DL 6339, ANNIE G. MC
DL 3631, GEM MC
DL 8889, MORNING GLORY NO. 2 MC
DL 8890, E.D. LEE NO. 2 MC
WARREN
FALLER
WHITESTON
EVANS
SINCLAIR
PARK
MALLANDAINE PASS
LAVALA CREEK
N
0
2,000
4,000
6,000
8,000
Meters
Legend
Mineral Occurrance
Crown Grants
Hall Lake Tenure
River

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access and Local Resources

The property is bisected by the Meachen Creek Forest Service Road in the south and the Grey Creek Forest Service road to the north providing access to the lower parts of the property. The higher and more remote property areas are accessible by helicopter, which can be chartered out of Cranbrook.

The closest communities are Kimberley, population 6500, located approximately 50 kilometers east of the property boundary, and Cranbrook, population 19,000, located an additional 20 kilometers from Kimberley. Both cities provide retail outlets, health centers, ambulance service, RCMP, service stations, postal and banking services, motels and restaurants. Cranbrook has an international airport and is also the site of the regional hospital. Due to the nearby presence of the former producing Sullivan Mine and the Elk Valley coal fields, a skilled mining work force is readily available with support industries well established in both Cranbrook and Kimberley.

Physiography, Climate and Infrastructure

Vegetation on the property consists primarily of Western Larch and balsam fir, with lesser spruce and lodgepole pine. Birch and aspen dissipate with elevation gain while willow and alder populate drainages. Terrain is relatively steep and densely wooded with moderate undergrowth. Elevations range from 1600 m ASL to 2500 m ASL. Outcrop exposure is generally good in the alpine with quaternary coverage in the valley bottom.

The Hall Lake property has a typical interior climate characterized by a wide temperature range with warm summers, and long moderately cold winters. Due to it's proximity to Kootenay Lake, the property experiences relatively high snow accumulations starting in late October and lasting until Mid May. A normal field season lasts from late May to mid October, with drilling possible year-round.

Although there do not appear to be any topographic or physiographic impediments, and suitable lands appear to be available for a potential mine, including mill, tailings storage, heap leach and waste disposal sites, engineering studies have not been undertaken and there is no guarantee that areas for potential mine waste disposal, heap leach pads, or areas for processing plants will be available within the subject property. A well developed transportation corridor and power corridor lies approximately 48 km east if the property where a high pressure gas pipeline and a high voltage hydro-electric line follow the CPR line and Highway 3 east of the property. The rail line provides efficient access to the Teck Ltd. smelter in Trail, B.C.

HISTORY OF THE PROPERTY

The Hall Lake property has seen very little historical work, with the only recent work on the property before the current 2011 geophysical survey, by Eagle Plains in 2004 and 2005.

The Storm King occurrence is located in the west central part of the property. A considerable amount of work was done (in 1900?) and several tons of ore were packed out a distance of 48 kilometers in order to make a smelter run. Quartz veining is common on the property, occurring in large swarms which are subparallel to the stratigraphy and up to 50 metres wide. Individual veins are up to 1 metre in width and locally contain fine-grained carbonate; the mineralized veins are bounded by weathered brown sericite alteration up to 1 metre in width. In 1985 Lacana Resources staked the area of the Storm King as part of their Whiskey Jack property. Lacana collected a selected sample material from the historical dumps of quartz with galena and tetrahedrite which analysed 0.31 per cent tin; other samples of such material yielded assays of up to 4.5 grams per tonne gold and 310 grams per tonne silver, but barren quartz veins, host dolomites and granodiorite contained no precious metals. The author has not been able to independently verify the accuracy or location of these samples.

In the late 1990s, the British Columbia Geological Survey (BCGS) recognized the potential of southern and southeastern British Columbia to host significant gold mineralization. Two major styles of gold mineralization were subsequently considered prospective in the region: distal sediment-hosted gold mineralization similar to that found in Nevada (Carlin and related areas)(Lefebure et al., 1998), and more proximal intrusive-related gold mineralization similar to that found in Yukon and Alaska in the Tintina Gold Belt (Logan, 1999, etc.). This conclusion is based on distinctive similarities of the tectonic setting of all these regions and their location within pericratonic terranes - formed along the continental margin of the ancestral North American Craton - which have been intruded by Mesozoic magmas.

Further work of the BCGS led to identification of the mid-Cretaceous (90-115 Ma) Bayonne Plutonic Suite that forms the 50 to 75 km wide arcuate Bayonne Intrusive Belt extending roughly in a north-northwest direction from the Canada-USA border. The Bayonne Suite is one of a number of Cretaceous plutonic suites of the Omineca tectonic belt that extends for more than 1600 km along the Canadian Cordilleran interior from Alaska through Yukon to British Columbia (Logan, 2001, 2002). The plutons of these suites are known to host or control large intrusive-related gold deposits, most notably within the Tintina Gold Belt in Yukon and Alaska (e.g., Donlin Creek, Fort Knox, Ryan Lode, True North, Pogo, Brewery Creek, Dublin Gulch, etc.)

On this basis, similarities between southern and southeastern British Columbia with the Tintina Gold Belt were suggested, including the presence of mid-Cretaceous granitic intrusions, solitary, stockwork and sheeted quartz veins with Au-W-Bi metal signatures, and RGS anomalies for pathfinder elements (Logan, 1999). A second intrusive suite, the Eocene (ca. 51 Ma) Coryell Syenite Suite accompanied by gold mineralization also occurs in southeastern British Columbia. The presence of both Cretaceous and Eocene plutonic suites indicates the possibility for the existence of two distinct events of gold mineralization in the region. This also resembles the possible occurrence of two (Cretaceous and Eocene) epochs of gold mineralization in the Great Basin, Nevada.

The author has not been able to independently verify the above information and the deposit information discussed above is not necessarily indicative of the mineralization on the Hall Lake property which is the subject of this report.

As a result of the work conducted above, the Hall Lake property was identified by Eagle Plains' personnel as an excellent grass roots exploration target for these types of deposits and the initial claims were acquired in 2003. The claims cover a large Cretaceous-aged granitic intrusive known as the Hall Lake Stock, which is hosted by Aldridge and Creston formation sediments.

2004 fieldwork by Eagle Plains consisted of a rock geochemical survey and prospecting aimed to assess the geochemical character of the Hall Lake Stock as well as that of the host sediments. The most significant results from the 2004 geochemical survey and prospecting were the anomalous gold values collected from a large dyke in the sediments of the Creston Formation approximately 300 meters from the contact with the intrusive. Sample H-16 returned 2.39 g/t Au and greater than 10,000 ppm As from a grab of felsic dyke material with arsenopyrite and tertrahedrite with quartz veins. H-18, a sample of rusty felsic dyke with tourmalinite needles and arsenopyrite returned 1.77 g/t Au and greater than 10,000 ppm As. Sample H-02 returned 42 g/t Ag and 1.64% Pb from a quartz vein with galena and pyrrhotite hosted within a limestone unit. The property is at an early exploration stage and the author has not been able to determine what relationship the samples have to the true width of the mineralization.

The total cost of the 2004 geochemical survey of the Hall Lake Property was $ 11,435.61.

Based on results from the 2004 program, Eagle Plains carried out a field program at Hall Lake in late 2005. Work consisted of contour soil sampling and rock geochemical sampling. Due to heavy snowfall on the property (elev. 1600m to 2500m ASL), the only practical geological work that could be accomplished was to run contour soil lines above Hall Lake. Chuck Downie, P.Geo., spent one day attempting to map and sample at the higher elevations of the property in the area of the mineralized dyke identified by 2004 work, but the snow cover and extreme terrain at the higher elevations led to extremely hazardous working conditions and a decision was made to focus on the soil sampling program. A total of 488 soil samples were collected by Bootleg Exploration personnel along six N-S oriented contour soil lines. Line spacing was approximately 100m vertical, with 25 meter sample spacing. A total of 13 rock samples were collected.

The results from the 2005 field program are disappointing, with only a single soil sample, HLL03 11+75N, returning an anomalous gold value, 75 ppb Au. None of the rock samples returned anomalous gold values. All of soil samples were collected from within the mapped contacts of the intrusive body. The rock samples were all collected from outcrops and boulder fields where they were exposed from the snow cover. Mapping and establishing any continuity of samples was impossible due to the snow.

The total cost of the 2005 program was $38,675.40.

To the best of the writers knowledge there has been no previous exploration work done on the Hall Lake property prior to Eagle Plains acquiring the project.

GEOLOGICAL SETTING

Regional Geology

Regionally the Hall Lake area is underlain by rocks of the Purcell Supergroup on the western flank of the Purcell Anticlinorium, a broad, north-plunging arch-like structure in Helikian and Hadrynian aged rocks. The anticlinorium is allocthonous, carried eastward and onto the underlying cratonic basement by generally north trending thrusts throughout the Laramide orogeny during late Mesozoic and early Tertiary time.

The oldest rocks exposed in the Hall Lake area are greenish, rusty weathering thin bedded siltites and quartzites of the greater than 4000m thick Lower Aldridge Formation, along with the facies-related, dominantly fluvial Fort Steele Formation (the base of which is unexposed). The Sullivan deposit is located some 20-30m below the upper contact of the Lower Aldridge Formation. Overlying the Lower Aldridge is a continuous section of Middle Aldridge quartz wackes, subwackes and argillites some 3000+ m thick. Within the Middle Aldridge formation, fourteen varied marker horizons can be correlated over hundreds of kilometres. These represent the only accurate stratigraphic control. A number of aerially extensive, locally thick gabbroic sills are present within the Lower and Middle Aldridge Formations. These sills and dykes; the "Moyie Sills", locally were intruded into wet, unconsolidated sediments, and have been dated to 1445 Ma, providing a minimum age for Aldridge sedimentation and formation of the Sullivan deposit. The Middle Aldridge is overlain conformably by the Upper Aldridge, 300 to 400 meters of thin, fissile, rusty weathering siltite/argillite.

Conformably overlying the Aldridge Formation is the Creston Formation, comprising approximately 1800 meters of grey, green and maroon, cross-bedded and ripple marked platformal quartzites and mudstones. The Kitchener-Siyeh Formation, which includes 1200 to 1600 meters of grey-green and buff coloured dolomitic mudstone are shallow water sediments overlying the Creston Formation.

The upper portion of the Purcell Supergroup consists of the Dutch Creek and Mount Nelson Formations. The Dutch Creek formation consists of approximately 1200 meters of dark grey, calcareous dolomitic mudstones. Overlying the Dutch Creek formation is the Mount Nelson formation, 1000 meters of grey-green and maroon mudstone and calcareous mudstones. This unit marks the top of the Purcell Supergroup.

The Purcell Supergroup in the Sullivan area was deposited along an active tectonic basin margin. Dramatic thickness and facies variations record Purcell-age growth faults and contrast with gradual changes characteristic of most Purcell rocks elsewhere. These faults reflect deep crustal structures that modified incipient Purcell rifting, and led to the development of an intercratonic basin in middle Proterozoic time.

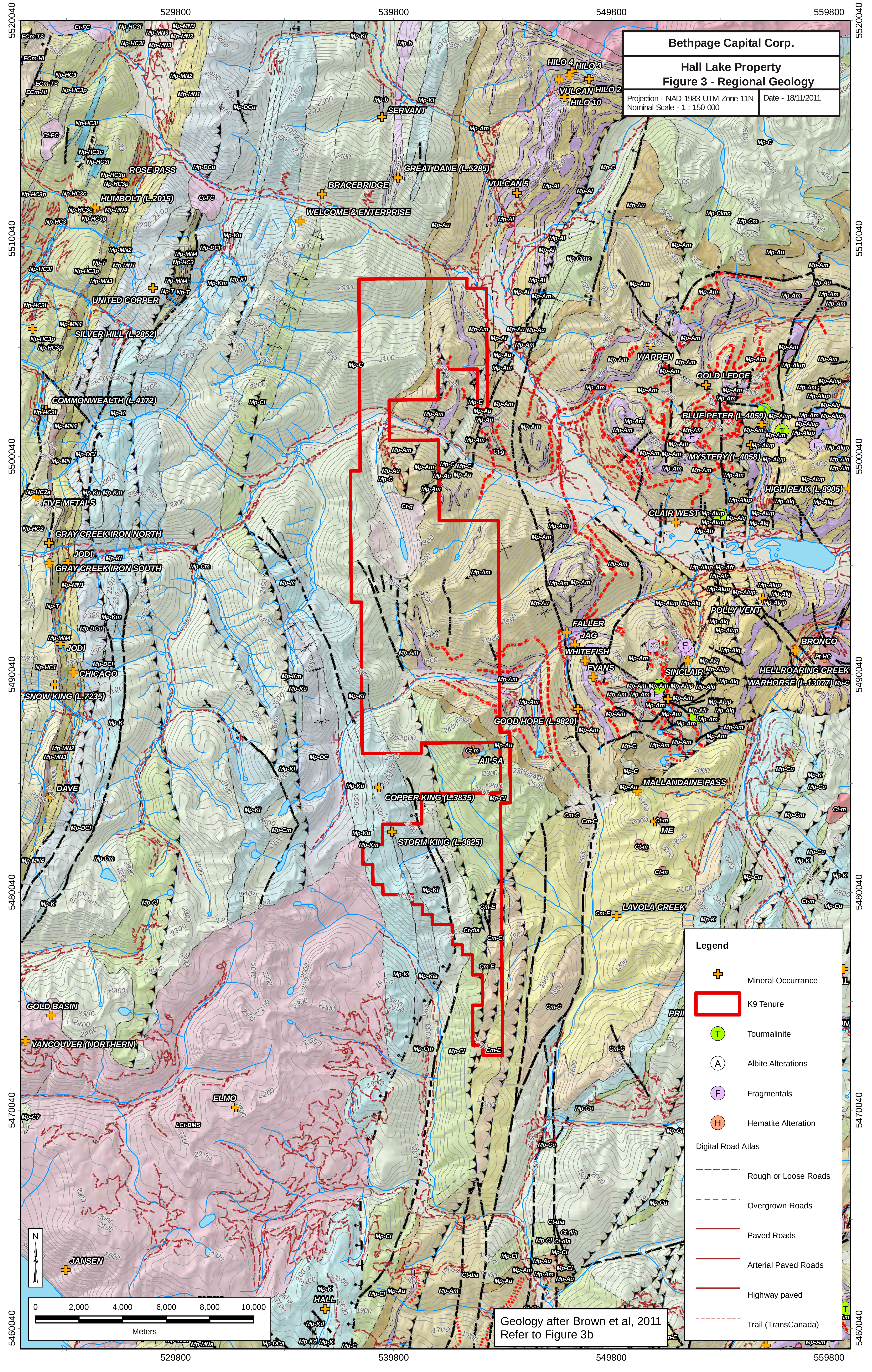
Property Geology

Geologic mapping at the Hall Lake property is limited to regional scale mapping by Hoy, T. and Jackaman, W. (2004). The property itself is dominated by a 2.5 km by 3.5 km upper Cretaceous porphyritic granitoid pluton that intrudes the conformable contact between moderately-dipping Middle and Upper Aldridge rocks to the east and overlying Creston Formation rocks to the west (*Fig. 3*); see regional geology for a detailed description of the host rocks. The pluton also appears to cross-cut north – south trending, sub-vertical, regional scale thrust faults (Fig. 3). The degree or presence of contact metamorphism, associated with intrusion of the stock, is not known; neither is structural relationship between intrusive phase and metasedimentary host rocks.

Exploration on the property was centered around a ~7 m wide NW-striking, sub-vertical felsic dyke which cross-cuts the main intrusive body (B. Robison, pers. comm.) and can be traced for over 1.5 km. Neither the degree of contact metamorphism, nor the structural relationships between the dyke and country rocks have been established.

The light-grey to rusty-orange weathering dyke is very-fine-grained to aphanitic with rare 0.5 mm quartz eyes. The texture of the dyke is massive. Sulphide mineralization consists of rare mm-scale euhedral pyrite cubes; minor disseminated, medium-grained arsenopyrite prisms and needles; and medium-grained euhedral arsenopyrite needles to fine-grained, massive, arsenopyrite common along fracture surfaces. Arsenopyrite bearing, light- to dark-grey, sugary quartz veins which average 0.5 cm in width, cross-cut the dyke.

Larger 3 - 10 cm medium- to coarse-grained, rusty, quartz veins intrude the host metasedimentary rocks; veins can contain muscovite and form minor stockworks. Sulphide mineralization includes coarse-grained euhedral galena, coarse-grained euhedral pyrite cubes and associated pseudomorphs (limonite?), as well as fine-grained disseminated arsenopyrite.



Bethpage Capital Corp.
Hall Lake Property
Figure 3 - Regional Geology
Projection - NAD 1983 UTM Zone 11N
Nominal Scale - 1 : 150 000
Date - 18/11/2011
529800
539800
549800
559800
5520040
5510040
5500040
5490040
5480040
5470040
5460040
HILO 4
HILO 3
HILO 2
HILO 10
VULCAN
VULCAN 5
SERVANT
GREAT DANE (L.5285)
BRACEBRIDGE
WELCOME & ENTERPRISE
ROSE PASS
HUMBOLT (L.2015)
UNITED COPPER
SILVER HILL (L.2852)
COMMONWEALTH (L.4172)
FIVE METALS
GRAY CREEK IRON NORTH
JODI
GRAY CREEK IRON SOUTH
CHICAGO
SNOW KING (L.7235)
DAVE
WARREN
GOLD LEDGE
BLUE PETER (L.4059)
MYSTERY (L.4058)
HIGH PEAK (L.8905)
CLAIR WEST
POLLY VENT
FALLER
JAG
WHITEFISH
EVANS
SINCLAIR
BRONCO
HELLROARING CREEK
WARHORSE (L.13077)
GOOD HOPE (L.9820)
AILSA
MALLANDAINE PASS
COPPER KING (L.3835)
STORM KING (L.3625)
ME
LAVOLA CREEK
GOLD BASIN
VANCOUVER (NORTHERN)
ELMO
JANSEN
HALL
Legend
Mineral Occurrance
K9 Tenure
Tourmalinite
Albite Alterations
Fragmentals
Hematite Alteration
Digital Road Atlas
Rough or Loose Roads
Overgrown Roads
Paved Roads
Arterial Paved Roads
Highway paved
Trail (TransCanada)
0
2,000
4,000
6,000
8,000
10,000
Meters
N
Geology after Brown et al, 2011
Refer to Figure 3b

BRITISH COLUMBIA
Ministry of Energy, Mines and Petroleum Resources
Mining and Minerals Division

B.C. Geological Survey

Geology of British Columbia: Geological Legend

Geoscience Map 2005 - 3

Volcanic and Sedimentary Rocks

CENOZOIC

Neogene to Quaternary

- Qal — **Quaternary cover:** Alluvium, glaciofluvial gravels and sand, till. *(Note: the extensive Quaternary deposits of the Rocky Mountain foothills and the Peace River area have been omitted as they would completely cover and obscure the bedrock geology.)*
- Qv — **Quaternary volcanics including Blue Lake Volcanics, Lambly Creek Basalt, Lake Island and Big Raven Formations:** Basalt, olivine basalt, unconsolidated ash, scoria, agglomerate and breccia.
- LTQT — **Tuya Formation:** Alkali olivine basalt, tuff, agglomerate, minor trachyte and rhyolite tuff and flows.
- LTQMl — **Maitland Volcanics:** Basalt breccia, vesicular basalt, volcanogenic sediments and pillow lava.
- LTQGb — **Garibaldi Group and unnamed equivalents:** Olivine basalt flows, basaltic andesite flows and pyroclastic cones, rhyolite, dacite and andesite flows and domes; polymictic breccias and pyroclastics; gravel and sand.
- LTQEz — **Mount Edziza Complex:** Aphyric trachyte and olivine, plagioclase and augite- phyric alkali olivine basalt, trachybasalt and hawaiite lava flows, domes and pyroclastic breccia and ash flows; includes some fluvial gravel and glacial deposits.
- LTQAn — **Anahim Volcanics, Bella Bella Formation and equivalents:** Basalt, andesite, trachyte and rhyolite flows; basalt, andesite and dacite breccia, tuff, minor greywacke, slate and conglomerate.
- LTCh — **Chilcotin Group:** Vesicular, columnar jointed basalt, olivine basalt; minor andesite, rhyolite breccia, obsidian, tuff, breccia, conglomerate, sandstone, siltstone, shale and diatomite.
- LTQLv — **Level Mountain Group:** Alkali olivine basalt, minor trachyte and rhyolite; aphyric and olivine, plagioclase and augite- phyric, fine- grained basalt flows, in part columnar- jointed, locally vesicular or amygdaloidal; may include massive, fine- grained diabase sills.
- LTAb — **Alert Bay Volcanics:** Basaltic to dacitic lava, tuff, breccia, conglomerate.
- LTv — **Unnamed Neogene volcanics:** Olivine basalt necks, breccia and pillow flows, conglomerate.
- Mv — **Miocene volcanics including Skagit and Coquihalla Formations:** Basalt and andesite flows; related breccia and tuff; minor dacite and rhyolite, conglomerate and siltstone.

Oligocene to Pliocene

- PFr — **Poorly consolidated Tertiary sediments (includes the Fraser Bend and Australian Creek Formations):** Poorly consolidated to unconsolidated conglomerate, sandstone and mudstone; minor diatomite, lignite, basalt.
- PMf — **Masset Formation:** Dominantly aphyric, mafic to felsic lava flows and pyroclastic rocks, locally epiclastic interbeds.
- PSf — **Skonun Formation:** Sandstone, conglomerate, siltstone, mudstone, shale, coal, mostly covered by Pleistocene till.

Paleogene

- ETs — **Paleogene sediments including Chuckanut, Kitsilano, Slatechuk, Tanzilla Canyon, Kishehn and Sophie Mountain Formations:** Conglomerate, sandstone, siltstone, shale, marl, minor coal; minor tuffs and tuffaceous siltstone; basalt.
- ETv — **Unnamed Paleogene volcanics:** Rhyolite, chalcedonic rhyolite. breccia, tuff.
- ETvQ — **Paleogene volcanics of the Queen Charlotte Islands including the Ramsay Island volcanic sequence:** Intercalated mafic to felsic lava flows and pyroclastic rocks; epiclastic sandstone and conglomerate; thickly- stratified volcanic debris flows.
- P — **Point Grey Eruptives:** Basalt sills, dikes and flows, minor pyroclastics.
- ECr — **Carmine Mountain Volcanics:** Dacite and rhyolite flows, ash and lapilli tuff, andesite flows, lesser basalt flows.
- EEn — **Endako Group:** Andesite, basalt, minor dacite: flows, breccia and tuff, vesicular, amygdaloidal, locally hyaloclastic, minor picritic basalt and rhyolite; conglomerate, sandstone, shale, lignite.
- EOo — **Ootsa Lake Group (including Newman Formation) and unnamed equivalents:** Rhyolite, dacite, trachyte flows; related tuff and breccia; andesite and basalt; minor conglomerate, grit, greywacke and tuffaceous shale.
- ECa — **Carmanah Group:** Siltstone, shale, sandstone, pebble to boulder conglomerate; molluscan faunas common.
- EKm — **Kamloops Group:** Sandstone, conglomerate, shale, argillite, coal; basalt, andesite, dacite, trachyte, rhyolite, related tuffs and breccias.
- EPe — **Penticton Group and unnamed equivalents:** Trachyte, phonolite, trachyandesite, andesite, pyroxene andesite, tuff and breccia; volcanic sandstones and siltstones, shale and conglomerate.
- EPr — **Princeton Group:** Sandstone, conglomerate, argillite, coal; mafic to intermediate volcanics, minor black chert.
- ESo — **Sloko Group:** Basal conglomerate, coarse sandstone to siltstone, locally carbonaceous; andesite to rhyolite flows, pyroclastics and derived epiclastics, minor basalt.
- EHp — **Hart Peak Volcanics:** Rusty- weathering trachyte and rhyolite flows, pyroclastic flows, pyroclastic rocks, and related intrusions.
- PEAm — **Possible Amphitheater Group equivalents:** Heterolithic to monolithic conglomerate and breccia, carbonate conglomerate; shale, siltstone, sandstone, wacke, minor coal.
- PEFl — **Flores Volcanics:** Subaerial andesite to rhyolite welded tuff, ash- flow tuff, tuff breccia, dacite to rhyolite sills, minor basalt dikes.
- PEMe — **Metchosin Igneous Complex - Metchosin Formation:** Basaltic pillowed flows, hyaloclastite breccia, tuff, massive basalt, rare limestone; subaerial amygdaloidal basalt flows, minor breccia.

MESOZOIC

Cretaceous to Tertiary

- uKTS — **Sifton and Usilika Formations. Bowron River Coal Beds and Reynolds Creek Succession:** Pebble to boulder conglomerate, sandstone, siltstone, shale, minor coal.
- KSu — **Sustut Group and unnamed equivalents:** Sandstone, siltstone, mudstone, chert and quartz- pebble conglomerate, felsic ash- tuff, minor coal.
- KTSs — **Slollicum Schist:** Mainly greenschist- grade mafic to intermediate volcanics, phyllite, minor volcanic and carbonate- clast supported conglomerate.

Triassic to Cretaceous

- TRKPa — **Pacific Rim Complex:** Mudstone- rich melange; pillow lava, tuff and chert; green, aphanitic volcanic breccia and massive flows, small diorite intrusions, grey limestone lenses.

Jurassic to Cretaceous

- JKCy — **Cayoosh Assemblage and Noel Mountain East Succession:** Volcaniclastic sandstone, siltstone, shale and argillite; lesser amounts of pebble to cobble conglomerate, limy sandstone, limestone, tuff, greenstone, quartzite and fragmental metavolcanic rocks; micaceous quartzite, biotite- hornblende schist, garnet and staurolite schist, phyllite.
- JKKF — **Kootenay Group and Fernie Formation:** Shale, sandstone; limestone, phosphatic and sideritic shales.
- JKLe — **Leech River Complex:** Slate, phyllite, quartz- biotite schist, quartz- feldspar- garnet- biotite schist, metagreywacke, meta- arkose; metabasalt, metarhyolite, chlorite schist, ribbon chert, cherty argillite.
- JKGv — **Gravina Assemblage:** Marine argillite and greywacke, and interbedded andesitic to basaltic volcanic and volcaniclastic rocks, metamorphosed to amphibolite grade.
- mJKBo — **Bowser Lake Group:** Heterolithic conglomerate, sandstone, siltstone, mudstone, shale, feldspathic wacke, minor coal; minor basalt and andesite flow, breccia and tuff, dacitic lava flows, lapilli tuff.
- JKKy — **Kyuquot Group:** Siltstone, shale, greywacke, calcareous grit and conglomerate.
- JKDz — **Dezadeash Group:** Argillite, greywacke, coarse lithic and feldspathic sandstone, conglomerate and minor tuffaceous layers; sparsely feldspar- phyric pillow basalt and foliated sills of gabbro and quartz diorite.
- uJKMn — **Minnes Group (includes some undifferentiated Bullhead Group):** Sandstone, quartzite, siltstone, shale, conglomerate, minor coal.
- uJKRe — **Relay Mountain Group, Thunder Lake Sequence and unnamed equivalents:** Shale, siltstone, phyllite, semischist, sandstone, calcareous, sandstone, arkose, coquina, conglomerate; minor andesitic breccia and tuff, tuffaceous sandstone and silty limestone.

Cretaceous

- KFs — **Fort St. John Group, may include some Smokey Group units:** Shale, sideritic shale, silty mudstone, siltstone, sandstone, concretionary shale; minor coal, conglomerate, glauconitic sandstone and siltstone.
- KJa — **Jackass Mountain Group; Fish Lake Creek Succession; and unnamed equivalents:** Sandstone, arkose, siltstone, argillite, black shale, pebble to boulder conglomerate; andesite and tuffaceous sandstone; minor rhyolite, tuff.
- KPs — **Pasayten Group:** Chert- grain sandstone, argillite, arkose, conglomerate; minor red beds and tuff.
- KQc — **Queen Charlotte Group (includes White Point Beds):** Sandstone; siltstone, mudstone and shale, locally with calcareous concretions, pebble sandstone and conglomerate, minor coal; feldspar- phyric andesite lava flows and pyroclastic rocks.
- KSq — **Silverquick Formation:** Pebble to cobble conglomerate containing clasts of chert, volcanic rock and sandstone; lesser amounts of sandstone, siltstone, shale, volcanic breccia and volcanic conglomerate.
- KTc — **Taylor Creek Group and unnamed equivalents:** Sandstone, chert- rich sandstone, siltstone and shale; polymict pebble conglomerate; calcareous sandstone and shale; intermediate to felsic volcanic flows, tuff and crystal tuffs; volcanic breccia and conglomerate.
- KVz — **Valdez Group and possible equivalents:** Deep marine argillite- greywacke flysch, minor massive and pillow basalt, breccia and tuff; contorted graphitic siltstone with intercalated intermediate ash, lapilli tuff and chert.
- uKv — **Unnamed Cretaceous volcanics:** Andesitic to dacitic breccias, tuffs and flows.

Upper Cretaceous

- uKAl — **Alberta Group:** Siltstone, sandstone.
- uKD — **Dunvegan Formation:** Massive conglomerate, fine to coarse- grained sandstone, carbonaceous shale.
- uKKs — **Kasalka Group unnamed equivalents:** Hornblende- feldspar porphyritic andesite to basalt flows and related pyroclastics, breccias and epiclastic beds, lesser dacite, ryodacite, basaltic andesite, quartz porphyry; sandstone, conglomerate.
- uKNa — **Nanaimo Group:** Boulder, cobble and pebble conglomerate, coarse to fine sandstone, siltstone, shale, coal.
- uKPo — **Powell Creek Formation:** Andesitic volcanic breccia, lapilli tuff and ash tuff; mafic to intermediate volcanic flows; volcanic sandstone and conglomerate, siltstone and shale.
- uKSy — **Smokey Group and Kotaneelee Formation:** Sandstone, carbonaceous shale, calcareous shale, calcareous sandstone, minor conglomerate.
- uKWa — **Wapiti Formation:** Conglomerate, fine to coarse grained sandstone; carbonaceous shale and coal.

Lower Cretaceous

- KWt — **Windy Table Complex:** Andesite, basalt, flow- banded rhyolite, volcanic conglomerate.
- lKBu — **Bullhead Group:** Sandstone, conglomerate, shale, coal.
- lKGa — **Gambier Group; Monarch Volcanics, Ottarasko Formation; and equivalents including the Cerulean Lake Unit:** Conglomerate, sandstone, shale, argillite, minor limestone; basaltic andesite to rhyolite flows, crystal and lapilli tuff, tuffaceous sandstone, volcanic conglomerate and breccia; schist, graphitic schist.
- lKSb — **Spences Bridge Group and unnamed equivalents:** Andesite and dacite flows and breccias; minor basalt and rhyolite; chert and volcanic- clast conglomerates; sandstone, siltstone and mudstone.
- lKSk — **Skeena Group:** Feldspathic and volcanic sandstone, siltstone, shale, mudstone, chert- pebble conglomerate, minor coal; augite- plagiolcase phyric alkaline basalt to basaltic andesite, plagioclase phyric andesite to dacite; aphyric basalt, green to maroon mafic lapilli tuff, volcanic breccia, rhyolite to dacite flows.
- lKTB — **Blairmore Group:** Sandstone, siltstone; tuffs.

Jurassic

- JHl — **Harrison Lake, Billhook Creek, Kent and Camp Cove Formations; equivalents in the southern Coast Complex including the Whistler Pendant:** Intermediate to mafic flows and pyroclastics, minor felsics; conglomerate, sandstone and argillite, minor carbonate.

Middle Jurassic

- mJMo — **Moresby Group:** Concretionary sandstone; siltstone; conglomerate; minor agglomerate; black shale.
- mJYk — **Yakoun Group:** Agglomerate; flow breccias; sandstone; conglomerate; minor shale.

Lower to Middle Jurassic

- lmJAh — **Ashcroft Formation and unnamed equivalents:** Argillite, siltstone, sandstone, conglomerate; minor limestone.
- lmJHz — **Hazelton Group; Griffith Creek and Hotnarko Volcanics:** Calcalkaline basalt to rhyolite pyroclastics and flows, derived volcaniclastic conglomerate, breccia, sandstone, siltstone, shale, minor limestone and marl.
- lmJLa — **Laberge Group:** Conglomerate, diamictite, wacke, argillite, shale, calcareous sandstone, chert- pebble conglomerate, minor limestone; andesitic breccia and tuff.
- lmJLd — **Ladner Group; Last Creek, Huckleberry Mountain and Spider Peak Formations; and unnamed equivalents:** Sandstone, arkose, siltstone, argillite, slate, conglomerate, andesitic flows, mafic and intermediate volcanic breccia, tuff, minor limestone.
- lmJMa — **Maude Group:** Shale; fine to medium grained sandstone; minor calcareous shale.
- lmJSp — **Spatsizi Group and Abou Formation:** Siliceous, well bedded, tuffaceous siltstone, siltstone, calcareous siltstone, tuff; calcareous to siliceous siltstone, limestone, concretionary shale.
- JBi — **Bowen Island Group:** Tuffaceous sandstone, tuffaceous siltstone, argillite, graphitic siltstone with minor interbedded carbonate, lapilli tuff, andesite flows and sills.

Lower Jurassic

- lJBn — **Bonanza Group:** Massive amygdaloidal and pillowed basalt to andesite flows, dacite to rhyolite massive or laminated lava, green and maroon tuff, feldspar crystal tuff, breccia; tuffaceous sandstone, argillite, pebble conglomerate and minor limestone and calcareous siltstone.
- lJCl — **Chuchi Lake Succession:** Pebbly grit, polymictic conglomerate containing abundant volcanic clasts, sandstone, siltstone, dark grey shale, lesser cherty dust tuff; maroon and green, porphyritic latite, trachyte and andesite, augite, olivine basalt flows and breccia, lapilli tuff.
- lJRs — **Rossland Group:** Mafic volcanics, argillite, siltstone.
- lJTd — **Toodoggone Volcanics:** Andesite, dacite, trachyandesite lava flows, tuffs, crystal tuffs, breccias and epiclastics; fine pyroxene- basalt flows and tuffs, cogenetic sills and dikes.
- lJTw — **Twin Creek Succession and equivalents:** Heterolithic lapilli tuff, plagioclase- augite and plagioclase, quartz porphyritic flows and agglomerate/tuff breccia; arkose, greywacke, sandstone, siltstone, minor conglomerate and coal.

Triassic to Jurassic

- TRJYr — **Ymir Group:** Argillite, siltstone, limestone.
- uTRJCu — **Cultus Formation:** Argillite, sandstone, siltstone, minor carbonate.
- uTRJKn — **Kunga Group:** Shale; calcareous shale; massive limestone; fine grained sandstone; rare chert and local peperite.
- uTRJNc — **Nicola Group:** Undifferentiated mafic to felsic flows and volcaniclastic rocks, including augite- phyric flows, tuffs and breccias; feldspathic sandstone and siltstone, argillite, shale, polymict conglomerate; minor limestone and calcareous siltstone.
- TRJTk — **Takla Group (may include deformed Asitka Group); Tezzaron Sequence; and unnamed equivalents:** Augite- phyric and aphyric basalt breccia, agglomerate, tuff, pillowed and massive flows; mafic to felsic tuff, ash tuff, lapilli tuff, breccia and conglomerate; tuffaceous argillite and siltite, greywacke, conglomerate, sandstone, siltstone and chert; phyllite, phyllitic schist; limestone, minor skarn.

Triassic

- TRBk — **Brooklyn Formation:** Sharpstone conglomerate, limestone, argillite and minor volcanics.
- TRJS — **Spray River Group; Halfway, Liard, Charlie Lake, Baldonnel, Pardonet, Ludington, Toad and Grayling Formations; unnamed equivalents:** Limestone, dolomite, carbonaceous- argillaceous limestone, calcareous and dolomitic siltstone, calcareous sandstone; shale, sandstone, orthoquartzite, minor gypsum.
- TRSl — **Slocan Group:** Carbonate, argillite, slate, phyllite, minor volcanic breccia, tuff and conglomerate.

Upper Triassic

- uTRCd — **Cadwallader Group; Grouse Creek Siltstone and equivalents:** Sandstone, calcarenite, siltstone, shale, polymict conglomerate, pebbly mudstone, limestone- greenstone breccia, micritic limestone, coquina; pillowed to massive greenstone, mafic volcanic breccia, mafic tuff, minor rhyolite breccia and tuff.
- uTRS — **Stuhini Group; Mosley and Mount Moore Formations, and unnamed equivalents:** Mafic to intermediate lapilli tuff, ash, breccia and tuffite; massive, aphyric or plagioclase and augite- phyric flows and sills; felsic tuff ; tuffaceous siltstone, wacke, argillite, polymict conglomerate, limestone, shale; graphitic shale, rare black chert, ribbon chert.
- uTRTa — **Tats Group:** Black calcareous siltstone, argillaceous limestone, basaltic sills; massive and pillowed basalt flows and sills, basalt agglomerate, minor tuff and chert.
- uTRTy — **Tyaughton Group:** Conglomerate, conglomeratic sandstone and sandstone; limestone and limestone conglomerate; siltstone, calcareous sandstone and coquina.
- uTRVe — **Nikolai Greenstone, Chitistone and McCarthy Formations:** Aphyric pillow basalts, interpillow micrite; shallow intra- supratidal platform and sabkha facies limestones and evaporites; impure cherty and shaley limestone, chert spiculite.

Middle to Upper Triassic

- muTRVa — **Vancouver Group and equivalents:** Basalt pillowed flows, pillow breccia, hyaloclastite tuff and breccia, massive amygdaloidal flows, minor tuffs, interflow sediment and limestone lenses; grey to black, micritic and stylolitic limestone, calcareous siltstone, minor oolitic and bioclastic limestone, garnet- epidote- diopside skarn; thinly bedded black argillite, siltstone and shale, calcareous argillite, grey and black limestone, shaly limestone, coralline limestone, minor tuffaceous sandstone, grit and breccia.

PALEOZOIC TO MESOZOIC

- PMCs — **Cogburn Schist:** Schist, meta- chert, pelite, amphibolite, marble, ultramafic rock.
- PMGm — **Gamsby Complex:** Schistose and mylonitic felsic and mafic flows, tuff, volcanogenic sediments, amphibolite, leucogneiss, tonalitic to granodioritic orthogneiss, minor marble and skarn.

Permian to Jurassic

- PJHz — **Hozameen Complex:** Chert, pelite, mafic volcanics, minor limestone, gabbro and ultramafic rock.
- PJKu — **Kutcho Formation, Sitlika Assemblage and possible equivalents:** Basaltic to rhyolitic schist, greenstone, pillowed metabasalt, heterolithic breccia; slate, phyllite; banded siltstone, sandstone and conglomerate; minor limestone, marble, chert and green chloritic phyllite.

Mississippian to Jurassic

- CJBr — **Bridge River Complex:** Undivided ribbon chert, argillite, phyllite, quartz phyllite and pillowed to massive greenstone, with lesser amounts of limestone, gabbro, diabase, serpentinite, sandstone and pebble; conglomerate metamorphic equivalents; variably deformed granodiorite and orthogneiss; blueschist; locally includes minor amounts of Cayoosh Assemblage and Taylor Creek Group rocks.
- CTRKl — **Klinkit Group:** Quartz- rich clastics and argillite; commonly phyllitic or hornfelsed, conglomerate; limestone, cherty carbonate, calcsilicate, marble; green tuff, lapilli tuff and lesser flows.
- MJCc — **Cache Creek Complex and equivalents:** Greenstone, amphibolite, mafic pillow lavas, volcanic breccia, agglomerate, tuff, rare felsic flows and tuffs; phyllite, siliceous phyllite, metachert, ribbon chert, chlorite schist, sandstone; micritic to clastic limestone, argillite, marble, dolomite; minor serpentinite and mafic intrusions.

Ordovician to Triassic

- DTRW — **Unnamed units, possibly of Wrangellian affinity:** Argillite, calcareous argillite, cherty argillite, chert; intermediate epiclastic and/or lapilli to ash tuff and tuffite.
- OTRA — **Unnamed Ordovician to Triassic volcanic and sedimentary rocks (Alexander terrane) within the Coast Complex:** Siltstone, mudstone, shale, limestone, marble, mafic and felsic volcanics, quartzite and conglomerate; often metamorphosed to slate, phyllite, schist, marble, gneiss, amphibolite and greenstone.
- OTRAp — **Apex Mountain Complex; Shoemaker and Independence Formations:** Argillite, chert, greenstone, breccia, mafic intrusions, limestone and ultramafic rocks.

PALEOZOIC

- PBl — **Black Stuart Group:** Chert, limestone, dolostone and derived conglomerate and breccia; black shale, argillite, cherty argillite, quartzite, siltite and slate; some pillow basalt, schistose calcareous basaltic tuff and volcaniclstics.
- PBs — **Big Salmon Complex, including the Teslin Tectonic Zone:** Quartzite, phyllite, biotite- muscovite schist, marble, limestone, dolomite; chert; greenstone, andesite and basalt tuffite, tuff , wacke, rhyolite; quartz- albite- mica gneiss, albite- actinolite schist, quartz- chlorite- epidote- albite gneiss, meta- chert, calc- silicate schist, hornfels.
- PDe — **Unnamed volcanics and sediments (Descon tectonic assemblage):** Brown to white- weathering marble, calcareous metawacke and argillite, minor conglomerate and chert; metabasalt, minor tuff breccia.
- PDr — **Dorsey Complex (includes Rapid River Tectonite):** Green magnetite- phyllite, chlorite schist, mafic schist, quartz- sericite schist, metachert, quartzite, limestone, quartz- plagioclase grit, quartz- feldspar schist, phyllite, pelitic schist, amphibolite, siliceous and gneissic tectonite.
- PId — **Mount Ida Assemblage:** Calcareous black phyllite, graphitic phyllite, dark grey limestone, argillaceous and phyllitic limestone; greenstone, chlorite phyllite; schistose epidote- actinolite- quartz and garnet- epidote skarn, quartzite, micaceous quartzite and calcareous quartzite, lesser amounts of chloritic schist and sericite- quarz shist; minor amphibolite, marble, conglomerate and serpentinite.

Silurian to Permian

- SPs — **Unnamed Silurian to Permian sedimentary and minor volcanic rocks of Alexander terrane.:** Limestone, crinoidal limestone, interbedded limestone and argillite; argillite, chert and siliceous argillite, quartzite; metagreywacke; basalt flows, mafic to intermediate lapilli tuff and agglomerate.

Devonian to Permian

- DPHa — **Harper Ranch Group, Barslow Assemblage and Chapperon Group (may include some Nicola Group strata):** Argillite, cherty argillite, slate, phyllite, siltstone, volcanic and chert- grain sandstone; chert- pebble conglomerate; volcaniclastic rocks of mafic to felsic composition; minor carbonate.
- DPHq — **Nizi Formation and unnamed equivalents:** Limestone, cherty limestone, greywacke, minor conglomerate, maroon shale, siltstone; mafic to felsic volcanics, pillow basalt; black and green chert, argillite, schist, quartzite metaconglomerate.
- DPAs — **Asitka Group:** Massive, grey, bioclastic limestone; argillaceous, thin bedded, recrystallized limestone with chert nodules; slate, slaty siltstone and chert: sericite and chlorite phyllite and schist; metagabbro, basalt, rhyolite, tuff; minor serpentinite and listwanite.
- DPBc — **Big Creek Group:** Basalt breccia, tuff and pillows; dacitic and rhyolite tuff; shale, argillite, slate, calcareous argillite, limestone, tuffaceous argillite, sandstone, wacke.
- DPCw — **Chilliwack Group:** Undifferentiated pelite, sandstone, minor conglomerate, mafic and felsic volcanics; Permian and Pennsylvanian carbonate.
- DPFe — **Fennell Assemblage:** Bedded chert, cherty argillite, diabase, gabbro, diorite and pillowed to massive metabasalt; lesser amounts of sandstone, siltstone, slate, phyllite, conglomerate and quartz- feldspar porphyry rhyolite; minor amounts of limestone.
- DPSt — **Stikine Assemblage:** Maroon and green tuff, lapilli tuff, volcanic conglomerate, wacke; pyroxene- phyric agglomerate, breccia, pillowed and massive basalt flows, andesite, minor rhyolite and gabbro; siltstone, sandstone and lesser chert; limestone, bioclastic limestone, calcarenite; foliated metamorphosed equivalents.
- DPSm — **Slide Mountain Complex and Antler Formation:** Massive and pillowed basalt, breccia, tuff, diabase, minor diorite, gabbro and serpentinite; chert, argillite, lithic sandstone, limestone, dacitic tuff and agglomerate, black argillite, quartz- chert sandstone, varicoloured chert, rhodonite, calcarenite, phyllite, chlorite schist.

Carboniferous to Permian

- CPAn — **Knob Hill Group:** Ribbon chert, argillite and thin limestone bands.
- CPAa — **Anarchist Schist:** Chlorite schist, greenstone, chert; minor ultramafic rock.
- CPAc — **Chapperon Group:** Metamorphosed siliceous and calcareous argillites; greenschists of volcanic and sedimentary origin; minor serpentinized ultramafic rocks.
- CPKa — **Kaslo Group:** Mafic volcanics
- CPNi — **Nina Creek Group:** Cherty argillite, chert, argillite, massive and pillowed basalt, volcanic breccia, gabbro, siltstone, wacke, dacite.
- CPRk — **Rocky Mountain Group:** Dolomitic siltstone; sandy dolomite; orthoquartzite and limestone.
- CPSd — **Stoddart Group, Fantasque and Kindle Formations:** Limestone, dolomite, conglomerate, bedded chert, quartz sandstone, calcareous sandstone, siltstone, shale, locally phosphatic; dark grey chert.
- CPLy — **Lay Range Assemblage, Evans Creek Limestone:** Massive and pillowed basalt, chert, fine to medium- grained gabbro and rare serpentinite; crystal and lapilli tuff, siliceous tuff, volcanic sandstone, minor agglomerate, siltstone, siliceous argillite, limestone, quartz sandstone, minor conglomerate.
- CPBt — **Buttle Lake Group:** Ribbon chert, cherty tuff, graphitic argillite, thinly bedded intercalated sandstone- siltstone- argillite, volcanic sandstone and conglomerate, massive crinoidal limestone, interbedded argillite and crinoidal limestone, pillowed basalt flows, olistostromal melange. May include significant volumes of Mount Hall Gabbro sills.
- CMK — **Attwood Group, Milford and Mount Roberts Formations:** Argillite, sandstone, limestone, quartzite; minor sharpstone conglomerate, greenstone.
- PPSc — **Station Creek Formation:** Oceanic arc volcanics and sediments dominated by tuff, breccia and siliceous argillite with sparse andesitic flows.

Devonian to Mississippian

- DMEa — **Earn Group:** Argillite, slate, shale, locally carbonaceous and pyritic; chert, cherty mudstone; chert arenite and pebble conglomerate, polymicitic conglomerate; limestone; nodular and bedded barite +/- sulphides.
- DMB — **Besa River Formation:** Black, siliceous shale, calcareous siltstone, minor dolomite, limestone, sandstone and pebble conglomerate, barite.
- DMBe — **Banff and Exshaw Formations:** Carbonate, black shale, brown calcareous shale.

Mississippian

- MRu — **Rundle Group; Prophet and Flett Formations; unnanmed equivalents:** Dolomite, limestone, crinoidal and skeletal limestone, cherty limestone, calcareous mudstone, spiculite, chert, argillite, siltstone, rare amygdaloidal basalt.
- MMt — **Mattson Formation:** Fine, and medium grained quartzose sandstone, sandy shale.
- MRc — **Ram Creek Group:** Greenstone, chlorite- actinolite phyllite, quartz- sericite schist, marble, ribbon chert, tonalite, diorite, gabbro.
- MSw — **Swift River Group and possible equivalents:** Chert, argillite, phyllite, greywacke, quartz- plagioclase grit, meta- tuff, limestone, quartzite; minor conglomerate, volcanics and diorite.

Cambrian to Devonian

- CDER — **Razorback and Echo Lake Groups:** Thinly layered and interbedded argillaceous limestone and dolomite, shale and slate; dolomite, sandy dolomite, sandstone to quartzite, massive to poorly bedded limestone and dolomite; equivalent to the Kechika and Road River Groups and the Tapioca Sandstone of the Sandpile Group.
- CDLr — **Lardeau Group:** Limestone, marble, phyllite, micaceous schist, grit, quartzite, greenstone.

Ordovician to Devonian

- ODRo — **Road River Group (may include some undifferentiated Earn Group):** Shale, slate, siltstone, chert, minor coarse clastics, limestone, dolomite, rare tuffs.
- ODSMR — **Sandpile, McDame, Ramhorn and Otter Lakes Groups:** Dolostone, dolomitic sandstone, limestone, shaly dolostone, carbonate breccia, minor calcareous siltstone, shale, quartzite, alkaline volcanics.

Silurian to Devonian

- SDs — **Silurian to Devonian strata of the Rockies including Cedared, Burnais, Harrogate, Mount Forster, Muncho- McConnell, Wokkpash, Stone, Dunedin, Nonda, Pine Point Formations and Tapioca Sandstone:** Dolomite, limestone, silty limestone and dolostone, sandstone, quartzite, argillite, shale, siltstone, chert, greenstone, minor gypsum.

Devonian

- DFa — **Fairholme Group, Flume, Mount Hawk, Palliser, Pendrix Formations and unnamed equivalents:** Argillaceous limestone, nodular limestone, calcareous shale, dolomite; shale, siltstone, orthoquartzite.
- DSi — **Sicker Group:** Pillowed and massive basalt flows, monolithic basalt breccia and pillow breccia; pyroxene- feldspar phyric agglomerate, breccia, lapilli tuff, massive and pillowed flows, felsic tuffs and crystal tuffs, dacite, rhyolite; massive tuffite, laminated tuff, polymictic breccia; chert, jasper and magnetite- hematite- chert iron formation.
- DEc — **Unnamed sediments and volcanics of the Ecstall Belt:** Quartzite, with lesser biotite hornblende gneiss, mica schist, black phyllite to meta- argillite, semi- pelitic to pelitic schist, well foliated: mafic and intermediate metavolcanics, locally pyritic, strongly foliated, fine grained amphibolite +/- chlorite schist.

Ordovician to Silurian

- OSs — **Unnamed Ordovician to Silurian sedimentary and minor volcanic rocks of Alexander terrane:** Siltstone, mudstone, slate, phyllite, chert, massive and well- bedded limestone, minor conglomerate; pillow basalt, tuffs, diabase sills.

Cambrian to Ordovician

- COKe — **Kechika Group; may include some undifferentiated Road River Group, Skoki Formation or Gog Group:** Limestone, argillaceous limestone, pale calcareous slate, phyllitic limestone, calcareous phyllite, pyritic and carbonaceous slate and shale; minor conglomerate, sandstone, greenstone and green tuff.
- COs — **Cambrian to Ordovician strata of the Rockies: includes McKay Group, Monkman Quartzite, Active, Chushina, Mount Wilson, Skoki, Tipperary, Glenogle, Survey Peak, Beaverfoot, Arctomys, Waterfowl, Cathedral, Tanglefoot, Elko, Gordon, Chancellor, Eldon, Flathead, Gull Lake, Jubilee, Lyell, Sullivan, Lynx, Mistaya, Bison Creek, Nelway, Ottertail, Pika, Snake, Indian, Stephen, Mount White and Tsar Creek Formations, Kinbasket unit and several unnamed units.:** Limestone, dolomite, shale, calacareous shale, slate, sandstone, red beds, quartzite, minor conglomerate and chert.
- uCOvb — **Unnamed Cambrian to Ordovician volcanics of Alexander terrane:** Pillow basalt, greenstone.

Cambrian

- CAt — **Atan Group:** Orthoquartzite, siltstone, shale, sandstone; limestone; minor dolostone, phyllite and conglomerate.
- mCr — **Unnamed Cambrian coarse clastics:** Diamictites, conglomerate, dolomite olistrostrome (glacio- marine), sandstone, minor limestone.

PROTEROZOIC TO PALEOZOIC

- PPEg — **Eagle Bay Assemblage:** Quartzite, micaceous quartzite, siliceous phyllite, garnet- mica- quartz schist, greenstone, metavolcanic breccia and tuff, chloritic phyllite, chlorite schist; limestone, marble, calcsilicate gneiss; argillite, slate and conglomerate; paragneiss and orthogneiss.
- PPSh — **Shuswap Assemblage:** Marble, diopsidic marble, calcsilicate gneiss, amphibolite, quartzite.
- uPPSn — **Snowshoe Group:** Micaceous quartzite, quartzite, phyllite, slate and schist; lesser siltite, limestone and limestone or quartzite- clast conglomerate; minor amphibolite, metatuff, marble and diabase.

Upper Proterozoic to Cambrian

- uPCMs — **Misinchinka Group (may include some undifferentiated Miette Group):** Phyllite, siltite, slate, diamictite, quartzite, feldspathic quartzite, minor iron formation; limestone, dolomite, sandy limestone and dolomite, minor argillite; quartz chlorite schist, chloritic phyllite, garnet- mica schist, calcereous sericite schist, amphibolite.
- uPCC — **Cariboo Group:** Shale, siltstone, limestone, argillite, phyllite, schist, quartzite; minor feldspathic sandstone and conglomerate.
- uPCEC — **Eager and Cranbrook Formations:** Shale, limestone, quartzite, argillite and magnesite.
- uPCGo — **Gog and Boulder Creek Groups; Badshot (may include some undifferentiated Index Formation), Hota, Mohican, Marsh Adams and Mount Ganier Formations, and unnamed equivalents:** Limestone, siltstone, dolomite; quartzite, pebble conglomerate; alkalic to calc- alkalic basalt, andesite and dacite; mica schist, marble, amphibolite.
- uPCHm — **Hamill Group, Donald and Laib Formations:** Marble, dolomite, limestone; phyllite, argillite, schist, quartzite.

PROTEROZOIC

Upper Proterozoic

- uPHo — **Horsethief Creek Group:** Pelitic schist, phyllite, quartzite, quartzofeldspathic psammite, grit, conglomerate and amphibolite; marble and sandy marble.
- uPHy — **Hyland Group (may include younger clastics):** Slates, phyllites, brown sandstone, siltstone, shale, quartz pebble grits, conglomerate, minor limestone.
- uPIg — **Ingenika Group:** Quartzite, micaceous quartzite, pebble conglomerate, limestone, dolomite, oolitic and pisolitic limestone, shale, sandstone, wacke, sandy limestone, phyllite, schist, gneiss, chlorite- muscovite schist, slate, argillite, micaceous crystalline limestone, marble, calcsilicate rock, amphibolite.
- uPKz — **Kaza Group:** Phyllite, greywacke, grit, argillite, schist and micaceous feldspathic quartzite; minor pebble conglomerate, amphibolite, limestone and marble.
- uPMc — **Mica Creek Succession:** Pelitic schist, phyllite, quartzite, quartzofeldspathic psammite, grit, conglomerate and amphibolite.
- uPMi — **Miette Group:** Grit, conglomerate, quartzite; phyllite, argillite, slate, pelitic schist, metasandstone; dolomite, marble and minor calcsilicate rock.
- uPWd — **Windermere Supergroup:** Phyllite, quartzite, grit, conglomerate; greenstone.

Middle Proterozoic

- mPMu — **Aida, Chischa, Gataga, George, Henry Creek, Tetsa, Tuchodi and Narchilla Formations:** Dolomitic mudstone, siltstone, sandstone, dolostone, limestone, quartzite, feldspathic quartzite, minor greenstone, conglomerate.
- mPPu — **Purcell Supergroup:** Siltstone, wacke, argillite, quartzite, dolomite, basalt to andesite flows.

Intrusive Rocks

CENOZOIC

- LT — **Late Tertiary:** diorite (dr), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm).
- ET — **Early Tertiary:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), tonalite (to), diabase (db), quartz porphyry (qp), feldspar porphyry (fp), orthogneiss (og), migmatite (mi) and undifferentiated intrusive rocks (g).
- T — **Tertiary:** granite (gr) and feldspar porphyry (fp).

MESOZOIC

- KT — **Cretaceous to Tertiary:** diorite (dr), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp), pegmatite (pe), orthogneiss (og), and undifferentiated intrusive rocks (g).
- LK — **Late Cretaceous:** diorite (dr), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp), orthogneiss (og), and undifferentiated intrusive rocks (g).
- mK — **Mid- Cretaceous:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), tonalite (to), quartz porphyry (qp) and orthogneiss (og).
- EK — **Early Cretaceous:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp), orthogneiss (og) and undifferentiated intrusive rocks (g).
- K — **Cretaceous:** diorite (dr), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), pegmatite (pe), orthogneiss (og), migmatite (mi) and undifferentiated intrusive rocks (g).
- JT — **Jurassic to Tertiary:** granite (gr), quartz diorite (qd), quartz monzonite (qm), quartz porphyry (qp) and feldspar porphyry (fp).
- JK — **Jurassic to Cretaceous:** diorite (dr), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp), pegmatite (pe), orthogneiss (og), and undifferentiated intrusive rocks (g).
- J — **Jurassic:** diorite (dr), granodiorite (gd), quartz diorite (qd), quartz monzonite (qm), syenite (sy) and orthogneiss (og).
- LJ — **Late Jurassic:** diorite (dr), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm) and tonalite (to).
- MJ — **Middle Jurassic:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp), orthogneiss (og) and undifferentiated intrusive rocks (g).
- MLJ — **Middle to Late Jurassic:** diorite (dr), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm) and orthogneiss (og).
- EMJ — **Early to Middle Jurassic:** diorite (dr), granodiorite (gd), diabase (db) and feldspar porphyry (fp).
- EJ — **Early Jurassic:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), granite (gr), quartz diorite (qd), quartz monzonite (qm), syenite (sy), feldspar porphyry (fp), orthogneiss (og) and undifferentiated intrusive rocks (g).
- TRTdr — **Triassic to Tertiary:** diorite (dr), granodiorite (gd), quartz diorite (qd) and undifferentiated intrusive rocks (g).
- TRK — **Triassic to Cretaceous:** gabbro (gb) and granite (gr).
- TRJdg — **Triassic to Jurassic:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), quartz diorite (qd), quartz monzonite (qm), syenite (sy), tonalite (to), quartz porphyry (qp), feldspar porphyry (fp) and undifferentiated intrusive rocks (g).
- TR — **Triassic:** diorite (dr), monzodiorite (dg), gabbro (gb), granodiorite (gd), quartz diorite (qd), quartz monzonite (qm) and orthogneiss (og).
- **Mesozoic:** ultramafites (um) and serpentinites (us).

PALEOZOIC

- PJ — **Permian to Jurassic:** diorite (dr), tonalite (to) and orthogneiss (og).
- PTR — **Permian to Triassic:** diorite (dr), gabbro (gb), granodiorite (gd), tonalite (to) and diabase (db).
- P — **Permian:** diorite (dr), gabbro (gb), granodiorite (gd), granite (gr), quartz monzonite (qm), tonalite (to), diabase (db) and orthogneiss (og).
- CTR — **Carboniferous to Triassic:** diorite (dr) and gabbro (gb).
- CP — **Carboniferous to Permian:** diorite (dr), gabbro (gb) and orthogneiss (og).
- P — **Pennsylvanian:** quartz diorite (qd).
- C — **Carboniferous:** diorite (dr).
- M — **Mississippian:** diorite (dr), granite (gr), syenite (sy), tonalite (to) and undifferentiated intrusive rocks (g).
- DP — **Devonian to Permian:** diorite (dr), gabbro (gb) and granodiorite (gd).
- DC — **Devonian to Carboniferous:** granodiorite (gd), quartz diorite (qd), quartz monzonite (qm) and orthogneiss (og).
- D — **Devonian:** diorite (dr), gabbro (gb), granodiorite (gd), quartz diorite (qd), quartz monzonite (qm), syenite (sy), orthogneiss (og) and undifferentiated intrusive rocks (g).
- P — **Paleozoic:** gabbro (gb, OTrgb), granodiorite (gd), granite (gr), quartz dionite (qd), syenite (Ssy) and orthogneiss (og, Oog).
- **Paleozoic:** ultramafites (um) and serpentinites (us).

PROTEROZOIC

- P — **Proterozoic:** diorite (dr), granodiorite (gd), and orthogneiss (og).

AGE UNKNOWN

- ? — **Age unknown or poorly constrained:** diorite (dr), gabbro (gb), granite (gr), quartz diorite (qd), quartz monzonite (qm), tonalite (to), orthogneiss (og) and undifferentiated intrusive rocks (g).

Metamorphic Rocks

MESOZOIC

- **Mesozoic (includes KT):** greenschist to mid- amphibolite facies rocks (gs, ml, mm), calcsilicates (mc), paragneiss (pg), mylonite (my) and undifferentiated metamorphic rocks (m).

PALEOZOIC

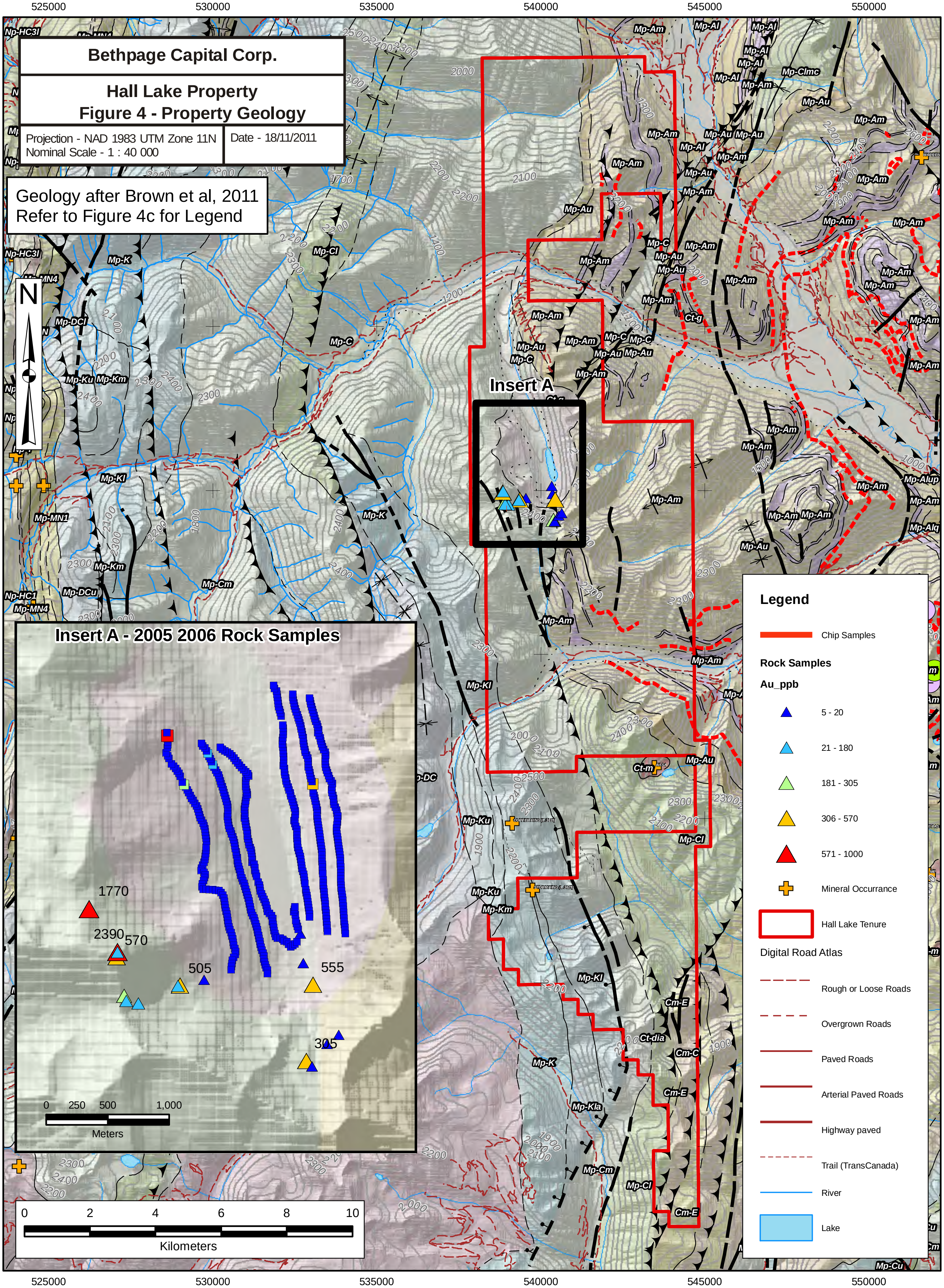
- **Paleozoic (includes PJ):** greenschist to lower- amphibolite facies rocks (gs, ml), paragneiss (pg) and undifferentiated metamorphic rocks (m).

PROTEROZOIC

- **Proterozoic:** lower amphibolite facies rocks (ml), paragneiss (pg), mylonite (my) and undifferentiated metamorphic rocks (m).

AGE UNKNOWN

- **Age unknown or poorly constrained:** greenschist to mid- amphibolite facies rocks (gs, ml, mm), calcsilicates (mc), paragneiss (pg) and undifferentiated metamorphic rocks (m).



Bethpage Capital Corp.
Hall Lake Property
Figure 4 - Property Geology
Projection - NAD 1983 UTM Zone 11N
Nominal Scale - 1 : 40 000
Date - 18/11/2011
Geology after Brown et al, 2011
Refer to Figure 4c for Legend
Insert A
Insert A - 2005 2006 Rock Samples
1770
2390
570
505
555
305
0 250 500 1,000
Meters
0 2 4 6 8 10
Kilometers
Legend
Chip Samples
Rock Samples
Au_ppb
5 - 20
21 - 180
181 - 305
306 - 570
571 - 1000
Mineral Occurrence
Hall Lake Tenure
Digital Road Atlas
Rough or Loose Roads
Overgrown Roads
Paved Roads
Arterial Paved Roads
Highway paved
Trail (TransCanada)
River
Lake
525000
530000
535000
540000
545000
550000
5505000
5500000
5495000
5490000
5485000
5480000
5475000

DEPOSIT TYPE

There are two exploration targets on the Hall Lake property: an intrusion related gold system and Sedimentary Exhalitive (SedEx) type mineralization.

In the late 1990s, the British Columbia Geological Survey (BCGS) recognized the potential of southern and southeastern British Columbia to host significant gold mineralization. Two major styles of gold mineralization were subsequently considered prospective in the region: distal sediment-hosted gold mineralization similar to that found in Nevada (Carlin and related areas)(Lefebure et al.,1998), and more proximal intrusive-related gold mineralization similar to that found in Yukon and Alaska in the Tintina Gold Belt (Logan, 2000). This conclusion is based on distinctive similarities of the tectonic setting of all these regions and their location within pericratonic terranes - formed along the continental margin of the ancestral North American Craton - which have been intruded by Mesozoic magmas.

Further work of the BCGS led to identification of the mid-Cretaceous (90-115 Ma) Bayonne Plutonic Suite that forms the 50 to 75 km wide arcuate Bayonne Intrusive Belt extending roughly in a north-northwest direction from the Canada-USA border. The Bayonne Suite is one of a number of Cretaceous plutonic suites of the Omineca tectonic belt that extends for more than 1600 km along the Canadian Cordilleran interior from Alaska through Yukon to British Columbia (Logan, 2001, 2002). The plutons of these suites are known to host or control large intrusive-related gold deposits, most notably within the Tintina Gold Belt in Yukon and Alaska . The Tintina Gold Belt includes such large gold deposits as Fort Knox (proven and probable reserves of 3.8 million ounces of gold and measured and indicated resources of 1.7 million ounces of gold www.kinross.com), Donlin Creek ((Measured and Indicated Resource 39.8 million tonnes grading 3.36gpt Au, Inferred Resource 58.4 million tons grading 2.35 gpt Au; www.novagold.com), as well as True North, Nixon Fork, Shotgun, and the White Gold deposit of Kinross Gold Corp. (website at www.whitegolddistrict.com). The White Gold deposit contains an indicated resource of 9,797,000 tonnes grading 3.2 g/t Au, primarily mineable by open pit methods using a cutoff of 0.5 g/t Au for open pit and 2.0 g/t Au for underground. The author has not been able to independently verify the above information and the reserve and resource information discussed above is not necessarily indicative of the mineralization on the Hall Lake property which is the subject of this report.

On this basis, similarities between southern and southeastern British Columbia with the Tintina Gold Belt were suggested, including the presence of mid-Cretaceous granitic intrusions, solitary, stockwork and sheeted quartz veins with Au-W-Bi metal signatures, and RGS anomalies for pathfinder elements (Logan, 1999). A second intrusive suite, the Eocene (ca. 51 Ma) Coryell Syenite Suite accompanied by gold mineralization also occurs in southeastern British Columbia. The presence of both Cretaceous and Eocene plutonic suites indicates the possibility for the existence of two distinct events of gold mineralization in the region. This also resembles the possible occurrence of two (Cretaceous and Eocene) epochs of gold mineralization in the Great Basin, Nevada.

The following description of the epizonal plutonic-related gold quartz deposit model is summarized from Lefebure and Hart (2005).

Gold mineralization is hosted by millimeter to metre wide quartz veins in equigranular to porphyritic granitic intrusions and adjacent hornfelsed country rock. The veins are sheeted and less typically, weakly developed stockworks. The density of the veins and veinlets is a critical element for defining ore. Native gold occurs associated with minor pyrite, arsenopyrite, pyrrhotite, scheelite and bismuth and telluride minerals. Epizonal veins are arsenopyrite-pyrite rich and lack associated bismuth, tellurium and tungsten minerals. A number of deposits have late and/or peripheral arsenopyrite, stibnite or galena veins.

Epizonal mineralization, typically less focused than the deeper intrusion-related type, may be disseminated, or occur as replacements. The thicker shear-veins are typically in fault zones outside of the pluton. The sheeted and stockwork zones extend up to a kilometer in the greatest dimension, while individual veins can be traced for more than a kilometer in exceptional cases.

The host rocks are granitic intrusions and variably metamorphosed sedimentary rocks. Associated volcanic rocks are rare. The granitoid rocks are lithologically variable, but typically granodiorite, quartz monzonite to granite. Most intrusions have some degree of lithological variation that appear as multiple phases that can include monzonite, monzogranite, albite granites, alkali syenite and syenite. The more differentiated phases commonly contain feldspar and quartz and less than 5% mafic minerals. Some deposits have abundant associated dykes.

These deposits are characterized by relatively restricted alteration zones but alteration appears to be more extensive with shallow depths of emplacement or greater distances from the intrusion. Epizonal deposits may have clay alteration minerals.

The bulk mineable, intrusion-hosted low grade sheeted vein deposits contain tens to hundreds of million tonnes of approximately 0.8 to 1.4 g/t Au. The epizonal deposits have slightly higher grades of 2 to 5 g/t Au and the shear veins form high grade deposits containing hundreds of thousands to millions of tonnes grading about 10 to 35 g/t Au. Gold to silver ratios are typically less than 1. Age of mineralization is variable, although deposits in Alaska and the Yukon are Cretaceous. Examples include Brewery Creek, Yukon (Indicated Resource 3.98 million tonnes grading 1.135 gpt Au, Inferred Resource 2.2 million tonnes grading 2.01 gpt Au; www.goldenpredator.com/Brewery-Creek) and possibly Donlin Creek, Alaska (Measured and Indicated Resource 39.8 million tonnes grading 3.36gpt Au, Inferred Resource 58.4 million tons grading 2.35 gpt Au; www.novagold.com).

Another potential model of ore deposition on the Hall Lake property is sedimentary exhalative base metals.

Sedimentary exhalative (SEDEX) deposits are typically tabular bodies composed predominantly of Zn, Pb and Ag bound in sphalerite and galena that occur interbedded with iron sulphides and basinal sedimentary rocks, and that were deposited on the seafloor and in associated sub-seafloor vent complexes from hydrothermal fluids vented into reduced sedimentary basins in continental rifts.

Subtypes of SEDEX deposits include those that formed below but near the seafloor (e.g. Irish-type deposits) and the Broken Hill-type (BHT) deposits. The Irish-type of SEDEX deposits is hosted by carbonate rocks, and these deposits, either individually or collectively (district-wide), may show characteristics of both sea floor deposition and epigenetic features typical of Mississippi Valley-type (MVT) deposits. Irish-type deposits are considered to have formed by ore-forming processes similar to those of SEDEX deposits but, because carbonate platforms are highly soluble in mildly acidic ore fluids, ores were also deposited in the hydrothermal karst system (e.g. dissolution voids, collapse breccias). BHT deposits are characterized by high metamorphic grade, high base metal to sulphur ratios, a spatial association with Fe-Si-Mn oxide exhalites, and bimodal felsic-mafic volcanic and sedimentary host rocks.

SEDEX deposits are an important resource for Zn and Pb and account for more than 50% and 60% of the world's reserves of these elements, respectively. The proportion of the world's primary production of Zn and Pb from SEDEX deposits, however, is significantly lower (i.e., 31% and 25% respectively) than reserves.

The bulk of the mineralization in most SEDEX deposits resides in the bedded ore facies. The ore minerals in this facies are in many cases fine-grained and intergrown, which leads to low recoveries during ore beneficiation. Although recrystallization of fine-grained sedimentary sulphides by metamorphism or by hydrothermal reworking in the vent complex produces coarser grained ores from which higher recovery rates are obtained, these rates for SEDEX deposits are, on average, much lower than for MVT, BHT and VMS deposits, the other principal types of Zn and Pb deposits. Most of the production from SEDEX deposits in Canada came from the world-class Sullivan deposit in southern B.C., and the Faro and Grum deposits of the Anvil District, Yukon.

The author has not been able to independently verify the above information and the reserve and resource information discussed above is not necessarily indicative of the mineralization on the Hall Lake property which is the subject of this report.

MINERALIZATION

The mineralization found to date on the property is associated with a felsic dyke which cross-cuts the main intrusive body. Sulphide mineralization consists of rare mm-scale euhedral pyrite cubes; minor disseminated, medium-grained arsenopyrite prisms and needles; and medium-grained euhedral arsenopyrite needles to fine-grained, massive, arsenopyrite common along fracture surfaces. Arsenopyrite bearing, light- to dark-grey, sugary quartz veins which average 0.5 cm in width, cross-cut the dyke. The gold mineralization appears to be related to the arsenopyrite.

There is one documented BC Minfile occurrence on the Hall Lake property.

The Storm King (Lot 3625) 082FSE008 is located at 2130 metres elevation at the head of Goat River, some 3 kilometres south of the summit of White Grouse Mountain and 45 kilometres north of Creston. The Superior claim, owned in 1901 by W.J. Garbutt,was also located in this vicinity.

A considerable amount of work was done (in 1900?) and several tons of ore were packed out a distance of 48 kilometres in order to make a smelter run. Leech (1952) mentions a water filled shaft and trenches on the Storm King property, which may be the old Superior working. The Golden King (Lot 3624), Storm King (Lot 3625), Gem (Lot 3631), and Annie G (Lot 6339) claims were Crown-granted in 1905 to J.A. Gibson, Pugh Sutherland, H.H. Nell, and C.R. Holmes.

Hostrocks are Kitchener Formation dolomitic siltstones (Middle Proterozoic Purcell Supergroup); the sediments strike north and have moderate to steep dips to the west. The property is located 1.5 kilometres from the southeast corner of the Bayonne batholith, an Early Cretaceous granodiorite.

The intrusive rocks are medium to coarse grained and contain pink feldspar and minor black tourmaline.

Regional metamorphism is biotite facies of greenschist grade; one small area of diopside, possibly a contact metamorphic effect, was noticed in recent work. Quartz veining is common on the property, occurring in large swarms which are subparallel to the stratigraphy and up to 50 metres wide. Individual veins are up to 1 metre in width and locally contain fine-grained carbonate; the mineralized veins are bounded by weathered brown sericite alteration up to 1 metre in width.

A shaft was sunk on mineralized quartz; the dump contains a small pile of sorted ore heavily mineralized with pyrite, tetrahedrite, galena, and a little chalcopyrite and arsenopyrite. A selected sample rich in galena and tetrahedrite analysed 0.31 per cent tin; recent samples of such material yielded assays of up to 4.5 grams per tonne gold and 310 grams per tonne silver, but barren quartz veins, host dolomites and granodiorite contain no precious metals.

Efforts to find extensions of the zone in trenches do not appear to have been successful. The property was also explored as the Whiskey Jack by Lacana Mining in 1985 for its precious metal and tin potential; mineralization was found to be restricted to local areas within extensive quartz veining, with no interesting values obtained from either the altered wallrocks or in barren-looking quartz veins. No samples yielded positive tin assays, but local high grade antimony assays may be of further interest; furthermore, small occurrences of arsenopyrite north of the Whiskey Jack claim contain scheelite.

The author has not been able to independently verify the above information and neither the author nor Eagle Plains Resources personnel have visited the Storm King occurrence.

EXPLORATION

2011 Exploration Program

2011 exploration on the Hall Lake property consisted of a 479.1 line km airborne geophysical survey (*Figure 5*) which was completed between September 30th and October 15th, 2011. The survey was flown in conjunction with four other properties in the Purcell Basin. The survey was flown by GeoTech Limited, a geophysical contractor based in Aurora, Ontario. The issuer is independent of GeoTech Limited.

Geologic Mapping

No geologic mapping was completed during the 2011 field season.

Geochemical Surveys

No geochemical surveys were completed during the 2011 field season.

Geophysical Surveys

Survey Aircraft

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B3 helicopter, registration C-GABH. The helicopter is owned and operated by Geotech Aviation. Installation of the geophysical and ancillary equipment was carried out by Big Horn Helicopters. A total of 479.1 line kilometers of geophysical data were acquired, covering an area of approximately 96 square kilometers. A total of 11 no fly days were experienced due to weather and equipment testing.

Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM plus) system. The VTEM plus

Receiver and transmitter coils were in concentric-coplanar and Z-direction oriented configuration. The receiver system for the project also included a coincident-coaxial X-direction coil to measure the in-line dB/dt and calculate B-Field responses. The EM bird was towed at a mean distance of 35 metres below the aircraft.

Airborne magnetometer

The magnetic sensor utilized for the survey was Geometrics optically pumped caesium vapour magnetic field sensor mounted 13 metres below the helicopter. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds.

Radar Altimeter

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit.

GPS Navigation System

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's CDGPS (Canada-Wide Differential Global Positioning System Correction Service) enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail. As many as 11 GPS and two CDGPS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with CDGPS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system.

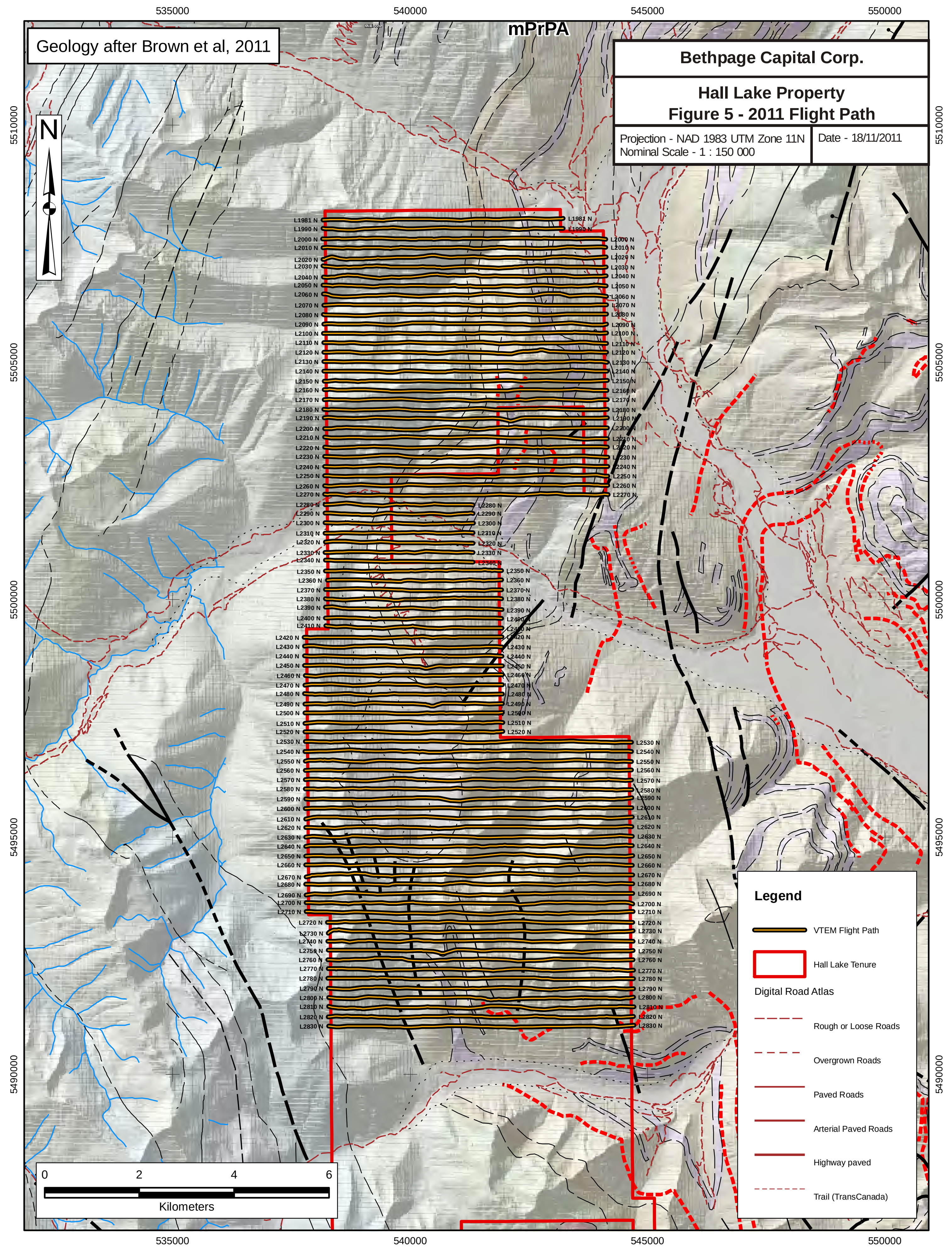
2011 Exploration Program Results

The airborne geophysical survey identified five anomalous features or targets (*Figure 6*).

No.1 and No.2 very low conductive zones are mapping a trend of low magnetic intensity that extends in NE to NS direction. They may be associated with an extension of the felsic dyke that carries the gold mineralization found around Hall Lake in 2004, or possibly a magnetite destructive halo associated with hydrothermal alteration along the intrusive / sedimentary contact.

No.4 is a very low conductive zone lies in NW direction and associated with low magnetic intensity. Anomalies No.3 and No.5 anomalies correspond to very low to low conductive zones which are considered as discrete targets. There is no obvious explanation for these features.

There appears to be some association of between magnetics and EM responses on some of targets. This is most pronounced in Target 2 and Target 4.



Geology after Brown et al, 2011
mPrPA
Bethpage Capital Corp.
Hall Lake Property
Figure 5 - 2011 Flight Path
Projection - NAD 1983 UTM Zone 11N
Nominal Scale - 1 : 150 000
Date - 18/11/2011
N
Legend
VTEM Flight Path
Hall Lake Tenure
Digital Road Atlas
Rough or Loose Roads
Overgrown Roads
Paved Roads
Arterial Paved Roads
Highway paved
Trail (TransCanada)
0
2
4
6
Kilometers
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540000
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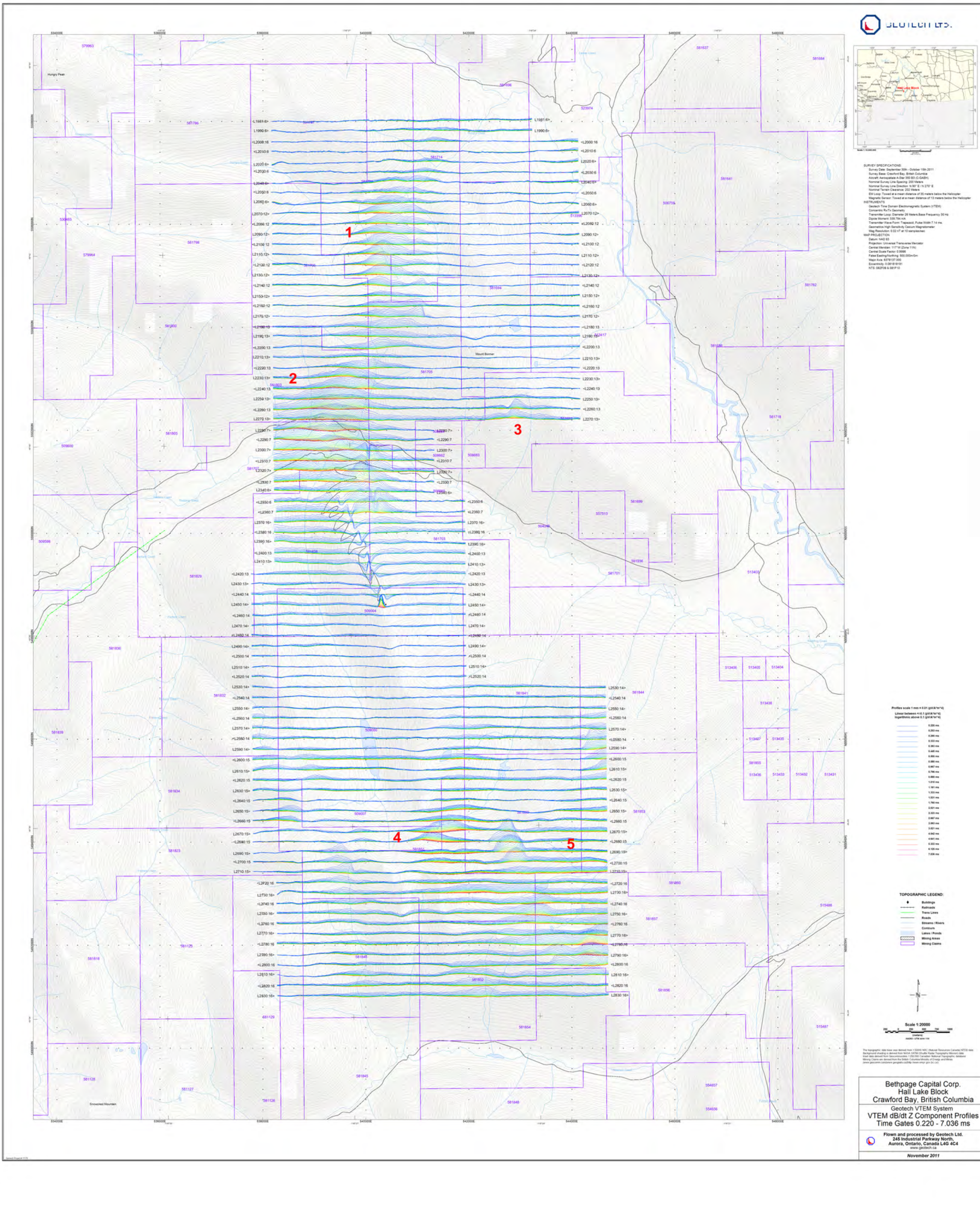
5500000
5495000
5490000



1
2
3
4
5
Hall Lake Block
SURVEY SPECIFICATIONS:
Survey Date: September 30th - October 15th 2011
Survey Base: Crawford Bay, British Columbia
Aircraft: Aerospatiale A-Star 350 B3 (C-GABH)
Nominal Survey Line Spacing: 200 Meters
Nominal Survey Line Direction: N 90° E / N 270° E
Nominal Terrain Clearance: 202 Meters
EM Loop: Towed at a mean distance of 35 meters below the Helicopter
Magnetic Sensor: Towed at a mean distance of 13 meters below the Helicopter
INSTRUMENTS
Geotech Time Domain Electromagnetic System (VTEM)
Concentric Rx/Tx Geometry
Transmitter Loop: Diameter 26 Meters,Base Frequency 30 Hz
Dipole Moment: 339,794 nIA
Transmitter Wave Form: Trapezoid, Pulse Width 7.14 ms.
Geometrics High Sensitivity Cesium Magnetometer
Mag Resolution: 0.02 nT at 10 samples/sec
MAP PROJECTION
Datum: NAD 83
Projection: Universal Transverse Mercator
Central Meridian: 117°W (Zone 11N)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m
Major Axis: 6378137.000
Eccentricity: 0.081819191
NTS: 082F09 & 081F10
TOPOGRAPHIC LEGEND:
Buildings
Railroads
Trans Lines
Roads
Streams / Rivers
Contours
Lakes / Ponds
Mining Areas
Mining Claims
Scale 1:20000
(meters)
Bethpage Capital Corp.
Hall Lake Block
Crawford Bay, British Columbia
Geotech VTEM System
VTEM dB/dt Z Component Profiles
Time Gates 0.220 - 7.036 ms
Flown and processed by Geotech Ltd.
245 Industrial Parkway North,
Aurora, Ontario, Canada L4G 4C4
www.geotech.ca
November 2011

DRILLING

To the best knowledge of the author, the Hall Lake property has not been drill tested and no drill programs were conducted during the 2011 field season.

SAMPLE PREPARATION, ANALYSIS AND SECURITY

2004 – 2005 Field Programs

All samples were catalogued and placed in double rice bags and sealed with cable ties. Soil samples were dried prior to shipping. Sample cataloguing and shipping was overseen by Bootleg Exploration staff. All 2004 - 2005 rock and soil samples were shipped via Greyhound to the sample preparation facility of Eco Tech Laboratory (The Stewart Group) in Kamloops, BC, where they were prepared and analysed. Preparation involves drying and then screening to a minus 80-mesh fraction for soil samples. Rock samples are crushed to minus 10 mesh.

Rock samples were analyzed by ICP-AES, which involves a nitric-aqua regia digestion with an atomic emission spectroscopy finish, using package AR/ES, and for gold by fire assay geochemical analysis, which involves a fire assay, with an atomic absorption finish, using a 30g sample (Au 2-30). Soil samples were analyzed by ICP-MS, which involves a nitric-aqua regia digestion with a mass spectrometer finish, using the package AR/UTAU and a 10g gold aqua regia digestion (Au 1-10). Eco Tech is an ISO 9001 accredited facility, registration number CDN 52172-07.

Quality control procedures were implemented at the laboratories, involving the regular insertion of blanks and standards and repeat analyses on the samples. There is no evidence of any tampering with the samples during collection or shipping. All sample preparation was conducted by the laboratory. The laboratory is entirely independent from the issuer and Eagle Plains Resources.

2011 Geophysical Program

Quality management is addressed at all stages of the project cycle and throughout the project implementation period. For each project a quality plan is drawn up, describing the specific quality activities of the assignment. The quality plan sums up the specific plans and controls for the project.

Geotech operates under a strict set of Quality Control guidelines to ensure their clients of a properly conducted survey. These guidelines are to be carried out as the survey progresses. Most important to Quality Control is the field processing of the data to verify data integrity and evaluate whether it is within specifications outlined in the Proposal.

In review

Check the navigation and ancillary data against the survey specifications for the following:

- appropriate location of the GPS base station;
- flightline and control line separations are maintained to minimize deviations;
- all boundary control lines are properly located;
- terrain clearance specifications are maintained;
- the aircraft speed remains within the satisfactory specifications;

- the area flown covers the entire specified survey area;
- the GPS and geophysical data acquisition instruments are properly synchronized; and the GPS data are adequately sampled.

Magnetic Data

- Magnetic Data will be checked against the survey specifications for the following:
- appropriate location of the magnetic base station(s), and adequate sampling of the diurnal variations;
- magnetometer noise levels are within specification;
- magnetic diurnal variations remain within specification;
- spikes and/or drop-outs are minimal to non-existent in the raw data;
- filtering of the profile data is minimal to non-existent; and

Time-domain Electromagnetic Data

Check the TDEM data against the survey specifications for the following:

- the data behave consistently between channels (i.e. consistent signal decay);
- noise levels are within specifications, and instrument noise is minimized;
- bird swing and orientation noise is not evident;
- sferics and other spikes are minimal (after editing);
- cultural (60 Hz) noise is not excessive;
- regular tests are conducted to monitor the reference waveform and instrument drift, and ensure proper zero levels;

Data Verification

The geochemical data from the 2004 – 2005 exploration programs on the Hall Lake property was verified by sourcing original analytical certificates and digital data. Sample collection procedures by Eagle Plains Resources and Bootleg Exploration on the property in 2004 – 2005 were managed by experienced professionals and appear to have been handled in an acceptable manner. Due to the grass roots nature of the 2004 - 2005 exploration programs no external QAQC samples were introduced into the sample chain of custody. The samples were processed and analyzed at reputable laboratories and in the author’s opinion there is no indication from the analytical determinations that any spurious results were produced from sampling procedure, sample handling or analytical problems.

The author has reviewed the GeoTech Ltd. technical report on the Hall Lake survey included as Appendix III. In the author's opinion the survey was carried out in a professional manner and covered the area of the Hall Lake claims.

Mineral Processing and Metallurgical Testing

The Hall Lake property is at an early exploration stage and no metallurgical testing has been carried out.

Mineral Resource Estimates

There has not been sufficient work on the Hall Lake property to undertake a resource calculation.

Environmental Studies, Permitting and Social or Community Impact

To the best knowledge of the author, there have not been any environmental studies undertaken on the Hall Lake property. If a production decision was made on the property and the project entered the environmental review process, a number of environmental monitoring requirements would be triggered including baseline water geochemical sampling of the streams and possibly the groundwater, and wildlife impact studies. There are a number of private companies in the property area who could provide these services. To the author's knowledge, the Hall Lake property area is not subject to any environmental liability.

Preliminary exploration activities do not require permitting, but significant drilling, trenching, blasting, cut lines, and excavating may require a permit issued under the British Columbia Ministry of Forests, Lands and Natural Resource Development, formerly the BC Ministry of Energy, Mines and Petroleum Resources. Some of the work under Phase 1 recommendations may require such permits. The permitting process in British Columbia is well established and the author is not aware of any existing problems or impediments that would prevent a permit from being approved and issued for the recommended work in a timely manner.

Surface rights would have to be obtained from the government if the property were to go into production.

The nearest communities are Cranbrook and Kimberley. The most direct impact on local communities would be sourcing supplies to support exploration including fuel, groceries, and hardware. As Cranbrook has an airport with direct flights from Vancouver and Calgary on a daily basis, it is likely that crew changes, including overnight accommodation, would be done through Cranbrook.

The Hall Lake Property is part of an area identified by the Ktunaxa First Nation as their traditional lands. The mandate of the Ktunaxa Lands and Resources Agency is to ensure that the lands and resources within the Traditional Territory of the Ktunaxa Nation are effectively managed and protected for the benefit of the citizens, communities and government of the Ktunaxa Nation. Any future development of the Hall Lake property should include consultation with the Ktunaxa and other community groups.

Adjacent Properties

Fjordland Exploration Inc.'s Red Lobster Property is contiguous to the east of the northern part of the Hall Lake Property. The Red Lobster Property is under option from Kootenay Gold Corp. During 2011, Fjordland carried out soil sampling and prospecting surveys at Red Lobster to better define drill targets, indicated by previous work by Kootenay Gold. The Red Lobster Property appears to be along the northern extension of the north-south trending Iron Range Fault system. To date, three zones of potential SedEx-style mineralization, hosted in Sullivan-age rocks, have been identified by Fjordland.

The Shado Zone, a structural-controlled zone greater than 50 m in width and trending north-

northeasterly, contains a highly anomalous lead and zinc soil anomaly with values each in excess of 500 ppm; highs of 1750 ppm lead and 2760 ppm lead have been reported within an open-ended 1500 m by 500 m zone, in part covering known bedrock mineralization. A series of massive sulphide (galena, sphalerite, chalcopyrite and pyrite) veinlets, with maximum widths of 10-12 cm +/- irregular pods, occur with quartz and tourmaline at the Shado Showing. Three drill holes are planned to test this area.

The Cominco Zone appears to be a large fault-related zone associated with an extensive coincident lead – zinc soil geochemical anomaly measuring 1000 m by 1000 m, in part covering SEDEX-type bedrock mineralization consisting of quartz veinlets with arsenopyrite, galena and sphalerite hosted by the same sedimentary rocks that occur at Sullivan. One drill hole is planned to test the geochemical anomaly.

The South Zone consists of a 700-m long by 600-m wide soil anomaly with lead and zinc values greater than 1000 ppm each and open to the south. Drill core from a drill hole in 1997 by Sedex Mining was lost when being moved by a helicopter. Visual logging indicated a 6-m interval containing lead and zinc mineralization.

This information is from the Fjordland Exploration website www.fjordlandex.com. The author has not been able to independently verify the above information and the information discussed above on the Red Lobster property is not necessarily indicative of the mineralization on the Hall Lake property which is the subject of this report.

Other Relevant Data and Information

To the author's knowledge, there is no additional information or explanation necessary to make this technical report understandable and not misleading.

Interpretation and Conclusions

The Hall Lake property constitutes a property of merit based on the favourable geological setting, geology and alteration, localized presence of anomalous gold and silver in rock samples, and geophysical anomalies located by the 2011 airborne survey.

The Hall Lake property has seen very little historical work, with the only recent work on the property, before the current 2011 geophysical survey, carried out by Eagle Plains in 2004 and 2005.

The 2004 program was a grassroots prospecting reconnaissance to test the possibility for intrusion related gold potential related to the contact between the Bayonne batholith and the surrounding sediments. The program successfully sampled gold mineralization associated with arsenopyrite and quartz veins in a felsic dyke near the intrusive / sediment contact. Although results from the follow up program in 2005 were disappointing, the program was carried out late in the season under heavy snow cover limited the effectiveness of the sample collection.

In 2010 the Hall Lake property boundary was expanded to cover rocks thought to have potential for SedEx style base metal mineralization.

The airborne geophysical survey identified five anomalous features or targets (*Figure 6*).

No.1 and No.2 very low conductive zones are mapping a trend of low magnetic intensity that extends in NE to NS direction. They may be associated with an extension of the the felsic dyke that carries the gold mineralization found around Hall Lake in 2004, or possibly a magnetite destructive halo associated with hydrothermal alteration along the intrusive / sedimentary contact.

No.4 is a very low conductive zone lies in NW direction and associated with low magnetic intensity. Anomalies No.3 and No.5 anomalies correspond to very low to low conductive zones which are considered as discrete targets. There is no obvious explanation for these features.

There appears to be some association of between magnetics and EM responses on some of targets. This is most pronounced in Target 2 and Target 4.

The Hall Lake property is at a very early stage of exploration. All of the following recommendations for work are based on the results of geological, geochemical and geophysical surveys which are subject to a wide range of interpretation. Although the author believes that the past surveys on the property were scientifically valid, there has been very little work done on the property in terms of systematic exploration. All of the survey methods used are only effective to relatively shallow depths and a true and accurate picture of the nature and extent of mineralization on the property can only be defined through diamond drilling or underground sampling.

The potential economic viability of the project depends on the discovery of a deposit that, if it exists, is substantially buried. At the present time and for the foreseeable future, the project is not generating any cash flow.

RECOMMENDATIONS

Based on the favourable geological setting, geology and alteration, and the presence of anomalous gold in rock and soil samples, and the results from the 2011 airborne geophysics survey, further work is recommended on the Hall Lake Project.

It is recommended that a high resolution orthophoto should be acquired and post processed to generate an accurate Digital Elevation Model for the property. This information will be very useful in planning drill pad locations, as well as providing accurate base maps and information regarding potential future access routes.

Phase 1 fieldwork should include property wide soil sampling in order to locate both gold and SedEx style mineralization. In many parts of the property, soils can be collected along contour lines, with oriented grids established as required. The area around the historical Storm King MinFile occurrence should be prospected and mapped and covered with soil geochemistry.

Ground based geophysics using a combination of Induced Polarization – Electromagenetics and Resistivity surveys should be completed over the area of the known intrusions and any areas highlighted by the geophysical and geochemical surveys. In the areas of known intrusions, the geophysics may be useful in imaging intrusive / sedimentary contact zones which may form areas of interest for gold mineralization. Induced Polarization and Electromagnetics may also be useful in imaging potential buried conductors or chargeability features which could indicate the presence of a sulphide body. The Electromagnetics may also be useful in defining mineralized structures in the area of the Storm King occurrence.

Areas identified as geochemically anomalous should be prospected and mapped, followed by mechanical or blast trenching if warranted.

If a trenching program is carried out on the property per the recommendations, a sampling protocol should be implemented, involving the routine and regular insertion of blanks, standards and duplicates sent to the primary laboratory, and re-assaying of selected mineralized pulps at a second independent laboratory.

The results from the Phase 1 program should be compiled and if warranted, recommendations for a Phase 2 diamond drilling program, including rationale and hole locations and directions, should be made.

Table 2 – Proposed Exploration Budget

PHASE I BUDGET					
HALL LAKE PROPERTY					
BETHPAGE CAPITAL CORP					
PERSONNEL PRE FIELD:					
includes research, data compilation, project planning, permitting		no. of		no. of	
	person/job description/number of persons x no. of mandays x day rate	persons	rate	days	
office	Project Manager	1	$ 600.00	5.00	$3,000.00
geological	Geologist	1	$ 575.00	1.00	$575.00
technical	GIS Specialist / Data Manager / Cartographer	1	$ 475.00	2.00	$950.00
				TOTAL PERSONNEL (PRE FIELD):	**$4,525.00**
PERSONNEL FIELD		no. of		no. of	
	person/job description/number of persons x no. of mandays x day rate	persons	rate	days	
supervision	Project Manager	1	$ 600.00	15.00	$9,000.00
geological	Project Geologist	1	$ 575.00	15.00	$8,625.00
technical	GIS Technician	1	$ 475.00	15.00	$7,125.00
	Geological Technician II	2	$ 375.00	15.00	$11,250.00
				TOTAL PERSONNEL (FIELD):	**$36,000.00**
				TOTAL PERSONNEL:	**$40,525.00**
ANALYTICAL	type x no.of samples x cost				
			no of samples	cost	
soils	ICP-MS plus Au (Fire Assay inc.prep)		500	$29.36	$14,680.00
rocks	prep		125	$7.00	$875.00
	ICP-MS plus Au (inc.Fire Assay)		150	$25.00	$3,750.00
				TOTAL ANALYTICAL:	**$19,305.00**
GEOPHYSICS			no. of line km	cost per km	
combined IP / MAG / Resistivity Survey			25	$1,600.00	$40,000.00
line cutting / grid picketing					$5,000.00
				TOTAL GEOPHYSICS:	**$45,000.00**
EQUIPMENT RENTAL					
includes 4 WD trucks, ATV, communications, rock saw etc.					$15,000.00
				TOTAL EQUIPMENT RENTAL:	**$15,000.00**
HELICOPTER CHARTER			no of hours	rate	
support for field crews			20	$2,200.00	$44,000.00
				TOTAL HELICOPTER CHARTER:	**$44,000.00**
FUEL					
Fuel - Automotive	Trucks, ATV				$2,000.00
				TOTAL FUEL:	**$2,000.00**
TRENCHING					
mechanical / blast includes flyable excavator rental, all blasing supplies, blasting technician					$15,000.00
				TOTAL TRENCHING:	**$15,000.00**
TRAVEL EXPENSES:					
includes airfare, accommodation, meals					$5,000.00
				TOTAL TRAVEL:	**$5,000.00**
OTHER					
Meals / Groceries:					$2,500.00
Shipping:	samples, freight				$2,500.00
Orthophoto:	high resolution orthophoto with DEM model generation				$10,000.00
Field supplies:	includes sample bags, flagging, tools etc.				$2,500.00
Report writing:	assessment report including printing, plotting, cartography				$5,000.00
				TOTAL OTHER:	**$22,500.00**
				Subtotal:	**$208,330.00**
				Contingency:	**$6,670.00**
				TOTAL:	**$215,000.00**

PHASE II BUDGET					
HALL LAKE PROPERTY					
BETHPAGE CAPITAL CORP					
PERSONNEL PRE FIELD:					
includes research, data compilation, project planning, permitting		no. of		no. of	
	person/job description/number of persons x no. of mandays x day rate	persons	rate	days	
office	Project Manager	1	$600.00	10.00	$6,000.00
geological	Geologist	1	$575.00	5.00	$2,875.00
technical	GIS Specialist / Data Manager	1	$475.00	2.00	$950.00
		TOTAL PERSONNEL (PRE FIELD):			**$9,825.00**
PERSONNEL FIELD		no. of		no. of	
	person/job description/number of persons x no. of mandays x day rate	persons	rate	days	
supervision	Project Manager	1	$600.00	10.00	$6,000.00
geological	Project Geologist	1	$575.00	10.00	$5,750.00
technical	Geologist - Core Logging	1	$575.00	10.00	$5,750.00
	Geological Technician II	2	$375.00	10.00	$7,500.00
			TOTAL PERSONNEL (FIELD):		**$25,000.00**
			TOTAL PERSONNEL:		**$34,825.00**
ANALYTICAL	type x no.of samples x cost				
			no of samples	cost	
drill core	prep		1500	$7.00	$10,500.00
	ICP-MS plus Au (inc.Fire Assay)		1500	$25.00	$37,500.00
			TOTAL ANALYTICAL:		**$48,000.00**
EQUIPMENT RENTAL					
includes 4 WD trucks, ATV, communications, rock saw etc.					$15,000.00
			TOTAL EQUIPMENT RENTAL:		**$15,000.00**
HELICOPTER CHARTER			no of hours	rate	
drill mobilization for fly holes / slinging core to staging area			30	$2,200.00	$66,000.00
			TOTAL HELICOPTER:		**$66,000.00**
FUEL					
Fuel - Automotive	Trucks, ATV				$5,000.00
Fuel - Other Bulk	Gas, Diesel, Propane				$5,000.00
			TOTAL FUEL:		**$10,000.00**
DIAMOND DRILLING			no.of meters	cost/m	
(no. of meters x cost/meter prorated)	includes mob/demob		2,000	$125.00	$250,000.00
			TOTAL DIAMOND DRILLING:		**$250,000.00**
TRAVEL EXPENSES:					
includes airfare, accommodation, meals					$5,000.00
			TOTAL TRAVEL:		**$5,000.00**
OTHER					
Meals / Groceries:					$5,000.00
Expediting					$500.00
Shipping:	samples, freight				$2,500.00
Field supplies:	includes sample bags, flagging, tools etc.				$2,500.00
Report writing:	assessment report including printing, plotting, cartography				$10,000.00
			TOTAL OTHER:		**$20,500.00**
			Subtotal:		**$449,325.00**
			10% Contingency:		**$44,932.50**
			TOTAL:		**$494,257.50**

REFERENCES

Cathro, M.S. and Lefebure, D.V., 2000. Several New Plutonic-related Gold, Bismuth and Tungsten Occurrences in Southern British Columbia; BCGS Publication 2000-01-14

Downie, C.C., and Hendrickson, G.W., 2005. Geological Report for the Cretin Claim Area. BCEMPR Assessment Report 27694

Downie, C.C., 2006. Geological Report for the Hall Lake (Cretin) Property; internal report prepared for Eagle Plains Resources Ltd. and Solomon Resources Ltd.

Geotech, 2011. REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM plus) AND AEROMAGNETIC GEOPHYSICAL SURVEY, Hall Lake Block Crawford Bay, British Columbia For: TerraLogic Exploration Services.

Höy, T. and Jackaman, W. (2004): Geology of the St. Mary map sheet (NTS 82F/09); B.C. Ministry of Energy and Mines, Geoscience Map 2004-1.

Johnston, R.R., 1985. Prospecting Report on the Whiskey Jack Mineral Claim; BCEMPR Assessmrnt Report 14125

Joseph, J.M.R., Brown, D., MacLeod, R., Wagner, C., Chow, W., and Thomas, M., 2011. Purcell Basin Interactive Maps, British Columbia; Geological Survey of Canada, Open File 6478

Lefebure D.V., 1995. Two Intriguing Mineral Deposit Profiles for British Columbia; BCGS Publication 1995-01-40

Lefebure, D.V., Alldrick, D.J., Simandl, G.J., Ray, G.E., 1995. British Columbia Mineral Deposit Profiles; BCGS Publication 1995-01-39

Lefebure, D.V., et al, 1998. British Columbia Mineral Deposit Profiles; BCGS Publication 1998-01-25

Lefebure D.V. and Hart, C., 2005. Plutonic-related Au quartz veins and veinlets. In Yukon Mineral Deposit Profiles.

Logan, J.M., 2000. Plutonic-related Gold-quartz Veins in Southern British Columbia; BCGS Publication 2000-01-13

Massey, N.W.D., MacIntyre, D.G., Desjardins, P.J. and Cooney, R.T., 2005: Digital Geology Map of British Columbia, B.C. Ministry of Energy and Mines, Open File 2005-2, DVD.

Panteleyev, A., 1996a. Epithermal Au-Ag: low sulphidation. In Selected British Columbia Mineral Deposit Profiles, Volume 2 - Metallic Deposits, Lefebure, D.V. and Hõy, T, Editors, British Columbia Ministry of Employment and Investment, Open File 1996-13, pages 41-44.

1996b. Hot-spring Au-Ag. In Selected British Columbia Mineral Deposit Profiles, Volume 2 - Metallic Deposits, Lefebure, D.V. and Hõy,T., Editors, British Columbia Ministry of Employment and Investment, Open File 1996-13, p. 33-36.

BC MINFILE 082FSE008

APPENDIX I
STATEMENT OF QUALIFICATIONS

Certificate of Qualified Person

I, Stephen Kenwood, P.Geo. do hereby certify that:

1. I am a Professional Geologist residing at 13629 Marine Drive, White Rock, BC, Canada V4B 1A3.
2. I am a member of the Association of Professional Engineers, and Geoscientists of British Columbia.
3. I graduated from the University of British Columbia with a Bachelor of Science Degree (Geology) in 1987. I have practiced my profession continuously since 1987 and have been involved in exploration for precious and base metals in western North America, Panama, Peru, Chile, Slovakia, and China.
4. This certificate applies to the "2011 Technical Report for the Hall Lake Property" dated November 25, 2011, prepared for Bethpage Capital Corp. and Eagle Plains Resources Ltd. and I am responsible for the preparation of the report in its entirety.
5. I visited the Hall Lake Property on June 14, 2011 and have had no involvement with the property prior to my visit.
6. I am the Qualified Person for the purposes of National Instrument 43-101 and am responsible for all sections of this report. The sources of all information not based on personal examination are quoted in the report. The information provided by other parties is to the best of my knowledge and experience correct.
7. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
8. I am independent of Bethpage Capital Corp. and Eagle Plains Resources Ltd. in accordance with the application of Section 1.5 of National Instrument 43-101.
9. I have read N.I. 43-101, Standards of Disclosure for Mineral Projects and Form 43-101F1, Technical Reports and this report has been prepared in compliance with NI 43-101 and Form 43-101F1 and in conformity with generally accepted Canadian mining industry practice.
10. In my professional opinion the Hall Lake property is of potential merit and further exploration work is justified.

Dated at White Rock, British Columbia, Canada, this 25th day of November, 2011.

Stephen Kenwood, P.Geo.

Qualified Person

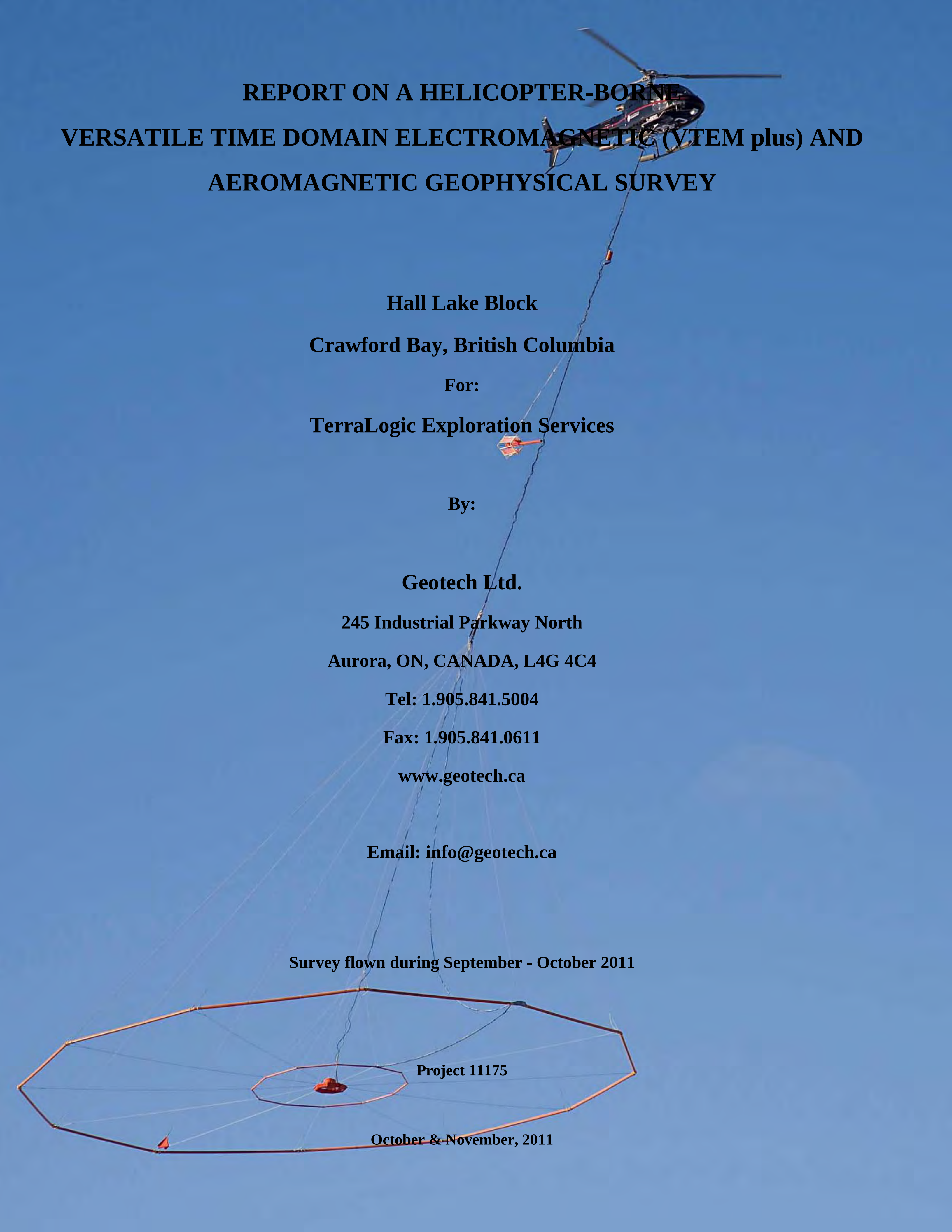
APPENDIX II

STATEMENT OF EXPENDITURES

2011 Hall Lake Project Expenditures				
Bethpage Capital Corp.				
Airborne Geophysics				**Subtotal**
Personnel		**No. of Man Days**	**Rate**	
Chris Gallagher, Chief GeoTechnologist:	survey planning, data interpretation, cartography	2.7	$725.00	$1,021.91
Jim Ryley, Geologist:	survey planning, field logistics including fuel delivery	2	$675.00	$1,350.00
C.C. Downie,P.Geo :	assesment report writing	4	$725.00	$2,900.00
				$5,271.91
Equipment Rental	**number (days/hours/units)**		**rate**	
4 WD truck per day includes mileage	1		$100.00	$100.00
				$100.00
Airborne Geophysical Survey GeoTech Time Domain EM (VTEM)	479.1 line km			$101,364.55
				$101,364.55
Fuel				
fuel for trucks				$123.84
				$123.84
			TOTAL:	**$106,860.30**

APPENDIX III

AIRBORNE GEOPHYSICAL REPORT



REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM plus) AND AEROMAGNETIC GEOPHYSICAL SURVEY

Hall Lake Block

Crawford Bay, British Columbia

For:

TerraLogic Exploration Services

By:

Geotech Ltd.

245 Industrial Parkway North

Aurora, ON, CANADA, L4G 4C4

Tel: 1.905.841.5004

Fax: 1.905.841.0611

www.geotech.ca

Email: info@geotech.ca

Survey flown during September - October 2011

Project 11175

October & November, 2011

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REPORT ON A HELICOPTER-BORNE VERSATILE TIME DOMAIN ELECTROMAGNETIC (VTEM plus) and AEROMAGNETIC SURVEY

Hall Lake Block
Crawford Bay, British Columbia

Executive Summary

On September 30th to October 15th 2011 Geotech Ltd. carried out a helicopter-borne geophysical survey over the Hall Lake Block situated approximately 24 kilometres east of Crawford Bay, British Columbia.

Principal geophysical sensors included a versatile time domain electromagnetic (VTEM plus) system, and a caesium magnetometer. Ancillary equipment included a GPS navigation system and a radar altimeter. A total of 479.1 line-kilometres of geophysical data were acquired during the survey.

In-field data quality assurance and preliminary processing were carried out on a daily basis during the acquisition phase. Preliminary and final data processing, including generation of final digital data and map products were undertaken from the office of Geotech Ltd. in Aurora, Ontario.

The processed survey results are presented as the following maps:

- Electromagnetic stacked profiles of the B-field Z Component,
- Electromagnetic stacked profiles of dB/dt Z Components,
- Colour grids of a B-Field Z Component Channel,
- Total Magnetic Intensity (TMI), and
- EM Time-constant dB/dt Z Component (Tau), are presented.

Digital data includes all electromagnetic and magnetic products, plus ancillary data including the waveform.

The survey report describes the procedures for data acquisition, processing, final image presentation and the specifications for the digital data set.

1. INTRODUCTION

1.1 General Considerations

Geotech Ltd. performed a helicopter-borne geophysical survey over the Hall Lake Block situated approximately 24 kilometres east of Crawford Bay (Figure 1 & Figure 2).

Chris Gallagher represented TerraLogic Exploration Services. during the data acquisition and data processing phases of this project.

The geophysical surveys consisted of helicopter borne EM using the versatile time-domain electromagnetic (VTEM plus) system with Z and X component measurements and aeromagnetics using a caesium magnetometer. A total of 479.1 line-km of geophysical data were acquired during the survey.

The crew was based out of Crawford Bay (Figure 2) in British Columbia for the acquisition phase of the survey. Survey flying for just the Hall Lake Block started September 30th and finished on October 15th, 2011.

Data quality control and quality assurance, and preliminary data processing were carried out on a daily basis during the acquisition phase of the project. Final data processing followed immediately after the end of the survey. Final reporting, data presentation and archiving were completed from the Aurora office of Geotech Ltd. in October & November, 2011.

Figure 1 - Property Location

1.2 Survey and System Specifications

The Hall Lake Block is located approximately 24 kilometres east of Crawford Bay, British Columbia (Figure 2).

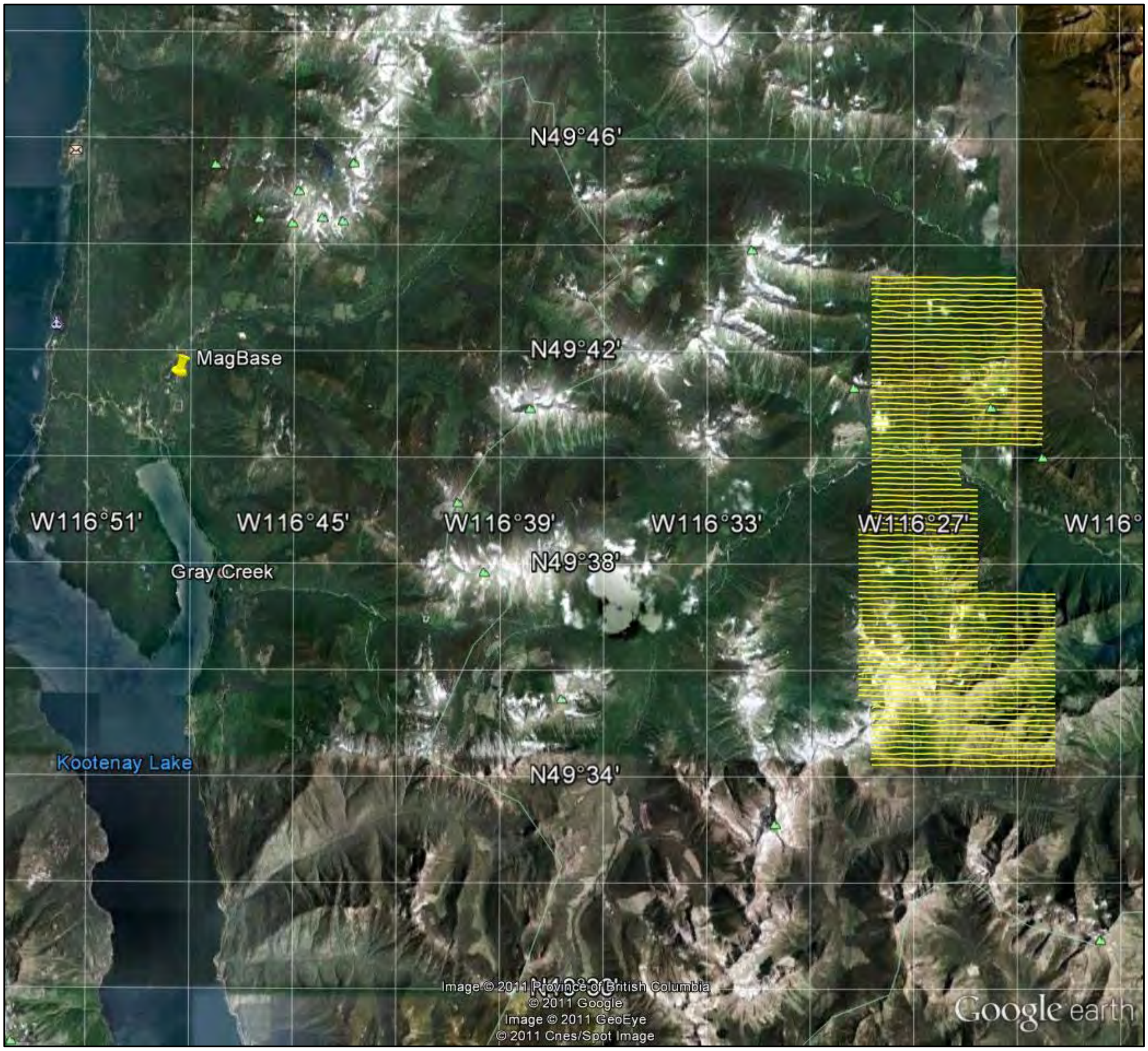

Figure 2 - Survey areas location on Google Earth

The survey block was flown in an east to west (N 90° E azimuth) direction, with traverse line spacing of 200 metres as depicted in Figure 3. Tie lines were planned to be flown perpendicular to the traverse lines, however the survey was cut short due to a request from the client. For more detailed information on the flight spacing and direction see Table 1.

1.3 Topographic Relief and Cultural Features

Topographically, the Hall Lake Block exhibits a high relief with an elevation ranging from 1025 to 2676 metres above mean sea level over an area of 96 square kilometres (Figure 3).

The survey block has various rivers and streams running through the survey area which connect various lakes and wetlands. There are a few visible signs of culture such as roads and trails running through the centre of the survey.

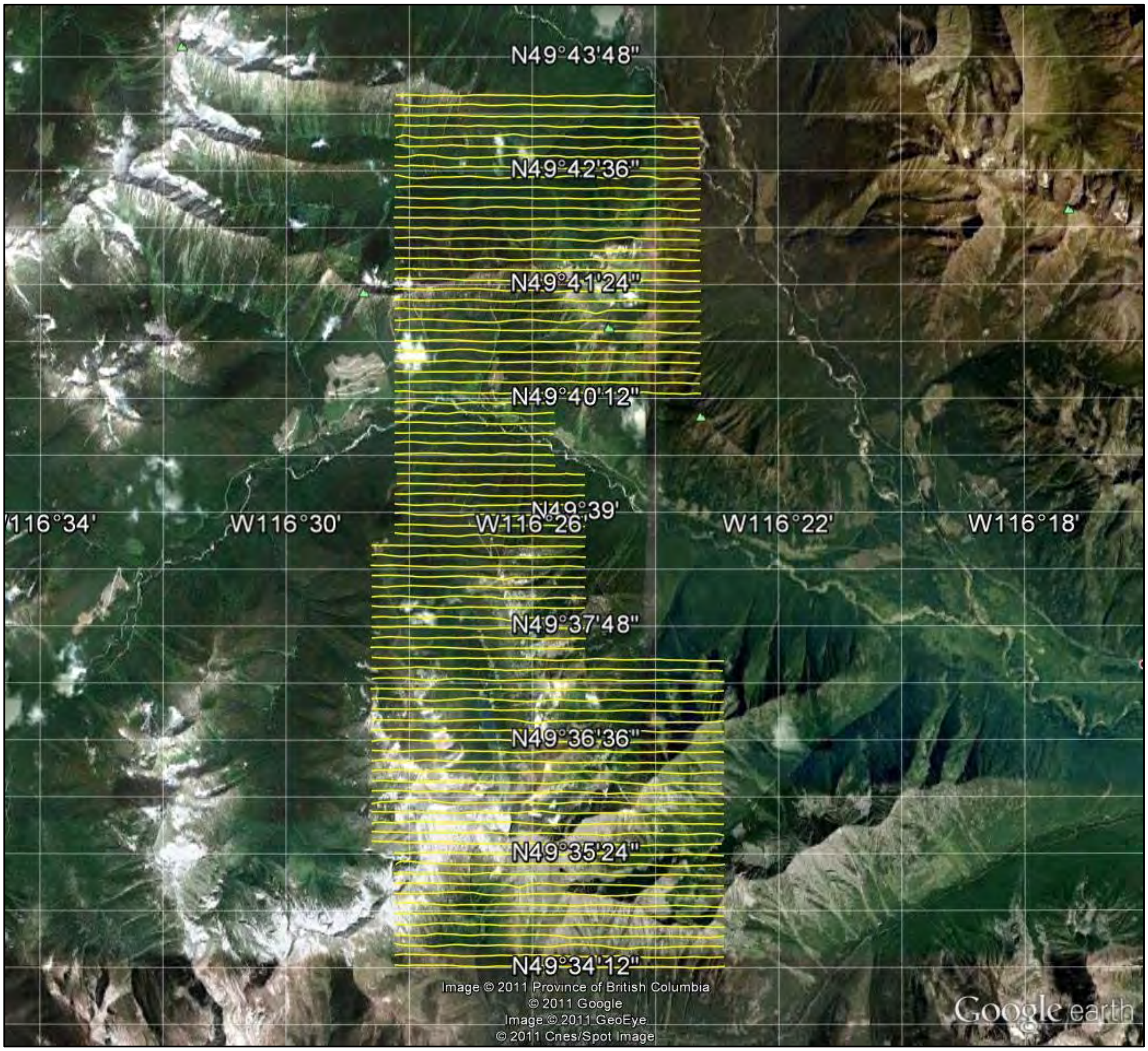

Figure 3 - Flight path over a Google Earth Image – Hall Lake Block

The survey area is covered by NTS (National Topographic Survey) of the Canada sheet 082F09 & 082F10.

2. DATA ACQUISITION

2.1 Survey Area

The survey block (see Figure 3 and Appendix A) and general flight specifications are as follows:

Table 1 - Survey Specifications

Survey block	Traverse Line spacing (m)	Area (Km^2)	Planned[1] Line-km	Actual Line-km	Flight direction	Line numbers
Hall Lake Block	Traverse: 200	96	578.4	479.1	N 90° E / N 270° E	L1981 – L2830
TOTAL		96	578.4	479.1		

Survey block boundaries co-ordinates are provided in Appendix B.

2.2 Survey Operations

Survey operations were based out of Crawford Bay, British Columbia on September 30th - October 15th, 2011. The following table shows the timing of the flying.

Table 2 - Survey schedule

Date	Flight #	Flown km	Block	Crew location	Comments
Sept-30-2011	5,6,7	73	Hall Lake	Crawford Bay, BC	73km flown limited production due to loop damage
Oct-1-2011				Crawford Bay, BC	Repairs limited due to weather
Oct-2-2011				Crawford Bay, BC	Repairs and testing
Oct-4-2011				Crawford Bay, BC	No production due to weather
Oct-5-2011				Crawford Bay, BC	No production due to weather
Oct-6-2011				Crawford Bay, BC	No production due to weather
Oct-7-2011				Crawford Bay, BC	No production due to weather
Oct-9-2011				Crawford Bay, BC	Troubleshooting and test flights
Oct-10-2011				Crawford Bay, BC	No production due to weather
Oct-11-2011				Crawford Bay, BC	No production due to weather
Oct-12-2011				Crawford Bay, BC	No production due to weather
Oct-13-2011				Crawford Bay, BC	No production due to weather
Oct-14-2011	12,13,14	222	Hall Lake	Crawford Bay, BC	222km flown
Oct-15-2011	15,16	174	Hall Lake	Crawford Bay, BC	174km flown

[1] Note: Actual Line kilometres represent the total line kilometres in the final database. These line-km normally exceed the Planned line-km, as indicated in the survey NAV files, however this survey was ended early due to the client's request.

2.3 Flight Specifications

During the survey the helicopter was maintained at a mean altitude of 202 metres above the ground with a nominal survey speed of 80 km/hour. This allowed for a nominal EM bird terrain clearance of 137 metres and a magnetic sensor clearance of 189 metres.

The on board operator was responsible for monitoring the system integrity. He also maintained a detailed flight log during the survey, tracking the times of the flight as well as any unusual geophysical or topographic features.

On return of the aircrew to the base camp the survey data was transferred from a compact flash card (PCMCIA) to the data processing computer. The data were then uploaded via ftp to the Geotech office in Aurora for daily quality assurance and quality control by qualified personnel.

2.4 Aircraft and Equipment

2.4.1 Survey Aircraft

The survey was flown using a Eurocopter Aerospatiale (Astar) 350 B3 helicopter, registration C-GABH. The helicopter is owned and operated by Geotech Aviation. Installation of the geophysical and ancillary equipment was carried out by Big Horn Helicopters.

2.4.2 Electromagnetic System

The electromagnetic system was a Geotech Time Domain EM (VTEM plus) system. The configuration is as indicated in Figure 4.

The VTEM plus Receiver and transmitter coils were in concentric-coplanar and Z-direction oriented configuration. The receiver system for the project also included a coincident-coaxial X-direction coil to measure the in-line dB/dt and calculate B-Field responses. The EM bird was towed at a mean distance of 35 metres below the aircraft as shown in Figure 4 and . The receiver decay recording scheme is shown in Figure 5.

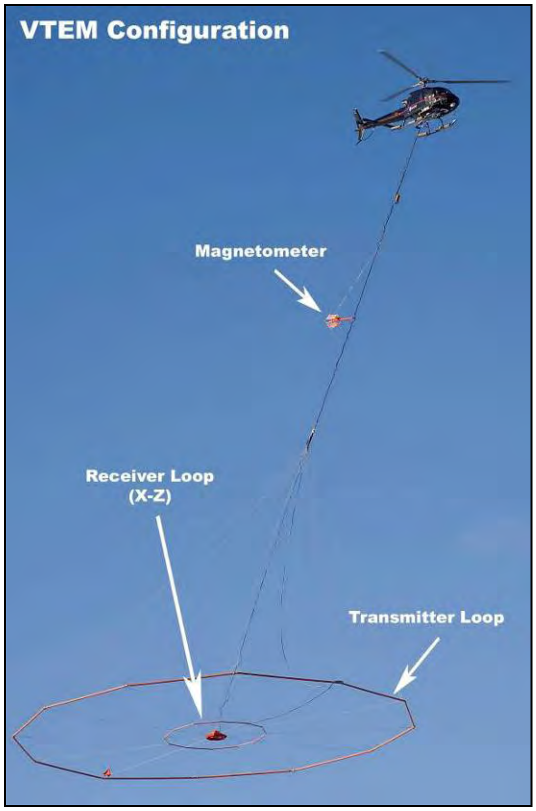

Figure 4 - VTEM plus Configuration, with magnetometer.

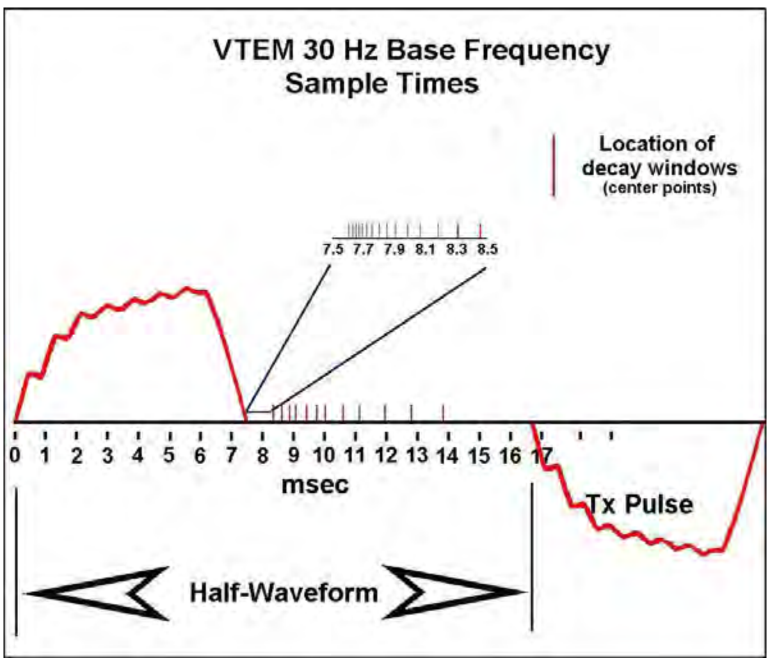

Figure 5 - VTEM plus Waveform & Sample Times

The VTEM plus decay sampling scheme is shown in Table 3 below. Thirty-two time measurement gates were used for the final data processing in the range from 96 to 7036 μ sec.

Table 3 - Decay Sampling Scheme

VTEM plus Decay Sampling Scheme				
Index	**Middle**	**Start**	**End**	**Window**
	Microseconds			
14	96	90	103	13
15	110	103	118	15
16	126	118	136	18
17	145	136	156	20
18	167	156	179	23
19	192	179	206	27
20	220	206	236	30
21	253	236	271	35
22	290	271	312	40
23	333	312	358	46
24	383	358	411	53
25	440	411	472	61
26	505	472	543	70
27	580	543	623	81
28	667	623	716	93
29	766	716	823	107
30	880	823	945	122
31	1,010	945	1,086	141
32	1,161	1,086	1,247	161
33	1,333	1,247	1,432	185
34	1,531	1,432	1,646	214
35	1,760	1,646	1,891	245
36	2,021	1,891	2,172	281
37	2,323	2,172	2,495	323
38	2,667	2,495	2,865	370
39	3,063	2,865	3,292	427
40	3,521	3,292	3,781	490
41	4,042	3,781	4,341	560
42	4,641	4,341	4,987	646
43	5,333	4,987	5,729	742
44	6,125	5,729	6,581	852
45	7,036	6,581	7,560	979

VTEM plus system parameters:

Transmitter Section

- Transmitter coil diameter: 26 m
- Number of turns: 4
- Transmitter base frequency: 30 Hz
- Peak current: 160 A
- Pulse width: 7.14 ms
- Duty cycle: 43 %
- Wave form shape: trapezoid
- Peak dipole moment: 339,794 nIA
- Nominal EM Bird terrain clearance: 137 metres above the ground
- Effective coil area: 2123 m^2

Receiver Section

X-Coil

- X Coil diameter: 0.32 m
- Number of turns: 245
- Effective coil area: 19.69 m^2

Z-Coil

- Z-Coil coil diameter: 1.2 m
- Number of turns: 100
- Effective coil area: 113.04 m^2

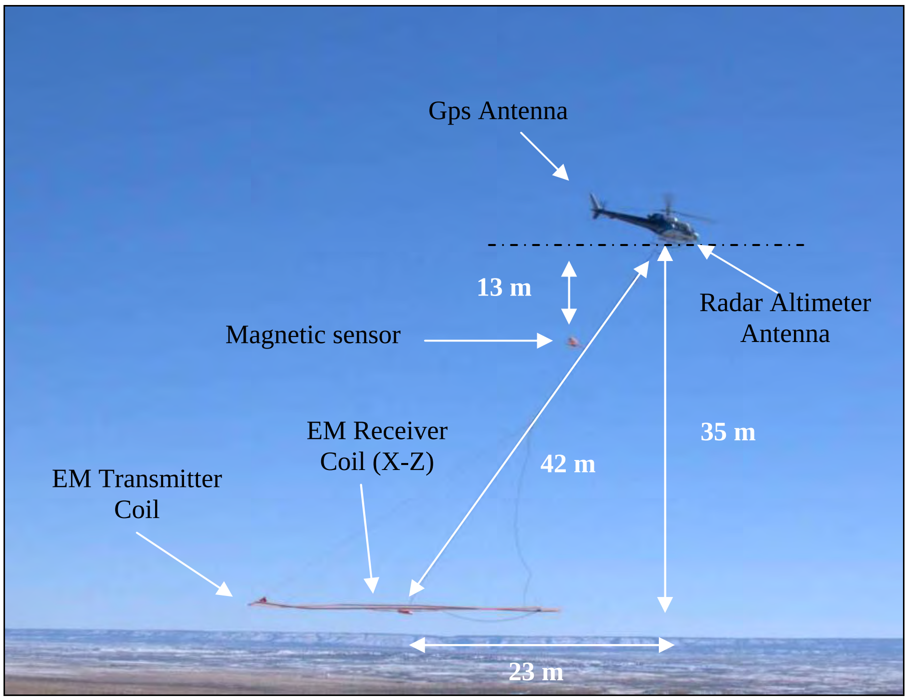

Figure 6 - VTEM plus System Configuration

2.4.3 Airborne magnetometer

The magnetic sensor utilized for the survey was Geometrics optically pumped caesium vapour magnetic field sensor mounted 13 metres below the helicopter, as shown in Figure 6. The sensitivity of the magnetic sensor is 0.02 nanoTesla (nT) at a sampling interval of 0.1 seconds.

2.4.4 Radar Altimeter

A Terra TRA 3000/TRI 40 radar altimeter was used to record terrain clearance. The antenna was mounted beneath the bubble of the helicopter cockpit (Figure 6).

2.4.5 GPS Navigation System

The navigation system used was a Geotech PC104 based navigation system utilizing a NovAtel's CDGPS (Canada-Wide Differential Global Positioning System Correction Service) enable OEM4-G2-3151W GPS receiver, Geotech navigate software, a full screen display with controls in front of the pilot to direct the flight and an NovAtel GPS antenna mounted on the helicopter tail (Figure 6). As many as 11 GPS and two CDGPS satellites may be monitored at any one time. The positional accuracy or circular error probability (CEP) is 1.8 m, with CDGPS active, it is 1.0 m. The co-ordinates of the block were set-up prior to the survey and the information was fed into the airborne navigation system.

2.4.6 Digital Acquisition System

A Geotech data acquisition system recorded the digital survey data on an internal compact flash card. Data is displayed on an LCD screen as traces to allow the operator to monitor the integrity of the system. The data type and sampling interval as provided in Table 4.

Table 4 - Acquisition Sampling Rates

DATA TYPE	SAMPLING
TDEM	0.1 sec
Magnetometer	0.1 sec
GPS Position	0.2 sec
Radar Altimeter	0.2 sec

2.5 Base Station

A combined magnetometer/GPS base station was utilized on this project. A Geometrics Caesium vapour magnetometer was used as a magnetic sensor with a sensitivity of 0.001 nT. The base station was recording the magnetic field together with the GPS time at 1 Hz on a base station computer.

The base station magnetometer sensor was installed North of the Kokanee Springs Driving Range (116°48'27.006"W, 49°41'22.88"N); away from electric transmission lines and moving ferrous objects such as motor vehicles. The base station data were backed-up to the data processing computer at the end of each survey day.

3. PERSONNEL

The following Geotech Ltd. personnel were involved in the project.

Field:

Project Manager:	Darren Tuck (Office)
Data QC:	Neil Fiset (Office)
Crew chief:	Roger LeBlanc
Operator:	John West-Fiset

The survey pilot and the mechanical engineer were employed directly by the helicopter operator – Big Horn Helicopters.

Pilot:	Brook Pennington
Mechanical Engineer:	n/a

Office:

Preliminary Data Processing:	Neil Fiset
Final Data Processing:	Keeme Mokubung/Shaolin Lu
Final Data QA/QC:	Alexander Prikhodko
Reporting/Mapping:	Corrie Laver

Data acquisition phase was carried out under the supervision of Andrei Bagrianski, P. Geo, Chief Operating Officer. The processing and interpretation phase was under the supervision of Alexander Prikhodko, P. Geo. The customer relations were looked after by Blair Walker.

4. DATA PROCESSING AND PRESENTATION

Data compilation and processing were carried out by the application of Geosoft OASIS Montaj and programs proprietary to Geotech Ltd.

4.1 Flight Path

The flight path, recorded by the acquisition program as WGS 84 latitude/longitude, was converted into the NAD83 Datum, UTM Zone 11 North coordinate system in Oasis Montaj.

The flight path was drawn using linear interpolation between x, y positions from the navigation system. Positions are updated every second and expressed as UTM easting's (x) and UTM northing's (y).

4.2 Electromagnetic Data

A three stage digital filtering process was used to reject major sferic events and to reduce system noise. Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further improved by the application of a low pass linear digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 1 second or 15 metres. This filter is a symmetrical 1 sec linear filter.

The results are presented as stacked profiles of EM voltages for the time gates, in linear - logarithmic scale for the B-field Z component and dB/dt responses in the Z and X components. B-field Z component time channel recorded at 2.021 milliseconds after the termination of the impulse is also presented as contour colour images. Fraser Filter X component is also presented as a colour image. Calculated Time Constant (TAU) with anomaly contours of Calculated Vertical Derivative of TMI is presented in Appendix D and F. Resistivity Depth Image (RDI) is also presented in Appendix D and G.

VTEM plus has two receiver coil orientations. Z-axis coil is oriented parallel to the transmitter coil axis and both are horizontal to the ground. The X-axis coil is oriented parallel to the ground and along the line-of-flight. This combined two coil configuration provides information on the position, depth, dip and thickness of a conductor. Generalized modeling results of VTEM plus data are shown in Appendix E.

In general X-component data produce cross-over type anomalies: from "+ to – "in flight direction of flight for "thin" sub vertical targets and from "- to +" in direction of flight for "thick" targets. Z component data produce double peak type anomalies for "thin" sub vertical targets and single peak for "thick" targets.

The limits and change-over of “thin-thick” depends on dimensions of a TEM system.

Because of X component polarity is under line-of-flight, convolution Fraser filter (FF, Figure 7) is applied to X component data to represent axes of conductors in the form of grid map. In this case positive FF anomalies always correspond to “plus-to-minus” X data crossovers independently of direction of flight.

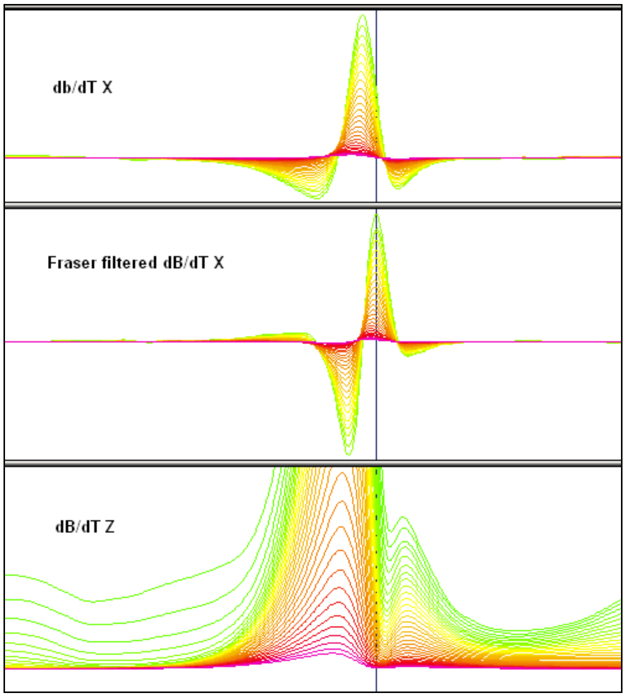

Figure 7 - Z, X and Fraser filtered X (FFx) components for “thin” target

Graphical representations of the VTEM plus transmitter input current and the output voltage of the receiver coil are shown in Appendix C.

4.3 Magnetic Data

The processing of the magnetic data involved the correction for diurnal variations by using the digitally recorded ground base station magnetic values. The base station magnetometer data was edited and merged into the Geosoft GDB database on a daily basis. The aeromagnetic data was corrected for diurnal variations by subtracting the observed magnetic base station deviations.

Tie line levelling was carried out by adjusting intersection points along traverse lines. A micro-levelling procedure was applied to remove persistent low-amplitude components of flight-line noise remaining in the data.

The corrected magnetic data was interpolated between survey lines using a random point gridding method to yield x-y grid values for a standard grid cell size of approximately 50 metres at the mapping scale. The Minimum Curvature algorithm was used to interpolate values onto a rectangular regular spaced grid.

5. DELIVERABLES

5.1 Survey Report

The survey report describes the data acquisition, processing, and final presentation of the survey results. The survey report is provided in two paper copies and digitally in PDF format.

5.2 Maps

Final maps were produced at a scale of 1:20,000 for best representation of the survey size and line spacing. The coordinate/projection system used was NAD83 Datum, UTM Zone 11 North. All maps show the mining claims, flight path trace and topographic data; latitude and longitude are also noted on maps.

The preliminary and final results of the survey are presented as EM profiles, a late-time gate gridded EM channel, and a color magnetic TMI contour map. The following maps are presented on paper;

- VTEM dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-Field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
- VTEM B-field late time Z Component Channel 36, Time Gate 2.021 ms colour image.
- VTEM dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI
- Total Magnetic Intensity (TMI) colour image and contours.

5.3 Digital Data

- Two copies of the data and maps on DVD were prepared to accompany the report. Each DVD contains a digital file of the line data in GDB Geosoft Montaj format as well as the maps in Geosoft Montaj Map and PDF format.

- DVD structure.

Data	contains databases, grids and maps, as described below.
Report	contains a copy of the report and appendices in PDF format.

Databases in Geosoft GDB format, containing the channels listed in Table 5.

Table 5 - Geosoft GDB Data Format

Channel name	Units	Description
X:	metres	UTM Easting NAD83 Zone 11 North
Y:	metres	UTM Northing NAD83 Zone 11 North
Z:	metres	GPS antenna elevation (above Geoid)
Longitude:	Decimal Degrees	WGS 84 Longitude data
Latitude:	Decimal Degrees	WGS 84 Latitude data
Radar:	metres	helicopter terrain clearance from radar altimeter
Radarb:	metres	Calculated EM bird terrain clearance from radar altimeter
DEM:	metres	Digital Elevation Model
Gtime:	Seconds of the day	GPS time
Mag1:	nT	Raw Total Magnetic field data
Basemag:	nT	Magnetic diurnal variation data
Mag2:	nT	Diurnal corrected Total Magnetic field data
Mag3:	nT	Levelled Total Magnetic field data
CVG	nT	Calculated Vertical Derivative of TMI
SFz[14]:	$pV/(A*m^4)$	Z dB/dt 96 microsecond time channel
SFz[15]:	$pV/(A*m^4)$	Z dB/dt 110 microsecond time channel
SFz[16]:	$pV/(A*m^4)$	Z dB/dt 126 microsecond time channel
SFz[17]:	$pV/(A*m^4)$	Z dB/dt 145 microsecond time channel
SFz[18]:	$pV/(A*m^4)$	Z dB/dt 167 microsecond time channel
SFz[19]:	$pV/(A*m^4)$	Z dB/dt 192 microsecond time channel
SFz[20]:	$pV/(A*m^4)$	Z dB/dt 220 microsecond time channel
SFz[21]:	$pV/(A*m^4)$	Z dB/dt 253 microsecond time channel
SFz[22]:	$pV/(A*m^4)$	Z dB/dt 290 microsecond time channel
SFz[23]:	$pV/(A*m^4)$	Z dB/dt 333 microsecond time channel
SFz[24]:	$pV/(A*m^4)$	Z dB/dt 383 microsecond time channel
SFz[25]:	$pV/(A*m^4)$	Z dB/dt 440 microsecond time channel
SFz[26]:	$pV/(A*m^4)$	Z dB/dt 505 microsecond time channel
SFz[27]:	$pV/(A*m^4)$	Z dB/dt 580 microsecond time channel
SFz[28]:	$pV/(A*m^4)$	Z dB/dt 667 microsecond time channel
SFz[29]:	$pV/(A*m^4)$	Z dB/dt 766 microsecond time channel
SFz[30]:	$pV/(A*m^4)$	Z dB/dt 880 microsecond time channel
SFz[31]:	$pV/(A*m^4)$	Z dB/dt 1010 microsecond time channel
SFz[32]:	$pV/(A*m^4)$	Z dB/dt 1161 microsecond time channel
SFz[33]:	$pV/(A*m^4)$	Z dB/dt 1333 microsecond time channel
SFz[34]:	$pV/(A*m^4)$	Z dB/dt 1531 microsecond time channel
SFz[35]:	$pV/(A*m^4)$	Z dB/dt 1760 microsecond time channel
SFz[36]:	$pV/(A*m^4)$	Z dB/dt 2021 microsecond time channel
SFz[37]:	$pV/(A*m^4)$	Z dB/dt 2323 microsecond time channel
SFz[38]:	$pV/(A*m^4)$	Z dB/dt 2667 microsecond time channel
SFz[39]:	$pV/(A*m^4)$	Z dB/dt 3063 microsecond time channel
SFz[40]:	$pV/(A*m^4)$	Z dB/dt 3521 microsecond time channel
SFz[41]:	$pV/(A*m^4)$	Z dB/dt 4042 microsecond time channel
SFz[42]:	$pV/(A*m^4)$	Z dB/dt 4641 microsecond time channel
SFz[43]:	$pV/(A*m^4)$	Z dB/dt 5333 microsecond time channel
SFz[44]:	$pV/(A*m^4)$	Z dB/dt 6125 microsecond time channel
SFz[45]:	$pV/(A*m^4)$	Z dB/dt 7036 microsecond time channel
SFx[20]:	$pV/(A*m^4)$	X dB/dt 220 microsecond time channel
SFx[21]:	$pV/(A*m^4)$	X dB/dt 253 microsecond time channel
SFx[22]:	$pV/(A*m^4)$	X dB/dt 290 microsecond time channel
SFx[23]:	$pV/(A*m^4)$	X dB/dt 333 microsecond time channel

Channel name	Units	Description
SFx[24]:	pV/(A*m^4)	X dB/dt 383 microsecond time channel
SFx[25]:	pV/(A*m^4)	X dB/dt 440 microsecond time channel
SFx[26]:	pV/(A*m^4)	X dB/dt 505 microsecond time channel
SFx[27]:	pV/(A*m^4)	X dB/dt 580 microsecond time channel
SFx[28]:	pV/(A*m^4)	X dB/dt 667 microsecond time channel
SFx[29]:	pV/(A*m^4)	X dB/dt 766 microsecond time channel
SFx[30]:	pV/(A*m^4)	X dB/dt 880 microsecond time channel
SFx[31]:	pV/(A*m^4)	X dB/dt 1010 microsecond time channel
SFx[32]:	pV/(A*m^4)	X dB/dt 1161 microsecond time channel
SFx[33]:	pV/(A*m^4)	X dB/dt 1333 microsecond time channel
SFx[34]:	pV/(A*m^4)	X dB/dt 1531 microsecond time channel
SFx[35]:	pV/(A*m^4)	X dB/dt 1760 microsecond time channel
SFx[36]:	pV/(A*m^4)	X dB/dt 2021 microsecond time channel
SFx[37]:	pV/(A*m^4)	X dB/dt 2323 microsecond time channel
SFx[38]:	pV/(A*m^4)	X dB/dt 2667 microsecond time channel
SFx[39]:	pV/(A*m^4)	X dB/dt 3063 microsecond time channel
SFx[40]:	pV/(A*m^4)	X dB/dt 3521 microsecond time channel
SFx[41]:	pV/(A*m^4)	X dB/dt 4042 microsecond time channel
SFx[42]:	pV/(A*m^4)	X dB/dt 4641 microsecond time channel
SFx[43]:	pV/(A*m^4)	X dB/dt 5333 microsecond time channel
SFx[44]:	pV/(A*m^4)	X dB/dt 6125 microsecond time channel
SFx[45]:	pV/(A*m^4)	X dB/dt 7036 microsecond time channel
BFz	(pV*ms)/(A*m4)	Z B-Field data for time channels 14 to 45
BFx	(pV*ms)/(A*m4)	X B-Field data for time channels 20 to 45
SFxFF	pV/(A*m4)	Fraser filtered X dB/dt
PLM:		60 Hz power line monitor
TauSF1	milliseconds	Time Constant (Tau) calculated from dB/dt data
TauBF1	milliseconds	Time Constant (Tau) calculated from B-Field data

Electromagnetic B-field and dB/dt Z component data is found in array channel format between indexes 14 – 45, and X component data from 20 – 45, as described above.

- Database of the VTEM Waveform “11175_waveform_final.gdb” in Geosoft GDB format, containing the following channels:

  Time: Sampling rate interval, 5.2083 microseconds
  Rx_Volt: Output voltage of the receiver coil (Volt)
  Tx_Current: Output current of the transmitter (Amp)

- Grids in Geosoft GRD format, as follows:

  BFz36: B-Field Z Component Channel 36 (Time Gate 2.021 ms)
  TMI: Total Magnetic Intensity (nT)
  RTP: Reduced To Pole of TMI (nT)
  CVG: Calculated Vertical Derivative of TMI (nT/m)
  TauSF: dB/dt Calculated Time Constant (ms)
  SFxFF24: Fraser Filter X Component dB/dt Channel 24 (Time Gate 0.383 ms)
  DEM: Digital Elevation Model (metres)
  PLM: Power Line Monitor (60Hz)

A Geosoft .GRD file has a .GI metadata file associated with it, containing grid projection information. A grid cell size of 50 metres was used.

- Maps at 1:20,000 in Geosoft MAP format, as follows:

11175_ 20k _dBdtz_*bb*:	dB/dt profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale.
11175_ 20k _Bfield_*bb*:	B-field profiles Z Component, Time Gates 0.220 – 7.036 ms in linear – logarithmic scale over total magnetic intensity.
11175_ 20k_BFz36_*bb*:	B-field late time Z Component Channel 36, Time Gate 2.021 ms color image.
11175_ 20k_SFxFF24_*bb*:	dB/dt early time X Component Fraser Filter Channel 24, Time Gate 0.383 ms color image.
11175_ 20k_TMI_*bb*:	Total magnetic intensity (TMI) color image and contours.
11175_ 20k_TauSF_*bb*:	dB/dt Calculated Time Constant (TAU) with contours of anomaly areas of the Calculated Vertical Derivative of TMI

Where *bb* represents the block name (ie. 11175_20k_TMI_HallLakeBlock)

Maps are also presented in PDF format.

1:250,000 topographic vectors were taken from the NRCAN Geogratis database at; http://geogratis.gc.ca/geogratis/en/index.html.

- A Google Earth file *11175_HallLake.kml* showing the flight path of the block is included. Free versions of Google Earth software from: http://earth.google.com/download-earth.html

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

A helicopter-borne versatile time domain electromagnetic (VTEM plus) geophysical survey has been completed over the Hall Lake Block near Crawford Bay, British Columbia.

The total area coverage is 96 km^2. Total survey line coverage is 479.1 line kilometres. The principal sensors included a Time Domain EM system and a magnetometer. Results have been presented as stacked profiles, and contour color images at a scale of 1:20,000.

Based on the geophysical results obtained, a number of anomalous TEM anomalies are mainly identified across Hall Lake block. They are considered as very low to low conductive zones which are indicated as 1 – 5 on the map below.

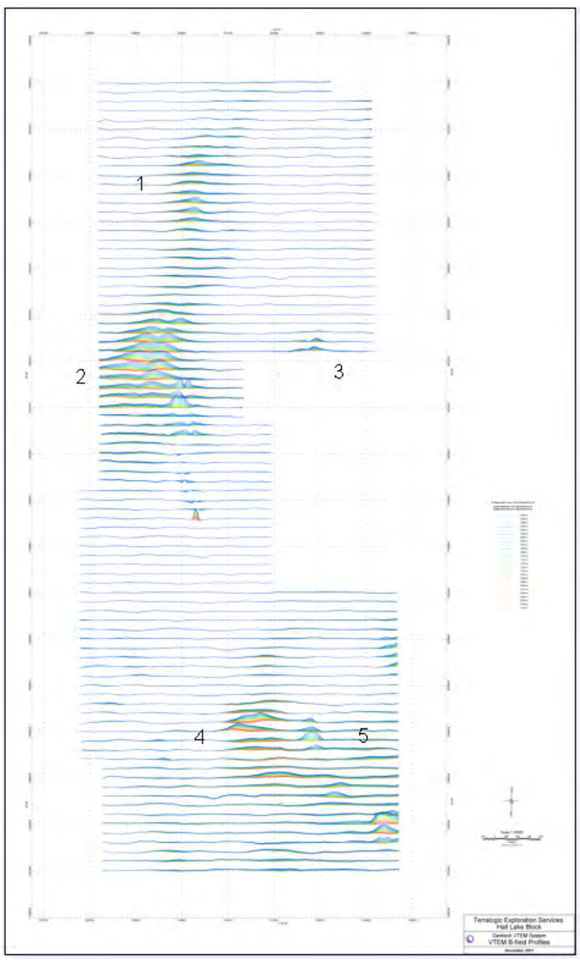

Figure 8: 11175_Hall Lake B-field profiles showing EM responses

No.1 and No.2 very low conductive zones are mapping a trend that extends in NE to NS direction. They associates with dyke similar magnetic features and correspond to low magnetic intensity *(reference on Halllake_RDI_L2070 and Halllake_RDI_L2280).*

No.4 very low conductive zone lies in NW direction and associates with low magnetic intensity *(reference on Halllake_RDI_L2690).*

No.3 and No.5 anomalies correspond to very low to low conductive zones which are considered as discrete targets. Magnetic correlation with EM response is observed on some of targets.

It is recommended a detailed interpretation of the available geophysical and geological data, resistivity depth imaging and modelling prior to ground follow up and trial drilling.

Respectfully submitted[5],

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Geotech Ltd.

Alexander Prikhodko, P.Geo.
Geotech Ltd.

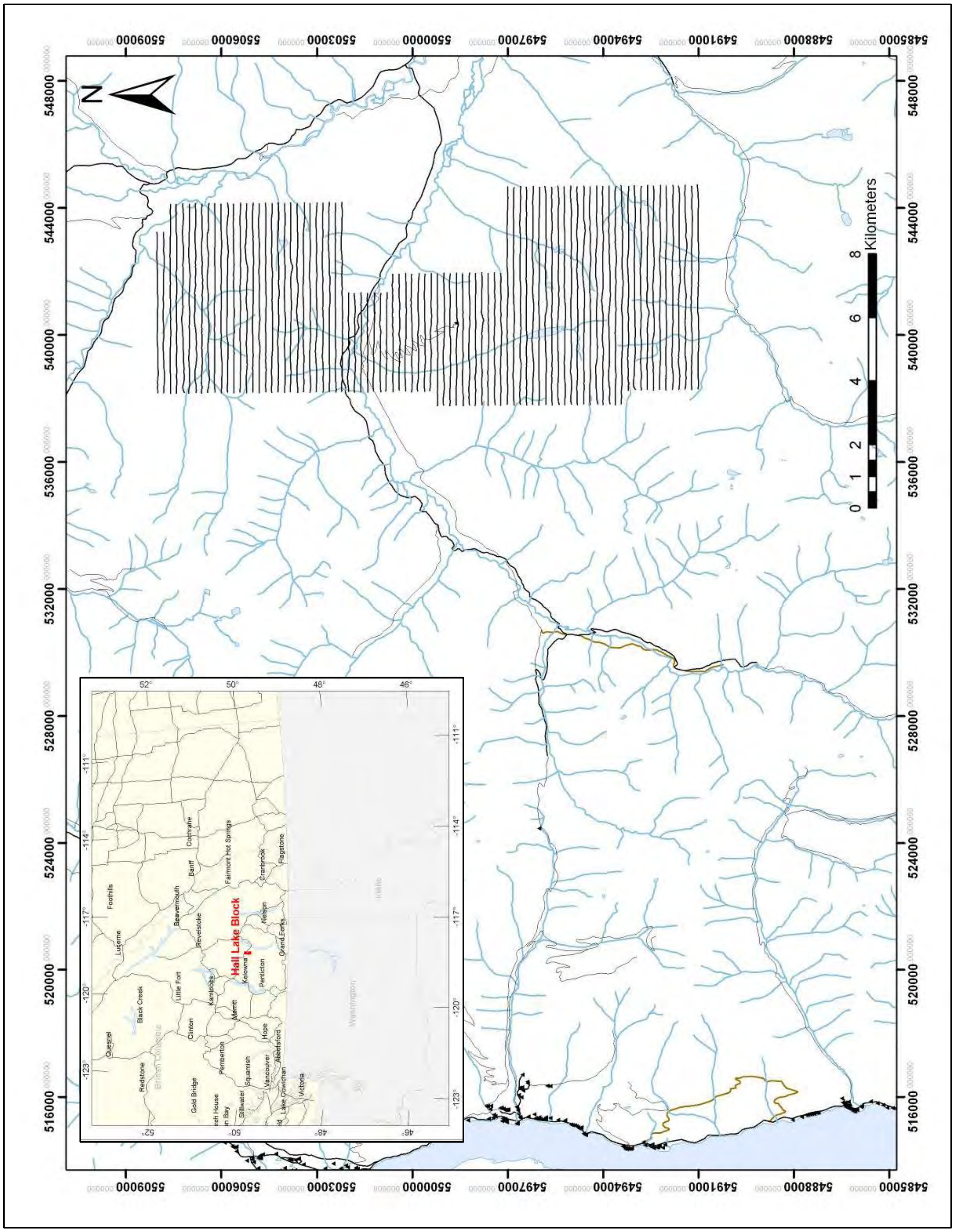
Keeme Mokubung
Geotech Ltd.

November 2011

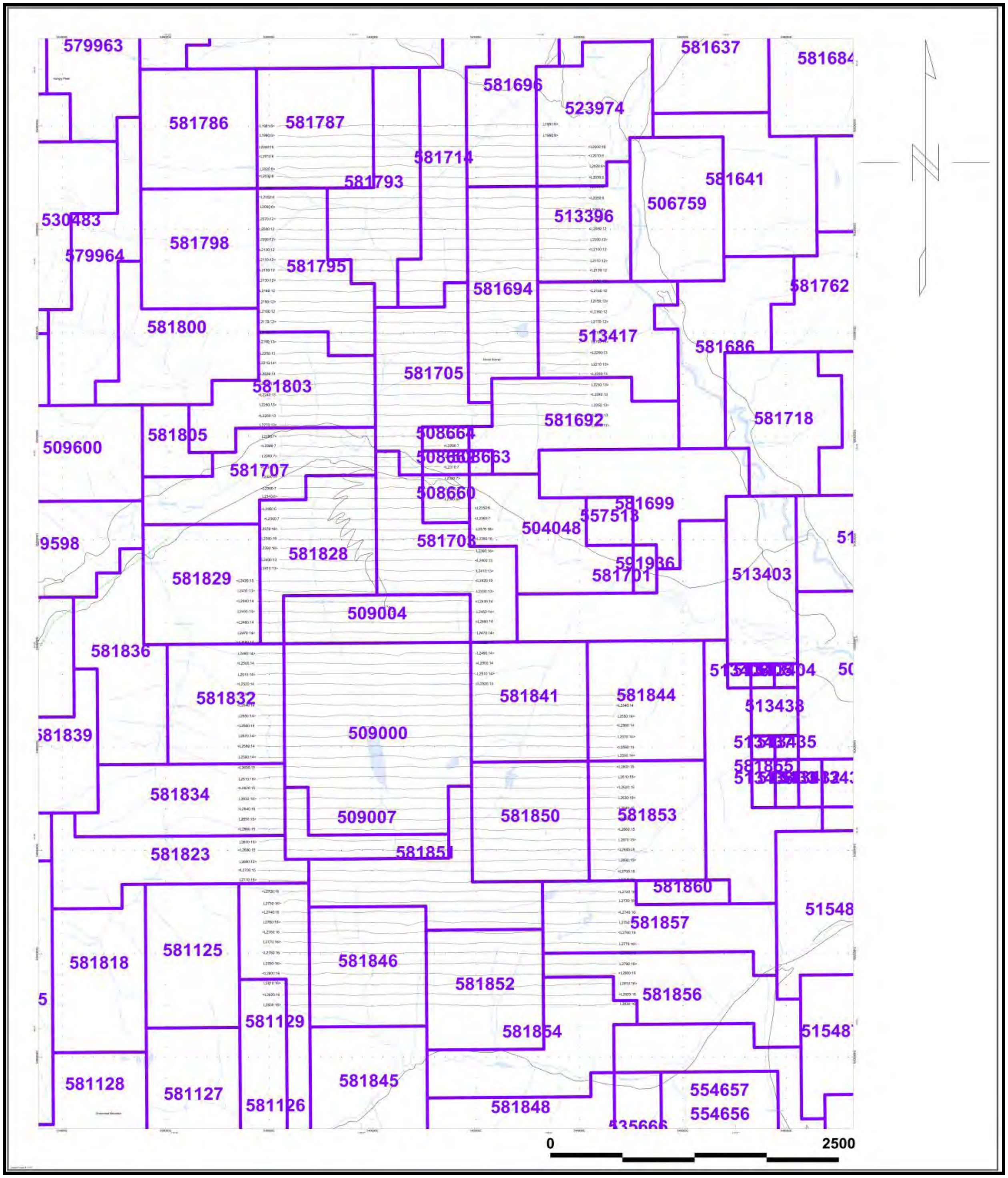
[5]Final data processing of the EM and magnetic data were carried out by Keeme Mokubung & Shaolin Lu, from the office of Geotech Ltd. in Aurora, Ontario, under the supervision of Alexander Prikhodko, P.Geo., PhD, Senior Geophysicist, VTEM Interpretation Supervisor.

APPENDIX A

SURVEY BLOCK LOCATION MAP



Survey Overview of the Blocks



Mining Claims

APPENDIX B

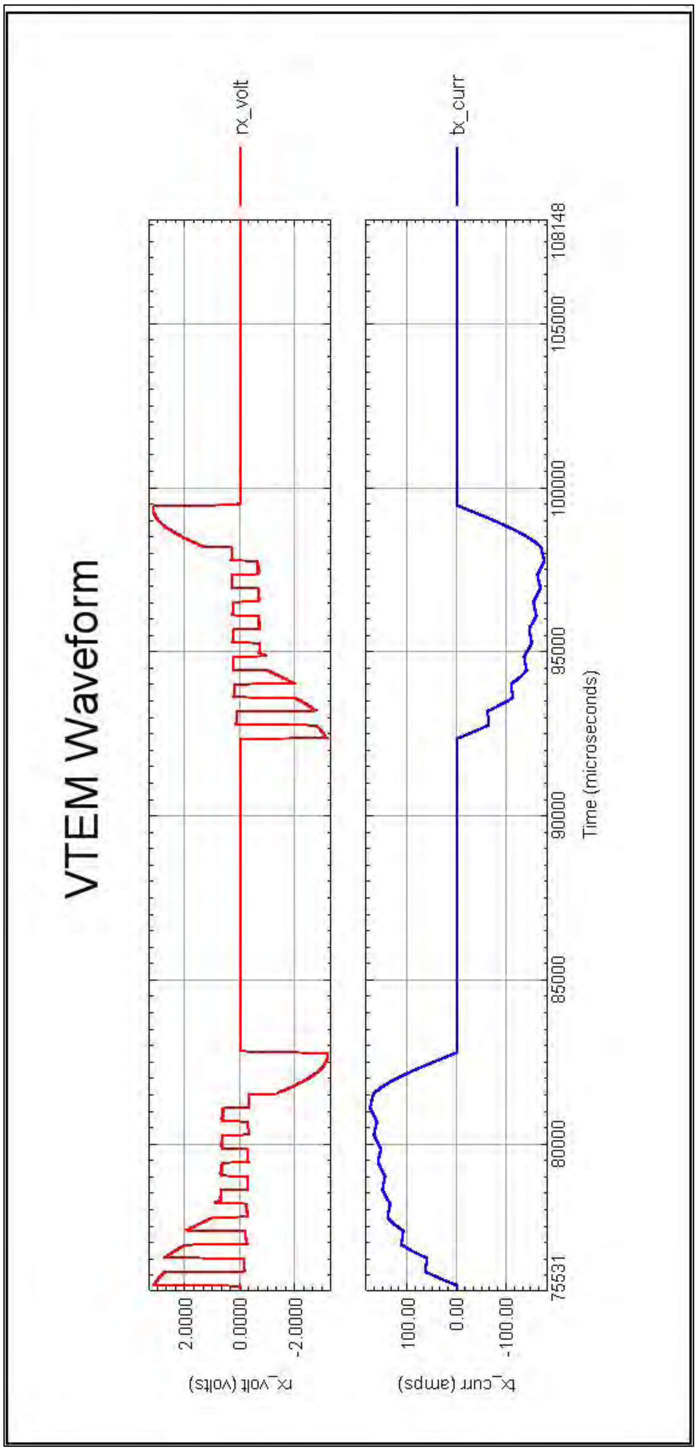
SURVEY BLOCK COORDINATES

(WGS 84, UTM Zone 11 North)

X	Y
538211.8	5508184
538273.8	5499383
537822.6	5499380
537864.8	5493358
538316.5	5493361
538345.9	5489208
544675.3	5489208
544609.5	5497115
541901.2	5497093
541872.2	5500799
541273.8	5500808
541273.8	5502203
543665.1	5502203
544116	5502206
544071.5	5507766
543170.5	5507758
543133.9	5508184

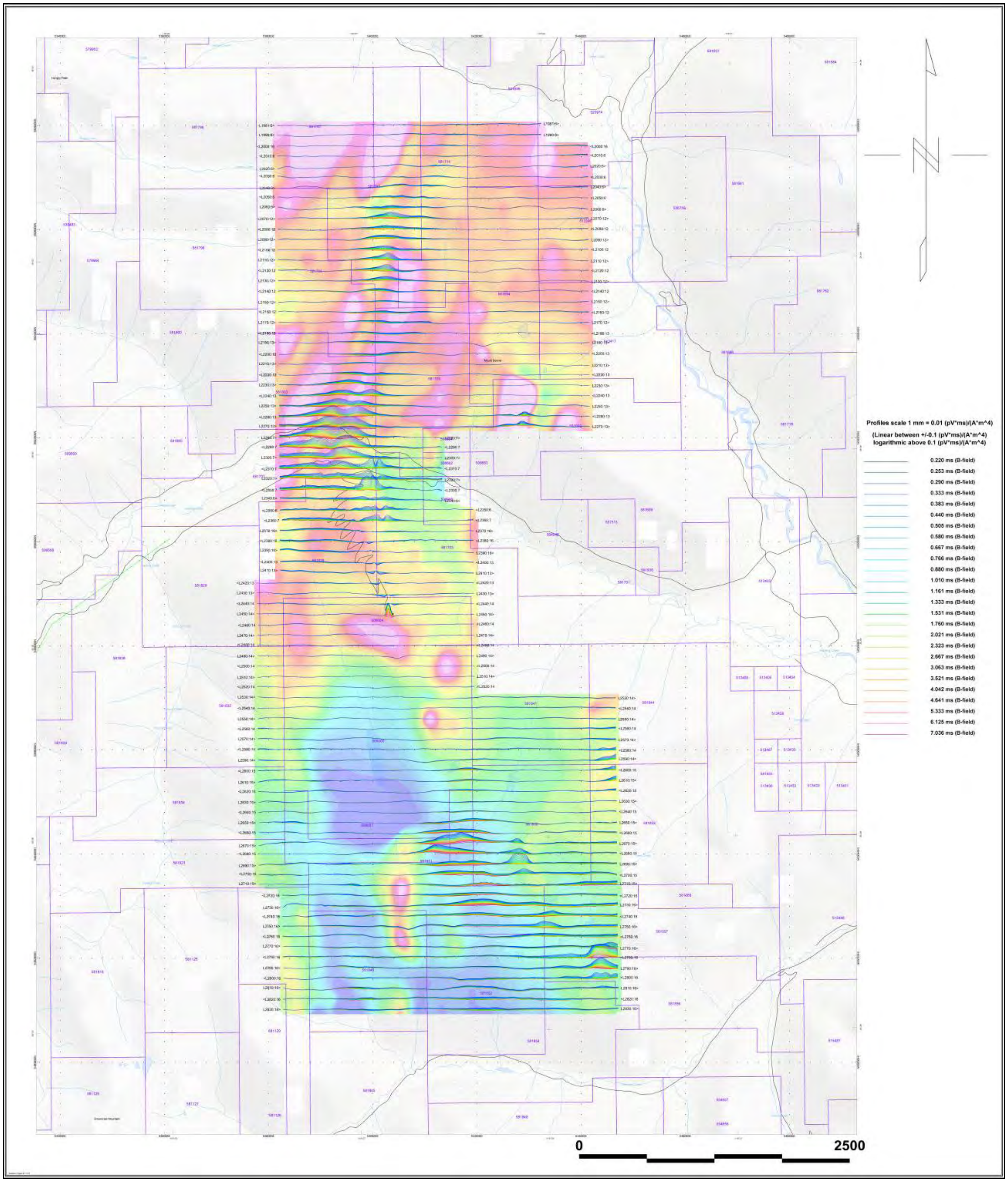
APPENDIX C

VTEM WAVEFORM



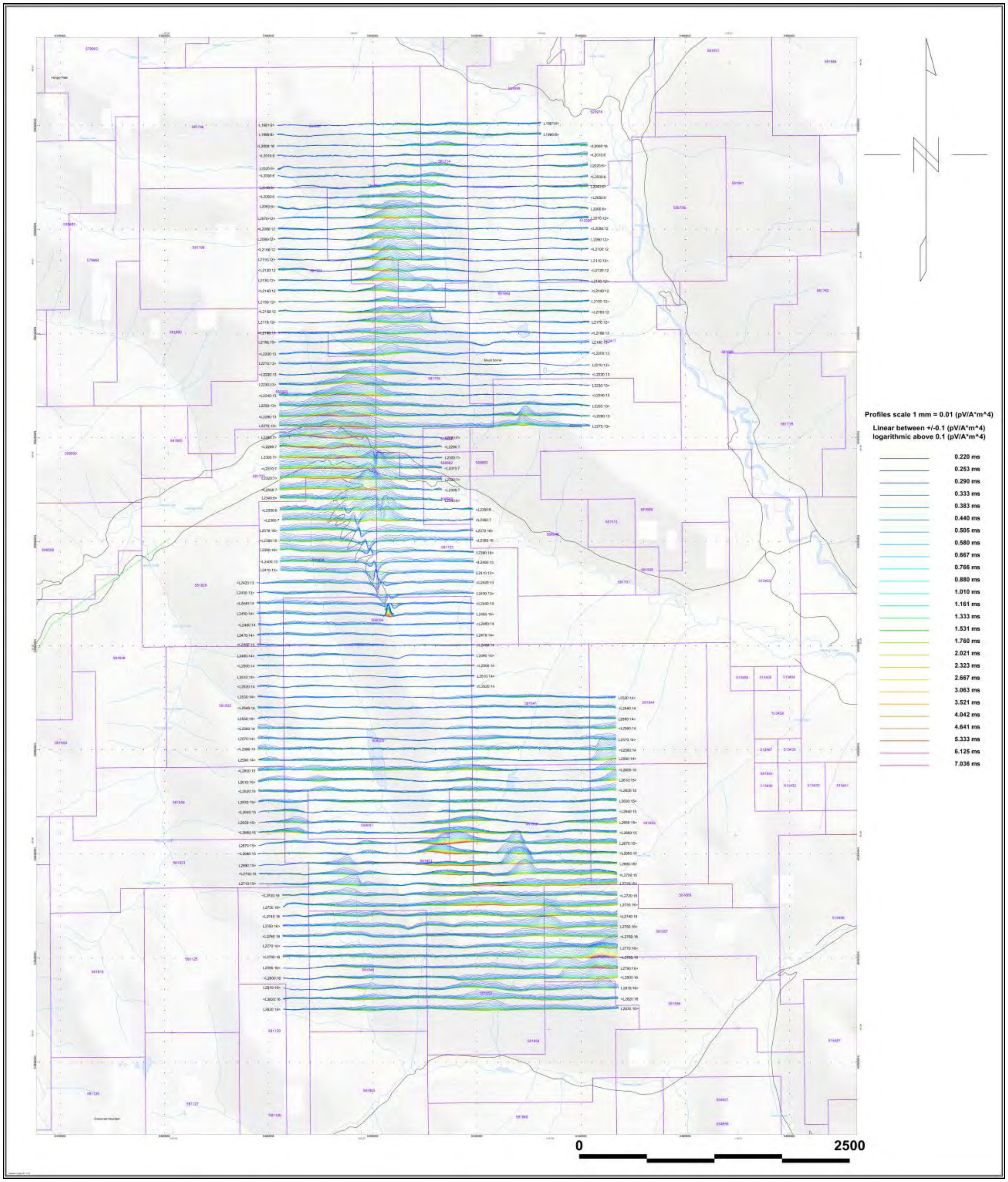
APPENDIX D

GEOPHYSICAL MAPS[1]

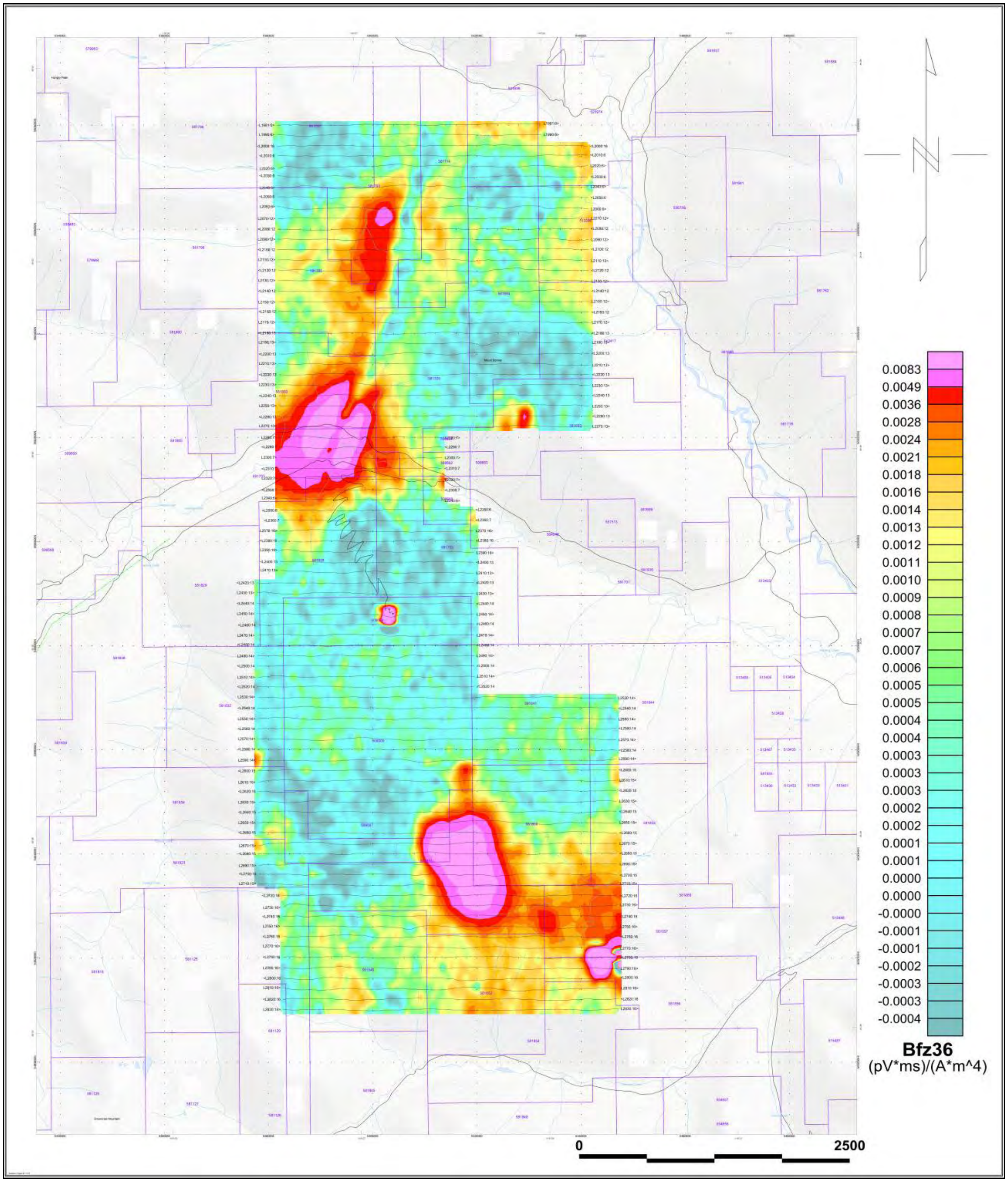


Hall Lake Block - VTEM B-Field Z Component Profiles, Time Gates 0.220 to 7.036 ms

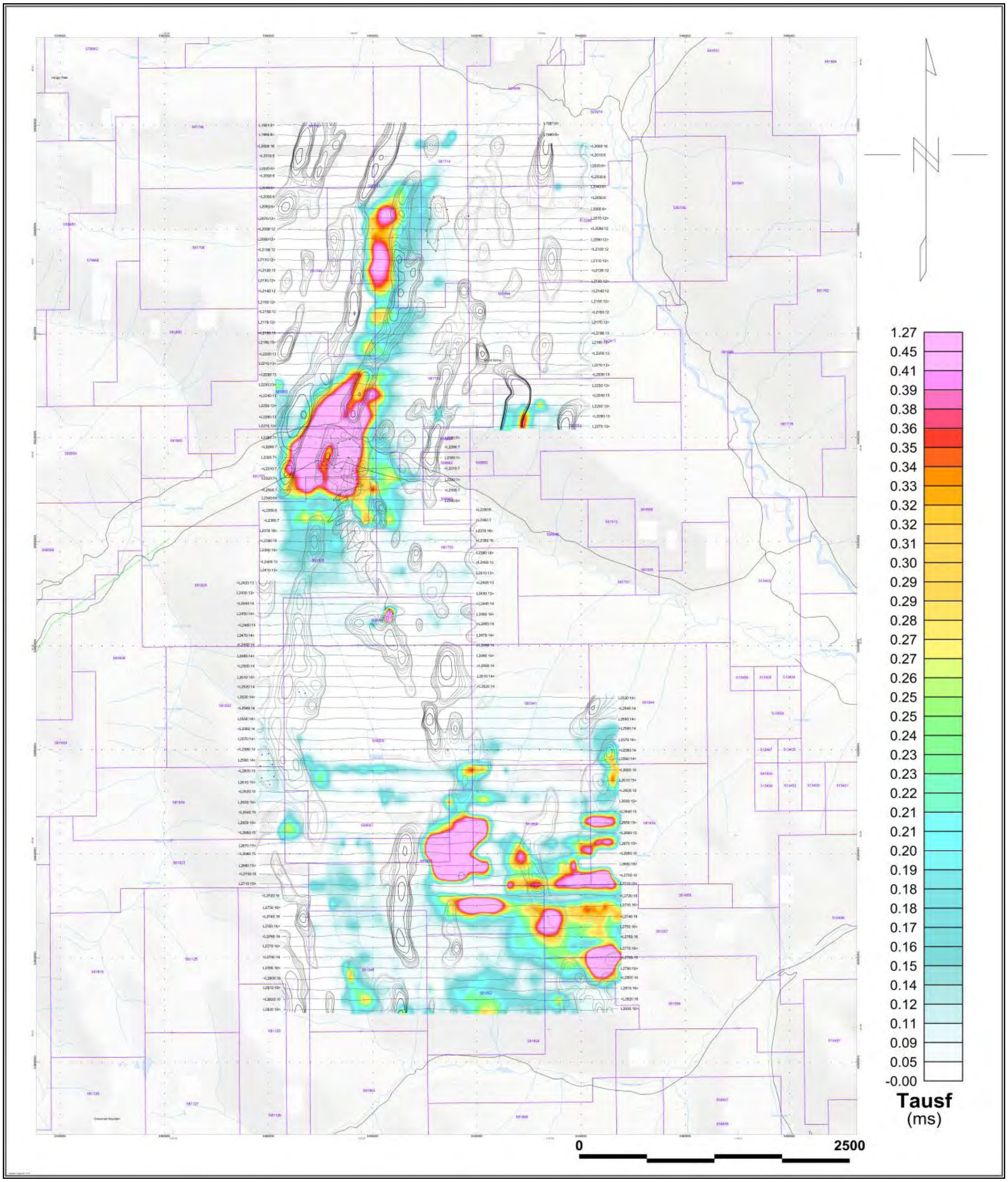
[1] Full size geophysical maps are also available in PDF format on the final DVD



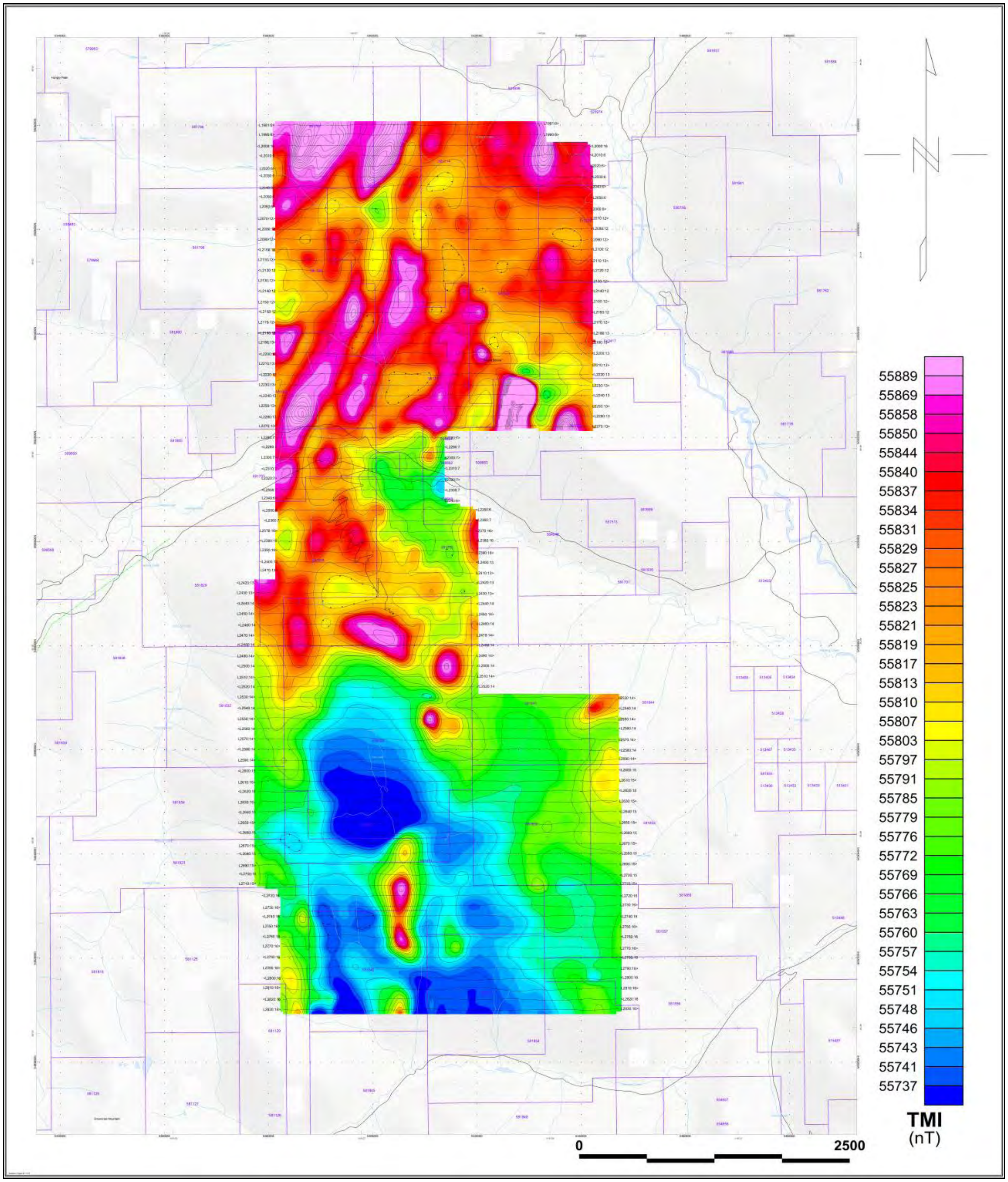
Hall Lake Block - VTEM dB/dt Z Component Profiles, Time Gates 0.220 to 7.036 ms



Hall Lake Block - VTEM B-Field Z Component Channel 36, Time Gate 2.021 ms



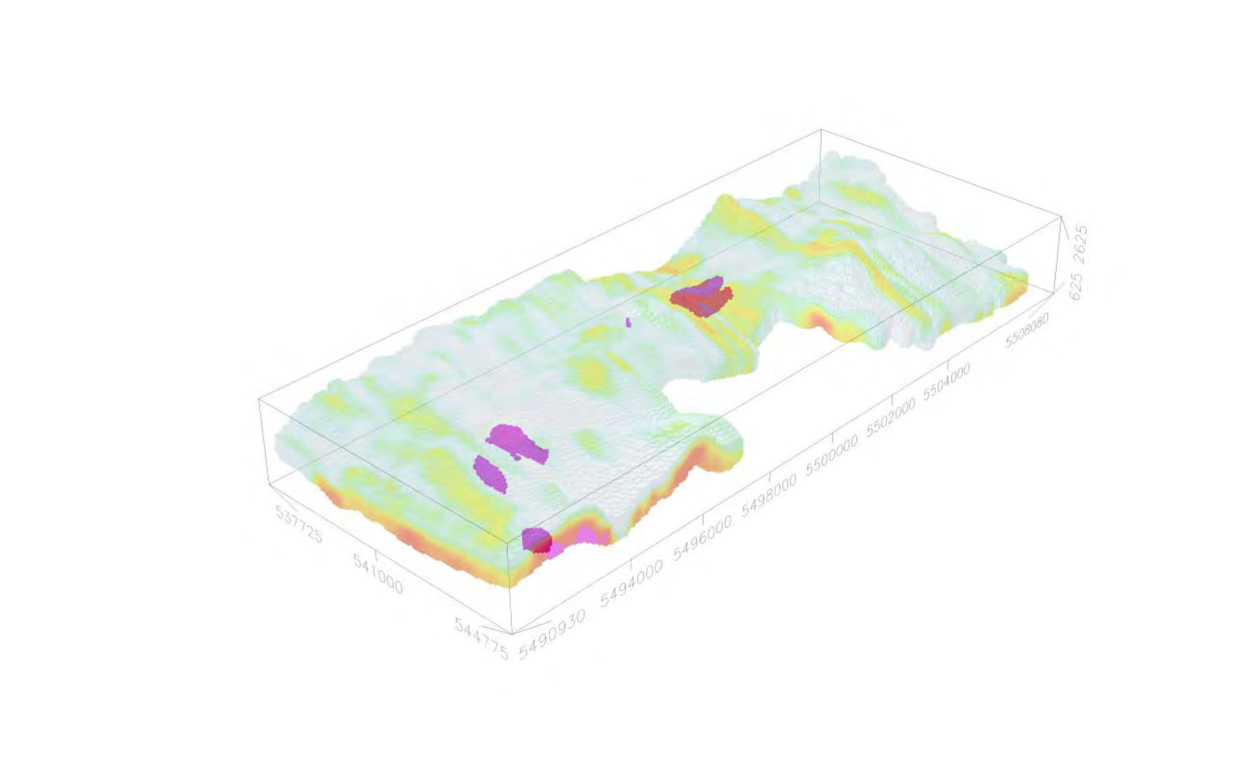
Hall Lake Block – dB/dt Calculated Time Constant (Tau) with contours of anomaly areas of the Calculated Vertical Derivative of TMI



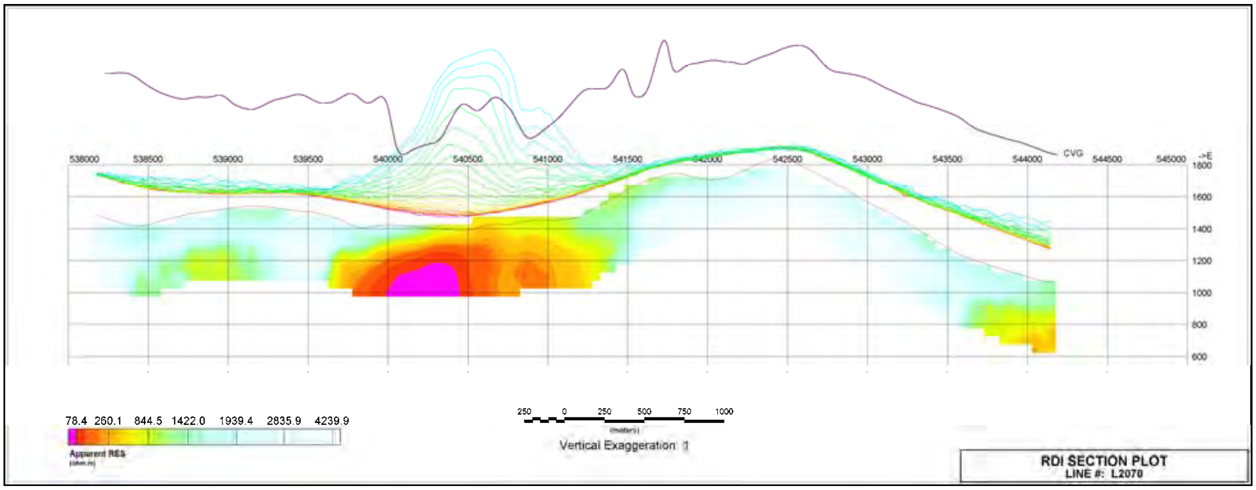
Hall Lake Block - Total Magnetic Intensity (TMI)

Resistivity Depth Image (RDI) MAPS

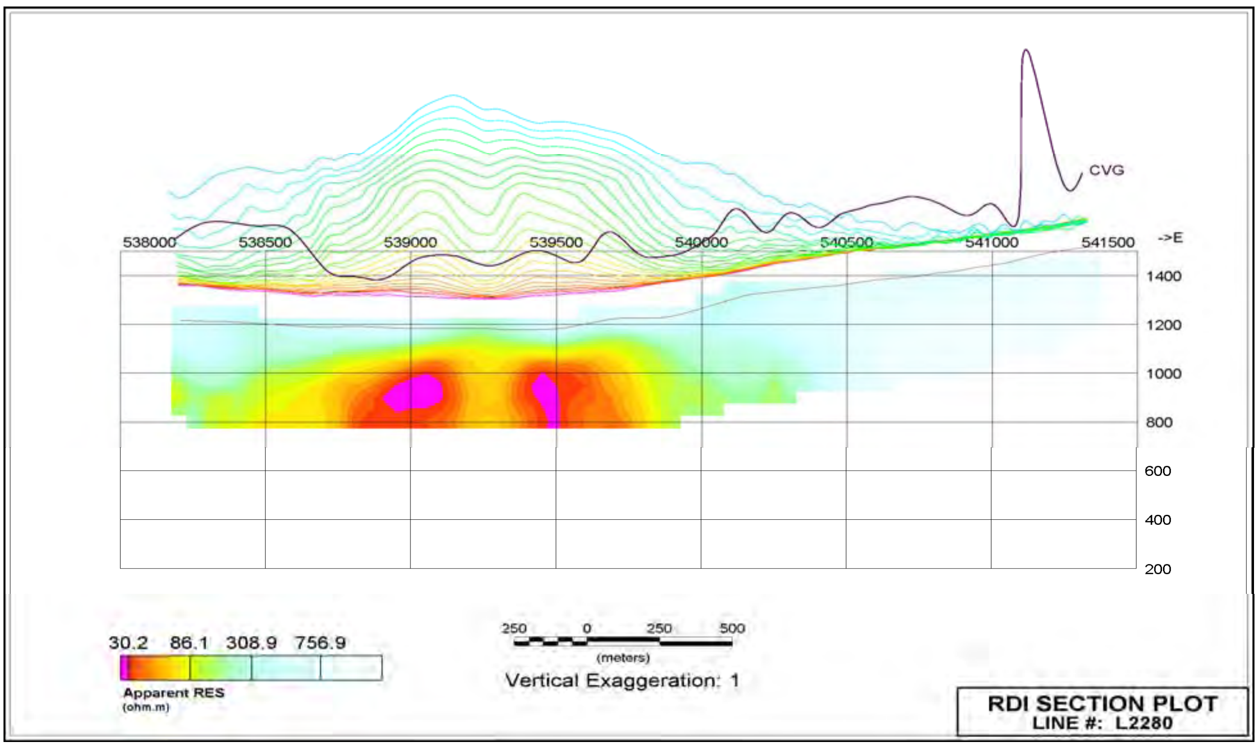
3D Resistivity Depth Images (RDI)



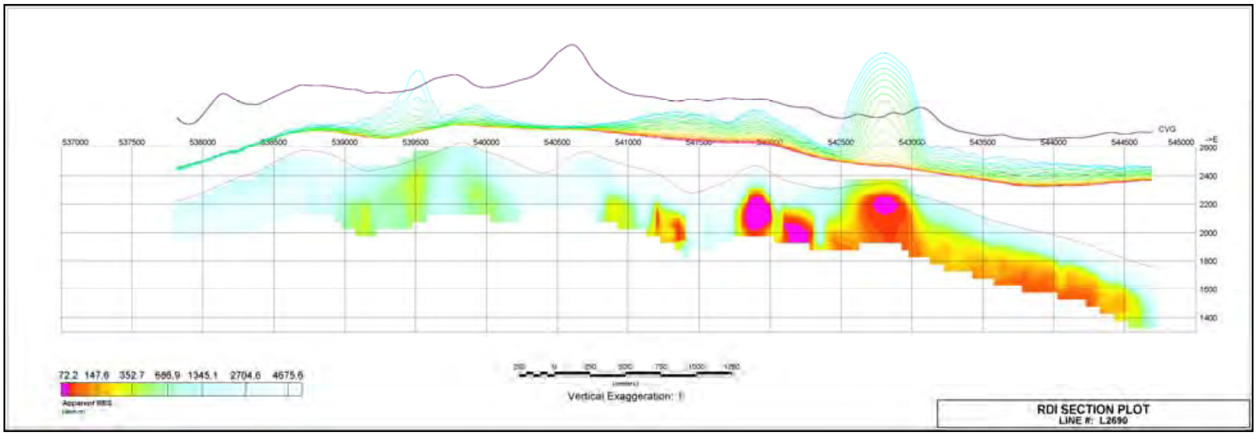
Hall Lake Block



RDI Sections - Line 2070



RDI Sections - Line 2280



RDI Sections - Line 2690

APPENDIX E

GENERALIZED MODELING RESULTS OF THE VTEM SYSTEM

Introduction

The VTEM system is based on a concentric or central loop design, whereby, the receiver is positioned at the centre of a transmitter loop that produces a primary field. The wave form is a bi-polar, modified square wave with a turn-on and turn-off at each end.

During turn-on and turn-off, a time varying field is produced (dB/dt) and an electro-motive force (emf) is created as a finite impulse response. A current ring around the transmitter loop moves outward and downward as time progresses. When conductive rocks and mineralization are encountered, a secondary field is created by mutual induction and measured by the receiver at the centre of the transmitter loop.

Efficient modeling of the results can be carried out on regularly shaped geometries, thus yielding close approximations to the parameters of the measured targets. The following is a description of a series of common models made for the purpose of promoting a general understanding of the measured results.

A set of models has been produced for the Geotech VTEM® system dB/dT Z and X components (see models E1 to E15). The Maxwell ™ modeling program (EMIT Technology Pty. Ltd. Midland, WA, AU) used to generate the following responses assumes a resistive half-space. The reader is encouraged to review these models, so as to get a general understanding of the responses as they apply to survey results. While these models do not begin to cover all possibilities, they give a general perspective on the simple and most commonly encountered anomalies.

As the plate dips and departs from the vertical position, the peaks become asymmetrical.

As the dip increases, the aspect ratio (Min/Max) decreases and this aspect ratio can be used as an empirical guide to dip angles from near 90º to about 30º. The method is not sensitive enough where dips are less than about 30º.

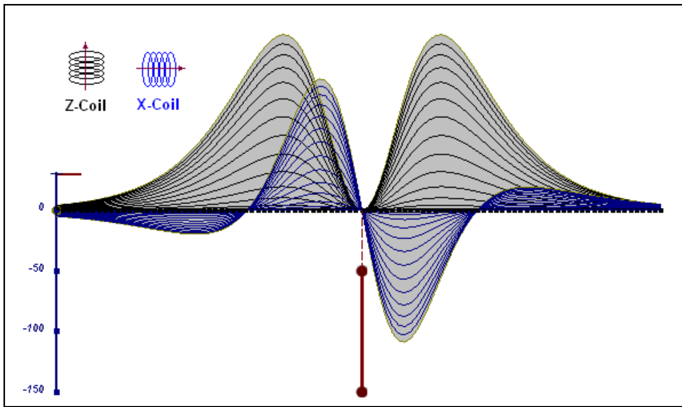


Fig E-1: vertical thin plate

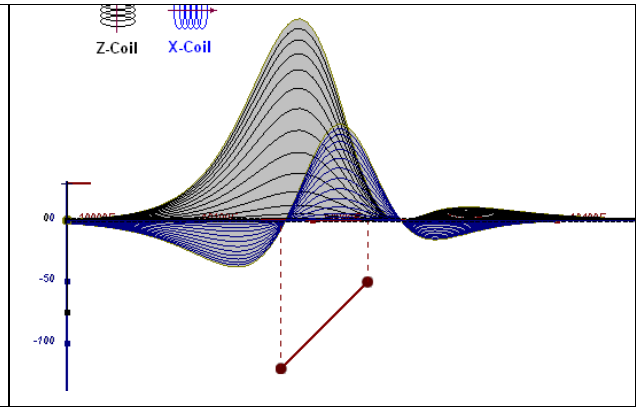


Fig E-2: inclined thin plate

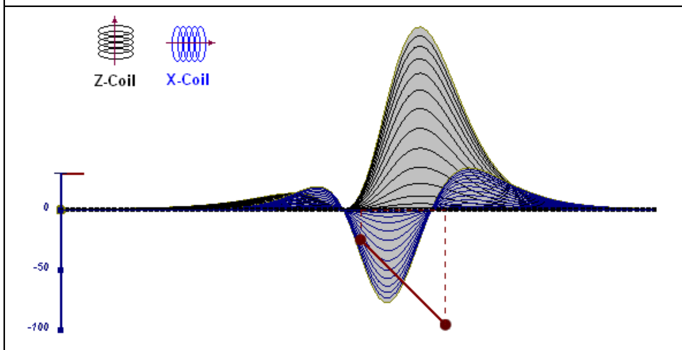


Fig E-3: inclined thin plate

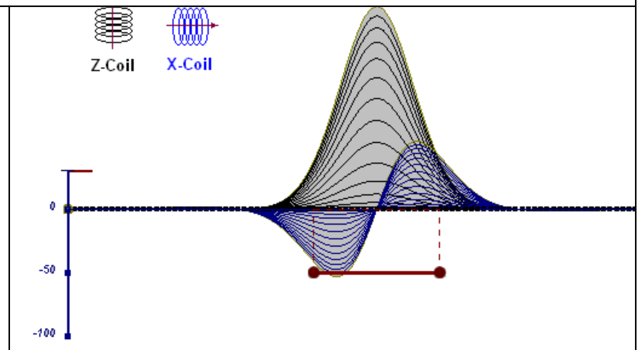


Fig E-4: horizontal thin plate

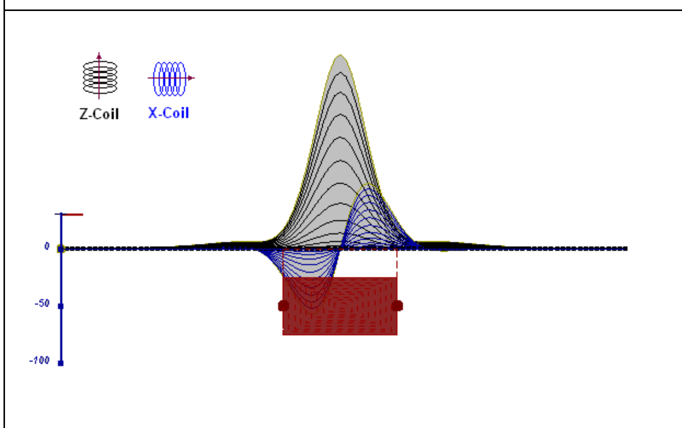


Figure E-5: horizontal thick plate (linear scale of the response)

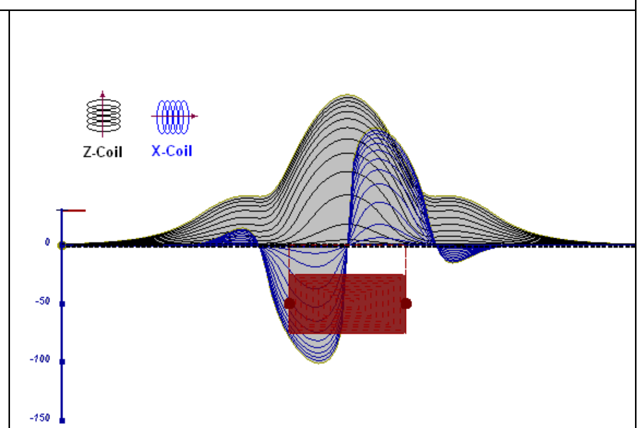


Figure E-6: horizontal thick plate (log scale of the response)

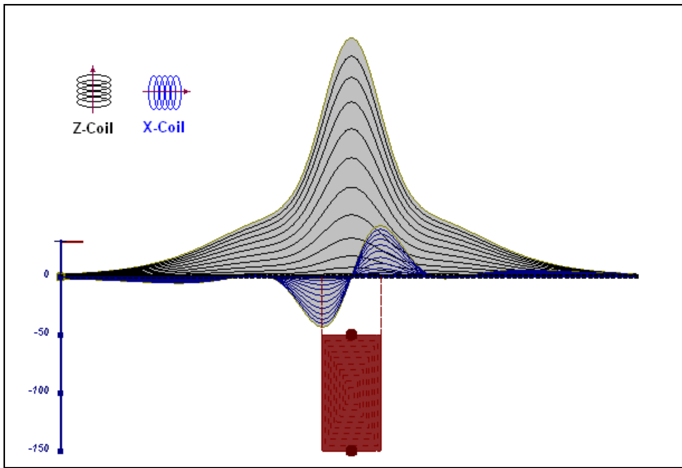


Figure E-7: vertical thick plate (linear scale of the response). 50 m depth

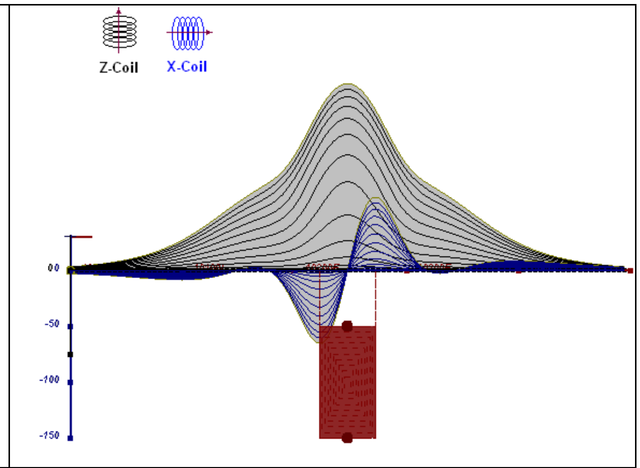


Figure E-8: vertical thick plate (log scale of the response). 50 m depth

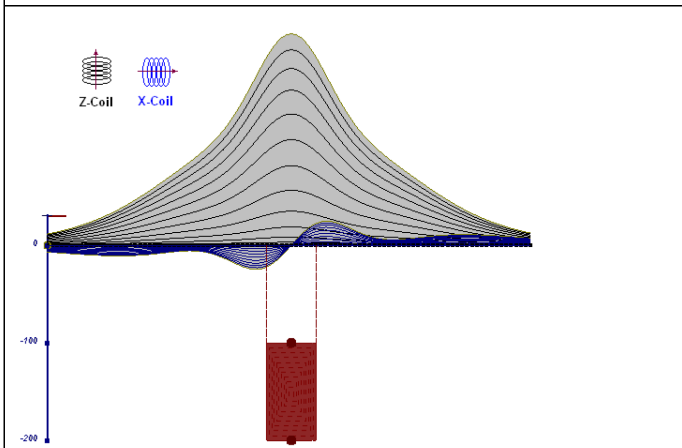


Fig E-9: vertical thick plate (linear scale of the response). 100 m depth

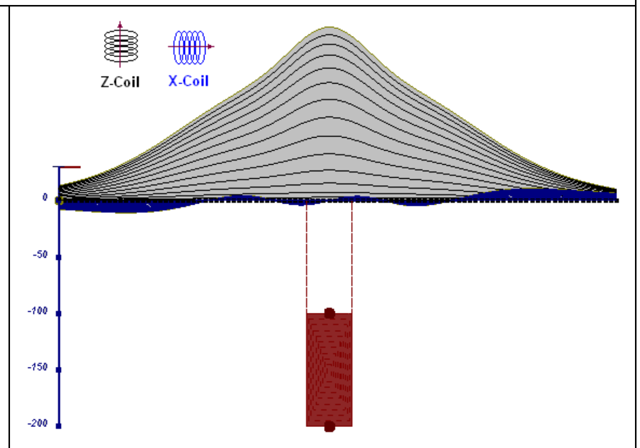


Fig E-10: vertical thick plate (linear scale of the response). Depth/hor.thickness=2.5

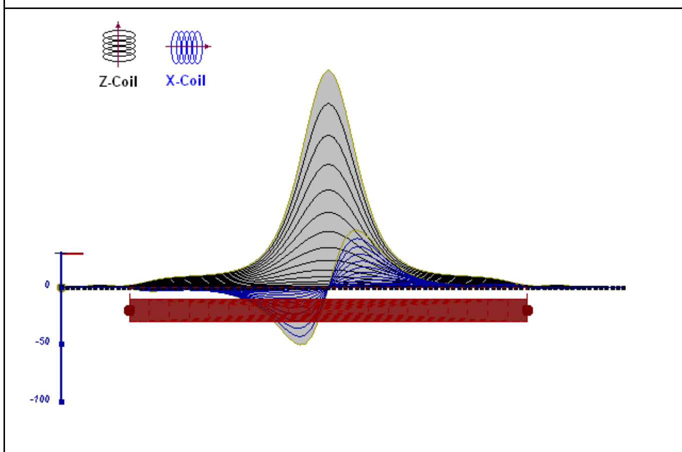


Fig E-10: horizontal thick plate (linear scale of the response)

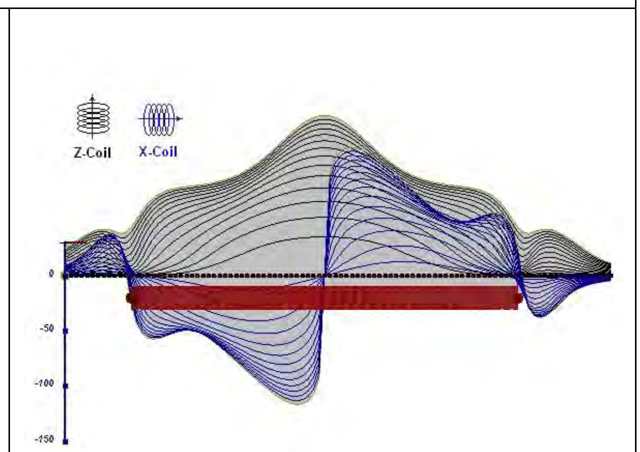


Fig E-11: horizontal thick plate (log scale of the response)

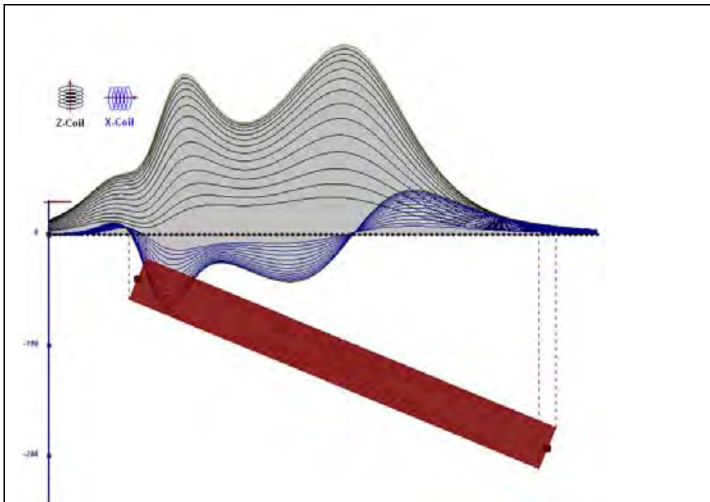


Fig E-12: inclined long thick plate

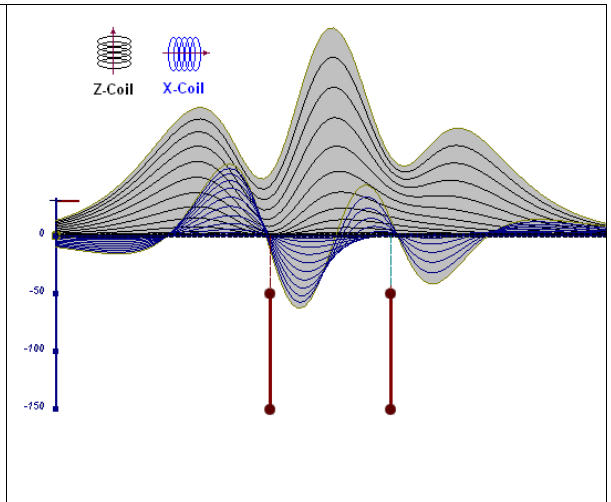


Fig E-13: two vertical thin plates

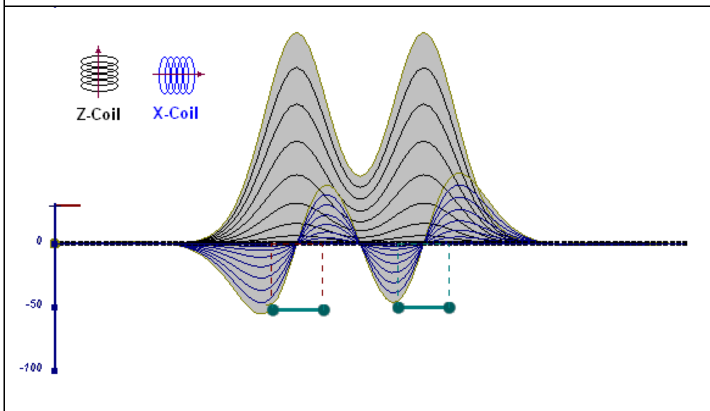


Fig E-14: two horizontal thin plates

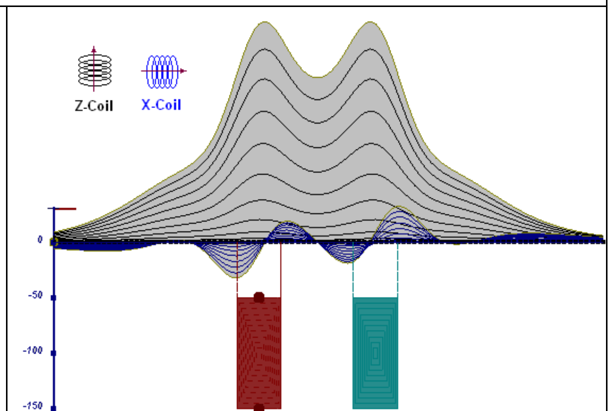


Fig E-15: two vertical thick plates

The same type of target but with different thickness, for example, creates different form of the response:

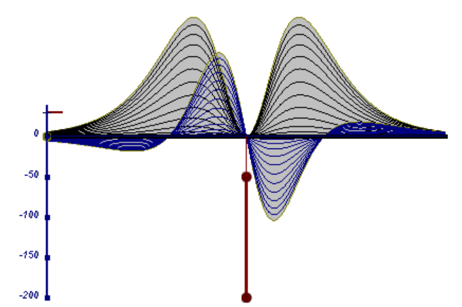
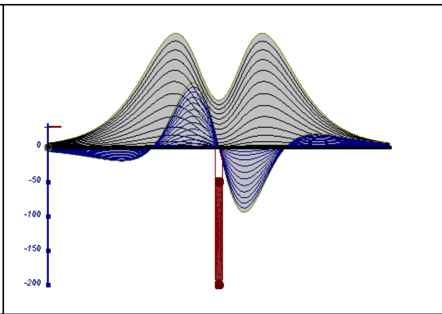
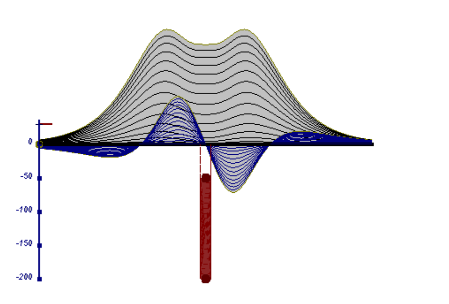
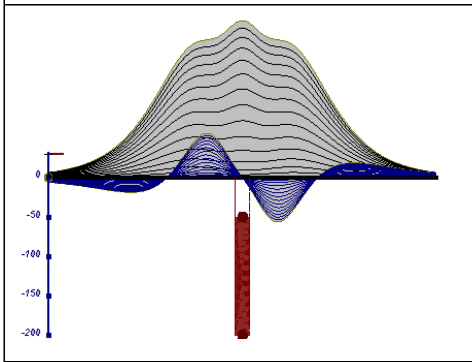
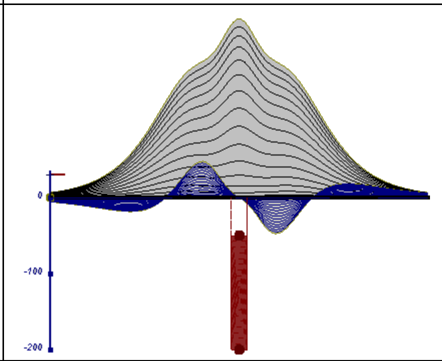
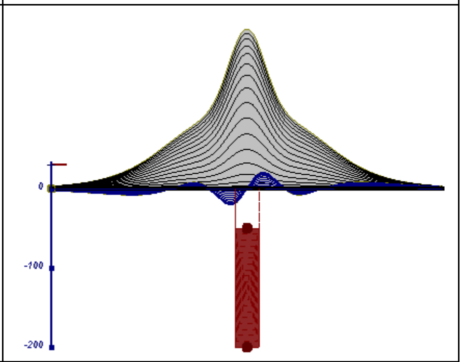
		
“thin”	10 m thickness	15 m thickness
		
18 m thickness	20 m thickness	30 m thickness

Fig.E-16 Conductive vertical plate, depth 50 m, strike length 200 m, depth extend 150 m.

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APPENDIX F

EM TIME CONSTANT (TAU) ANALYSIS

Estimation of time constant parameter[1] in transient electromagnetic method is one of the steps toward the extraction of the information about conductance's beneath the surface from TEM measurements.

The most reliable method to discriminate or rank conductors from overburden, background or one and other is by calculating the EM field decay time constant (TAU parameter), which directly depends on conductance despite their depth and accordingly amplitude of the response.

Theory

As established in electromagnetic theory, the magnitude of the electro-motive force (emf) induced is proportional to the time rate of change of primary magnetic field at the conductor. This emf causes eddy currents to flow in the conductor with a characteristic transient decay, whose Time Constant (Tau) is a function of the conductance of the survey target or conductivity and geometry (including dimensions) of the target. The decaying currents generate a proportional secondary magnetic field, the time rate of change of which is measured by the receiver coil as induced voltage during the Off time.

The receiver coil output voltage ($\mathbf{e_0}$) is proportional to the time rate of change of the secondary magnetic field and has the form,

$$e_0 \,\alpha\, (1 / \tau)\, e^{-(t/\tau)}$$

Where,
τ = L/R is the characteristic time constant of the target (TAU)
R = resistance
L = inductance

From the expression, conductive targets that have small value of resistance and hence large value of τ yield signals with small initial amplitude that decays relatively slowly with progress of time. Conversely, signals from poorly conducting targets that have large resistance value and small τ, have high initial amplitude but decay rapidly with time[1] (Fig. F1).

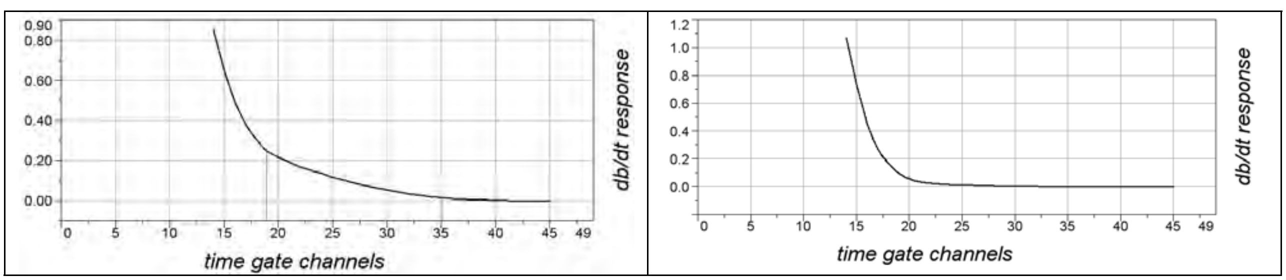

Figure F1 Left – presence of good conductor, right – poor conductor.

[1] McNeill, JD, 1980, "Applications of Transient Electromagnetic Techniques", Technical Note TN-7 page 5, Geonics Limited, Mississauga, Ontario.

EM Time Constant (Tau) Calculation

The EM Time-Constant (TAU) is a general measure of the speed of decay of the electromagnetic response and indicates the presence of eddy currents in conductive sources as well as reflecting the “conductance quality” of a source. Although TAU can be calculated using either the measured dB/dt decay or the calculated B-field decay, dB/dt is commonly preferred due to better stability (S/N) relating to signal noise. Generally, TAU calculated on base of early time response reflects both near surface overburden and poor conductors whereas, in the late ranges of time, deep and more conductive sources, respectively. For example early time TAU distribution in an area that indicates conductive overburden is shown in Figure 2.

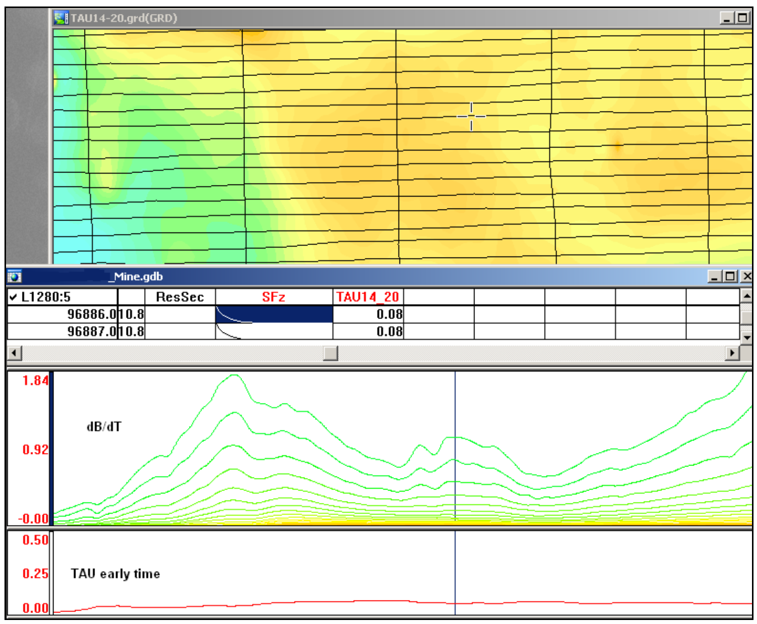

Figure F2 – Map of early time TAU. Area with overburden conductive layer and local sources.

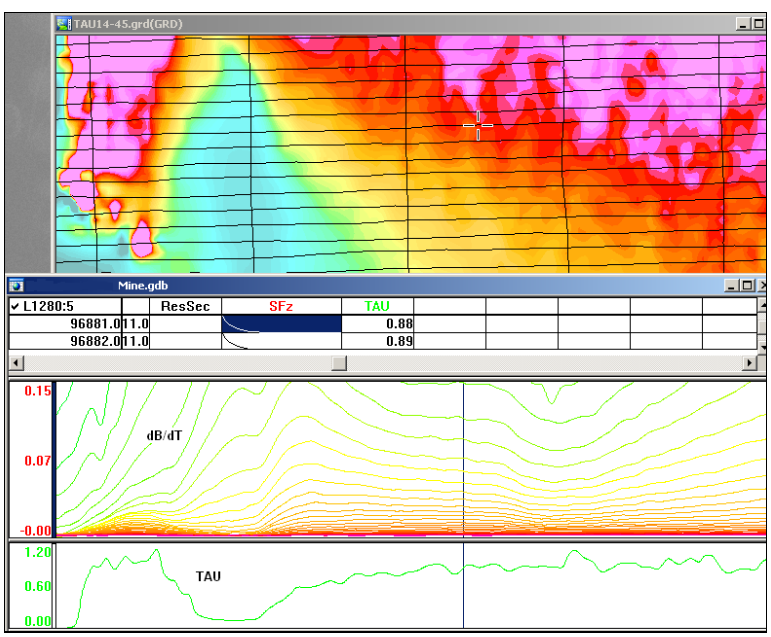

Figure F3 – Map of full time range TAU with EM anomaly due to deep highly conductive target.

There are many advantages of TAU maps:

- TAU depends only on one parameter (conductance) in contrast to response magnitude;
- TAU is integral parameter, which covers time range and all conductive zones and targets are displayed independently of their depth and conductivity on a single map.
- Very good differential resolution in complex conductive places with many sources with different conductivity.
- Signs of the presence of good conductive targets are amplified and emphasized independently of their depth and level of response accordingly.

In the example shown in Figure 4 and 5, three local targets are defined, each of them with a different depth of burial, as indicated on the resistivity depth image (RDI). All are very good conductors but the deeper target (number 2) has a relatively weak dB/dt signal yet also features the strongest total TAU (Figure 4). This example highlights the benefit of TAU analysis in terms of an additional target discrimination tool.

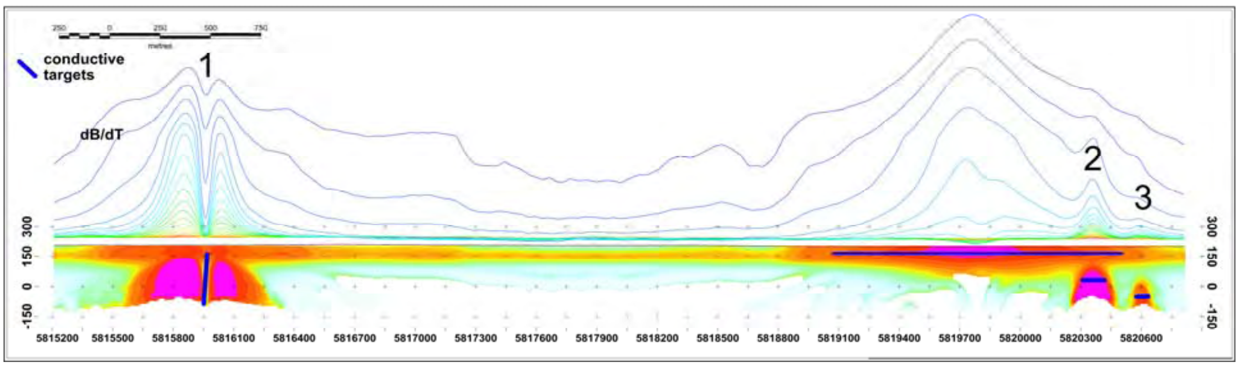

Figure F4 – dB/dt profile and RDI with different depths of targets.

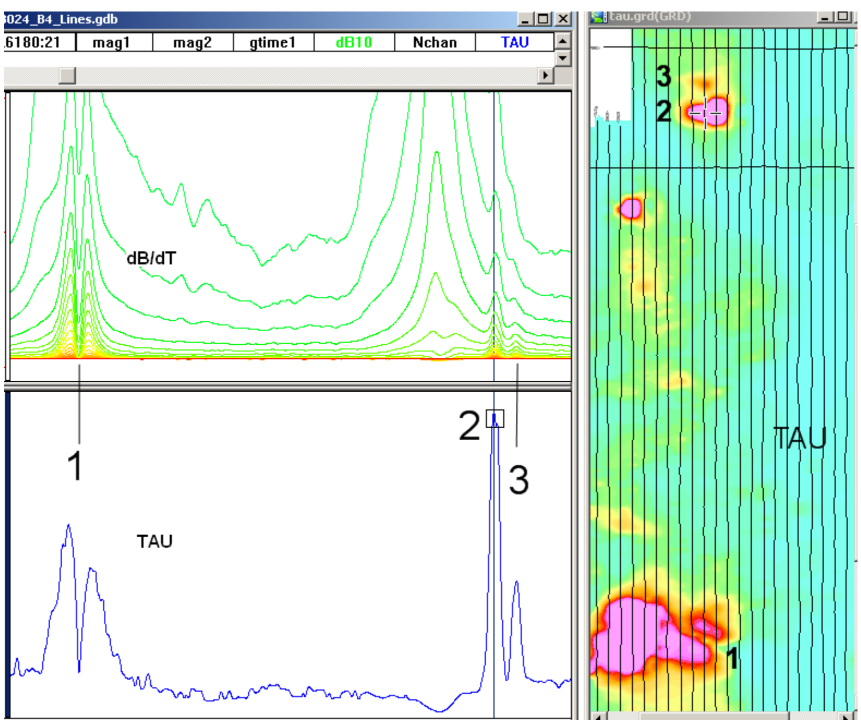

Figure F5 – Map of total TAU and dB/dt profile.

The EM Time Constants for dB/dt and B-field were calculated using the "sliding Tau" in-house program developed at Geotech[2]. The principle of the calculation is based on using of time window (4 time channels) which is sliding along the curve decay and looking for latest time channels which have a response above the level of noise and decay. The EM decays are obtained from all available decay channels, starting at the latest channel. Time constants are taken from a least square fit of a straight-line (log/linear space) over the last 4 gates above a pre-set signal threshold level (Figure F6). Threshold settings are pointed in the "label" property of TAU database channels. The sliding Tau method determines that, as the amplitudes increase, the time-constant is taken at progressively later times in the EM decay. Conversely, as the amplitudes decrease, Tau is taken at progressively earlier times in the decay. If the maximum signal amplitude falls below the threshold, or becomes negative for any of the 4 time gates, then Tau is not calculated and is assigned a value of "dummy" by default.

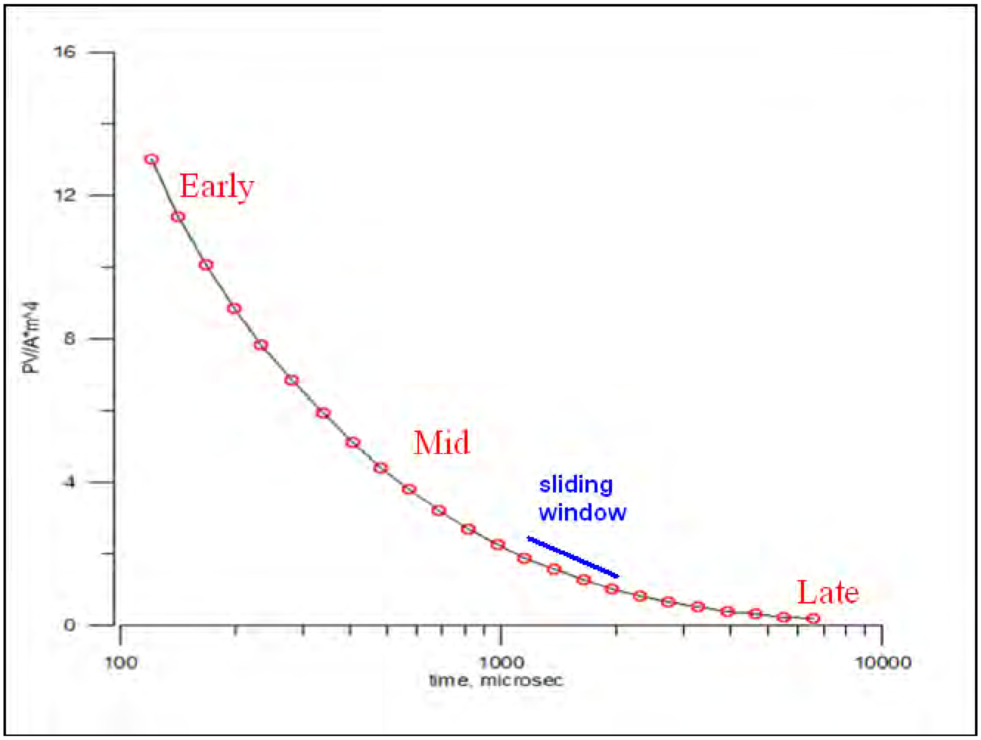

Figure F6 - Typical dB/dt decays of Vtem data

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[2] by A.Prikhodko

APPENDIX G

TEM Resistivity Depth Imaging (RDI)

Resistivity depth imaging (RDI) is technique used to rapidly convert EM profile decay data into an equivalent resistivity versus depth cross-section, by deconvolving the measured TEM data.
The used RDI algorithm of Resistivity-Depth transformation is based on scheme of the apparent resistivity transform of Maxwell A.Meju (1998)[1] and TEM response from conductive half-space. The program is developed by Alexander Prikhodko and depth calibrated based on forward plate modeling for VTEM system configuration (Fig. 1-10).

RDIs provide reasonable indications of conductor relative depth and vertical extent, as well as accurate 1D layered-earth apparent conductivity/resistivity structure across VTEM flight lines. Approximate depth of investigation of a TEM system, image of secondary field distribution in half space, effective resistivity, initial geometry and position of conductive targets is the information obtained on base of the RDIs.

Maxwell forward modeling with RDI sections from the synthetic responses (VTEM system)

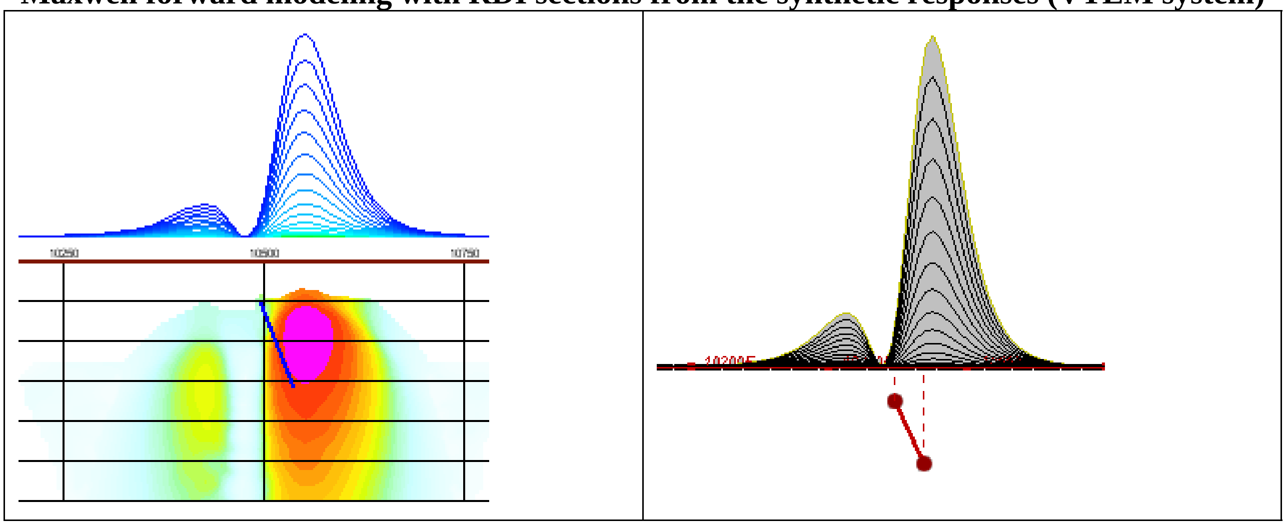


Fig. 1 Maxwell plate model and RDI from the calculated response for conductive “thin” plate (depth 50 m, dip 65 degree, depth extend 100 m).

[1] Maxwell A.Meju, 1998, Short Note: A simple method of transient electromagnetic data analysis, Geophysics, **63**, 405–410.

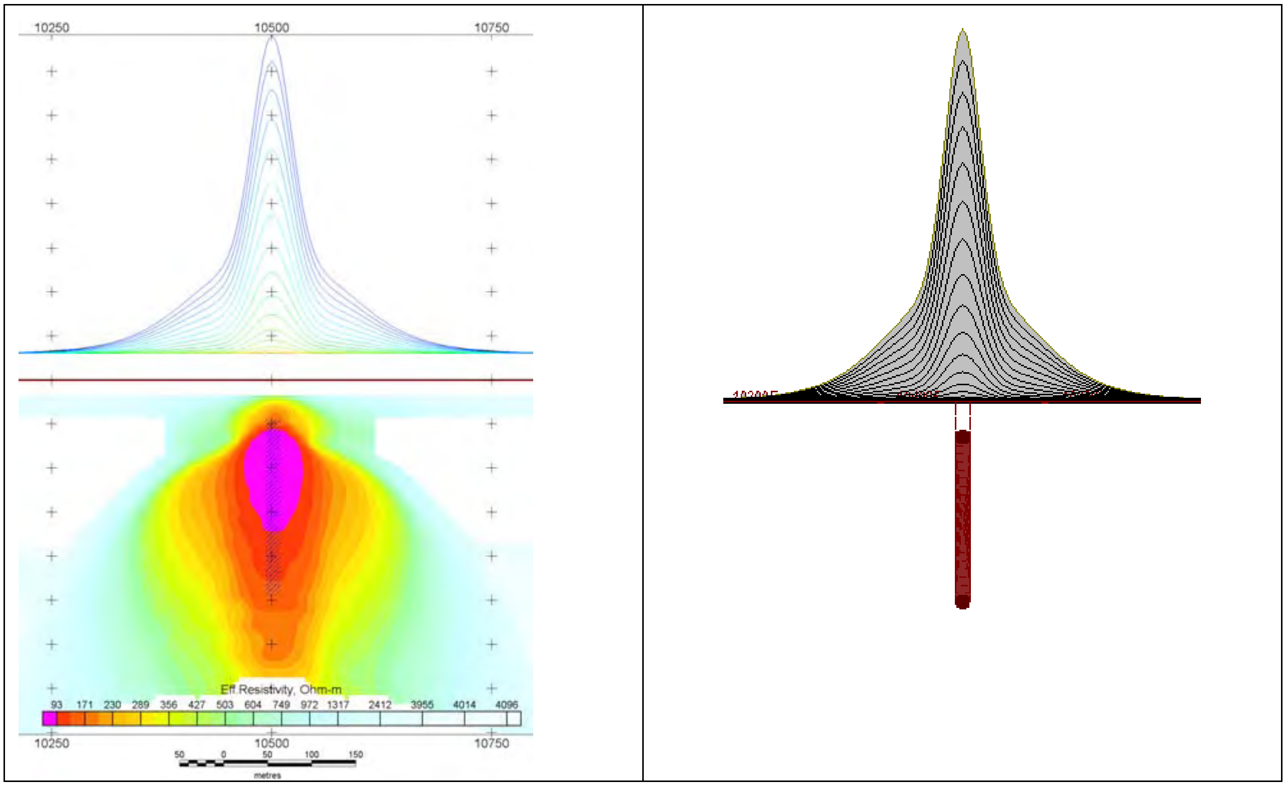


Fig. 2 Maxwell plate model and RDI from the calculated response for “thick” plate 18 m thickness, depth 50 m, depth extend 200 m).

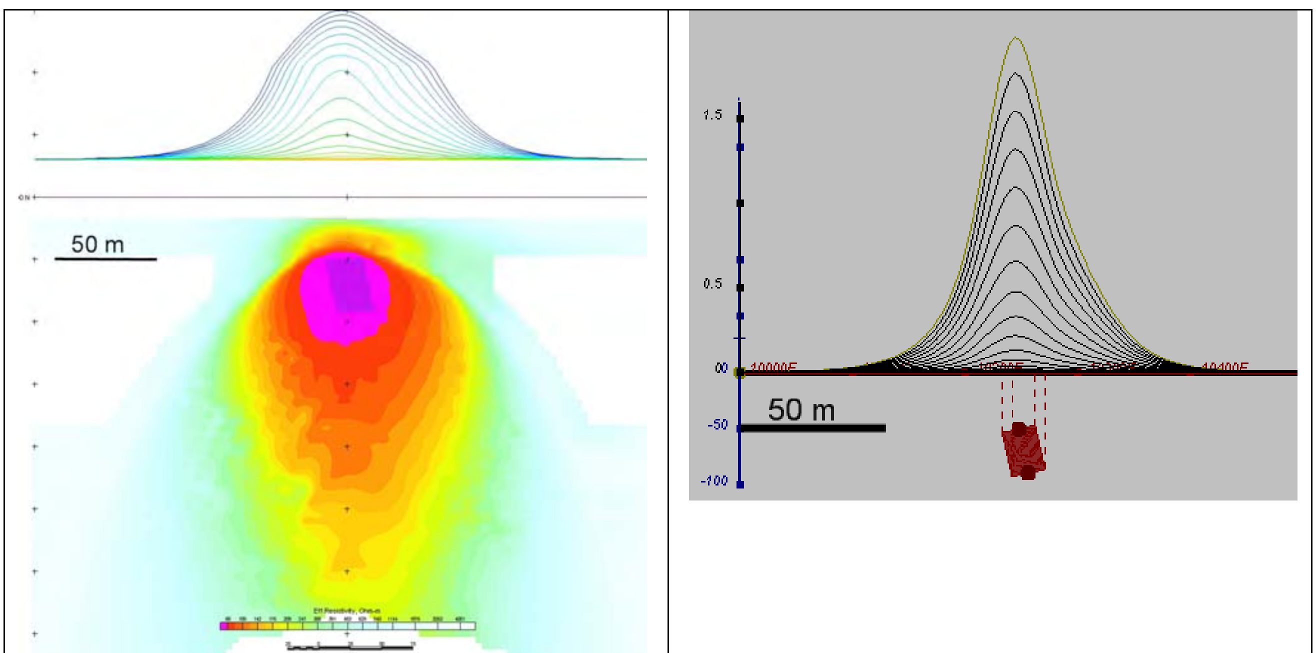


Fig.3 Maxwell plate model and RDI from the calculated response for bulk (“thick”) 100 m length, 40 m depth extend, 30 m thickness

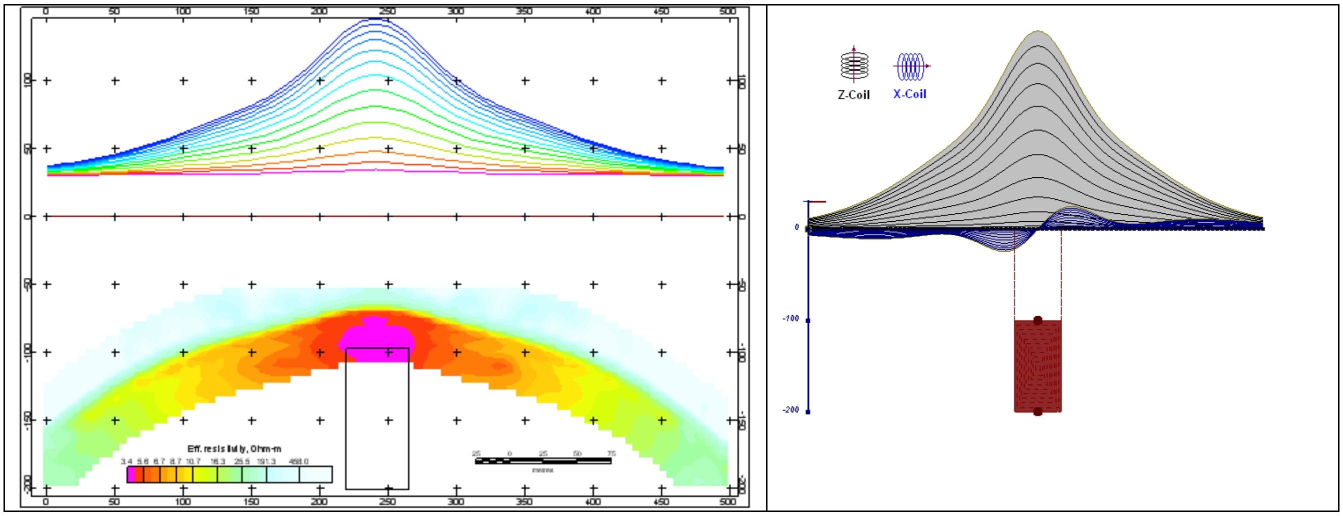


Fig. 4 Maxwell plate model and RDI from the calculated response for “thick” vertical target (depth 100 m, depth extend 100 m). 19-44 chan.

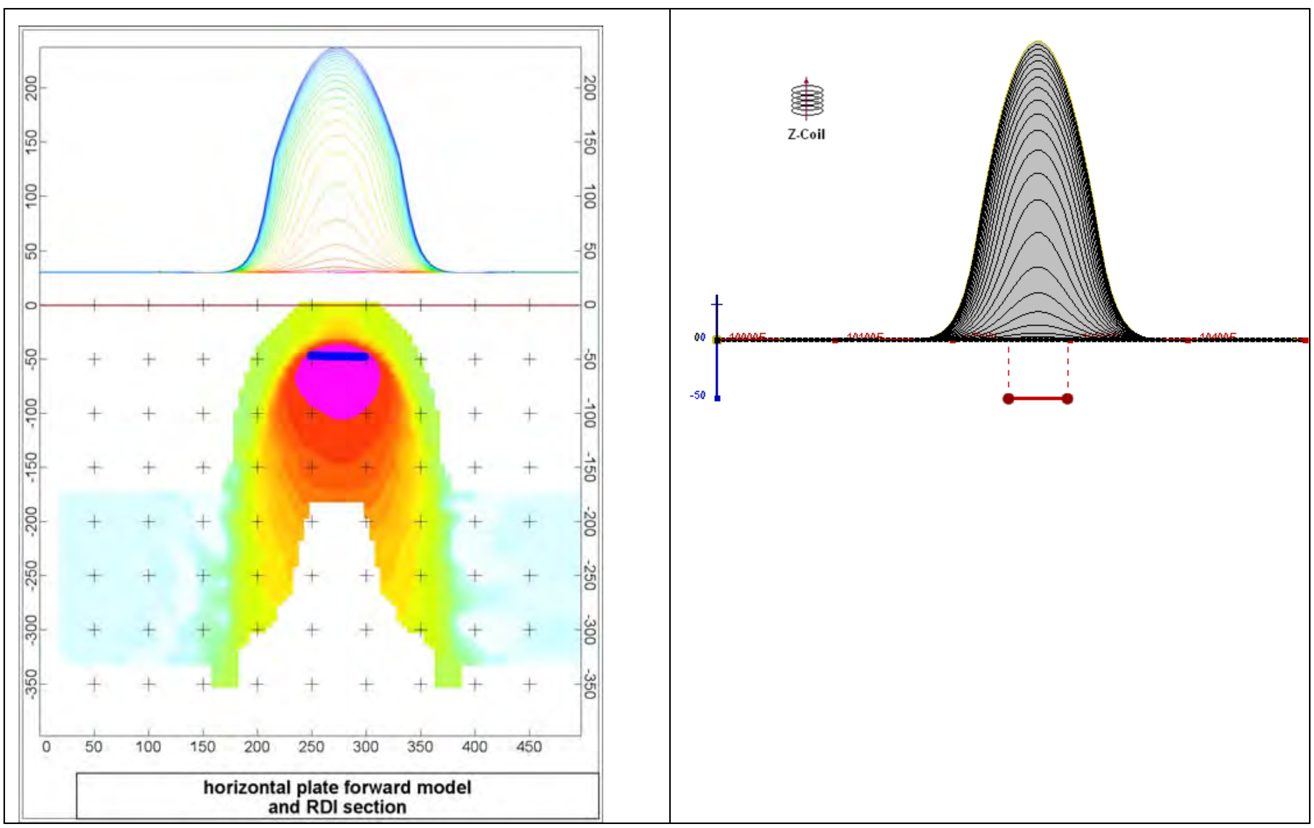


Fig. 5 Maxwell plate model and RDI from the calculated response for horizontal thin plate (depth 50 m, dim 50x100 m). 15-44 chan.

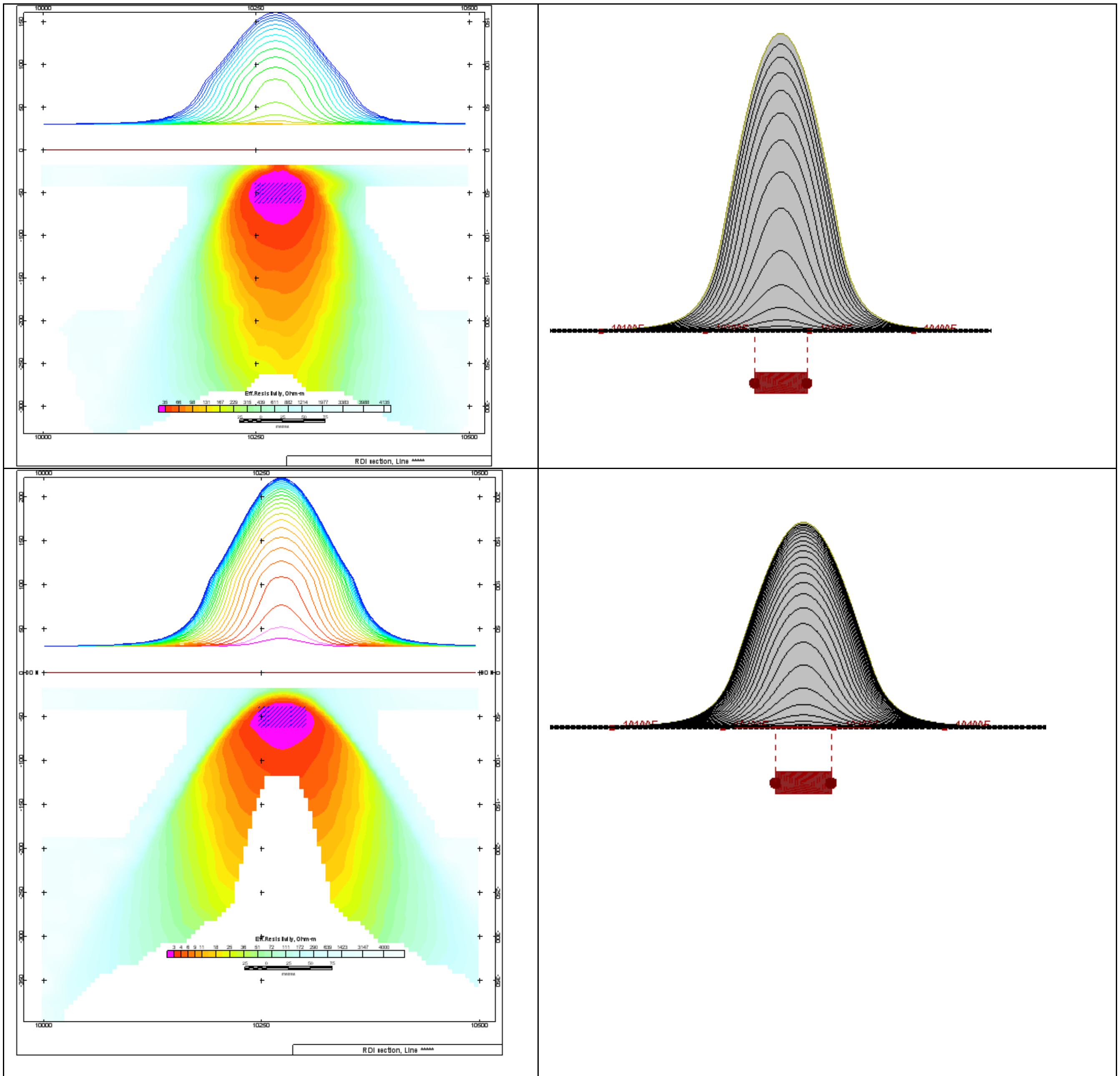


Fig.6 Maxwell plate model and RDI from the calculated response for horizontal thick (20m) plate – less conductive (on the top), more conductive (below)

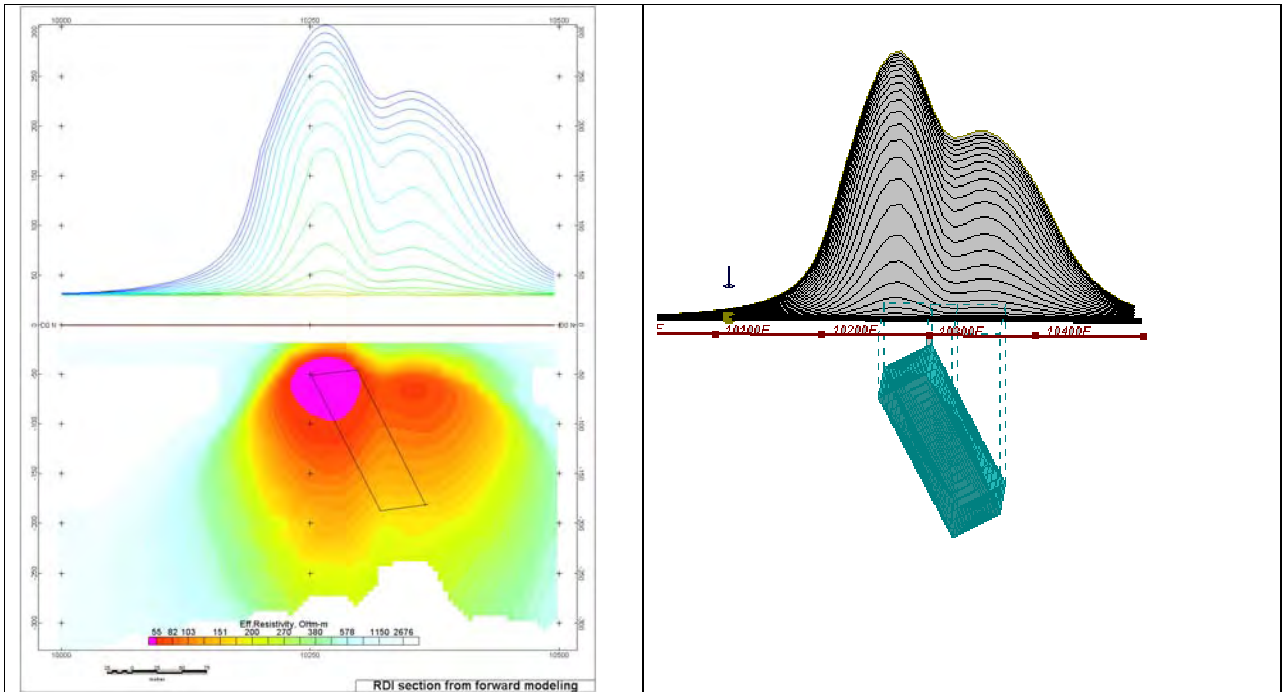


Fig.7 Maxwell plate model and RDI from the calculated response for inclined thick (50m) plate. Depth extend 150 m, depth to the target 50 m.

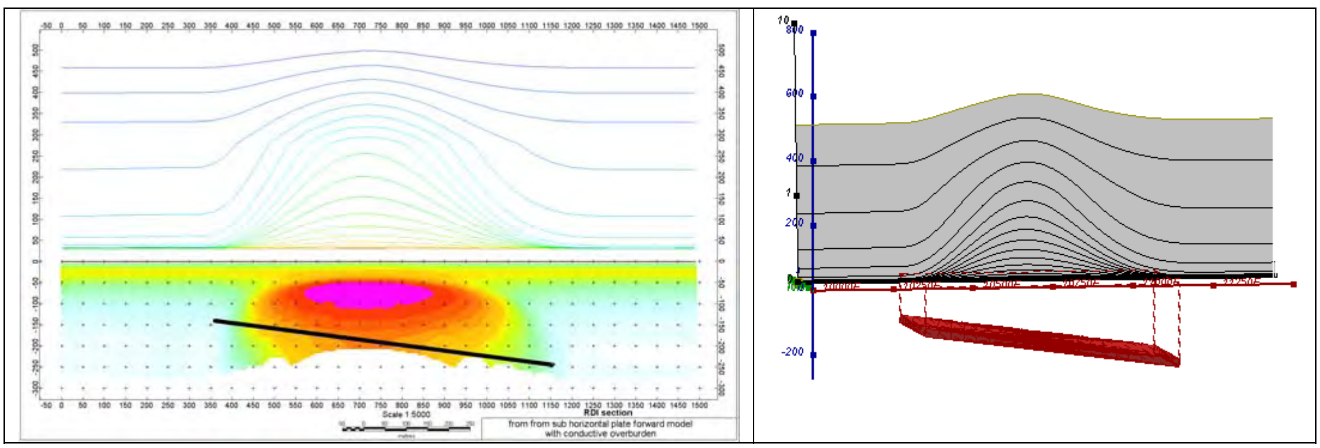


Fig.8 Maxwell plate model and RDI from the calculated response for the long, wide and deep subhorizontal plate (depth 140 m, dim 25x500x800 m) with conductive overburden.

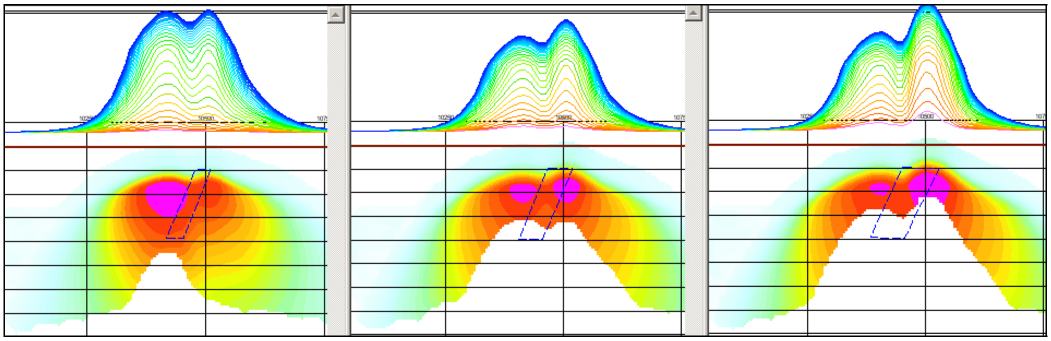


Fig.9 Maxwell plate models and RDIs from the calculated response for “thick” dipping plates (35, 50, 75 m thickness), depth 50 m, conductivity 2.5 S/m.

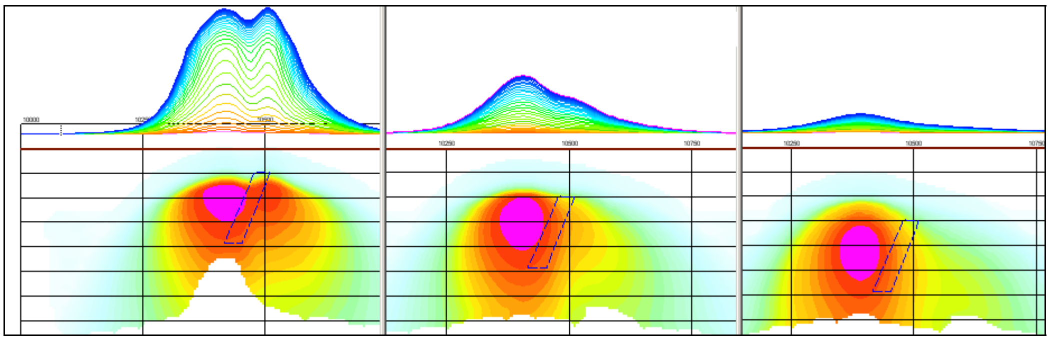


Fig.10 Maxwell plate models and RDIs from the calculated response for “thick” (35 m thickness) dipping plate on different depth (50, 100, 150 m),, conductivity 2.5 S/m.

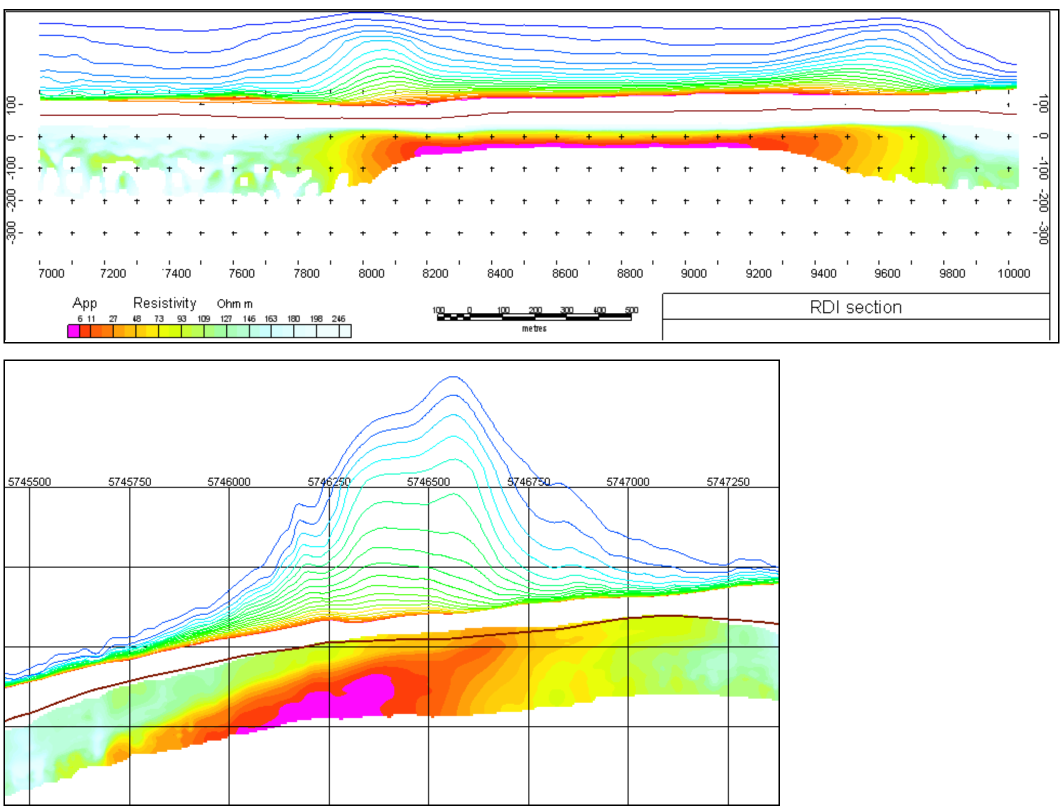
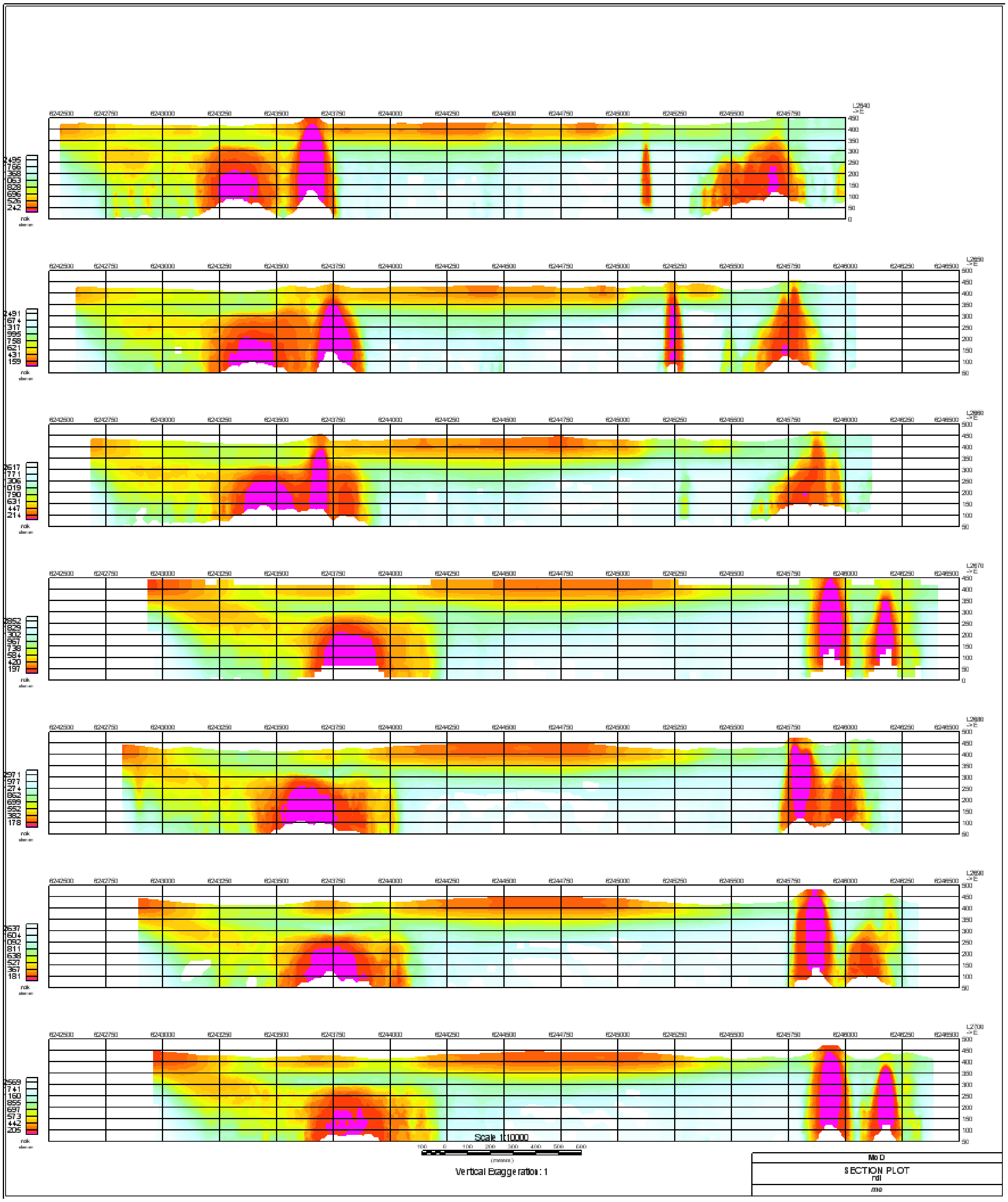


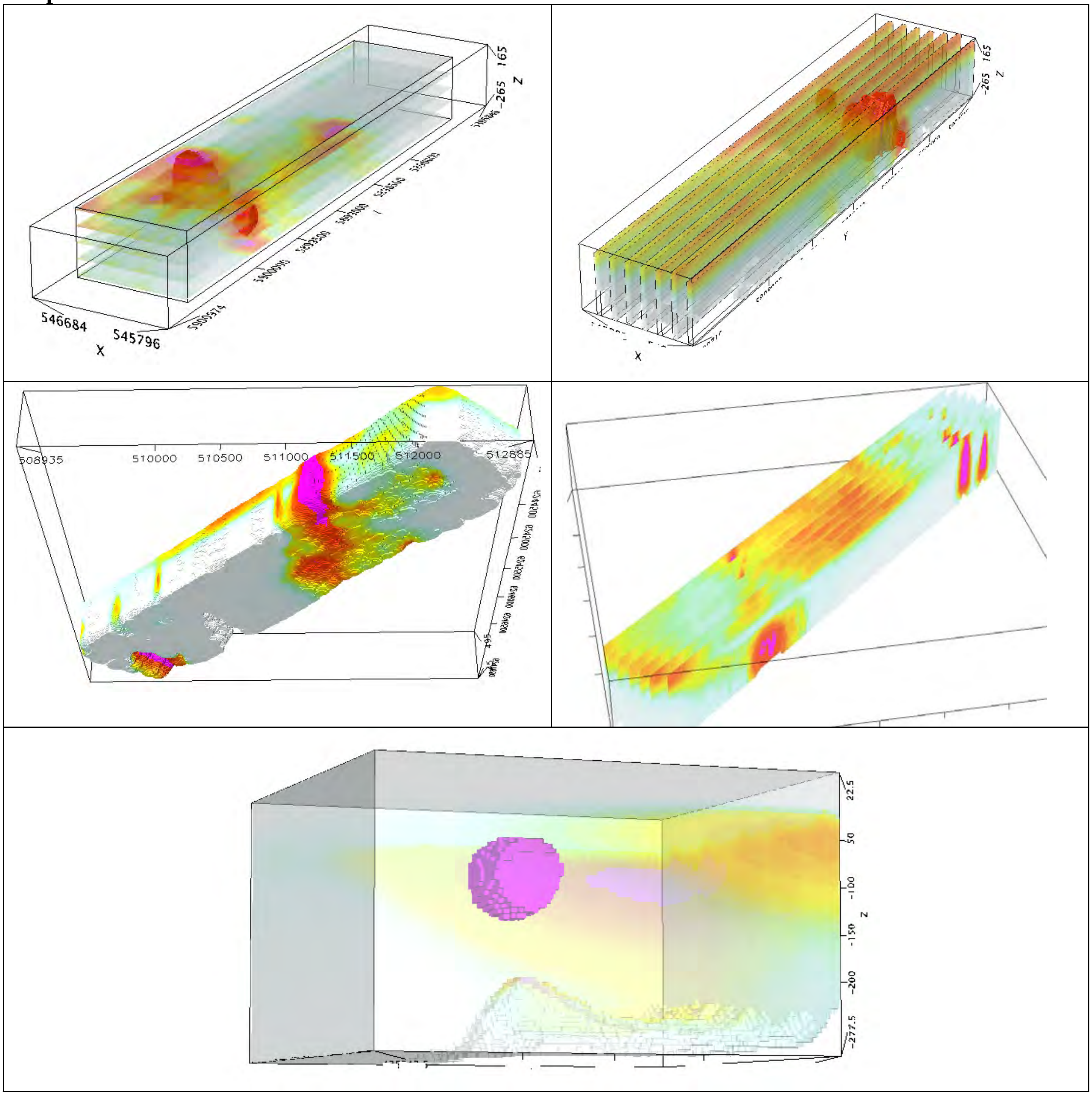
Fig.11 RDI section for the real horizontal and slightly dipping conductive layers

Forms of RDI presentation

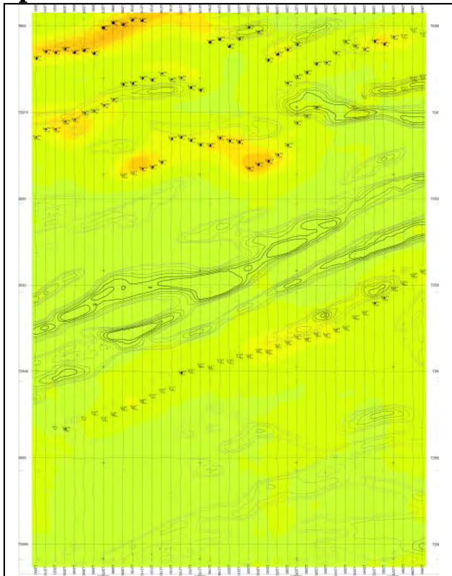
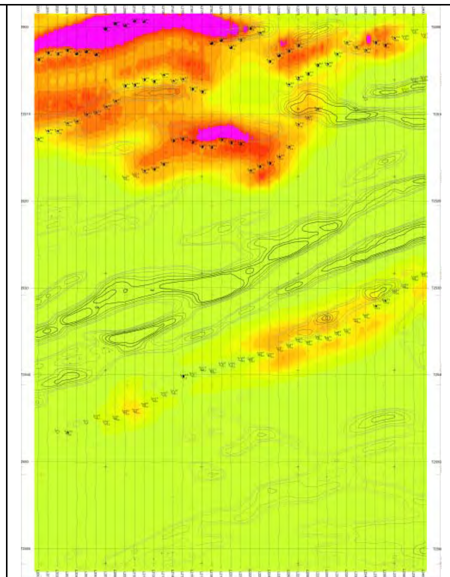
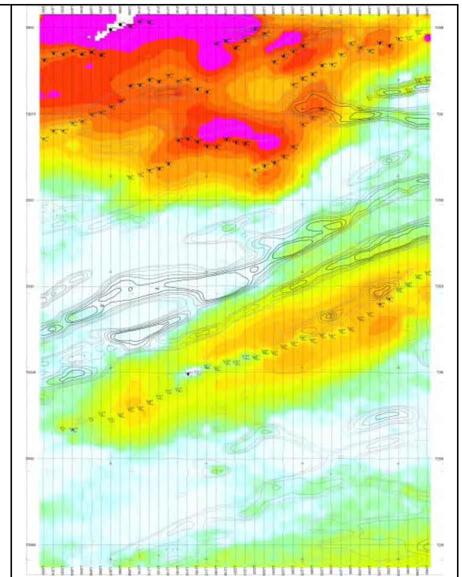
Presentation of series of lines



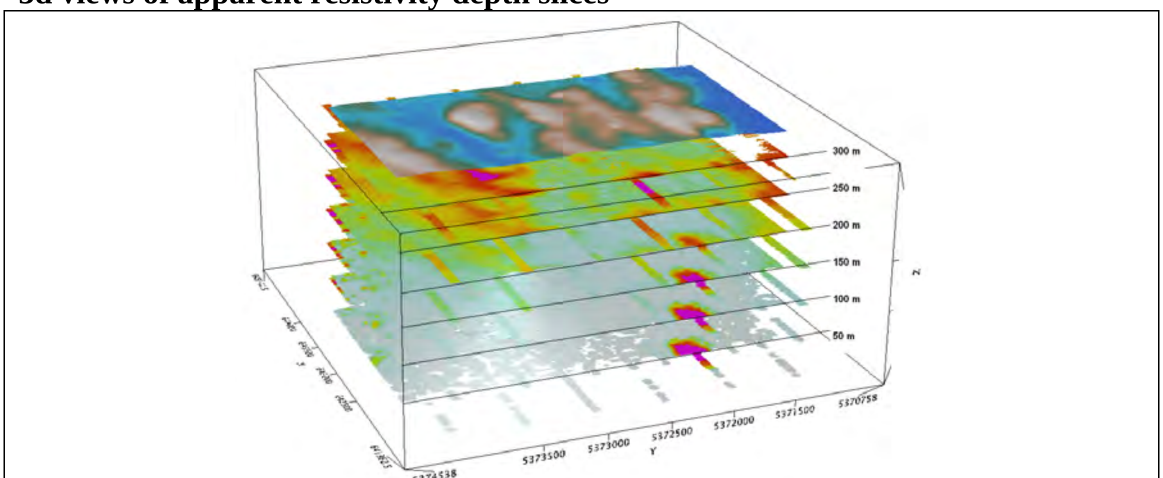
3d presentation of RDIs

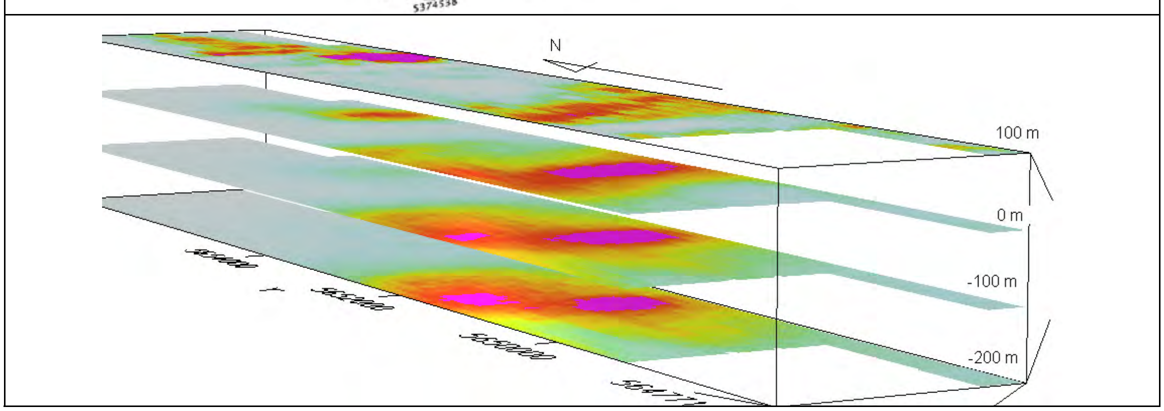


Apparent Resistivity Depth Slices plans

		
0 m (surface)	-100 m	-200 m

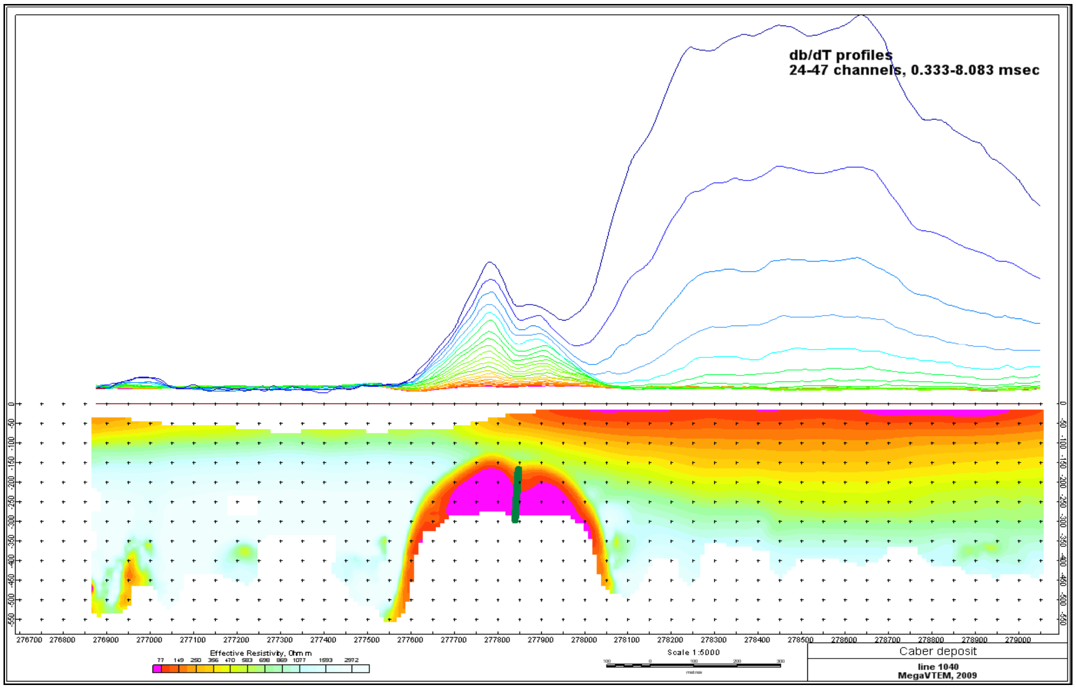
3d views of apparent resistivity depth slices



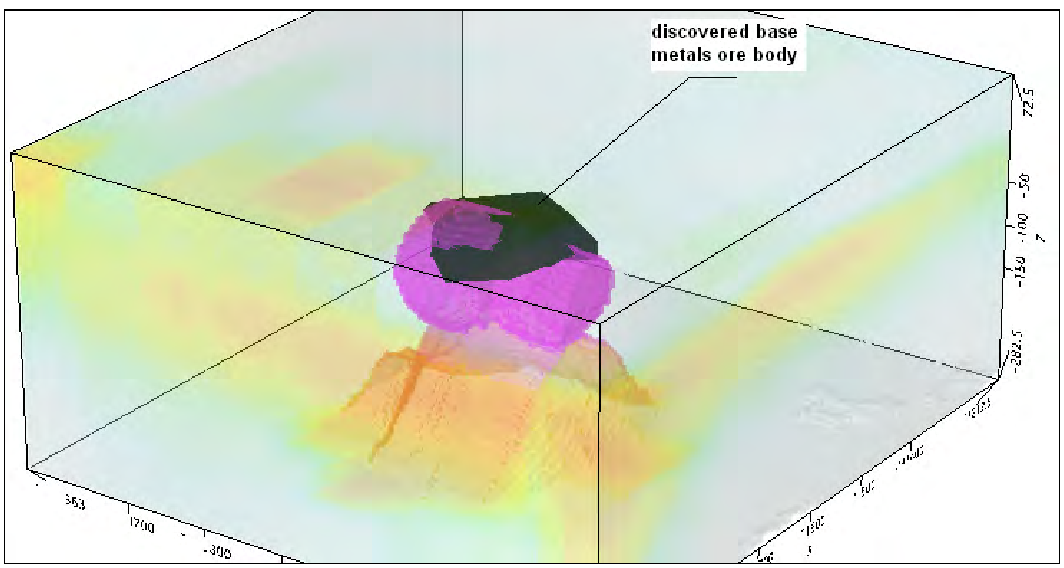


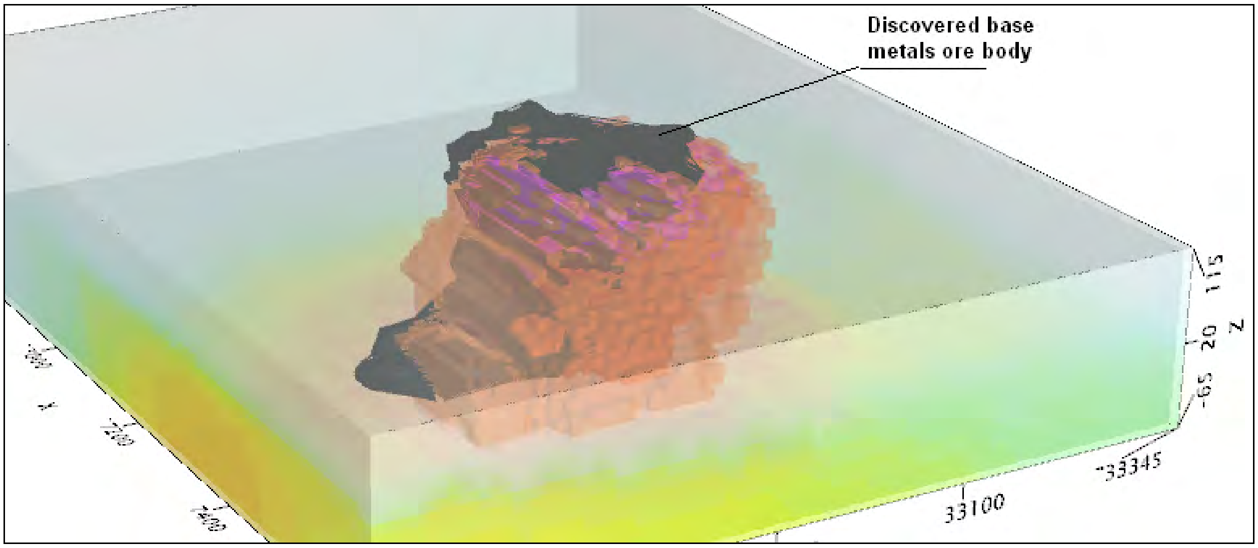
Real base metal targets in comparison with RDIs:

RDI section of the line over Caber deposit ("thin" subvertical plate target and conductive overburden.



3d RDI voxels with base metals ore bodies (Middle East):





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