2006 GEOLOGICAL REPORT

FOR THE

CAR PROPERTY

Fort Steele and Nelson Mining Divisions, Southeastern B.C.
Mapsheets 82F009,82F019
Latitude 49°5' N, Longitude 116°19'W

Prepared for

EAGLE PLAINS RESOURCES LTD.
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Cranbrook, B.C., V1C 2P1
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by

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VP Exploration, Eagle Plains Resources Ltd.
Cranbrook B.C., Canada

February 16, 2007

2006GEOLOGICAL REPORT FOR THE CAR PROPERTY

EAGLE PLAINS RESOURCES LTD.

SUMMARY

The Car Property consists of twenty-four claims totaling 3,667 hectares of land owned 100% by Eagle Plains Resources with no underlying royalties or encumbrances. The property is located approximately 60 kilometers south west of Cranbrook BC and is easily accessed via a network of logging roads. The Car property has excellent infrastructure; a high voltage power line passes through the property and rail facilities are located 3.5 kilometers to the north. Past exploration includes regional silt sampling by the GSC, detailed soil sampling, geologic mapping and a 2400m diamond drill program. A large fragmental has been identified on the property which is traced on surface for 1000m. The fragmental has been tested with drilling to a thickness of 100m and remains open to the north and at depth. Mineralization style, geologic and tectonic settings are all similar to that of the Sullivan deposit. Work by Eagle Plains in 2005 was focused on following up a silt sample collected during the BC Government's 1990 R.G.S program which returned an anomalous gold value. A silt sampling program was conducted to verify and more precisely identify the source for the anomalous gold values and historic drill hole CA99-3 from within the drainage basin of interest was re-sampled and assayed for gold. Although no anomalous gold values were found in the re-sampled core, the fragmental at the Car is still of interest in terms of its' relationship to a possible Sullivan type Sedimentary-Exhalative setting.

Based on the results from the 2005 program, further work was recommended for the property to better define the downdip projection of the Lower-Middle Aldridge contact, the stratigraphic horizon that hosts the nearby Sullivan deposit. In 2006, Eagle Plains carried out a helicopter borne time domain geophysical survey on the project. A total of 220.58 line km at 200m spacing was flown on April 9th 2006. Initial results from the survey indicate that the survey imaged the known mineralized structures and has also identified areas for further follow up. The total cost of the 2006 program was $58,488.46

Respectfully submitted:

Charles C. Downie, P.Geo
VP Exploration , Eagle Plains Resources

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GEOLOGICAL REPORT FOR THE CAR PROJECT

Creston Area, SE British Columbia

PROPERTY DESCRIPTION AND LOCATION (Figures 1,2)

The Car property is owned 100% by Eagle Plains Resources. The property consists of 24 claims totaling 3,667 hectares.

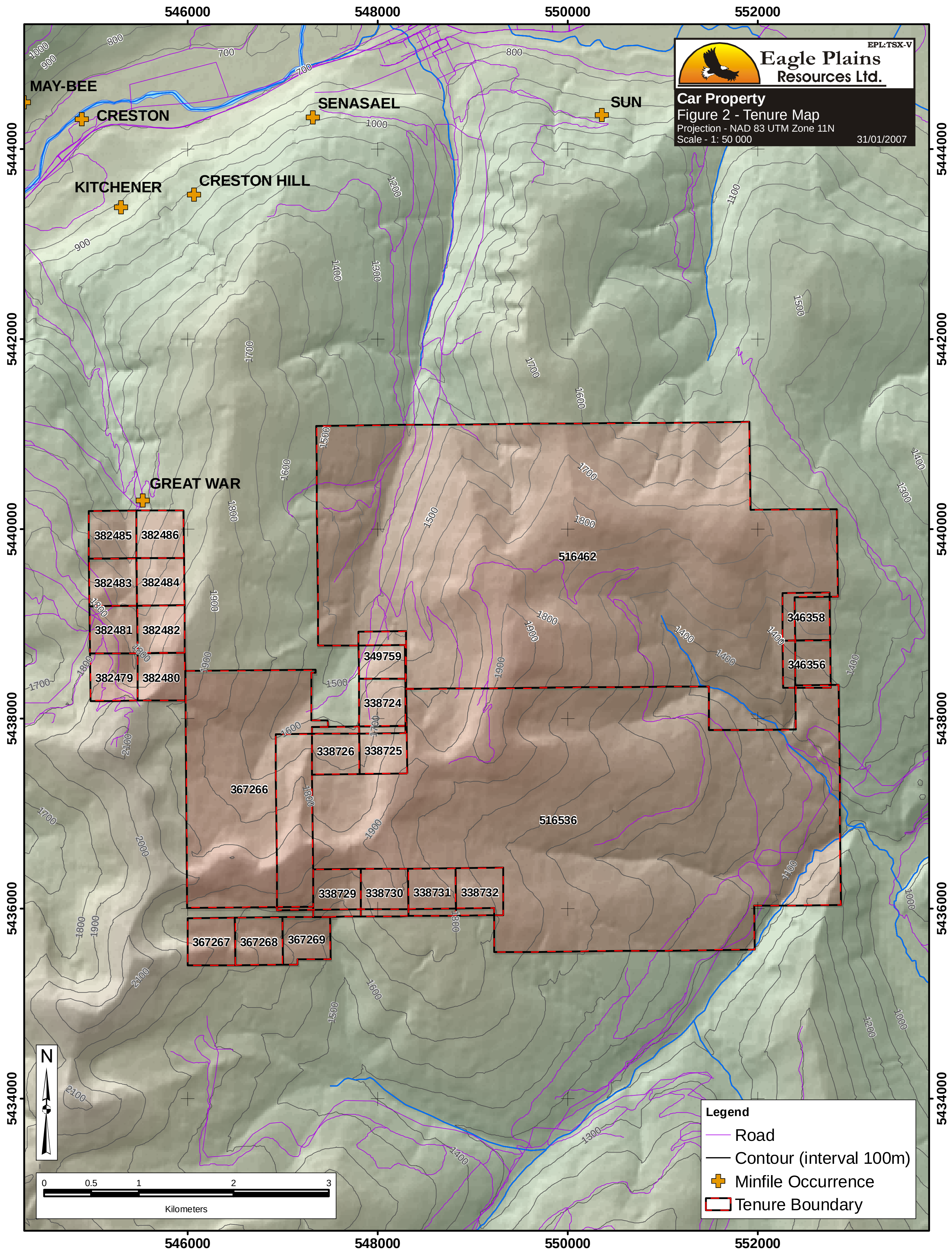
TABLE 1 Claim Data Car Property

Tenure Number	Claim Name	Owner	Map Number	Good To Date	Mining Division	Area (Ha)
338724	CAR 4	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338725	CAR 5	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338726	CAR 6	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338729	CAR 9	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338730	CAR 10	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338731	CAR 11	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
338732	CAR 12	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
346356	CAR 24	138073(100%)	082F019	14/11/2006	Ft. Steele	25.000
346358	CAR 26	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
349759	CAR 35	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
367266	CAR 45	138073(100%)	082F009	14/11/2006	Ft. Steele	375.000
367267	CAR 46	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
367268	CAR 47	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
367269	CAR 48	138073(100%)	082F009	14/11/2006	Ft. Steele	25.000
382479	TCK 1	138073(100%)	082F009	14/11/2006	12 Nelson	25.000
382480	TCK 2	138073(100%)	082F009	14/11/2006	12 Nelson	25.000
382481	TCK 3	138073(100%)	082F009	14/11/2006	12 Nelson	25.000
382482	TCK 4	138073(100%)	082F009	14/11/2006	12 Nelson	25.000
382483	TCK 5	138073(100%)	082F019	14/11/2006	12 Nelson	25.000
382484	TCK 6	138073(100%)	082F019	14/11/2006	12 Nelson	25.000
382485	TCK 7	138073(100%)	082F019	14/11/2006	12 Nelson	25.000
382486	TCK 8	138073(100%)	082F019	14/11/2006	12 Nelson	25.000
516462		138073(100%)		14/11/2006		1395.698
516536		138073(100%)		14/11/2006		1396.375

LOCATION (Figure 1)

The Car property is located approximately 60 kilometers southwest of Cranbrook, B.C. in Fort Steele and Nelson Mining Divisions (Fig. I). The claims are centered around coordinates UTM 5438000N and 550000E.

140°0'0"W
130°0'0"W
120°0'0"W
60°0'0"N
50°0'0"N
EPL:TSX-V
Eagle Plains Resources Ltd.
Car Property
Figure 1 - Property Location
Projection - NAD 83 UTM Zone 11N
Scale - 1: 7 500 000
31/01/2007
Whitehorse
Yukon Territory
Northwest Territories
Alaska
British Columbia
Alberta
Smithers
Terrace
Prince Rupert
Prince George
Bella Coola
Pacific Ocean
Golden
Calgary
Kamloops
Kelowna
Cranbrook
Vancouver
Hope
Castlegar
Nelson
Creston
Grand Forks
Victoria
Car
Washington
Idaho
N
0
125
250
375
500
Kilometers



Eagle Plains Resources Ltd.
EPL:TSX-V
Car Property
Figure 2 - Tenure Map
Projection - NAD 83 UTM Zone 11N
Scale - 1: 50 000
31/01/2007
MAY-BEE
CRESTON
SENASAEL
SUN
KITCHENER
CRESTON HILL
GREAT WAR
382485
382486
382483
382484
382481
382482
382479
382480
516462
349759
338724
338726
338725
367266
516536
346358
346356
338729
338730
338731
338732
367267
367268
367269
546000
548000
550000
552000
5444000
5442000
5440000
5438000
5436000
5434000
N
0
0.5
1
2
3
Kilometers
Legend
Road
Contour (interval 100m)
Minfile Occurrence
Tenure Boundary

ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

ACCESS (Figures 1, 2)

Access to the property is off Highway 3 east of Creston, B.C. thence, south along the valley of Carroll Creek on good all weather forestry roads to the property. On the property there is a well developed network of good forestry spur roads.

LOCAL RESOURCES AND INFRASTRUCTURE

The Car property has excellent infrastructure, including; well established network of logging roads; a high voltage power line that passes through the property and rail facilities located 3.5 kilometers to the north.

Direct air service is provided from Calgary and Vancouver to the Cranbrook Airport, located approximately 100 kilometers southwest of the property. There is a well established mining support industry established in the area, to service the SE British Columbia coal mines and, until 2001, the Sullivan Mine.

PHYSIOGRAPHY

The claims are located in an area of rounded mountainous terrain within the Moyie Range of the Purcell Mountain system. Elevations on the claim block range from 1000 meters to 1900 meters. Passive glaciation covered the lower slopes with a till cover and the valleys are generally floored by thick glacio-fluvial deposits. Forest cover on the claims consists mainly of mature Lodgepole Pine stands with scattered Douglas Fir and Larch vets. However, a large part of the property has been recently clear cut logged.

CLIMATE

The weather is typical of the Rocky Mountains, with moderate to dry summers and heavy snowfall in the winters. Most of the property is free from snow from mid May until mid October.

HISTORY

The Car property was staked in 1995 by Consolidated Ramrod Gold Corporation. Ramrod cut a grid on the property and completed a soil geochemical survey. Black Bull Resources Inc., in 1998 expanded the soil geochemistry (Pighin, 1998, A.R.25,661) and conducted a follow-up prospecting program (Kennedy, 1998, A.R.25,701). In 1998 Chapleau Resources Ltd. joint ventured the property with Black Bull. Work in 1998 included geological mapping (Pighin, 1999, A.R. 26,027) and a diamond drill program totaling 2400 meters in 9 holes (A.R. Diamond Drilling Report, P. Klewchuk, 2000).

Work in by Eagle Plains in 2005 was focused on following up a silt sample collected during the BC Government's 1990 R.G.S program which returned an anomalous gold value. A silt sampling program was conducted to verify and more precisely identify the source for the anomalous gold values and historic drill hole CA99-3 from within the drainage basin of interest was re-sampled and assayed for gold. Although no anomalous gold values were found in the re-sampled core, the Car is still of interest in terms of its' relationship to a possible Sullivan type Sedimentary-Exhalative setting and further work was recommended on the project.

EXPLORATION EXPENDITURES

Based on expenditures documented in exploration reports, expenditures on the Car property directed toward evaluating base metal mineralization hosted on the property is approximately $66,873.30. See Appendix III for further details.

GEOLOGICAL SETTING (Figures 3, 4)

REGIONAL GEOLOGY (Figure 3)

The Car property is underlain by the Aldridge Formation. The Aldridge Formation is the oldest known member of the Purcell Supergroup. In general the Aldridge Formation is a thick sequence of fine grained siliciclastic rocks deposited mainly by turbidity currents.

The Aldridge Formation is subdivided into 3 distinctive sub-units known as the Lower Aldridge, Middle Aldridge and Upper Aldridge.

The Lower Aldridge Formation is plus 1500 meters thick with its base unexposed. The formation weathers characteristically rusty and consists mainly of medium very thin bedded siltstone and argillite.

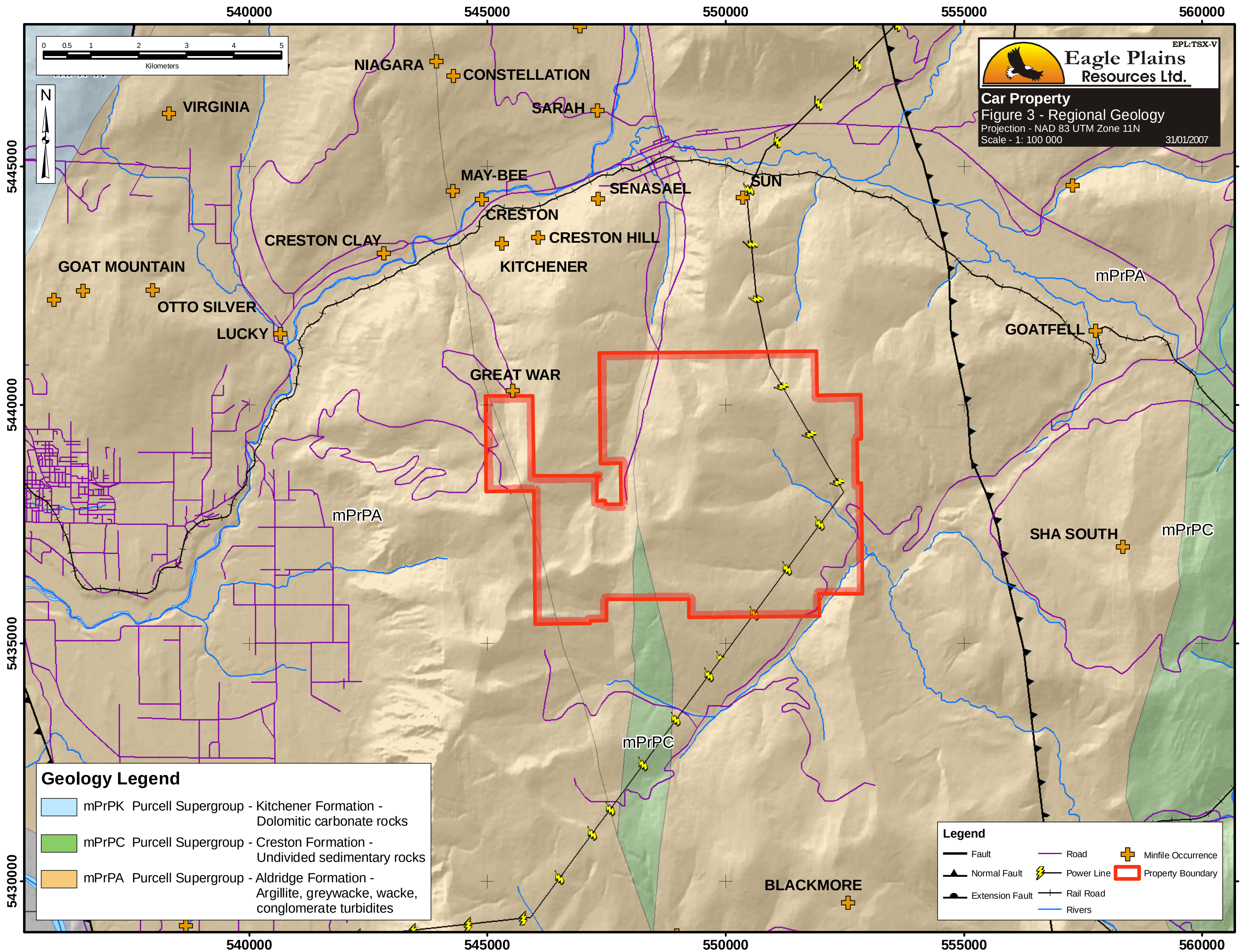
The Middle Aldridge is 2500 meters thick in the Purcell Mountains. The Formation consists of grey weathering generally medium to thick bedded siltstone and lesser quartzite, rare quartz arenite with interbedded 1.0 to 20.0 meter sequences of rusty weathering thin to very thin bedded silty argillite and argillite.

The Upper Aldridge Formation is 300 meters thick and consists of thin to medium bedded, parallel laminated and parallel banded, light grey and grey argillite and silty argillite. The Lower and Middle Aldridge Formations are intruded by thick gabbroic to dioritic silts and dykes. These intrusions are interpreted to be nearly penecontemporaneous with the deposition of the host sediments (Hoy, 1989).

Regionally the Aldridge Formation is overlain by the shallow water deltaic clastics of the Creston FM. The Creston in turn is overlain by argillites, siltstones, dolomitic argillite, dolomitic siltstone and dolomite of the Kitchener Formation.

These Formations regionally are cut by a number of major steeply dipping transverse and longitudinal faults. The transverse faults appear to be in part syndepositional (Lis and Price 1976) suggesting a possible genetic link between sedex style base metal mineralization and syndepositional faulting.

In some cases longitudinal faults appear also to be synsedimentary and thus may be related to sedex type base metal deposits. For example the Sullivan ore body occurs at the junction of a longitudinal structure with a transverse fault system. Longitudinal and transverse faults at the Sullivan and regionally, commonly host evidence of disrupted sediments, hydrothermal vent type alteration and base metal mineralization.



Eagle Plains Resources Ltd.
EPL:TSX-V
Car Property
Figure 3 - Regional Geology
Projection - NAD 83 UTM Zone 11N
Scale - 1: 100 000
31/01/2007
0 0.5 1 2 3 4 5
Kilometers
N
540000
545000
550000
555000
560000
5445000
5440000
5435000
5430000
NIAGARA
CONSTELLATION
VIRGINIA
SARAH
MAY-BEE
SENASAEL
SUN
CRESTON
CRESTON HILL
CRESTON CLAY
KITCHENER
GOAT MOUNTAIN
OTTO SILVER
LUCKY
GOATFELL
GREAT WAR
mPrPA
mPrPA
SHA SOUTH
mPrPC
mPrPC
BLACKMORE
Geology Legend
mPrPK Purcell Supergroup - Kitchener Formation - Dolomitic carbonate rocks
mPrPC Purcell Supergroup - Creston Formation - Undivided sedimentary rocks
mPrPA Purcell Supergroup - Aldridge Formation - Argillite, greywacke, wacke, conglomerate turbidites
Legend
Fault
Normal Fault
Extension Fault
Road
Power Line
Rail Road
Rivers
Minfile Occurrence
Property Boundary

LOCAL GEOLOGY (Figure 4)

The Car property is underlain by Middle Aldridge Formation. Bedrock exposure is limited to 5% of the surface area of the property. The Middle Aldridge Formation at outcrop consists mainly of medium to thick and very thick bedded siltstone and lesser quartzite. Rusty weathering sequences of thin to very thin silty argillite and argillite are typically interbedded with the coarser clastics.

Two gabbro sills and rare small gabbro dykes outcrop on the Car claims. The gabbro sills are typically medium to coarsely crystalline; both sills are approximately 100 meters thick. Regionally these gabbro bodies are collectively referred to as the Moyie intrusives.

Structure within the claim block is relatively simple. Gently east dipping sediments are cut by two north trending steeply dipping faults. The exact location and magnitude of these faults remains unknown.

ALTERATION AND MINERALIZATION

Iron and base metal sulphides are hosted by a large Sullivan type fragmental complex. The fragmental complex occurs in the south west part of the claim block. The Car fragmental deposit is mainly a discordant structure with associated vented concordant layers of fragmental, quartzite, argillite and dolomite. The fragmental complex can be traced on strike at surface for 1000 meters in a northerly direction. Drill hole data shows that the fragmental body dips near vertical and is 100 meters thick. The Car fragmental deposit is open on strike to the north and is open to depth.

Sulphide mineralization along with intense alteration is abundant in the fragmental and associate rocks. Pyrite and pyrrhotite are the dominant sulphides and they form between 10 and 25% of the rock by volume. Pyrite occurs as euhedral disseminations in calcite veinlets along with pyrrhotite, sphalerite and galena. Pyrite also occurs as aphanitic “Bee-Bee”ite sized pellets disseminated throughout talcose argillite and dolomite argillite beds.

Pyrrhotite generally with some sphalerite occurs as disseminations in the fragmental and associated rocks, in calcite veinlets, as thin bedding parallel layers in some argillite beds and as part replacement of tiny 2mm to 5mm carbonate pellets. Sphalerite also commonly occurs as independent disseminations and veinlets and occurs also with pyrite in some veinlets.

Galena is not as abundant as sphalerite but generally occurs with sphalerite and Pyrrhotite as disseminations and in calcite veinlets.

Arsenopyrite is relatively rare but does occur locally as widely scattered small euhedral crystals in the fragmental units and associated sediments.

Chalcopyrite is very rare but can occur in thin late calcite veinlets.

Hydrothermal alteration is intense with in the fragmental complex and in the adjacent sediments. The paragenetic relationship between the various alteration products has not been studied.

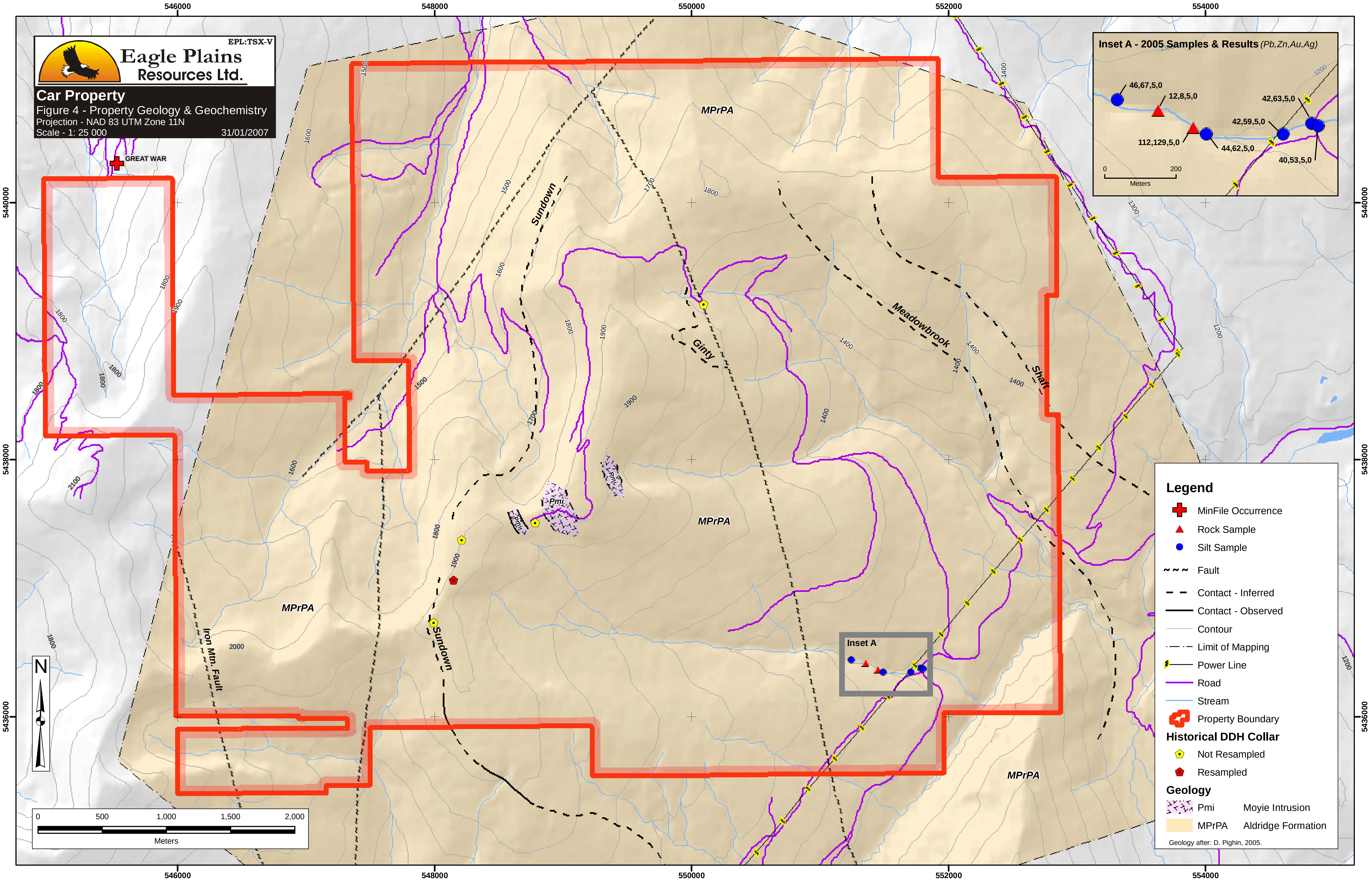
Sericitization is the dominant alteration product with in the fragmental and associated rocks. In general white sericite with tiny late green spheres of muscovite will completely form, the matrix of the fragmental and quartzite rocks will totally replace certain argillite beds.
Silicification accompanied by sericitization can be intense in quartzite beds, lenses and in the matrix of certain fragmental beds.

Talcose alteration is also relatively common and locally argillite lenses are completely altered to green talc.

Carbonate alteration (Dolomite and Limy) is abundant within the fragmental complex and adjacent sediments. Thin beds of vented dolomite occur in the sediments adjacent to the fragmental complex. Dolomite and calcite pellets are also abundant in argillite beds that are adjacent to the fragmental complex. Note: Sphalerite and galena commonly occur in the dolomite beds and in the carbonate pellets.

Albitisation is not abundant but does occur in scattered patches through the fragmental complex.

Black tourmalinite was noted in only one diamond drill hole where it formed a bed 2.4 meters thick.


EPL:TSX-V
Eagle Plains Resources Ltd.
Car Property
Figure 4 - Property Geology & Geochemistry
Projection - NAD 83 UTM Zone 11N
Scale - 1: 25 000
31/01/2007
GREAT WAR
Inset A - 2005 Samples & Results (Pb,Zn,Au,Ag)
46,67,5,0
12,8,5,0
42,63,5,0
42,59,5,0
112,129,5,0
44,62,5,0
40,53,5,0
0
200
Meters
Inset A
MPrPA
Sundown
Ginty
Meadowbrook
Shaft
Iron Mtn. Fault
Pmi
Legend
MinFile Occurrence
Rock Sample
Silt Sample
Fault
Contact - Inferred
Contact - Observed
Contour
Limit of Mapping
Power Line
Road
Stream
Property Boundary
Historical DDH Collar
Not Resampled
Resampled
Geology
Pmi Moyie Intrusion
MPrPA Aldridge Formation
Geology after: D. Pighin, 2005.
N
0
500
1,000
1,500
2,000
Meters
546000
548000
550000
552000
554000
5440000
5438000
5436000

2006 WORK PROGRAM (Fig.5)

The 2006 Eagle Plains Resources exploration program at the CAR Project consisted of an AeroTEMII high resolution Time Domain Electro Magnetic geophysical survey. Data collection was done by Aeroquest Limited. A total of 220.58 line km of survey were flown on April 08, 2006 with helicopter support provided by Bighorn Helicopters using an AStar 350B2.

All survey data was integrated into a GIS data base.

All exploration and reclamation work was carried out in accordance to Ministry of Environment, Ministry of Mines and WCB regulations.

Total 2006 exploration expenditures by Eagle Plains Resources on the Vulcan Project were $58,488.46

2006 RESULTS (Fig. 6 – 8)

The airborne survey defined a number of geophysical anomalies. The most interesting feature is located in the southcentral part of the property, centered on Line 30310:2N and 390090:4 E. The contoured Aerotem Z-1 Off-time profile shows a distinct feature that is broadly elongate in a northwest – southeast direction. There is a weaker response located in the southeastern part of the property that is elongate in the northeast – southwest direction.

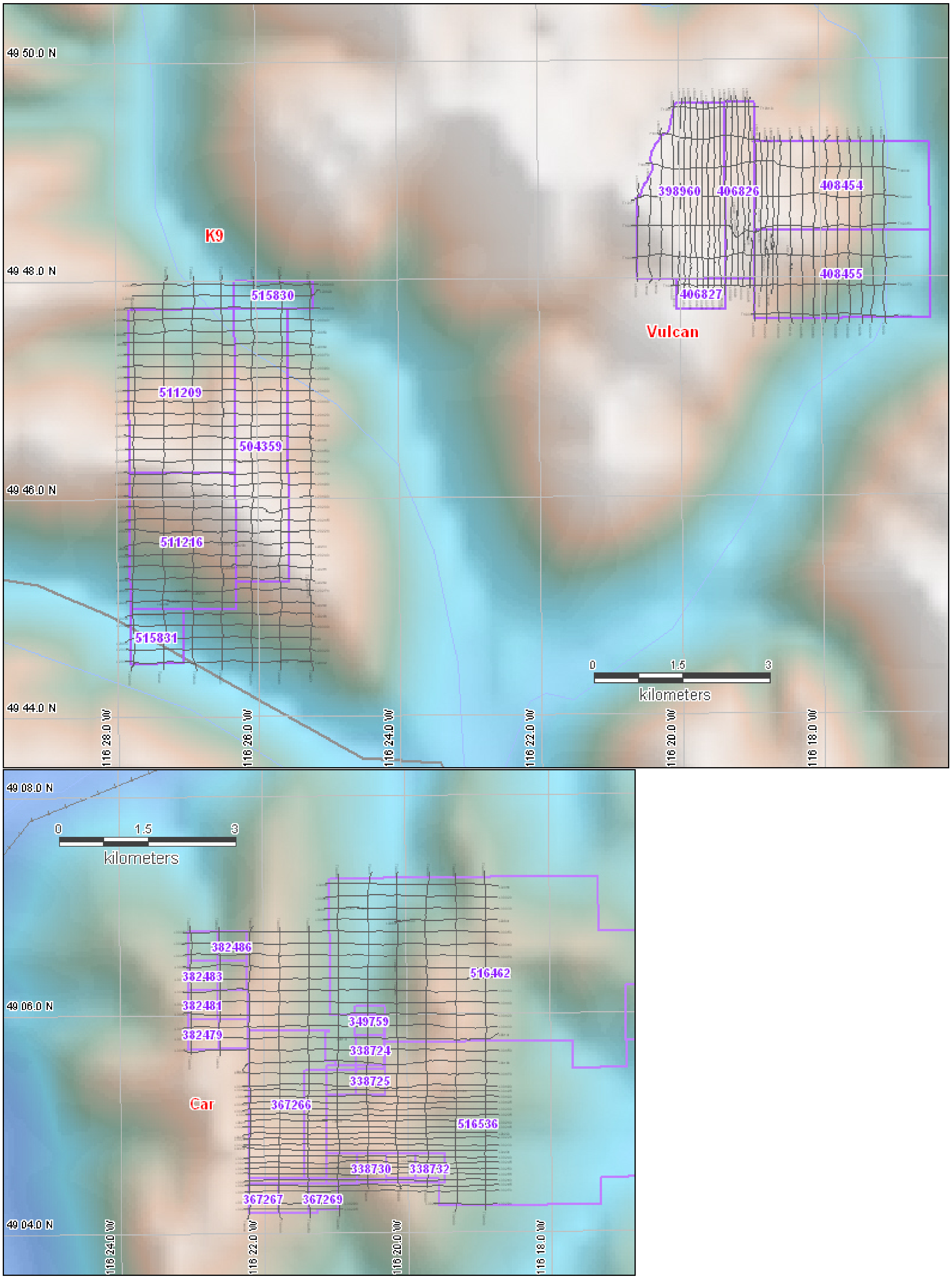
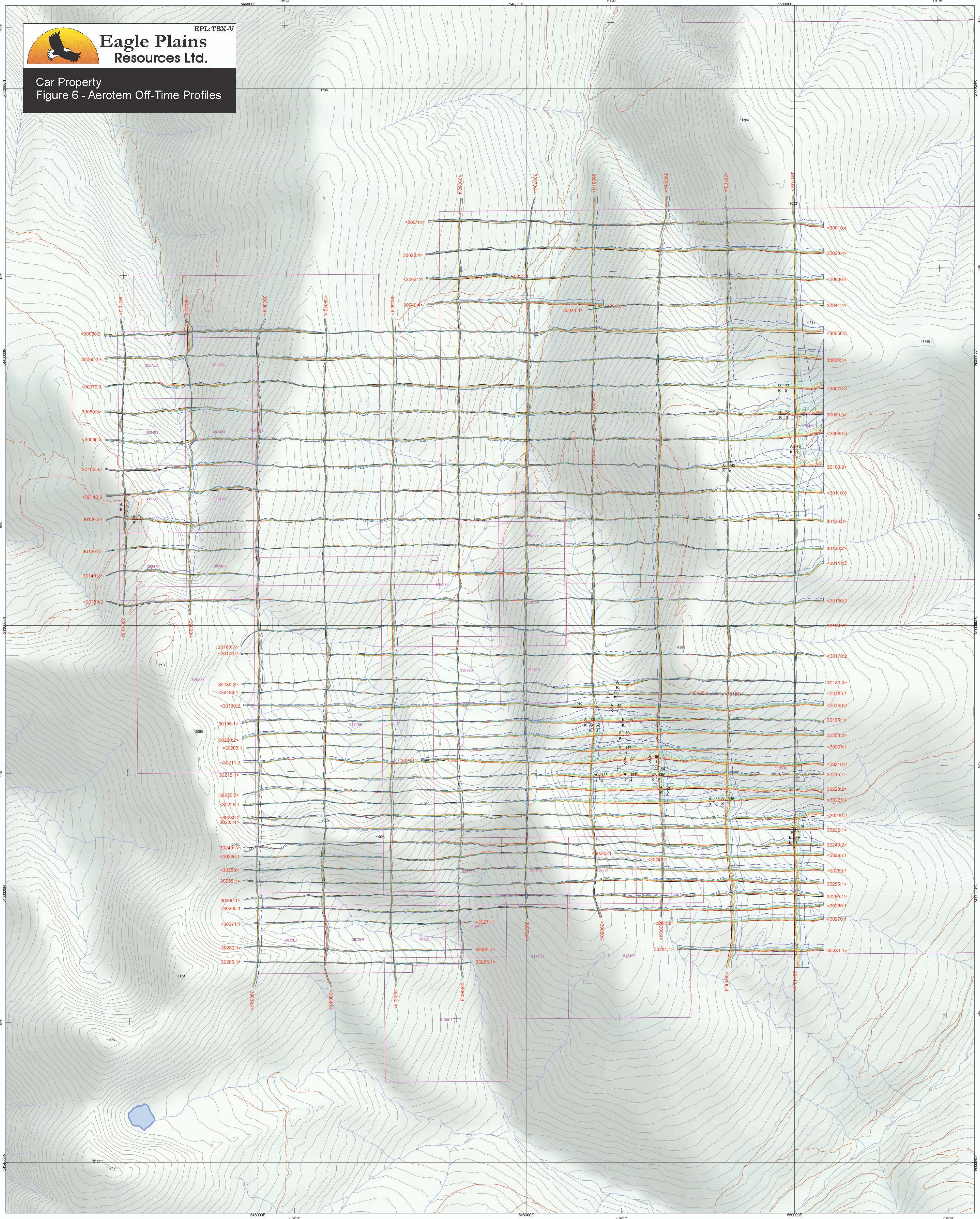


Figure 5. Project Flight Paths and mining claims



Grid North
NAD83-Zone11

The topographic base data was supplied by the client

Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'

This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Vulcan, K-9, and Car Projects', by Aeroquest Limited, June 2006

AeroTEM Profiles

positive excursion to top and right, 1mm=4nT/s

- Z1 Off-Time Channel
- Z2 Off-Time Channel
- Z3 Off-Time Channel
- Z4 Off-Time Channel
- Z5 Off-Time Channel
- Z6 Off-Time Channel
- Z7 Off-Time Channel
- Z8 Off-Time Channel
- Z9 Off-Time Channel
- Z10 Off-Time Channel
- Z11 Off-Time Channel

Off-Time Anomaly Symbols

- >50S
- 35-50S
- 20-35S
- 10-20S
- 5-10S
- 1-5S
- <1S

anomaly label A, 125 decay constant (μs)
thicK/thiN source K, 36 off-time conductance (S)

SURVEY SPECIFICATIONS:
- Survey flown: April 8, 2006
- Traverse line spacing: 200 metres
- Traverse line direction: E-W (90°)
- Nominal EM bird height: 30 metres
- Aircraft: Aerospatiale A-Star 350B2 (C-FETQ)

INSTRUMENTATION:
- Data acquisition: ADAS & RMS DGR-33
- Magnetometer: Geometrics G-823A cesium vapour
  - Installation: Towed bird 17 m above EM bird
  - Sensitivity: .001 nanoTesla
- Electromagnetics: AeroTEM II System (ECHO)
  - Configuration: Towed bird

NAVIGATION:
- Navigation: Differential Global Positioning System (DGPS)
- Navigation equipment: AGNAV with MID-TECH RX400p receiver
- Radar Altimeter: Terra TRA3000/TRI-30

DATA PROCESSING
- Magnetics: diurnal, tieline and micro-leveling corrections

POSITIONING
- Datum: NAD83
  - Major Axis: 6378137.000
  - Eccentricity: 0.081819191

MAP PROJECTION
- Projection: Universal Transverse Mercator
- Central Meridian: 117°W (Zone 11)
- Central Scale Factor: 0.9996
- False Easting/Northing: 500,000m/0m

scale 1:10,000

200 0 200 400 600
metres
NAD83 / UTM zone 11N

Eagle Plains Resources Ltd.
Cranbrook Area, British Columbia

AEROTEM OFF-TIME PROFILES

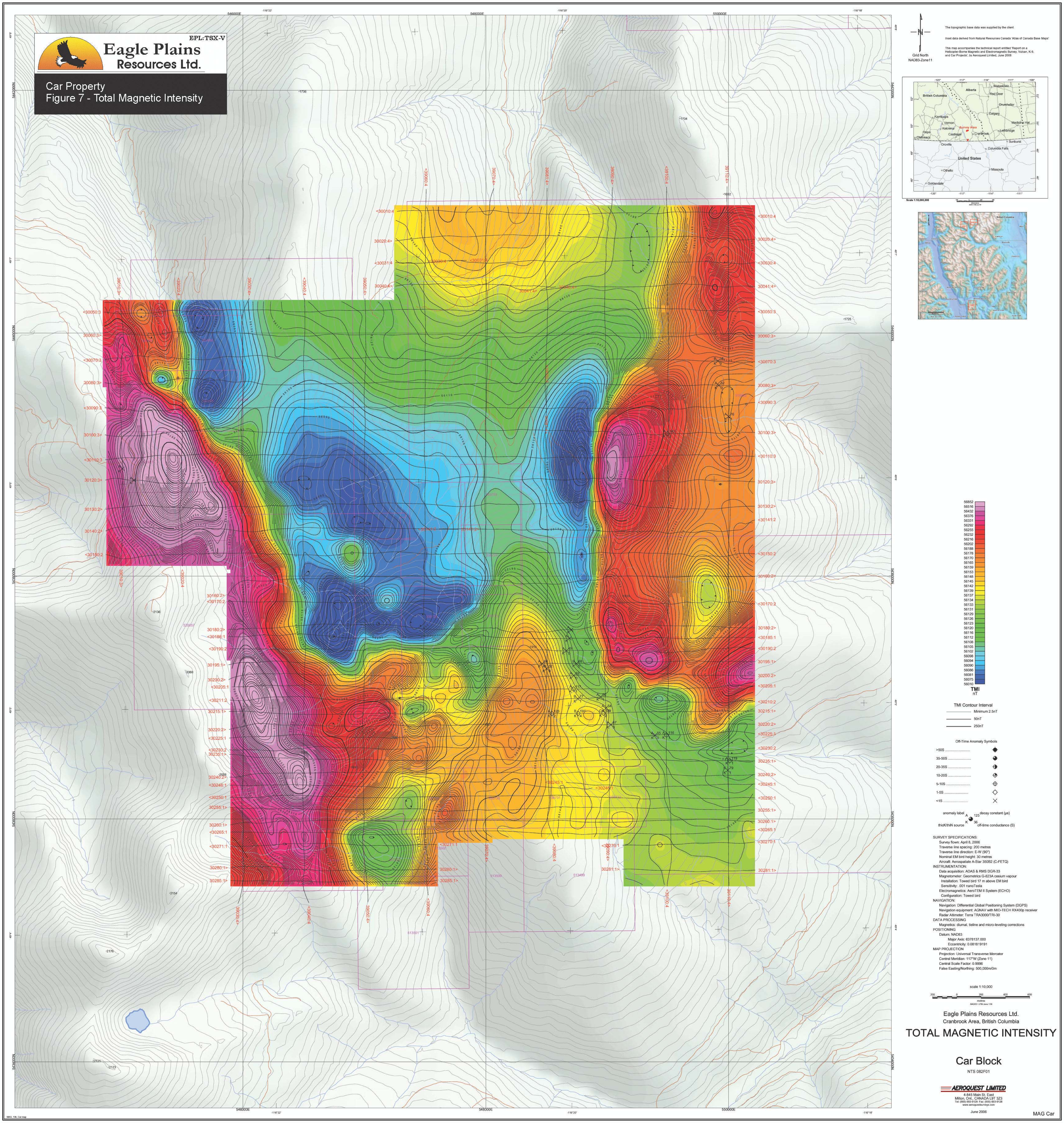
Car Block

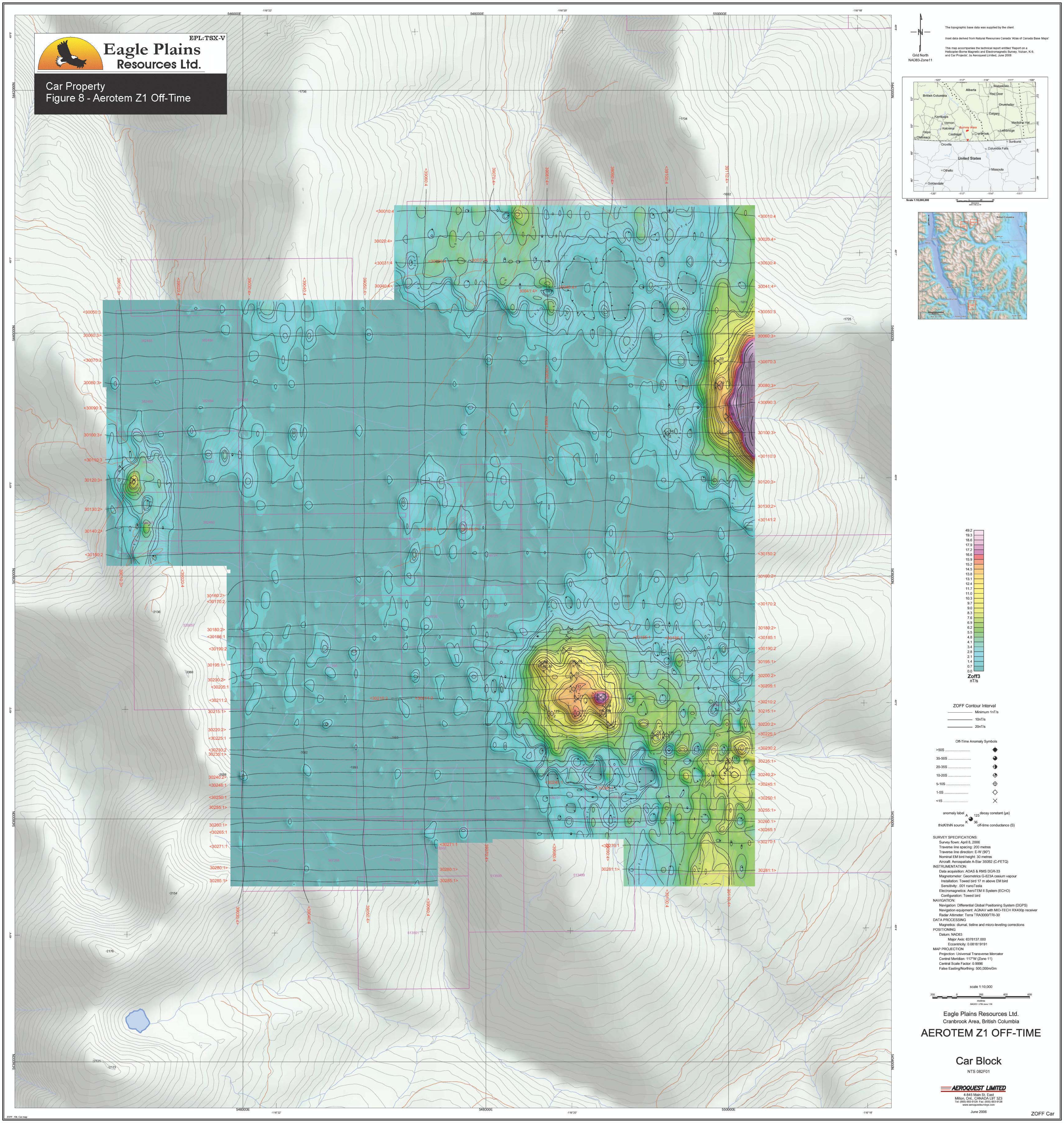
NTS 082F01

AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

June 2006

EM Car


EPL:TSX-V
Eagle Plains Resources Ltd.
Car Property
Figure 7 - Total Magnetic Intensity
Grid North
NAD83-Zone11
The topographic base data was supplied by the client
Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'
This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Vulcan, K-9, and Car Projects', by Aeroquest Limited, June 2006
Alberta
British Columbia
Survey Area
United States
Scale 1:10,000,000
TMI
nT
TMI Contour Interval
Minimum 2.5nT
50nT
250nT
Off-Time Anomaly Symbols
>50S
35-50S
20-35S
10-20S
5-10S
1-5S
<1S
anomaly label
decay constant (μs)
thicK/thiN source
off-time conductance (S)
SURVEY SPECIFICATIONS:
Survey flown: April 8, 2006
Traverse line spacing: 200 metres
Traverse line direction: E-W (90°)
Nominal EM bird height: 30 metres
Aircraft: Aerospatiale A-Star 350B2 (C-FETQ)
INSTRUMENTATION:
Data acquisition: ADAS & RMS DGR-33
Magnetometer: Geometrics G-823A cesium vapour
Installation: Towed bird 17 m above EM bird
Sensitivity: .001 nanoTesla
Electromagnetics: AeroTEM II System (ECHO)
Configuration: Towed bird
NAVIGATION:
Navigation: Differential Global Positioning System (DGPS)
Navigation equipment: AGNAV with MID-TECH RX400p receiver
Radar Altimeter: Terra TRA3000/TRI-30
DATA PROCESSING
Magnetics: diurnal, tieline and micro-leveling corrections
POSITIONING
Datum: NAD83
Major Axis: 6378137.000
Eccentricity: 0.081819191
MAP PROJECTION
Projection: Universal Transverse Mercator
Central Meridian: 117°W (Zone 11)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m
scale 1:10,000
metres
NAD83 / UTM zone 11N
Eagle Plains Resources Ltd.
Cranbrook Area, British Columbia
TOTAL MAGNETIC INTENSITY
Car Block
NTS 082F01
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com
June 2006
MAG Car


Eagle Plains Resources Ltd.
EPL:TSX-V
Car Property
Figure 8 - Aerotem Z1 Off-Time
Grid North
NAD83-Zone11
The topographic base data was supplied by the client
Inset data derived from Natural Resources Canada 'Atlas of Canada Base Maps'
This map accompanies the technical report entitled 'Report on a Helicopter-Borne Magnetic and Electromagnetic Survey, Vulcan, K-9, and Car Projects', by Aeroquest Limited, June 2006
Zoff3
nT/s
ZOFF Contour Interval
Minimum 1nT/s
10nT/s
20nT/s
Off-Time Anomaly Symbols
>50S
35-50S
20-35S
10-20S
5-10S
1-5S
<1S
anomaly label
decay constant (μs)
thicK/thiN source
off-time conductance (S)
SURVEY SPECIFICATIONS:
Survey flown: April 8, 2006
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Traverse line direction: E-W (90°)
Nominal EM bird height: 30 metres
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Data acquisition: ADAS & RMS DGR-33
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Installation: Towed bird 17 m above EM bird
Sensitivity: .001 nanoTesla
Electromagnetics: AeroTEM II System (ECHO)
Configuration: Towed bird
NAVIGATION:
Navigation: Differential Global Positioning System (DGPS)
Navigation equipment: AGNAV with MID-TECH RX400p receiver
Radar Altimeter: Terra TRA3000/TRI-30
DATA PROCESSING
Magnetics: diurnal, tieline and micro-leveling corrections
POSITIONING
Datum: NAD83
Major Axis: 6378137.000
Eccentricity: 0.081819191
MAP PROJECTION
Projection: Universal Transverse Mercator
Central Meridian: 117°W (Zone 11)
Central Scale Factor: 0.9996
False Easting/Northing: 500,000m/0m
scale 1:10,000
metres
NAD83 / UTM zone 11N
Eagle Plains Resources Ltd.
Cranbrook Area, British Columbia
AEROTEM Z1 OFF-TIME
Car Block
NTS 082F01
AEROQUEST LIMITED
4-845 Main St. East
Milton, Ont., CANADA L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com
June 2006
ZOFF Car

INTERPRETATION AND CONCLUSIONS

The 2006 AeroTEMII high resolution Time Domain Electro Magnetic geophysical survey outlined two areas of anomalous geophysical response. The weak anomaly in the southeastern part of the property may reflect a response from the high voltage powerline in the area. However the stronger, broader anomaly in south central property area is a more interesting feature. The anomaly is roughly located at the top of the drainage that returned an anomalous RGS Au value – 640 ppb. It is possible that the anomaly may be related to a buried Moyie Intrusion, which in turn could be the source for Au enrichment. The geophysics may also reflect a buried SedEx style mineralized body. Stratigraphically, this postulated mineralization would be located between the Meadowbrook and Sundown markers in the middle Aldridge Formation. This would be consistent with a deposit found at other than Sullivan time. On a world wide scale, SedEx camps typically host multiple deposits, usually related by a common structure and typically occurring at different stratigraphic levels along the structure. Although the Lower-Middle Aldridge contact, the stratigraphic horizon that hosts the Sullivan deposit, remains a prospective target horizon in the Aldridge Basin, this should not preclude exploration directed at targets above or below this horizon.

RECOMMENDATIONS

The following recommendations are made for the 2007 field season at the CAR Property.

Recommendations for the 2007 field season are as follows:

- post-processing of the raw geophysical data should be undertaken to better define the nature of the geophysics anomalies and to locate potential targets for drill testing
- historic soil geochemical grids should be extended and detailed grids should be established in areas of historic geochemical anomalies
- a detailed GIS compilation of all historic and current data should be undertaken and used to locate and prioritize targets for diamond drill testing

A detailed budget for this work is as follows :

2007 EXPLORATION BUDGET							
Eagle Plains Resources							
CAR Project							
				no. of		no. of	
personnel:				persons	rate	days	
geological		Project Manager		1	$550	40	$22,000.00
		Project Geologists		1	$450	30	$13,500.00
		Geological Technicians		1	$350	30	$10,500.00
		Geological Technician with First Aid		1	$450	30	$13,500.00
						TOTAL PERSONNEL:	$46,000.00
analytical:		type X no.of samples X cost	soils(prep)		500	$1.25	$625.00
			soils(30 element ICP)		500	$9.00	$4,500.00
			silts(prep)		0	$1.25	$0.00
			silts(30 element ICP)		0	$9.00	$0.00
			rocks(prep)		0	$2.00	$0.00
			rocks(30 element ICP)		0	$9.00	$0.00
			drill core(prep)		200	$2.00	$400.00
			drill core(30 element ICP)		200	$9.00	$1,800.00
						TOTAL ANALYTICAL:	$7,325.00
equipment rental:							
trucks							$4,000.00
communication including radios, satellite phone							$1,000.00
mobilization of crews to CAR including meals, airfare, accommodation:							$2,000.00
pre-field:							
Base Map preparation / GIS compilation							$10,000.00
reprocessing of geophysical data							$5,000.00
permitting:							$2,000.00
					cost per	total	
diamond drilling:	2000				meter	meters	
					$125.00	2000	$250,000.00
				no. of		no. of	
meals/groceries:				persons	rate	days	
				10	$40.00	30	$12,000.00
shipping:							$4,000.00
fuel:							$4,000.00
supplies: office and field supplies							$5,000.00
filing fees:							$5,000.00
report writing and reproduction:							$5,000.00
						Subtotal A:	$362,325.00
						10% contingency:	$36,232.50
						TOTAL:	**$398,557.50**

REFERENCES

Vulcanism in the Middle Aldridge Formation, Purcell Supergroup, S.E.B.C., by T. Hoy, D.L. Pighin, P.W. Ransom.

The Fors Prospect, A Proterozoic Sedimentary Exhalative Base Metal Deposit in Middle Aldridge Formation, S.E.B.C., by J.M. Bretton and D.L. Pighin.

Vine – A Middle Proterozoic Massive Sulphide Vein, Purcell Supergroup, S.E.B.C. by T. Hoy and D.L. Pighin.

Geology of the Sullivan Orebody, Kimberley, B.C., Canada by J.M. Hamilton, D.T. Bishop, H.G. Morris and O.E. Owens.

Structural Settings, Mineral Deposits and Associated Alteration and Magmatism, Sullivan Camp, S.E.B.C., by T. Hoy.

Geology of the Purcell Supergroup in the Fernie West-half Area, S.E.B.C., Bulletin 84, by T. Hoy.

Assessment Report Grid Soil Geochemical Survey by David L. Pighin 1998, Car Property.

Assessment Report, Geological Mapping Program Car Property by David L. Pighin 1999.

Assessment Report on Diamond Drilling Car Property 2000, by Peter Klewchuk.

Assessment Report on the Car Property by David L. Pighin 2006.

APPENDIX I
CERTIFICATES OF QUALIFICATION

CERTIFICATE OF CHARLES C. DOWNIE, P.GEO

I, Charles C. Downie, P. Geo. do hereby certify that:

I am currently employed as VP Exploration Manager Eagle Plains Resources Ltd. with business address: 200-16, 11 Ave.S., Cranbrook, BC V1C 2P5. I am also Exploration Manager for Bootleg Resources Inc., a wholly owned subsidiary of Eagle Plains Resources Inc and having the same business address.

I graduated with a Bachelor of Science Degree from the University of Alberta in 1988.

I have worked as a geologist for a total of 17 years since my graduation from university, and have been involved in the mining and exploration industry since 1980.

I am a member of the Association of Professional Engineers and Geoscientists of the Province of British Columbia (ID 20137). I am entitled to use the seal which is affixed to this report.

I have read the definition of "qualified person" set out in National Instrument 43 – 101 ("NI 43 – 101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43 – 101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of National Instrument 43 – 101.

I have authored this technical report titled "2006 GEOLOGICAL REPORT FOR THE CAR PROPERTY" and dated February 16th 2007 relating to the 2006 technical program by Eagle Plains Resources.

I have based this report on data collected through research and on observations and results from physical work on the property. Data sources include British Columbia Ministry of Energy and Mines Map Place, British Columbia Ministry of Energy and Mines Microfiche, and direct contact with persons involved with past exploration programs on the Vulcan property.

I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.

I am not independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101. I am a director of Eagle Plains Resources Ltd. since 2002 and currently hold 357,600 shares of that company. I further hold options to purchase 1,170,000 shares of the company at between $0.65 and $0.75 per share.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Dated at Cranbrook, British Columbia, Canada this 16th Day of February, 2007

Respectfully submitted

____

Charles C. Downie, P.Geo.

APPENDIX II
STATEMENT OF EXPENDITURES

STATEMENT OF EXPENDITURES				
CAR PROJECT				
2006 Geophysical Program – CAR Project				
The following expenses were incurred on the CAR project for the purpose of mineral exploration between the dates of February 21 2006 and November 06 2006.				
PERSONNEL				
Bootleg Exploration Inc.		rate	no. of days	
planning for fieldwork, supervise / carry out fieldwork, base map preparation for Aeroquest				
	Jesse Campbell, BSc, GIS	400.00	2.0	$800.00
	Brad Robison, GIS, database support	400.00	2.0	$800.00
	Glen Hendrickson,B.Sc. GIS, surveying	400.00	2.0	$800.00
		TOTAL PERSONNEL:		$2,400.00
geophysical surveys:	Aeroquest Limited (data acquisition), Bighorn Helicopters (aircraft charter)			$52,571.24
TRIM data: topographic data for geophysical survey				$458.23
fuel:				$58.99
report writing : (estimate including maps/reproduction)				$3,000.00
			TOTAL:	$58,488.46

APPENDIX III
AEROQUEST GEOPHYSICAL REPORT

Report on a Helicopter-Borne AeroTEM II Electromagnetic & Magnetometer Survey

Aeroquest Job # 05083

Vulcan, K9 & Car Properties

South Eastern British Columbia

NTS 082F01,09,16

for

Eagle Plains Resources Ltd.

by

AEROQUEST LIMITED

4-845 Main Street East
Milton, Ontario, L9T 3Z3
Tel: (905) 693-9129 Fax: (905) 693-9128
www.aeroquestsurveys.com

July, 2006

Report on a Helicopter-Borne AeroTEM II Electromagnetic and Magnetic Survey

Aeroquest Job # 05083

Vulcan, K9 & Car Properties

South Eastern British Columbia

NTS 082F01,09,16

For

Eagle Plains Resources Ltd.

Suite 200, 16 – 11th Ave. S.

Cranbrook, BC V1C 2P1

Tel: (250) 426-0749

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July, 2006

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1.1. List of Figures

1.2. Appendices

Appendix 1: Survey Block Co-ordinates
Appendix 2: Description of Database Fields
Appendix 3: Technical Paper: "Mineral Exploration with the AeroTEM System"
Appendix 4: Instrumentation Specification Sheet
Appendix 5: Anomaly Listing

1.3. List of Maps (1:10,000)

- MAG Coloured Total Magnetic Intensity (TMI) with line contours and EM anomalies
- ZOFF AeroTEM Off-Time Z3 colour grid with line contours and EM anomalies
- AeroTEM Off-Time Profiles (Z1-Z11) and EM anomalies

2. INTRODUCTION

This report describes a helicopter-borne geophysical survey carried out on behalf of Eagle Plains Resources Ltd. (hereafter Eagle Plains) on the K9, Vulcan and Car Properties, Southeastern British Columbia.

The principal geophysical sensor is Aeroquest's exclusive AeroTEM II time domain helicopter electromagnetic system which is employed in conjunction with a high-sensitivity cesium vapour magnetometer. Ancillary equipment includes a real-time differential GPS navigation system, radar altimeter, video recorder, and a base station magnetometer. Full-waveform streaming EM data is recorded at 38,400 samples per second. The streaming data comprise the transmitted waveform, and the X component and Z component of the resultant field at the receivers. A secondary acquisition system (RMS) records the ancillary data.

The total line kms presented in the maps and data totalled 500, of which 481.4 lies within the survey area and is billable. 433.34 of these kms fell within Eagle Plains mining claims (Figure 2). The survey flying described in this report took place on April 8th (Car), April 20-28th (K9), April 29th (Vulcan), 2006.

3. SURVEY AREA

The project area is located in southeastern BC (NTS 082F01,09,16) and is made up of three blocks; Car which lies 60km southwest of Cranbrook and K9 and Vulcan which lie 50km the northwest of Cranbrook (Figure 1). The Car project area lies just 10km north of the US border. The terrain is mountainous with elevation ranges from 2000-7000ft (600-2000m). The area is well serviced with roads and railways, it being a popular tourist destination.

Eagle Plains has 100% ownership of the mining claims in the area and these are outlined in Table 1.

The field crew was based at the Sandman Inn, Cranbrook. The helicopter company was Bighorn Helicopters, based out of Calgary, Alberta.

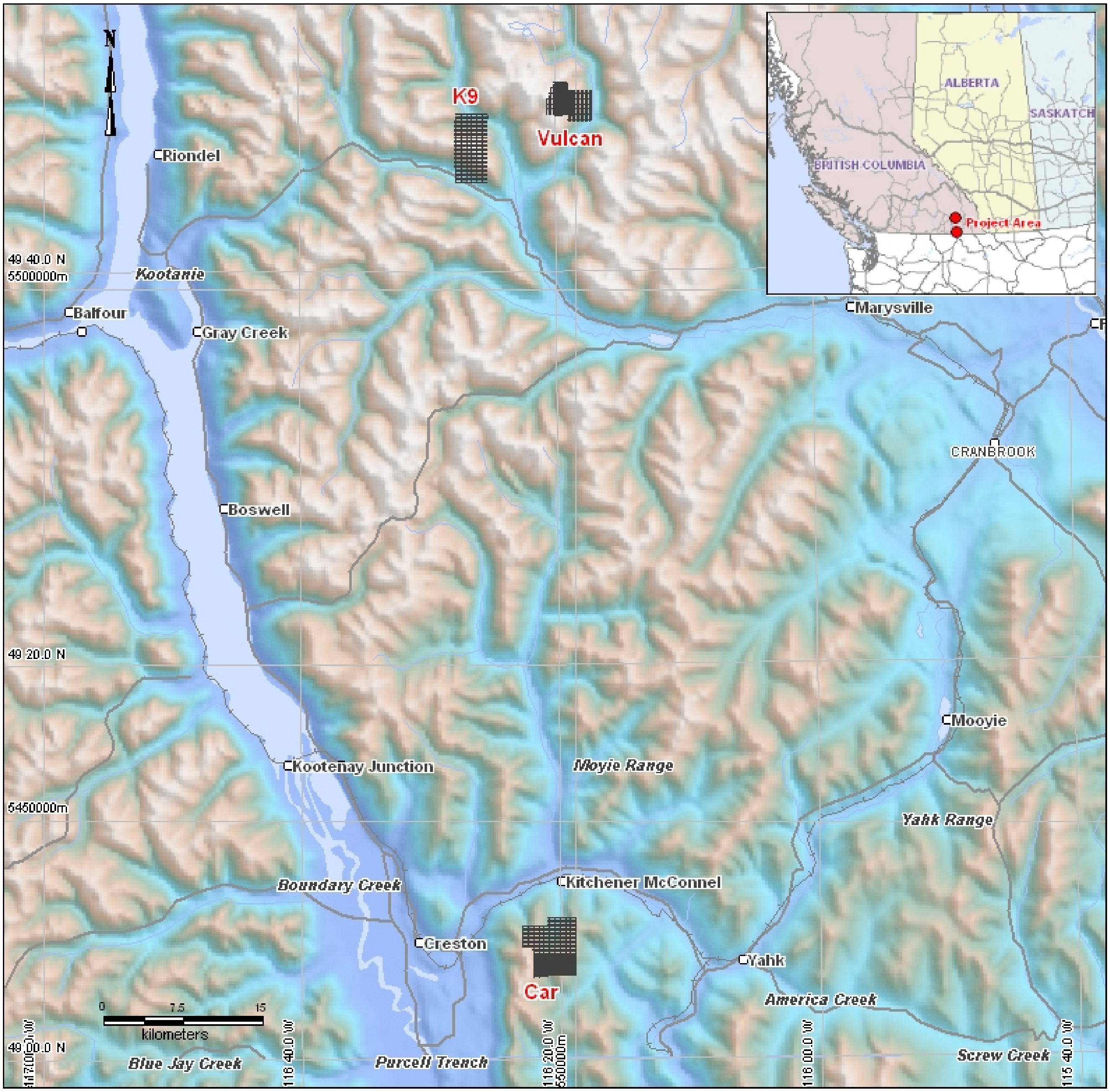


Figure 1. Regional location map of the project area.

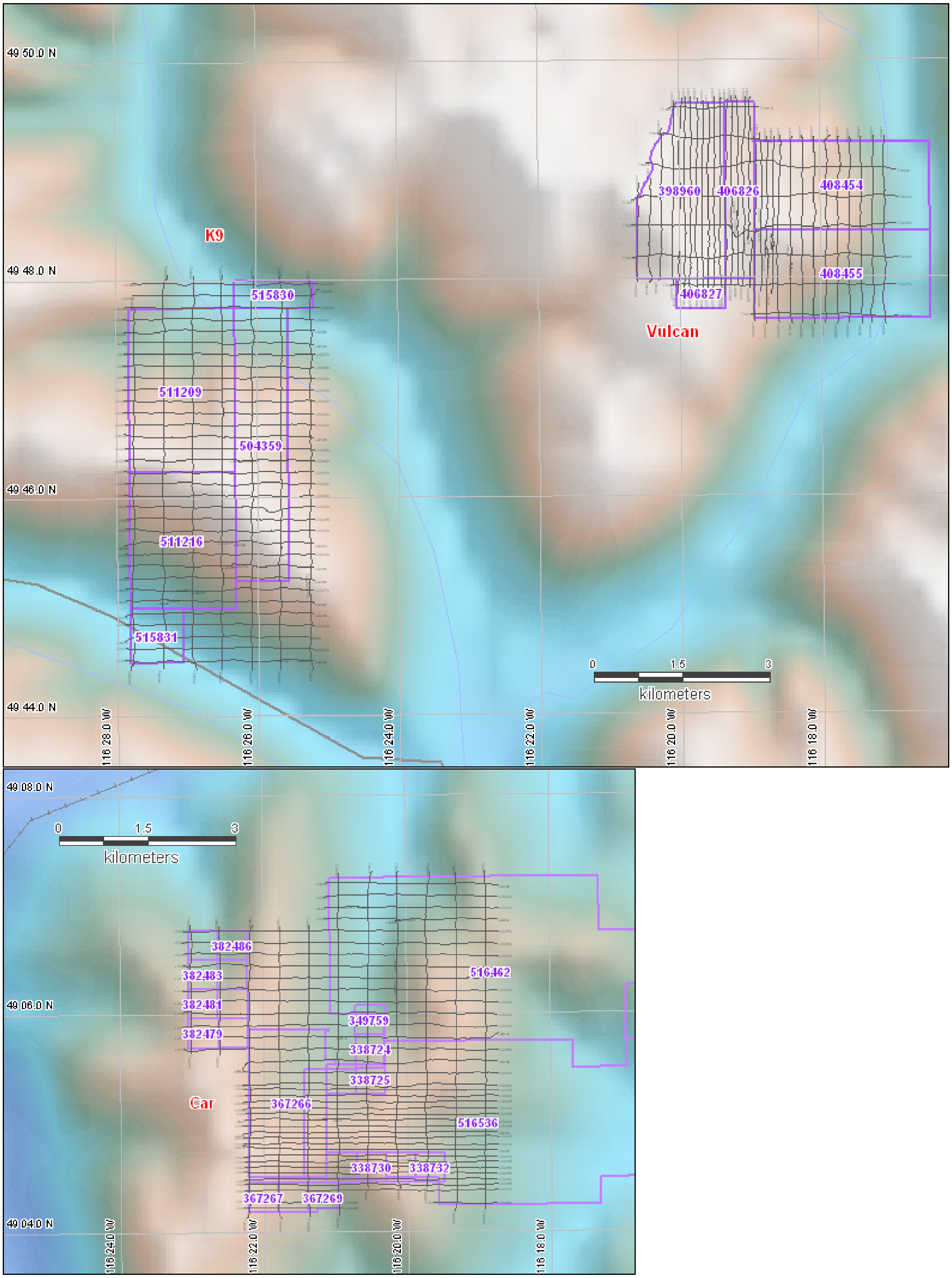


Figure 2. Project Flight Paths and mining claims

Tenure_Number	Claim_Name	Mining_Division	Area (ha)	Map_Number	Survey Block
338732	CAR 12	FORT STEELE	25	082F009	Car
382486	TCK 8	NELSON	25	082F019	Car
382479	TCK 1	NELSON	25	082F009	Car
346358	CAR 26	FORT STEELE	25	082F019	Car
382485	TCK 7	NELSON	25	082F019	Car
346356	CAR 24	FORT STEELE	25	082F009	Car
382480	TCK 2	NELSON	25	082F009	Car
338724	CAR 4	NELSON	25	082F009	Car
382484	TCK 6	NELSON	25	082F019	Car
349759	CAR 35	NELSON	25	082F009	Car
382482	TCK 4	NELSON	25	082F009	Car
367269	CAR 48	FORT STEELE	25	082F009	Car
338729	CAR 9	FORT STEELE	25	082F009	Car
516462			1395.698	082F	Car
367266	CAR 45	NELSON	375	082F009	Car
367267	CAR 46	FORT STEELE	25	082F009	Car
367268	CAR 47	FORT STEELE	25	082F009	Car
338726	CAR 6	NELSON	25	082F009	Car
516536			1396.375	082F	Car
515830	K9-A		62.565	082F	K9
515831	K9-B		83.508	082F	K9
504359	K9-3		417.292	082F	K9
511209			500.665	082F	K9
511216			417.416	082F	K9
408454	JURAK 3A	FORT STEELE	450	082F089	Vulcan
398960	JURAK 1	FORT STEELE	450	082F079	Vulcan
406826	JURAK 2	FORT STEELE	150	082F079	Vulcan
408455	JURAK 4	FORT STEELE	450	082F089	Vulcan
406827	JURAK 3	FORT STEELE	50	082F079	Vulcan

Table 1 Mineral Claim details for survey areas

4. LOCAL GEOLOGY & PREVIOUS WORK

(taken from Eagle Plains Resources Ltd. website www.eagleplains.com, July, 2006)

K9 Property

The K9 mineral claims were staked in 2003 to cover stratabound poly-metallic mineralization first identified in the early 1900s. The property is owned 100% by Eagle Plains Resources Ltd. and contains no royalties or encumbrances. The claims are on strike with and surround the Great Dane crown grants which contain metal values of up to 62.6 g/t Ag. 2.60% Cu, 9.6% Zn and 14.0% Pb. Work on the property in the late 1990s indicates that this mineralization persists along strike, and is present within the K9 property boundaries. The area's favourable location and topography make it an excellent target for more advanced work, including trenching and diamond drilling.

The K9 property consists of 27 MGS claim units (1640 acres) located within the Fort Steele Mining Division, within NTS map sheet 82F/16W at 49° 30' N/116° 26' W, centred at UTM coordinates 5512617/540088 (see Location Map). It is situated 37 air-km by road from Kimberley , B.C. and is accessed by seasonally-maintained Forest Service roads. A high-voltage hydro electric line is located approximately 10km south of current property boundaries.

The property covers steeply-dipping phyllitic quartzites and dolomitic limestones belonging to the Proterozoic Creston and Kitchener Formations. A number of thick gabbroic sills are present within the claim area and may be related to mineralization. Bedding throughout the property area is vertical or sub-vertical, with beds striking north/south. No significant folding or faulting has been recognised on the property.

Target mineralization on the K9 claims are stratabound massive sulphides within Creston Formation rocks. Such an occurrence exists within three small crown-granted titles (owned by E. Denny) situated within the K9 property boundary. A similar and possibly related showing was discovered through the course of work performed during 1996. This showing, located at elevation 6200 feet, has seen limited historic development, with a 7m-deep shaft sunk into a 2.7m wide pyrrhotite lens. No documentation has been found relating to the shaft.

Soil samples collected within the property area outline a geochemically anomalous interval over 1.5km in length, with vertical continuity of nearly 500m. The significance of this anomaly has yet to be established.

Mineralization was first discovered on what are now the Great Dane crown grants in 1901. Very little documented work is available for the property area, but numerous historical workings have been located on the property. Diamond drilling has never been carried out.

5. SURVEY SPECIFICATIONS AND PROCEDURES

The survey specifications are summarized in the following table:

Survey Block	Line Spacing (m)	Line direction	Survey Coverage (line-km)	Dates Flown
Car	200 (with 100m infills)	E-W (90º)	220.58	April 8th, 2006
K9	200	E-W (90º)	154.3	April 20-28th, 2006
Vulcan	200 (with 100m infills)	N-S (0º)	125.51	April 29th, 2006

The survey coverage was calculated by adding up the along-line distance of the survey lines and control (tie) lines as presented in the final Geosoft database. The survey was flown with a line spacing of 100 m. The control (tie) lines were flown perpendicular to the survey lines with a spacing of 1 km. The nominal EM bird terrain clearance is 30m, but can be higher in more rugged terrain due to safety considerations and the capabilities of the aircraft. The magnetometer sensor is mounted in a smaller bird connected to the tow rope 17 metres above the EM bird and 21 metres below the helicopter (Figure 4). Nominal survey speed over relatively flat terrain is 75 km/hr and is generally lower in rougher terrain. Scan rates for ancillary data acquisition is 0.1 second for the magnetometer and altimeter, and 0.2 second for the GPS determined position. The EM data is acquired as a data stream at a sampling rate of 38,400 samples per second and is processed to generate final data at 10 samples per second. The 10 samples per second translates to a geophysical reading about every 1.5 to 2.5 metres along the flight path.

5.1. Navigation

Navigation is carried out using a GPS receiver, an AGNAV2 system for navigation control, and an RMS DGR-33 data acquisition system which records the GPS coordinates. The x-y-z position of the aircraft, as reported by the GPS, is recorded at 0.2 second intervals. The system has a published accuracy of under 3 metres. A recent static ground test of the Mid-Tech WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two-hour period.

5.2. System Drift

Unlike frequency domain electromagnetic systems, the AeroTEM II system has negligible drift due to thermal expansion. The operator is responsible for ensuring the instrument is properly warmed up prior to departure and that the instruments are operated properly throughout the flight. The operator maintains a detailed flight log during the survey noting the times of the flight and any unusual geophysical or topographic features. Each flight included at least two high elevation 'background' checks. During the high elevation checks, an internal 5 second wide calibration pulse in all EM channels was generated in order to ensure that the gain of the system remained constant and within specifications.

5.3. Field QA/QC Procedures

On return of the pilot and operator to the base, usually after each flight, the AeroDAS streaming EM data and the RMS data are carried on removable hard drives and FlashCards, respectively and transferred to the data processing work station. At the end of each day, the base station magnetometer data on FlashCard is retrieved from the base station unit.

Data verification and quality control includes a comparison of the acquired GPS data with the flight plan; verification and conversion of the RMS data to an ASCII format XYZ data file; verification of the base station magnetometer data and conversion to ASCII format XYZ data; and loading, processing and conversion of the steaming EM data from the removable hard drive. All data is then merged to an ASCII XYZ format file which is then imported to an Oasis database for further QA/QC and for the production of preliminary EM, magnetic contour, and flight path maps.

Survey lines which show excessive deviation from the intended flight path are re-flown. Any line or portion of a line on which the data quality did not meet the contract specification was noted and reflown.

6. AIRCRAFT AND EQUIPMENT

6.1. Aircraft

A Eurocopter (Aerospatiale) AS350B2 "A-Star" helicopter - registration C-FETQ was used as survey platform (Figure 3). The helicopter was owned and operated by Bighorn Helicopters, Calgary, Alberta. The survey aircraft was flown at a nominal terrain clearance of 220 ft (70 m).

Figure 3. Survey helicopter C-FETQ.

6.2. Magnetometer

The Aeroquest airborne survey system employs the Geometrics G-823A cesium vapour magnetometer sensor installed in a two metre towed bird airfoil attached to the main tow line, 17 metres below the helicopter (Figure 4A). The sensitivity of the magnetometer is 0.001 nanoTesla at a 0.1 second sampling rate. The nominal ground clearance of the magnetometer bird is 51 metres (170 ft.). The magnetic data is recorded at 10Hz by the RMS DGR-33.

6.3. Electromagnetic System

The electromagnetic system is an AeroQuest AeroTEM II time domain towed-bird system (Figure 4B). The current AeroTEM transmitter dipole moment is 38.8 kNIA. The AeroTEM bird is towed 38 m (125 ft) below the helicopter. More technical details of the system may be found in Appendix 4.

The wave-form is triangular with a symmetric transmitter on-time pulse of 1.10 ms and a base frequency of 150 Hz (Figure 5). The current alternates polarity every on-time pulse. During every Tx on-off cycle (300 per second), 128 contiguous channels of raw x and z component (and a transmitter current monitor, itx) of the received waveform are measured. Each channel width is 26.04 microseconds starting at the beginning of the transmitter pulse. This 128 channel data is referred to as the raw streaming data. The AeroTEM system has two separate EM data recording streams, the conventional RMS DGR-33 and the AeroDAS system which records the full waveform.

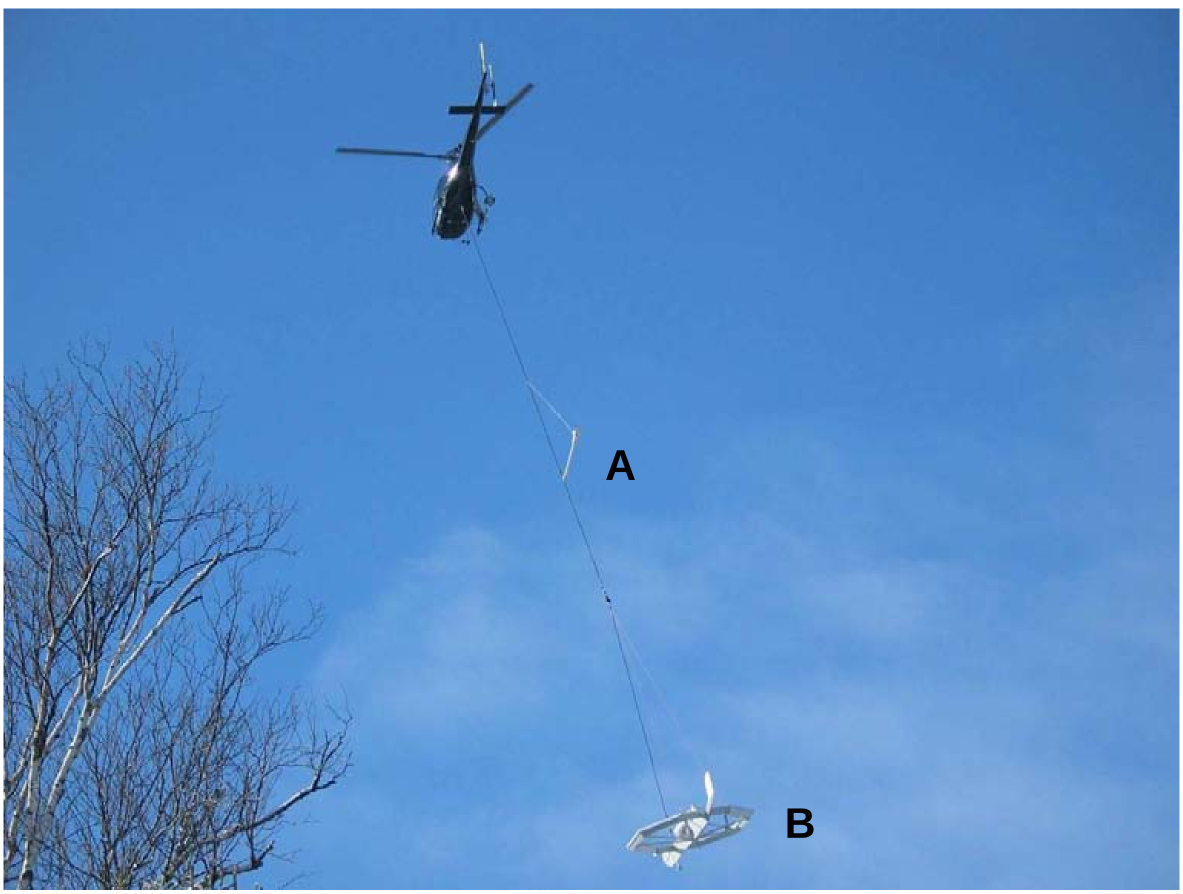


Figure 4. The magnetometer bird (A) and AeroTEM II EM bird (B)

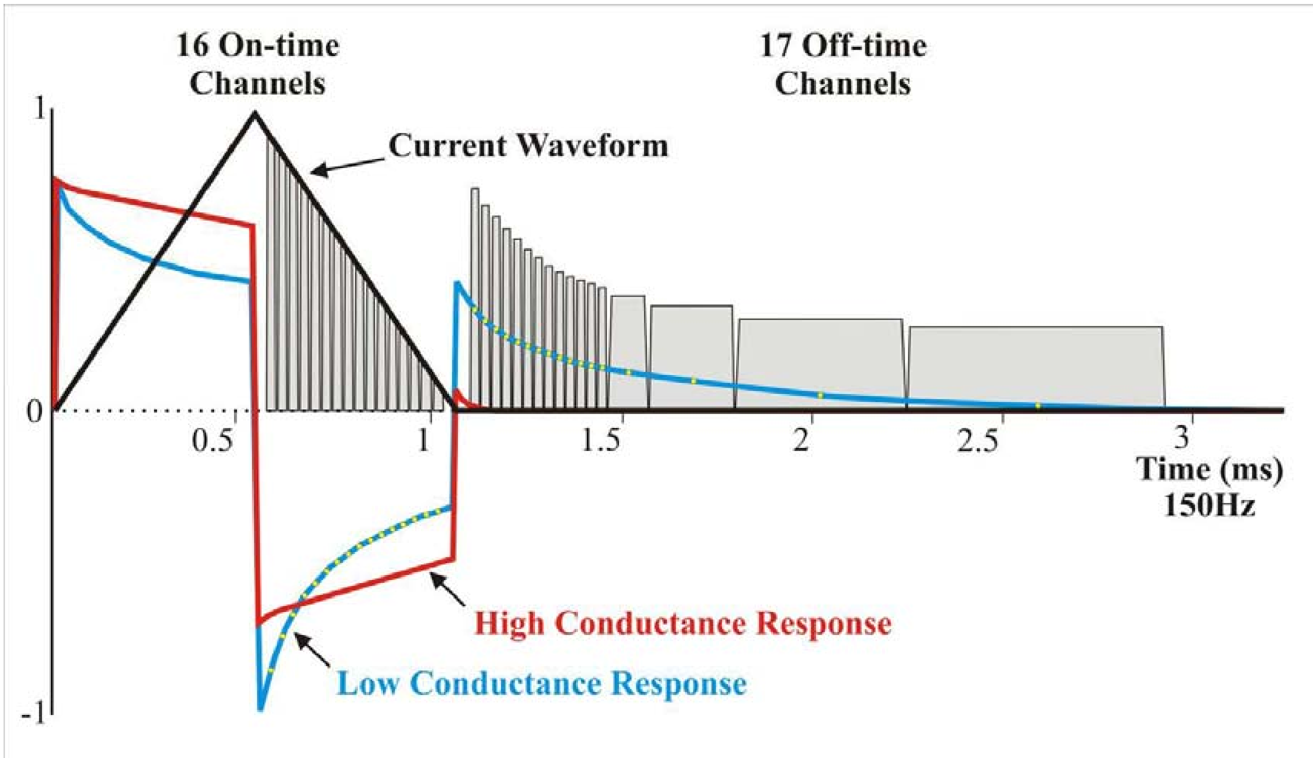


Figure 5. Schematic of Transmitter and Receiver waveforms

6.4. AERODAS Acquisition System

The 128 channels of raw streaming data are recorded by the AeroDAS acquisition system (Figure 6) onto a removable hard drive. The streaming data are processed post-survey to yield 33 stacked and binned on-time and off-time channels at a 10 Hz sample rate. The timing of the final processed EM channels is described in the following table:

Channel:	Start Gate	End Gate	Start (us)	Stop (us)	Mid (us)	Width (us)
1 ON	25	25	651.0	677.0	664.0	26.0
2 ON	26	26	677.0	703.1	690.1	26.0
3 ON	27	27	703.1	729.1	716.1	26.0
4 ON	28	28	729.1	755.2	742.1	26.0
5 ON	29	29	755.2	781.2	768.2	26.0
6 ON	30	30	781.2	807.2	794.2	26.0
7 ON	31	31	807.2	833.3	820.3	26.0
8 ON	32	32	833.3	859.3	846.3	26.0
9 ON	33	33	859.3	885.4	872.3	26.0
10 ON	34	34	885.4	911.4	898.4	26.0

11 ON	35	35	911.4	937.4	924.4	26.0
12 ON	36	36	937.4	963.5	950.5	26.0
13 ON	37	37	963.5	989.5	976.5	26.0
14 ON	38	38	989.5	1015.6	1002.5	26.0
15 ON	39	39	1015.6	1041.6	1028.6	26.0
16 ON	40	40	1041.6	1067.6	1054.6	26.0
0 OFF	44	44	1145.8	1171.8	1158.8	26.0
1 OFF	45	45	1171.8	1197.8	1184.8	26.0
2 OFF	46	46	1197.8	1223.9	1210.9	26.0
3 OFF	47	47	1223.9	1249.9	1236.9	26.0
4 OFF	48	48	1249.9	1276.0	1262.9	26.0
5 OFF	49	49	1276.0	1302.0	1289.0	26.0
6 OFF	50	50	1302.0	1328.0	1315.0	26.0
7 OFF	51	51	1328.0	1354.1	1341.1	26.0
8 OFF	52	52	1354.1	1380.1	1367.1	26.0
9 OFF	53	53	1380.1	1406.2	1393.1	26.0
10 OFF	54	54	1406.2	1432.2	1419.2	26.0
11 OFF	55	55	1432.2	1458.2	1445.2	26.0
12 OFF	56	56	1458.2	1484.3	1471.3	26.0
13 OFF	57	60	1484.3	1588.4	1536.4	104.2
14 OFF	61	68	1588.4	1796.8	1692.6	208.3
15 OFF	69	84	1796.8	2213.4	2005.1	416.6
16 OFF	85	110	2213.4	2890.4	2551.9	677.0

6.5. RMS DGR-33 Acquisition System

In addition to the magnetics, altimeter and position data, six channels of real time processed off-time EM decay in the Z direction and one in the X direction are recorded by the RMS DGR-33 acquisition system at 10 samples per second and plotted real-time on the analogue chart recorder. These channels are derived by a binning, stacking and filtering procedure on the raw streaming data. The primary use of the RMS EM data (Z1 to Z6, X1) is to provide for real-time QA/QC on board the aircraft.

The channel window timing of the RMS DGR-33 6 channel system is described in the table below.

RMS Channel	Start time (microsec)	End time (microsec)	Width (microsec)	Streaming Channels
Z1, X1	1269.8	1322.8	52.9	48-50
Z2	1322.8	1455.0	132.2	50-54
Z3	1428.6	1587.3	158.7	54-59
Z4	1587.3	1746.0	158.7	60-65
Z5	1746.0	2063.5	317.5	66-77
Z6	2063.5	2698.4	634.9	78-101

Figure 6. AeroTEM II Instrument Rack. Includes (AeroDAS system and RMS DGR-33 and AeroTEM power supply, data acquisition computer and AG-NAV2 navigation)

6.6. Magnetometer Base Station

The base magnetometer was a Geometerics G-858 cesium vapour magnetometer. Data logging and UTC time syncronisation was carried out within an external data logging computer, with an external GPS providing the timing signal. That data logging was configured to measure at 0.1 second intervals (10Hz). Digital recording resolution was 0.001 nT. The sensor was placed on a tripod in an area free of cultural noise sources. A continuously updated display of the base station values was available for viewing and regularly monitored to ensure acceptable data quality and diurnal levels.

6.7. Radar Altimeter

A Terra TRA 3500/TRI-30 radar altimeter is used to record terrain clearance. The antenna was mounted on the outside of the helicopter beneath the cockpit. The recorded data represents the height of the antenna, i.e. helicopter, above the ground. The Terra altimeter has an altitude accuracy of +/- 1.5 metres.

6.8. Video Tracking and Recording System

A high resolution colour digital video camera (Figure 7) is used to record the helicopter ground flight path along the survey lines. The video is digitally annotated with GPS position and time and can be used to verify ground positioning information and cultural causes of anomalous geophysical responses.

Figure 7. Digital video camera typical mounting location.

6.9. GPS Navigation System

The navigation system consists of an Ag-Nav Incorporated AG-NAV2 GPS navigation system comprising a PC-based acquisition system, navigation software, a deviation indicator in front of the aircraft pilot to direct the flight, a full screen display with controls in front of the operator, a Mid-Tech RX400p WAAS-enabled GPS receiver mounted on the instrument rack and an antenna mounted on the magnetometer bird. WAAS (Wide Area Augmentation System) consists of approximately 25 ground reference stations positioned across the United States that monitor GPS satellite data. Two master stations, located on the east and west coasts, collect data from the reference stations and create a GPS correction message. This correction accounts for GPS satellite orbit and clock drift plus signal delays caused by the atmosphere and ionosphere. The corrected differential message is then broadcast through one of two geostationary satellites, or satellites with a fixed position over the equator. The corrected position has a published accuracy of under 3 metres. A recent static ground test of the Mid-Tech WAAS GPS yielded a standard deviation in x and y of under 0.6 metres and for z under 1.5 metres over a two-hour period.

Survey co-ordinates are set up prior to the survey and the information is fed into the airborne navigation system. The co-ordinate system employed in the survey design was WGS84 [World] using the UTM zone 11N projection. The real-time differentially corrected GPS positional data was recorded by the RMS DGR-33 in geodetic coordinates (latitude and longitude using WGS84) at 0.2 second intervals.

6.10. Digital Acquisition System

The AeroTEM received waveform sampled during on and off-time at 128 channels per decay, 300 times per second, was logged by the proprietary AeroDAS data acquisition system. The channel sampling commences at the start of the Tx cycle and the width of each channel is 26.04 microseconds. The streaming data was recorded on a removable hard-drive and was later backed-up onto DVD-ROM from the field-processing computer.

The RMS Instruments DGR33A data acquisition system was used to collect and record the analogue data stream, i.e. the positional and secondary geophysical data, including processed 6 channel EM, magnetics, radar altimeter, GPS position, and time. The data was recorded on 128Mb capacity FlashCard. The RMS output was also directed to a thermal chart recorder.

7. PERSONNEL

The following Aeroquest personnel were involved in the project:

- Manager of Operations: Bert Simon
- Field Data Processors: Matt Pozza, Nick Venter
- Field Operator: Marcus Watson, Troy Will
- Data Interpretation and Reporting: Matt Pozza, Marion Bishop, Sean Scrivens

The survey pilots Greg Goodison and Clay Wilson were employed directly by the helicopter operator – Big Horn Helicopters, Calgary, Alberta.

8. DELIVERABLES

The report includes a set of nine (9) geophysical maps plotted at a scale of 1:10,000. Two data products are presented for each of the three map plates that cover the survey area (Figure 2).

- MAG Coloured Total Magnetic Intensity (TMI) with line contours and EM anomalies
- ZOFF AeroTEM Off-Time Z3 colour grid with line contours and EM anomalies
- EM AeroTEM Off-Time Profiles (Z1-Z11) and EM anomalies

The coordinate/projection system for the maps is NAD83 Universal Transverse Mercator Zone 11 (for Canada; Central America; Mexico; USA (ex Hawaii Aleutian Islands)). For reference, the latitude and longitude in WGS84 are also noted on the maps. All the maps show flight path trace, skeletal topography, and conductor picks represented by an anomaly symbol classified according to calculated on-time conductance. The anomaly symbol is accompanied by postings denoting the calculated on-time conductance, a thick or thin classification and an anomaly identifier label. The anomaly symbol legend is given in the margin of the maps. The magnetic field data is presented as superimposed line contours with a minimum contour interval of 2.5-5 nT. Bold contour lines are separated by 250 nT. The geophysical profile data is archived digitally in a Geosoft GDB binary format database. The database contains the processed streaming data, the RMS data, the base station data, and all processed channels. A description of the contents of the individual channels in the database can be found in Appendix 3. This digital data is archived at the Aeroquest head office in Milton.

9. DATA PROCESSING AND PRESENTATION

All in-field and post-field data processing was carried out using Aeroquest proprietary data processing software, and Geosoft Oasis montaj software. Maps were generated using 36-inch wide Hewlett Packard ink-jet plotters.

9.1. Base Map

The geophysical maps accompanying this report are based on positioning in the datum of NAD83. The survey geodetic GPS positions have been projected using the Universal Transverse Mercator projection in Zone 11N. A summary of the map datum and projection specifications are as follows:

- Ellipse: GRS 1980
- Ellipse major axis: 6378137m eccentricity: 0.081819191
- Datum: North American 1983 - Canada Mean
- Datum Shifts (x,y,z) : 0, 0, 0 metres
- Map Projection: Universal Transverse Mercator Zone 11 (Central Meridian 117ºW)
- Central Scale Factor: 0.9996
- False Easting, Northing: 500,000m, 0m

9.2. Flight Path & Terrain Clearance

The position of the survey helicopter was directed by use of the Global Positioning System (GPS). Positions were updated five times per second (5Hz) and expressed as WGS84 latitude and longitude calculated from the raw pseudo range derived from the C/A code signal. The instantaneous GPS flight path, after conversion to UTM co-ordinates, is drawn using linear interpolation between the x/y positions. The terrain clearance was maintained with reference to the radar altimeter. The raw Digital Terrain Model (DTM) was derived by taking the GPS survey elevation and subtracting the radar altimeter terrain clearance values. The calculated topography elevation values are relative to WGS84 (GPS) altitude and are not tied in to surveyed geodetic heights.

Each flight included at least two high elevation ‘background’ checks. During the high elevation checks, an internal 5 second wide calibration pulse in all EM channels was generated in order to ensure that the gain of the system remained constant and within specifications.

9.3. Electromagnetic Data

The raw streaming data, sampled at a rate of 38,400 Hz (128 channels, 300 times per second) was reprocessed using a proprietary software algorithm developed and owned by Aeroquest Limited. Processing involves the compensation of the X and Z component data for the primary field waveform. Coefficients for this compensation for the system transient are determined and applied to the stream data. The stream data are then pre-filtered, stacked, binned to the 33 on and off-time channels and checked for the effectiveness of the compensation and stacking processes. The stacked data is then filtered, leveled and split up into the individual line segments. Further base level adjustments may be carried out at this stage.

The final field processing step was to merge the processed EM data with the other data sets into a Geosoft GDB file. The EM fiducial is used to synchronize the two datasets. The processed channels are mergered into 'array format; channels in the final Geosoft database as Zon, Zoff, Xon, and Xoff

The filtering of the stacked data is designed to remove or minimize high frequency noise that can not be sourced from the geology. Apparent bedrock EM anomalies were interpreted with the aid of an auto-pick from positive peaks and troughs in the on-time Z channel responses correlated with X channel responses. The auto-picked anomalies were reviewed and edited by a geophysicist on a line by line basis to discriminate between thin and thick conductor types. Anomaly picks locations were migrated and removed as required. This process ensures the optimal representation of the conductor centres on the maps.

At each conductor pick, estimates of the off-time conductance have been generated based on a horizontal plate source model for those data points along the line where the response amplitude is sufficient to yield an acceptable estimate. Some of the EM anomaly picks do not display a tau value; this is due to the inability to properly define the decay of the conductor usually because of low signal amplitudes. Each conductor pick was then classified according to a set of seven ranges of calculated off-time conductance values. For high conductance sources, the on-time conductance values may be used, since it provides a more accurate measure of high-conductance sources. Each symbol is also given an identification letter label, unique to each flight line. Conductor picks that did not yield an acceptable estimate of off-time conductance due to a low amplitude response were classified as a low conductance source. Please refer to the anomaly symbol legend located in the margin of the maps.

9.4. Magnetic Data

Prior to any leveling the magnetic data was subjected to a lag correction of -0.1 seconds and a spike removal filter. The filtered aeromagnetic data were then corrected for diurnal variations using the magnetic base station and the intersections of the tie lines. No corrections for the regional reference field (IGRF) were applied. The corrected profile data were interpolated on to a grid using a random grid technique with a grid cell size of 30 metres. The final leveled grid provided the basis for threading the presented contours which have a minimum contour interval of 2.5-5 nT.

10. GENERAL COMMENTS

The survey was successful in mapping the magnetic and conductive properties of the geology throughout the survey area. Below is a brief interpretation of the results. For a detailed interpretation please contact Aeroquest Limited.

10.1. Magnetic Response

The magnetic data provide a high resolution map of the distribution of the magnetic mineral content of the survey area. This data can be used to interpret the location of geological contacts and other structural features such as faults and zones of magnetic alteration. The sources for anomalous magnetic responses are generally thought to be predominantly magnetite because of the relative abundance and strength of response (high magnetic susceptibility) of magnetite over other magnetic minerals such as pyrrhotite.

10.2. EM Anomalies

The EM anomalies on the maps are classified by conductance (as described earlier in the report) and also by the thickness of the source. A thin, vertically orientated source produces a double peak anomaly in the z-component response and a positive to negative crossover in the x-component response (Figure 8). For a vertically orientated thick source (say, greater than 10m), the response is a single peak in the z-component response and a negative to positive crossover in the x-component response (Figure 9). Because of these differing responses, the AeroTEM system provides discrimination of thin and thick sources and this distinction is indicated on the EM anomaly symbols (N = thin and K = thick). Where multiple, closely spaced conductive sources occur, or where the source has a shallow dip, it can be difficult to uniquely determine the type (thick vs. thin) of the source (Figure 10). In these cases both possible source types may be indicated by picking both thick and thin response styles. For shallow dipping conductors the 'thin' pick will be located over the edge of the source, whereas the 'thick' pick will fall over the downdip 'heart' of the anomaly.

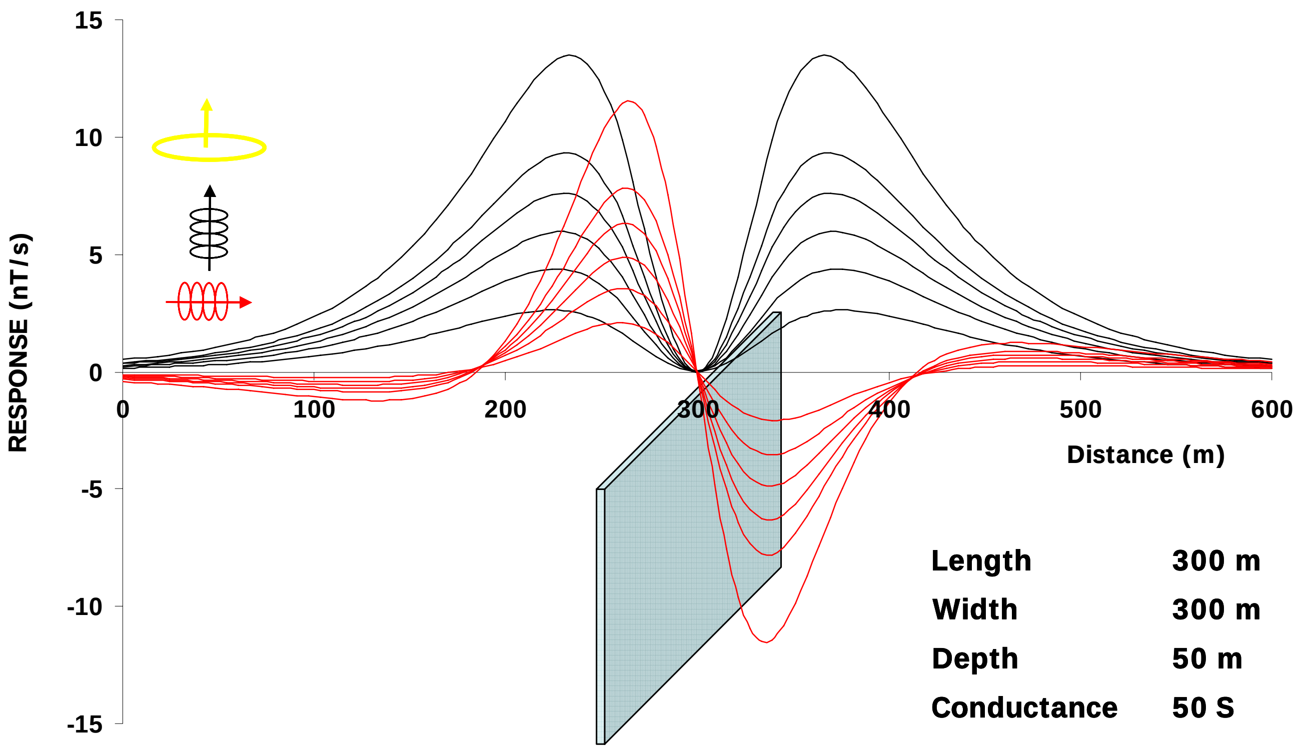


Figure 8. AeroTEM response to a 'thin' vertical conductor.

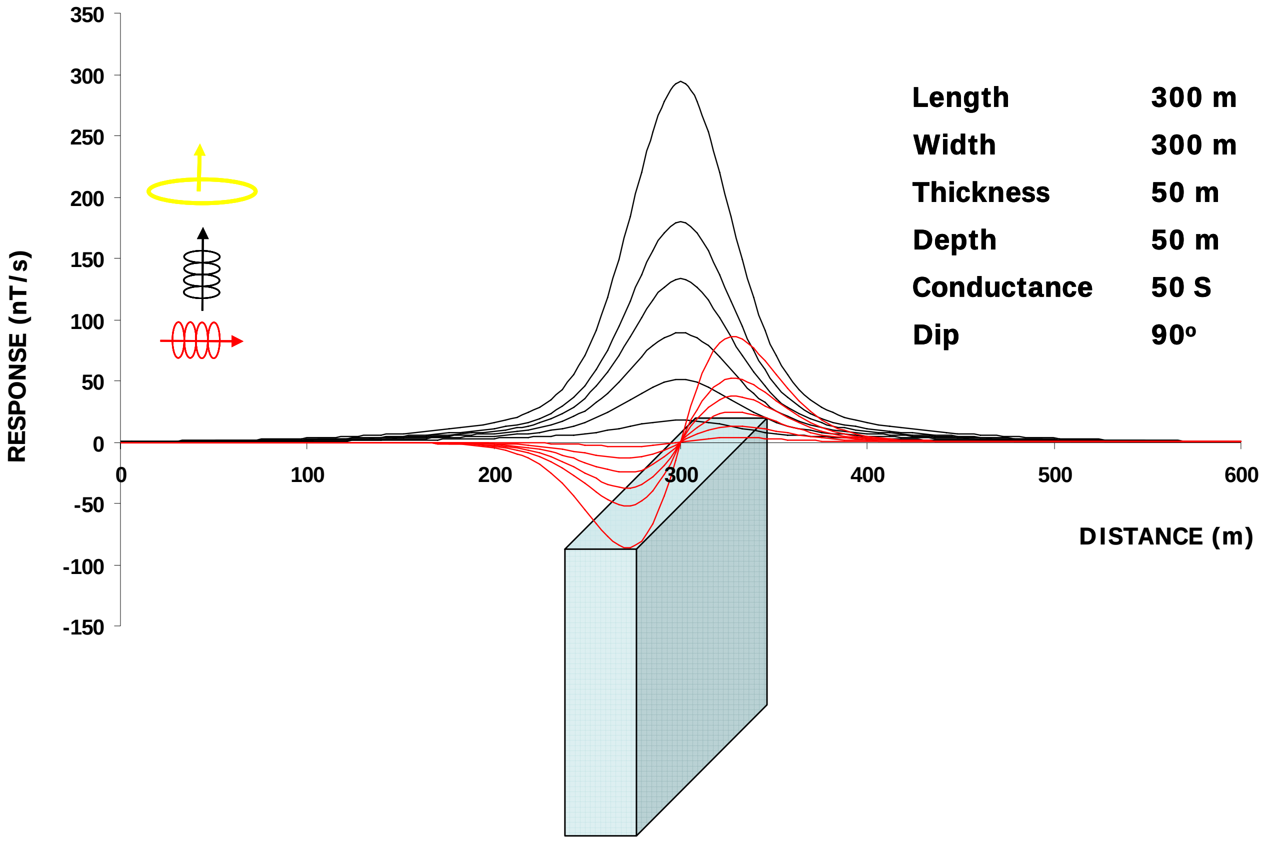


Figure 9. AeroTEM response for a 'thick' vertical conductor.

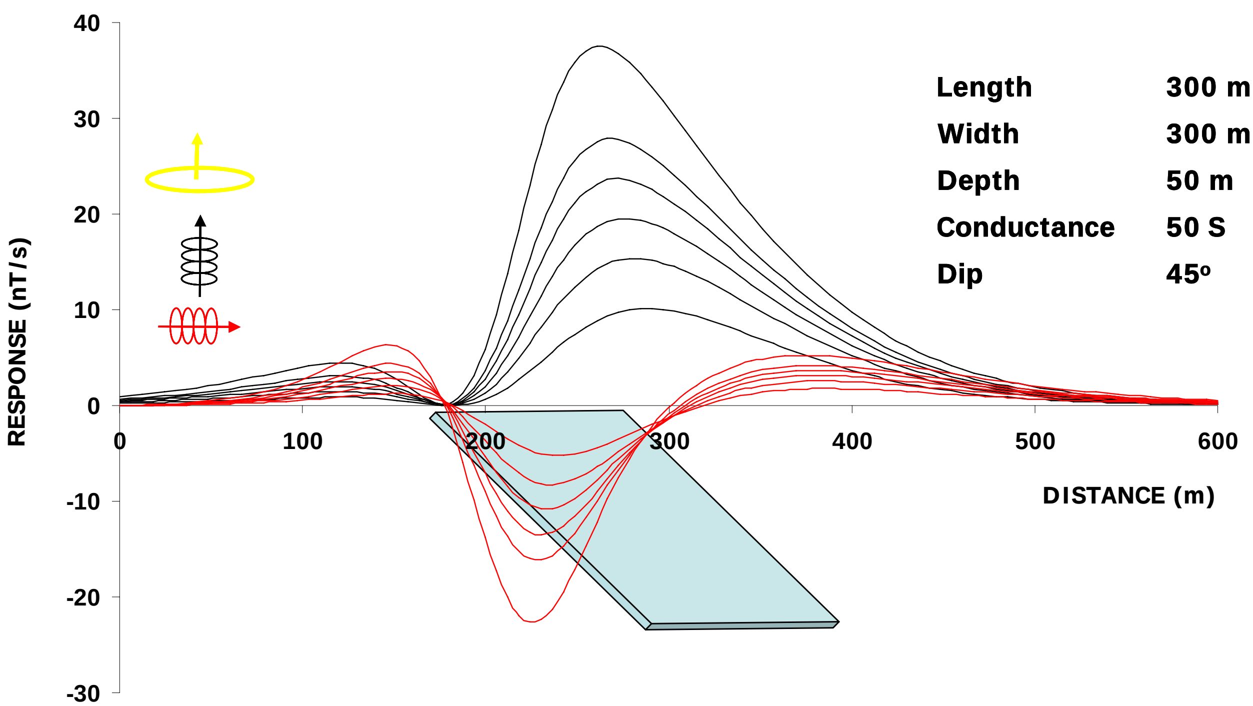


Figure 10. AeroTEM response over a 'thin' dipping conductor.

Respectfully submitted,

Sean Scrivens

Geophysicist
Aeroquest Limited
July, 2006

APPENDIX 1 – PROJECT CORNER COORDINATES

The Project consists of three an irregularly shaped blocks with boundaries as defined in the following table. Positions are in UTM Zone 11 – NAD83.

Car

X	Y
544954.7	5440186.9
547358.5	5440185.4
547350.8	5441085.3
550116.0	5441110.7
550117.2	5435550.8
549224.7	5435543.0
549225.9	5435927.1
547495.2	5435916.7
547499.0	5435471.7
547152.3	5435468.6
547152.8	5435413.7
545999.6	5435403.8
545971.2	5438180.0
544971.2	5438180.0

K9

X	Y
538743.9	5516549.0
541752.0	5516549.0
541754.9	5516086.4
541661.3	5516085.9
541657.2	5510040.5
538649.1	5510040.5
538606.1	5516062.9
538746.8	5516086.4

Vulcan

X	Y
547914.7	5519584.1
549231.2	5519596.0
549237.3	5518921.7
551569.4	5518942.9
551569.5	5515943.0
549249.1	5515921.7
549242.1	5516596.0
548758.4	5516591.6
548759.8	5516423.2
547936.0	5516423.5
547934.3	5516584.2
547258.4	5516578.1
547245.9	5517964.7
547387.8	5518208.4
547526.8	5518497.5
547489.0	5518608.0
547503.1	5518758.6
547563.5	5518890.4
547675.7	5519022.0
547799.3	5519142.0

APPENDIX 2 - Description of Database Fields

The GDB file is a Geosoft binary database. In the database, the Survey lines and Tie Lines are prefixed with an "L" for "Line" and "T" for "Tie". There are 3 databases, one for each of the survey blocks. Their data contents are as follows:

Database (05-083_Car.gdb, 05-083_K9.gdb, 05-083_Vulcan.gdb):

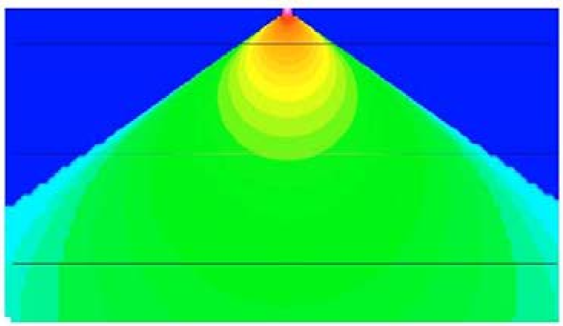
Column	Units	Description
emfid		AERODAS Fiducial
utctime	hh:mm:ss.ss	UTC time
x	m	UTM Easting (NAD83, zone 11N)
y	m	UTM Northing (NAD83, zone 11N)
bheight	m	Terrain clearance of EM bird
dtm	m	Digital Terrain Model
Magonbirdf	nT	Final levelled TMI on EM bird (*K9 and Vulcan Blocks Only*)
magf	nT	Final levelled total magnetic intensity
basemagf	nT	Base station total magnetic intensity
ZOn1-ZOn16	nT/s	Processed Streaming On-Time Z component Channels 1-16
ZOff0-ZOff16	nT/s	Processed Streaming Off-Time Z component Channels 0-16
XOn1-XOn16	nT/s	Processed Streaming On-Time X component Channels 1-16
XOff0-XOff16	nT/s	Processed Streaming Off-Time X component Channels 0-16
Anom_labels		Letter label of conductor pick
Anom_ID		Letter label of conductor thickness (N or K)
off_tau	s	Off-time decay constant of each individual conductor pick
off_con	S	Off-time conductance of each individual conductor pick
grade		Classification from 1-7 based on conductance of conductor pick
off_alltau	s	Off-time decay constant of all data points
off_allcon	S	Off-time conductance of all data points

APPENDIX 3: AEROTEM DESIGN CONSIDERATIONS

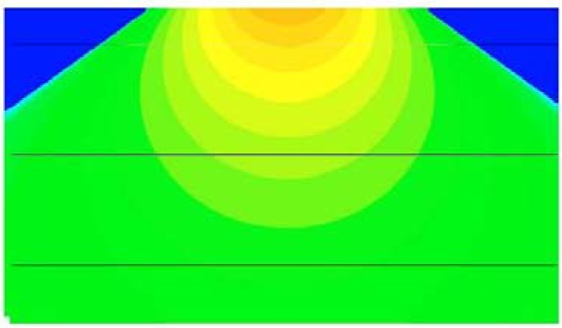
Helicopter-borne EM systems offer an advantage that cannot be matched from a fixed-wing platform. The ability to fly at slower speed and collect data with high spatial resolution, and with great accuracy, means the helicopter EM systems provide more detail than any other EM configuration, airborne or ground-based. Spatial resolution is especially important in areas of complex geology and in the search for discrete conductors. With the advent of helicopter-borne high-moment time domain EM systems the fixed wing platforms are losing their *only* advantage – depth penetration.

Advantage 1 – Spatial Resolution

The AeroTEM system is specifically designed to have a small footprint. This is accomplished through the use of concentric transmitter-receiver coils and a relatively small diameter transmitter coil (5 m). The result is a highly focused exploration footprint, which allows for more accurate "mapping" of discrete conductors. Consider the transmitter primary field images shown in Figure 1, for AeroTEM versus a fixed-wing transmitter.



The footprint of AeroTEM at the earth's surface is roughly 50m on either side of transmitter



The footprint of a fixed-wing system is roughly 150 m on either side of the transmitter

Figure 1. A comparison of the footprint between AeroTEM and a fixed-wing system, highlights the greater resolution that is achievable with a transmitter located closer to the earth's surface. The AeroTEM footprint is one third that of a fixed-wing system and is symmetric, while the fixed-wing system has even lower spatial resolution along the flight line because of the separated transmitter and receiver configuration.

At first glance one may want to believe that a transmitter footprint that is distributed more evenly over a larger area is of benefit in mineral exploration. In fact, the opposite is true; by energizing a larger surface area, the ability to energize and detect discrete conductors is reduced. Consider, for example, a comparison between AeroTEM and a fixed-wing system over the Mesamax Deposit (1,450,000 tonnes of 2.1% Ni, 2.7% Cu, 5.2 g/t Pt/Pd). In a test survey over three flight lines spaced 100 m apart, AeroTEM detected the Deposit on all three flight lines. The fixed-wing system detected the Deposit only on two flight lines. In exploration programs that seek to expand the flight line spacing in an effort to reduce the cost of the airborne survey, discrete conductors such as the Mesamax Deposit can go undetected. The argument often put forward in favor of using fixed-wing systems is that because of their larger footprint, the flight line spacing can indeed be widened. Many fixed-wing surveys are flown at 200 m or 400 m. Much of the survey work performed by Aeroquest has been to survey in areas that were previously flown at these wider line spacings. One of the reasons for AeroTEM's impressive discovery record has been the strategy of flying closely spaced lines and finding all the discrete near-surface conductors. These higher resolution surveys are being flown within existing mining camps, areas that improve the chances of discovery.

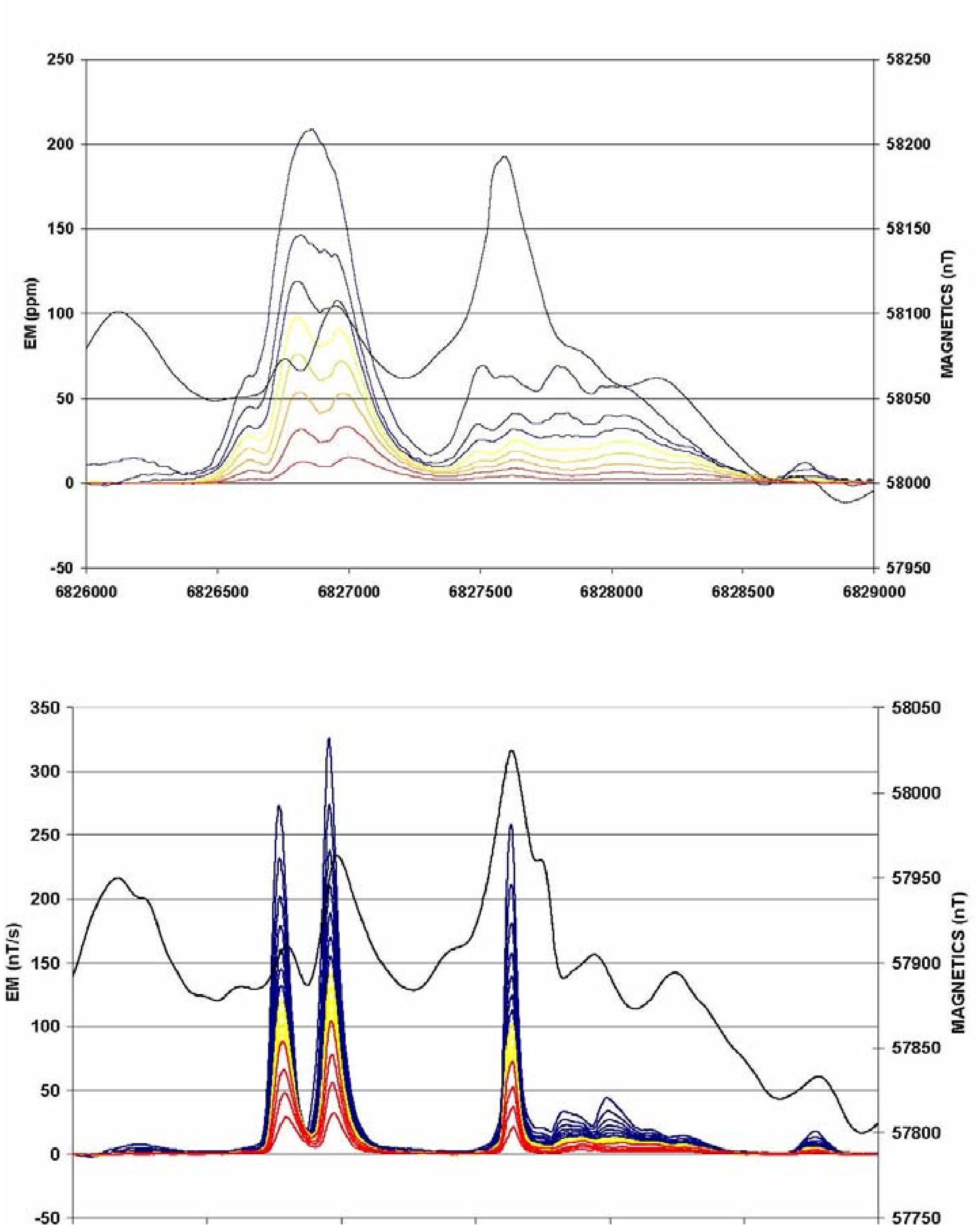


Figure 2. Fixed-wing (upper) and AeroTEM (lower) comparison over the eastern limit of the Mesamax Deposit, a Ni-Cu-PGE zone located in the Raglan nickel belt and owned by Canadian Royalties. Both systems detected the Deposit further to the west where it is closer to surface.

The small footprint of AeroTEM combined with the high signal to noise ratio (S/N) makes the system more suitable to surveying in areas where local infrastructure produces electromagnetic noise, such as power lines and railways. In 2002

Aeroquest flew four exploration properties in the Sudbury Basin that were under option by FNX Mining Company Inc. from Inco Limited. One such property, the Victoria Property, contained three major power line corridors.

The resulting AeroTEM survey identified all the known zones of Ni-Cu-PGE mineralization, and detected a response between two of the major power line corridors but in an area of favorable geology. Three boreholes were drilled to test the anomaly, and all three intersected sulphide. The third borehole encountered 1.3% Ni, 6.7% Cu, and 13.3 g/t TPMs over 42.3 ft. The mineralization was subsequently named the Powerline Deposit.

The success of AeroTEM in Sudbury highlights the advantage of having a system with a small footprint, but also one with a high S/N. This latter advantage is achieved through a combination of a high-moment (high signal) transmitter and a rigid geometry (low noise). Figure 3 shows the Powerline Deposit response and the response from the power line corridor at full scale. The width of power line response is less than 75 m.

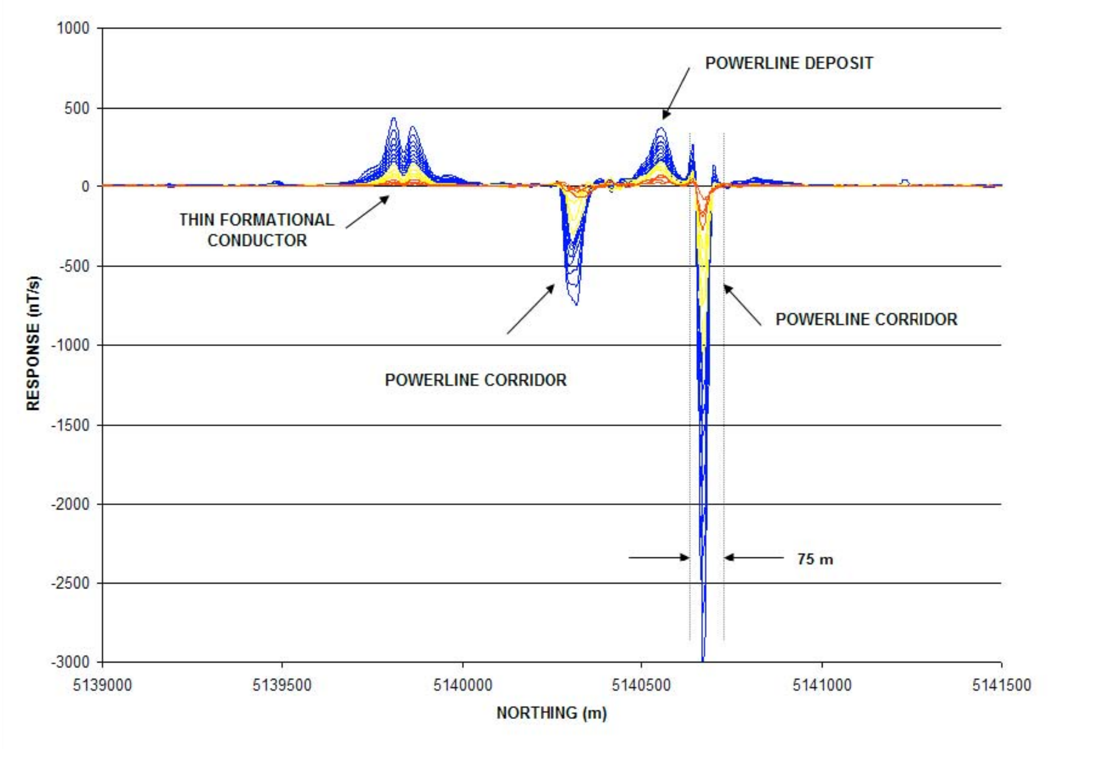


Figure 3. The Powerline Deposit is located between two major power line corridors, which make EM surveying problematic. Despite the strong response from the power line, the anomaly from the Deposit is clearly detected. Note the thin formational conductor located to the south. The only way to distinguish this response from that of two closely spaced conductors is by interpreting the X-axis coil response.

Advantage 2 – Conductance Discrimination

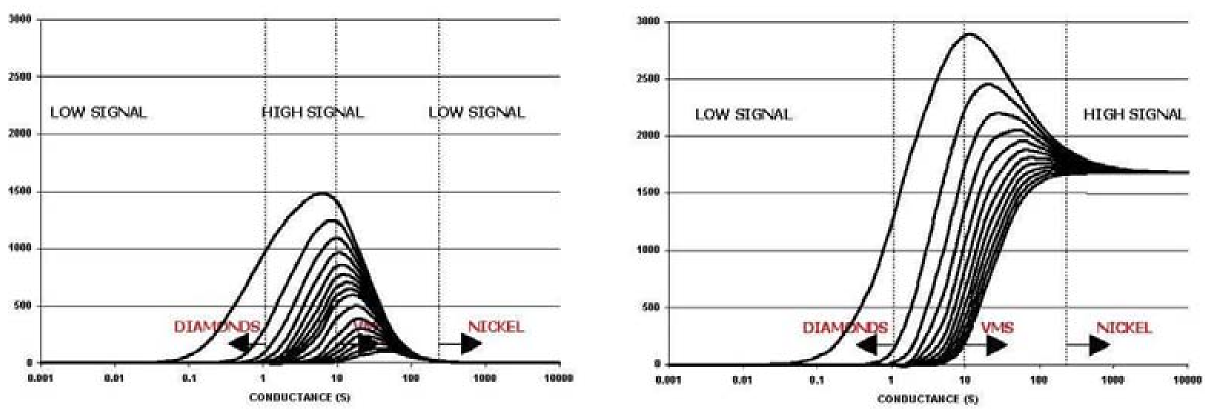
The AeroTEM system features full waveform recording and as such is able to measure the on-time response due to high conductance targets. Due to the processing method (primary field removal), there is attenuation of the response with increasing conductance, but the AeroTEM on-time measurement is still superior to systems that rely on lower base frequencies to detect high conductance targets, but do not measure in the on-time.

The peak response of a conductive target to an EM system is a function of the target conductance and the EM system base frequency. For time domain EM systems that measure only in the off-time, there is a drop in the peak response of a target as the base frequency is lowered for all conductance values below the peak system response. For example, the AeroTEM peak response occurs for a 10 S conductor in the early off-time and 100 S in the late off-time for a 150 Hz base frequency. Because base frequency and conductance form a linear relationship when considering the peak response of any EM system, a drop in base frequency of 50% will double the conductance at which an EM system shows its peak response. If the base frequency were lowered from 150 Hz to 30 Hz there would be a fivefold increase in conductance at which the peak response of an EM occurred.

However, in the search for highly conductive targets, such as pyrrhotite-related Ni-Cu-PGM deposits, a fivefold increase in conductance range is a high price to pay because the signal level to lower conductance targets is reduced by the same factor of five. For this reason, EM systems that operate with low base frequencies are not suitable for general exploration unless the target conductance is more than 100 S, or the target is covered by conductive overburden.

Despite the excellent progress that has been made in modeling software over the past two decades, there has been little work done on determining the optimum form of an EM system for mineral exploration. For example, the optimum configuration in terms of geometry, base frequency and so remain unknown. Many geophysicists would argue that there is no single ideal configuration, and that each system has its advantages and disadvantages. We disagree.

When it comes to detecting and discriminating high-conductance targets, it is necessary to measure the pure inphase response of the target conductor. This measurement requires that the measured primary field from the transmitter be subtracted from the total measured response such that the secondary field from the target conductor can be determined. Because this secondary field is in-phase with the transmitter primary field, it must be made while the transmitter is turned on and the transmitter current is changing. The transmitted primary field is several orders of magnitude larger than the secondary field. AeroTEM uses a bucking coil to reduce the primary field at the receiver coils. The only practical way of removing the primary field is to maintain a rigid geometry between the transmitter, bucking and receiver coils. This is the main design consideration of the AeroTEM airframe and it is the only time domain airborne system to have this configuration.



The off-time AeroTEM response for the 16 channel configuration.

The on-time response assuming 100% removal of the measured primary field.

Figure 4. The off-time and on-time response nomogram of AeroTEM for a base frequency of 150 Hz. The on-time response is much stronger for higher conductance targets and this is why on-time measurements are more important than lower frequencies when considering high conductance targets in a resistive environment.

Advantage 3 – Multiple Receiver Coils

AeroTEM employs two receiver coil orientations. The Z-axis coil is oriented parallel to the transmitter coil and both are horizontal to the ground. This is known as a maximum coupled configuration and is optimal for detection. The X-axis coil is oriented at right angles to the transmitter coil and is oriented along the line-of-flight. This is known as a minimum coupled configuration, and provides information on conductor orientation and thickness. These two coil configurations combined provide important information on the position, orientation, depth, and thickness of a conductor that cannot be matched by the traditional geometries of the HEM or fixed-wing systems. The responses are free from a system geometric effect and can be easily compared to model type curves in most cases. In other words, AeroTEM data is very easy to interpret. Consider, for example, the following modeled profile:

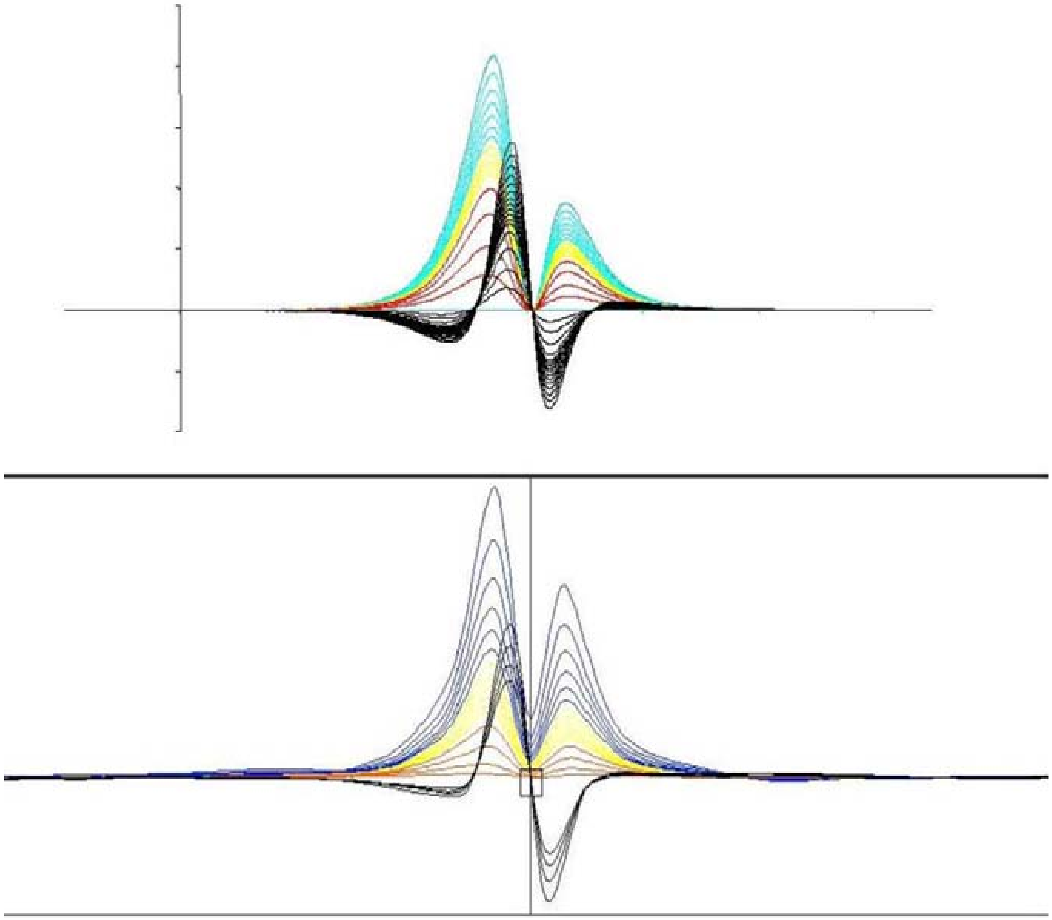


Figure 5. Measured (lower) and modeled (upper) AeroTEM responses are compared for a thin steeply dipping conductor. The response is characterized by two peaks in the Z-axis coil, and a cross-over in the X-axis coil that is centered between the two Z-axis peaks. The conductor dips toward the higher amplitude Z-axis peak. Using the X-axis cross-over is the only way of differentiating the Z-axis response from being two closely spaced conductors.

HEM versus AeroTEM

Traditional helicopter EM systems operate in the frequency domain and benefit from the fact that they use narrowband as opposed to wide-band transmitters. Thus all of the energy from the transmitter is concentrated in a few discrete frequencies. This allows the systems to achieve excellent depth penetration (up to 100 m) from a transmitter of modest power. The Aeroquest Impulse system is one implementation of this technology.

The AeroTEM system uses a wide-band transmitter and delivers more power over a wide frequency range. This frequency range is then captured into 16 time channels, the early channels containing the high frequency information and the late time channels containing the low frequency information down to the system base frequency. Because frequency domain HEM systems employ two coil configurations (coplanar and coaxial) there are only a maximum of three comparable frequencies per configuration, compared to 16 AeroTEM off-time and 12 AeroTEM on-time channels.

Figure 6 shows a comparison between the Dighem HEM system (900 Hz and 7200 Hz coplanar) and AeroTEM (Zaxis) from surveys flown in Raglan, in search of highly conductive Ni-Cu-PGM sulphide. In general, the AeroTEM peaks are sharper and better defined, in part due to the greater S/N ratio of the AeroTEM system over HEM, and also due to the modestly filtered AeroTEM data compared to HEM. The base levels are also better defined in the AeroTEM data. AeroTEM filtering is limited to spike removal and a 5-point smoothing filter. Clients are also given copies of the raw, unfiltered data.

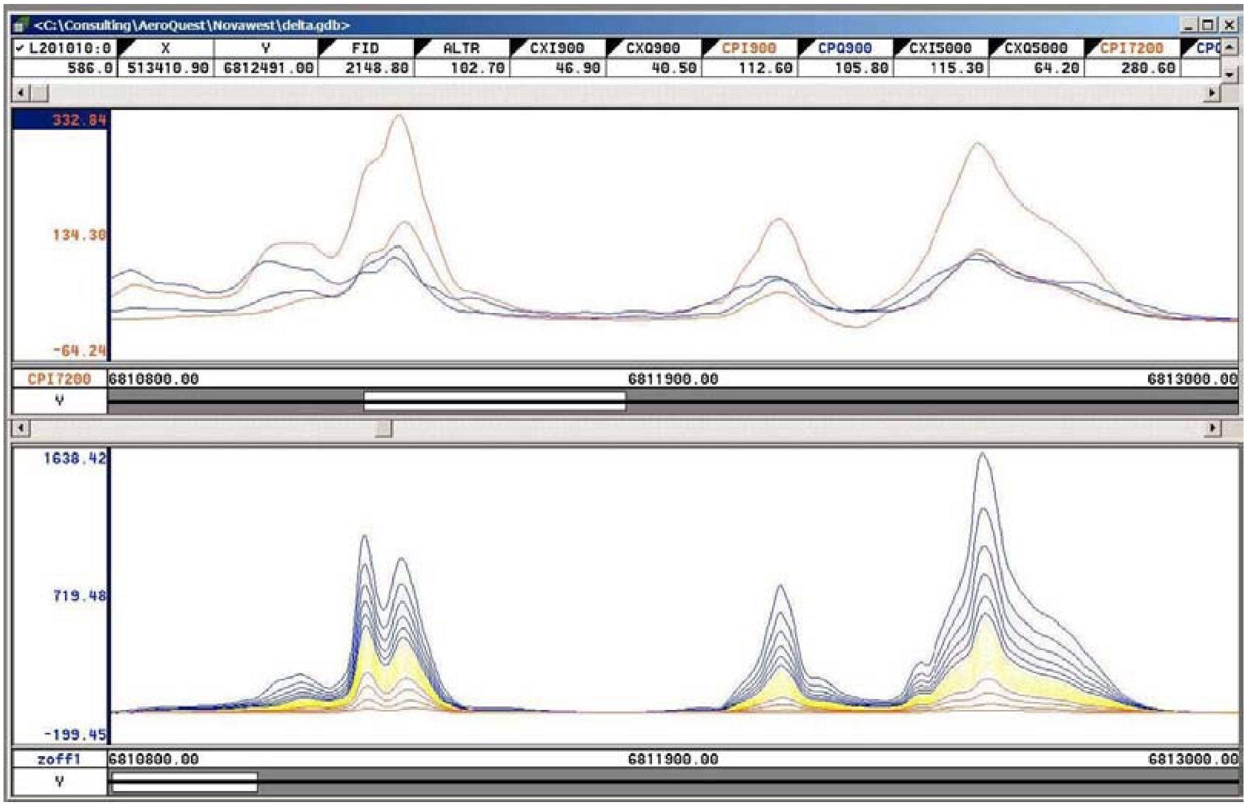


Figure 6. Comparison between Dighem HEM (upper) and AeroTEM (lower) surveys flown in the Raglan area. The AeroTEM responses appear to be more discrete, suggesting that the data is not as heavily filtered as the HEM data. The S/N advantage of AeroTEM over HEM is about 5:1.

Aeroquest Limited is grateful to the following companies for permission to publish some of the data from their respective surveys: Wolfden Resources, FNX Mining Company Inc, Canadian Royalties, Nova West Resources, Aurogin Resources, Spectrem Air. Permission does not imply an endorsement of the AeroTEM system by these companies.

APPENDIX 4: AeroTEM Instrumentation Specification Sheet

AEROTEM Helicopter Electromagnetic System

System Characteristics

- Transmitter: Triangular Pulse Shape Base Frequency 30 or 150 Hz
- Tx On Time - 5,750 (30Hz) or 1,150 (150Hz) µs
- Tx Off Time - 10,915 (30Hz) or 2,183 (150Hz) µs
- Loop Diameter - 5 m
- Peak Current - 250 A
- Peak Moment - 38,800 NIA
- Typical Z Axis Noise at Survey Speed = 8 ppb peak
- Sling Weight: 270 Kg
- Length of Tow Cable: 40 m
- Bird Survey Height: 30 m or less nominal

Receiver

- Three Axis Receiver Coils (x, y, z) positioned at centre of transmitter loop
- Selectable Time Delay to start of first channel 21.3 , 42.7, or 64.0 ms

Display & Acquisition

- PROTODAS Digital recording at 126 samples per decay curve at a maximum of 300 curves per second (26.455 µs channel width)
- RMS Channel Widths: 52.9,132.3, 158.7, 158.7, 317.5, 634.9 µs
- Recording & Display Rate = 10 readings per second.
- On-board display - six channels Z-component and 1 X-component

System Considerations

Comparing a fixed-wing time domain transmitter with a typical moment of 500,000 NIA flying at an altitude of 120 m with a Helicopter TDEM at 30 m, notwithstanding the substantial moment loss in the airframe of the fixed wing, the same penetration by the lower flying helicopter system would only require a sixty-fourth of the moment. Clearly the AeroTEM system with nearly 40,000 NIA has more than sufficient moment. The airframe of the fixed wing presents a response to the towed bird, which requires dynamic compensation. This problem is non-existent for AeroTEM since transmitter and receiver positions are fixed. The AeroTEM system is completely portable, and can be assembled at the survey site within half a day.

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Email: sales@aeroquestsurveys.com

APPENDIX 5: Anomaly Listing

K9 Block

Line	Anom Labels	Anom ID	Grade	Off Tau	Off Con	x	y	bird height	dtm	utc time
20010	A	K	2	201.96	4.08	541217.0	5516517.6	21.75	1418.69	16:01:01.5
20010	B	N	2	201.96	4.08	541257.1	5516513.6	22.31	1430.46	16:01:05.6
20020	A	N	2	162.75	2.65	541188.2	5516317.0	48.98	1273.62	16:03:12.0
20020	B	K	2	162.75	2.65	541114.8	5516330.0	45.78	1263.78	16:03:16.3
20020	C	K	4	373.36	13.94	539865.0	5516313.5	47.57	1278.35	16:04:15.4
20030	A	K	2	188.84	3.57	541040.9	5516092.2	88.93	1215.61	13:42:04.4
20030	B	K	1	80.79	0.65	538669.8	5516100.4	48.97	1776.36	13:45:22.9
20050	A	K	2	106.53	1.14	538675.9	5515668.2	77.91	1485.09	13:58:41.4
20060	A	K	3	267.94	7.18	538648.0	5515508.5	89.62	1425.93	13:59:58.2
20070	A	K	2	122.11	1.49	538701.3	5515302.2	88.89	1519.40	14:08:48.1
20070	B	K	3	258.36	6.67	538551.4	5515298.1	65.51	1503.93	14:08:58.1
20080	A	K	2	113.88	1.30	538683.5	5515109.7	69.15	1593.61	14:10:18.7
20090	A	K	5	450.78	20.32	538612.8	5514918.5	75.91	1649.60	14:21:54.9
20100	A	K	4	411.06	16.90	538768.9	5514703.6	84.24	1756.43	14:23:12.4
20110	A	K	2	153.34	2.35	539727.9	5514488.8	90.86	1765.51	14:31:45.7
20110	B	K	2	102.84	1.06	539298.8	5514497.6	59.90	1869.87	14:32:16.1
20110	C	K	2	167.63	2.81	539142.7	5514503.9	50.45	1957.68	14:32:33.7
20110	D	K	5	522.50	27.30	538825.3	5514494.7	91.30	1822.14	14:32:59.4
20120	A	K	7	1129.33	127.54	538953.5	5514293.9	76.21	1910.24	14:34:35.9
20120	B	K	5	494.13	24.42	539288.8	5514300.8	111.67	1895.56	14:35:13.1
20130	A	K	2	206.46	4.26	539798.1	5514116.4	64.78	1908.19	14:41:51.2
20130	B	N	2	131.32	1.72	539440.3	5514109.5	72.35	1940.66	14:42:13.8
20130	C	K	2	131.32	1.72	539304.8	5514098.5	63.83	1978.64	14:42:21.4
20130	D	K	3	240.59	5.79	539076.5	5514097.3	63.17	2049.78	14:42:37.2
20130	E	K	6	605.97	36.72	538882.6	5514095.9	60.64	1989.99	14:42:51.5
20130	F	K	4	390.28	15.23	538767.6	5514098.0	69.98	1961.23	14:42:59.2
20140	A	K	6	618.73	38.28	538859.1	5513881.7	74.60	2104.98	14:44:42.0
20140	B	K	2	169.49	2.87	539283.5	5513886.8	75.84	2062.02	14:45:26.6
20140	C	N	2	169.49	2.87	539427.4	5513881.8	101.76	2010.16	14:45:35.8
20140	D	K	2	175.70	3.09	539693.8	5513898.2	65.44	1992.48	14:45:58.3
20150	A	N	1	66.72	0.45	539407.0	5513703.3	20.05	2109.32	14:52:53.4
20150	C	K	1	84.50	0.71	538825.4	5513689.5	41.82	2234.26	14:53:54.7
20170	A	K	1	79.20	0.63	538769.2	5513260.5	67.99	2021.51	22:32:58.0
20180	A	K	2	170.31	2.90	538623.6	5513110.0	92.04	1875.84	22:42:35.1
20190	A	K	3	286.98	8.24	538567.1	5512896.0	53.98	1796.91	22:43:19.9
20190	B	K	1	51.07	0.26	538963.5	5512878.1	73.18	1909.53	22:44:36.6
20200	A	K	2	136.69	1.87	538815.0	5512696.5	80.96	1786.37	22:52:56.7
20215	A	K	1	97.77	0.96	538729.5	5512502.7	123.85	1659.03	19:42:41.0
20215	B	K	2	129.25	1.67	538607.7	5512490.6	109.25	1599.42	19:42:49.3
20220	A	K	2	195.31	3.81	538701.5	5512330.0	101.78	1659.98	00:58:48.5
20220	B	K	2	156.90	2.46	538630.8	5512333.6	84.12	1633.40	00:58:54.3
20230	A	K	2	105.72	1.12	538622.7	5512061.5	39.63	1623.18	00:47:07.7
20230	B	K	1	84.18	0.71	538926.4	5512107.3	40.82	1722.14	00:47:42.5
20240	A	K	1	92.19	0.85	538619.9	5511894.1	90.25	1498.68	00:46:16.0

Line	Anom Labels	Anom ID	Grade	Off Tau	Off Con	x	y	bird height	dtm	utc time
20281	A	K	1	52.29	0.27	538608.8	5511107.4	75.54	1176.83	00:18:26.4
20290	A	K	1	71.07	0.51	541742.7	5510890.2	77.74	1813.60	00:12:42.2
20300	A	K	2	116.08	1.35	541701.2	5510705.7	96.26	1673.47	00:05:01.9
20310	A	K	2	164.53	2.71	541656.6	5510499.7	24.86	1640.11	00:03:17.4
20320	A	K	2	143.72	2.07	541576.3	5510303.7	152.45	1470.64	23:55:56.9
20332	C	K	2	147.91	2.19	541540.4	5510099.6	35.58	1472.02	23:54:40.2
29010	A	K	1	50.56	0.26	538684.5	5511747.5	34.25	1469.04	15:48:32.8
29010	B	K	1	68.33	0.47	538696.5	5511896.8	35.35	1556.48	15:48:49.3
29010	C	K	1	88.06	0.78	538699.1	5512009.4	36.21	1619.71	15:49:02.7
29010	D	K	2	115.56	1.34	538705.7	5512276.4	73.58	1656.74	15:49:26.7
29010	E	K	2	130.42	1.70	538707.1	5512448.7	66.67	1675.18	15:49:39.6
29010	F	K	2	214.66	4.61	538708.8	5512560.2	22.46	1711.06	15:49:50.0
29010	G	N	3	283.65	8.05	538707.9	5513281.1	22.73	1977.91	15:50:55.5
29010	H	K	3	283.65	8.05	538708.0	5513322.5	16.90	2005.73	15:50:58.8
29010	I	K	4	331.95	11.02	538704.6	5514203.5	56.17	1879.44	15:52:48.6
29010	J	K	3	237.85	5.66	538712.7	5514802.9	81.52	1689.09	15:53:26.0
29010	K	K	2	124.26	1.54	538683.4	5515578.8	60.20	1446.89	15:54:15.4
29010	L	K	2	110.97	1.23	538706.1	5516034.4	29.24	1731.50	15:55:13.2
29020	A	K	2	114.94	1.32	539198.5	5514256.0	53.70	1952.10	15:41:19.8
29030	A	K	1	69.57	0.48	539689.5	5513874.4	67.02	1986.79	15:34:33.8
29030	B	K	2	128.21	1.64	539702.7	5514481.9	76.74	1761.83	15:35:04.9
29071	A	K	2	168.72	2.85	541712.4	5510533.4	50.01	1663.13	14:48:09.1
29071	B	K	2	145.74	2.12	541716.2	5510710.9	63.67	1702.09	14:48:20.4

Vulcan Block

Line	Anom Labels	Anom ID	Grade	Off Tau	Off Con	x	y	bird height	dtm	utc time
10010	B	K	3	269.06	7.24	547258.2	5517173.5	102.20	2152.84	18:10:36.6
10010	C	K	2	178.97	3.20	547256.7	5517009.7	97.02	2068.70	18:10:48.2
10010	D	K	2	181.15	3.28	547248.1	5516874.5	79.43	2047.36	18:10:56.9
10010	E	K	4	365.80	13.38	547247.6	5516697.7	47.39	2108.85	18:11:09.3
10020	B	K	4	335.44	11.25	547457.6	5517112.4	16.11	2189.27	18:13:29.9
10020	C	K	4	383.34	14.70	547450.9	5517184.0	15.91	2234.12	18:13:42.0
10020	D	N	1	67.12	0.45	547472.2	5518112.1	24.18	2469.24	18:15:38.3
10020	E	K	1	67.12	0.45	547471.6	5518151.0	10.53	2495.60	18:15:42.9
10030	A	K	2	189.34	3.59	547672.2	5517150.2	67.34	2285.28	17:49:38.3
10030	B	K	6	627.37	39.36	547641.3	5516641.0	53.42	2138.04	17:50:09.3
10040	A	K	3	314.98	9.92	547847.3	5516721.5	120.05	2196.05	17:44:13.6
10040	B	K	2	125.10	1.56	547851.7	5517521.1	72.51	2232.79	17:45:07.4
10040	C	K	2	185.08	3.43	547863.0	5518002.8	42.64	2224.47	17:45:29.9
10045	B	K	2	214.66	4.61	547956.3	5516697.3	87.04	2266.89	17:56:31.5
10045	C	K	2	118.27	1.40	547967.2	5517501.8	78.26	2164.74	17:57:30.7
10045	D	K	1	95.75	0.92	547977.8	5517691.3	67.02	2136.18	17:57:39.7
10050	A	K	6	688.17	47.36	548064.8	5516642.4	32.72	2394.82	17:43:05.3
10055	A	K	1	91.26	0.83	548147.3	5516453.2	19.83	2508.19	19:36:01.5
10095	A	K	2	119.06	1.42	548957.1	5517646.8	38.13	2232.00	19:12:44.7

Line	Anom Labels	Anom ID	Grade	Off Tau	Off Con	x	y	bird height	dtm	utc time
10130	A	K	1	*	*	549635.4	5517427.3	51.30	2301.17	17:02:49.6
10180	A	K	2	182.37	3.33	550652.7	5516827.6	27.48	1801.64	19:13:13.4
10200	A	K	1	40.28	0.16	551074.3	5516365.8	57.78	1399.71	19:01:27.5
10200	B	K	2	140.09	1.96	551055.8	5516829.4	40.40	1633.06	19:02:23.0
19041	A	K	3	297.46	8.85	547377.5	5518018.3	17.00	2533.57	17:49:30.4
19041	B	K	3	306.37	9.39	547362.8	5518013.0	23.46	2551.88	17:49:41.6
19041	C	K	4	417.43	17.42	547310.6	5517978.5	24.36	2588.44	17:50:13.4
19050	A	K	1	*	*	547803.7	5517495.4	109.59	2264.87	17:35:32.6
19060	A	K	1	*	*	548341.3	5516946.6	33.34	2323.02	17:32:16.2
19060	B	K	2	197.19	3.89	547449.2	5516985.6	80.99	2101.08	17:33:27.1
19060	C	K	3	228.76	5.23	547323.4	5516976.2	69.64	2081.67	17:33:34.4
19080	A	K	3	297.57	8.86	550796.3	5516011.1	57.71	1350.08	17:15:19.2
19080	B	K	4	443.19	19.64	550362.1	5515986.9	63.38	1479.71	17:15:47.8

Car Block

Line	Anom Labels	Anom ID	Grade	Off Tau	Off Con	x	y	bird height	dtm	utc time
30070	B	K	1	32.98	0.11	549912.2	5439771.2	60.35	1724.59	18:10:47.1
30080	A	K	1	51.59	0.27	549919.7	5439570.6	53.79	1710.37	18:09:24.5
30100	A	K	2	141.72	2.01	549496.5	5439172.1	101.11	1817.24	17:56:44.4
30120	A	K	1	*	*	545102.1	5438789.2	49.64	1825.19	17:39:58.0
30180	A	K	1	*	*	548704.5	5437558.5	56.63	1841.52	19:46:37.7
30186	A	K	1	*	*	548689.8	5437488.0	44.82	1848.19	16:48:12.8
30190	A	K	1	49.37	0.24	548663.4	5437384.7	59.25	1820.43	19:40:41.2
30195	A	K	1	65.75	0.43	548464.8	5437278.6	53.84	1863.77	16:55:57.5
30195	B	K	1	68.35	0.47	548747.6	5437279.2	47.34	1796.45	16:56:12.2
30200	A	K	1	59.13	0.35	548724.7	5437180.6	49.40	1793.00	19:37:49.4
30205	A	K	2	116.97	1.37	548722.2	5437070.3	53.59	1779.59	16:59:03.0
30210	A	K	1	96.41	0.93	548945.9	5437004.4	42.06	1723.32	19:31:28.2
30210	B	K	1	77.11	0.59	548757.7	5436990.7	43.76	1749.50	19:31:37.2
30215	A	K	2	122.72	1.51	548544.2	5436868.2	61.60	1759.40	17:04:34.3
30215	B	K	2	197.37	3.90	548760.3	5436869.0	57.77	1725.98	17:04:42.0
30215	C	K	2	128.63	1.66	548969.1	5436871.0	55.82	1692.27	17:04:49.6
30220	A	K	1	67.43	0.46	549031.0	5436776.1	58.49	1667.32	19:29:03.9
30225	A	K	1	55.25	0.30	549395.0	5436689.1	58.20	1595.76	17:06:55.5
30235	A	K	2	118.56	1.41	550009.0	5436479.7	85.12	1447.70	17:14:17.2
39010	A	K	1	*	*	545006.9	5438884.0	53.14	1795.96	18:32:40.4
39080	A	K	1	52.45	0.28	548502.9	5437238.6	45.01	1863.85	20:07:01.5
39090	A	K	1	54.27	0.29	548988.5	5436911.5	69.55	1687.53	20:04:23.7
39100	A	K	2	115.99	1.35	549488.7	5436691.3	66.94	1575.15	19:56:13.1
39110	A	K	1	76.22	0.58	549999.6	5439314.0	47.89	1681.57	19:51:56.1
39110	B	K	1	79.27	0.63	549992.3	5436401.0	67.75	1467.35	19:53:52.7