ASSESSMENT REPORT

including

Airborne Geophysics

on the

WOODJAM SOUTH PROPERTY

MTO Events # 4476251 and 4476311

CARIBOO MINING DIVISION,
British Columbia
NTS: 93A/3, 93A/6 W
Latitude 52°16' N, Longitude 121°22' W

Prepared for Operator:

FJORDLAND EXPLORATION INC.
510-510 Burrard Street
Vancouver, B.C., Canada V6C 3A8

By:

L.J. PETERS,
B.Sc., P .Geo. (B.C.)

26 May, 2010
Vancouver, B.C.

Table of Contents

		page
1.	Introduction and Terms of Reference	1
2.	Property Location, Size, Access and Physiography	4
3.	History	5
4.	Geological Setting	6
	4.1 Property Geology	8
	4.2 Mineralization	8
5.	2008 Exploration Program	10
6.	Interpretation and Conclusions	10
7.	Recommendations	11
8.	Statement of Expenditures	11
9.	References	12
10.	Authors Statement of Qualifications	13

List of Tables

1. List of Claims 4

List of Figures

1.	Location Map	2
2.	Claim Map	3
3.	Property Geology	7
4.	Airborne Survey – Flight Paths	In Pocket
5.	Airborne Survey – Magnetics (Total Field)	In Pocket
6.	Airborne Survey – Magnetics (1VD)	In Pocket
7.	Airborne Survey – Radiometrics (Total Count)	In Pocket
8.	Airborne Survey – Radiometrics (K)	In Pocket
9.	Airborne Survey – Radiometrics (U)	In Pocket
10.	Airborne Survey – Radiometrics (Th)	In Pocket

Appendix A: Logistics Report – New Sense Geophysics Limited

1. INTRODUCTION AND TERMS OF REFERENCE

This report on technical work completed on the Woodjam South Property covers MTO Event Numbers 4476251 and 4476311 dated 26 February 2010.

Airborne geophysical surveys, including field magnetic and radiometric data, were flown over claims covered by Woodjam South as well as neighbouring properties. The survey was conducted between October 8th and November 19th, 2009 with an infill block flown between November 21 and November 22, 2009. The surveys were contracted to New-Sense Geophysics Limited of Markham, Ontario. The operator contracting the survey was Gold Fields Horsefly Exploration Corporation.

The cost of the survey apportioned to the Woodjam South property was $21,676.^{09}.

Respectfully submitted,

L. John Peters, PGeo
26 May 2010

Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date Change

Confirmation

Recorder: FJORDLAND EXPLORATION INC. (142925) **Submitter:** FJORDLAND EXPLORATION INC. (142925)
Recorded: 2010/FEB/26 **Effective:** 2010/FEB/26
D/E Date: 2010/FEB/26

Confirmation

If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. **Please attach a copy of this confirmation page to your report.** Contact Mineral Titles Branch for more information.

Event Number: **4476251**

Work Type: Technical Work
Technical Items: Geophysical

Work Start Date: 2009/OCT/08
Work Stop Date: 2009/NOV/17
Total Value of Work: $ 20828.86
Mine Permit No:

Summary of the work value:

Tenure Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days For-ward	Area in Ha	Applied Work Value	Sub-mission Fee
367887	WOODJAM # 10	1999/feb/19	2015/feb/19	2015/feb/19	0	500.00	$ 0.00	$ 0.00
412157	WOODJAM 14	2004/jul/06	2015/feb/19	2015/feb/19	0	500.00	$ 0.00	$ 0.00
561973	WW-17	2007/jul/03	2011/feb/19	2011/feb/19	0	495.18	$ 0.00	$ 0.00
561974	WW-18	2007/jul/03	2011/feb/19	2011/feb/19	0	475.61	$ 0.00	$ 0.00
561975	WW-19	2007/jul/03	2011/feb/19	2011/feb/19	0	475.86	$ 0.00	$ 0.00
561976	WW-20	2007/jul/03	2011/feb/19	2011/feb/19	0	396.72	$ 0.00	$ 0.00
561977	WW-21	2007/jul/03	2011/feb/19	2011/feb/19	0	396.73	$ 0.00	$ 0.00
568585	BIG HORN	2007/oct/24	2011/oct/01	2011/oct/01	0	614.04	$ 0.00	$ 0.00
568586	MOOSE HORN	2007/oct/24	2011/oct/03	2011/oct/03	0	594.21	$ 0.00	$ 0.00
573421	WOODJAM V	2008/jan/10	2011/jan/10	2011/jan/10	0	138.62	$ 0.00	$ 0.00
576166	SWJ1	2008/feb/14	2011/feb/14	2011/feb/14	0	39.63	$ 0.00	$ 0.00
576167	SWJ2	2008/feb/14	2011/feb/14	2011/feb/14	0	39.64	$ 0.00	$ 0.00
576168	SWJ3	2008/feb/14	2011/feb/14	2011/feb/14	0	19.82	$ 0.00	$ 0.00
576169	SWJ4	2008/feb/14	2011/feb/14	2011/feb/14	0	19.82	$ 0.00	$ 0.00
576170	SWJ5	2008/feb/14	2011/feb/14	2011/feb/14	0	39.61	$ 0.00	$ 0.00
576240	SWJ6	2008/feb/15	2011/feb/15	2011/feb/15	0	19.82	$ 0.00	$ 0.00
587224	WJ-100	2008/jul/02	2011/feb/02	2011/feb/02	0	475.70	$ 0.00	$ 0.00
587228	WJ-101	2008/jul/02	2011/feb/02	2011/feb/02	0	495.37	$ 0.00	$ 0.00
587231	WJ-102	2008/jul/02	2011/feb/02	2011/feb/02	0	495.60	$ 0.00	$ 0.00
587235	WJ-103	2008/jul/02	2011/feb/02	2011/feb/02	0	495.69	$ 0.00	$ 0.00
587238	WJ-104	2008/jul/02	2011/feb/02	2011/feb/02	0	436.26	$ 0.00	$ 0.00
587240	WJ-105	2008/jul/02	2011/feb/02	2011/feb/02	0	158.64	$ 0.00	$ 0.00
591544	WJZ	2008/sep/18	2011/feb/18	2011/feb/18	0	59.46	$ 0.00	$ 0.00
594132	S1	2008/nov/11	2011/feb/11	2011/feb/11	0	39.61	$ 0.00	$ 0.00
600917	M1	2009/mar/12	2010/mar/12	2011/feb/02	327	317.05	$ 1136.17	$ 113.62
600918	M2	2009/mar/12	2010/mar/12	2011/feb/02	327	19.81	$ 70.99	$ 7.10
612003	SF1	2009/jul/26	2010/jul/26	2011/feb/02	191	19.81	$ 41.47	$ 4.15
616266	WS10	2009/aug/08	2010/aug/08	2011/feb/02	178	495.91	$ 967.36	$ 96.74
616269	T9	2009/aug/08	2010/aug/08	2011/feb/02	178	495.91	$ 967.36	$ 96.74
616273	WS11	2009/aug/08	2010/aug/08	2011/feb/02	178	496.12	$ 967.77	$ 96.78
616276	WS12	2009/aug/08	2010/aug/08	2011/feb/02	178	496.11	$ 967.75	$ 96.77
616306	WS13	2009/aug/08	2010/aug/08	2011/feb/02	178	496.12	$ 967.78	$ 96.78
616314	WS14	2009/aug/08	2010/aug/08	2011/feb/02	178	495.88	$ 967.30	$ 96.73
616315	WS15	2009/aug/08	2010/aug/08	2011/feb/02	178	475.53	$ 927.62	$ 92.76

Financial Summary:

Total applied work value:	$ 7981.57
PAC name:	Fjordland Exploration Inc
Debited PAC amount:	$ 0.0
Credited PAC amount:	$ 12847.29
Total Submission Fees:	$ 798.16
Total Paid:	**$ 798.16**

Mineral Titles Online

Mineral Claim Exploration and Development Work/Expiry Date Change

Confirmation

Recorder:	FJORDLAND EXPLORATION INC. (142925)	**Submitter:**	FJORDLAND EXPLORATION INC. (142925)
Recorded:	2010/FEB/26	**Effective:**	2010/FEB/26
D/E Date:	2010/FEB/26		

Confirmation

If you have not yet submitted your report for this work program, your technical work report is due in 90 days. The Exploration and Development Work/Expiry Date Change event number is required with your report submission. **Please attach a copy of this confirmation page to your report.** Contact Mineral Titles Branch for more information.

Event Number: **4476311**

Work Type: Technical Work
Technical Items: Geophysical, PAC Withdrawal (up to 30% of technical work performed)

Work Start Date: 2009/OCT/08
Work Stop Date: 2009/NOV/19
Total Value of Work: $ 847.23
Mine Permit No:

Summary of the work value:

Tenure Number	Claim Name/Property	Issue Date	Good To Date	New Good To Date	# of Days For-ward	Area in Ha	Applied Work Value	Sub-mission Fee
606966	T3	2009/jul/03	2010/jul/03	2010/sep/10	69	495.70	$ 374.83	$ 37.48
616304	T17	2009/aug/08	2010/aug/08	2010/sep/10	33	495.75	$ 179.29	$ 17.93
616305	T18	2009/aug/08	2010/aug/08	2010/sep/10	33	495.52	$ 179.20	$ 17.92
616308	T18	2009/aug/08	2010/aug/08	2010/sep/10	33	495.44	$ 179.17	$ 17.92
616309	T19	2009/aug/08	2010/aug/08	2010/sep/10	33	495.66	$ 179.25	$ 17.93
616313	T21	2009/aug/08	2010/aug/08	2010/sep/10	33	99.12	$ 35.84	$ 3.58

Financial Summary:

Total applied work value: $ 1127.58

PAC name: Fjordland Exploration Inc
Debited PAC amount: $ 280.35
Credited PAC amount: $ 0.0

Total Submission Fees: $ 112.76

Total Paid: **$ 112.76**

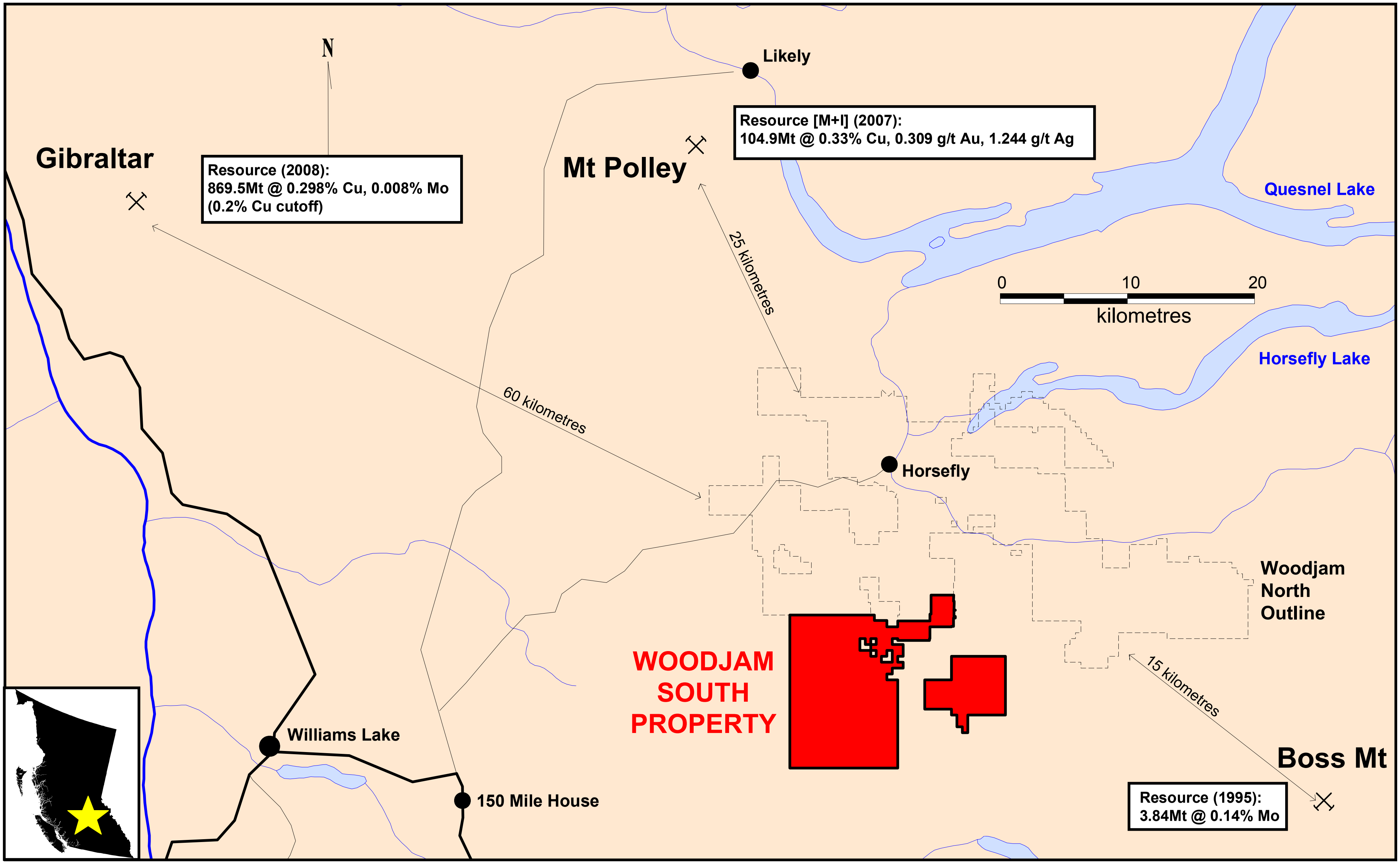


Figure 1: Location Map

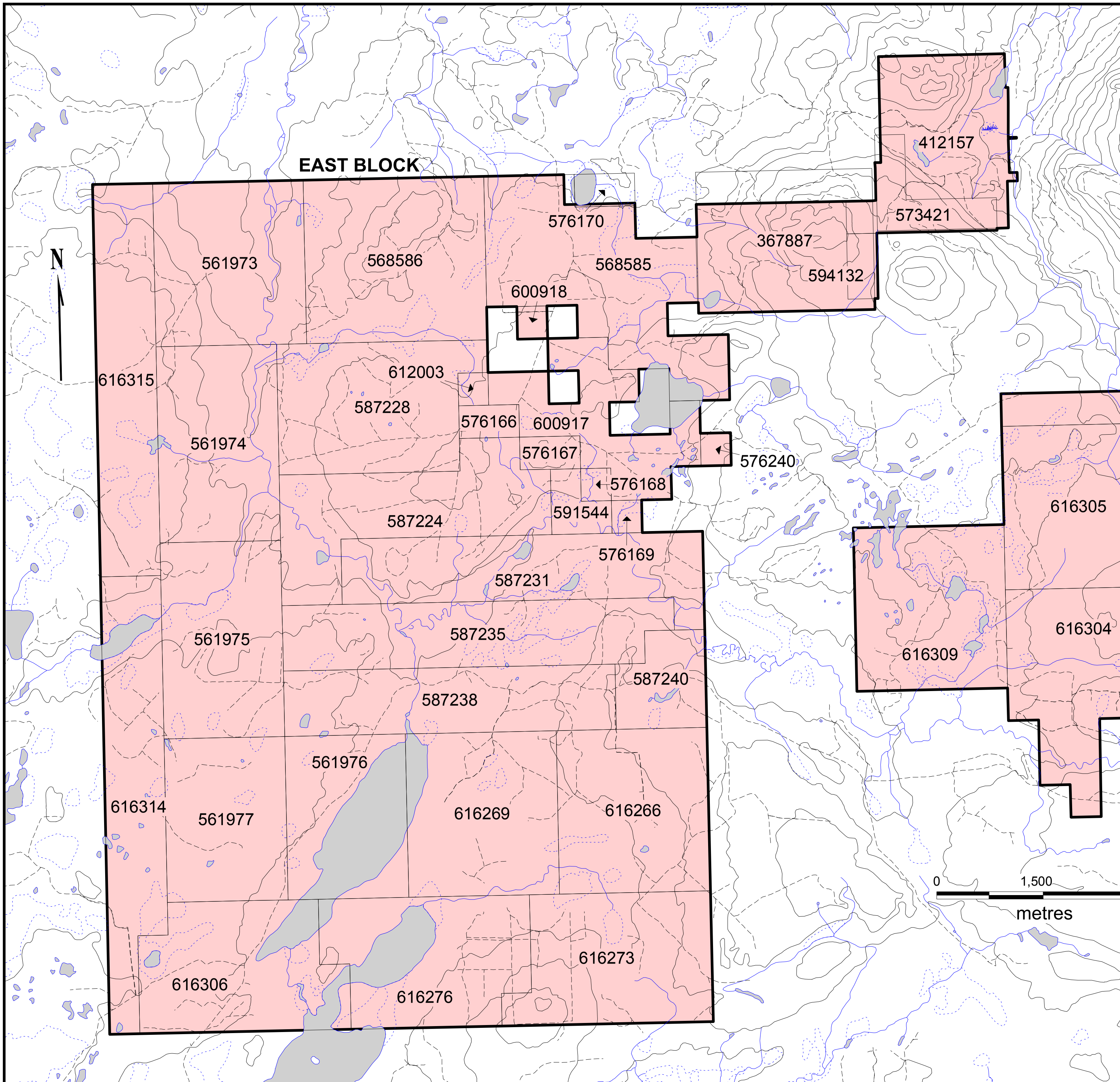


Figure 2:
Woodjam South
TENURE MAP
NTS 93A, Cariboo MD

2.0 PROPERTY LOCATION, SIZE, ACCESS AND PHYSIOGRAPHY

The Woodjam South Property is located in the Cariboo Mining Division of central British Columbia, NTS map sheet 93A/3 and 93A/6 at geographic coordinates; latitude 52°16' N, longitude 125°00' W as shown on Figure 1. The Property is located 15 kilometres south of the village of Horsefly, located approximately 50 kilometres east of the City of Williams Lake.

The Woodjam South Property consists of 40 mineral claims with a total area of 13,807 hectares. Claim information, as taken from Mineral Titles Online (31 March 2010), is listed below in Table 1 and Property outlines are shown in Figure 2.

TENURE	CLAIM_NAME	ISSUE_DATE	Good To Date	Area (ha)
367887	WOODJAM # 10	1999/feb/19	2015/feb/19	500.0
412157	WOODJAM 14	2004/jul/06	2015/feb/19	500.0
561973	WW-17	2007/jul/03	2011/feb/19	495.2
561974	WW-18	2007/jul/03	2011/feb/19	475.6
561975	WW-19	2007/jul/03	2011/feb/19	475.9
561976	WW-20	2007/jul/03	2011/feb/19	396.7
561977	WW-21	2007/jul/03	2011/feb/19	396.7
568586	MOOSE HORN	2007/oct/24	2011/oct/03	594.2
568585	BIG HORN	2007/oct/24	2011/oct/01	614.0
576167	SWJ2	2008/feb/14	2011/feb/14	39.6
576168	SWJ3	2008/feb/14	2011/feb/14	19.8
576169	SWJ4	2008/feb/14	2011/feb/14	19.8
576170	SWJ5	2008/feb/14	2011/feb/14	39.6
576166	SWJ1	2008/feb/14	2011/feb/14	39.6
576240	SWJ6	2008/feb/15	2011/feb/15	19.8
573421	WOODJAM V	2008/jan/10	2011/jan/10	138.6
587228	WJ-101	2008/jul/02	2011/feb/02	495.4
587231	WJ-102	2008/jul/02	2011/feb/02	495.6
587235	WJ-103	2008/jul/02	2011/feb/02	495.7
587238	WJ-104	2008/jul/02	2011/feb/02	436.3
587240	WJ-105	2008/jul/02	2011/feb/02	158.6
587224	WJ-100	2008/jul/02	2011/feb/02	475.7
594132	S1	2008/nov/11	2011/feb/11	39.6
591544	WJZ	2008/sep/18	2011/feb/18	59.5
600918	M2	2009/mar/12	2011/feb/02	19.8
600917	M1	2009/mar/12	2011/feb/02	317.0
616266	WS10	2009/aug/08	2011/feb/02	495.9
616269	T9	2009/aug/08	2011/feb/02	495.9
616273	WS11	2009/aug/08	2011/feb/02	496.1
616276	WS12	2009/aug/08	2011/feb/02	496.1
616306	WS13	2009/aug/08	2011/feb/02	496.1
616314	WS14	2009/aug/08	2011/feb/02	495.9

TENURE	CLAIM NAME	ISSUE DATE	Good To Date	Area (ha)
612003	SF1	2009/jul/26	2011/feb/02	19.8
606966	T3	2009/jul/03	2010/sep/10	495.7
616304	T17	2009/aug/08	2010/sep/10	495.8
616305	T18	2009/aug/08	2010/sep/10	495.5
616308	T18	2009/aug/08	2010/sep/10	495.4
616309	T19	2009/aug/08	2010/sep/10	495.7
616313	T21	2009/aug/08	2010/sep/10	99.1

Table 1: List of Claims

In 2009, the Woodjam Property was divided into the Woodjam North and Woodjam South properties when the northern portion of the property was optioned to Gold Fields Horsefly Exploration Corp. This report is focused solely on the Woodjam South property.

The property is composed of 2 non-contiguous blocks co-owned by Fjordland (60%) and Cariboo Rose Ltd (40%) respectively. Mineral Titles Online records the above claims are owned by Fjordland Exploration Inc as the recorded owner, however, this is to expedite maintenance on the claims, as Fjordland is the Operator. Fjordland is a public company incorporated in Canada, with offices at #510-510 Burrard Street, Vancouver, BC, Canada, V6C 3A8.

The property area is flat to moderately rolling with extensive overburden. Year round access is available via Forest Service Roads accessing most of the property. The area is largely vegetated by first and second growth fir/pine forests that have been partly clear-cut and selectively logged. The entire property lies below treeline. Elevations vary from low marshy areas at approximately 850 metres above sea level (asl) to rolling hills at 1240 metres asl. Numerous small lakes, many beaver dammed, dot the property and streams tend to be of low gradient and do not cut to bedrock. Exposure of bedrock is limited to steeper hillsides, ridge tops and road cuts. Lower areas are usually covered by extensive glacial till and alluvium. The last glacial advance appears to have been toward the northwest.

Climatic conditions are typical of the central interior of British Columbia. Average minimum low temperatures for January are -18°C and average maximum highs for July are +24 °C. Between May and September precipitation at a low-elevation station is about 400 millimetres.

3.0 HISTORY

The first gold found in the Cariboo was along the Horsefly River in 1859. A second gold rush period hit the Horsefly area in 1887. Placer gold operations were common throughout the Quesnel Belt during the early 1900's, however, records of activity in the property area are non-existent. The earliest recorded work in the area occurred in the 1960's prompted by the wave of exploration for porphyry copper deposits.

Previous explorers on the property included Silver Acorn Developments (Kruchkowski, E.R., 1978) and private owner H.J. Wahl (Wahl, 2004). Silver Acorn drill targeted buried stream channels under the Tertiary basalts for economic concentration of gold and uranium on the western portion of the property. Mr Wahl tested for copper-gold potential in the central portion of the property by completed 2 soil sampling traverses with analyses utilizing Enzyme Leach.

Fjordland has been active in exploration on the neighbouring Woodjam North property since 2001. Previous exploration on the Woodjam South property consisted of spill-over programs targeting the deposits being delineated in Woodjam North.

In 2005 Fjordland completed a reconnaissance scale soil sampling program over the now named Southeast Zone. An IP program was completed over the northeastern portion of the property in 2007. In late 2007 and 2008 a total of 18 holes were drilled in the Southeast Zone.

4.0 GEOLOGICAL SETTING

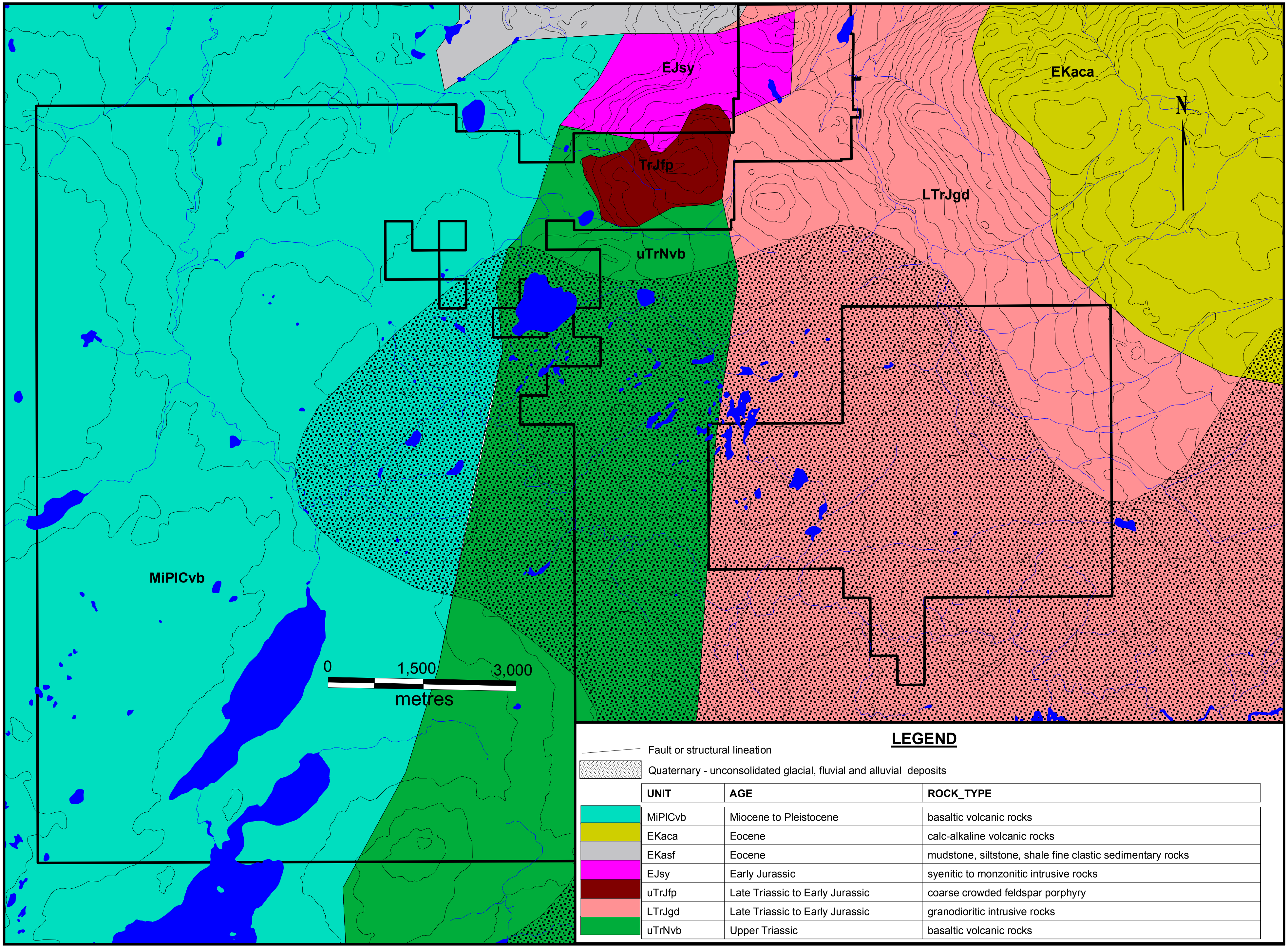
The Quesnel Trough, a large regional depositional feature extending 2000 kilometres from the U.S. border in the south to the Stikine River in the north, forms a portion of the dominantly alkalic and sub-alkalic volcanic and sedimentary assemblage. The belt hosts several large tonnage copper-gold “porphyry type” deposits including Afton, Imperial Metal’s Mount Polley Mine, Taseko’s Gibraltar Mine, Placer Dome’s Mt. Milligan deposit and Northgate’s Kemess Mine. Outside of British Columbia, alkalic igneous rocks are host to, or generators of, such renowned deposits as Porgera and Ok Tedi in Papua New Guinea and Emperor in Fiji, as well as lesser-known but nevertheless compelling mines such as Cadia in Australia and Cripple Creek in the United States.

The Quesnel Trough alkali-porphyry deposits occur in basalts and andesitic flows, fragmental rocks and alkalic intrusive complexes. They are generally gold-copper deposits consisting of chalcopyrite-pyrite and minor bornite sulphide mineralization. The sulphide zones are developed adjacent to concentrically-zoned alkaline plutons which are themselves seldom sulphide bearing.

The Quesnel Trough assemblage is made up of rocks of the Nicola (south), Takla (central) and Stuhini (north) Groups consisting of a series of volcanic islands characterized by generally alkalic to sub-alkalic basalts and andesites, related sub-volcanic intrusive rocks, and derived clastic and pyroclastic sedimentary rocks.

The basalts and andesites are subaqueous fissure eruptions associated with regional faults. At a late stage in the volcanic cycle large sub-aerial volcanic centres developed. These features consist largely of pyroclastic and epiclastic rocks, complex intrusive monzonite and syenite. Commonly associated with the plutons is a late fumarolic or hydrothermal stage when large volumes of volcanic rocks were extensively altered to albite, K-feldspar, biotite, chlorite, epidote and various sulphides. The late metasomatic period involves introduction of volatiles and various metals in the vent areas and is a typical and important feature of the final stages of the volcanic cycle.

The Takomkane Batholith is a large predominantly calc-alkalic intrusive with a surface expression of approximately 40 by 50 kilometres. It comprises one of a series of at least



After: B.C. Ministry of Energy and Mines, Geofile 2003-21 (N.W.D. Massey, et al)
Geology of the Murphy Lake Area, BCGS Open File 93A/03 (Schiarizza, P et al)
2009 Geological Mapping of the Woodjam Property, In-house Report (Bailey, D. et al)

Figure 3: PROPERTY GEOLOGY

six large coeval bodies including the Guichon Batholith (hosting the Highland Valley deposits) and Granite Mountain Batholith (hosting the Gibraltar deposit). Regional magnetic highs show a distinct northeasterly trend in the area of the Woodjam South in contrast to the northwesterly trend prevalent in the region apparently representing an edge effect with the Takomkane Batholith and Nicola volcanics.

4.1 Property Geology

The Woodjam South property is underlain by a succession of Triassic-Jurassic Nicola Group volcanics and related sedimentary rocks intruded by the Triassic-Jurassic aged Takomkane Batholith to the southeast. The claims may also include felsic plugs possibly related to the Takomkane Batholith. Younger Miocene-aged basalts overlap these older units to the west of the property.

The Nicola Group is typified by its preponderance of basalt to trachy-andesitic infill and its co-magmatic alkalic centres. Typical exposures consist of andesitic tuffs, tuffites and flows, greywackes, and minor silicious conglomerates. Work in the vicinity of the Megabuck Zone has shown the Nicola rocks to be a complex succession of maroon and green augite and feldspar porphyries, with related tuffs, pyroclastic breccias and related sedimentary rocks. Some altered and brecciated rocks interpreted as sub-volcanic intrusive complexes also occur in the Megabuck Zone.

In the region of the Woodjam property the Takomkane Batholith is typically an equigranular granite to quartz-monzonite. It is generally a medium to coarser grained, equigranular, white, quartz monzonite to granite. A number of border phases occur adjacent to the batholith including several diorite and monzodiorite plugs and dykes as well as a distinctive bladed feldspar granodiorite porphyry. Diorite and monzodiorite rocks are medium grained, and contain 10-20% hornblende as the dominant mafic mineral.

Hornfels and epidote alteration is prevalent within the volcanic units and increases in intensity with proximity to the Takomkane Batholith and its satellite phases. Weak epidote alteration takes the form of epidote rich pods (1-3%) which occur predominantly along bedding planes. Moderate alteration is typified by numerous epidote pods (5% to 15% of the rock) and pervasive epidotization of the remainder of the rocks mass (5-15%). Finally, intensely altered volcanic rocks are highly magnetic and contain abundant epidote throughout (15-20%). Locally, magnetite- epidote alteration can grade into magnetite-biotite (potassic) alteration. East of the Takom Zone, podiform epidote alteration occurs along east-west oriented fractures within diorite and is associated with tourmaline veining and rare chalcopyrite. Tourmaline veining also occurs within hornfelsed volcanic rocks in the Spellbound Zone.

4.2 Mineralization

There are no known Minfile occurrences on the Woodjam South property.

The Southeast zone was discovered during the 2007 IP surveys and is defined by a chargeability high and resistivity low. The zone is situated within a broad topographic low along the west side of Woodjam Creek with no exposed outcrop within the area of the IP anomaly, however sparse outcrops of quartz monzonite can be found on the hillside to the south. Drilling indicates that overburden depths increase from 30m in the south at hole WJ07-72 to 170m in the north at hole WJ08-96.

Mineralization is typified by large intervals (hundreds of metres) of consistent copper-molybdenum mineralization surrounding a gold-copper mineralized core deposited completely within quartz monzonite intrusives. Areas of higher grading copper mineralization are typified by reduced molybdenum and increased gold mineralization.

Two phases of quartz monzonite have been encountered during drilling. A sericite-carbonate altered plagioclase hornblende porphyry (QM1) is mineralized along dry fracture stockworks. There are two distinct near vertical planes with complimentary planes at 40 to 60 degrees. Quartz +/- anhydrite-carbonate veins are rarely seen and molybdenite occurs as paint on some fractures. A second plagioclase hornblende porphyry (QM2), generally encountered below QM1, is distinguished from the above unit by the presence of up to 3cm across plagioclase megacrysts. Mineralization is similar to that encountered in QM1, however the rock is more competent and has more abundant distinct quartz-anhydrite (often purple) veins. These veins, commonly at 30 degrees to the core axis, contain bands of finely disseminated molybdenite and chalcopyrite and have molybdenite paint along the selvages. They also cross-cut the stockwork fracture mineralization and host a later stage of mineralization.

Fine bornite has been seen in thin section, replacing chalcopyrite and in drill core is seen along fractures commonly with chlorite and chalcopyrite within the central area intersected by holes 08-83 and 84. Distally, fine bornite has been noted associated with biotite in the matrix of quartz monzonite in hole WJ08-95 and 97.

Local discrete bands (commonly 15 cm but up to 1.2 metres-WJ08-83) of coarse disseminated chalcopyrite in fine grain orange aplite (?) may represent yet another style of mineralization.

Two major faults were encountered. In hole WJ08-82, a 17 metre thick silicified and silica replaced fault zone was encountered. The zone is devoid of copper mineralization however molybdenite is common along fractures. A second major structure was seen in WJ08-96 where a 5.7 metre silicified and brecciated fault cuts the quartz monzonite. A 1 metre zone in the core of this fault hosts fracture coating and vein bornite mineralization. Local crush zones, +/- 1m with clay altered envelopes occur sporadically throughout all the drill holes.

Late stage pink fine-grained aplite dykes, commonly 1-3 metres wide, cut both quartz monzonite units. Although generally unmineralized, molybdenite rather than chalcopyrite is often found within and at the margins. Fine-grained, post mineral, magnetic, plagioclase porphyry dykes, similar to those encountered in the Megabuck Zone, are generally 10 to 17 metre thick dykes and were noted in holes WJ08-86 and 89. Black, post mineral basalt dykes up to 3 metres thick occur sporadically throughout the Southeast Zone and are believed to be feeders to the Tertiary flood basalts found as extensive cover in the western portion of the property.

5.0 2009 EXPLORATION PROGRAM

<u>Airborne Magnetics and Gamma-Ray Spectrometry</u>

From October 8, 2009 to November 19, 2009 a high sensitivity fixed wing magnetic and gamma-ray spectrometric airborne survey was carried out by New-Sense Geophysics of Toronto Ontario. A full description of procedures and survey parameters is presented in the New-Sense Geophysics Logistics Report in Appendix A. The survey was flown in conjunction with Gold Fields Horsefly Exploration Inc's adjoining airborne survey.

The purpose of the 2009 survey was to produce a high resolution magnetic survey over and peripheral to known mineralized areas that would allow for anomaly delineation and structural and lithological evaluations.

Two survey blocks were flown across the Woodjam Property including the "main block" and the "infill block" (New-Sense Geophysics, 2009). The "main block" consisted of East-West lines over the entire Woodjam Property including both the Woodjam North and Woodjam South claims. Permission was obtained from claim owners internal to the Woodjam Property. The "infill block" included north-south lines over the Core area including the Southeast zone. Figure 4 presents the flight lines of both survey blocks. The line spacing for both survey blocks was 100m with 1000m control line spacing, on the main block only. Figures 5 and 6 present total field and first vertical derivative magnetic intensity maps.

In conjunction with the magnetometer survey, a radiometric survey was also conducted. Radiometric surveys are sensitive to the amount of ground cover and moisture. During the time of the survey moisture and ground cover conditions were not ideal as a result of frequent precipitation in the form of snow and rain. The survey was still flown, despite the knowledge that the conditions for radiometric data acquisition were not ideal, as the main objective of the survey was to collect total field magnetic data not radiometric data (New-Sense Geophysics, 2009). Figures 7 to 10 present the total count, K, U and Th data respectively. The radiometric data does not present any reliable trends due to poor data quality as a result of the non ideal data acquisition conditions and should not be used for detailed interpretation purposes.

6.0 INTERPRETATION AND CONCLUSIONS

The survey defined a 3-kilometre wide northeast-southwest trending corridor of moderate magnetic intensity trending through known mineralized zones on the Woodjam North property and extending for 13 kilometres to the southwest. The corridor contains small magnetic highs, ranging in size from approximately 100m to 1500m in scale, some correlating well with all IP chargeability highs while others do not have a chargeability signature. Detailed structural and lithological interpretations were still being processed at the time of the Report being written.

It is important to note that the Southeast zone has a very low total field magnetic intensity signature.

7.0 RECOMMENDATIONS

The following exploration programs are recommended for the Woodjam Project as financing becomes available.

- Additional drill testing of the Southeast Zone to define the lateral size potential and any higher grade pockets.

- Combined Induced Polarization Chargeability / Resistivity surveys over additional prospective areas to the southwest.

8.0 STATEMENT OF EXPENDITURES

Block	Area (ha)	%	Cost
West Block	9,293	11.12%	$ 20,828.86
East Block	378	0.45%	$ 847.23
Other Areas	73,928	88.43%	$ 165,698.45
Total Survey	83,599	100.00%	$ 187,374.54

Total Survey cost $21,676.09

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10.0 AUTHOR'S STATEMENT OF QUALIFICATIONS - L. John Peters

I, **L. John Peters, P.Geo** do hereby certify that:

a. I am a consulting geologist with addresses at 6549 Portland Street, Burnaby, BC, Canada, V5E 1A1.

b. I graduated with a Bachelor of Science degree (Geology) from the University of Western Ontario in 1984.

c. I am a Professional Geoscientist (P.Geo.) in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (#19010).

d. I have worked as a geologist for a total of 25 years since my graduation from university.

e. I am responsible for the preparation of the report titled "TECHNICAL REPORT including Airborne Geophysical Surveys on the WOODJAM PROPERTY" and dated 26 May 2010. I visited the Woodjam Property on numerous times since 2001 and represent Fjordland as the Exploration Manager.

f. I was not involved in any of the historic work programs on the Woodjam Property prior to Fjordland's involvement, however, I have been involved in all aspects of Fjordland's exploration activities on the Property since 2001.

g. 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.

Dated this 26th day of May 2010,

"Lawrence John Peters"

APPENDIX A –

Logistics Report – New Sense Geophysics Limited

Logistics
Report

For the

High Resolution Helicopter Magnetic and
Gamma-ray Spectrometric Airborne Geophysical Survey

Flown over

WOODJAM Project Property

From

Williams Lake, British Columbia

Carried out on behalf of

GOLD FIELDS HORSEFLY EXPLORATION Corp.

By

New-Sense Geophysics Limited

Toronto, Canada
February 4th, 2010
(**FMR90923**-report)

TABLE OF CONTENTS

1. INTRODUCTION 4

2 SURVEY LOCATION 5

2.1 SURVEY AREA CORNER COORDINATES 5

3. PERSONNEL 7

3.1 FIELD OPERATIONS 7
3.2 OFFICE DATA PROCESSING AND OFFSITE QA/QC 7
3.3 PROJECT MANAGEMENT 7

4. SURVEY PARAMETERS 8

5. AIRCRAFT AND EQUIPMENT 9

5.1 AIRCRAFT 9
5.2 AIRBORNE GEOPHYSICAL SYSTEM 9
5.2.1 MAGNETOMETER 9
5.2.2 MAGNETIC COMPENSATION 9
5.2.3 GPS NAVIGATION 9
5.2.4 ALTIMETER 10
5.2.5 GEOPHYSICAL FLIGHT CONTROL SYSTEM 10
5.2.6 SPECTROMETER 10
5.2.7 DIGITAL RECORDING 10
5.2.8 IDAS DIGITAL RECORDING 11
5.3 GROUND MONITORING SYSTEM 11
5.3.1 BASE STATION MAGNETOMETER 11
5.3.2 RECORDING 11
5.4 FIELD COMPILATION SYSTEM 11

6. PRE-SURVEY SPECTROMETER CALIBRATIONS 12

6.1 ENERGY WINDOWS 12
6.2 CALIBRATION PAD TEST 13
6.3 COSMIC FLIGHT TEST 13
6.3.1 SETUP AND MEASUREMENT PROCEDURE 13
6.3.2 RESULTS FROM COSMIC FLIGHT TEST 14
6.4 ALTITUDE ATTENUATION TEST 14
6.4.1 RESULTS FROM ALTITUDE ATTENUATION TEST 14

7. OPERATIONS AND PROCEDURES 15

7.1 FLIGHT PLANNING AND FLIGHT PATH **15**
7.2 BASE STATION **15**
7.3 AIRBORNE MAGNETOMETERS **15**
7.4 THORIUM RESOLUTION TESTS **16**
7.5 DATA COMPILATION **17**
7.5.1 FLIGHT PATH CORRECTIONS 17
7.5.2 PRESSURE AND TEMPERATURE 17
7.5.3 DIGITAL TERRAIN MODEL (DTM): MAIN BLOCK 18
7.5.4 DIGITAL TERRAIN MODEL (DTM): INFILL BLOCK 18
7.5.5 MAGNETIC CORRECTIONS 19
7.5.5.1 LAG CORRECTIONS 19
7.5.5.2 HEADING CORRECTIONS 19
7.5.5.3 DIURNAL CORRECTIONS 20
7.5.5.4 IGRF CORRECTIONS 20
7.5.5.5 LEVELING CORRECTIONS: MAIN BLOCK 21
7.5.5.6 LEVELING CORRECTIONS: INFILL BLOCK 22
7.5.6 VERTICAL DERIVATIVE: MAIN BLOCK 23
7.5.7 VERTICAL DERIVATIVE: INFILL BLOCK 23
7.5.8 RADIOMETRIC DATA CORRECTIONS: MAIN AND INFILL BLOCKS 24
7.5.8.1 SCALE FACTOR ADJUSTMENTS 24
7.5.8.2 LIVE TIME CORRECTIONS 25
7.5.8.3 PRE-FILTERING 25
7.5.8.4 AIRCRAFT AND COSMIC BACKGROUND 25
7.5.8.5 COMPTON STRIPPING 26
7.5.8.6 ATTENUATION CORRECTIONS 26
7.5.9 GRIDDING 27
7.5.10 MAP PRODUCTS AND DIGITAL DATA DELIVERABLES 27

8. SUMMARY 29

APPENDIX A: BACKGROUND AND COSMIC TESTS CHARTS 30

APPENDIX B: FOM RESULTS 34

APPENDIX C: DATABASE DESCRIPTIONS 38

APPENDIX D: SCALE FACTOR CALCULATIONS 41

APPENDIX E: IMAGES OF FINAL MAPS 43

1. INTRODUCTION

A high sensitivity fixed wing magnetic and gamma-ray spectrometric airborne survey was carried out for GOLD FIELDS HORSEFLY EXPLORATION Corp. (Client) over two (2) survey blocks known as Woodjam Project Property (Main block) and Woodjam Project Property Infill (Infill block) in the vicinity of Williams Lake, British Columbia, Canada. New-Sense Geophysics (NSG) flew the survey under the terms of an agreement with Client dated September 23rd, 2009.

The survey was flown between October 8th and November 19th, 2009 with an infill block (complimentary) flown between November 21 and November 22, 2009. A total of 9,282 "'Main block" line-kilometers and 577 "Infill block" line-kilometers of field magnetic and radiometric data was flown, collected, processed and plotted.

Geophysical equipment comprised of 1 high-sensitivity Cesium-3 magnetometer mounted in a fixed tail stinger and a 1024-channel spectrometer with four downward looking crystals (total 16 liters) and one upward looking crystal (total 4 liters). Ancillary equipment included digital recorders, flux gate magnetometer, radar altimeter and a global positioning system (GPS), which provided accurate real-time navigation and subsequent flight path recovery. Surface equipment included a magnetic base station with GPS time synchronization, and a PC-based field workstation, which was used to check the data quality and completeness on a daily basis.

The technical objective of the survey was to provide high-resolution total field magnetic (TMI) and radiometric maps suitable for anomaly delineation, detailed structural evaluation, and identification of lithologic trends. Fully corrected magnetic and radiometric maps were prepared by New-Sense Geophysics Limited, in their Toronto office after the completion of survey activities.

This report describes the acquisition, processing, and presentation of data for Woodjam Project Property Main block and Woodjam Project Property Infill block, flown from Williams Lake, British Columbia, Canada.

2 SURVEY LOCATION

2.1 Survey Area Corner Coordinates

Datum: WGS 84
Projection: Universal Transverse Mercator Zone 10N
Local Datum Transform: World

Woodjam Area (Main block)

UTM ZONE 10N	
WGS84_X	**WGS84_Y**
597450	5807222
626106	5807222
626106	5798587
623893	5798587
623893	5794432
637276	5794432
637276	5786284
626969	5786284
626969	5783639
609808	5783639
609808	5777379
601120	5777379
601120	5787309
597396	5787309
597396	5792597
593889	5792597
593889	5800422
597450	5800422
597450	5807222

Woodjam Area (Infill block)

UTM ZONE 10N	
WGS84_X	**WGS84_Y**
608339	5795000
613540	5795000
613540	5785000
608339	5785000

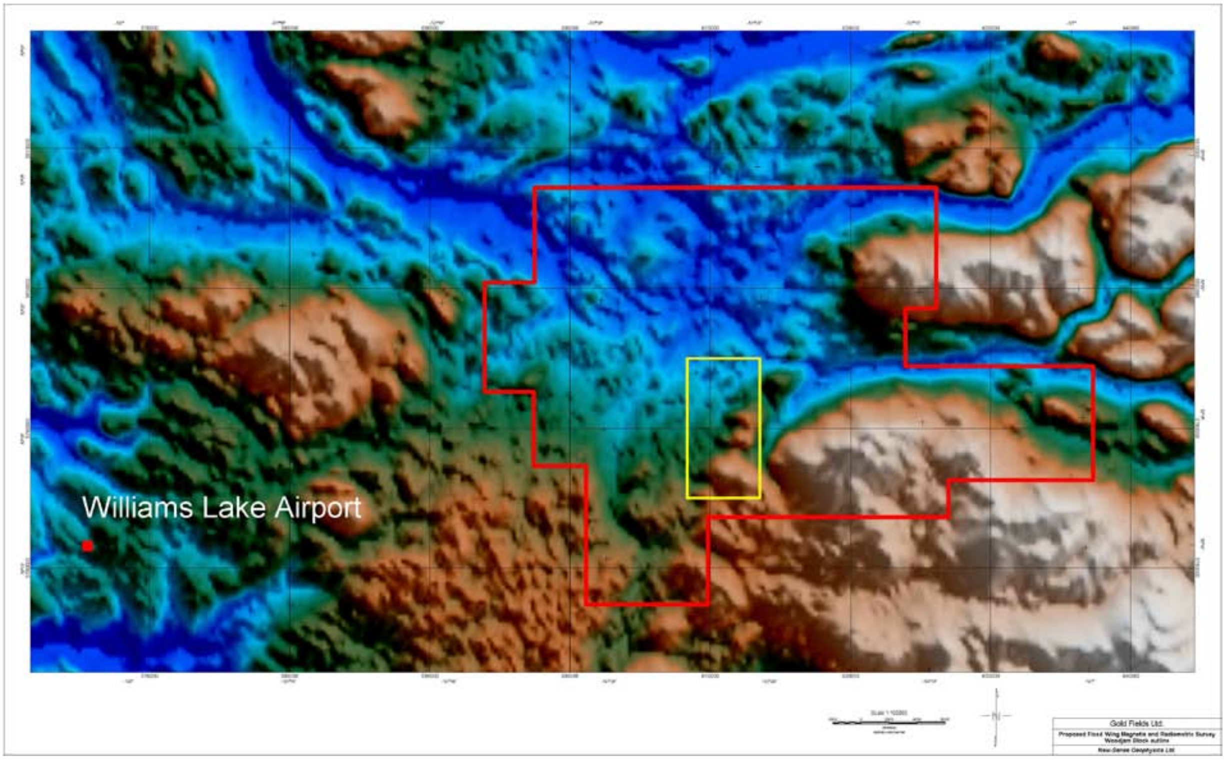


Figure 1. Location map depicting the block outline for: Woodjam Project "Main block" Property (red), the Woodjam Project "Infill block" Property (yellow), and Williams Lake airport, BC, Canada. The UTM grid size is 10 km. The coordinate system is WGS84, World, Zone 10N.

3. PERSONNEL

3.1 Field Operations

New-Sense Geophysics Ltd.: (Geophysicist)		Sean Plener	
Brucelandair crew:	(Pilot)	Brian Irvine	10/07/09 – 10/15/09
	(Pilot)	Merv Cowan	10/16/09 – 11/18/09
	(Pilot)	Walter Fiesel	11/19/09 – 11/23/09

3.2 Office Data Processing and Offsite QA/QC

QA/QC (NSG):	Andrei Yakovenko
QA/QC (Client):	Andrew Foley
Data Processing and Grids (NSG):	Andrei Yakovenko Chris Evans Sean Plener
Maps (NSG):	Sean Plener
Logistics Report (NSG):	Andrei Yakovenko Chris Evans Sean Plener

3.3 Project Management

New-Sense Geophysics Ltd.:	Andrei Yakovenko Dr. W.E.S. (Ted) Urquhart
GOLD FIELDS HORSEFLY EXPLORATION Corp.:	Andrew Foley

4. SURVEY PARAMETERS

Traverse Line spacing:	100 meters
Control Line spacing:	1000 meters (Main block)
Nominal Terrain clearance:	80 meters
Average Terrain clearance:	135.6 meters (Main block)
	87.8 meters (Infill block)
Navigation:	Global Positioning System
Traverse Line direction:	90, 270 deg. (Main block)
	0, 180 deg. (Infill block)
Control Line direction:	0, 180 deg.
Measurement interval:	0.1 sec for magnetics;
	1.0 sec for radiometrics and GPS
Ground speed (average):	266.4 km/hr (Main block)
	259 km/hr (Infill block)
Measurement spacing (average):	7.4 meters/0.1 sec, 74.0 meters/1 sec (Main block)
	7.2 meters/0.1 sec, 72 meters/1 sec (Infill block)
Airborne Digital Record:	Line Number
	Flight Number
	Radar Altimeter
	Total Field Magnetics
	Live Time
	Thorium counts
	Potassium counts
	Uranium counts
	Upward looking Uranium counts
	Cosmic counts
	Total Counts Time (System and GPS)
	Raw Global Positioning System (GPS) data
	Magnetic compensation parameters (fluxgate mag.)
Base Station Record:	Ambient Total Field Magnetics
	Raw Global Positioning System (GPS) data
	Time (System and GPS)

5. AIRCRAFT AND EQUIPMENT

5.1 Aircraft

The aircraft used was a twin-engine Piper Aztec (PA23-250) with a tail stinger assembly equipped with one Cesium-3 magnetometer mounted in a fixed tail stinger assembly and a RS-500 spectrometer. The aviation company providing the aircraft service was Brucelandair, based in Wiarton, Ontario, Canada.

5.2 Airborne Geophysical System

5.2.1 Magnetometer

One Scintrex CS-3 Optically Pumped Cesium Split Beam Sensor was mounted in a fixed stinger assembly. The magnetometers Larmor frequency output was processed by a KMAG-4 magnetometer counter, which provides a resolution of 0.15 ppm (in a magnetic field of 50,000 nT, resolution equivalent to 0.0075 nT). The raw magnetic data was recorded at 50 Hz, anti-aliased, and resampled at 10 Hz .

5.2.2 Magnetic Compensation

The proximity of the aircraft to the magnetic sensor creates a measurable anomalous response as a result of the aircrafts movement. The orientation of the aircraft with respect to the sensor and the motion of the aircraft through the earth's magnetic field are contributing factors to the strength of this response. A special calibration flight, Figure of Merit (i.e., FOM), was flown to record the information necessary to compensate for these effects.

The FOM maneuvers consist of a series of calibration lines flown at high altitude to gain information in each of the required line directions. During this procedure, the pitch, roll and yaw of the aircraft are varied (typical angles are 5^o pitch, 5^o roll, and 5^o yaw). Each variation is conducted in succession (first pitch, then roll, then yaw), providing a complete picture of the aircrafts effects at designated headings in all orientations.

A three-axis Bartington fluxgate magnetometer (recorded at 50 Hz) was used to measure the orientation and rates of change of the magnetic field of the aircraft, away from localized terrestrial magnetic anomalies. The QC Tools digital compensation algorithm was then applied to generate a correction factor to compensate for permanent, induced, and eddy current magnetic responses generated by the aircrafts movements.

5.2.3 GPS Navigation

A U-BLOX RCB-LJ sixteen channel GPS receiver, which is an integral component of the iNAV V3 computer system, was used to run the flight control system and provide precise positioning of the aircraft.

5.2.4 Altimeter

A TRA 3500 radar altimeter was mounted in the aircraft's tail. This instrument operates with a linear performance over the range of 0 to 2,500 feet, and records the terrain clearance of the sensors. The raw radar altimeter data was recorded at 50 Hz, anti-aliased and re-sampled at 10 Hz.

5.2.5 Geophysical Flight Control System

New-Sense's iNAV V3 geophysical flight control system monitored and recorded magnetometer, spectrometer, altimeter, and GPS equipment performance. Input from the various sensors was monitored every 0.005 seconds for the precise coordination of geophysical and positional measurements. The input was recorded fifty times per second (one time per second in the case of GPS and radiometric data).

GPS positional coordinates and terrain clearance were presented to the pilot by means of a panel mounted indicator display. The magnetometer response, forth difference, altimeter profile and profiles of the radiometric windows were also available on the touch screen display, for real-time monitoring of equipment performance.

5.2.6 Spectrometer

The RS-500 Airborne Spectrometer with RSX-5 detector pack, manufactured by Radiation Solutions Inc. (RSI), was used for the survey. The RS-500 spectrometer has a multi-peak gain stabilization algorithm and is capable of recording 1024 channels with accuracy of 0.1 to 10 counts/second.

The RS-500 is connected to a crystal pack comprising four downward looking crystals (16 liters total) and one upward looking crystal (4 liters total). The downward crystals record the radiometric spectrum from 410 KeV to 2810 KeV over 256 discrete energy windows, as well as from a cosmic ray channel that detects photons with energy levels above 3.0 MeV. From these 1024 channels, the standard Total Count, Potassium, Uranium and Thorium channels are extracted. The upward crystal is used to measure and correct for atmospheric Radon interference. The shock-protected Sodium Iodide (Thallium) crystal package is unheated and automatically stabilizes with respect to the multiple peaks. The RS-500 provides raw data that has been automatically corrected for gain, base level, ADC offset, and dead time.

5.2.7 Digital Recording

The output of the CS-3 magnetometers, spectrometer, fluxgate magnetometer, altimeter, uncorrected GPS coordinates as well as time (system and GPS) were recorded digitally on a Compact Flash card at a sample rate of ten times per second (one time per second for GPS and the spectrometer data) by the iNAV V3 system.

5.2.8 iDAS Digital Recording

The output of the CS-3 magnetometer, fluxgate magnetometer, altimeter, and system time were recorded at 50Hz. The GPS coordinates and time were recorded at 1 Hz. The data was recorded digitally on a removable compact flash card by the iNAV V3 system.

5.3 Ground Monitoring System

5.3.1 Base Station Magnetometer

A Overhauser magnetometer (GSM-19), was used at the base of operations within the airport boundaries, in an area of low magnetic gradient and free from cultural electric & magnetic noise sources. The sensitivity and absolute accuracy of the ground magnetometer is +/- 0.1nT. Data was recorded continuously at least every one second throughout the survey operations in digital form on a TC-10 data acquisition system. Both the ground and airborne magnetic readings were synchronized based on the GPS clock.

5.3.2 Recording

The output of the magnetic and GPS monitors was recorded digitally on a dedicated TC 10 computer. A visual record of the last three hours was graphically maintained on the computer screen to provide an up to date appraisal of magnetic activity. At the conclusion of each production flight raw GPS and magnetic data were transferred to the main field compilation computer.

5.4 Field Compilation System

A field laptop computer was used for field data processing and presentation. The raw data was imported to Geosoft Oasis montaj for QA/QC and processing purposes. After the data was checked for quality control, the database with uncompensated magnetic readings was exported to QC Tools software package for magnetic compensation and base station data merging purposes. The compensated database was then imported back to Oasis for the subsequent and final processing.

6. PRE-SURVEY SPECTROMETER CALIBRATIONS

Pre-survey calibrations and testing of the RS-500 (SN 5503) airborne gamma-ray spectrometry systems were carried out on October 7, 2009 in Williams Lake, BC, Canada. For these calibrations and tests, the survey aircraft (registration C-GGVN), was mobilized in survey configuration. The installed equipment and configurations were selected to conform to contract technical specifications.

Calibration of the spectrometer system is a vital process to airborne gamma-ray spectrometry. The calibration of the spectrometer system involved three tests:

- **Calibration Pad** measurements, which are used to determine the "spectral overlap" (Compton scattering) coefficients. The calibration test was performed within a 12 month period before and during the survey by the manufacturer (Radiation Solutions Inc.), at its headquarters location in Mississauga, Ontario.

- **Cosmic Flight Test**, which is used to determine the aircraft background values and cosmic coefficients (conducted on October 7, 2009, near the survey area).

- **Height Attenuation Test,** which determined the altitude attenuation coefficients (conducted on October 7, 2009, near the survey area).

6.1 Energy Windows

The airborne radiometric technique requires measurement of count rates for specific energy regions or windows in the natural gamma-ray spectrum. The standard energy regions [in accordance with the International Atomic Energy Agency (IAEA) 323], and their corresponding channel limits are:

Downward Spectrometer Energy Windows

Designation	Energy Limit (keV)		Channel Limit (inclusive)	
			Unit Values	
	Lower	Upper	Lower	Upper
Total Count (TC)	410	2810	32	234
K	1370	1570	114	131
U	1660	1860	138	155
Th	2410	2810	201	234
U (upward)	1660	1860	138	155
Cosmic	3200	infinity		

6.2 Calibration Pad Test

The Compton stripping coefficients as provided by RSI are listed below:

Stripping Ratios	**Spectrometer 1**	**“normal” values**
Th into U (alpha = a23/a33)	0.272	0.250
Th into K (beta = a13/a33)	0.409	0.400
U into K (gamma = a12/a22)	0.772	0.810
U into Th (a = a32/a22)	0.042	0.060
K into Th (b = a31/a11)	-0.002	0
K into U (g = a21/a11)	-0.002	0.003

6.3 Cosmic Flight Test

In each of the spectral windows, the radiation increases exponentially with height due to radiation of cosmic origin. As well, the aircraft itself contributes a constant background to the count rate. By completing a series of flights within the same region, over a range of altitudes, these background contributions can be determined.

6.3.1 Setup and Measurement Procedure

1. A resolution check was completed at the aircraft base using a Thorium source prior to the cosmic test to insure the sensitivity and accuracy of the spectrometer.
2. Once the aircraft reached the desired altitude (first at 11630 feet), survey data was recorded for approximately ten minutes.
3. Step 2. was then repeated at the following remaining altitudes, 10543, 9672, 8701, and 7739 feet above sea level.

	Cosmic Test Flight Data (average counts)					
Altitude (ft)	Cosmic	UU	K	U	Th	TC
11630	341	6	35	22	22	430
10543	289	5	33	20	20	437
9672	248	5	30	18	16	392
8701	214	4	28	16	13	352
7739	184	4	26	14	11	319

6.3.2 Results from Cosmic Flight Test

At each altitude, the data for the five windows of interest (Th, K, U, TC, and U upward) were evaluated for quality. The mean values were then extracted and plotted against the cosmic background window (see Appendix A). The result is a linear trend, where the slope and intercept represent the cosmic stripping ratio and the aircraft background respectively. The results from the graphs are summarized below.

Calculated Cosmic and Aircraft Background Coefficients Table

	Cosmic Flight Test Result from	
	Cosmic Stripping	Aircraft Background
K	0.0586	15.4510
U	0.0508	5.0425
Th	0.0638	0.0000
TC	1.0948	118.6100
UU	0.0129	1.4990

6.4 Altitude Attenuation Test

The height attenuation of the spectrometer systems was calculated by flying a series of passes across a line over flat ground with uniform radioelement ground concentration. The test range was flown by acquiring data on a series of seven passes over a set path, at the following altitudes: 200, 300, 400, 500, 700, 900, and 1000 feet above ground

6.4.1 Results from Altitude Attenuation Test

The airborne data from the altitude attenuation test was checked for quality, edited and divided into lines, where each line represents a pass. The radiometric windows were then corrected for background (aircraft and cosmic) and stripped of Compton contributions. After averaging the data for each line, the four windows of interest (K, U, Th, and Total Count) were plotted against the altimeter in order to obtain the height attenuation (see Appendix A). The results were obtained using an exponential regression, where the slope represents the attenuation coefficient and the ‘y’ intercept represents the counts at 0 feet.

Calculated Height Attenuation Coefficient

Element	**Altitude attenuation coefficients**
K	-0.0072
U	-0.0099
Th	-0.0064
TC	-0.0064

7. OPERATIONS AND PROCEDURES

7.1 Flight Planning and Flight Path

The block outline coordinates (section 2.0) were used to generate pre-calculated navigation files. The navigation files were used to plan flights at the designated traverse line spacing of 100 meters and control lines of 1000 meters.

Preliminary flight path maps and magnetic maps were plotted and updated, to monitor coverage of the survey area.

On November 21, 2009, an area of interest infill block was discussed and approved. Flight lines were to be flown at 0 and 180 degree directions, with a line spacing of 100 meters. Lines were lined up with existing control lines from the area and navigation files were produced.

7.2 Base Station

A magnetic base station was established in a magnetically quiet area on the CYWL airport property near Williams Lake, BC, Canada. The base station was placed at Latitude: 52.186608; Longitude: -122.063469.

The base station was monitored to ensure that the diurnal variation was within the peak-to-peak envelope of 20 nT from a long chord distance equivalent to a period of two minutes.

Figures 2-3. Base station location and set up photos from Woodjam project

7.3 Airborne Magnetometers

A number of tests of the performance of the CS-3 and fluxgate magnetometers were performed in order to monitor the ability of the system to remove the effects of aircraft motion on the magnetic measurement.

The 1st FOM test flight was conducted on October 7th, 2009 prior to collecting any survey line data in the vicinity of the Woodjam survey area. The results of the FOM test measured are listed in the table below. The correction file from this FOM was used on flights between October 7th and October 23rd.

Williams Lake FOM Oct 7 2009					
Line	**Direction**	**Pitch**	**Roll**	**Yaw**	**Total**
10001	East	0.2	0.14	0.16	0.5
10010	West	0.2	0.08	0.1	0.38
10021	North	0.28	0.23	0.3	0.81
10031	South	0.22	0.14	0.14	0.5
	Total	0.9	0.59	0.7	2.19

Due to maintenance on the aircraft, a second FOM was flown to ensure the integrity of the survey. The results of the FOM test measured are listed in the table below. This FOM was flown on October 24th, 2009 and the correction file from this FOM was used on flights between October 24th and November 23rd.

Williams Lake FOM Oct 24 filter 39					
Line	**Direction**	**Pitch**	**Roll**	**Yaw**	**Total**
1000	West	0.16	0.08	0.08	0.32
2000	North	0.22	0.06	0.11	0.39
3000	East	0.16	0.04	0.14	0.34
4000	South	0.16	0.05	0.06	0.27
	Total	0.7	0.23	0.39	1.32

7.4 Thorium Resolution Tests

In order to monitor the resolution of the crystal pack, two or three times daily (before and after the acquisition of survey data) a resolution test of the spectrometer was performed.

The results from the resolution tests were always found to be within the contract specifications.

The resolution tests results are included as .CSV files in the Final Deliverables directory, under subdirectory Spectrometer Resolution Test Results.

Note: Each time the test was conducted the following procedure was used:

1) A 2000 count/crystal resolution test with a Thorium source positioned directly under the crystal pack
2) A 2000 count/crystal resolution test with the Thorium source positioned directly above the crystal pack

The resolution tests file names ending with an “O#” indicate the thorium source was positioned over/above the pack, and ending with “U#” means the thorium source was positioned under the pack. The # sign indicates the test number for the day. This two step approach was adopted in order to ensure the downward looking crystals, and upward looking crystal, were calibrated independently.

7.5 Data Compilation

Data recorded by the airborne and base station systems was transferred to the field compilation system. As each flight was completed, the following compilation operations were carried out:

7.5.1 Flight Path Corrections

The navigational correction process yields a flight path expressed in WGS84 and transformed to correspond to WGS84 UTM ZONE 10N, World.

The following projection parameters were used:

	Semi-major axis (a)	Semi-minor axis (b)	Ellipsoid
WGS 84	6378137.0000	6356752.3142	WGS84

Local datum shift applied: WGS84 to WGS84, World

Delta X:	0
Delta Y:	0
Delta Z:	0

UTM central meridian = -123 (Zone 10N)

False Easting:	500,000
False Northing:	10,000,000

All 1.0 Hz GPS records were linearly interpolated and resample at 10 Hz (0.1 sec) intervals.

7.5.2 Pressure and Temperature

A Honeywell Precision Pressure Transducer, model PPT0020AWN2VA-A, was used to record the ambient pressure and temperature during the survey. The device was mounted in the tail stinger. The pressure and temperature outputs units were mbar and degrees Celcius respectively.

In order to account for daily regional pressure fluctuations, the readings from the pressure transducer were normalized to the data channel GPS_HEIGHT, meters above Mean Sea Level (MSL), on line-by-line basis.

First, GPS_HEIGHT (in meters) was converted to mbars using the following formula:

$$P = 1013.25 \times e^{\left(\frac{-H}{8580.87}\right)}$$

Where:

- *P* is height above MSL expressed in mbars
- *H* is the is height above MSL expressed in meters

Second, the average GPS_HEIGHT (in mbar) for each line was calculated.

Third, the recorded transducer pressure was normalized to the average GPS_HEIGHT (in mbar) on a line-by-line basis.

Note: No effective height was calculated using the pressure and temperature data. The actual radar altimeter data was used in the height attenuation procedure (see section 7.5.8.6 Attenuation Corrections)

7.5.3 Digital Terrain Model (DTM): Main Block

A DTM of the Woodjam survey area was produced and included in the database channel DTM. The DTM data was produced by first adjusting the GPS sensor height to that of the radar altimeter height (lowering GPS height by 1.37m). Next the radar altimeter channel (in meters) was subtracted from the GPS height channel (GPS_HEIGHT_WGS84) producing a raw DTM channel. Due to changing satellite positions (constellation configuration), and varying atmospheric conditions, the receiver measures slightly varying GPS heights line-to-line. Because of this inherent error, the raw DTM channel required leveling.

The raw DTM channel was leveled using Geosoft's Interactive leveling technique. The process works by first adjusting the levels the control lines to the traverse lines, and then leveling the traverse lines to control tie points. The process runs recursively (typically 3-5 passes) before typically converging on a final solution. A total of five passes were applied to arrive at the optimal leveling.

The resulting channel still depicted some linear line-to-line noise. As a result, it was decorrugated with a 600m cutoff wavelength, and stored in the DTM channel.

7.5.4 Digital Terrain Model (DTM): Infill Block

A DTM of the Woodjam Infill area was produced and included in the database channel DTM. The DTM data was produced by first adjusting the GPS sensor height to that of the radar altimeter height (lowering GPS height by 1.37m). Next the radar altimeter channel (in meters) was subtracted from the GPS height channel (GPS_HEIGHT_WGS84) producing a raw DTM channel. Due to changing satellite positions (constellation configuration), and varying atmospheric conditions, the receiver measures slightly varying GPS heights line-to-line. Because of this inherent error, the raw DTM channel required leveling.

The resulting channel still depicted some linear line-to-line noise. As a result, it was decorrugated with a 400m cutoff wavelength, and stored in the DTM channel.

7.5.5 Magnetic Corrections

First the 50 Hz aeromagnetic data from Cesium 3 and fluxgate magnetometers was filtered with a 71 cosine anti-aliasing algorithm and re-sampled at 10 Hz. Then the magnetic data from the Cesium 3 magnetometer was compensated for permanent, induced, and eddy current magnetic noise generated by the aircraft using data from the fluxgate magnetometer. The compensated magnetic data was then stored in the MAG_COMP channel.

7.5.5.1 Lag Corrections

The compensated magnetic data was then corrected for lag error. There are two potential types of Lag offsets in the records when collecting data: time lag and distance lag.

NSG insures that there is no time lag in the data acquisition system by recording unique markers every 1-second based on the GPS time stamp (associated with change in GPS positioning). This information is used to realign (if necessary) the individual data records.

The distance lag error was empirically determined by dividing the distance from the GPS antenna to the sensor head by the averaged sample rate distance.

-7.7m /7.4m per sample = 1.0 (lag of -1 was applied to the dataset)

The resulting lag corrected data was stored in the MAG_LAG_CORR channel.

7.5.5.2 Heading Corrections

Optically pumped magnetic sensors have an inherent heading error, typically 1 to 2 nT peak-to-peak, as the sensor is rotated through 360 degrees. On flight line directions of the opposite heading, the affect is reasonably predictable; corresponding corrections were made on the basis of aircraft heading.
A heading test flight was conducted on November 17, 2009 with the following results:

Direction	Mean in direction	Mean in same direction	Mean on heading	Error
0	56241.10	56241.67	56239.71	-1.9575
0	56242.24			
180	56241.32	56237.76		1.9575
180	56234.19			
90	56293.19	56285.23	56289.24	4.0125
90	56277.26			
270	56293.43	56293.25		-4.0125
270	56293.07			

After applying the heading corrections above, it was discovered that they did not improve the overall data and made it worse in some areas. As a result no heading corrections were applied to the data.

7.5.5.3 Diurnal Corrections

The lag corrected magnetic data was adjusted to account for diurnal variations. When the magnetic variations recorded at the base station recognized to be caused by man-made sources, (such as equipment, vehicles passing by the sensor), they were removed and gaps interpolated.

Diurnal variations recorded by the base station were filtered with a 101-point low pass filter. The filtered data was then subtracted directly from the aeromagnetic measurements to provide a first order diurnal correction.

After base station removal, the total magnetic field values become very small. To bring the total magnetic measurements back to ‘normal’ values, a project average from the base station readings was added back to the magnetic data.

The resulting base station corrected data was stored in the MAG_DIURNAL_CORR channel.

7.5.5.4 IGRF Corrections

The total field strength of the International Geomagnetic Reference Field (IGRF) was calculated for every data point, based on the spot values of Latitude, Longitude and GPS altitude, using the 2005 model. This IGRF was removed from the measured survey data on a point-by-point basis from the lag corrected channel.

After IGRF correction the total magnetic field values become negative. To bring the total magnetic measurements back to ‘normal’ values, an average of IGRF values based on the whole project were added back to the magnetic data.

The resulting IGRF corrected data was stored in the MAG_IGRF_CORR channel.

7.5.5.5 Leveling Corrections: Main Block

No formal survey traverse/control line intercepts array/matrix (i.e., Simple Leveling) was created for determining differences in magnetic field at the intersection points. The control lines were not tied to the traverse lines in the drape program. This was to ensure the best possible drape coverage, as far as height above ground on the traverse lines. Thus using the control lines flown in areas of rugged topography would only jeopardize the quality of the traverse lines magnetic signal.

The MAG_IGRF_CORR channel was first microlevled using Paterson, Grant & Watson Limited miclev.GX extension available through Geosoft Oasis montaj with the following key parameters:

Line Spacing – 100 m;
Line direction – 90 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 600;
Amplitude Limit: 22.36, with clip mode
Naudy Filter: 300

The resulting data were stored in MAG_MICLEV_1 channel.

The resulting microleveled channel still depicted some line-to-line noise, especially over lines flown on flights 20, 22 and 23, where strong wind shear on the aircraft forced the aircraft to fly above the pre-planned drape. The magnetic signal on those flights varied significantly from line-to-line, due to differences in altitude flown over the more rugged terrain. As a result, where grids showed the worst linear noise, some manual adjustments were made. The adjustments were made by creating an “estimated” intersection table, and then adjusting the traverse lines based on those points.

The resulting leveled data was stored in the MAG_LVL channel.

To level the data further, a series of microleveling attempts were performed on the MAG_LVL channel. Several attempts demonstrate a various microleveling constrains ranging from relatively mild (e.g., MAG_MICLEV_2) to more aggressive (e.g., MAG_MICLEV_5).

1) MAG_LVL channel was microlevled with the following key parameters:

   Line Spacing – 100 m;
   Line direction – 90 deg;
   Cell size for gridding – 20;
   Decorrugation cutoff wavelength – 600;
   Amplitude Limit: 18.86, with clip mode
   Naudy Filter: 300

   The resulting data was stored under MAG_MICLEV_2 channel.

2) MAG_LVL channel was microlevled with the following key parameters:

Line Spacing – 100 m;
Line direction – 90 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 600;
Amplitude Limit: 25, with clip mode
Naudy Filter: 200

The resulting data was stored under MAG_MICLEV_3 channel.

3) MAG_LVL channel was microlevled with the following key parameters:

Line Spacing – 100 m;
Line direction – 90 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 600;
Amplitude Limit: 30, with clip mode
Naudy Filter: 100

The resulting data was stored under MAG_MICLEV_4 channel.

4) MAG_LVL channel was microlevled with the following key parameters:

Line Spacing – 100 m;
Line direction – 90 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 600;
Amplitude Limit: 50, with clip mode
Naudy Filter: 50

The resulting data was stored under MAG_MICLEV_5 channel.

7.5.5.6 Leveling Corrections: Infill Block

No formal survey traverse/control line intercepts array/matrix (i.e., Simple Leveling) was created for determining differences in magnetic field at the intersection points. The control lines were not tied to the traverse lines in the drape program. This was to ensure the best possible drape coverage, as far as height above ground on the traverse lines. Thus using the control lines flown in areas of rugged topography would only jeopardize the quality of the traverse lines magnetic signal.

The MAG_IGRF_CORR channel was first microlevled using Paterson, Grant &

Watson Limited miclev.GX extension available through Geosoft Oasis montaj with the following key parameters:

Line Spacing – 100 m;
Line direction – 0 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 400;
Amplitude Limit: 50, with clip mode
Naudy Filter: 50

Next, the resulting microlevled channel was subtracted from MAG_IGRF_CORR channel in order to produce a channel with total noise signal that was removed during the microleveling.

In an attempt to separate the geological signal from line-to-line noise signal in the resulting total noise channel, the total noise channel was microleveled with the following key parameters:

Line Spacing – 100 m;
Line direction – 0 deg;
Cell size for gridding – 20;
Decorrugation cutoff wavelength – 400;
Amplitude Limit: 50, with clip mode
Naudy Filter: 50

The resulting procedure produced a channel with a predominantly geological signal and significantly lesser line-to-line noise signal. This channel was then subtracted from the previously calculated total noise channel, in order to produce a channel that is relatively free of geological signal/structures.

The resulting geology "free" channel was then subtracted from the MAG_IGRF_CORR channel and named TMI_FINAL.

7.5.6 Vertical Derivative: Main Block

A first order Vertical Derivative (VDV) was calculated using FFT2D algorithm available through Geosoft Oasis montaj MAGMAP extension. The VDV grid was based on the MAG_MICLEV_5 grid produced using bi-directional gridding with 20 meters cell size technique. The resulting VDV grid was then sampled to the database in the VDV channel.

7.5.7 Vertical Derivative: Infill Block

A first order Vertical Derivative (VDV) was calculated using FFT2D algorithm available through Geosoft Oasis montaj MAGMAP extension. The VDV grid was based on the TMI_FINAL grid produced using bi-directional gridding with 20 meters cell size technique. The resulting VDV grid was then sampled to the database in the VDV channel.

7.5.8 Radiometric Data Corrections: Main and Infill Blocks

7.5.8.1 Scale Factor Adjustments

During the course of the project the amount of moisture and snow cover on the ground varied significantly from day to day. It was, with client consent, decided to continue flying the survey since the main objective of the survey was to collect total field magnetic data and not radiometric data.

In order to estimate the amount of moisture and radon fluctuation from day to day, a daily test line was flown over the exact same area at the nominal survey altitude over a flat ground near the Williams Lake municipal airport.

The averages of the raw element counts from those test lines (see Appendix E) were then used to calculate the scale factor per element (i.e., Potassium, Thorium, Uranium, and Total Count) and shown in the table below. All elements from all the flights were then normalized to a test line flown on the same day as Flight No1. It should be noted that the ground was relatively dry during the first few days of survey data collection.

Scale Factor				
Flight Number	**K**	**Th**	**U**	**TC**
1	1.00	1.00	1.00	1.00
2	1.06	1.08	1.15	1.09
3	1.05	1.08	1.07	1.05
4	1.05	1.08	1.07	1.05
5	1.00	1.17	1.00	1.02
6	1.00	1.17	1.00	1.02
7	1.00	1.00	0.80	0.99
8	1.00	1.00	0.80	0.99
9	1.03	1.08	1.07	1.10
11	1.20	1.17	1.25	1.22
12	1.31	1.17	1.15	1.25
13	1.31	1.40	1.36	1.28
14	1.31	1.40	1.36	1.28
15	1.26	1.27	1.15	1.21
16	1.26	1.27	1.15	1.21
17	1.26	1.27	1.25	1.24
18	1.26	1.27	1.25	1.24
19	1.29	1.27	1.15	1.21
20	1.29	1.27	1.15	1.21
21	1.24	1.27	1.15	1.23
22	1.31	1.27	1.25	1.31
23	1.29	1.17	1.15	1.26
24	1.29	1.17	1.15	1.26
25	1.34	1.27	1.25	1.27
26	1.18	1.27	1.00	1.12

7.5.8.2 Live Time Corrections

All the scale factor adjusted elements including upward looking Uranium and Total Count were corrected for Live Time using the following formula:

Clt = Craw x (1000/LT)

Where:

- *Clt* is the live time corrected channel
- Craw is the raw channel
- LT is the Live Time channel

7.5.8.3 Pre-filtering

The cosmic channel data was processed with a 15-point low pass filter to remove spikes.

The radar altimeter channel while recorded at 50Hz was filtered with 21-point COSIN filter and then sampled to 1Hz.

7.5.8.4 Aircraft and Cosmic Background

Aircraft background and cosmic stripping corrections were applied to the live corrected total count, potassium, uranium and thorium channels using the following formula:

$$Cac = Clt - (ac + bc \times Cosf)$$

Where:

- Cac is the background and cosmic corrected channel
- Clt is the live time corrected channel
- ac is the aircraft background for this channel
- bc is the cosmic stripping coefficient for this channel
- $Cosf$ is the filtered cosmic channel

All negative counts after this correction step were replaced with zeroes.

7.5.8.5 Compton Stripping

Following the background and cosmic corrections the potassium, uranium and thorium were corrected for spectral overlap. First the stripping ratios α, β, and χ were modified according to altitude. Then an adjustment factor based on the reversed stripping ratio (a), uranium into thorium, was calculated.

$$\alpha h = \alpha + hef \times 0.00049$$
$$\beta h = \beta + hef \times 0.00065$$
$$\chi h = \chi + hef \times 0.00069$$

Where:

- α, β, χ are the Compton stripping coefficients
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- hef is the height above ground in meters

The stripping corrections are then carried out using the following formulas:

$$ar = \frac{1}{1 - a\alpha h}$$

$$Th_c = (Th_{bc} - aU_{rc}) \times ar$$

$$U_c = (U_{rc} - Th_{bc}\alpha h) \times ar$$

$$K_c = K_{bc} - \beta h Th_c - \chi h U_c$$

Where:

- U_c, Th_c, and K_c are corrected Uranium, Thorium and Potassium
- $\alpha h, \beta h, \chi h$ are the height corrected Compton stripping coefficients
- U_{bc}, Th_{bc}, and K_{bc} are background and cosmic corrected Uranium, Thorium and Potassium
- ar is the backscatter correction
- a is the reverse stripping ratio U into Th

All negative counts after this correction step were replaced with zeroes.

7.5.8.6 Attenuation Corrections

The Total Count, Potassium, Uranium and Thorium data was then corrected to a nominal survey altitude (i.e., 80 m), done according to the equation:

$$Ca = C \times e^{-\mu(h0-h)}$$

Where:

- Ca is the output altitude corrected channel
- C is the input channel
- μ is the attenuation correction for that channel
- h is the radar altimeter data in m
- $h0$ is the nominal survey altitude used as datum

The resulting height corrected data were stored under K_FINAL_CORR, Th_FINAL_CORR, U_FINAL_CORR, and TC_FINAL_CORR channels.

7.5.9 Gridding

All the grids were gridded using a bi-directional line gridding method with a grid cell size of 20 meters and Akima interpolation method for across and down line spline.

7.5.10 Map Products and Digital Data Deliverables

The following is the list of items delivered to **GOLD FIELDS HORSEFLY EXPLORATION Corp.**:

Hard copy (x2):

- Maps of Total Magnetic Intensity at 1:50,000 scale (Main and Infill blocks)
- Maps of Th, U and K at 1:50,000 scale (Main and Infill blocks)
- Maps of Potassium counts at 1:50,000 scale (Main and Infill blocks)
- Maps of Thorium counts at 1:50,000 scale (Main and Infill blocks)
- Maps of Uranium counts at 1:50,000 scale (Main and Infill blocks)
- Maps of Total Count at 1:50,000 scale (Main and Infill blocks)
- Logistics Report

Soft copy (x2):

- Grids and maps of Total Magnetic Intensity at 1:50,000 scale (Main and Infill blocks)
- Grids of 1st order VDV (Main and Infill blocks)
- Grids of calculated DTM (Main and Infill blocks)
- Ternary map of Th, U and K at 1:50,000 scale (Main and Infill blocks)
- Grids and maps of Potassium counts at 1:50,000 scale (Main and Infill blocks)
- Grids and maps of Thorium counts at 1:50,000 scale (Main and Infill blocks)
- Grids and maps of Uranium counts at 1:50,000 scale (Main and Infill blocks)

- Grids and maps of Total Count at 1:50,000 scale (Main and Infill blocks)
- Logistics Report
- Magnetics data databases: Woodjam Magnetic Main.gdb and Woodjam Magnetic Infill.gdb (See Appendix C)
- Radiometric data database Woodjam Radiometric Main.gdb and Woodjam Radiometric Infill.gdb (See Appendix C)
- Weekly and Line Progress Report
- Daily Thorium Resolution Tests Results

8. SUMMARY

This report describes the logistics of the survey, equipment used, field procedures, data acquisition and presentation of results.

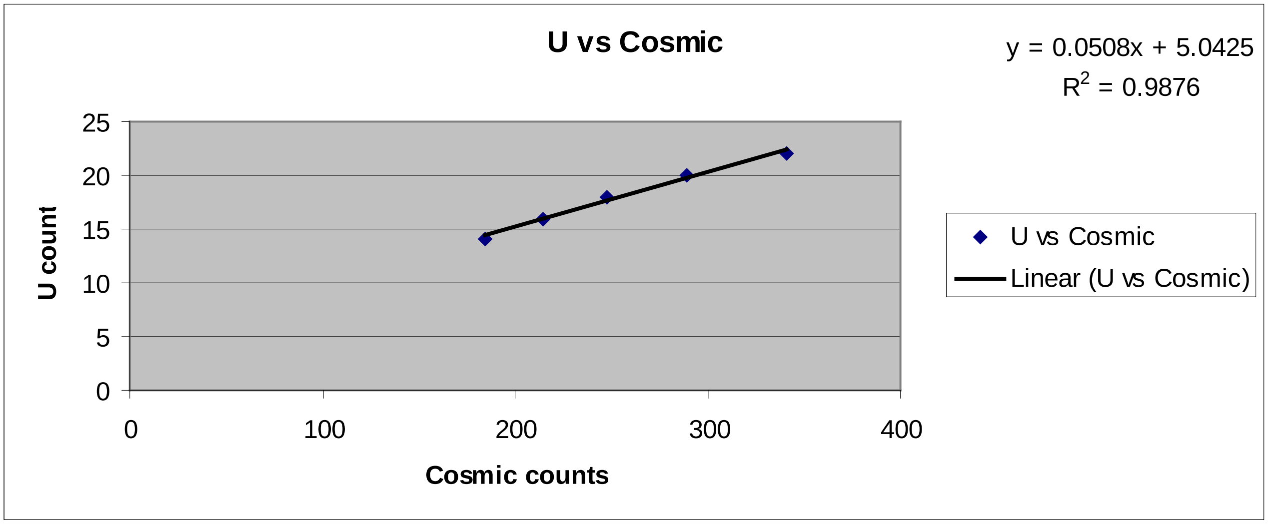
The various maps included with this report display the magnetic and radiometric properties of the survey area. It is recommended that the survey results be reviewed in detail, in conjunction with all available geophysical, geological and geochemical information.

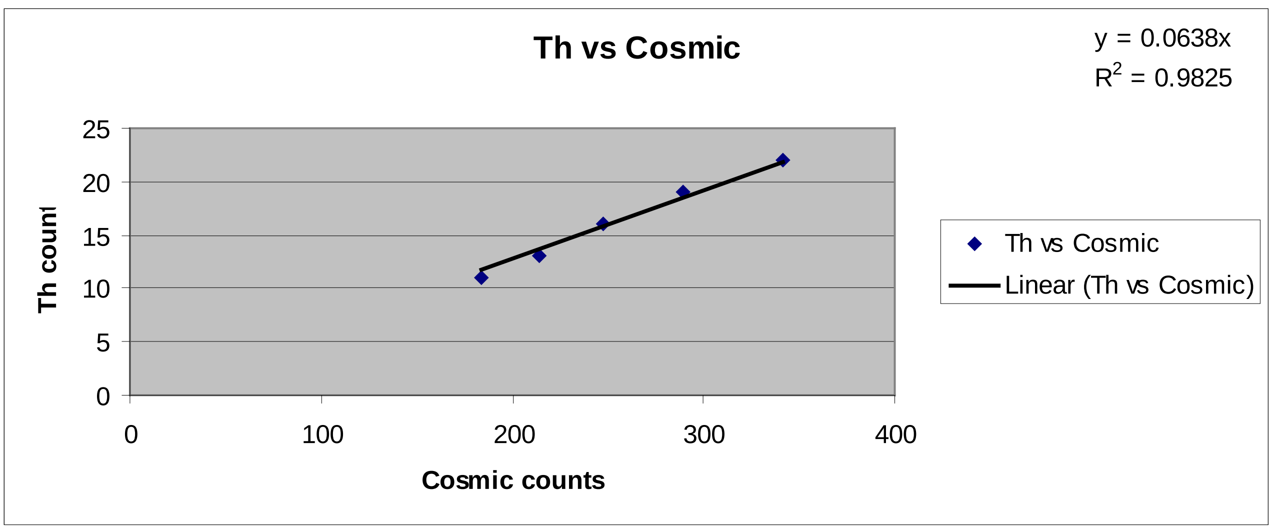
Further processing of the data may enhance subtle features that can be of importance for exploration purposes.

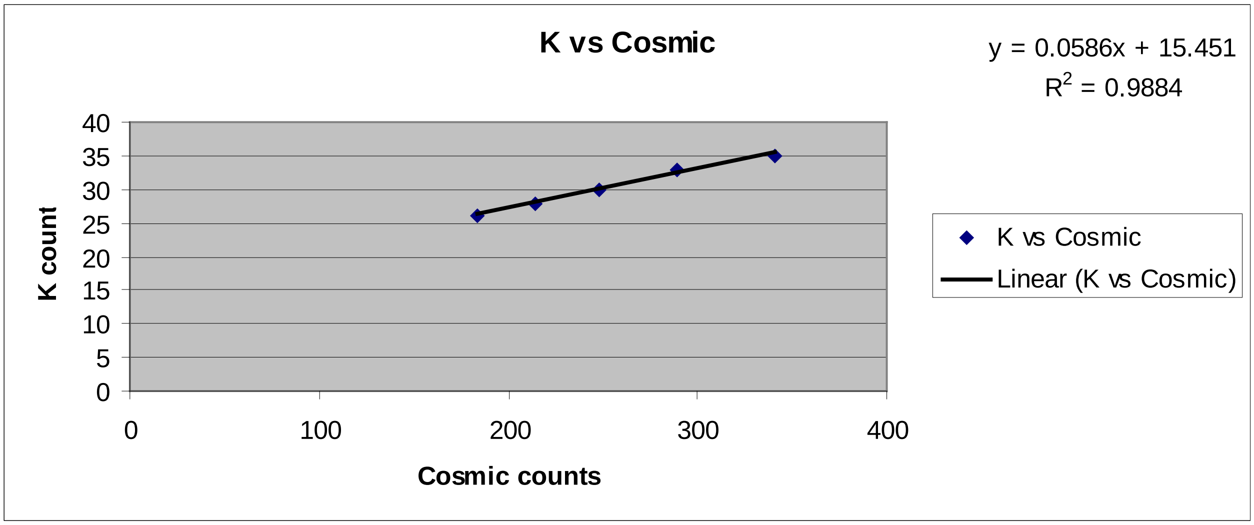
Respectfully submitted,

Andrei Yakovenko
New-Sense Geophysics Ltd.
Date: February 4th, 2010

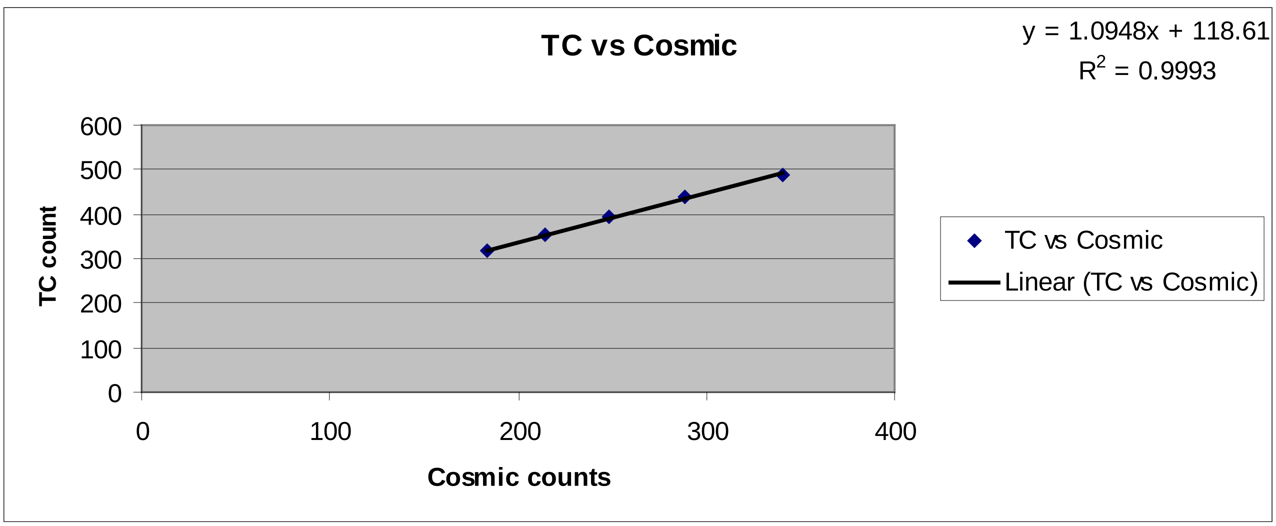
Appendix A: Background and Cosmic Tests Charts



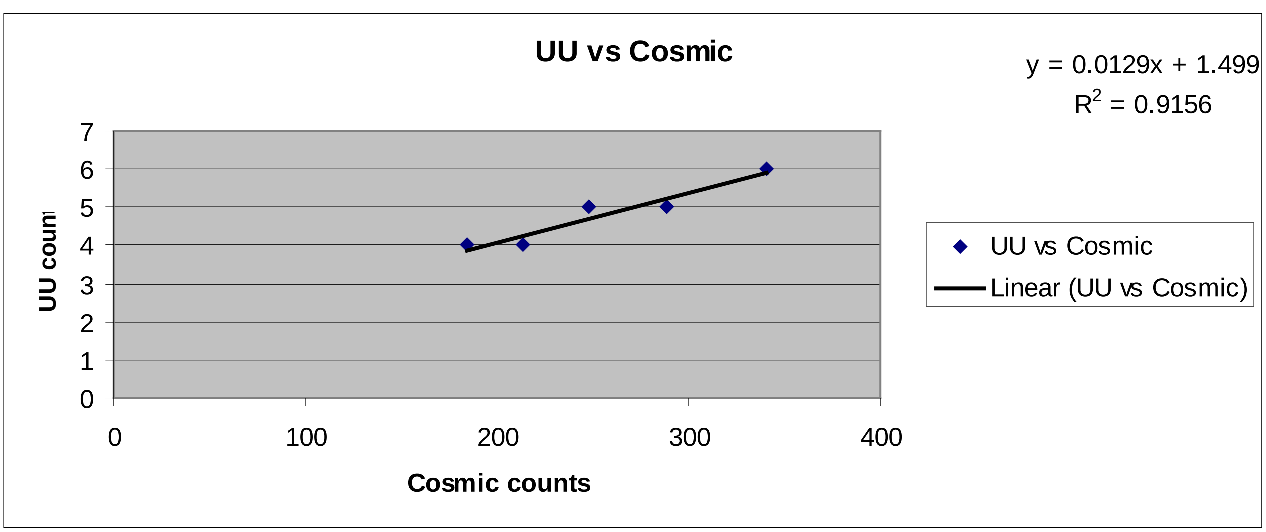




K vs Cosmic
y = 0.0586x + 15.451
R^2 = 0.9884
K count
40
35
30
25
20
15
10
5
0
0
100
200
300
400
Cosmic counts
K vs Cosmic
Linear (K vs Cosmic)

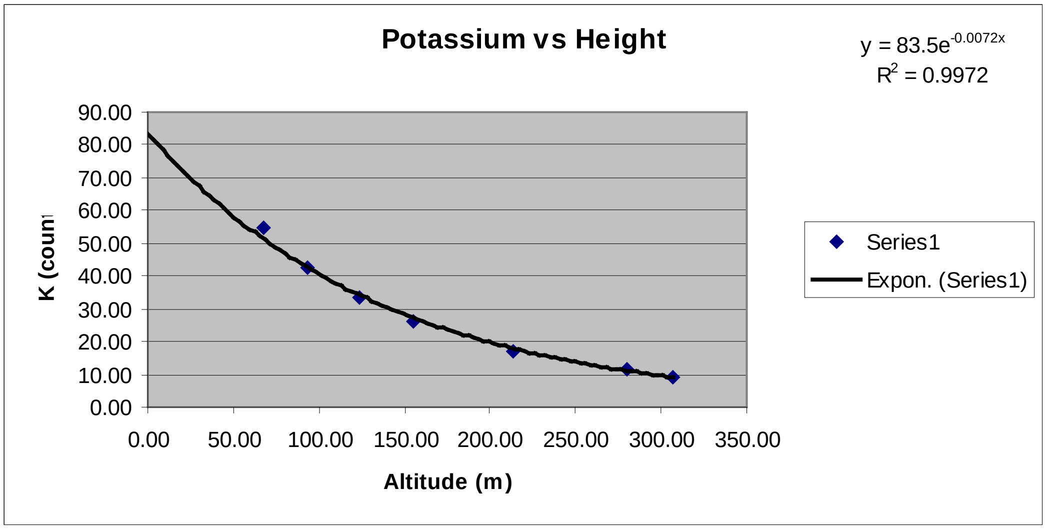


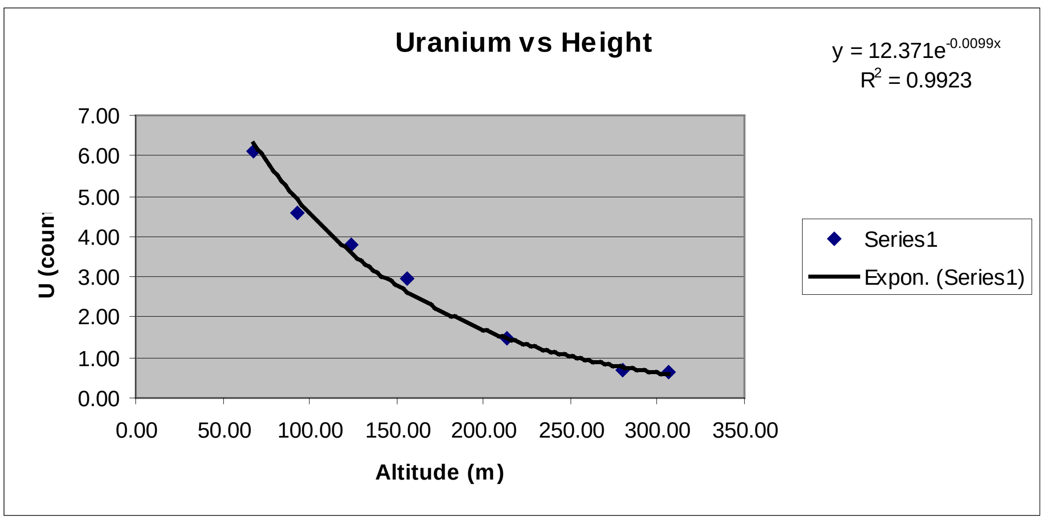
TC vs Cosmic
y = 1.0948x + 118.61
R^2 = 0.9993
TC count
600
500
400
300
200
100
0
0
100
200
300
400
Cosmic counts
TC vs Cosmic
Linear (TC vs Cosmic)

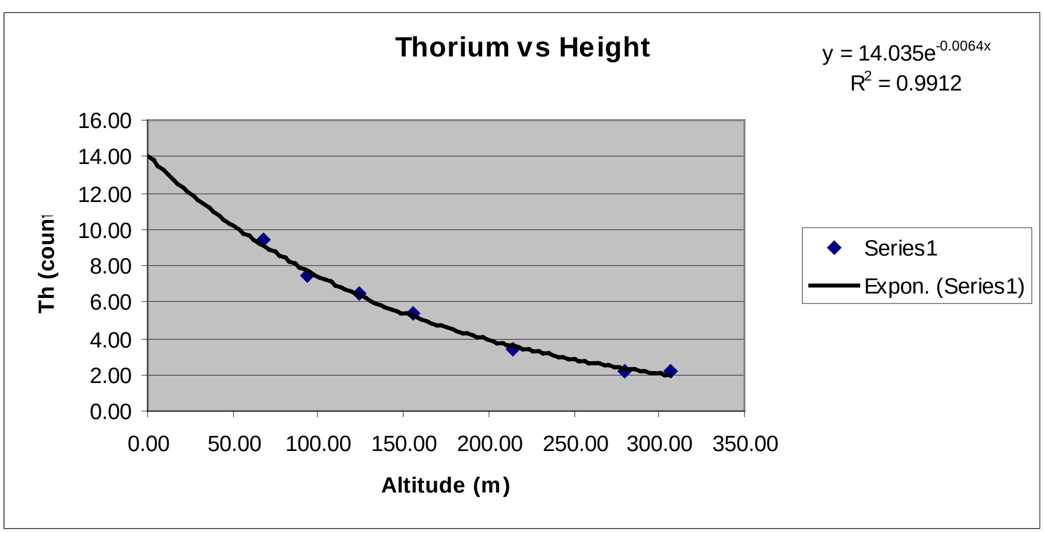


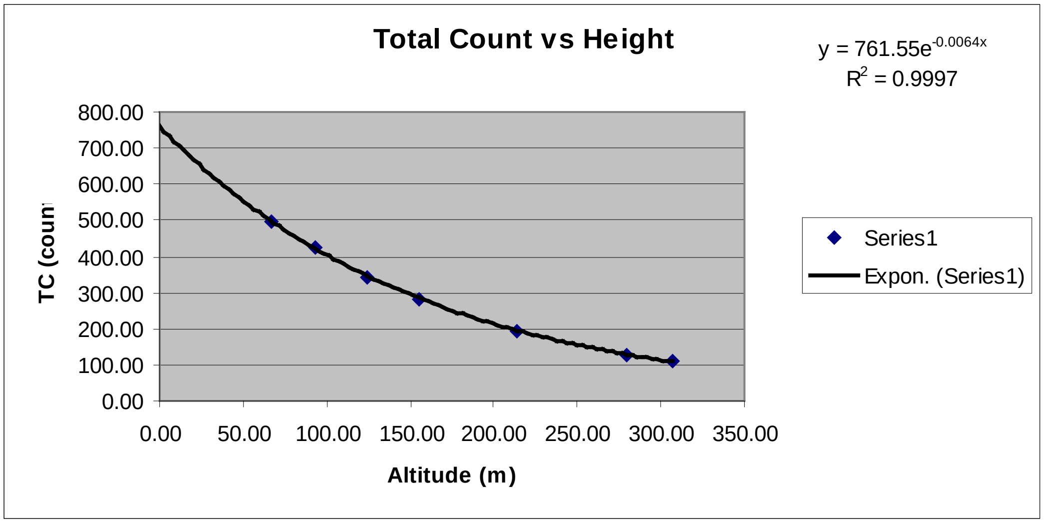
UU vs Cosmic
y = 0.0129x + 1.499
R^2 = 0.9156
UU count
7
6
5
4
3
2
1
0
0
100
200
300
400
Cosmic counts
UU vs Cosmic
Linear (UU vs Cosmic)

Height Attenuation Charts







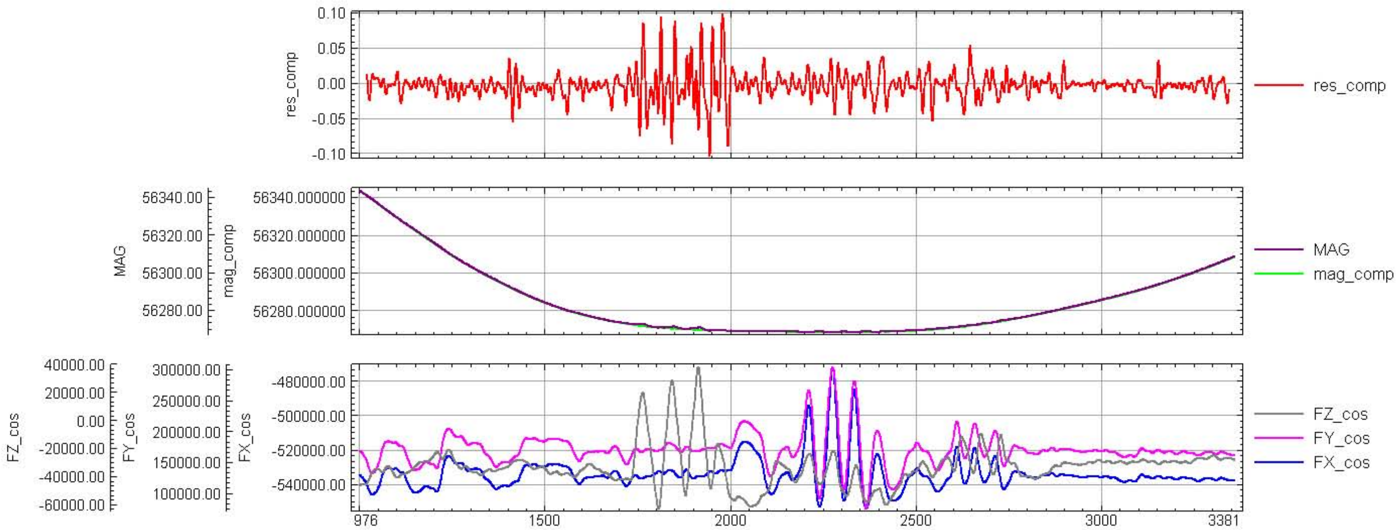


Total Count vs Height
y = 761.55e^-0.0064x
R2 = 0.9997
TC (coun
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
0.00
50.00
100.00
150.00
200.00
250.00
300.00
350.00
Altitude (m)
Series1
Expon. (Series1)

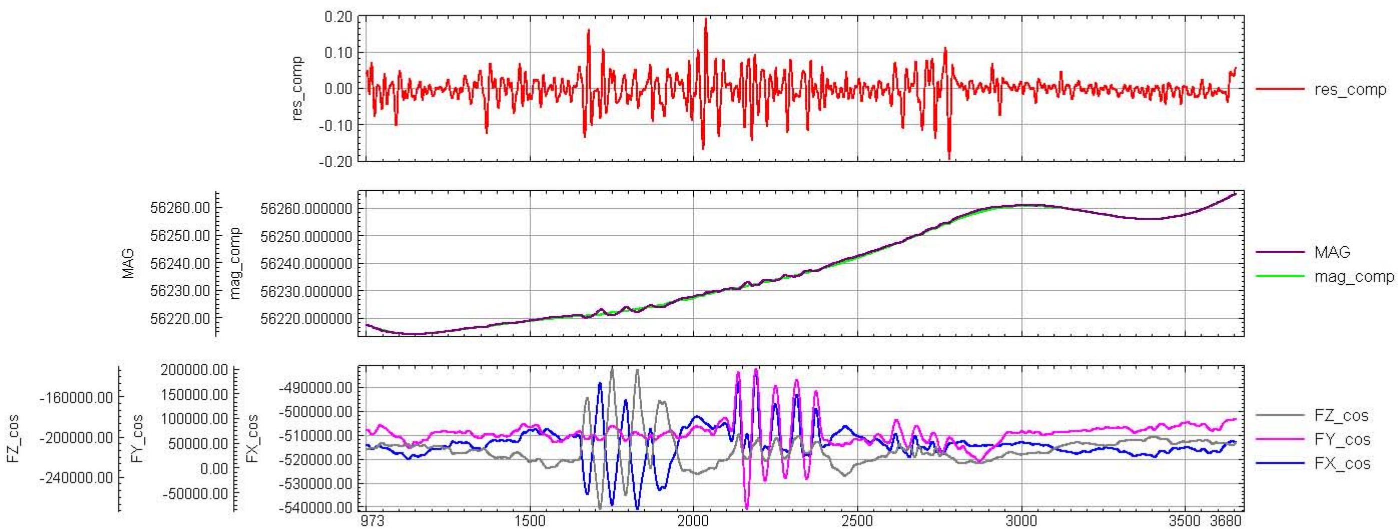
Appendix B: FOM Results

FOM Flown on October 7th, 2009

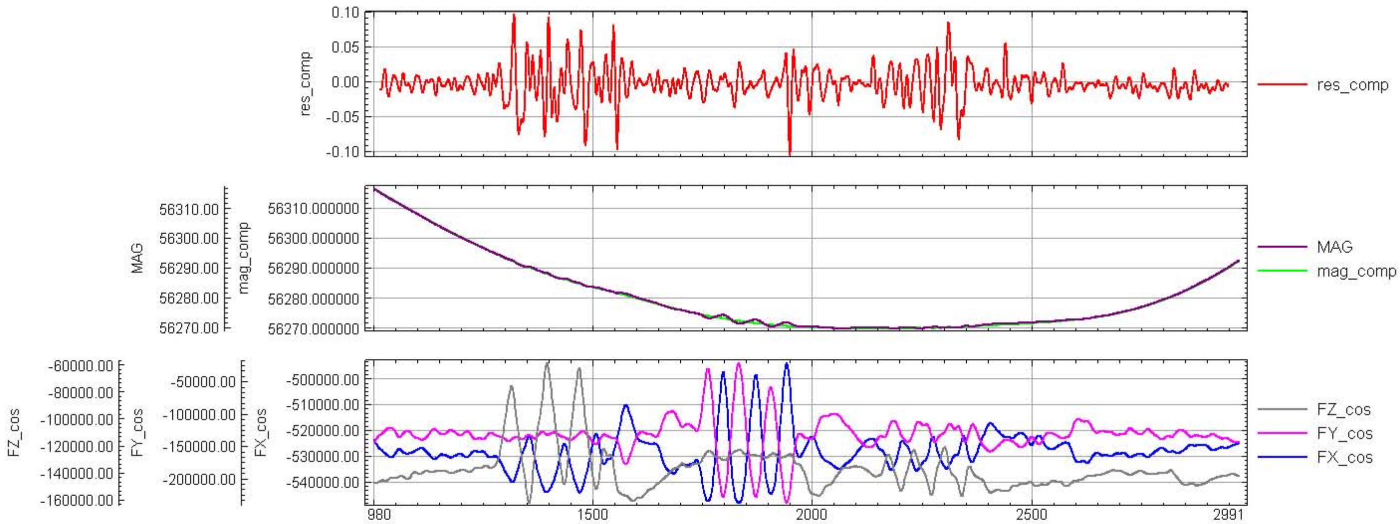
Compensation results, heading direction 270 degrees, October 7, 2009



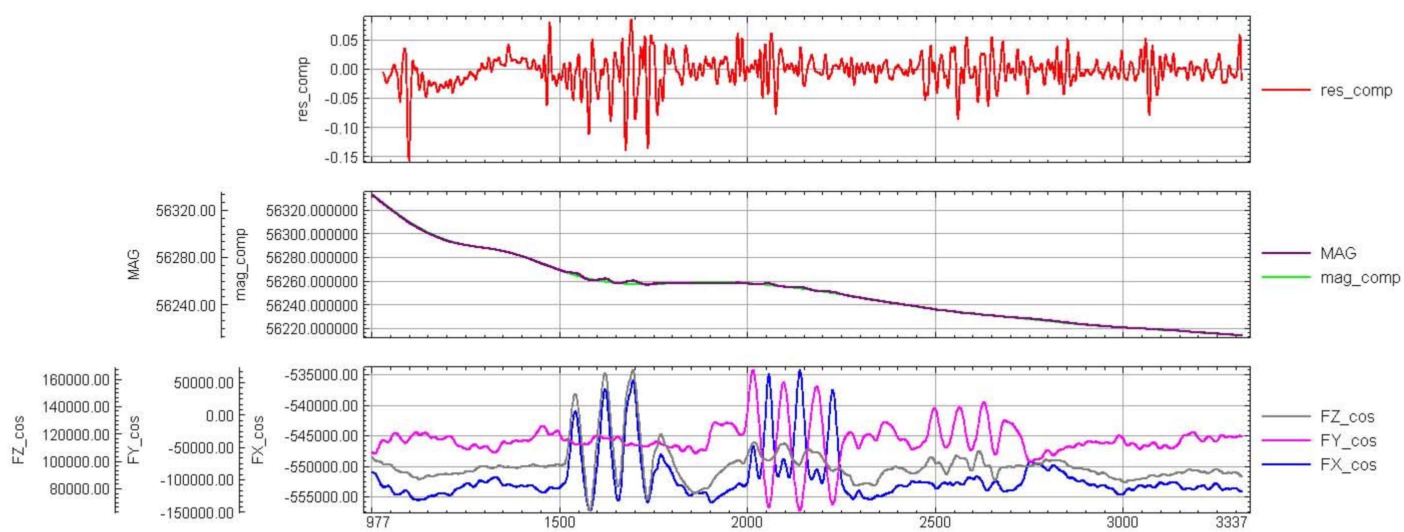
Compensation results, heading direction 0 degrees, October 7, 2009



Compensation results, heading direction 90 degrees, October 7, 2009

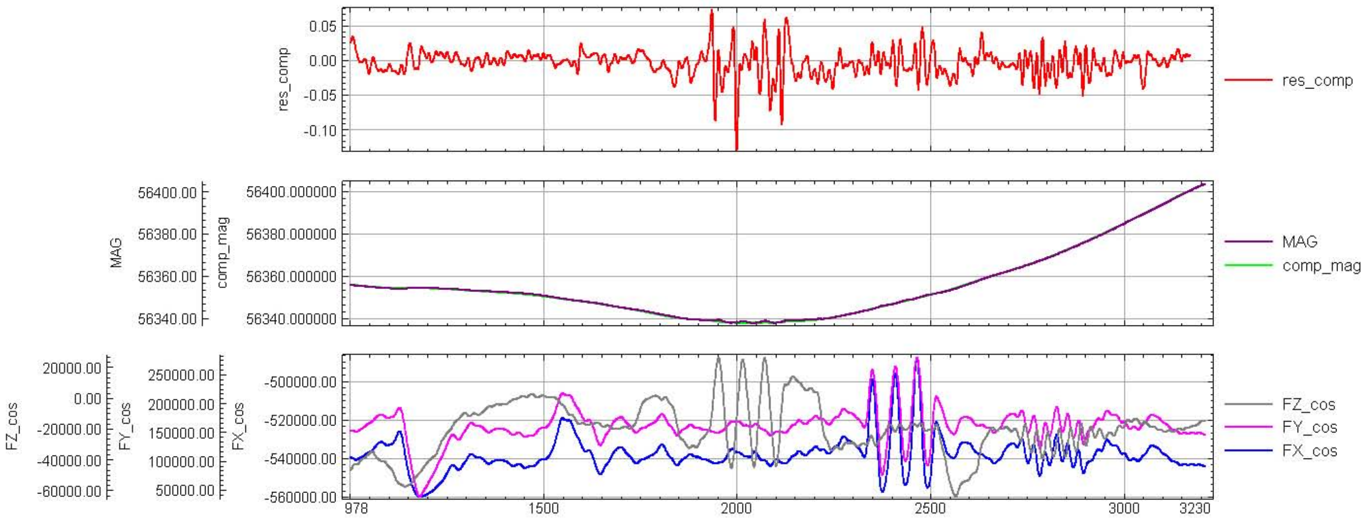


Compensation results, heading direction 180 degrees, October 7, 2009

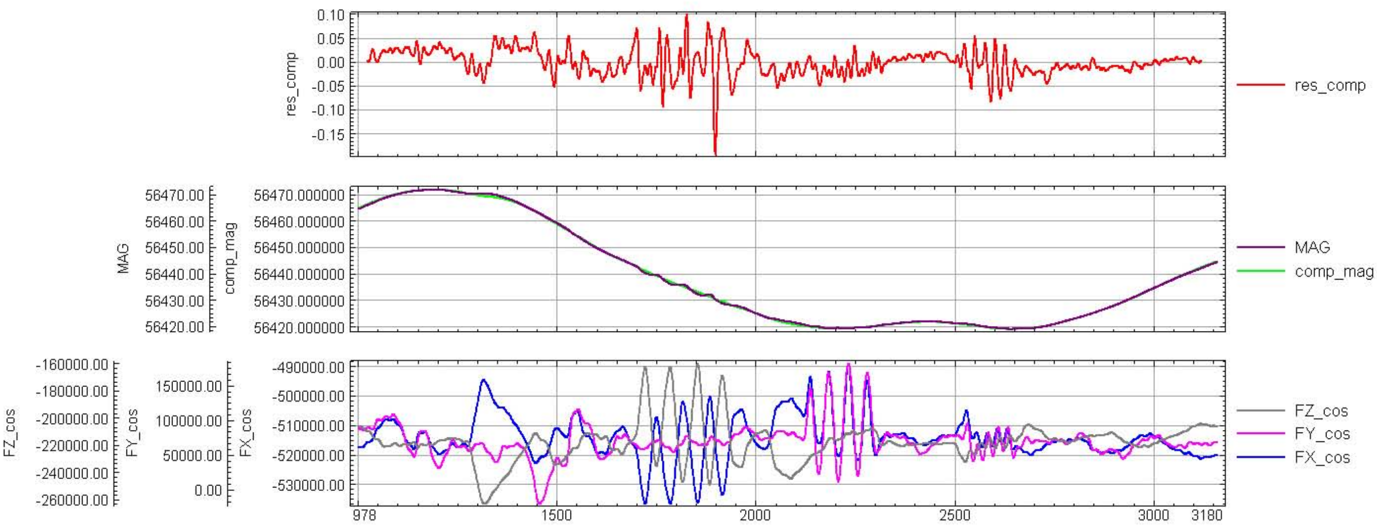


FOM Flown October 24th, 2009

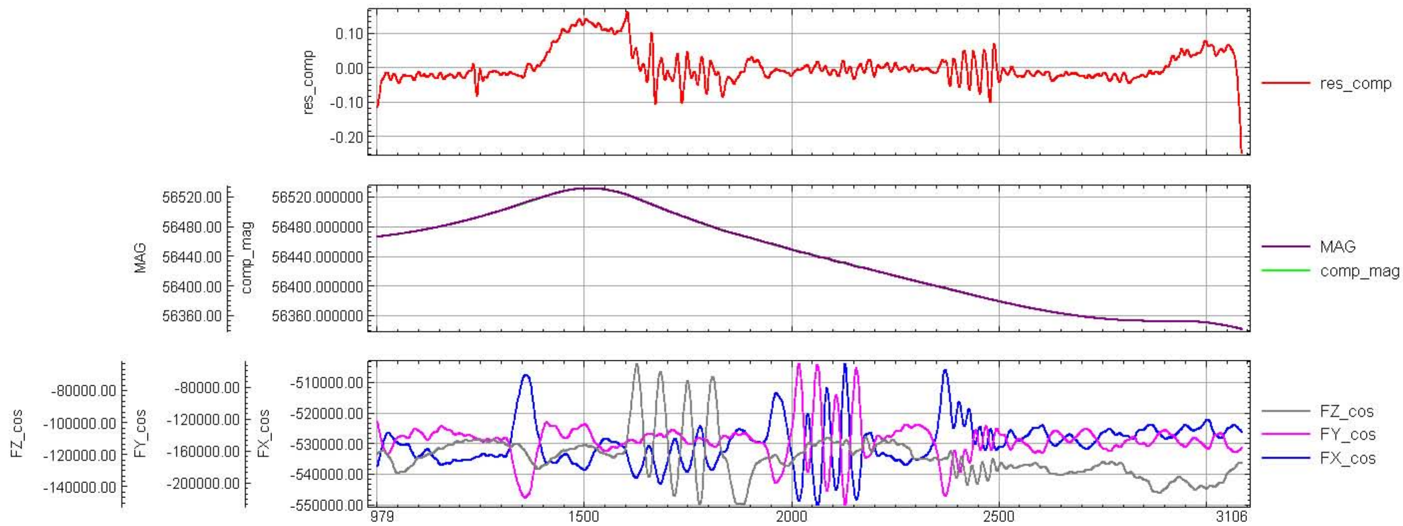
Compensation results, heading direction 270 degrees, October 24, 2009



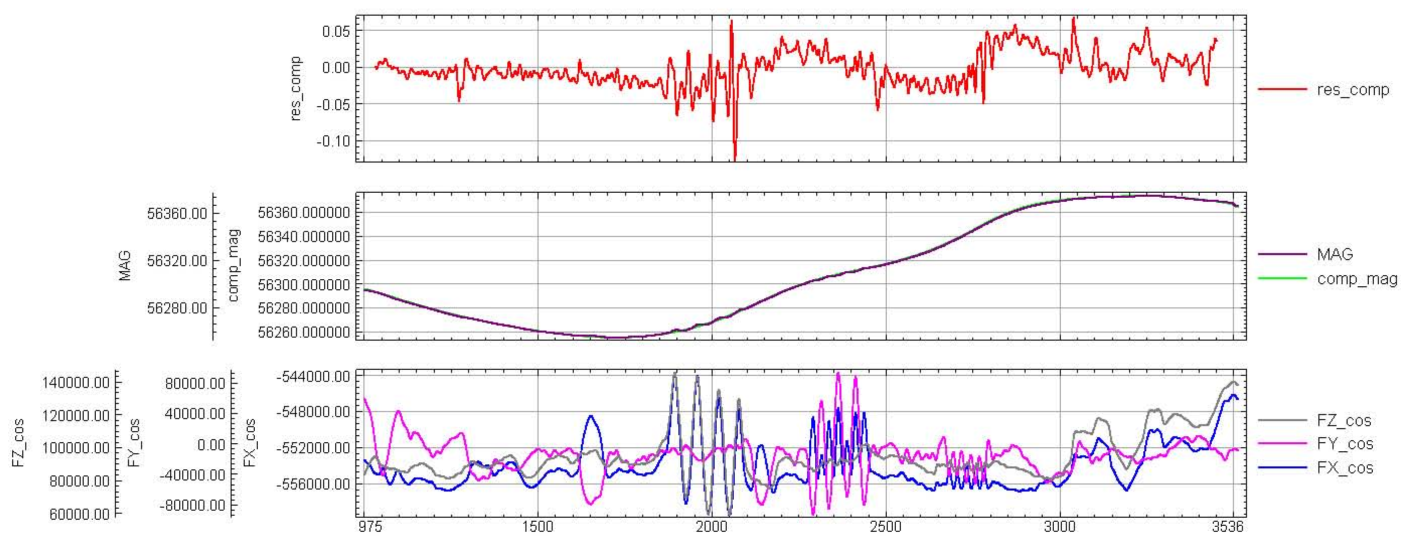
Compensation results, heading direction 0 degrees, October 24, 2009



Compensation results, heading direction 90 degrees, October 24, 2009



Compensation results, heading direction 180 degrees, October 24, 2009



Appendix C: Database Descriptions

Magnetic Database: Main Block

Database Name: Woodjam Magnetic Main
Formats: Geosoft .gdb
Number of Channels: 30
Database view file: Woodjam Magnetic Main.dbview (could be used to insure the proper order, as listed in the table below, of displayed channels in a Geosoft database; stored in the Databases directory)

Channel Name	Units	Description
LINE	number	Line Number
DATE	date	Date flown (YMMDD)
FLIGHT	number	Fight number
FIDUCIAL	number	Fiducial count (line specific)
SYSTEM_CLOCK	milsec	KANA8 (ADD converter) counter
UTM_X_WGS84	meters	UTM East in WGS84, World, Zone 10N
UTM_Y_WGS84	meters	UTM North in WGS84, World, Zone 10N
LATITUDE	degrees	GPS latitude, WGS 84, World
LONGITUDE	degrees	GPS Longitude, WGS 84, World
GPS_HEIGHT	meters	GPS height, meters above Mean Sea Level, WGS 84, World
UTC_DAYSEC	decimal seconds	UTC time of position (hhmmss.ss), day specific
FLUX_X	volts	Fluxgate x-axis
FLUX_Y	volts	Fluxgate y-axis
FLUX_Z	volts	Fluxgate z-axis
RAD_ALT_feet	feet	Radar altimeter, height above ground
MAG_RAW	nT	Raw magnetometer data
MAG_COMP	nT	Compensated magnetometer data
DIURNAL	nT	Base station magnetometer data (filtered with 101 point low pass filter)
MAG_LAG_CORR	nT	Lag corrected magnetometer
MAG_DIURNAL_CORR	nT	Base station corrected magnetometer
IGRF	nT	Calculated IGRF, 2005 model
MAG_ IGRF_CORR	nT	IGRF corrected magnetometer
MAG_MICLEV_1	nT	Microleveled MAG_IGRF_CORR with 22.36 Amplitude Limit and 300 Naudy Filter
MAG_LVL	nT	Manually Leveled Micro Levelled 1
MAG_MICLEV_2	nT	Microleveled MAG_LVL with 18.86 Amplitude Limit and 300 Naudy Filter
MAG_MICLEV_3	nT	Microleveled MAG_LVL with 25 Amplitude Limit and 200 Naudy Filter
MAG_MICLEV_4	nT	Microleveled MAG_LVL with 30 Amplitude Limit and 100 Naudy Filter
MAG_MICLEV_5	nT	Microleveled MAG_LVL with 50 Amplitude Limit and 50 Naudy Filter
VDV	nT/m	FFT2 1st order VDV
DTM	meters	Calculated DTM channel

Magnetic Database: Infill Block

Database Name: Woodjam Magnetic Infill
Formats: Geosoft .gdb
Number of Channels: 25
Database view file: Woodjam Magnetic Infill Lines.dbview (could be used to insure the proper order, as listed in the table below, of displayed channels in a Geosoft database; stored in the Databases directory)

Channel Name	Units	Description
LINE	number	Line Number
DATE	date	Date flown (YMMDD)
FLIGHT	number	Fight number
FIDUCIAL	number	Fiducial count (line specific)
SYSTEM_CLOCK	milsec	KANA8 (ADD converter) counter
UTM_X_WGS84	meters	UTM East in WGS84, World, Zone 10N
UTM_Y_WGS84	meters	UTM North in WGS84, World, Zone 10N
LATITUDE	degrees	GPS latitude, WGS 84, World
LONGITUDE	degrees	GPS Longitude, WGS 84, World
GPS_HEIGHT	meters	GPS height, meters above Mean Sea Level, WGS 84, World
UTC_DAYSEC	decimal seconds	UTC time of position (hhmmss.ss), day specific
FLUX_X	volts	Fluxgate x-axis
FLUX_Y	volts	Fluxgate y-axis
FLUX_Z	volts	Fluxgate z-axis
RAD_ALT_feet	feet	Radar altimeter, height above ground
MAG_RAW	nT	Raw magnetometer data
MAG_COMP	nT	Compensated magnetometer data
DIURNAL	nT	Base station magnetometer data (filtered with 101 point low pass filter)
MAG_LAG_CORR	nT	Lag corrected magnetometer
MAG_DIURNAL_CORR	nT	Base station corrected magnetometer
IGRF	nT	Calculated IGRF, 2005 model
MAG_ IGRF_CORR	nT	IGRF corrected magnetometer
TMI_FINAL	nT	Final TMI channel
VDV	nT/m	FFT2 1st order VDV
DTM	meters	Calculated DTM channel

Radiometric Database: Main and Infill Blocks

Database Name: Woodjam Radiometric Main; Woodjam Radiometric Infill
Formats: Geosoft .gdb
Number of Channels: 26
Database view file: Woodjam Radiometric.dbview (could be used to insure the proper order, as listed in the table below, of displayed channels in a Geosoft database; stored in the Databases directory)

Channel Name	Units	Description
LINE	number	Line Number
DATE	date	Date flown (YMMDD)
FLIGHT	number	Flight Number
FIDUCIAL	number	Fiducial count (line specific)
SYSTEM_CLOCK	milsec	KANA8 (ADD converter) counter
UTM_X_WGS84	meters	UTM East in WGS84, World, Zone 10N
UTM_Y_WGS84	meters	UTM North in WGS84, World, Zone 10N
LATITUDE	degrees	GPS latitude, WGS 84, World
LONGITUDE	degrees	GPS Longitude, WGS 84, World
GPS_HEIGHT_WGS84	meters	GPS height above sea level, WGS 84, World
RAD_ALT_feet	feet	Radar altimeter, height above ground
UTC_DAYSEC	decimal seconds	UTC time of position (hhmmss.ss), day specific
PRESSURE_RAW	mbar	Raw pressure
PRESSURE_NORM	mbar	Normalized pressure
TEMPERATURE	C	Temperature in Degrees Celsius
LIVE_TIME	seconds	Live time channel
RAW_Potassium	counts/sec	Raw Potassium channel
RAW_Thorium	counts/sec	Raw Thorium channel
RAW_Uranium	counts/sec	Raw Uranium channel
RAW_TotCount	counts/sec	Raw Total Count channel
RAW_UpUranium	counts/sec	Raw upward looking crystal Uranium channel
COSMIC	counts/sec	Raw Cosmic channel from downward looking crystals
K_FINAL	counts/sec	Up to height attenuation co1rrection Potassium channel
Th_FINAL	counts/sec	Up to height attenuation correction Thorium channel
U_FINAL	counts/sec	Up to height attenuation correction Uranium channel
TC_FINAL	counts/sec	Up to height attenuation correction Total Count channel

Appendix D: Scale Factor Calculations

Potassium (K)						
Flight No Flown	Date Flown	Mean Raw Count	Std.dev.	# of records	Calculated Scale Factor	Used Scale Factor
1	08-Oct-09	67	10	45	1.00	1.00
2, 3	09-Oct-09	63	9	43	1.06	7.44
4	10-Oct-09	64	8	42	1.05	8.38
5, 6	11-Oct-09	67	9	40	1.00	7.44
7, 8	12-Oct-09	64	9	41	1.05	1
9	15-Oct-09	65	8	39	1.03	8.38
10, 11	24-Oct-09	56	10	47	1.20	6.70
12	28-Oct-09	51	9	45	1.31	7.44
13, 14	01-Nov-09	51	8	45	1.31	8.38
16	10-Nov-09	53	8	52	1.26	8.38
17, 18	11-Nov-09	53	9	44	1.26	7.44
19, 20	12-Nov-09	52	8	49	1.29	8.38
21	14-Nov-09	54	8	49	1.24	8.38
22	18-Nov-09	51	9	50	1.31	7.44
23, 24	19-Nov-09	52	7	47	1.29	9.57
25	21-Nov-09	50	8	46	1.34	8.38
26	22-Nov-09	57	8	45	1.18	8.38

Thorium (Th)						
Flight No Flown	Date Flown	Mean Raw Count	Std.dev.	# of records	Calculated Scale Factor	Used Scale Factor
1	08-Oct-09	14	4	45	1.00	1.00
2, 3	09-Oct-09	13	5	43	1.08	2.80
4	10-Oct-09	13	3	42	1.08	4.67
5, 6	11-Oct-09	12	3	40	1.17	4.67
7, 8	12-Oct-09	14	3	41	1.00	4.67
9	15-Oct-09	13	4	39	1.08	3.50
10, 11	24-Oct-09	12	4	47	1.17	3.50
12	28-Oct-09	12	3	45	1.17	4.67
13, 14	01-Nov-09	10	3	45	1.40	4.67
16	10-Nov-09	11	4	52	1.27	3.50
17, 18	11-Nov-09	11	3	44	1.27	4.67
19, 20	12-Nov-09	11	4	49	1.27	3.50
21	14-Nov-09	11	3	49	1.27	4.67
22	18-Nov-09	11	3	50	1.27	4.67
23, 24	19-Nov-09	12	3	47	1.17	4.67
25	21-Nov-09	11	3	46	1.27	4.67
26	22-Nov-09	11	4	45	1.27	3.50

Uranium (U)						
Flight No	Date Flown	Mean Raw Count	Std.dev.	# of records	Calculated Scale Factor	Used Scale Factor
1	08-Oct-09	15	4	45	1.00	1.00
2, 3	09-Oct-09	13	4	43	1.15	3.75
4	10-Oct-09	14	5	42	1.07	3.00
5, 6	11-Oct-09	15	4	40	1.00	3.75
7, 8	12-Oct-09	17	4	41	0.88	0.8
9	15-Oct-09	14	4	39	1.07	3.75
10, 11	24-Oct-09	12	3	47	1.25	5.00
12	28-Oct-09	13	4	45	1.15	3.75
13, 14	01-Nov-09	11	3	45	1.36	5.00
16	10-Nov-09	13	4	52	1.15	3.75
17, 18	11-Nov-09	12	4	44	1.25	3.75
19, 20	12-Nov-09	13	4	49	1.15	3.75
21	14-Nov-09	13	4	49	1.15	3.75
22	18-Nov-09	12	4	50	1.25	3.75
23, 24	19-Nov-09	13	3	47	1.15	5.00
25	21-Nov-09	12	3	46	1.25	5.00
26	22-Nov-09	15	3	45	1.00	5.00

Total Count (TC)						
Flight No	Date Flown	Mean Raw Count	Std.dev.	# of records	Calculated Scale Factor	Used Scale Factor
1	08-Oct-09	604	43	45	1.00	1.00
2, 3	09-Oct-09	554	40	43	1.09	15.10
4	10-Oct-09	573	35	42	1.05	17.26
5, 6	11-Oct-09	591	39	40	1.02	15.49
7, 8	12-Oct-09	613	33	41	0.99	18.30
9	15-Oct-09	579	36	39	1.04	1.10
10, 11	24-Oct-09	494	48	47	1.22	12.58
12	28-Oct-09	484	37	45	1.25	16.32
13, 14	01-Nov-09	471	34	45	1.28	17.76
16	10-Nov-09	500	41	52	1.21	14.73
17, 18	11-Nov-09	488	46	44	1.24	13.13
19, 20	12-Nov-09	498	38	49	1.21	15.89
21	14-Nov-09	491	36	49	1.23	16.78
22	18-Nov-09	460	42	50	1.31	14.38
23, 24	19-Nov-09	480	40	47	1.26	15.10
25	21-Nov-09	475	34	46	1.27	17.76
26	22-Nov-09	537	35	45	1.12	17.26

Note: The values with the yellow background were determined empirically.

Appendix E: Images of Final Maps

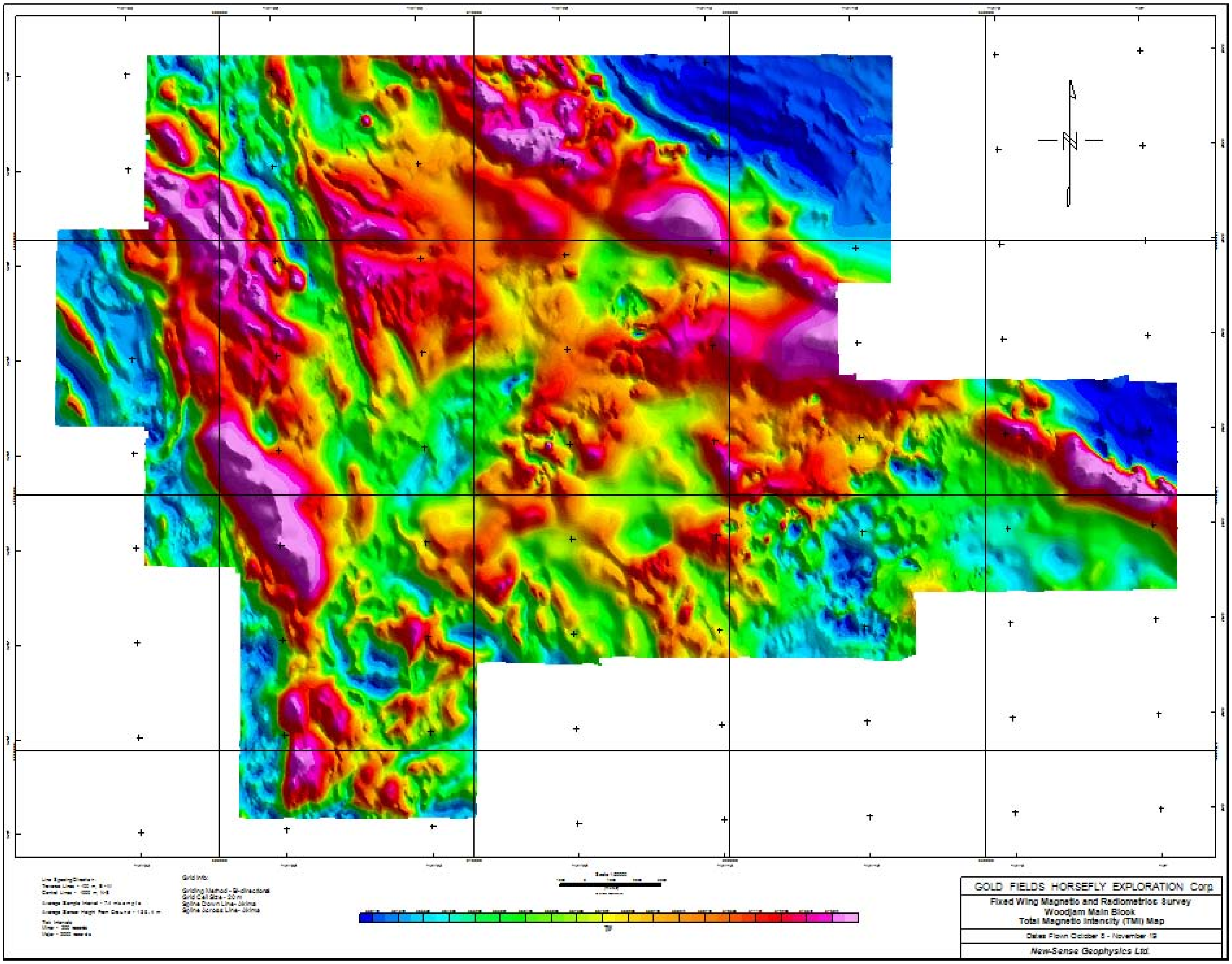


Image of TMI map, Main Block. Coordinate System: WGS84, World, Zone 10N

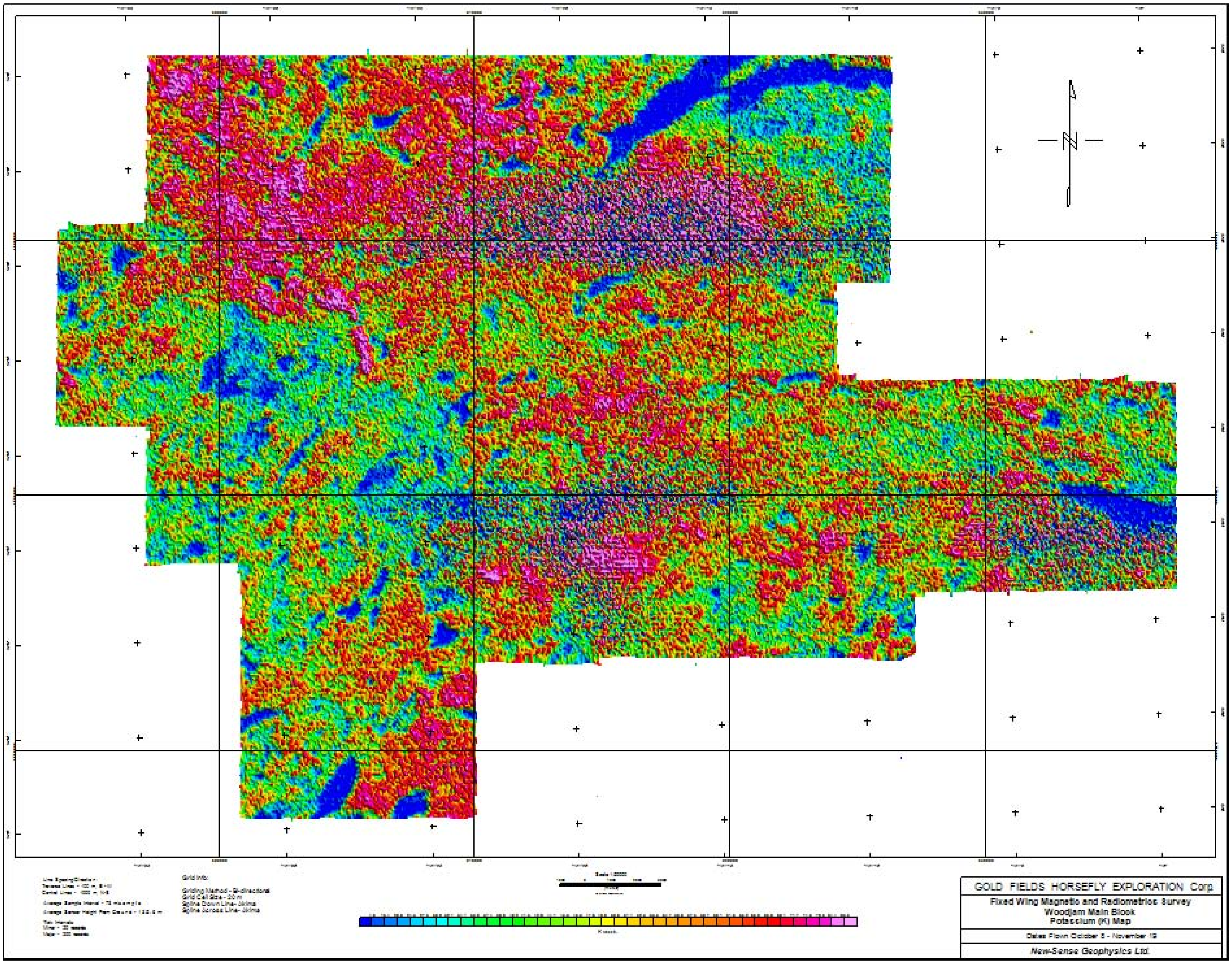


Image of K map, Main Block. Coordinate System: WGS84, World, Zone 10N

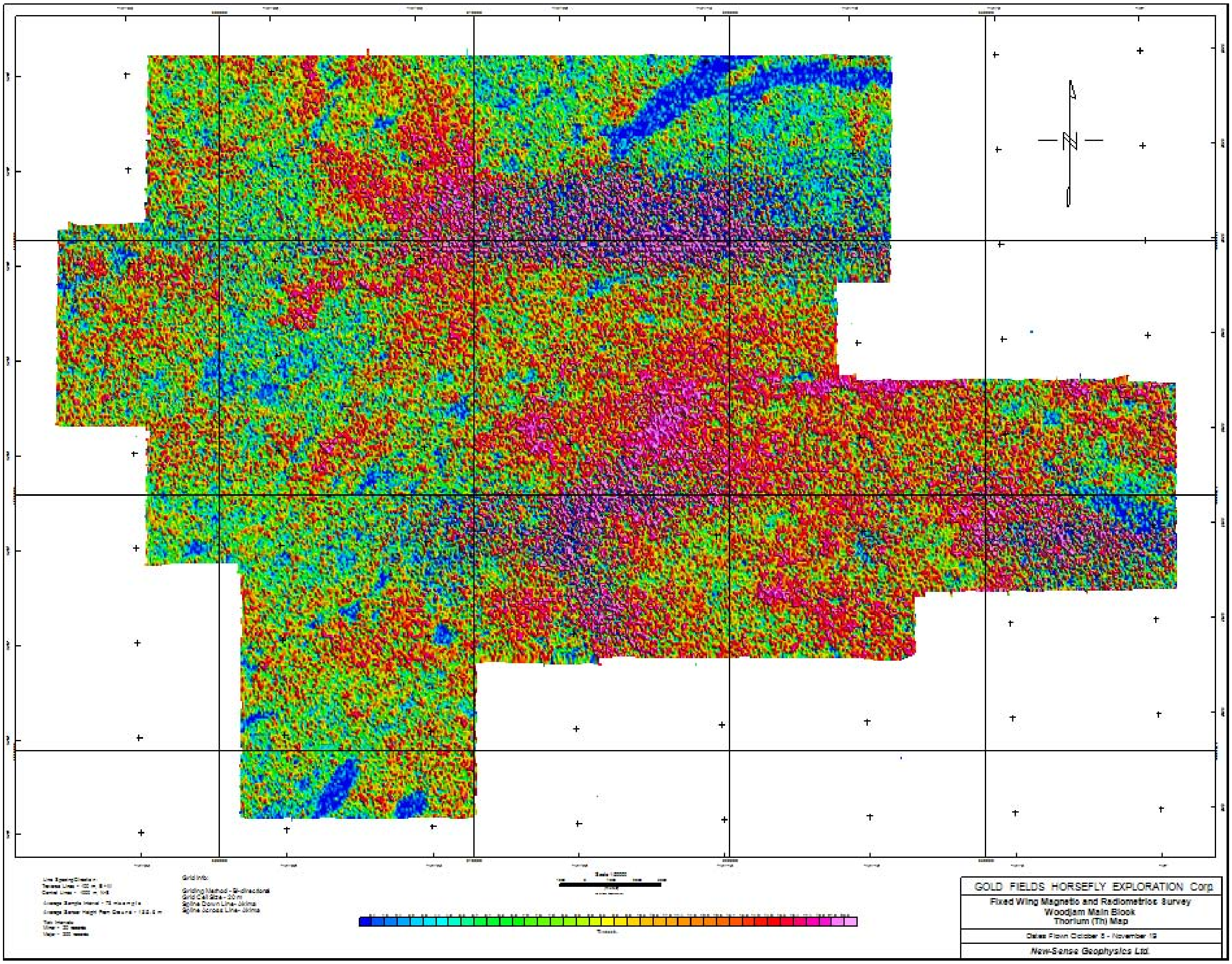


Image of Th map, Main Block. Coordinate System: WGS84, World, Zone 10N

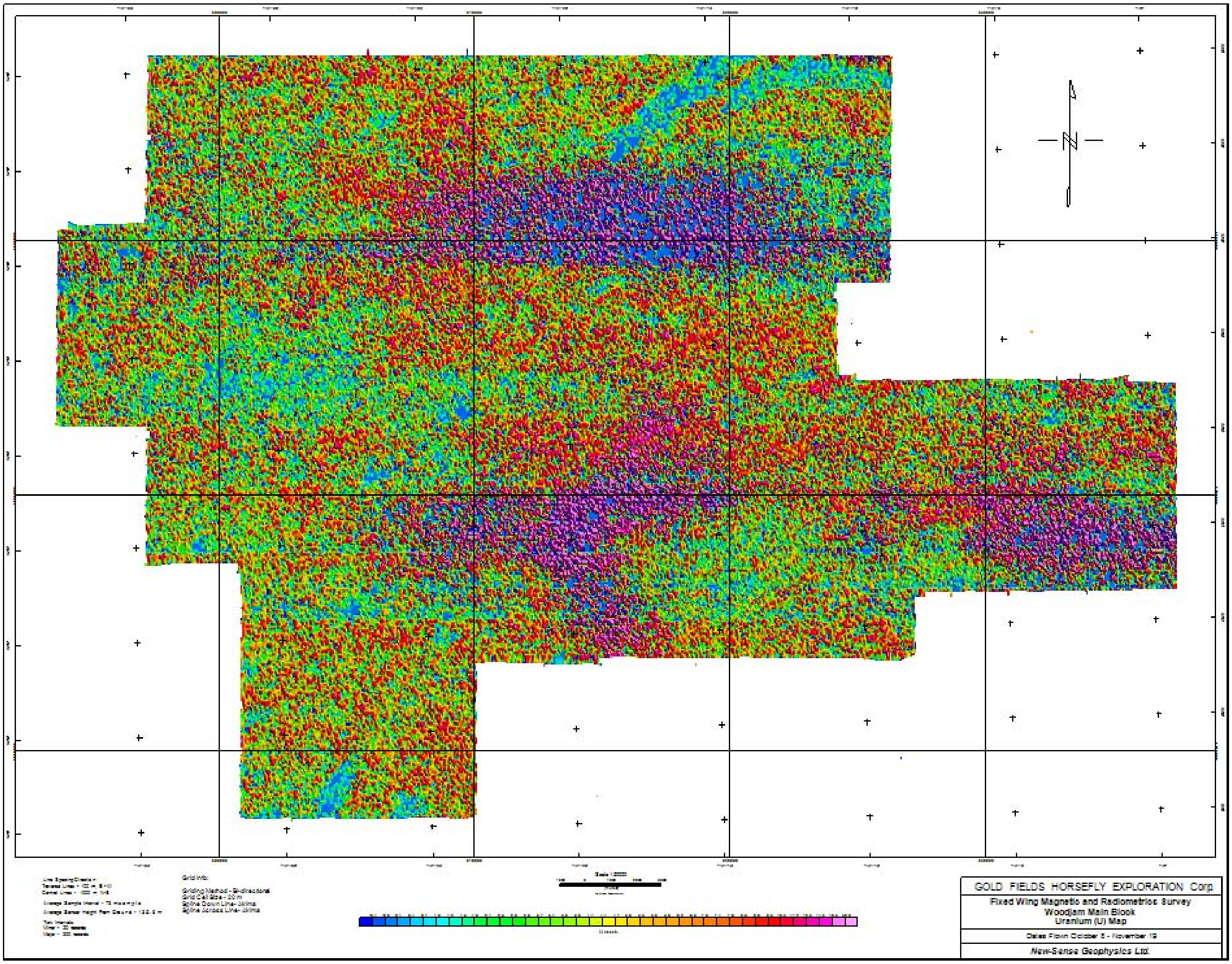


Image of U map, Main Block. Coordinate System: WGS84, World, Zone 10N

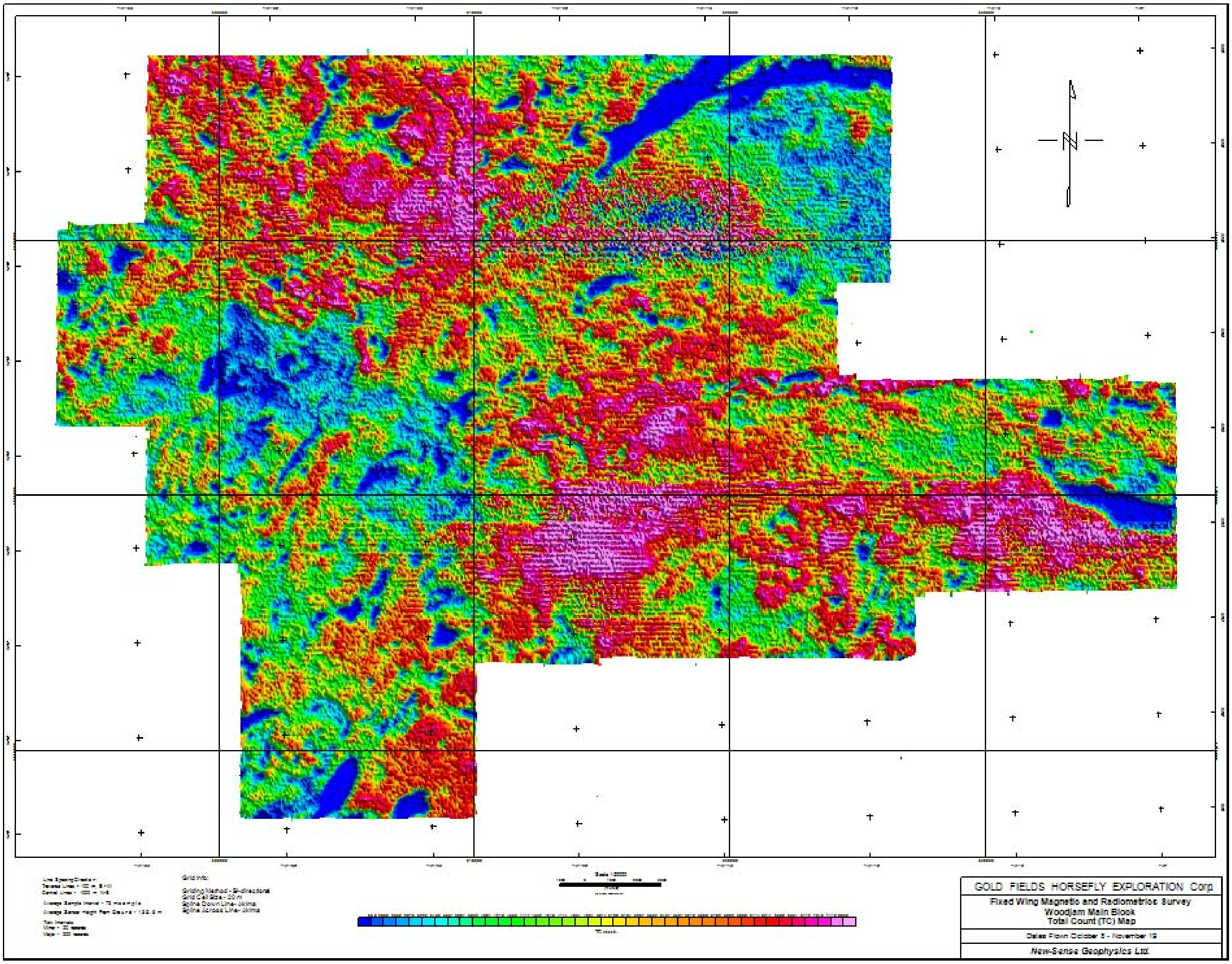


Image of TC map, Main Block. Coordinate System: WGS84, World, Zone 10N

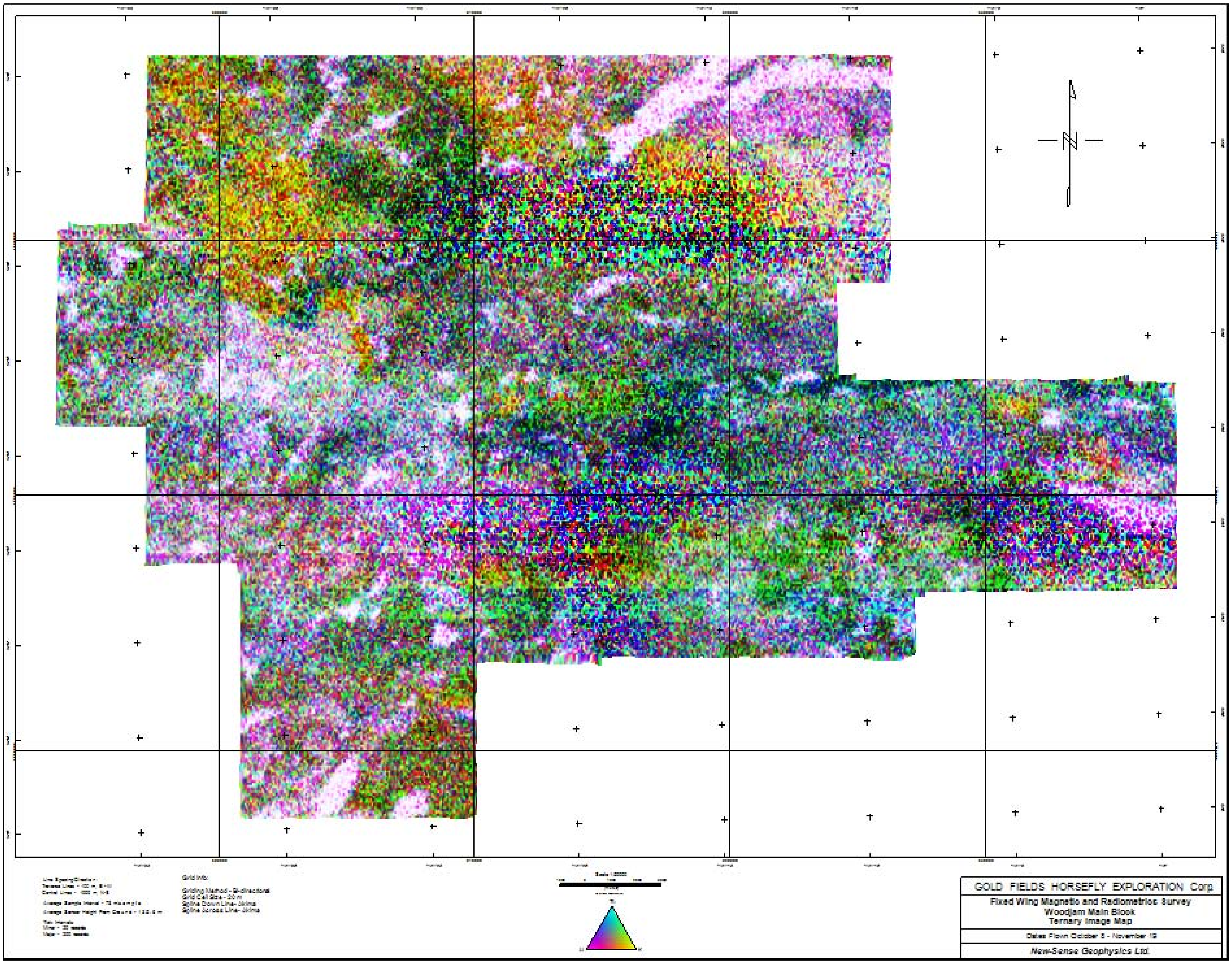


Image of Ternary map, Main Block. Coordinate System: WGS84, World, Zone 10N

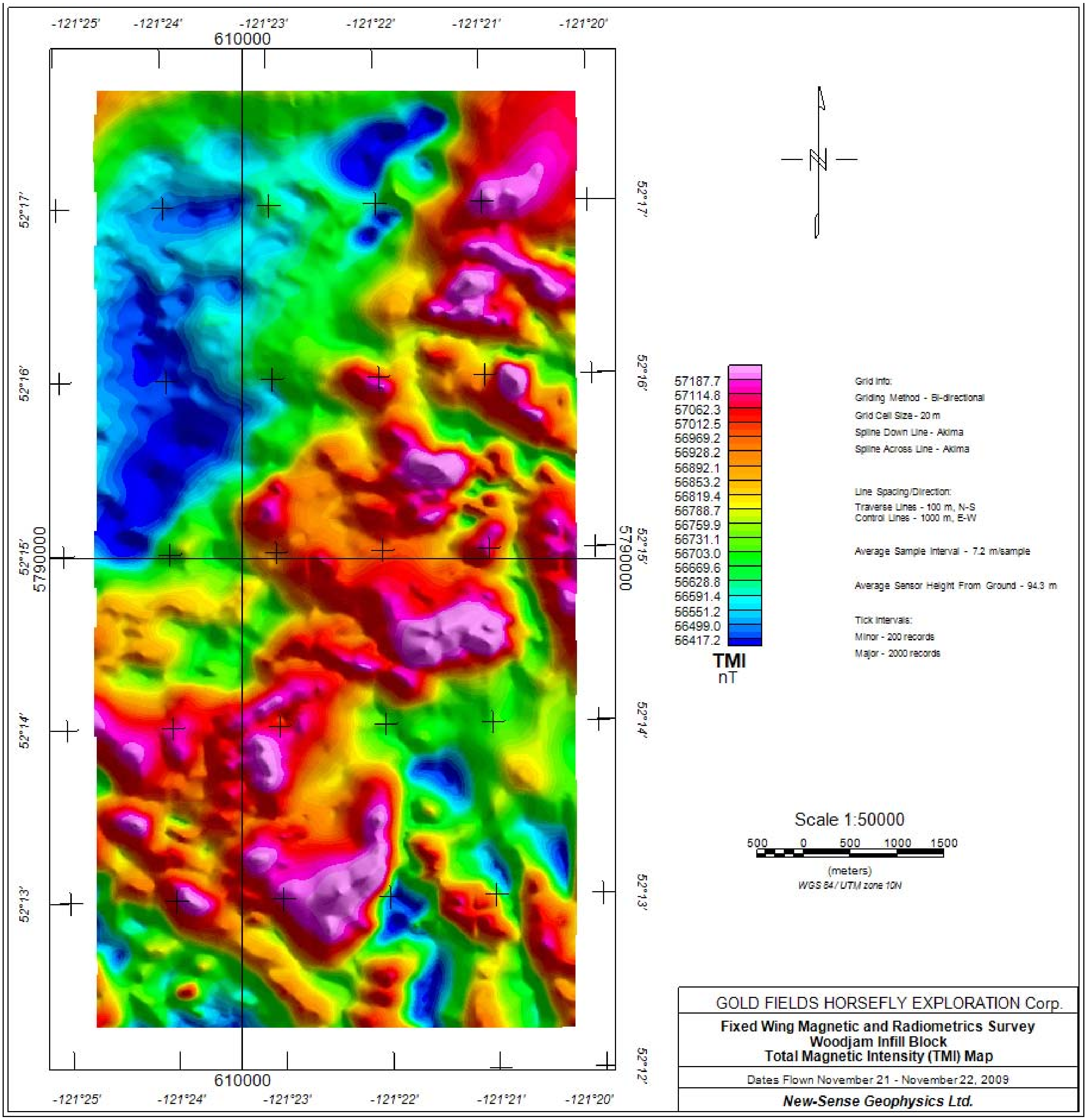


Image of TMI map, Infill Block. Coordinate System: WGS84, World, Zone 10N

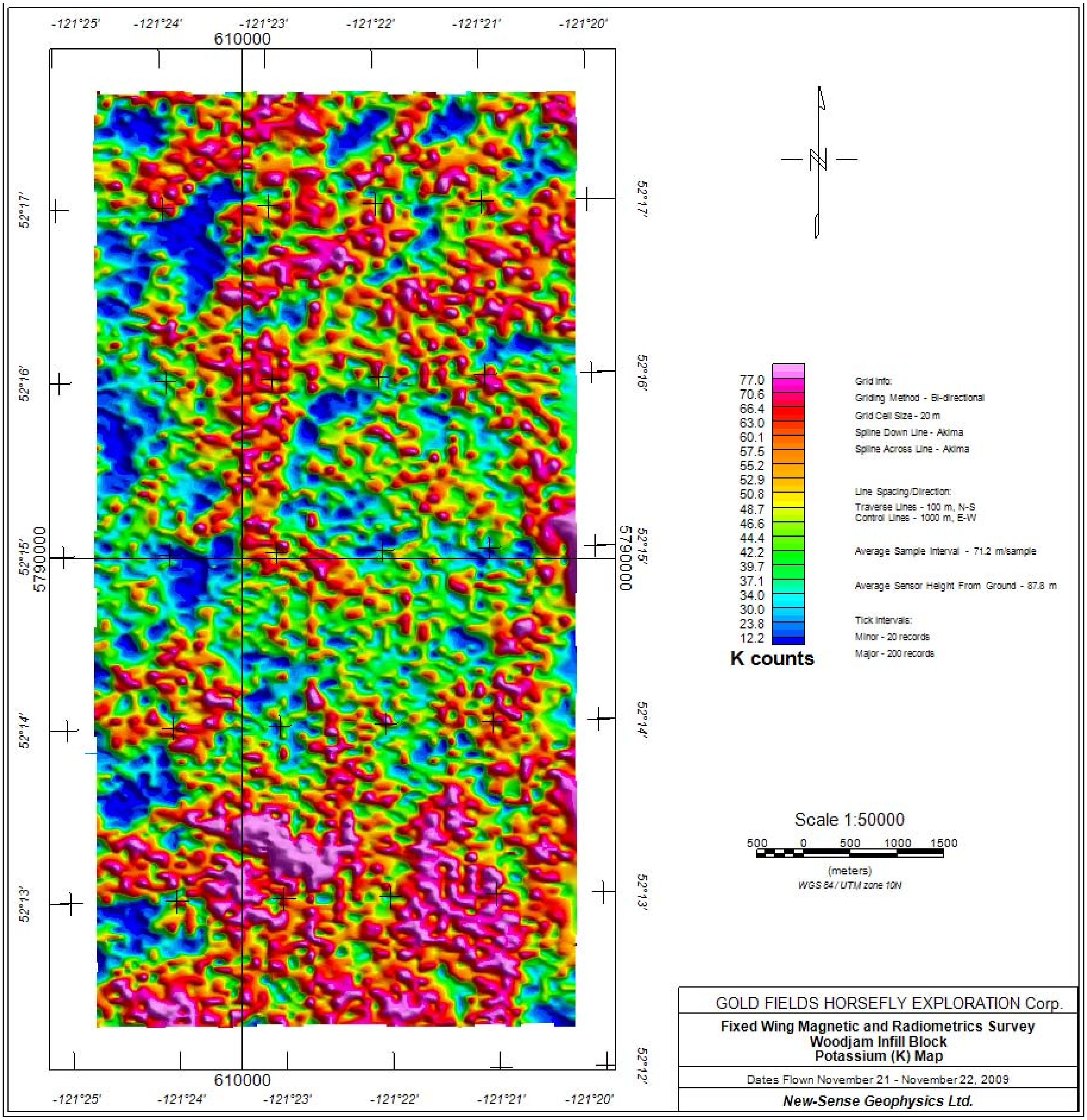


Image of K map, Infill Block. Coordinate System: WGS84, World, Zone 10N

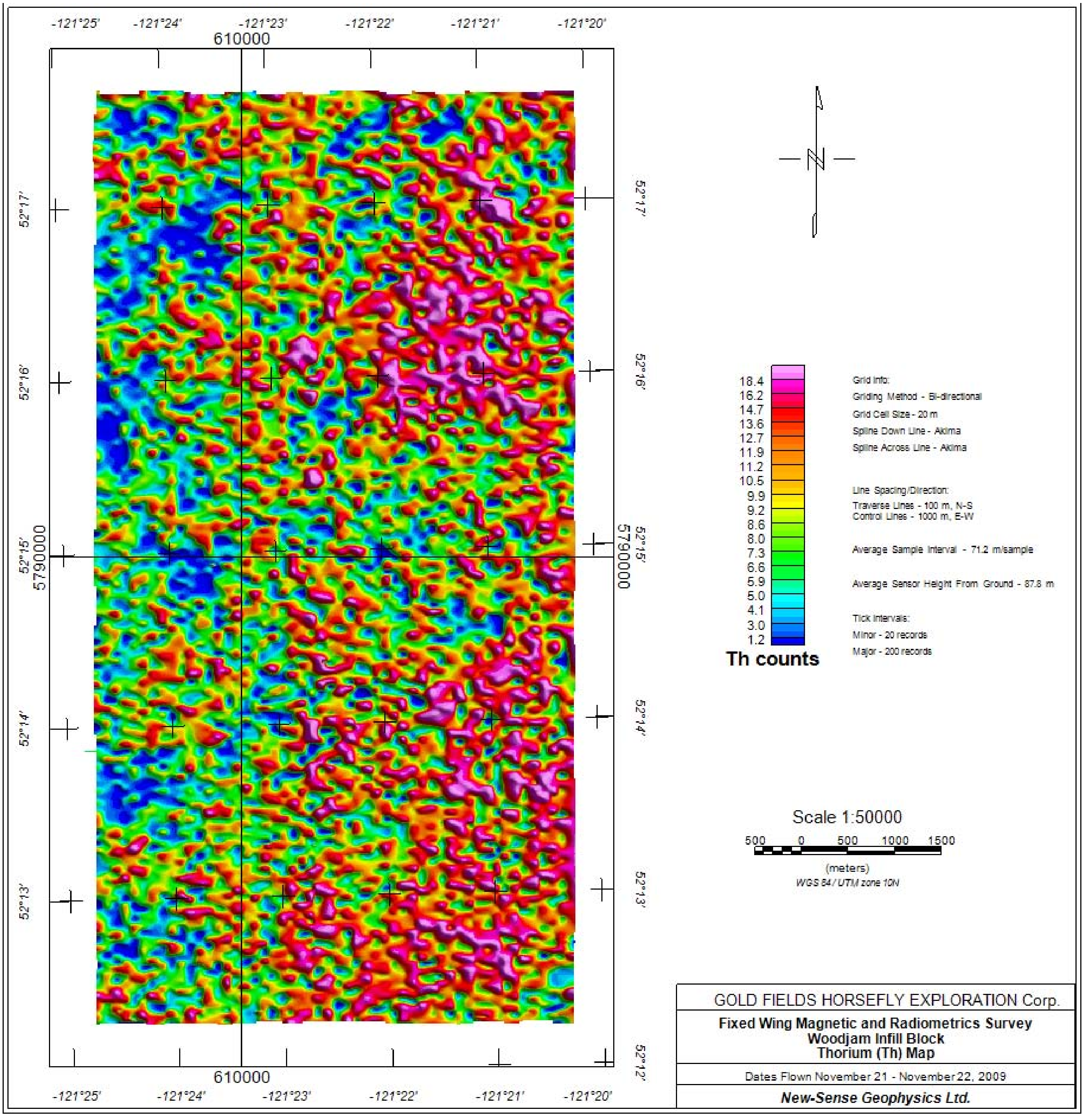


Image of Th map, Infill Block. Coordinate System: WGS84, World, Zone 10N

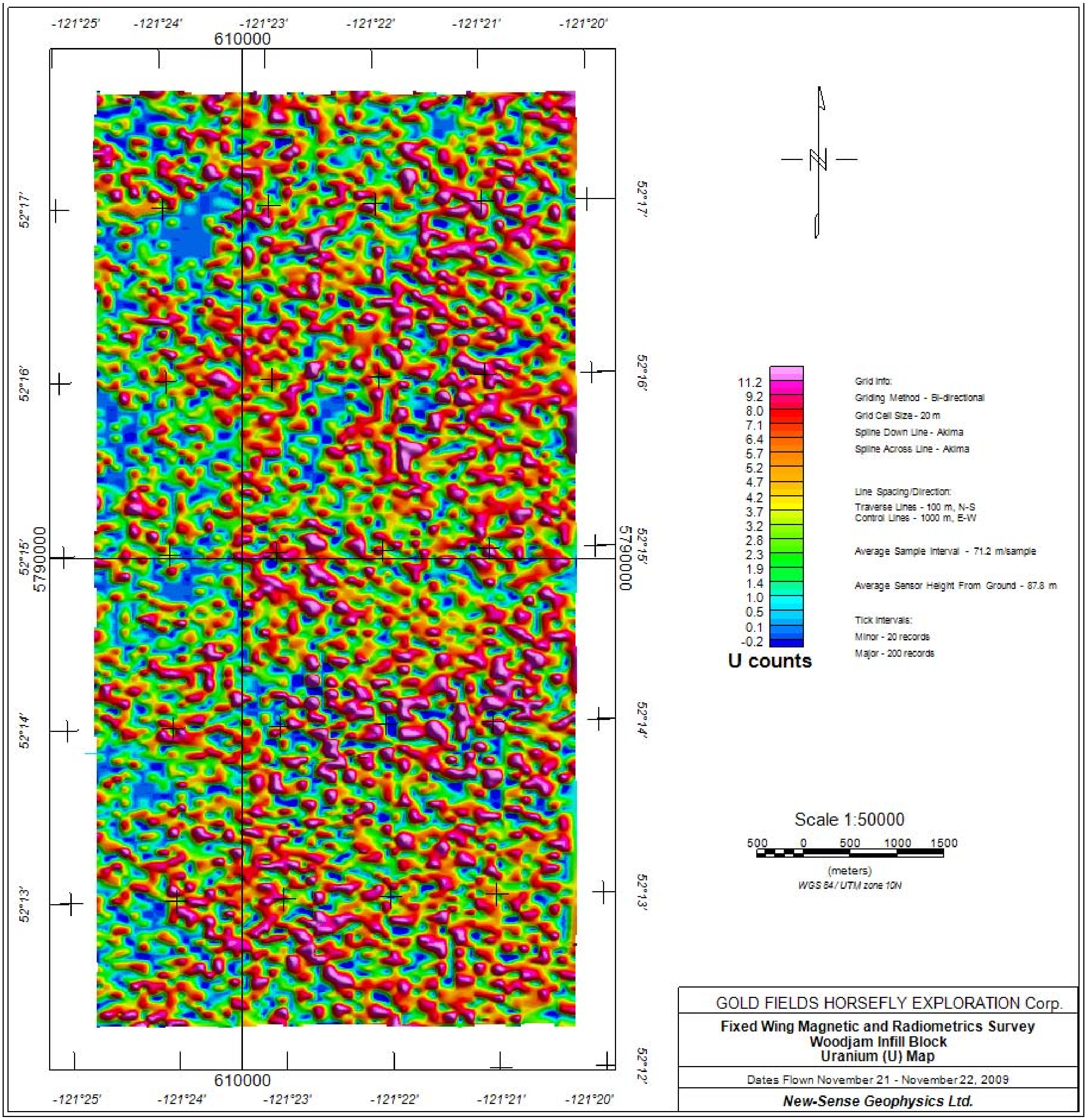


Image of U map, Infill Block. Coordinate System: WGS84, World, Zone 10N

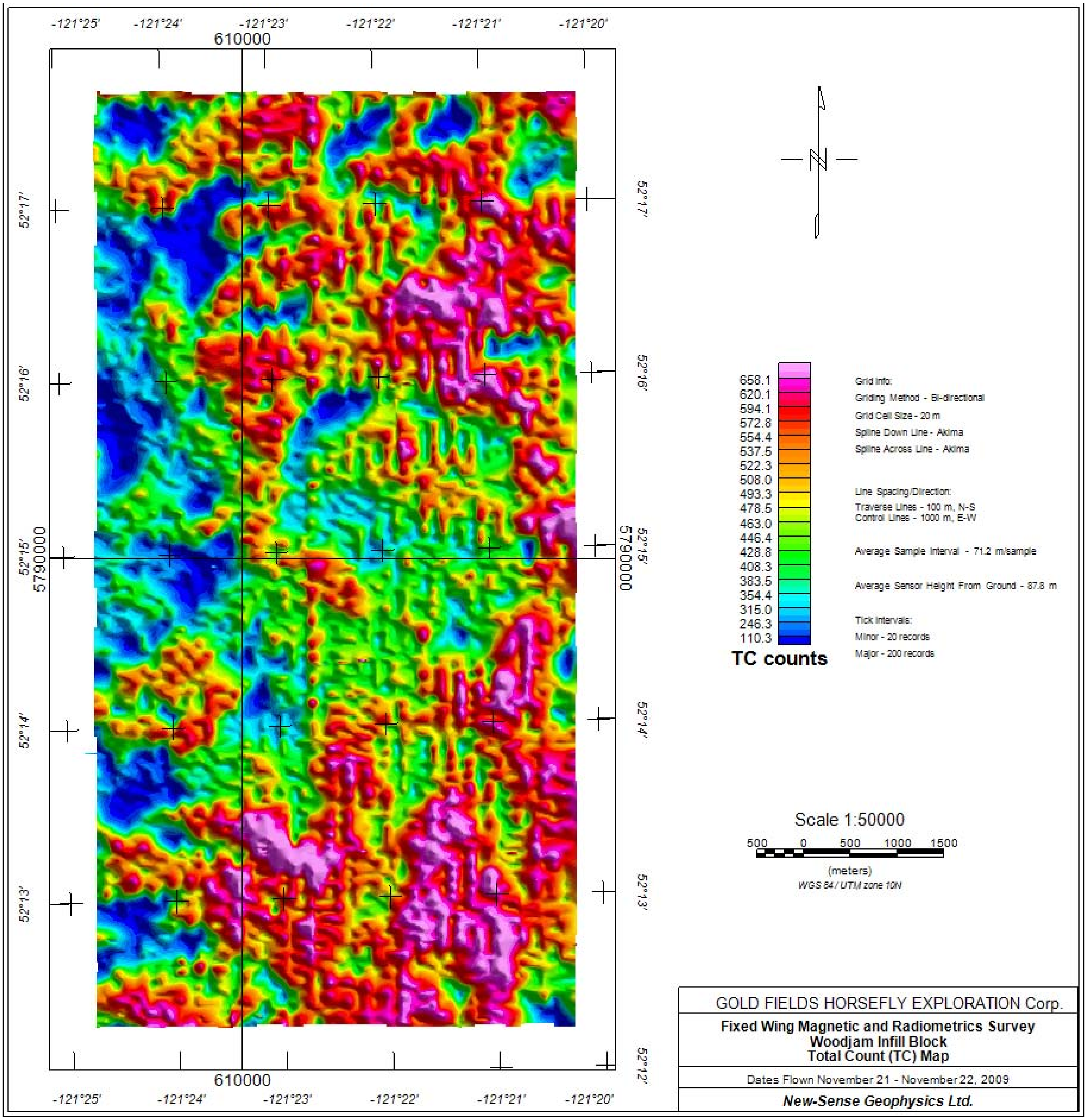


Image of TC map, Infill Block. Coordinate System: WGS84, World, Zone 10N

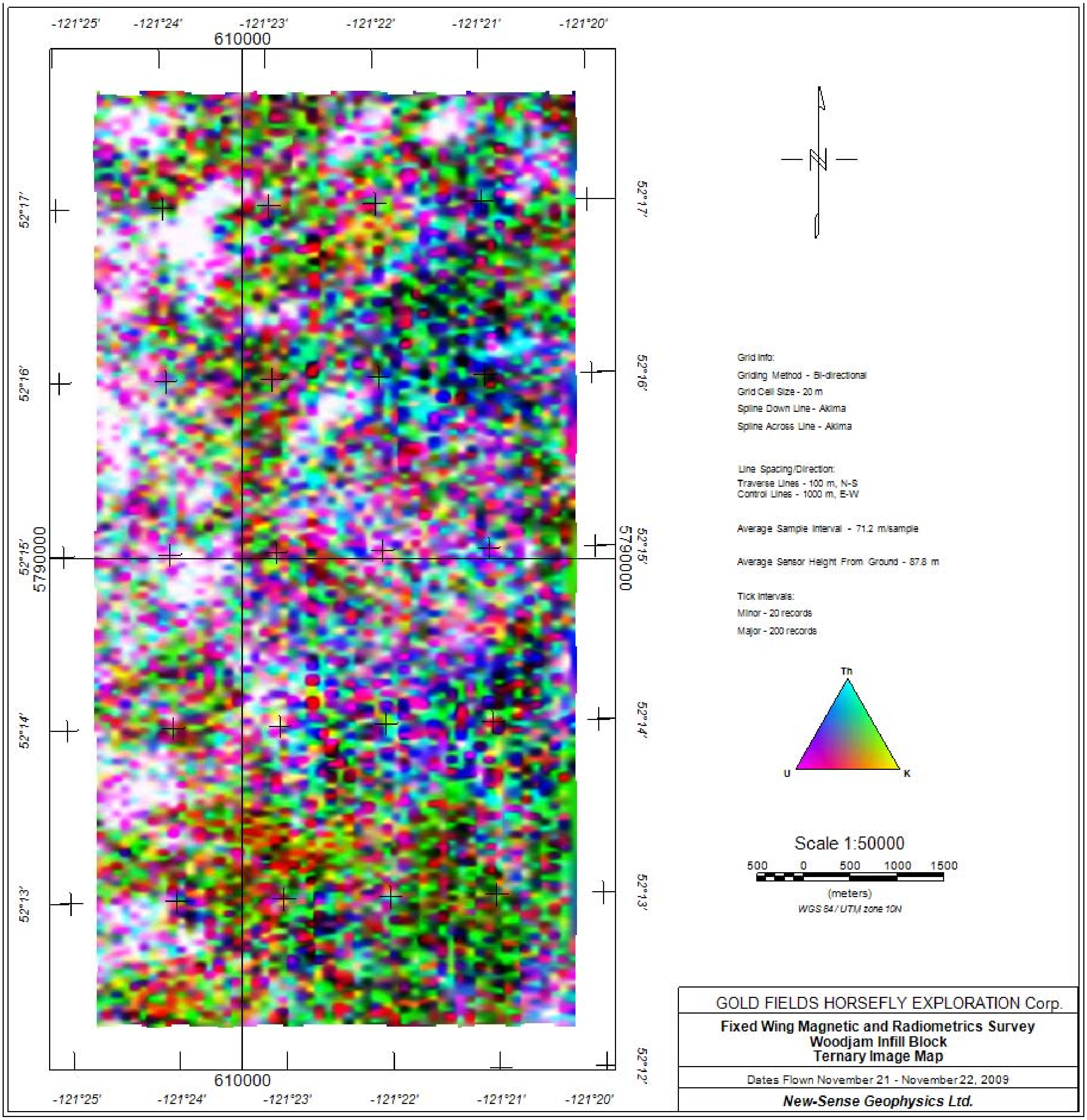


Image of Ternary map, Infill Block. Coordinate System: WGS84, World, Zone 10N

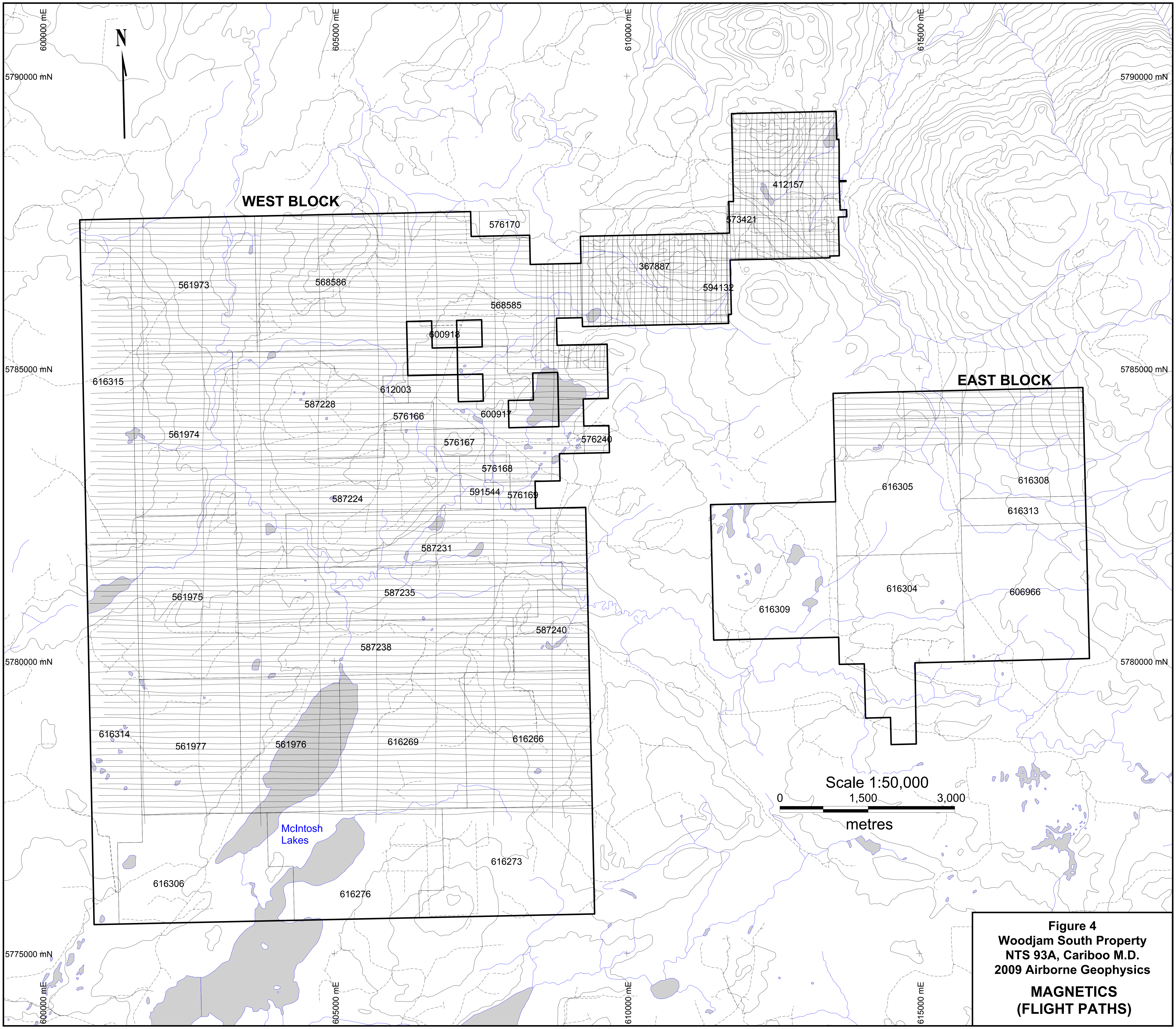


Figure 4
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics

MAGNETICS
(FLIGHT PATHS)

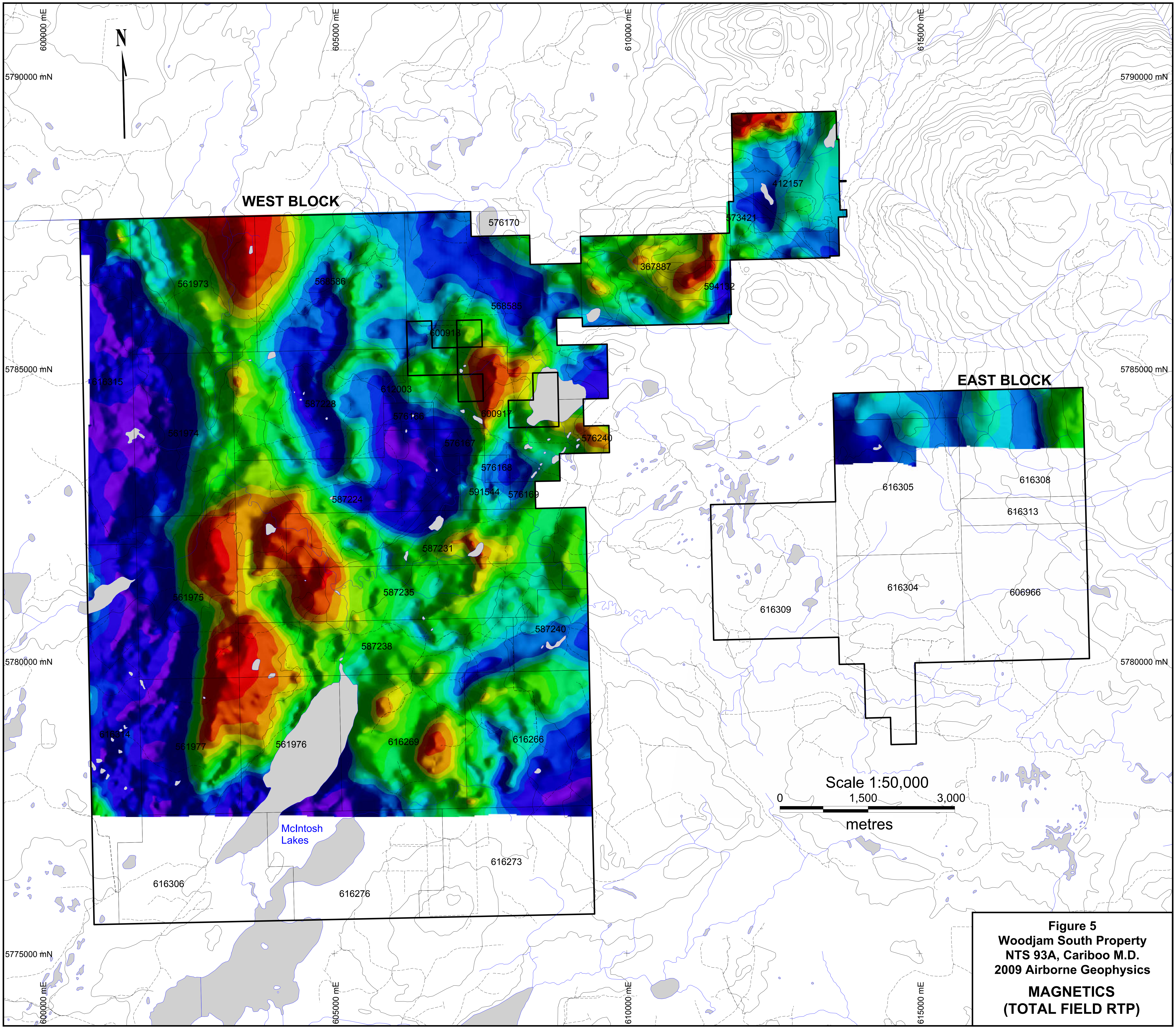


Figure 5
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics

MAGNETICS
(TOTAL FIELD RTP)

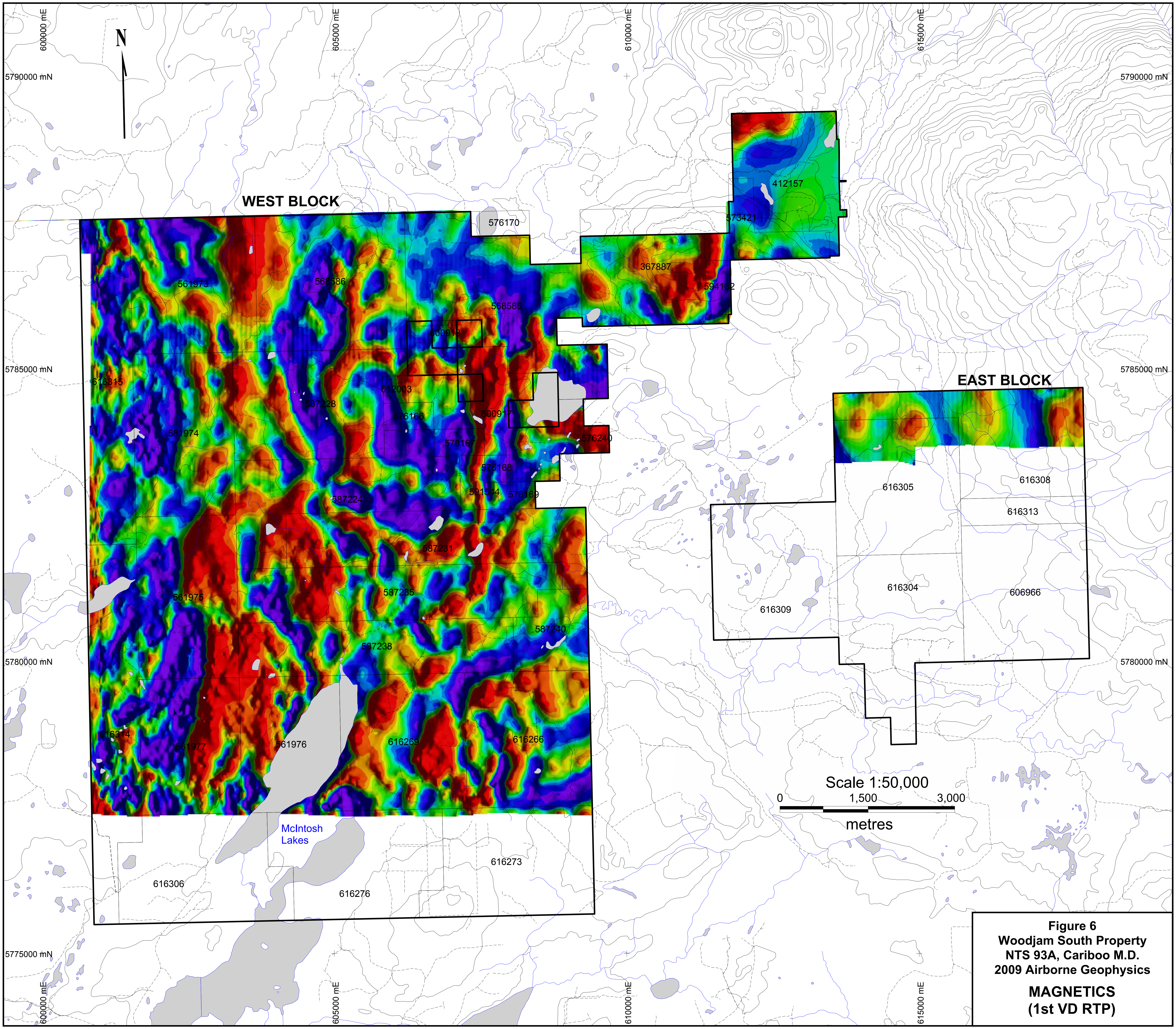


Figure 6
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics

MAGNETICS
(1st VD RTP)

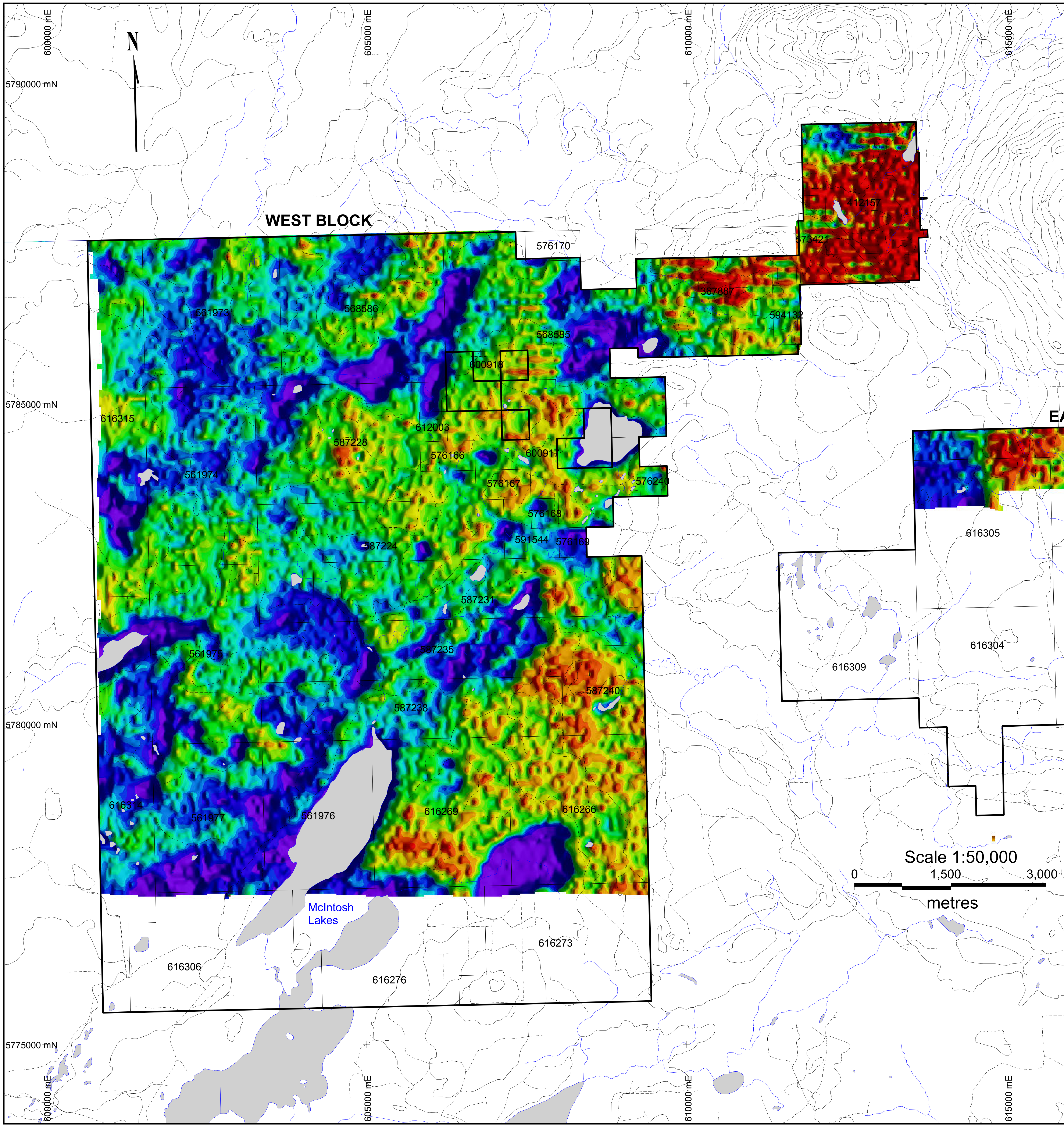


Figure 7
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics

RADIOMETRICS
(TOTAL COUNT)

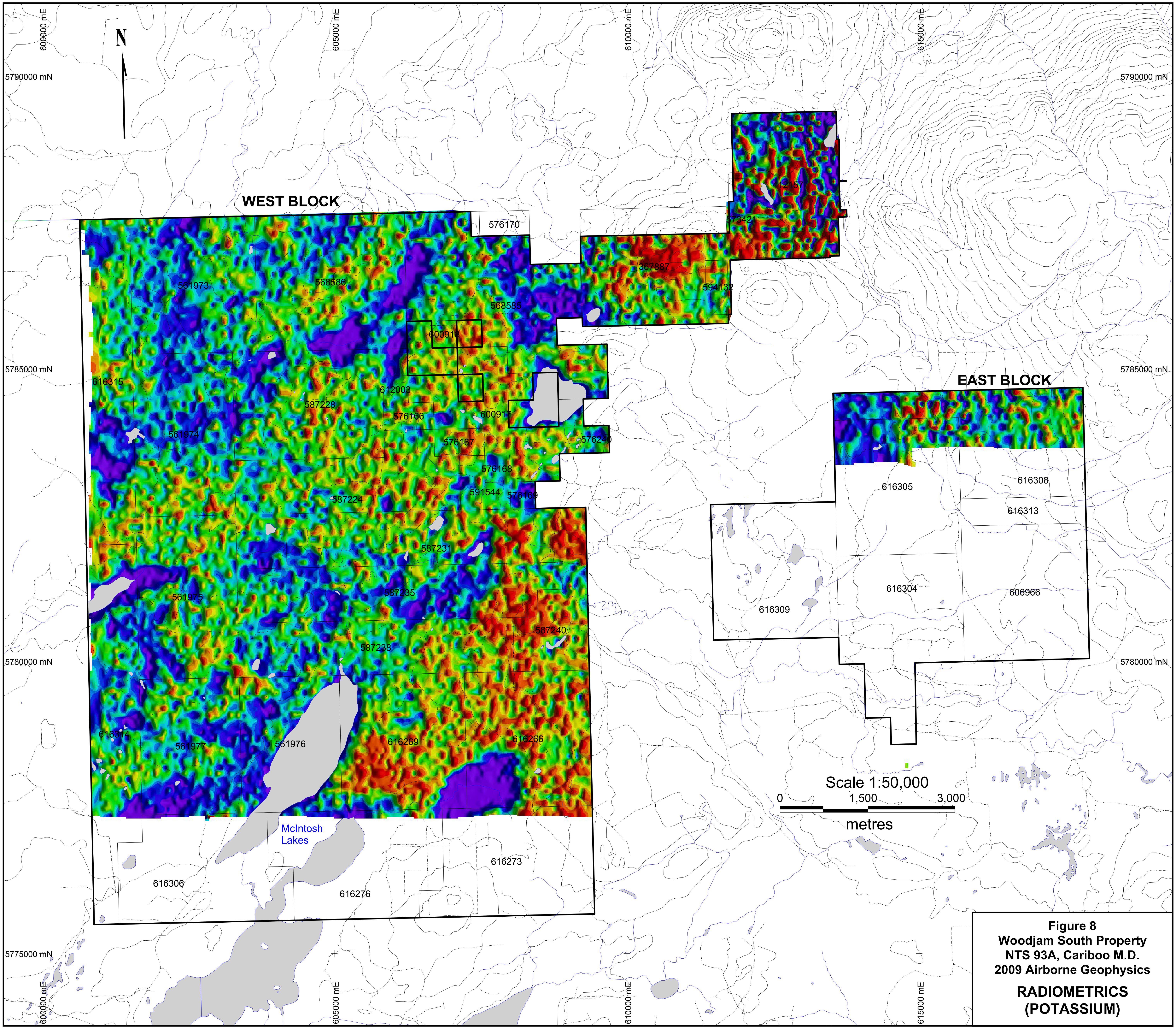


Figure 8
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics

RADIOMETRICS
(POTASSIUM)

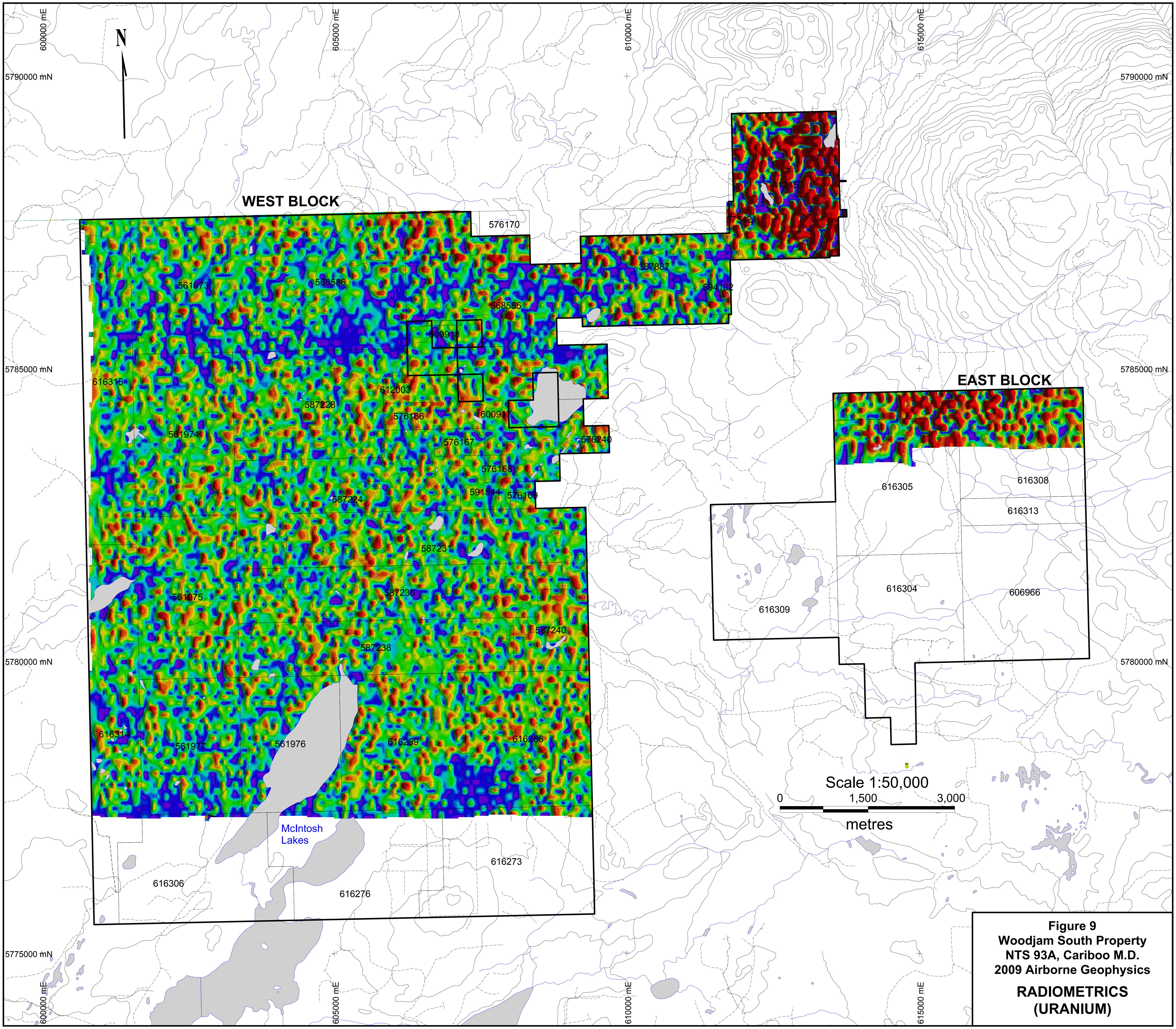


Figure 9
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics
RADIOMETRICS
(URANIUM)

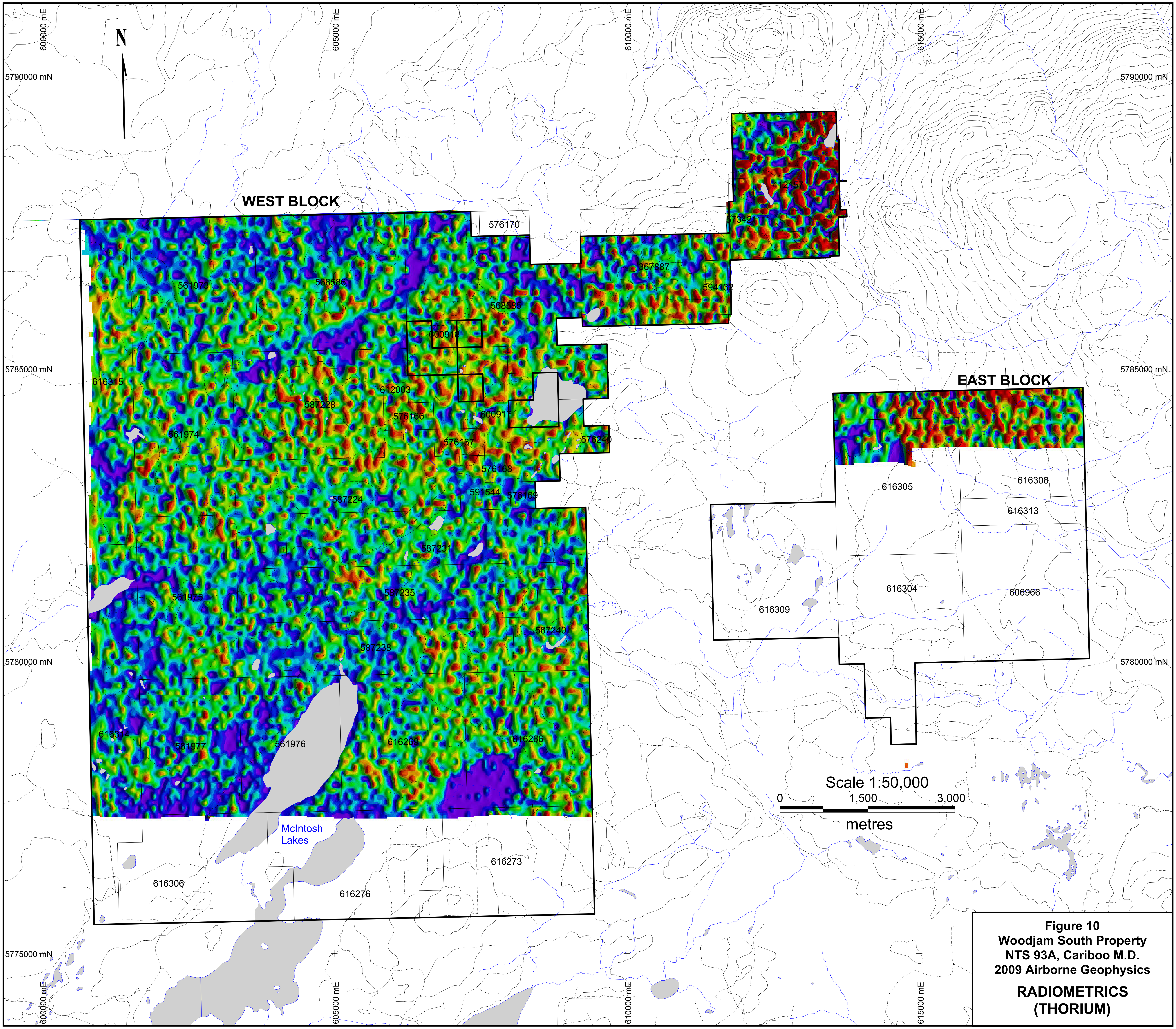


Figure 10
Woodjam South Property
NTS 93A, Cariboo M.D.
2009 Airborne Geophysics
RADIOMETRICS
(THORIUM)