2016 Total Magnetic Intensity Survey –WS Area

NTS: 115I/07, Whitehorse Mining District, Yukon, Canada

62°19’20” N 136° 40’10” W
62°18’40” N 136° 38’40” W

Andre Lebel

CLAIMS:

BC35 –BC50	(YC60218-YC60233)
BC65 –BC144	(YC60248-YC60327)
ICE1-ICE4	(YC46784-YC46787)
ICE5-ICE41	(YC54407-YC54443)
SLEEP13-SLEEP18	(YC60134-YC60139)
WS1-82	(YC53521-YC53602)
WS83-WS156	(YC53748-YC53821)
WS157-WS196	(YC53993-YC54032)
WS197-WS208	(YC91789-YC91800)

WORK PERFORMED:
September 30 - October 6, 2016

December 22, 2017

Prepared for:
BC Gold Corp.

Prepared by:

AURORA GEOSCIENCES

2016 Total Magnetic Intensity Survey –WS Area
NTS: 115I/07, Whitehorse Mining District, Yukon, Canada

Effective Date: December 22, 2017

Prepared for:
BC Gold Corp.
Suite 520-800 West Pender Street
Vancouver BC V6C 2V6

Prepared by:
Aurora Geosciences Ltd.
34A Laberge Road, Whitehorse, Yukon, Y1A5Y9
Phone: (867) 668.7672 Fax: (867) 393.3577
www.aurorageosciences.com

Andre Lebel

Contents

1 SUMMARY 1
2 SURVEY LOCATION 4
3 Regional Geology 5
4 Local Geology and history 5
5 CREW AND EQUIPMENT 6
6 SURVEY SPECIFICATIONS 7
7 DATA PROCESSING 7
8 MAGNETIC SUSCEPTIBILITY MEASUREMENTS 8
9 Interpretation and Recommendations 9
9.1 WS NORTH 11
9.2 WS SOUTH 15
REFERENCES 19
STATEMENT OF QUALIFICATIONS 20

Figure 1: Claim Map, Williams South (WS) Property 3
Figure 2: Location Map, Williams South (WS) Property 4
Figure 3: WS Total Magnetic Intensity interpretation 10
Figure 4: WS North Total Magnetic Intensity map 12
Figure 5: WS North vertical derivative of TMI 13
Figure 6: L162 pseudosection plots with TMI profile 14
Figure 7: L159 pseudosection plots with TMI profile 14
Figure 8: WS South Total Magnetic Intensity 16
Figure 9: WS South vertical derivative of TMI 17
Figure 10: L149 pseudosection plots with TMI Profile. 18
Figure 11: L147 pseudosection plots with TMI profile 18

1 SUMMARY

This assessment report describes a Total Field Magnetics (Mag) ground geophysical survey conducted on the WS Property for BC Gold Corp. During the period of September 30th to October 6th 2016, a total of 88.9 line-kilometres of walking Mag were completed over two target areas (WS North and WS South). The crew mobilized to the property via truck and set up camp at the Carmacks Copper camp, close to the WS project; the crew accessed the site daily via ATV access roads. Both areas were initially surveyed with 50 m line spacing and then infilled to 25 m line spacing as time permitted.

To aid with this report the IP data collected by Aurora Geosciences Ltd. in 2008 are used to examine the magnetics data in the context of the chargeability data. The MMI soil data collected for BC Gold are used to complement the magnetics data during targeting.

The property consists of 351 claims recorded in the Whitehorse Mining District. Claim information is summarized below:

Table 1. Claim Data Summary

Claim Name	Tag or Record Number	Claims	Anniversary Date	Registered Owner
BC 35-50	YC60218-YC60235	16	April 2, 2017	BCGold Corp. (100%)
BC 65-144	YC60248 – YC60327	80	April 2, 2017	BCGold Corp. (100%)
ICE 1-4	YC46784 – YC46787	4	April 2, 2017	BCGold Corp. (100%)
ICE 5-44	YC54407 – YC54443		April 2, 2017	BCGold Corp. (100%)
SLEEP 13-18	YC60134 – YC60139	6	April 2, 2017	BCGold Corp. (100%)
WS 1-82	YC53521- YC53602	82	April 2, 2017	BCGold Corp. (100%)
WS 83-156	YC53748 – YC53821	74	April 2, 2017	BCGold Corp. (100%)
WS 157-168	YC53993 – YC54004	12	April 2, 2017	BCGold Corp. (100%)
WS 169-182	YC54005 – YC54018	14	April 2, 2017	BCGold Corp. (100%)
WS 183-196	YC54019 – YC54032	14	April 2, 2017	BCGold Corp. (100%)
WS 197-208	YC91789 – YC91800	12	April 2, 2017	BCGold Corp. (100%)

BCGold Corp. requests that a one-year extension be applied to all claims except for a two-year extension on claims listed in Table 2 below.

Table 2: Application of Excess Credits

Claim Name	Tag or Record Number	Claims	Anniversary Date	Registered Owner
BC 95-98	YC60278 – YC60281	4	April 2, 2017	BCGold Corp. (100%)
BC 121-124	YC60304 – YC60307	4	April 2, 2017	BCGold Corp. (100%)
WS 1-42	YC53521 – YC53562	42	April 2, 2017	BCGold Corp. (100%)
WS 44	YC53564	1	April 2, 2017	BCGold Corp. (100%)
WS 46	YC53566	1	April 2, 2017	BCGold Corp. (100%)
WS 79-82	YC53599 – YC53602	4	April 2, 2017	BCGold Corp. (100%)
WS 181-182	YC54017 – YC54018	2	April 2, 2017	BCGold Corp. (100%)

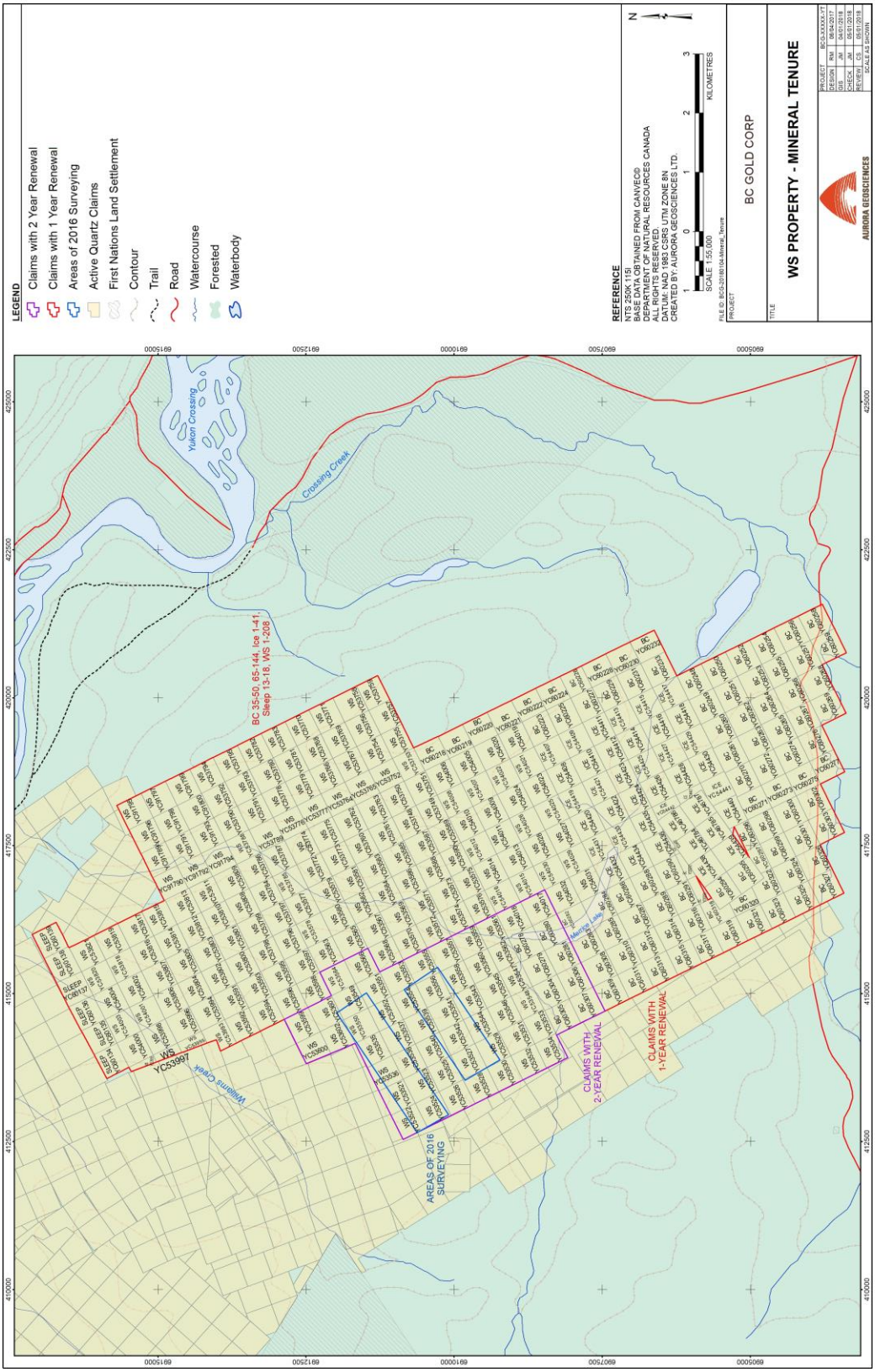

Figure 1: Claim Map, Williams South (WS) Property

2 SURVEY LOCATION

BC Gold Corp's WS Project is located approximately 32 km north-west of Carmacks, Yukon, within NTS map sheet 115I07. The property is road-accessible, at the end of the 14-km Carmack Copper spur road extending north from the main Free Gold Road roughly 35 Km NW of the Village of Carmacks. The grids were located 3 km south of the Carmacks Copper project (held by Copper North Mining Corporation) The Carmacks Copper camp was used as a base due to its proximity to the survey area; the crew used an ATV daily to access the grids via the WS Project north access road. The survey described in this report took place on virtual GPS grids without pickets. All geophysical data collected are geo-referenced to UTM Zone 08N coordinates in the NAD 83 datum.

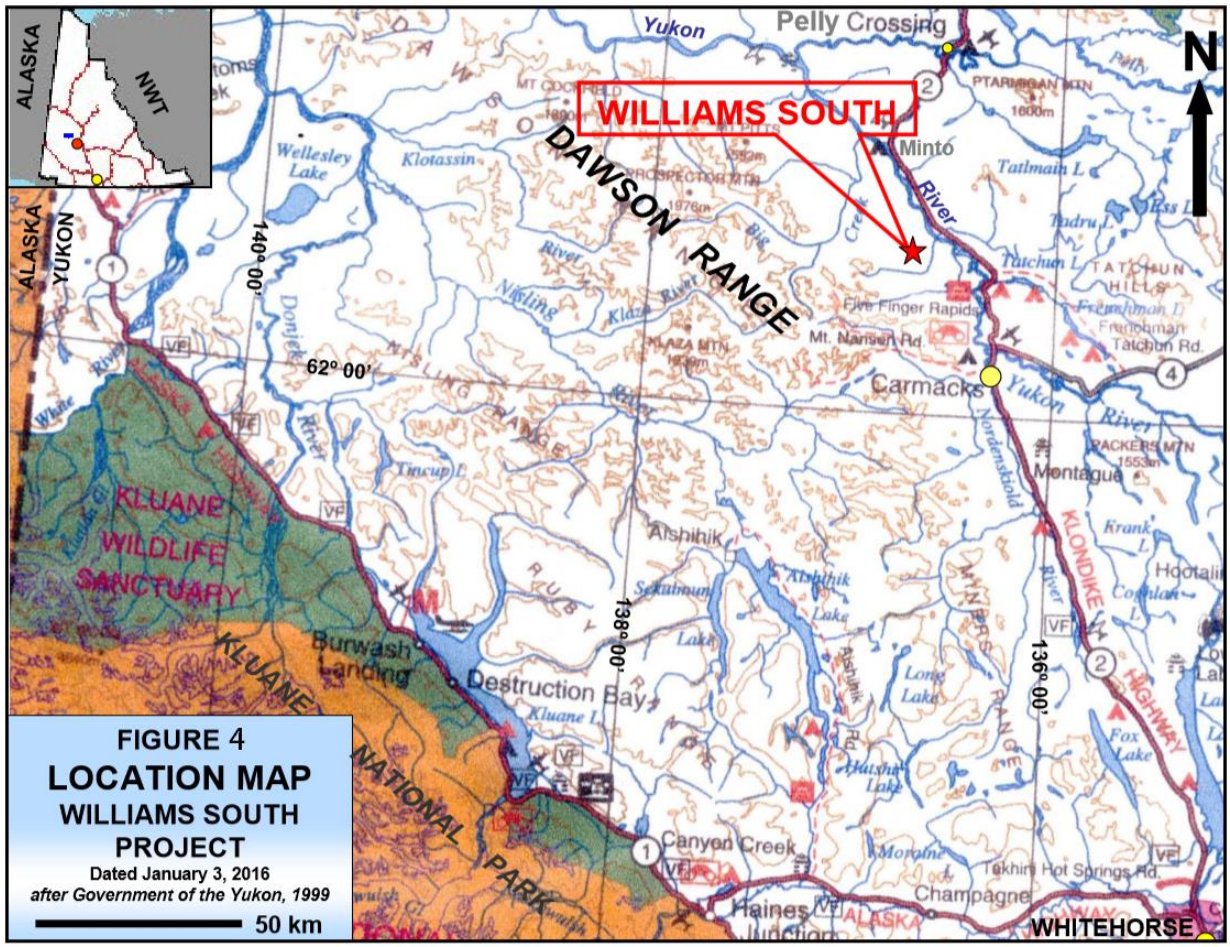

Figure 2: Location Map, Williams South (WS) Property

3 REGIONAL GEOLOGY

The Williams South (WS) property is located within an Early Jurassic Minto Suite intrusion along the western margin of the Whitehorse Trough. In the property area the Whitehorse Trough comprises a fairly thin assemblage of volcanic and sedimentary rocks bounded in the property area by the aforementioned Minto suite stock to the west, and by the Tatchun Batholith, coeval with Minto Suite intrusions, to the east. The Whitehorse Trough and Minto Suite intrusions are in turn bounded by Yukon-Tanana Terrane metavolcanics and meta-sediments ranging from Neoproterozoic to Upper Cretaceous in age.

The Williams South Project lies within the southern portion of the Carmacks copper-gold belt, a 180 km by 60 km-wide north-northwest trending mineralized belt of similar intrusion-hosted copper-gold mineralization. The belt includes the Carmacks Copper deposit (Williams Creek) of Copper North Mining Corp. (3-10 km northwest of the Williams South Project), the Minto Mine of Capstone Mining Corporation (45 km to the northwest), and the STU drilled prospect (15 km northwest), all hosted by Minto suite plutonic rocks.

The Williams South Project is primarily underlain by Early Jurassic intrusive rocks of the eastern Granite Mountain Batholith (Minto suite) which are unconformably overlain by younger volcanic rocks, and intruded by related dykes, of the Late Cretaceous Carmacks Group. Foliated biotite ±hornblende granodiorite occurs as a 0.5 by 4 km northwest trending unit across the WS grid from the north end of Merrice Lake to the northwest property boundary, and as a north-easterly trending 150m by 1 km unit at the BCIce showing; the latter marked by poor bedrock exposure. Mineralization within the Carmacks copper-gold belt is associated with an increase in foliation approaching a gneissic texture within the batholith.

The deposit models put forward for the Carmacks copper-gold belt range from digested red-bed copper, to aborted and deformed porphyry, to iron oxide copper gold (IOCG). The author believes the deposit model to be consistent with that of a calc-alkaline porphyry copper-gold model such as at the Kemess Mine in central British Columbia, but formed at deeper crustal levels. The Kemess Mine produced 3 million ounces of gold and 800 million pounds of copper from 1998-2011 (Kemess Underground Project of AuRico Metals Inc.).

4 LOCAL GEOLOGY AND HISTORY

There are three Minfile occurrences within the Williams South Project: the Bishi (now more accurately re-located and renamed BCIce), the Taslar (now moved and renamed WS), and the Merrice, as documented by the Yukon Geological Survey *(Deklerk, 2009)*. The Bishi and Taslar were staked in the early 1970s based on aeromagnetic anomalies, but no mineralization was found. The Merrice showing covers copper bearing quartz veins of probable orogenic type. The BCIce showing was originally discovered by United Keno Hill Mines Ltd. in 1982, and consists of two zones of copper oxide

mineralization in foliated granodiorite. However, no follow-up work was done. The WS showing covers significant mineralization intersected in drilling, and other surface showings and anomalies. It was discovered by BCGold Corp. on the WS grid, which covers the strike extension of mineralized zones on the adjoining Carmacks Copper Project.

Previous exploration by BCGold Corp. since the granting of the option from Shawn Ryan in March, 2007 has involved a property wide airborne magnetic and radiometric geophysical survey, approximately 3,551 MMI and 317 conventional grid soil samples from 5 grids, 62.4 line km of induced polarization geophysics from 3 grid areas, a 1.26 km high resolution multi-array induced polarization survey, property wide geological mapping and prospecting with concurrent geochemical sampling, a structural analysis, a 660 sample biogeochemical survey, trenching on the BCIce, WS and Copper Hill showings, 2,659m of diamond drilling in 14 holes (2 holes totaling 67.7m were lost and re-drilled), and infrared spectroscopy and petrography on the 2008 drill core. Total expenditures for these programs exceeded CDN$2.5M.

5 CREW AND EQUIPMENT

The following personnel conducted the surveys:

Andre Lebel	Crew Chief	Sept 30 to Oct 6, 2016
Hannah Warrington	Technician	Sept 30 to Oct 6, 2016

The crew was equipped with the following instruments and equipment:

3 NDGPS Map 60Csx	Non-differential handheld GPS
4 GEM Mag instruments	Walking Magnetometers S/N: 45336, 2011134, 50496, 411460
2 GEM Mag instruments	Base Magnetometers S/N: 705678, 708719
1 Oasis Montaj software package	Data processing
1 Laptop Computer	Data processing
1 Truck	Transportation used for mobe and demobe
1 ATV	Transportation used for access to the grid
1 Satellite phone	Communications
1 in Reach	Communications
2 Handheld VHF radios	Communications between the crew

6 SURVEY SPECIFICATIONS

The Mag survey was completed according to the following specifications:

Areas:	WS North, 21 SW-NE lines totaling 46.3 km WS South, 23 SW-NE lines totaling 43.5 km
Walk cycle time:	1 s
Line Spacing:	50 m or 25 m for detailed areas.
Positioning Data:	Collected with the handheld NDGPS receiver sampling at one reading per 3 s.
Corrections:	Temporal geomagnetic variations were removed by linear interpolation of drift determined by the base station magnetometer. Reference field set to 57,150 nT
Base Station Magnetometer:	The unit was cycled at a 3 second interval throughout the survey. Both base and roving magnetometers' clocks were synchronized daily to local time. The base magnetometer was located at 413950 E 6910603N UTM Zone 8N Datum: NAD 83.

7 DATA PROCESSING

Mag and GPS data were downloaded at the end of each survey day and the raw, unedited data archived. A copy of the data was corrected for diurnal variations using Geosoft's "cross database channel lookup" using the formula of: "Cor_Mag" equals "Raw_Mag" reading minus "Base_Mag" reading plus a datum of 57150 nT. Positioning data collected during the survey are appended to the Mag readings using Geosoft's cross database channel lookup. The diurnally corrected data are non-linear, filtered to remove single station spikes from the data and saved as "NLF_Cor_Mag". The data are then leveled using tie line leveling where the differences between tie line and grid lines determine the datum shifts for each line to create a leveled data field. The shifts applied are saved in databases "IntersectionNorth.gdb" and "IntersectionSouth.gdb" which are appended to this report.

8 MAGNETIC SUSCEPTIBILITY MEASUREMENTS

Six samples were collected from trenches and outcrops and tested with a KT-9 Kappameter to determine the magnetic susceptibility of the geological features in the area. Four of the samples are granite or granodiorite (country rock) and the other two are samples of foliated granodiorite (host rock) with malachite staining.

Table 2: Magnetic susceptibility measurements.

Sample	Location	Average Magnetic susceptibility	Description
WS-1	414103E 69115721N	5.93	Biotite Granodiorite
WS-2	4141754E 6911221N	4.31	Biotite Granodiorite
WS-3	4142066E 6911133N	4.85	Biotite Granodiorite
WS-4	414389E 6910285N	0.58	Undetermined
WS-5	414103E 6911572N	13.9	Foliated Biotite Granodiorite with malachite staining
WS-6	414706E 6910102N	12.2	Foliated Biotite Granodiorite with malachite staining

Each sample was tested 10 times with the KT-9 Kappameter to get an average magnetic susceptibility. The samples of biotite granodiorite (WS-1, WS-2 and WS-3) are fairly magnetic and have magnetic susceptibility that ranges from 3 to 8 SI units. There is one sample (WS-4) that was found in the trenches that is of an undetermined rock type and is not magnetically susceptible. The two foliated biotite granodiorite samples (WS-5 and WS-6) are mineralized and have increased magnetic susceptibility with readings up to 35 SI units. The malachite itself is not magnetically susceptible and the increased magnetic susceptibility is suspected to originate from magnetite or pyrrhotite in the samples. One therefore would expect a magnetic high anomaly around mineralized areas with wider aerial extent.

The magnetic susceptibility results at WS differ from those at Carmacks Copper where the foliated host rock is less magnetically susceptible than the surrounding country rock. This discrepancy could be attributable to an insufficient sample number from WS (n=6). It also is possible that the country rock and host rock are of different composition than the samples tested at Carmacks Copper. However, the

proximity of the two projects, the similarity in geological environments and the fact that the WS area is on strike with mineralized zones of the Carmacks Copper Project suggest the magnetic responses of the two areas should be similar; therefore, magnetic lows are also considered viable targets.

9 INTERPRETATION AND RECOMMENDATIONS

As seen in **Figure 3.**, Zone 12 is 600 m NW of the WS area of the Carmacks Copper Project. At the Carmacks Copper Project, the host rocks are less magnetically susceptible than the surrounding country rocks, indicating that the magnetic lows are targets of interest. In the WS area there are 26 identified magnetic low lineaments identified in the Total Magnetic Intensity (TMI) and the vertical derivative plots. Three interpretations are possible: 1) a similar host rock / country rock contrast as seen at Carmacks Copper; 2) Faults or other linear features where the magnetic properties of the granodiorite have been disrupted, and; 3) Topographic lows where increased overburden thickness causes a magnetic low linear feature. If they represent faults or structures, intersections of lineations are more prospective for mineralization due to increased propensity of fluid flow.

Another type of magnetic anomaly of interest is a magnetic high feature that has no correlation with the topography, based on magnetic susceptibility measurements. The mineralized samples (WS-5 & WS-6) have higher magnetic susceptibility measurements then the country rocks (WS-1, WS-2 & WS-3) tested. However, the country rock is expected to be more magnetically susceptible than overburden and therefore thin or absent overburden can create magnetic high anomalies that are not reflective of bedrock susceptibility. These generally correlate to topographic highs or ridges where the overburden is thin. These magnetic highs are of little exploration interest.

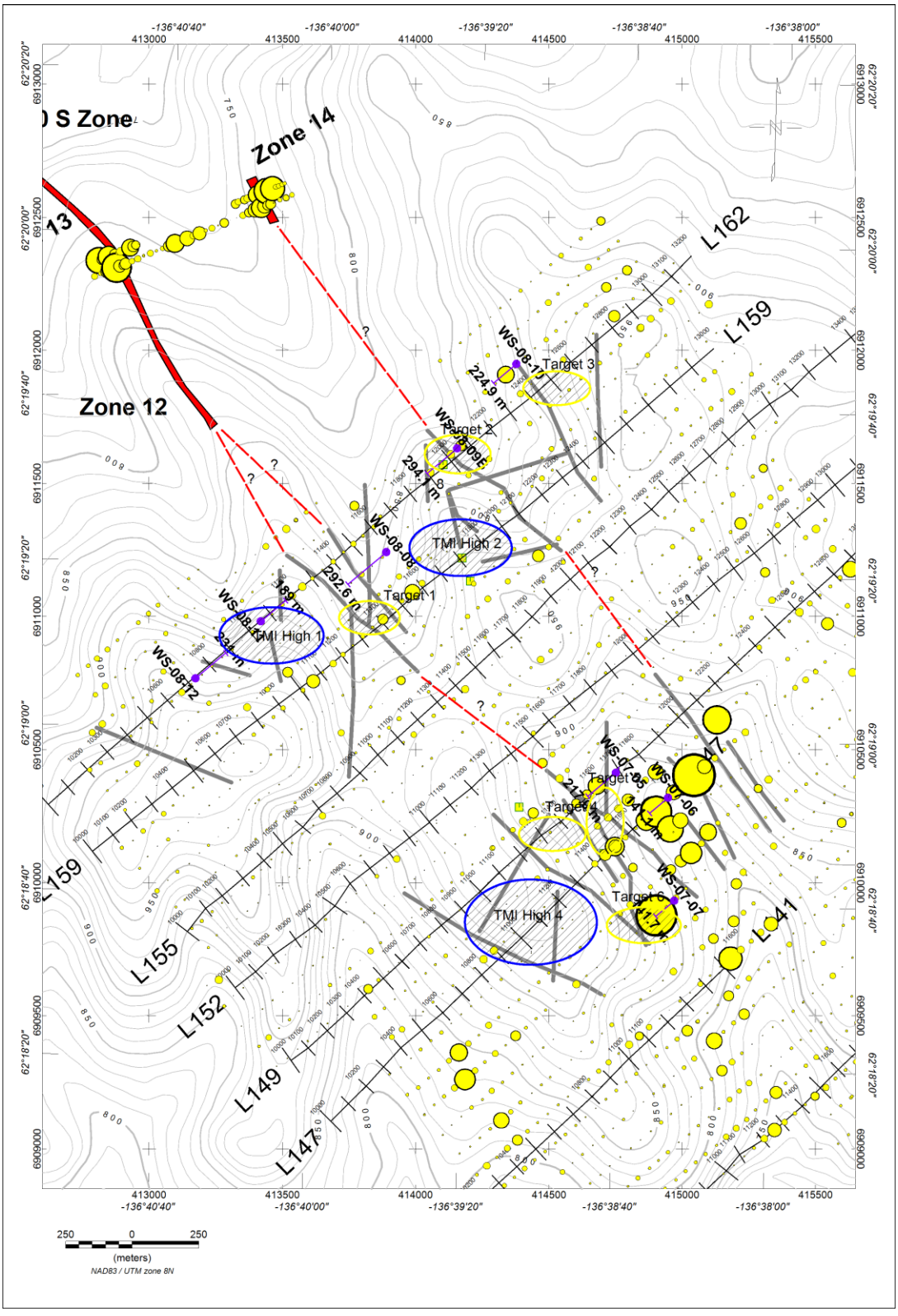

Figure 3: WS Total Magnetic Intensity interpretation

9.1 WS NORTH

Target 1 is the intersection of several magnetic low lineaments as seen in Figure 4**.** It occurs where a lineament trending SE intersects two trending due south. There is another intersection of magnetic low lineaments immediately to the north, but this intersection has already been tested with drill hole WS-08-08 which returned low metal values. An associated chargeability anomaly seen in Figure 4 renders Target 1 more prospective. Additionally, Target 1 is on trend with Zone 12 of Copper North's Carmacks Copper Project. The high resolution magnetic survey identifies separate lineaments intersecting at the target location. If the proposed Geoprobe line were extended it would test this target.

Target 2, as seen in Figure 4, is the possible south-east extension of Zone 14 of the Carmacks Copper project. It is a magnetic low lineament that is on trend with Zone 14; it is imaged in the total magnetic intensity and tilt derivative but not in the vertical derivative plots. In 2008 BC Gold drilled Hole WS-08-09B which intersected copper mineralization, highlighting this area as prospective. Figure 5 and Figure 6 show that the target is correlative with the near-surface IP anomaly on L162 and L159. A Geoprobe sampling line is proposed for this target; this should be adequate to test its significance.

Target 3 in Figure 4 is a pronounced magnetic high that does not follow a topographic high. However, there is no correlative chargeability high or any soil anomalies to make it a target of high priority.

There are two TMI high features shown in Figure 4 which are coincident with topographic highs and are likely the result of thin overburden. However, TMI 1 could be interpreted to be on trend with Zone 12 of Carmacks Copper Project, and respectively TMI 2 could be interpreted to be trend with Zone 14 of the Carmacks Copper Project. They are unlikely to have any correlation with mineralization.

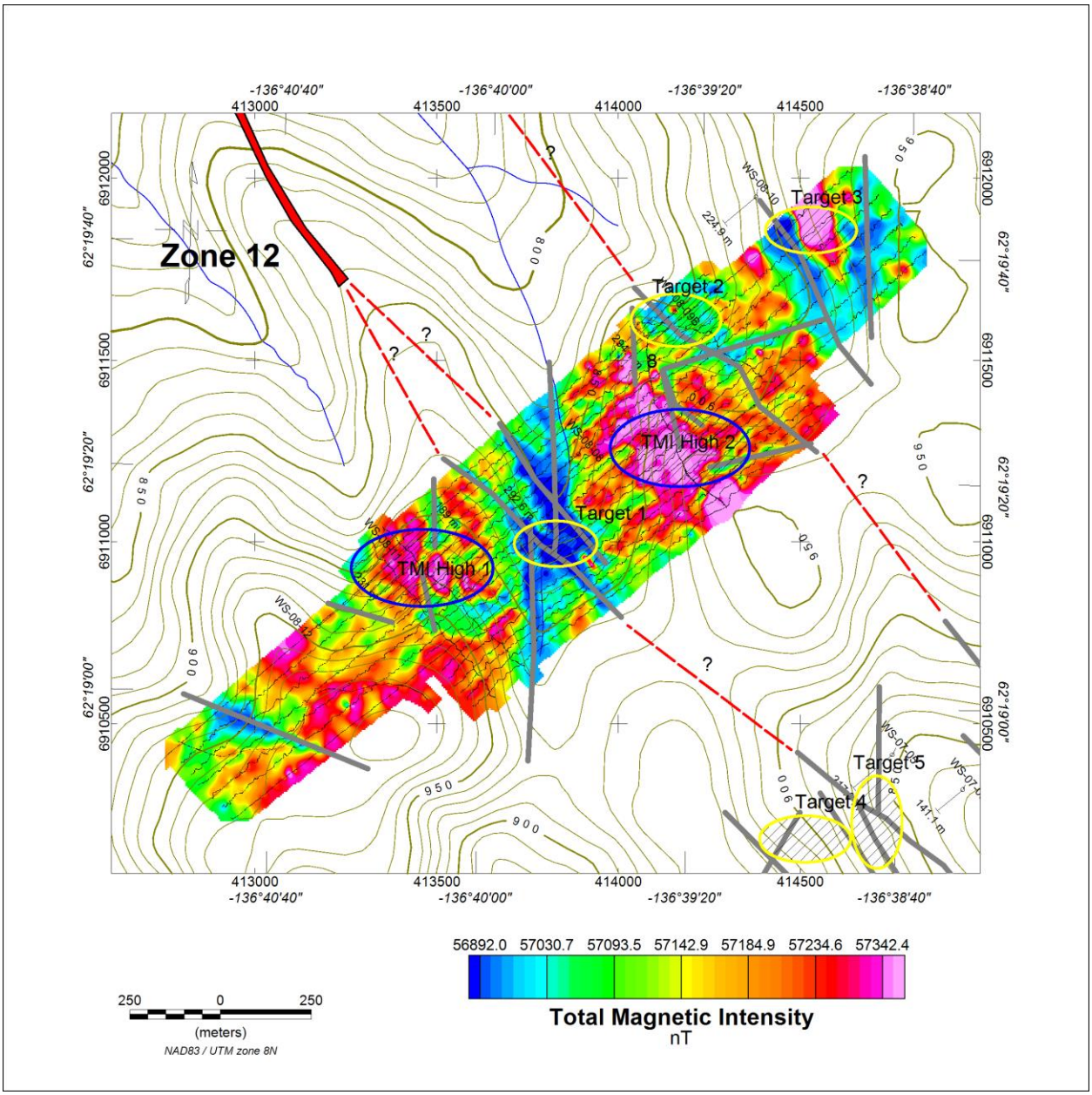

Figure 4: WS North Total Magnetic Intensity map

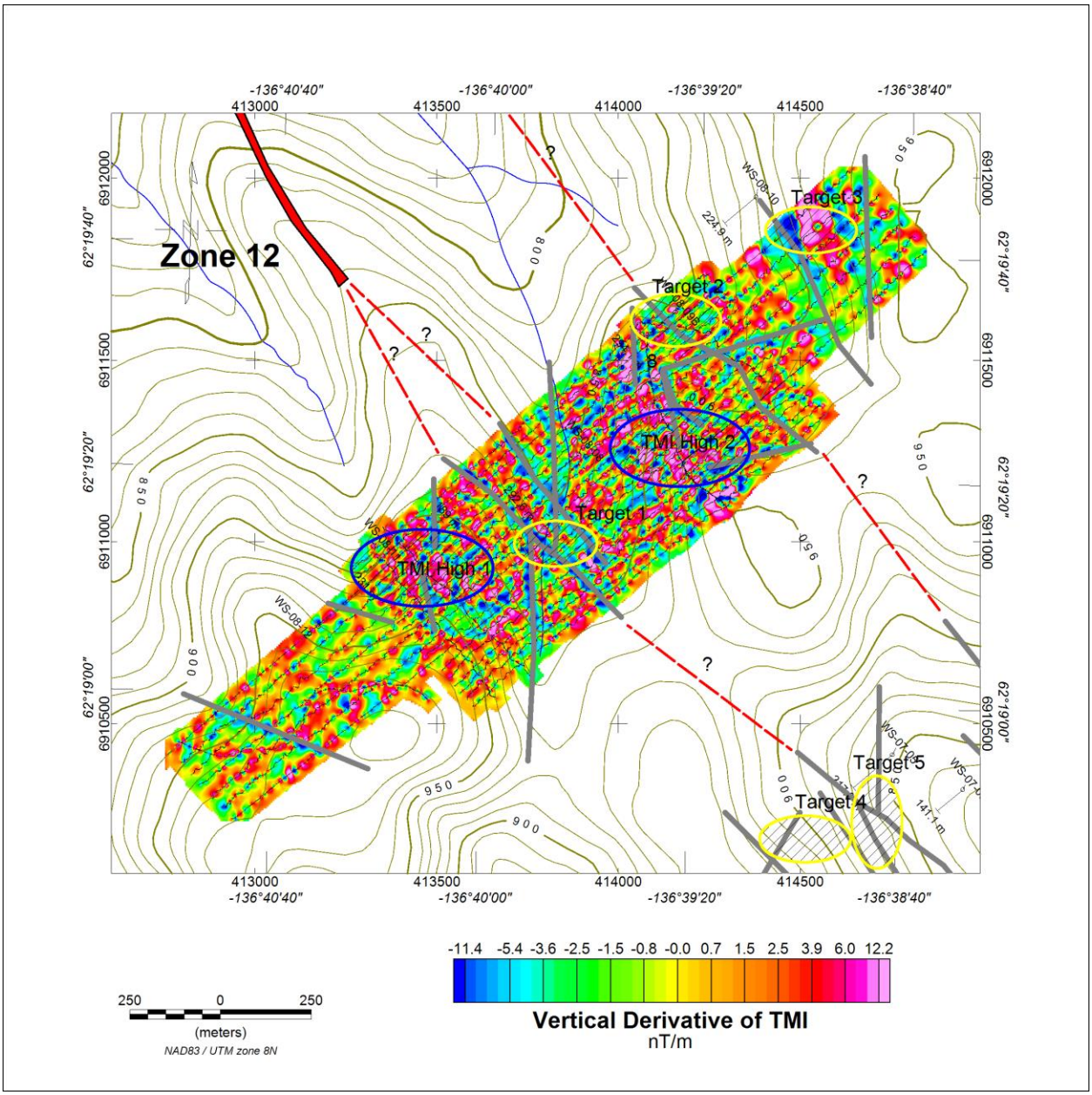

Figure 5: WS North vertical derivative of TMI

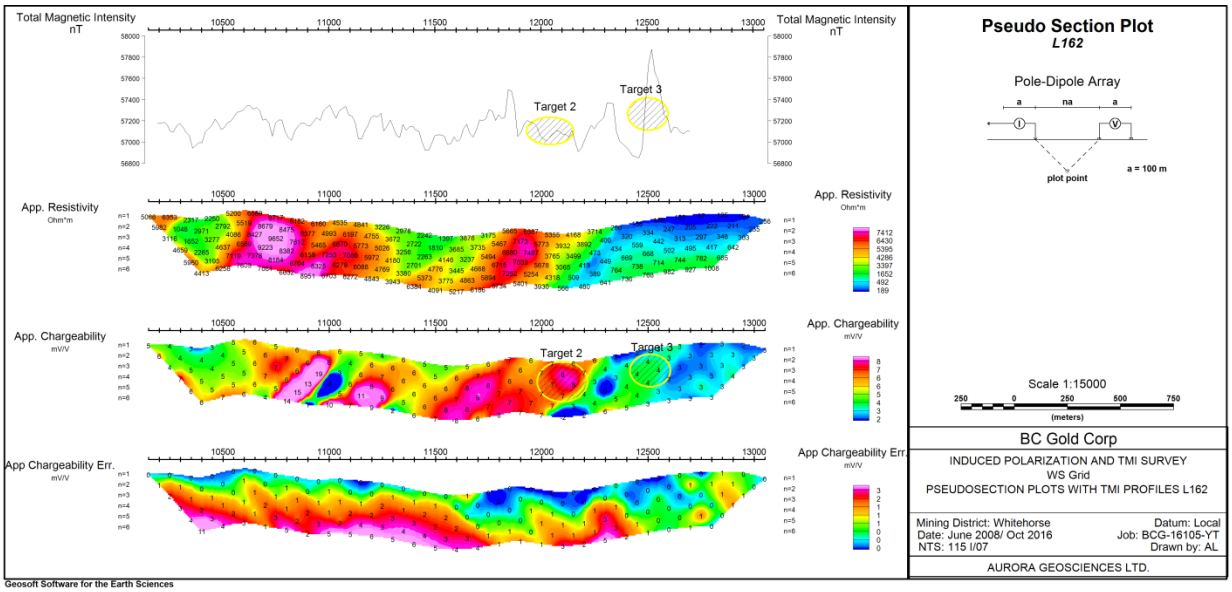

Figure 6: L162 pseudosection plots with TMI profile

.

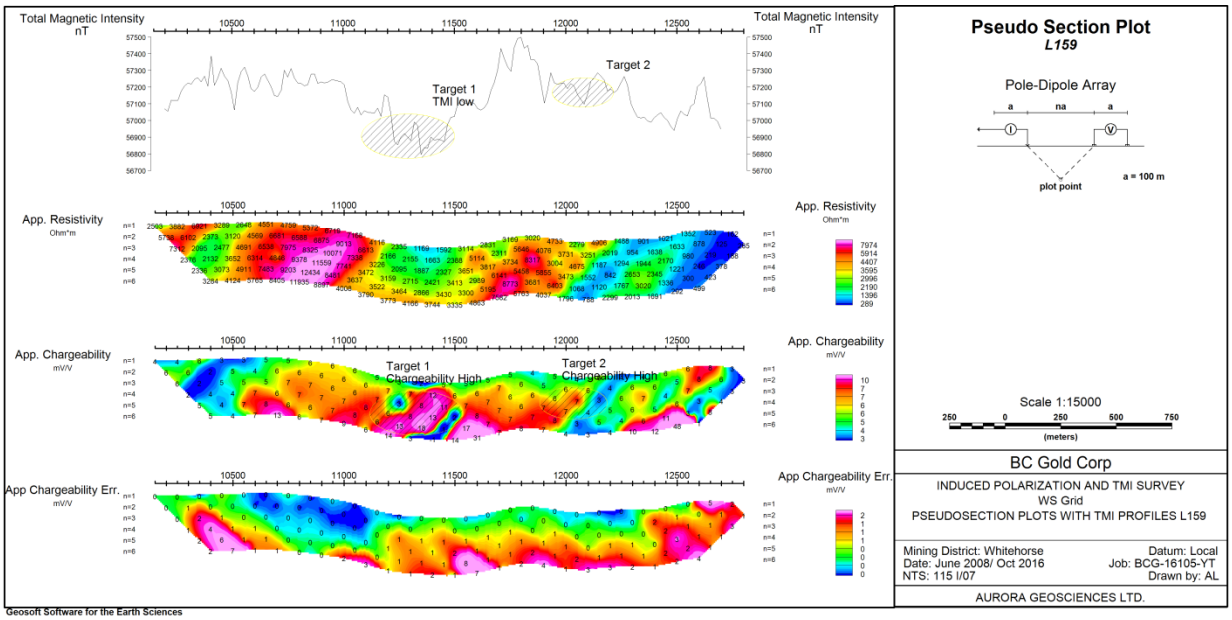

Figure 7: L159 pseudosection plots with TMI profile

9.2 WS SOUTH

Target 4 is a magnetic high that has no correlation with a topographic high (Figure 8). Target 4 is similar in intensity to TMI 4 which extends along the ridge and is likely due to bedrock outcrop or subcrop. It has good correlation with IP anomalies on L149 (Figure 10) where there is a broad chargeability high, and L147 (Figure 11) where there is a similar chargeability anomaly, although the line was not completed. Previous testing of MMI soil anomalies to the east of Target 4 with drill holes WS-07-05 and WS-07-06 returned low metal values.

Target 5 is an intersection of lineaments trending south-east and south, as seen in Figure 8. This intersection is 100 m north of the trench in the WS-South area where mineralized samples were taken. The southeast-trending lineaments are roughly on strike with lineaments in Target 1 and therefore on strike with Carmacks Copper's mineralized Zone 12. This group of lineaments is also of interest because of several coincident anomalous MMI soils.

Target 6 is farther south along the same magnetic low lineation where it intersects a southeast trending lineament (Figure 8). Downslope, there is a single-sample copper-in-soil anomaly that was previously tested with diamond drill hole WS-07-07 which intersected a few stringers of mineralization but no significant values, rendering this as a low priority target.

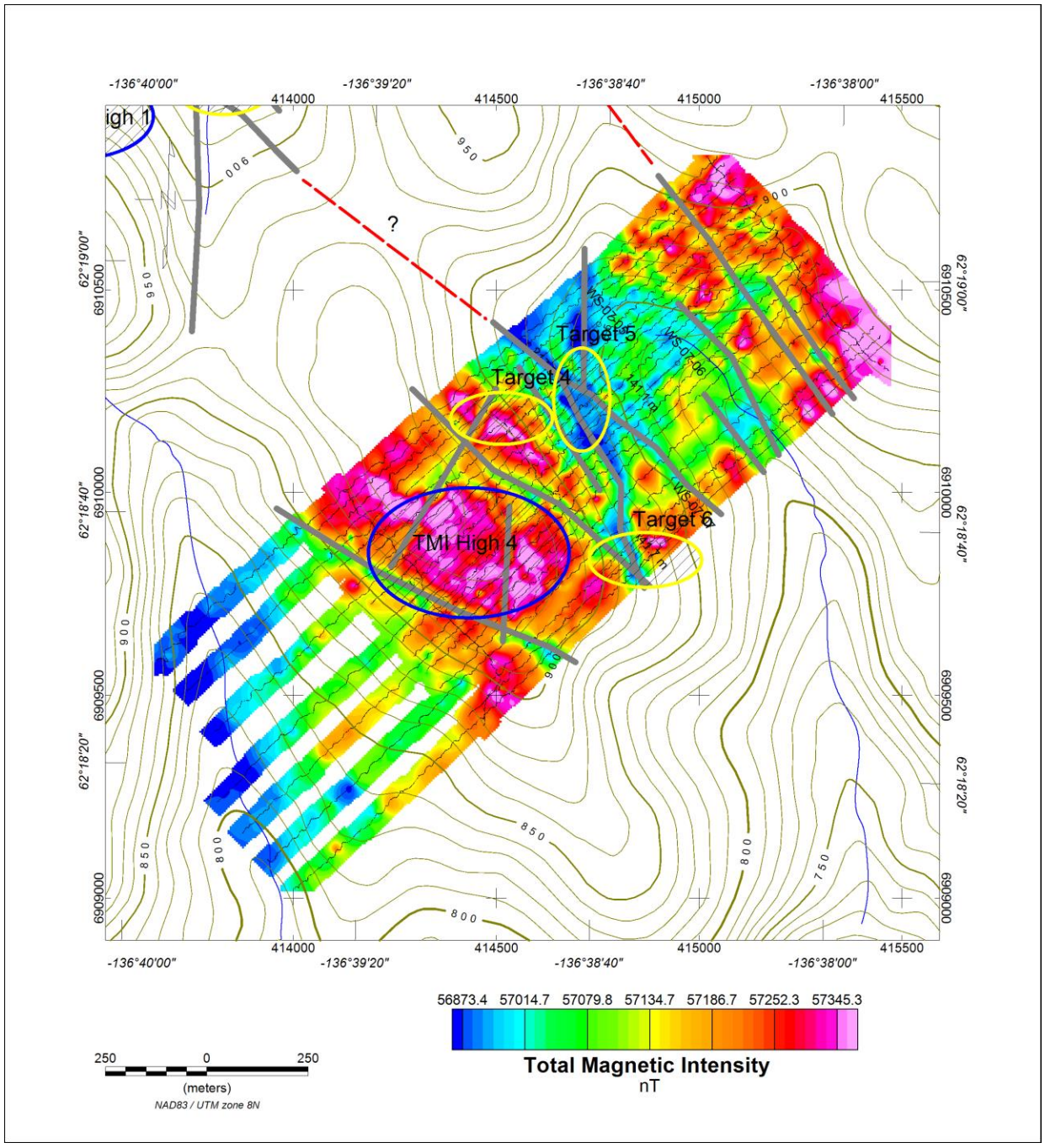

Figure 8: WS South Total Magnetic Intensity

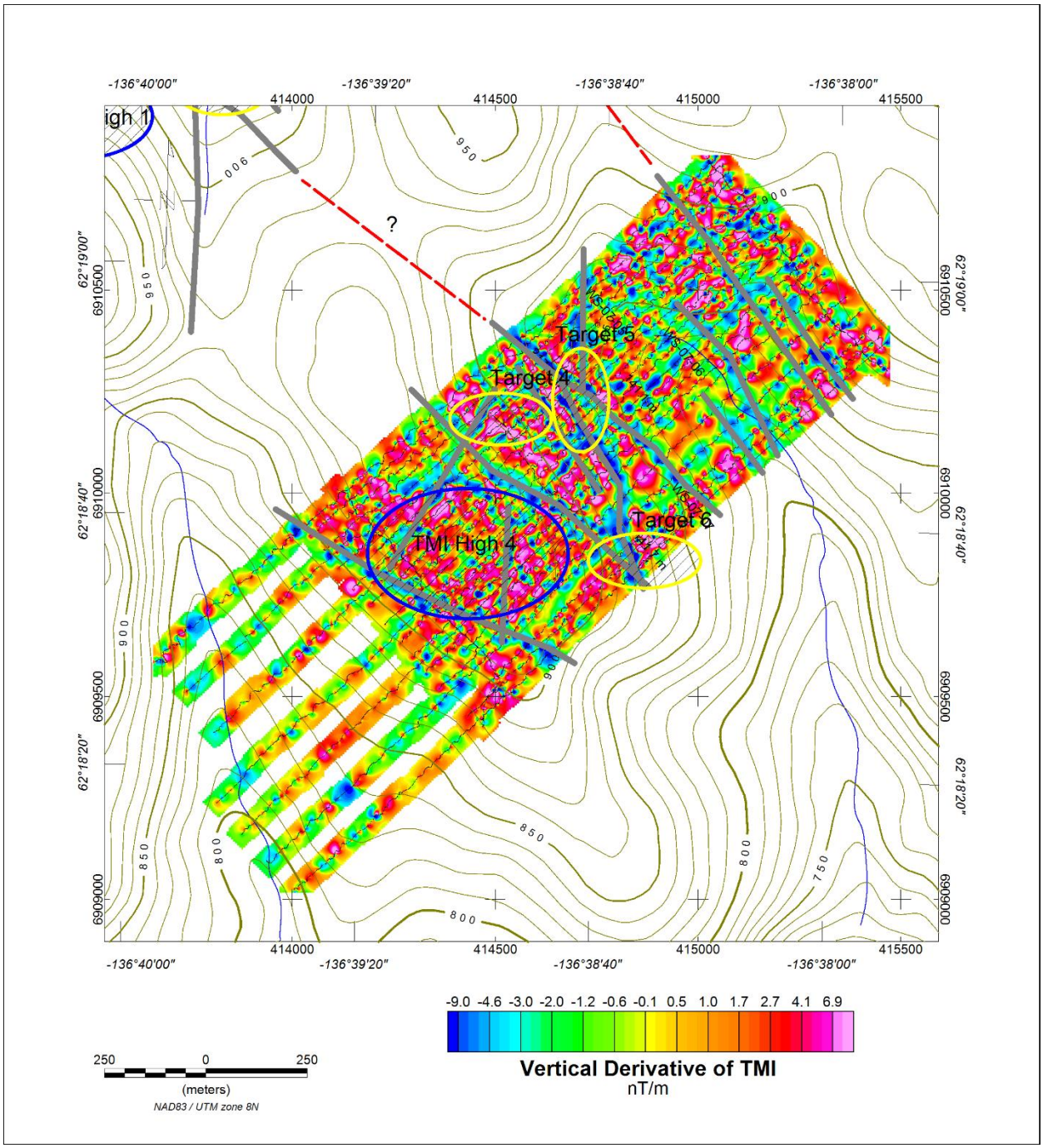

Figure 9: WS South vertical derivative of TMI.

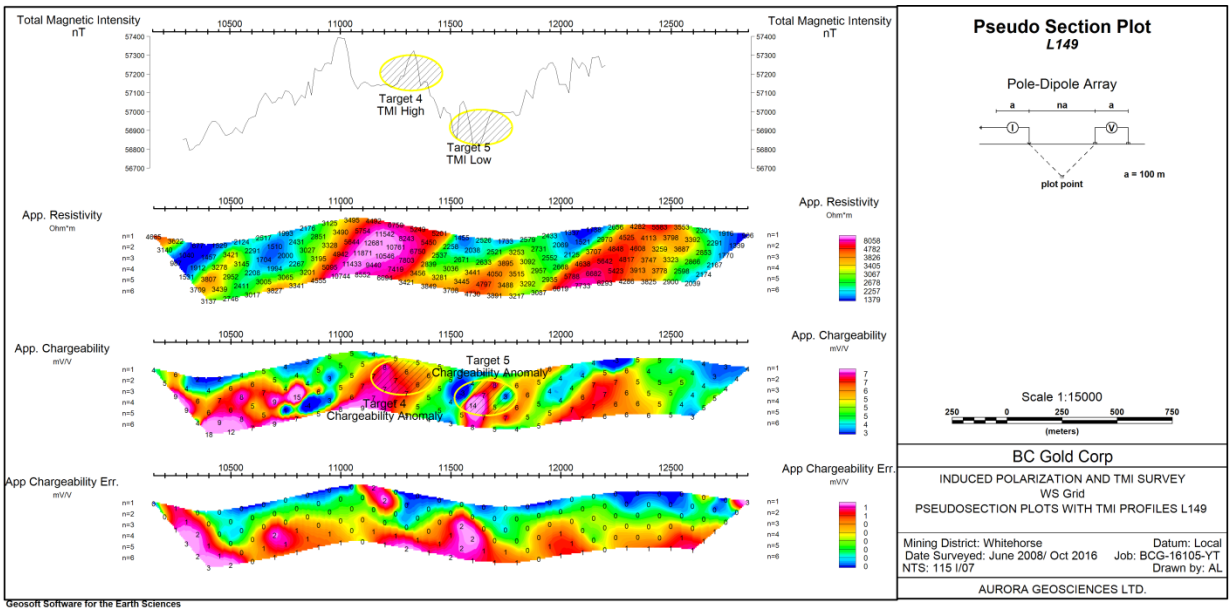

Figure 10: L149 pseudosection plots with TMI Profile.

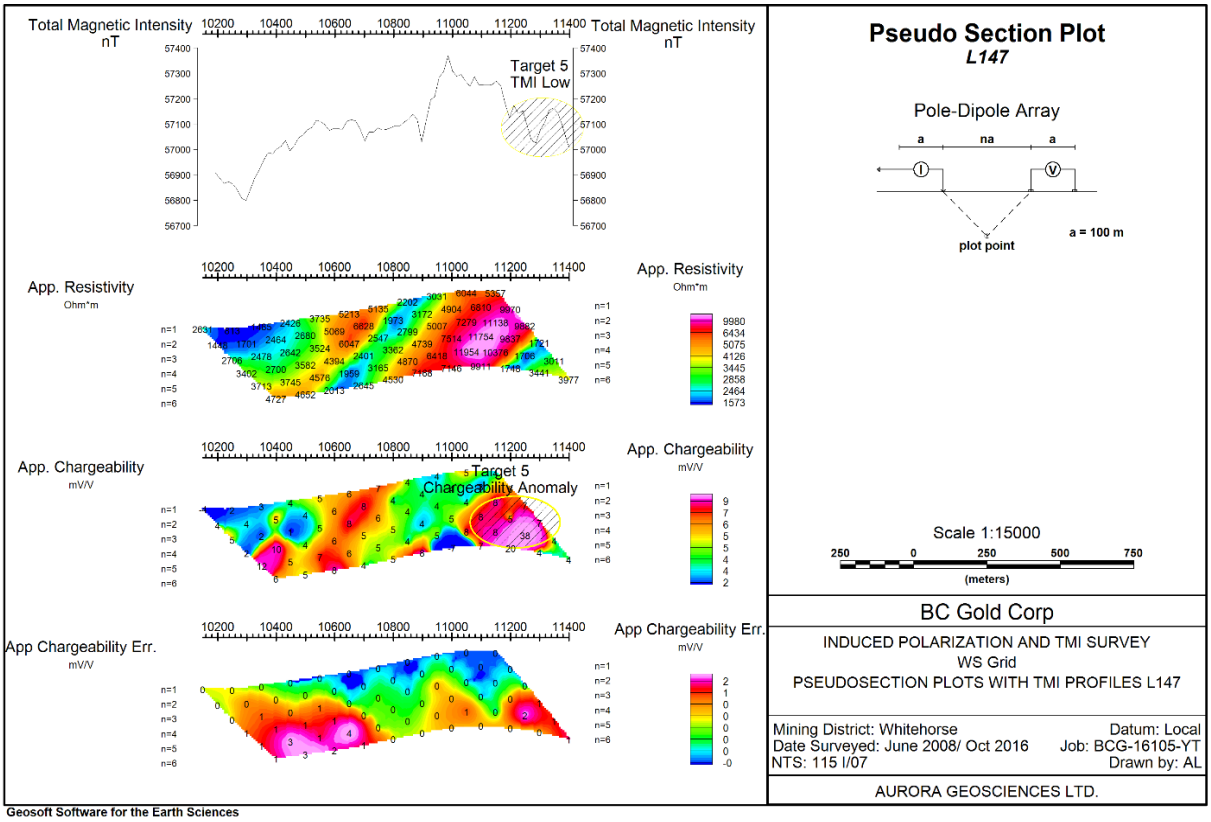

Figure 11: L147 pseudosection plots with TMI profile

Respectfully submitted,

Andre Lebel, BSc

Junior Geophysicist

Aurora Geosciences Ltd

REFERENCES

Drury, I and Kramar, S., 2008. Induced polarization survey preliminary field report. Report by Aurora Geosciences Ltd. for BC Gold Corp.

Dzuiba, F., 2009. Memorandum: Carmacks 2009 IP Surveys. Report by Aurora Geosciences Ltd. for BC Gold Corp.

Gordey, S.P., Makepeace, A.J. 2001: Bedrock Geology, Yukon Territory, Geological Survey of Canada, Open File 3754; and Exploration and Geology services Division, Yukon Indian and Northern Affairs Canada, Open File 2001-1.

Pautler, J. 2016. Yukon Mineral Exploration Program Proposal for a Target evaluation program on the WS Project. Proposal by J. Pautler for BC Gold Corp.

Yukon Minfile, 2017: Website at http://data.geology.gov.yk.ca

Yukon Mining Recorder, Energy, Mines and Resources, 2017: Website at http://www.yukonminingrecorder.ca/

STATEMENT OF QUALIFICATIONS

I, Andre Lebel, with Aurora Geosciences Ltd. and of 7-8 Alusru Way in Whitehorse do hereby certify that:

1. *I am presently employed by Aurora Geosciences Ltd. of Whitehorse, Yukon Territory, Canada as a junior geophysicist.*

2. *I graduated with a Bachelor of Science degree, specializing in geophysics, from the University of Alberta in 2006. I have worked in the mineral industry for 12 years since graduation.*

3. *I am a member in training of the Association of Professional Engineers and Geoscientists of Alberta, Registration No. 80867*

4. *I have had no involvement with BCGold, its predecessors or subsidiaries, nor in the WS Property prior to researching and writing this report.*

5. *I have not received nor expect to receive any interest, direct or indirect, in BCGold, its subsidiaries, affiliates and associates.*

6. *I am responsible for the preparation of the complete report.*

7. *As of the date of this certificate, to the best of my knowledge, information and belief, I am not aware of any material fact or material change with respect to the subject matter of the Report that is not reflected in the Report, the omission or addition of which would make the Report misleading.*

Dated this 5th day of January, 2018 in Whitehorse, Yukon

Respectfully Submitted,

Andre Lebel
Junior Geophysicist
Aurora Geosciences Ltd.

APPENDIX I

STATEMENT OF EXPENDITURES

Item		Cost
Total Contractor Expenditures		$ 17,962.88
Total Report Writing Costs		$ 3,512.50
	Total	**$ 21,475.38**