YEIP 2014-022

Airborne Survey Interpretation

2014 APCAR Focused Regional Project

By

Bernie Kreft

February 26th, 2015

Overview – On July 22nd, 2014 Precision GeoSurveys Inc. flew a combined magnetic and radiometric geophysical survey in the Miller Lake area east of the north end of Lake Lebarge, on behalf of Bernie Kreft. The survey was designed to provide geophysical data with which to guide further exploration in an area thought to have good potential for Quesnel Trough type porphyry copper-gold exploration targets. This porphyry potential was inferred from previous exploration efforts by others, government mapping efforts and fieldwork conducted by the author during the 2013 field season. The resulting geophysical data was combined with previous exploration and mapping data to provide geological and structural interpretations of this heavily overburden and vegetation covered area.

Geological Results – Aeromagnetic data was combined with geological data gained from 2013 fieldwork, shown as small white squares on the attached interpretation maps, as well as existing government mapping efforts, to produce a preliminary geological map of the area. Results show the potential presence of three, likely mid-Jurassic aged (181ma-186ma) granitic plutons labelled mJqB on the attached interpretation maps intruding late Triassic (uTAKc) to mid Jurassic (Jlt) clastic and carbonate rich sedimentary rocks with a minor volcanic component. A small capping of mid-Cretaceous Mount Nansen group (mKn) volcanics is presumed on the west side of the grid.

Structural Results – Aeromagnetic data was combined with government mapping efforts to produce a rough structural interpretation for the area. The majority of proposed lineations seem to align to define a north-northwest strike ranging from 340° to 355° generally paralleling known regional structures and geological contacts in the area.

Radiometric Results – Radiometric data highlights the northeastern intrusive body as being thorium and uranium enriched, the southern body as being thorium, uranium and potassium enriched but fails to provide much in the way of guidance for the northwestern presumed intrusive body, suggesting this body may in fact be a series of granitic dykes which are of insufficient scale or distribution to provide a tangible radiometric geophysical response with the grid density (200m line spacings) used.

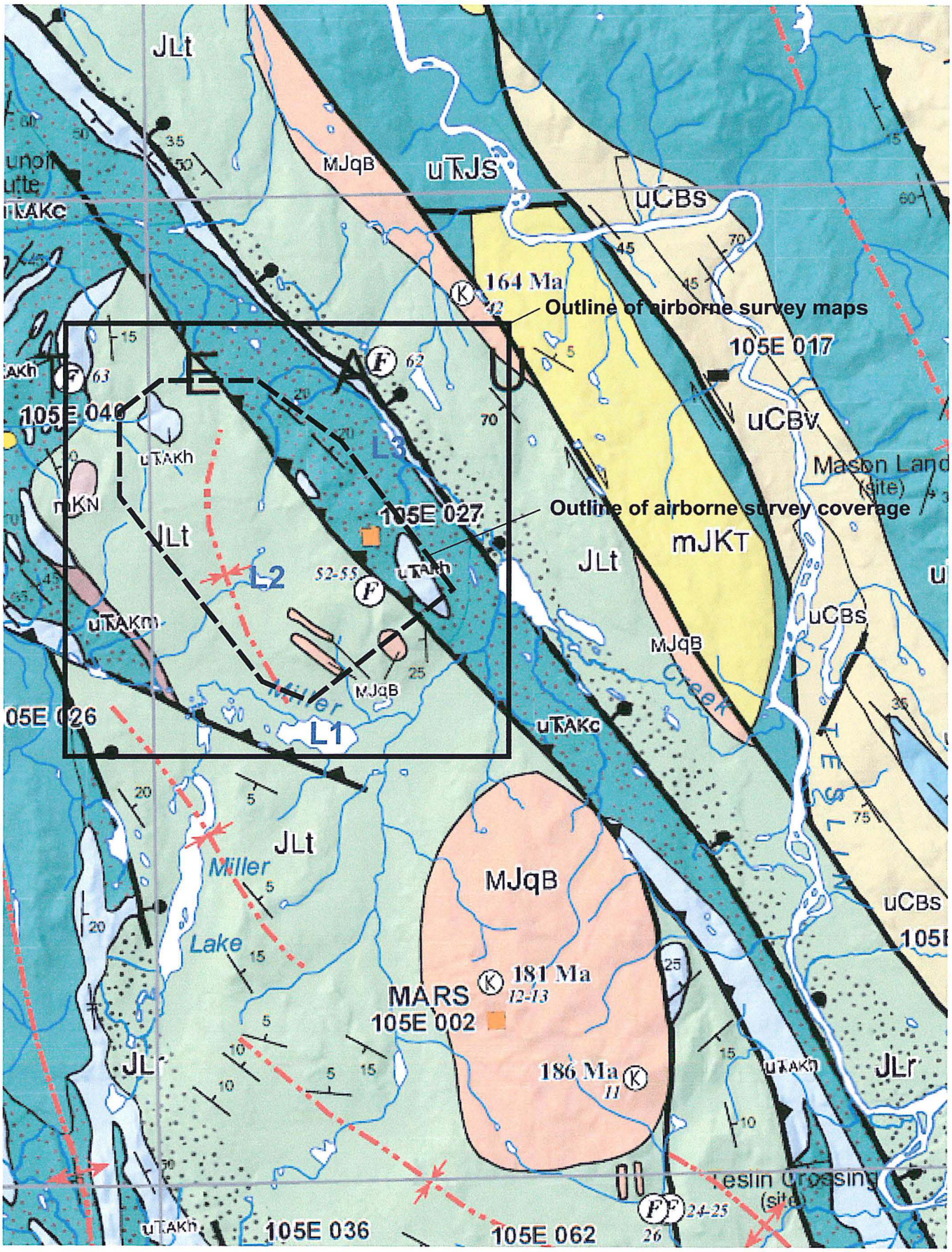
Exploration Targets – Hornfels, skarn and skarn altered trachyte has been reported around the margins of the northeastern presumed intrusive body, especially along and in proximity to its southern contact. Although the skarn mineralization noted to date is restricted in extent, and in itself likely does not present a significant exploration target, its presence, mineralogy and copper-gold ratios (grabs to 1.8% Cu, 7.1% Zn and 1639 ppb Au) fit well within the parameters of the Quesnel Trough porphyry copper-gold exploration model. Also reportedly occurring within this intrusive body in the vicinity of the skarn alteration are areas of fracture controlled or disseminated chalcopyrite and molybdenite mineralization. Based on the presence of mineralized skarn and the reported disseminated chalcopyrite and molybdenite mineralization it is felt that the entire intrusive body is worthy of further exploration efforts. This intrusive body is labelled mJqB1 on the attached interpretation maps.

The southern presumed intrusive body manifests as a strong positive magnetic signature hosting an eTh/K low the combination of which is a geophysical signature common to Quesnel trough type porphyry copper-gold targets. Although this intrusive body is relatively well exposed when compared to bodies 1 and 3, and prospecting efforts to date have failed to discover mineralization, the core of the aforementioned combined geophysical anomaly has been subject to only very cursory examination, therefore more geochemical sampling and prospecting work is warranted. This intrusive body is labelled mJqB2 on the attached interpretation maps.

The northwestern presumed intrusive body has the least outcrop based geological data with which to help calibrate the geophysical response. The single geological point consists of sub-cropping fractured granodiorite around which are located several spruce bark samples highly anomalous in copper +/- gold, silver and molybdenum. Based solely on the geochemical response follow-up exploration work consisting

of sampling, prospecting and mapping is justified and should provide a better geological framework which should be used to calibrate and further interpret the geophysical response in this area. This intrusive body is labelled mJqB3 on the attached interpretation maps.

Map to accompany 2014 APCAR Airborne Survey Interp



WHITEHORSE TROUGH

MID-CRETACEOUS

mKN

MOUNT NANSEN: *massive aphyric or feldspar-phyric andesite to dacite flows, breccia and tuff; massive, heterolithic, quartz and feldspar-phyric, felsic lapilli tuff; flow-banded quartz-phyric rhyolite and quartz-feldspar porphyry plugs, dykes, sills and breccia (Mount Nansen Gp., Byng Creek Volcanics, Hutshi Gp.)*

MIDDLE JURASSIC AND LOWER CRETACEOUS

mJKT

TANTALUS: *massive to thickly bedded chert pebble conglomerate and gritty quartz-chert-feldspar sandstone; interbedded dark grey mudstone, siltstone, lithic sandstone and coal; rare red-weathering dacite to andesite flows and tuff (Tantalus)*

LOWER AND MIDDLE JURASSIC, SINEMURIAN TO AALENIAN

JLr

RICHTHOFEN: *well-bedded, turbiditic sandstone-siltstone-mudstone; dark weathering, massive to finely laminated mudstone and limy mudstone; thick-bedded to massive lenses of polymictic cobble to boulder conglomerate; lithic sandstone; minor limestone (Laberge Gp.)*

LOWER TO MIDDLE JURASSIC, HETTANGIAN TO BAJOCIAN

JLt

TANGLEFOOT: *poorly sorted, medium bedded to massive lithic sandstone and minor mudstone with interbeds and thick members of resistant heterolithic pebble and boulder conglomerate; calcareous siltstone; minor ash and crystal tuff; coal; limestone (Laberge Gp.)*

LOWER JURASSIC, PLIENSBACHIAN

lJN

NORDENSKIOLD: *resistant, reddish brown weathering, massive, khaki-green dacite crystal tuff and volcaniclastic sandstone, with fresh plagioclase, hornblende and biotite; grades locally to pale green, punky weathering, salt and pepper textured, massive lithic sandstone; interbedded conglomerate (Laberge Gp.)*

MIDDLE JURASSIC

MJB

BRYDE SUITE: *undeformed granitic rocks from two plutonic bodies one of predominantly felsic (q) and the other of intermediate composition (g)*

***q**, medium to fine-grained, equigranular, leucocratic monzonite, syenite and granite and related dykes of dacite to andesite porphyry with euhedral andesine, hornblende and locally quartz in aphanitic greenish, or grey groundmass (Teslin Crossing Stock)*

***g**, medium-grained, hornblende monzodiorite, hornblende-biotite quartz monzodiorite and minor hornblendite; pink, potassium feldspar megacrystic, hornblende granite to granodiorite and associated easterly trending mafic dyke swarms (Mt. Bryde Pluton; Bennett Granite)*

STIKINIA

MESOZOIC

Mg

MESOZOIC GRANITIC ROCKS UNDIVIDED: *poorly described granitic rocks of uncertain age including diorite, quartz monzonite, and monzonite*

LATE TRIASSIC

LTgS

STIKINE SUITE: *coarse-grained, foliated, gabbroic hornblende orthogneiss; coarse-grained hornblende-biotite granite and granodiorite with K-feldspar megacrysts; foliated, fine to medium-grained hornblende quartz diorite to diorite with minor biotite (Tally Ho Leucogabbro, Little River Batholith, Friday Creek diorite)*

UPPER TRIASSIC, CARNIAN TO NORIAN

uTAKc

uTAKh

uTAKm

AKSALA: *mixed clastic-carbonate assemblage divisible into three dominant facies including calcareous lithic sandstone (c), locally thick carbonate (h) and maroon clastics (m) (Aksala fm, Lewes River Gp.)*

***c**, brown mudstone, black and minor red siltstone, greenish-grey, calcareous sandstone and interbedded bioclastic, argillaceous limestone; igneous or limestone-clast pebble and cobble conglomerate; laharic debris flows; rare feldspar-augite porphyry flows (Casca mb. of Aksala fm, Lewes River Gp.)*

***h**, massive to thick bedded limestone; minor thin bedded argillaceous to sooty limestone; coarsely crystalline, massive dolostone; minor laminated chert; massive to poorly bedded, limestone conglomerate debris flows and fanglomerate; calcareous sandstone (Hancock mb. of Aksala fm, Lewes River Gp.)*

***m**, maroon to red weathering, medium bedded, green and red sandstone, and pebble to boulder polymictic conglomerate; red mudstone and minor interbedded, bioturbated siltstone; crystal-rich sandstone and mudstone; coarse-grained, tan to brown, massive, lithic sandstone; minor limestone (Mandanna mb. of Aksala fm, Lewes River Gp.)*

UPPER TRIASSIC, CARNIAN AND OLDER (?)

uTP

POVOAS: *augite or feldspar phyric, locally pillowed andesitic basalt flows, breccia, tuff, sandstone and mudstone; local dacitic breccia and tuff with minor limestone; greenschist, chlorite schist, chlorite-augite-feldspar gneiss, amphibolite (Povoas fm, Lewes River Gp.)*

MIDDLE TRIASSIC

mTJ

mTJg

JOE MOUNTAIN: *massive basalt flows; fine to locally medium-grained feldspar and pyroxene?-phyric, pillowed andesite; variably altered massive microdiorite; heterolithic diamictite (Joe Mountain Volcanics)*

***g**, coarse-grained and locally pegmatitic, hornblende gabbro and diorite*

UPPER PALEOZOIC

uPT

TAKHINI: *variably sheared and metamorphosed metabasite, amphibolite gneiss, tuff, wacke and marble with minor quartz mica schist and orthogneiss*

MAP SYMBOLS

- geologic contacts
- fault; movement not known
- thrust fault *(ornament on hanging wall)*
- normal fault *(ornament on downthrown side)*
- dextral strike-slip fault
- fold axial trace *(anticline, syncline)*
- bedding *(horizontal, inclined, vertical, upright, overturned)*
- dominant foliation *(horizontal, inclined, vertical)*
- geochronology locality (U-Pb; Ar-Ar; K-Ar; Re-Os; fission track) *(most significant age indicated; italic numbers refer to geochronology tables in Appendix)*
- fossil locality *(italic numbers refer to fossil tables in Appendix)*
- apparent dip of bedding, foliation *(in cross-section)*
- sense of displacement across strike-slip faults *(in cross-section - away, toward)*

MINERAL OCCURRENCES

(number [e.g. 115I 065] refers to Yukon MINFILE database)
(selected, prominent occurrences are named on the maps)

VOLCANIC ASSOCIATED
- Cu
- Pb,Zn,Barite
- Unknown

SEDIMENT ASSOCIATED
- Cu
- Fe,Mn,Ti,V
- Pb,Zn,Barite
- Unknown,Other

PORPHYRY & SHEETED VEINS
- Ag
- Au
- Cu
- Mo
- W,Sn,Ta,Be,Nb
- U
- Unknown,Other

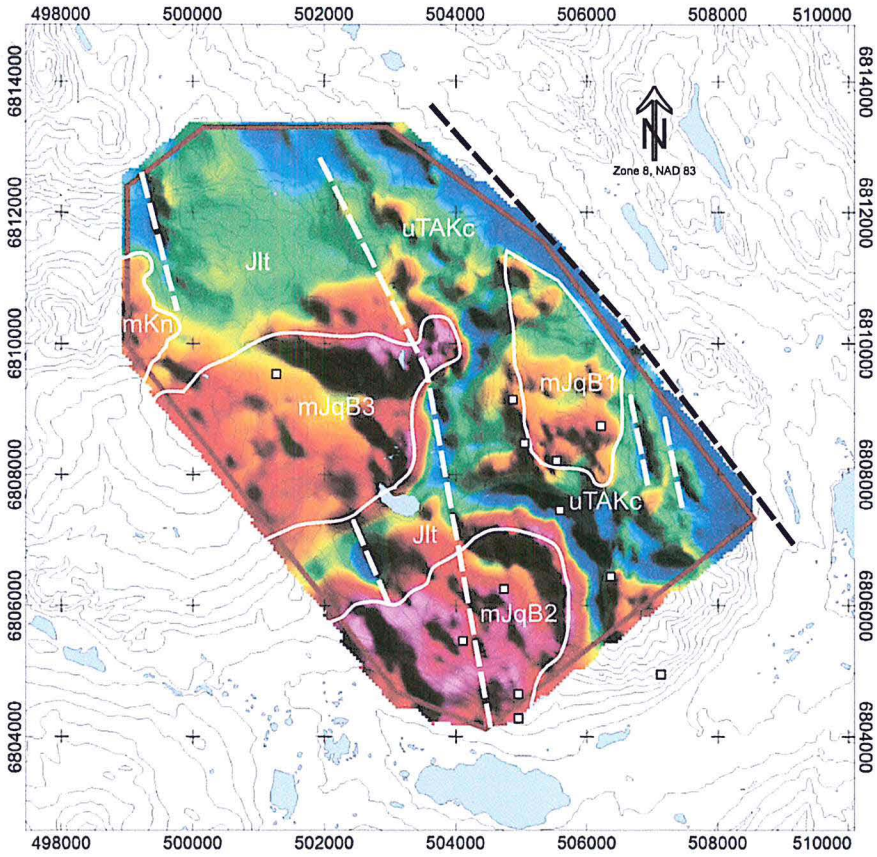
SKARN/REPLACEMENT
- Au
- Cu
- Pb,Zn,Barite
- W,Sn,Ta,Be,Nb

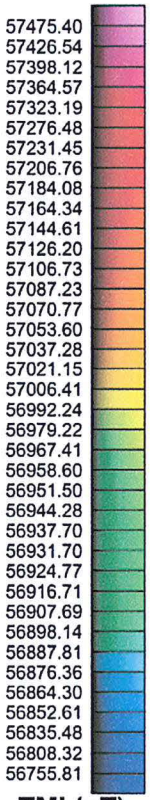
VEIN/BRECCIA
- Ag
- Au
- Cu
- Hg,Sb
- Mo
- Pb,Zn,Barite
- Unknown,Other

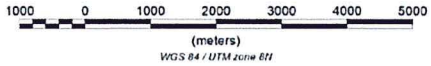
MAFIC-ULTRAMAFIC ASSOCIATED
- Cu
- Ni,Co,Cr
- Unknown

INDUSTRIAL
- Asbestos
- Coal
- Limestone
- Ni,Co,Cr
- Unknown,Other

UNKNOWN
- Ag
- Au
- Cu
- Pb,Zn,Barite
- Unknown,Other







LEGEND

Map Projections

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

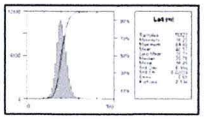
Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz



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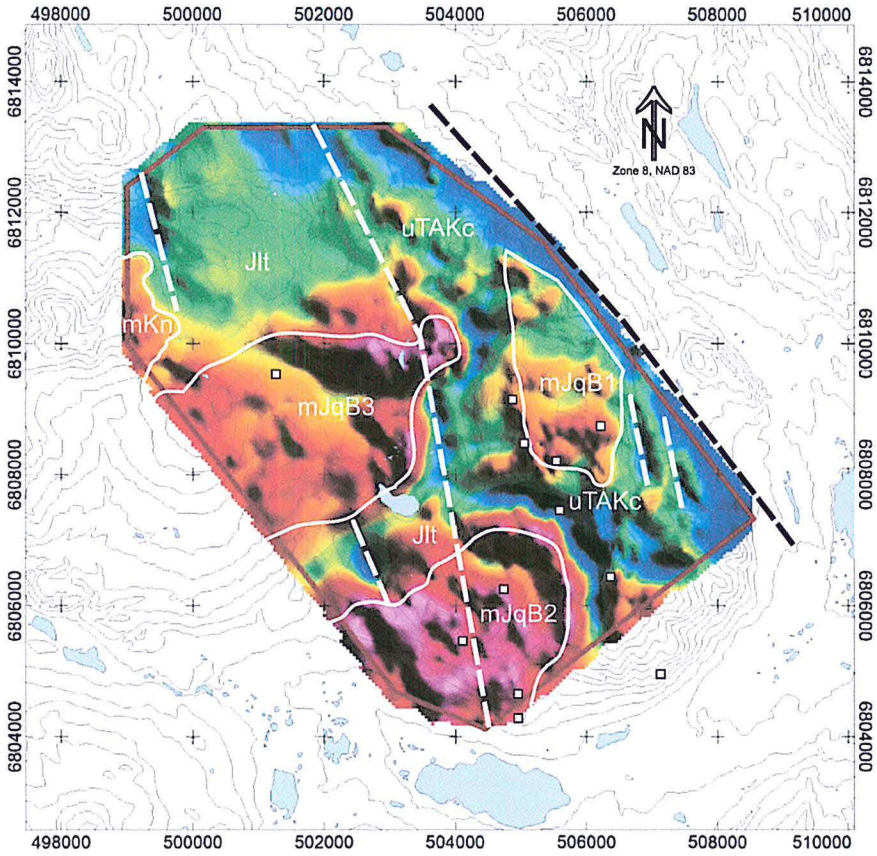
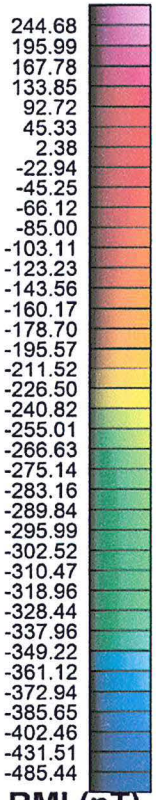
Magnetic Map

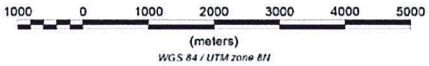
Fox Lake East Survey Block
Total Magnetic Intensity
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TM







LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
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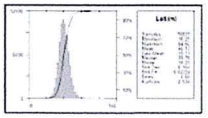
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°



AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

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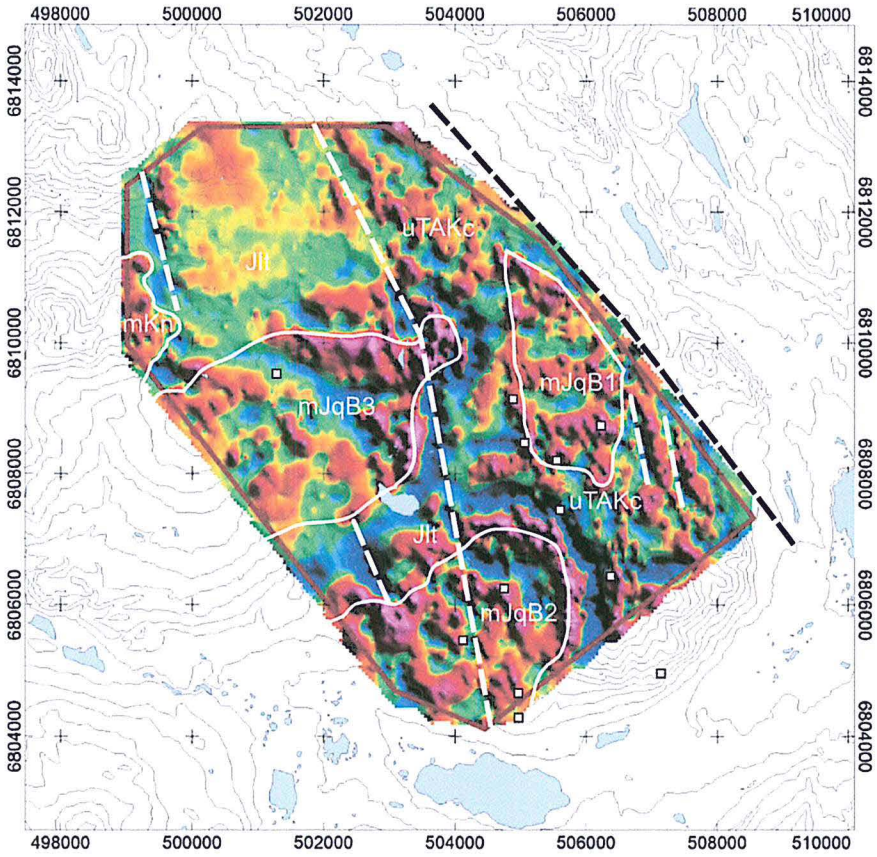
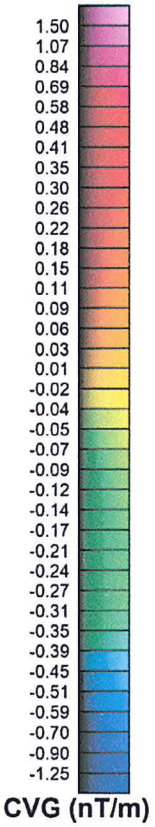
Magnetic Map

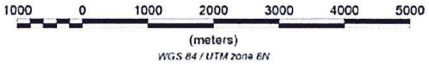
Fox Lake East Survey Block
Residual Magnetic Intensity
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

RM







LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHE
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

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Sensitivity:	0.01 nT

Gamma Ray Spectrometer

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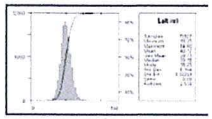
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz



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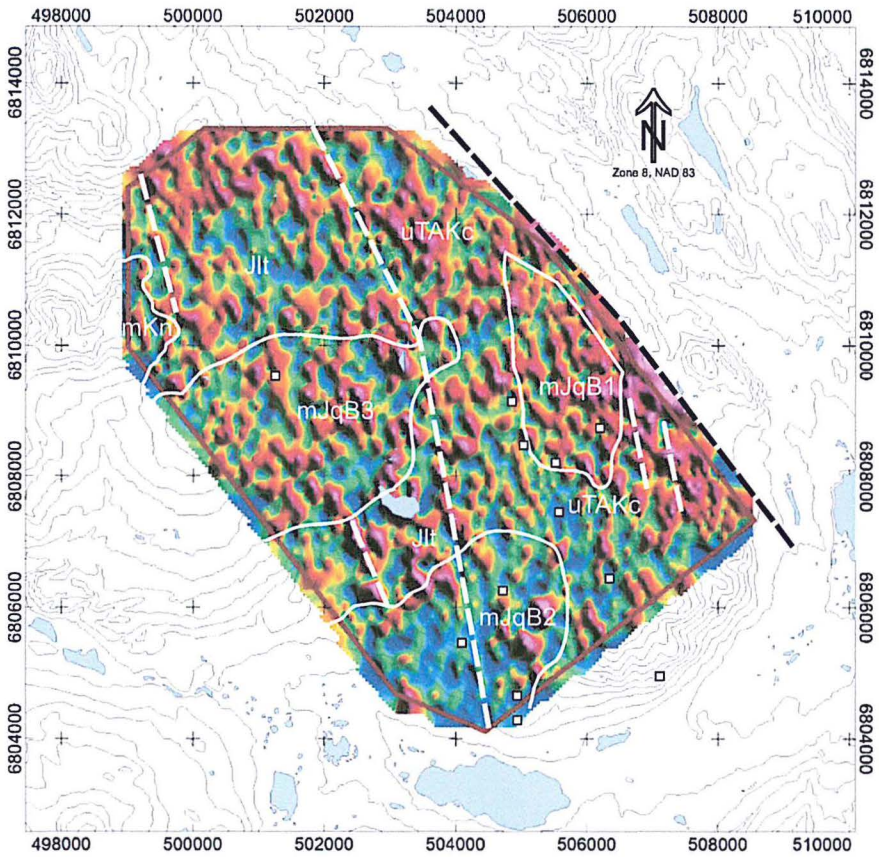
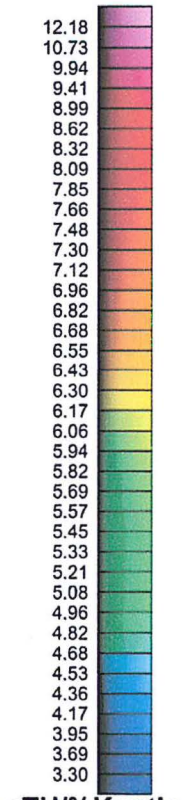
Magnetic Map

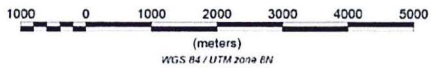
Fox Lake East Survey Block
Calculated Vertical Gradient
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

CV







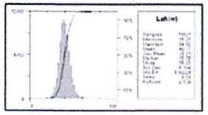
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GQHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometrics:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090° 270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

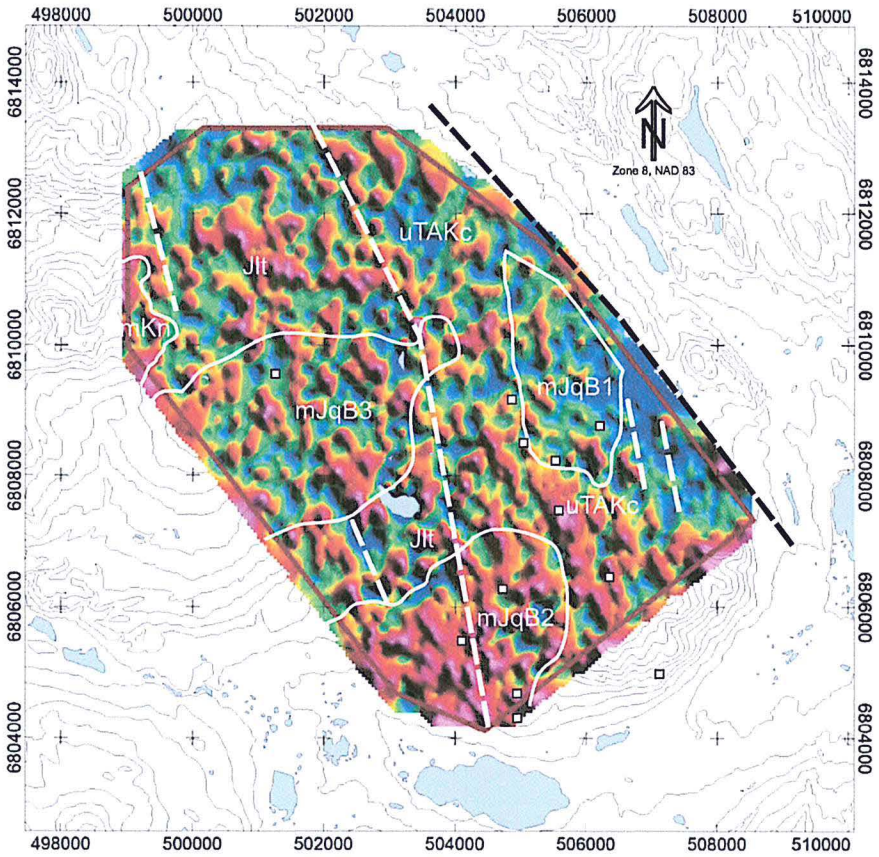
Bernie Kreft

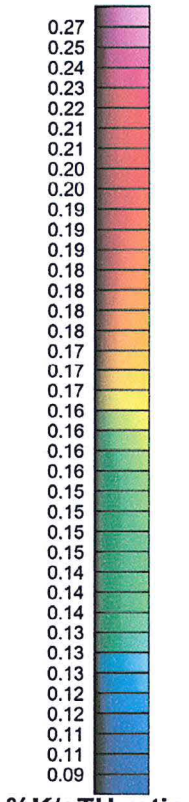
Radiometric Map

Fox Lake East Survey Block
Thorium over Potassium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

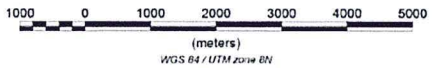
Precision GeoSurveys

eTh/%I





%K/eTH ratio



LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	050° 230°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000° 180°

AIRBORNE SYSTEMS:

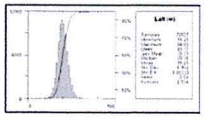
Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz



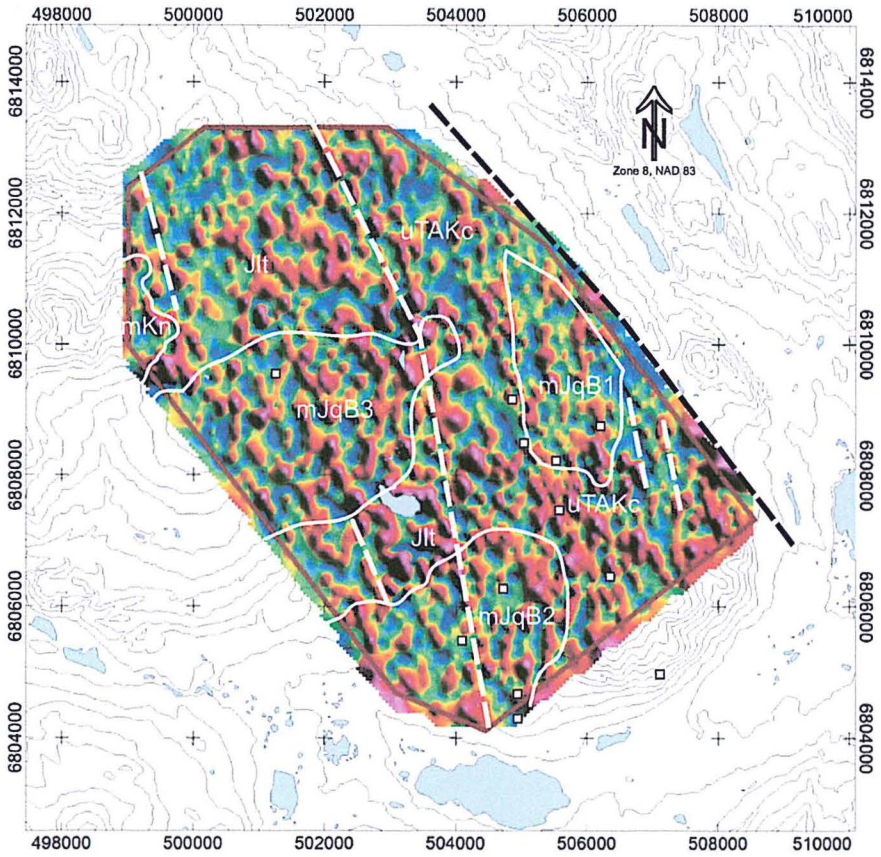
Bernie Kreft

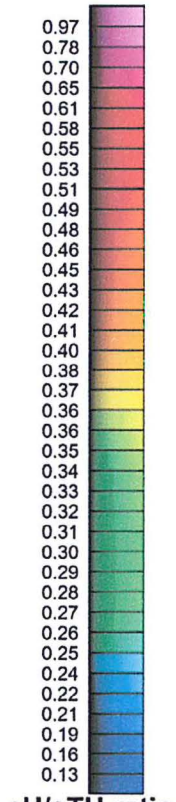
Radiometric Map

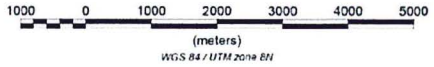
Fox Lake East Survey Block
Potassium over Thorium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

%K/eT







LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometrics:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

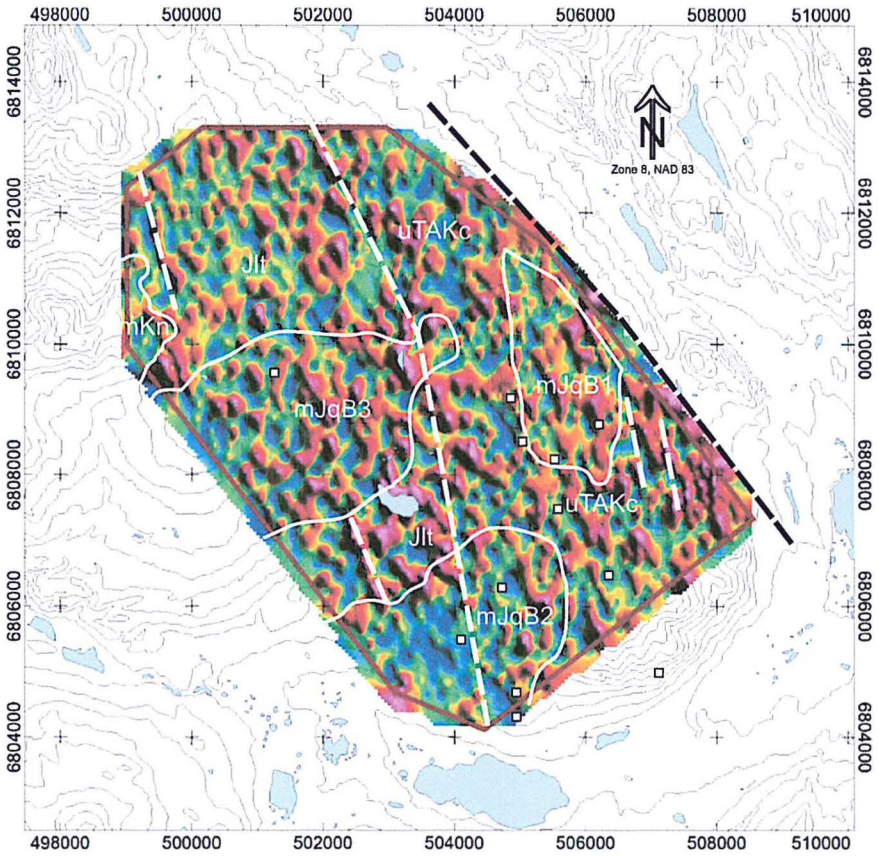
Bernie Kreft

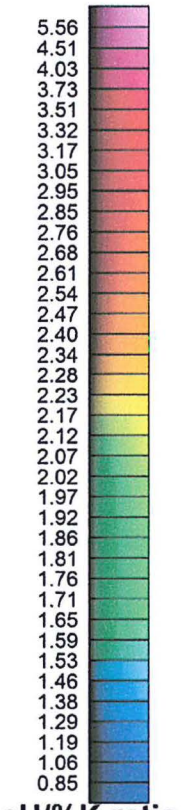
Radiometric Map

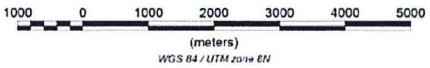
Fox Lake East Survey Block
Uranium over Thorium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eU/eTh







LEGEND

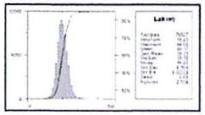
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

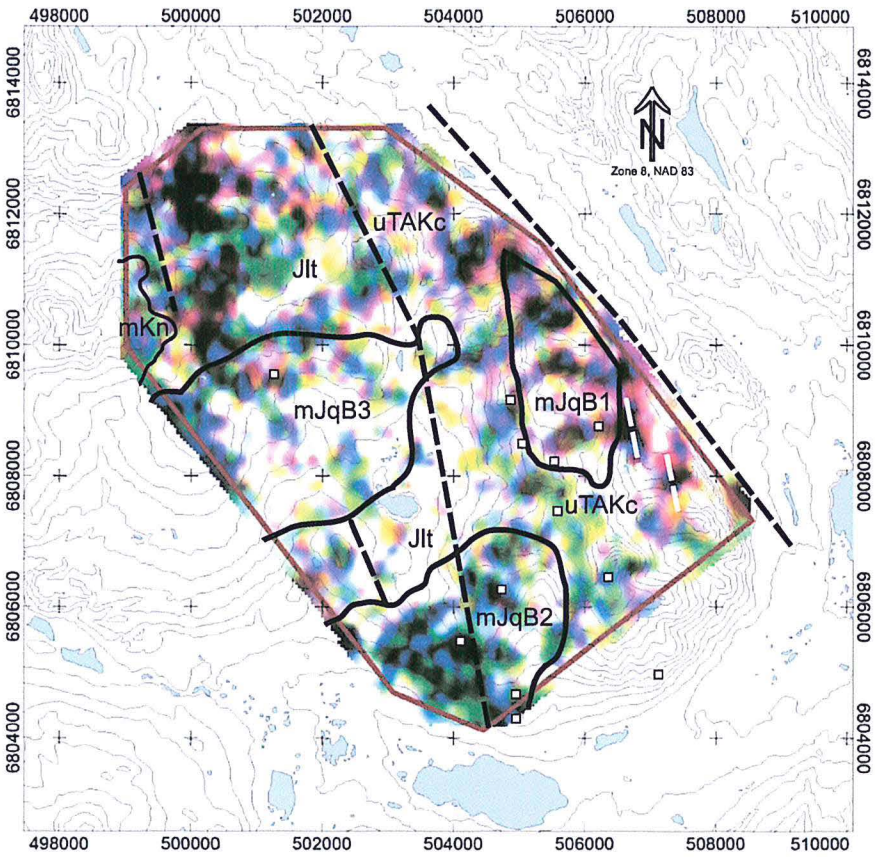
Bernie Kreft

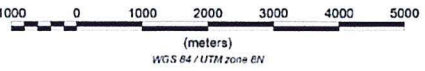
Radiometric Map

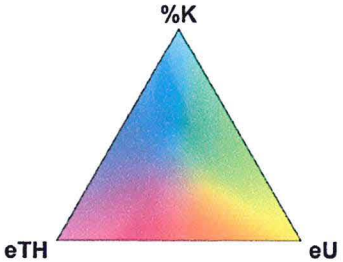
Fox Lake East Survey Block
Uranium over Potassium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eU/%K







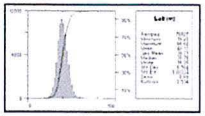
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GDHC
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

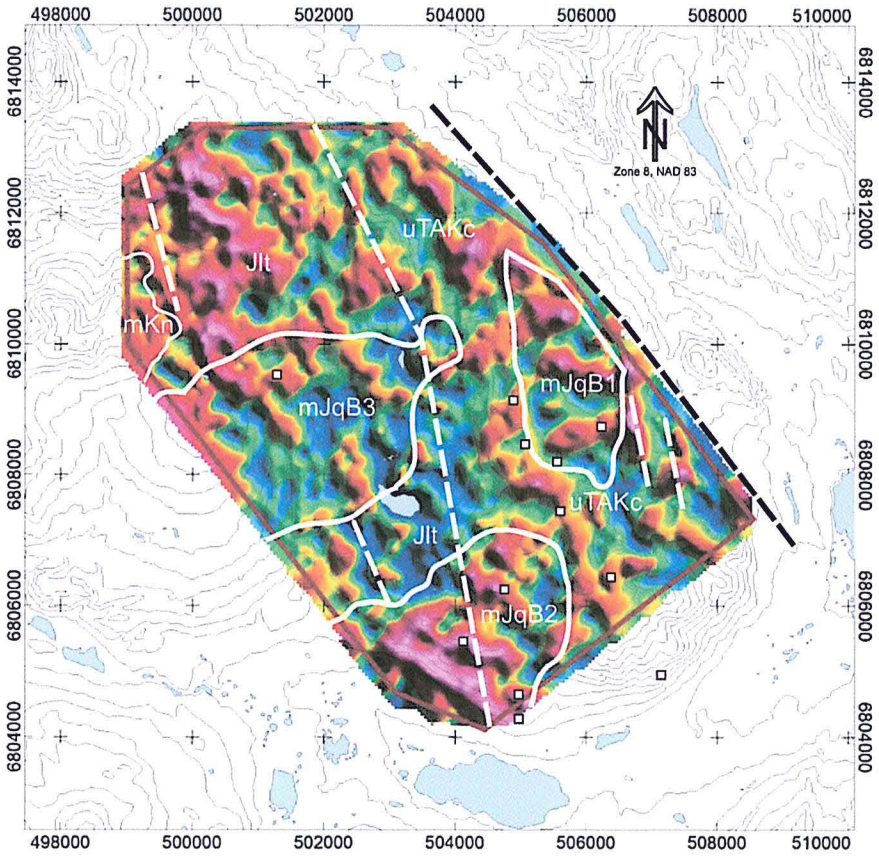
Bernie Kreft

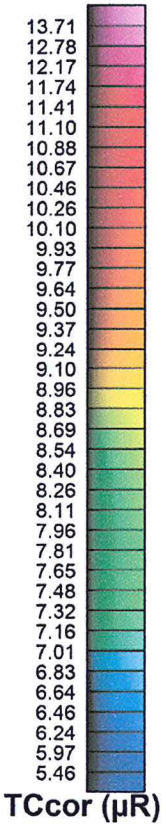
Radiometric Map

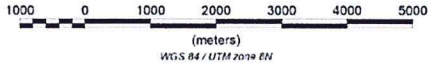
Fox Lake East Survey Block
Ternary Map
Created By: Precision GeoSurveys Inc.
August 9, 2014

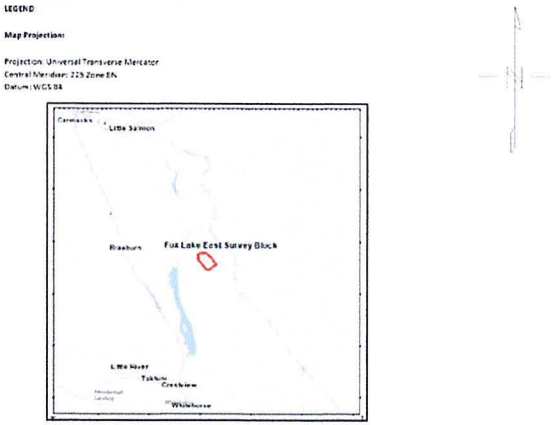
Precision GeoSurveys

TM









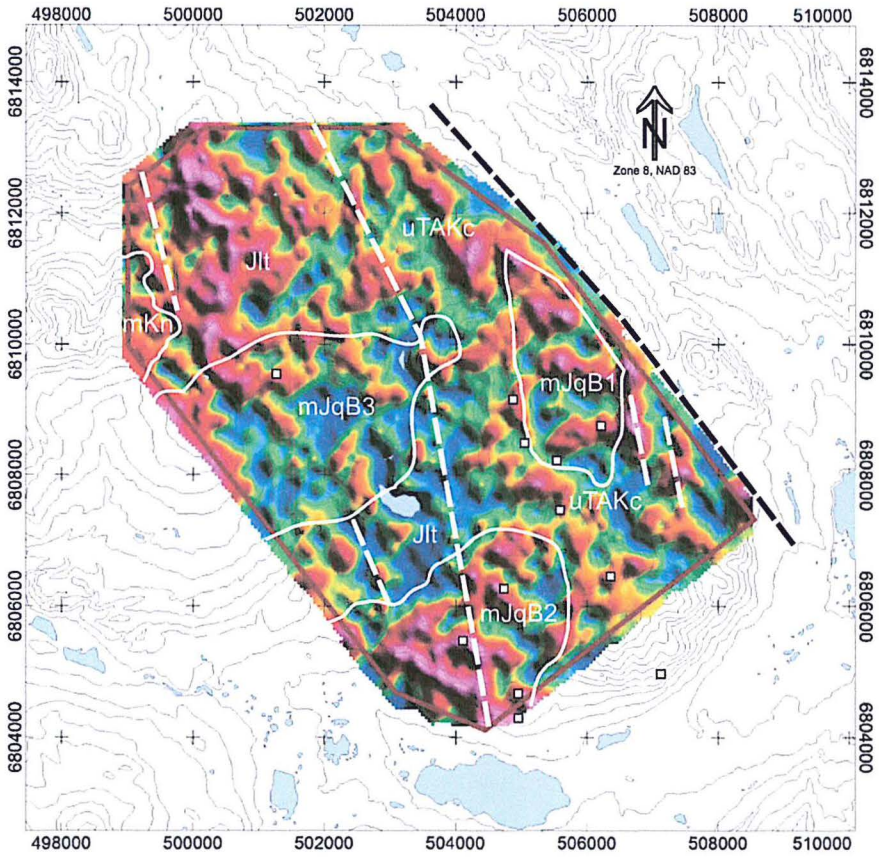
Bernie Kreft

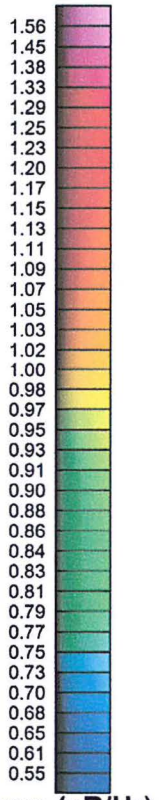
Radiometric Map

Fox Lake East Survey Block
Total Count - Equivalent Dose Rate
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TCco





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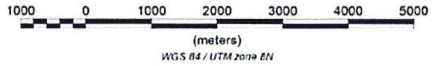


LEGEND

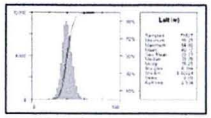
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GDHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.9 meters
Magnetometer:	40.9 meters
Radiometric:	40.9 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI (Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

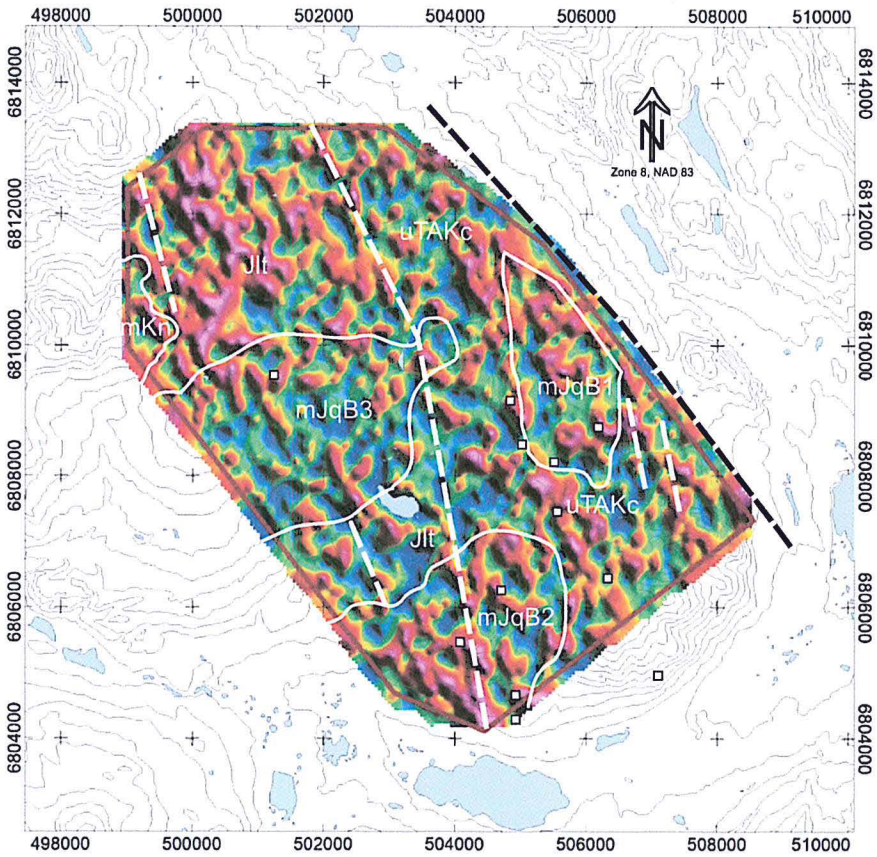
Bernie Kreft

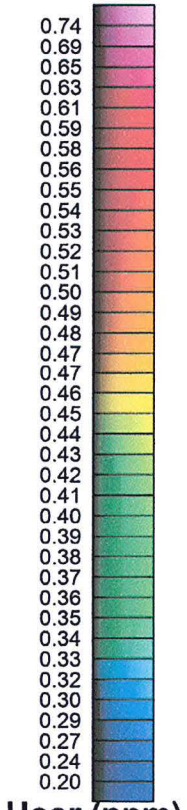
Radiometric Map

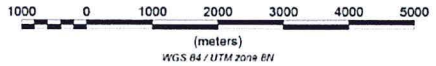
Fox Lake East Survey Block
Total Count - Exposure Rate
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TCex







LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometrics:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

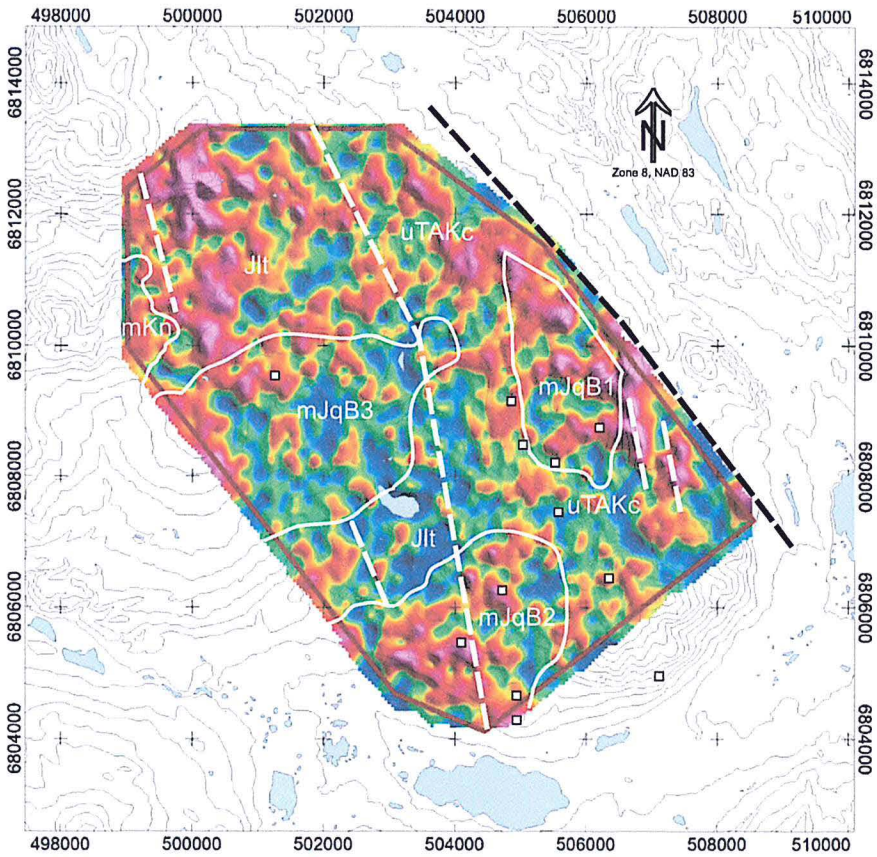
Bernie Kreft

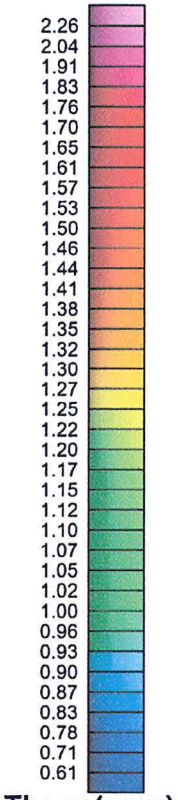
Radiometric Map

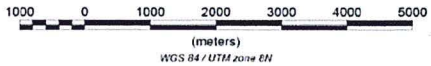
Fox Lake East Survey Block
Uranium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eL







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Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
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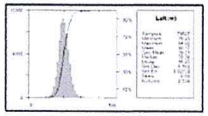
Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

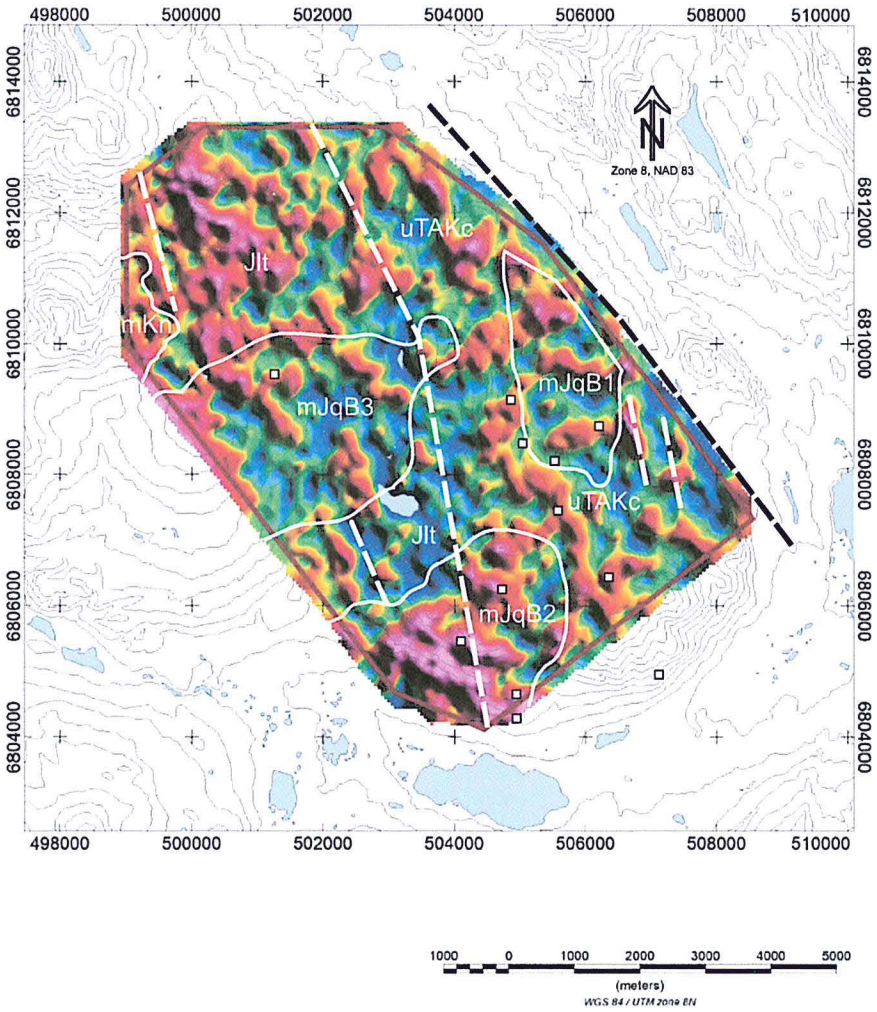
Bernie Kreft

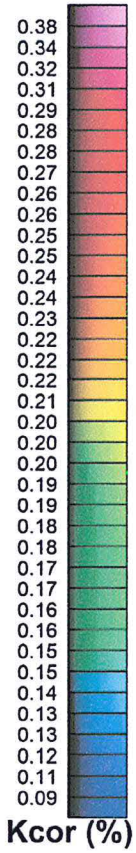
Radiometric Map

Fox Lake East Survey Block
Thorium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eT





LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

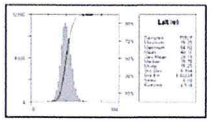
Survey Dates:	July 22, 2014
Survey Base:	Whitehorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GDHK
Survey Technology:	Magnetic and Radiometric survey

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°



AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Exploranium GR-410 Gamma Spectrometer
12.6 litres of NaI(Tl) synthetic "downward looking" crystals
and 4.2 litres of NaI(Tl) synthetic "upward looking" crystals

Sample Rate:	1 Hz

Bernie Kreft

Radiometric Map

Fox Lake East Survey Block
Potassium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

%I

Precision GeoSurveys Inc.

AIRBORNE GEOPHYSICAL SURVEY REPORT

Fox Lake East Survey Block
Prepared for Bernie Kreft

Jenny Poon, B.Sc., G.I.T.
Precision GeoSurveys Inc.
www.precisiongeosurveys.com
355 Burrard St, Vancouver BC
Canada V6C 2G8
604-484-9402

August 2014

Table of Contents

List of Figures

List of Tables

1.0 Introduction

This report outlines the geophysical survey operations and data processing procedures taken during the high resolution airborne magnetic and radiometric survey flown at the Fox Lake East survey block for Bernie Kreft. The survey area is located north of Whitehorse, YT (Figure 1). The geophysical survey was started and completed on July 22, 2014.

Figure 1: Fox Lake East survey block location map.

1.1 Survey Area

Fox Lake East survey block is located approximately 77 km north of Whitehorse, YT and is on the east side of Lake Laberge, south of the confluence of the Lewes and Teslin Rivers. It covers an irregular area of 9.8 km by 6.0 km (Figure 2). A total of 292 line kilometers of magnetic and radiometric data were collected; this total includes tie lines and survey lines.

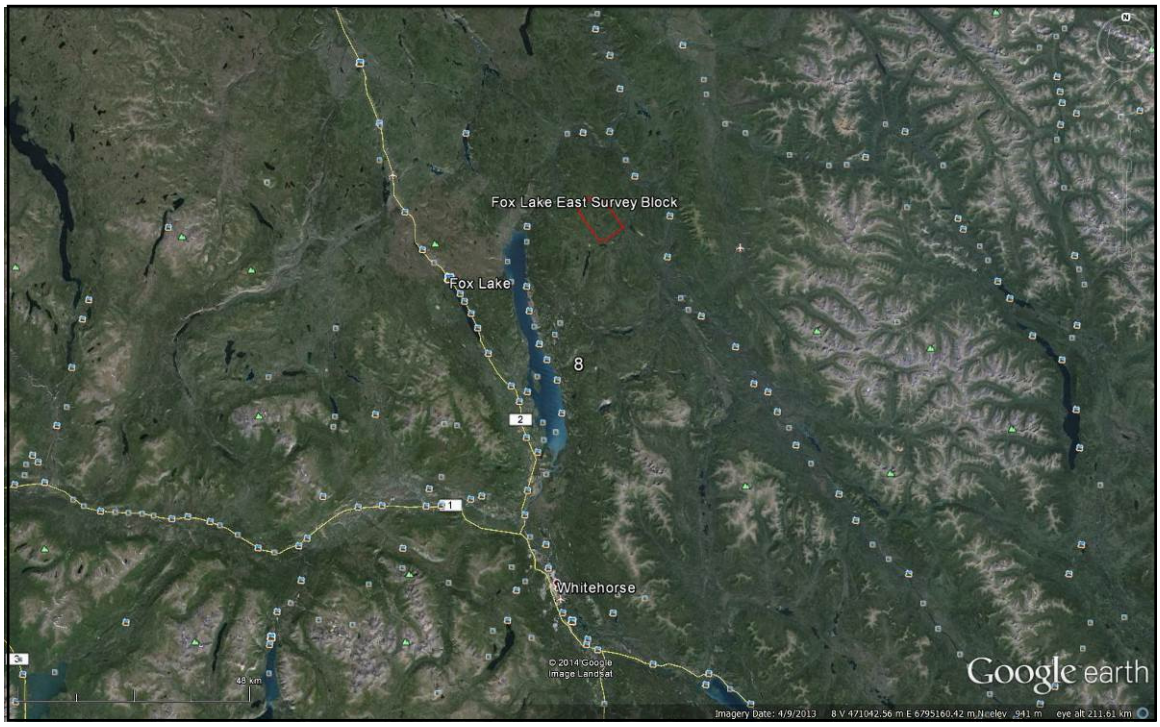


Figure 2: Fox Lake East survey block boundary in red.

The survey block was flown at 200 meter spacing at a 090°/270° heading; the tie lines were flown at 2000 meter spacing at a heading of 000°/180° (Figures 3 and 4).

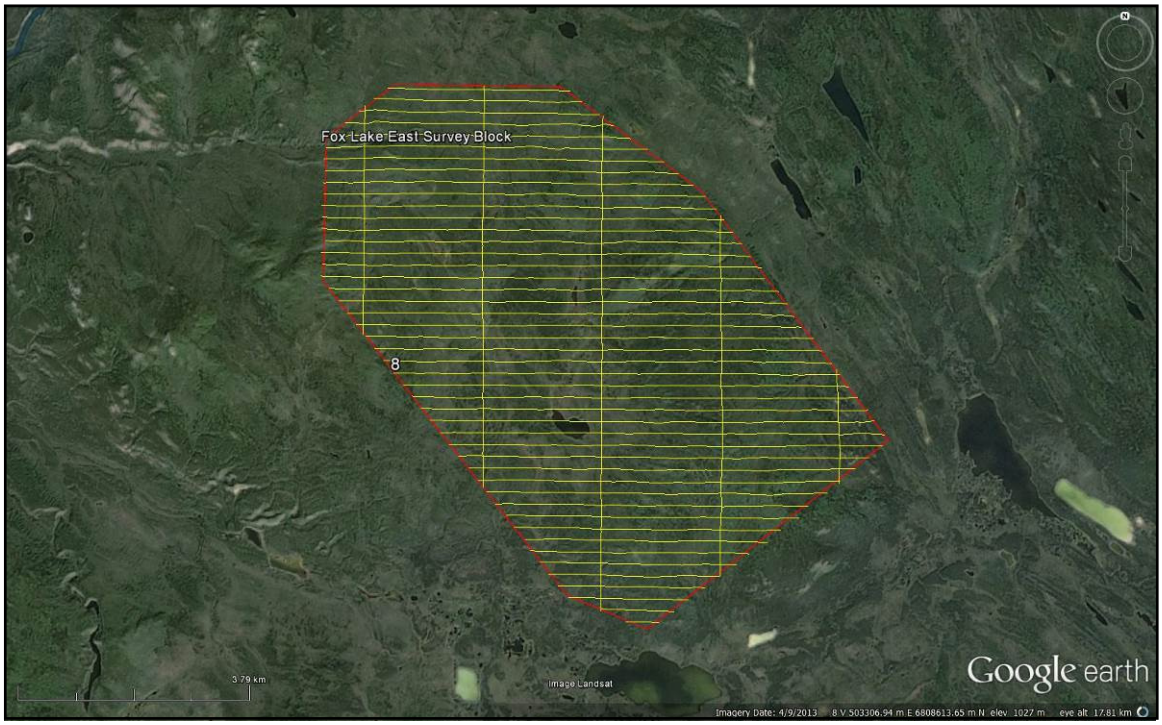


Figure 3: Plan View – Fox Lake East survey block with actual survey and tie lines outlined in yellow, and the block boundary in red.

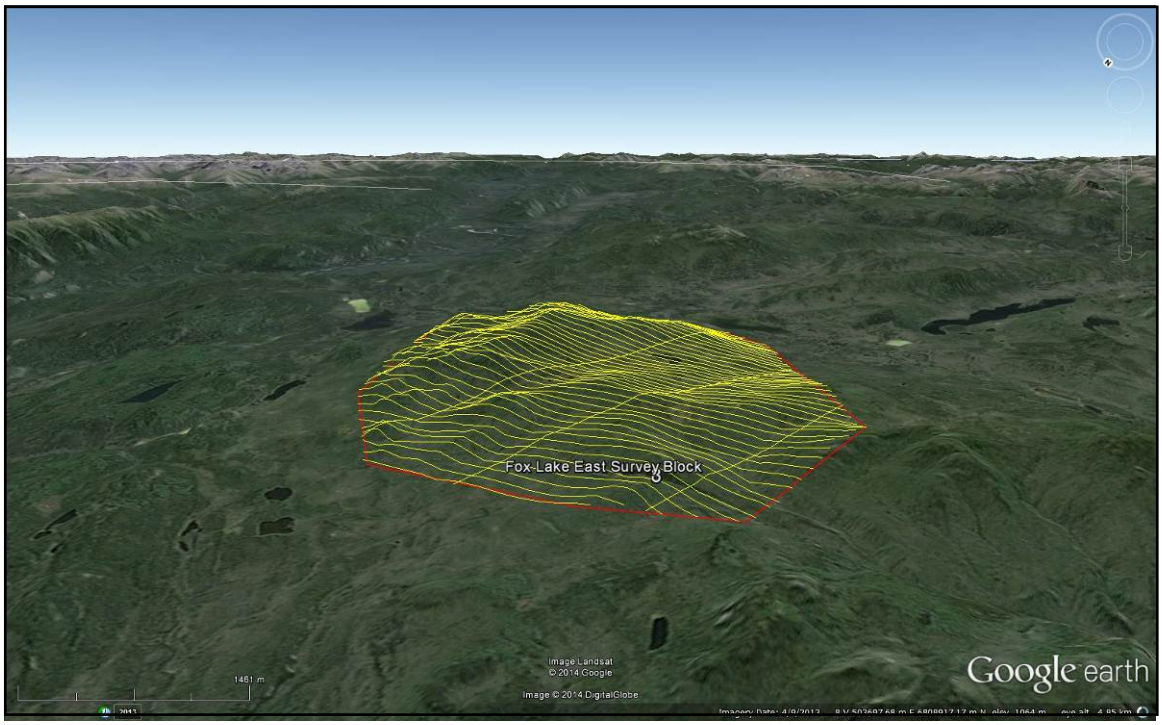


Figure 4: Terrain View – Fox Lake East survey block with actual survey and tie lines outlined in yellow, and the block boundary in red.

1.2 Survey Specifications

The geodetic system used for this survey is WGS 84 and the area is contained in zone 8N (Figure 5). A total of 292 line km was flown on 46 survey lines and 5 tie lines. The survey data acquisition specifications and coordinates for the survey are specified as follows (Tables 1 and 2).

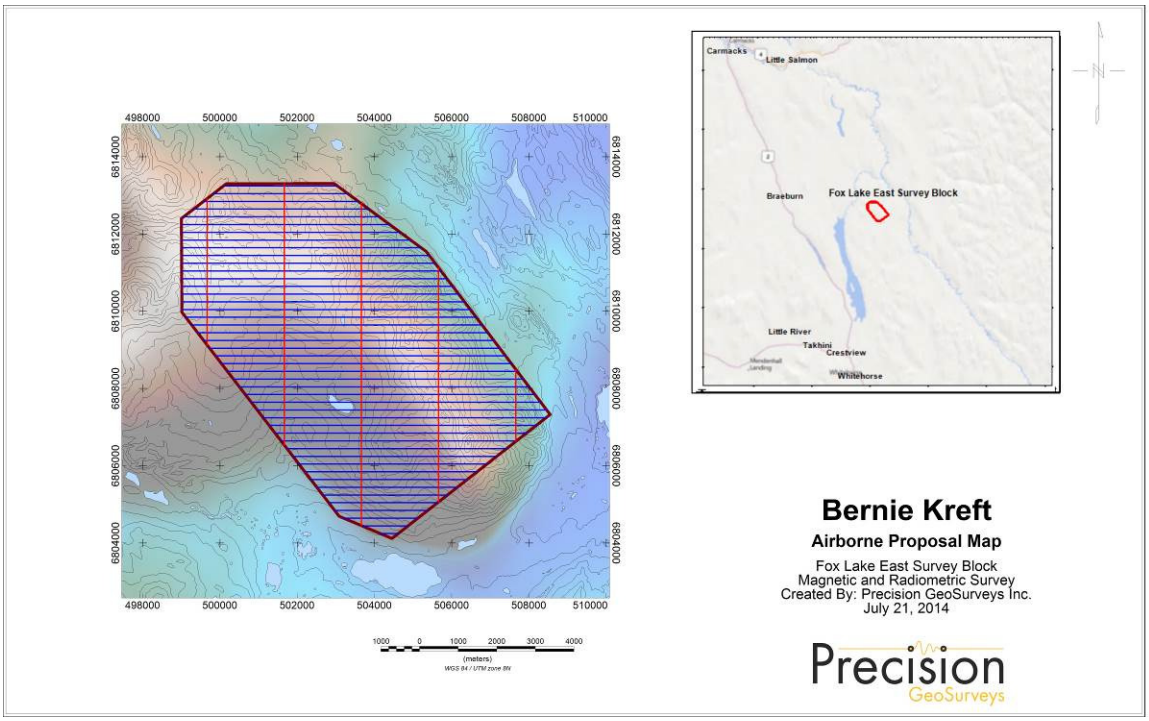


Figure 5: Survey map of Fox Lake East survey area showing outlines of proposed survey and tie lines.

Survey Block	Line Spacing (m)	Planned Survey Line (km)	Planned Tie Line (km)	Survey Line Orientation	Nominal Survey Height (m)	Actual Survey Height (m)	Total Planned Line (km)	Total Actual Flown (km)
Fox Lake East	200	264	28	090°/270°	40	40.0	292	292
Total							292	292

Table 1: Fox Lake East survey area acquisition specifications.

Longitude	Latitude	Easting	Northing	N/S	E/W
134.99701762	61.45347354	500159	6813299	N	W
134.94459136	61.45353413	502954	6813307	N	W
134.89988757	61.43769058	505340	6811545	N	W
134.83988321	61.39975776	508551	6807326	N	W
134.91669453	61.37100002	504453	6804115	N	W
134.94235197	61.37619328	503081	6804692	N	W
135.01858928	61.42361373	499008	6809973	N	W
135.01882728	61.44541065	498996	6812401	N	W

Table 2: Fox Lake East survey block polygon coordinates using WGS 84 in zone 8N.

2.0 Geophysical Data

Geophysical data are collected in a variety of ways and are used to aid in determination of geology, mineral deposits, oil and gas deposits, geotechnical investigations, contaminated land sites and UXO detection.

For the purposes of this survey, airborne magnetic and radiometric data were collected to serve in exploration for potential gold and copper deposits.

2.1 Magnetic Data

Magnetic surveying is probably the most common airborne survey type to be conducted for both mineral and hydrocarbon exploration. The type of survey specifications, instrumentation, and interpretation procedures depend on the objectives of the survey. Typically magnetic surveys are performed for:

1. Geological Mapping - to aid in mapping lithology, structure and alteration.
2. Depth to Basement mapping - for exploration in sedimentary basins or mineralization associated with the basement surface.

2.2 Radiometric Data

Radiometric surveys detect and map natural radioactive emanations, called gamma rays, from rocks and soils. All detectable gamma radiation from earth materials come from the natural decay products of three primary elements; uranium (U), thorium (Th), and potassium (K). The purpose of radiometric surveys is to determine either the absolute or relative amounts of U, Th, and K in surface rocks and soils which are then useful in mapping lithology, alteration, and structure.

3.0 Survey Operations

Precision GeoSurveys flew the survey out of Whitehorse, YT. The experience of the pilot helped to ensure that the data quality objectives were met and that the safety of the flight crew was never compromised given the potential risks involved in airborne geophysical surveying. Field processing and quality control checks were completed daily.

3.1 Operations Base and Crew

The base of operation for this survey was at Braeburn airport, YT, located west of the survey block and along the Klondike highway (Figure 6).

Figure 6: Map showing magnetic base station locations and base of operation.

The Precision geophysical crew consisted of three members:

Donald Plattel– Pilot
Erik Keyser – Geophysical Technician/Operator
Jenny Poon – Geophysicist and data processor

The survey was flown on July 22, 2014. The survey did not encounter any delays.

3.2 Base Station Specifications

Two base station magnetometers were set up before the survey to ensure that diurnal magnetic activity was recorded during the survey flights. In this case, two GEM GSM 19T base stations (Figure 7), GEM 2 (Serial # 2105650) and GEM 4 (Serial # 2065370), were set up at the Braeburn airstrip (Table 3 and Figure 7).

Station name	Easting/ Northing	Longitude/ Latitude	Datum/ Projection
GEM 2 (Serial # 2105650)	0458726E, 6816651N	135° 46' 29.60 " W 61° 28' 52.90" N	WGS 84, Zone 8N
GEM 4 (Serial # 2065370)	0458728E, 6816651N	135° 46' 29.46" W 61° 28' 52.90" N	WGS 84, Zone 8N

Table 3: Base station specifications.

These magnetic base stations were installed at a magnetically noise-free area, away from metallic items such as ferrous objects, vehicles, or power lines that could affect the survey data. Base station readings were reviewed at regular intervals to ensure that no data were collected during periods with high diurnal activity (greater than 5 nT per minute).

Figure 7: GEM 2 (left) and GEM 4 (right) magnetic base station locations.

The diurnal magnetic variations recorded from the stationary base stations were removed from the magnetic data recorded in flight to ensure that the anomalies seen were real and not due to solar activity.

3.3 Field Processing and Quality Control

On a flight-by-flight basis, the survey data were transferred from the helicopter's data acquisition system onto a USB flash drive and copied onto a field data processing laptop. The raw data files were in PEI binary data format and were converted into Geosoft GDB database format. Using Geosoft Oasis Montaj 8.2, the quality of the data was inspected to see if it met the contract specifications (Table 4). Navigational accuracy (left/right or up/down) for all survey and tie lines were within contract specifications (Figure 8), and no re-flights were required due to navigational error. All suspect anomalies, especially those found on a single flight line, were re-flown. Re-flight lines were a minimum of 1500 m long, so that survey line re-flights crossed at least two tie lines, and tie line re-flights crossed at least 15 survey lines. All data were confirmed and verified by a geophysicist before the survey helicopter and crew demobilized on July 22, 2014.

Specification	Parameter	Details
Line Spacing	Position	Flight line deviation from flight path by more than 15 m left/ right for 1 km or more.
Height		Flight line deviation from height by more than 10 up/down with a nominal flight height of 40 m above ground for 1 km or more.
GPS		Any flight lines where 3 or less GPS satellites received for distances of greater than 1 km, provided signal loss is not due to topography.
Diurnal Variations	Magnetics	Non-linear magnetic diurnal variations exceed 10nT from a linear chord of length one (1) minute.
Normalized 4th Difference		Magnetic data exceeding 0.025 nT peak to peak for distances greater than 1 km or more (provided noise is not due to geological or cultural features).
Test Line Data	Radiometrics	If signal from the four spectrometer windows (K, Th, U, and TC) over the test line vary by more than 12%, the flights shall be re-flown or suspended.

Table 4: Contract re-flight specifications.

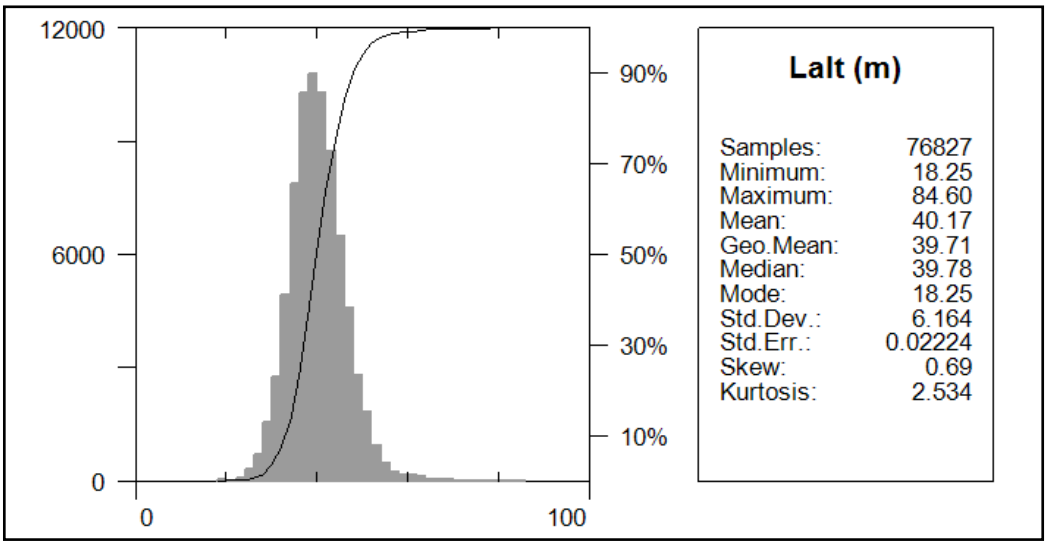


Figure 8: Histogram showing survey elevation vertically above ground.

4.0 Aircraft and Equipment

All geophysical and subsidiary equipment are carefully installed on Precision GeoSurveys aircraft. For this survey, a magnetometer, a spectrometer, a data acquisition system, laser altimeter, magnetic compensation system, a pilot guidance unit (PGU), and magnetic base stations were required to carry out the survey and collect quality, high resolution data. The survey magnetometer was carried in an approved "stinger" configuration to enhance flight safety and improve data quality in this mountainous terrain.

4.1 Aircraft

Precision GeoSurveys flew the Fox Lake East survey block using a Eurocopter AS350 helicopter (Figure 9), registration C-GOHK. The survey lines were flown at a nominal line spacing of two hundred (200) meters and the tie lines were flown at two thousand (2000) meters spacing for both the magnetometer and spectrometer.

Figure 9: Eurocopter AS350 equipped with mag stinger for magnetic data acquisition, and internal spectrometer crystals for radiometric data acquisition.

4.2 Equipment

4.2.1 AGIS

The Airborne Geophysical Information System, AGIS, (Figure 10), is the main computer used in data recording, data synchronizing, displaying real-time QC data for the geophysical operator, and the generation of navigation information for the pilot and operator display system. Information such as magnetic field, total count, counts of various radioelements (K, U, Th, etc.), temperature, cosmic radiation, barometric pressure, atmospheric humidity and survey altitude can all be monitored on the AGIS monitor for immediate QC.

Figure 10: AGIS operator display installed in the Eurocopter AS350.

The AGIS was manufactured by Pico Envirotec; therefore the system uses standardized Pico software and external sensors are connected to the system via RS-232 serial communication cables. The AGIS data format is easily converted into Geosoft or ASCII file formats by a supplied conversion program called PEIView. Additional Pico software allows for post or real time magnetic compensation and survey quality control procedures.

4.2.2 Magnetometer

The airborne magnetic sensor used by Precision GeoSurveys is a Scintrex cesium vapor CS-3 magnetometer. The system was housed in a front mounted "stinger" (Figure 11). The CS-3 is a high sensitivity/low noise magnetometer with automatic hemisphere switching and a wide voltage range, the static noise rating for the unit is +/- 0.01 nT. On the AGIS monitor the operator can view the raw magnetic response, the magnetic fourth difference, compensated and uncompensated data, aircraft position, and the survey altitude for immediate QC of the magnetic data. The magnetic data are recorded at 10 Hz. A magnetic compensator is also used to remove noise created by the movement of the helicopter as it pitches, rolls and yaws within the Earth's geomagnetic field.

Figure 11: View of the mag stinger.

4.2.3 Spectrometer

The IRIS, or Integrated Radiometric Information System, is a fully integrated, gamma radiation detection system containing 12.6 litres of NaI (T1) synthetic downward looking crystals and 4.2 litres of NaI (T1) synthetic upward looking crystals (Figure 12) with 256 channel output at 1 Hz sampling rate. The downward-looking crystals are designed to measure gamma rays from below the aircraft and are equipped with upward-shielding high density RayShield® gamma-attenuating blankets to minimize cosmic and solar gamma noise. The upward looking crystal measures solar gamma radiation from above the survey helicopter and a 6 mm thick lead plate is used for downward-shielding. Real time data acquisition, navigation and communication tasks are integrated into a single unit that is installed in the rear cabin of the aircraft as indicated below.

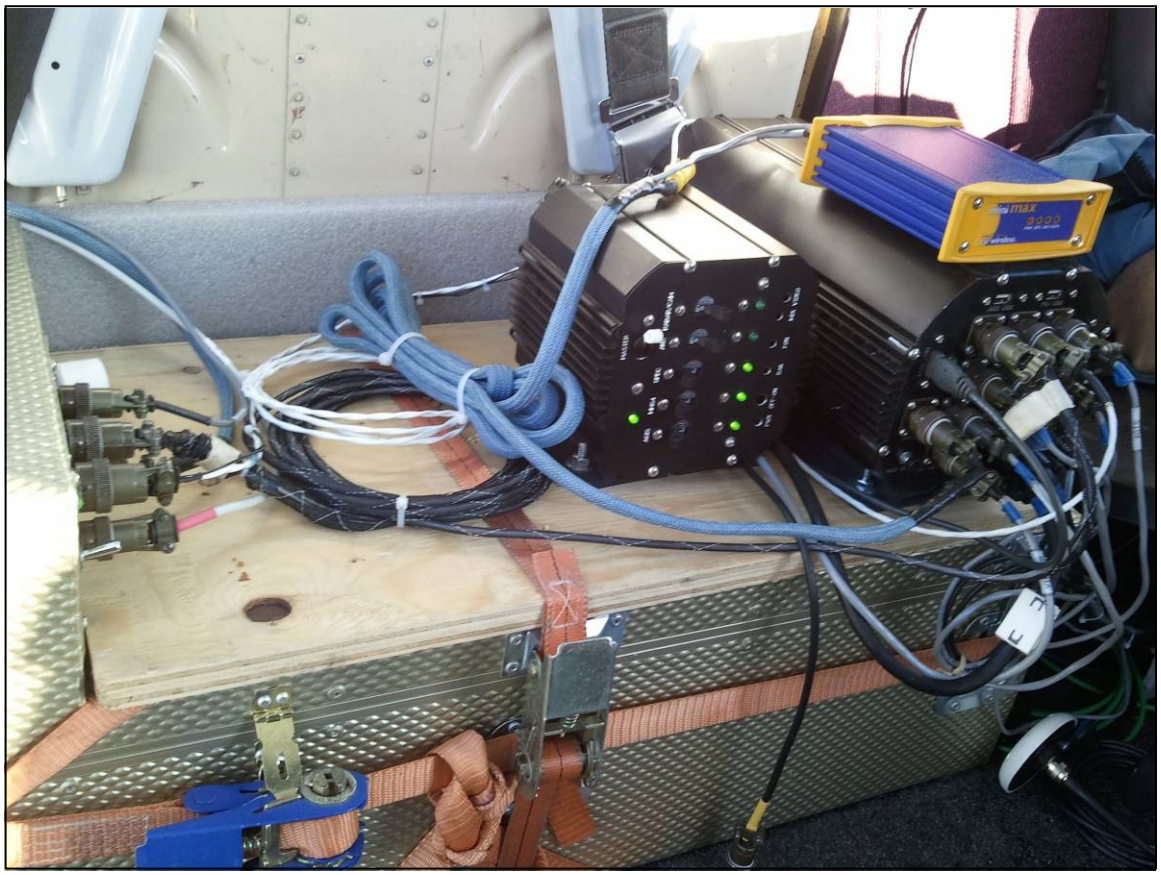


Figure 12: IRIS strapped in the back seat of the Eurocopter AS350.

4.2.4 Base Station

For monitoring and recording of the Earth's diurnal magnetic field variation, Precision GeoSurveys operates two magnetometer base stations continuously throughout the airborne data acquisition operation. Precision GeoSurveys operates a GEM GSM-19T magnetometer base station. The base stations were positioned on the east side of the Braeburn airport, hidden within the trees and in a region with low magnetic gradient, to give accurate magnetic field readings. The base stations were located in an area away from electric transmission power lines and moving ferrous objects, such as aircraft and motor vehicles that could affect the survey data integrity.

The GEM GSM-19T magnetometer with integrated GPS (Figure 13) or time synchronization uses the proton precession technology sampling at a rate of 0.5 Hz. The GSM-19T has an accuracy of +/- 0.2 nT at 1 Hz. Base station data are recorded on the solid-state memory of the base station, and downloaded onto a field laptop computer using a serial cable and GEMLink 5.0 software. Profile plots of the base station readings are generated and updated at the end of each survey day.

Figure 13: GEM GSM-19T proton precession magnetometer.

4.2.5 Laser Altimeter

The pilot is provided with terrain guidance and clearance information from an Opti-Logic RS800 laser altimeter (Figure 14). This is attached at the aft end of the magnetometer boom. The RS800 sensor is a time-of-flight sensor that measures distance by a rapidly-modulated and collimated laser beam that creates a dot on the target surface. The maximum range of the laser altimeter is 700 m off of natural surfaces with an accuracy of +/- 1 meter on 1 x 1 m^2 diffuse target with 50% (+/- 20%) reflectivity. Within the sensor unit, reflected signal light is collected by the lens and focused onto a photodiode. Through serial communications and digital outputs, the ground clearance data are transmitted to an RS-232 compatible port and recorded and displayed by the AGIS and PGU at 10 Hz.

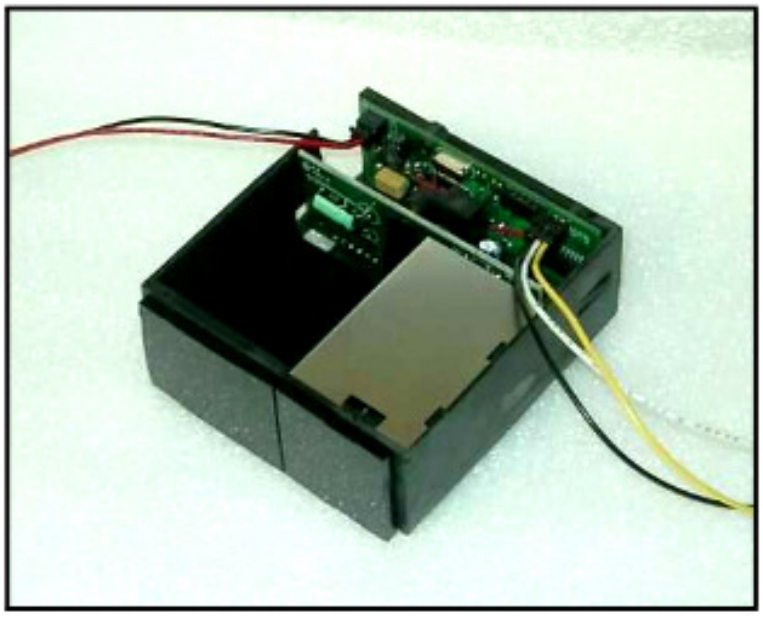


Figure 14: Opti-Logic RS800 laser altimeter.

4.2.6 Pilot Guidance Unit

The PGU (Pilot Guidance Unit) is a graphical display type unit that provides continuous steering and elevation information to the pilot (Figure 15). It is mounted remotely from the data system on top of the helicopter's instrument panel. The PGU assists the pilot in keeping the helicopter on the flight path and at the desired ground clearance.

Figure 15: Pilot Guidance Unit.

The LCD monitor measures 7 inches, with a full VGA 800 x 600 pixel display. The CPU for the PGU is housed in the PC-104 console and uses Windows XP Embedded operating system control, with input from the GPS antenna, laser altimeter, and AGIS.

4.2.7 GPS Navigation System

A Hemisphere GPS Mini Max navigation system integrated with the pilot display (PGU) and AGIS provided navigational information and control. The Hemisphere GPS Mini Max is composed of a receiver with an MGL-3 antenna (Figure 16). It has a position accuracy to within 1 meter and supports SBAS (WAAS, EGNS, and others), Beacon, and Satloc's patented e-Dif.

Figure 16: Hemisphere GPS – Mini Max

A differential correction signal (DGPS –Differential GPS) is applied to the GPS signal received through the MGL-3 antenna and can be applied up to 5 times per second (5 Hz). Therefore, the high- performance Mini Max differential correction provides positional accuracy on the order of 1 meter or less.

5.0 Data Acquisition Equipment Checks and Calibration

Airborne equipment tests were conducted at the start of the survey. There are three tests conducted for the airborne magnetometer: compensation flight, lag test, and the heading error test (clover leaf test). Gamma ray spectrometer checks and calibrations are also conducted prior to the start of the survey. The three tests conducted were the calibration pad test, cosmic flight test, and the Breckenridge test range.

5.1 Magnetometer Checks

5.1.1 Compensation Flight Test

During aeromagnetic surveying a small but significant amount of noise is introduced to the magnetic data by the aircraft itself, as the magnetometer is within the helicopter's magnetic field. Movement of the aircraft (roll, pitch and yaw) and the permanent magnetization of certain aircraft parts (engine and other ferric objects) contribute to this noise. To remove noise generated by the aircraft a process called magnetic compensation is implemented. The magnetic compensation process starts with a test flight at the beginning of the survey where the aircraft flies in the four orthogonal headings required for the survey (000°/180° and 090°/270° in the case of this survey) at a sufficient altitude (typically > 1,500 m AGL) where the Earth's magnetic field becomes nearly uniform at the scale of the compensation flight. In each heading direction, three specified roll, pitch, and yaw maneuvers are performed by the pilot at constant elevation so that any magnetic variation recorded by the airborne magnetometer can be attributed to the aircraft movement. The variations recorded by these maneuvers provide the data that are required to calculate the necessary parameters for compensating the magnetic data and removing the aircraft noise.

Pre-Compensation					Post-Compensation				
Heading	**Roll**	**Pitch**	**Yaw**	**Total**	**Heading**	**Roll**	**Pitch**	**Yaw**	**Total**
004	6.2859	1.8448	2.5278	10.3841	044	0.1003	0.0937	0.1197	0.3137
093	7.4478	2.3765	1.7395	14.565	135	0.0727	0.0874	0.0795	0.2396
181	6.1283	3.0901	2.1629	11.8703	228	0.1388	0.1057	0.0651	0.3096
269	3.6515	1.5134	0.8348	8.2239	316	0.0762	0.0705	0.0703	0.2170
Total	23.5135	8.8248	7.265		**Total**	0.3880	0.3573	0.3346	
FOM = 41.1097 nT					**FOM = 2.1775 nT**				

Table 5: Figure of Merit maneuver test results for the survey and tie lines within the survey block.

5.1.2 Lag Test

A lag test was performed to determine the relationship between the time the digital reading was recorded by the instrument magnetic sensor and the time for the position fix that the fiducial of the reading was obtained by the GPS system.

The test was flown in the four orthogonal headings over an identifiable magnetic anomaly (ie. Truck, Trailer, etc.) at survey speed and height. A lag of 10 fiducials (1.0 seconds) was determined from the lag test.

5.1.3 Heading Error Test

To determine the magnetic heading effect two cloverleaf pattern flight tests were conducted. The cloverleaf test was flown in the same orthogonal headings as the survey and tie lines (000°/180° and 090°/270°) at >1000 m AGL in an area with low magnetic gradient. For all four directions the survey helicopter must pass over the same mid-point all four times at the same elevation.

Line Number	Fiducials	Heading	Mag (nT)	Average (nT)
L000	1006.9	N - 000°	56856.4394	
L090	765.5	E - 090°	56883.3080	
L180	883.0	S - 180°	56868.5514	
L270	679.1	W - 270°	56850.2864	
				56864.6463

Table 6: Heading error test data format flown on July 22, 2014.

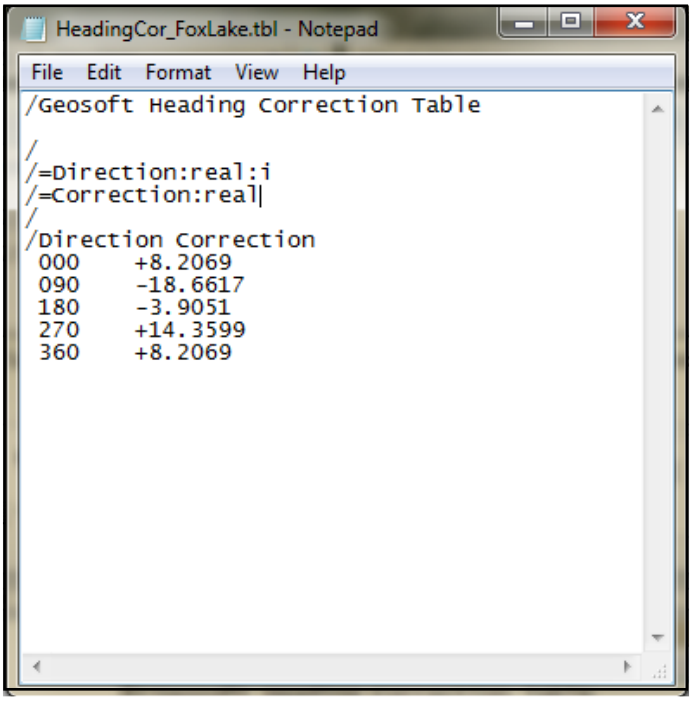


Figure 17: Heading data results in .tbl format in Geosoft table.

5.2 Gamma-ray Spectrometer Checks and Calibrations

Pre-survey calibrations and testing of the GRS-10 airborne gamma-ray spectrometry system were carried out prior to the start of the survey. The calibration of the spectrometer system involved three tests which enabled the conversion of airborne data to ground concentration of natural radioactive elements. These tests were the calibration pad test, cosmic flight test, and the Breckenridge test range. The measurements were made in accordance with IAEA technical report series No. 323, "Airborne Gamma Ray Spectrometer Surveying", and AGSO Record 1995/60, "A Guide to the Technical Specification for Airborne Gamma-Ray Surveys".

5.2.1 Calibration Pad Test

The calibration pad test was conducted by Pico Envirotec at the GSC (Geological Survey of Canada) testing facility in Ottawa, Ontario over the approved GSC calibration pad. The pad is a slab of concrete containing known concentrations of the radioelements (K, Th, and U) and is ideally used to simulate a geological source of radiation. The measurements collected from the calibration pad test are used to determine the Compton scattering and Grasty Backscatter (spectral overlap between element windows) coefficients.

5.2.2 Cosmic Flight Test

While the background source of gamma radiation from the aircraft itself is essentially constant, the amount of signal detected from ground sources varies with ground clearance. As the height of the aircraft increases, the distance between the ground and the spectrometer crystals increase, and the proportion of cosmic radiation in each spectral window increases exponentially due to radiation of cosmic origin. The cosmic flight test is conducted to determine the aircraft's background attenuation coefficients for the detector crystal packs and the cosmic coefficients. The pilot is required to fly over the same location repeatedly in opposite directions starting from 1,500 m to 3,000 m at 500 m intervals for approximately 2 minutes each to collect gamma data used to determine the amount of non-terrestrial gamma signal.

5.2.3 Breckenridge Test Range

The Breckenridge test range is very similar to the cosmic flight test but is conducted at lower elevations (from ground level). The pilot is required to fly over the same location at the following elevations in meters above ground; 30, 50, 100, 150, 200, 250, and 300. As the distance of the aircraft increases away from the radioactive ground source, the source signature exponentially degrades. As a result, this test is used to determine the altitude attenuation coefficients and the radio-element sensitivity of the airborne spectrometer system.

6.0 Data Processing

After all the data were collected from a survey flight several procedures were undertaken to ensure that the data met a high standard of quality. All data were processed using Pico Envirotec software and Geosoft Oasis Montaj 8.2 geophysical processing software along with proprietary processing algorithms.

6.1 Magnetic Processing

The data obtained from the compensation flight test was applied to the raw magnetic data before any further processing and editing. The computer program called PEIComp was used to create a model from the compensation flight test for each survey to remove the noise induced by aircraft movement; this model was applied to each survey flight so the data can be further processed.

Over water or fog, the laser altimeter is unable to record a valid reading and a zero is recorded; therefore all data points recorded at zero were replaced with a nominal height of 40 m. Filtering was then applied to the laser altimeter data to remove vegetation clutter and to show the actual ground clearance. To remove vegetation clutter a Rolling Statistic filter was applied to the laser altimeter data and a low pass filter was used to smooth out the laser altimeter profile to eliminate isolated noise. As a result, filtering the data will yield a more uniform surface in close conformance with the actual terrain. A digital

terrain model channel was calculated by subtracting the filtered laser altimeter data from the filtered GPS altimeter data defined by the WGS 84 ellipsoidal height.

The processing of the magnetic data first involved the correction for diurnal variations. Out of the two base stations that were set up, GEM 4 was chosen and used for diurnal corrections. The base station data were edited, plotted and merged into a Geosoft (.gdb) database on a daily basis. The airborne magnetic data were corrected for diurnal variations by subtracting the observed magnetic base station deviations. Following the diurnal correction, a lag correction was applied. A lag correction of 1.0 seconds was applied to the total magnetic field data to compensate for the combination of lag in the recording system and the magnetometer sensor flying 5.70 m ahead of the GPS antenna. Lastly, a heading correction was applied to the data. As a result, after all corrections have been applied the initial Total Magnetic Intensity (TMI) data was generated.

The initial Total Magnetic Intensity (TMI) data from the survey and tie lines were used to level the entire survey dataset. Two forms of leveling were applied to the corrected data: conventional leveling and micro-leveling. There were two components to conventional leveling; the first involved statistical leveling of magnetic data to correct miss ties (intersection errors) followed by specific patterns or trends. For the second component, tie lines were brought to a common regional base value using the mean value of the cross-level error. To obtain the best possible leveled data, individual corrections were edited at selected intersections. Lastly, micro-leveling was applied to the corrected conventional leveled data. This will remove any residual noise related to flight line direction, and any low amplitude component of flight line noise, that still remained in the data after tie line leveling.

6.1.1 IGRF Removal and Calculation of the First Vertical Derivative

The International Geomagnetic Reference Field (IGRF) model is the empirical representation of the Earth's magnetic field (main core field without external sources) collected and disseminated from satellites and from observatories around the world. The IGRF is generally revised and updated every five years by a group of modelers associated with the International Association of Geomagnetism and Aeronomy (IAGA). In this case, the IGRF values were calculated from model year 2010 and the actual survey dates were obtained from the "Date" channel.

With the removal of the IGRF from the observed Total Magnetic Intensity (TMI) a Residual Magnetic Intensity (RMI) was generated. This created a more valid model of individual near surface anomalies and the data will not be referenced to a time which can be easily incorporated into databases of magnetic data acquired in the past or in the future.

The first vertical derivative was computed from the Total Magnetic Intensity (TMI) data. Long wavelengths and vertical rate of change were suppressed in the magnetic field. Therefore, the edges of magnetic anomalies were highlighted and spatial resolution was increased.

6.2 Radiometric Processing

Radiometric surveys map the concentration of radioelements at or near the earth's surface; typically up to 1.5 meters below surface. Thus, the first step which is vital for processing of the airborne radiometric data is to calibrate the spectrometer system. Once calibration of the system has been completed, the radiometric data were processed by windowing the full spectrum to create channels for U, K, Th and total count. A 5-point Hanning filter was applied to the Cosmic window before going any further with processing the radiometric data.

Aircraft background and cosmic stripping corrections were applied to all three elements, and total count using the following formula:

$$C_{ac} = C_{lt} - (a_c + b_c * \mathrm{Cos}_f)$$

where: C_{ac} is the background and cosmic corrected channel
C_{lt} is the live time corrected channel
a_c is the aircraft background for this channel
b_c is the cosmic stripping coefficient for this channel
Cos_f is the filtered cosmic channel

The radon backgrounds were first removed followed by Compton stripping. Spectral overlap corrections were applied to potassium, uranium, and thorium as part of the Compton stripping process. This was completed by using the stripping ratios that have been calculated for the spectrometer by prior calibration; this breaks the corrected elemental values down into the apparent radioelement concentrations. Lastly, attenuation corrections were applied to the data which involves nominal survey altitude corrections, in this case 39.8 metres was applied to total count, potassium, uranium, and thorium data.

With all corrections applied to the radiometric data, the final step was to convert the corrected potassium, uranium, and thorium to apparent radioelement concentrations using the following formula:

$$eE = C_{cor} / s$$

where: eE is the element concentration K(%) and equivalent element concentration of U(ppm) & Th(ppm)
s is the experimentally determined sensitivity
C_{cor} is the fully corrected channel

Finally, the natural air exposure rate was determined by using the following formula:

$$E = [(13.08 * K + 5.43 * eU + 2.69 * eTh)/8.69]$$

where: E is the absorption dose rate in µR/h
K is the concentration of potassium (%)
eU is the equivalent concentration of uranium (ppm)
eTh is the equivalent concentration of thorium (ppm)

To calculate for radiometric ratios the guidelines of the IAEA were followed. Due to statistical uncertainties in the individual radioelement measurements, care was taken in the calculation of the ratio in order to obtain statistically significant values. Following IAEA guidelines, the method of determining ratios of the eU/eTh, eU/K and eTh/K was as follows:

1. Any data points where the potassium concentration was less than 0.25% were neglected.
2. The element with the lowest corrected count rate was determined.
3. The element concentrations of adjacent points on either side of each data point were summed until they exceeded a pre-determined threshold value. This threshold was set to be equivalent to 100 counts of the element with the lowest count rate. Additional minimum thresholds of 1.6% for potassium, 20 ppm for thorium, and 30 ppm for uranium were set up to ensure meaningful ratios.
4. The ratios were calculated using the accumulated sums.

With this method, the errors associated with the calculated ratios were minimized and comparable for all data points.

7.0 Deliverables

All digital data are presented on a compact disc (CD) and USB stick with the logistic report. The survey data are presented as digital databases, maps, and a report.

7.1 Digital Data

The file format will be provided in two (2) formats, the first will be a .GDB file for use in Geosoft Oasis Montaj, the second format will be a .XYZ file, this is text file. A complete file provided in each format will contain magnetic data. Full description of the digital data and contents are included in the report (Appendix B).

The digital data are represented into grids. The following grids are prepared for the Fox Lake East survey block at 50 m cell size listed below:

- Digital terrain model (DTM)

- Total magnetic intensity (TMI)
- Residual magnetic intensity (RMI) – removal of IGRF from TMI
- Calculated vertical gradient (CVG) - first vertical derivative of TMI
- Potassium (%K) - radiometric data in percentage
- Thorium (eTh) - radiometric data in concentrations
- Uranium (eU) - radiometric data in concentrations
- Total count (TCcor) – radiometric data in equivalent dose rate
- Total count (TCexp) – radiometric data in exposure rate
- Thorium over Potassium ratio (eTh/%K) – radiometric ratios
- Uranium over Potassium ratio (eU/%K) – radiometric ratios
- Uranium over Thorium ratio (eU/eTh) – radiometric ratios

7.2 KMZ Grids

The digital data represented into grids were exported into kmz files which can be displayed using Google Earth. The grids can be draped onto topography and rendered to give a 3D view.

7.3 Maps

Digital maps were created for the Fox Lake East survey block. The following map products were prepared:

Survey Overview Maps (colour images with elevation contour lines):

- Actual flight lines
- Digital terrain model

Magnetic Maps (colour images with elevation contour lines):

- Total magnetic intensity
- Total magnetic intensity with plotted flight lines
- Residual magnetic intensity
- Calculated vertical gradient of the total magnetic intensity

Radiometric Maps (colour images with elevation contour lines):

- Potassium – percentage
- Thorium – equivalent concentration
- Uranium – equivalent concentration
- Total Count – equivalent dose rate
- Total Count – exposure rate
- Thorium over Potassium ratio
- Uranium over Potassium ratio

- Uranium over Thorium ratio
- Ternary – an element ratio map of K, Th, and U

All maps were prepared in World (WGS 84) and UTM zone 8N.

7.4 Report

The logistics report provides information on the acquisition procedures, magnetic processing, radiometric processing, and presentation of the Fox Lake East survey block data. A pdf copy of the report is included along with the digital data and maps that are provided on the CD and USB stick.

Appendix A

Equipment Specifications

- GEM GSM-19T Proton Precession Magnetometer (Base Station)
- Hemisphere GPS – Mini Max
- Opti-Logic RS800 Laser Altimeter
- Scintrex CS-3 Survey Magnetometer
- Bartington Mag-03 three-axis fluxgate magnetic field sensor
- Pico Envirotec GRS-10 Gamma Spectrometer
- Pico Envirotec AGIS data recorder system (for Navigation, Gamma spectrometer, VLF-EM and Magnetometer Data Acquisition)

GEM GSM-19T Proton Precession Magnetometer (Base Station)

Configuration Options	15
Cycle Time	999 to 0.5 sec
Environmental	-40 to +60 ° Celsius
Gradient Tolerance	7,000 nT/m
Magnetic Readings	299,593
Operating Range	10, 000 to 120,000 nT
Power	12 V @ 0.62 A
Sensitivity	0.1 nT @ 1 sec
Weight (Console/ Sensor)	3.2 Kg
Integrated GPS	Yes

Hemisphere GPS – Mini Max

GPS Sensor Specifications	Receiver Type	LI, C/A code, with carrier phase smoothing
	Channels	I2-channel, parallel tracking (10-channel when tracking SBAS)
	WAAS Tracking	2-channel, parallel tracking
	Update Rate	1 Hz default, 5 Hz max
	Horizontal Accuracy	< 1 m 95% confidence (DGPS) < 5 m 95% confidence (autonomous, no SA)
	Cold Start	1 min typical
	Antenna Input Impedance	50 Ω
Beacon Sensor Specifications	Channels	2-channel, parallel tracking
	Frequency Range	283.5 to 325 kHz
	Channel Spacing	500 Hz
	MSK Bit Rates	50, 100, and 200 bps
	Operating Modes	Manual, automatic, semi-automatic
	Cold Start Time	< 1 minute typical
	Reacquisition Time	< 2 seconds typical
	Demodulation	Minimum shift keying (MSK)
	Sensitivity	2.5µV for 6dB SNR @ 200 bps
	Dynamic Range	100dB
	Frequency Offset	±8 Hz (~ 27 ppm)
	Adjacent Channel Rejection	61 dB ± 1dB @ fo ± 400 Hz
Communications	Serial ports	2 full duplex
	Interface Level	RS-232C
	Baud Rates	4800, 9600, 19200
	Correction Input/ Output Protocol	RTCM SC-104
	Raw Measurement Data	Proprietary binary (RINEX utility available)
	Timing Output	1 PPS (HCMOS, active high, rising edge sync, 10kΩ, 10pF load)
Environmental	Operating Temperature	-32^{0}C to +74ºC
	Storage Temperature	-40^{0}C to +85ºC
	Humidity	95% non-condensing
	EMC	FCC Part I 5, Subpart B, Class B CISPR 22
Power	Input Voltage Range	9 to 32 VDC
	Reverse Polarity Protection	Yes
	Power Consumption	3W
	Current Consumption	<250 mA @ 12 VDC
	Antenna Short Circuit Protection	Yes

Opti-Logic RS800 Laser Altimeter

Accuracy	+/- 1 yard
Com. Protocol	RS232-8,N,1
Baud Rate	19200
Raw Data Rate	~200 Hz
Calibrated Data Rate	~10 Hz
Laser	Class I (eye-safe) 905nm +/- 10nm
Power	7-to-9 Vdc
Typical Range	400 yards
Laser Wavelength	905 nm +/- 10 nm
Laser Divergence	Vertical axis -- 3.5 mrad half- angle divergence Horizontal axis -- 1 mrad half- angle divergence (Approximate beam footprint at 100 m is 5 cm x 5 cm)
Data Rate	~200 Hz raw counts for un-calibrated operation ~10 Hz for calibrated operation (averaging algorithm seeks 8 good readings)
Dimensions	32 x 78 x 84 mm (lens face cross section is 32 x 78 mm)
Casing	RS100/RS400/RS800 units are supplied as OEM modules consisting of an open chassis containing optics and circuit boards. Custom housings can be designed and built on request.

Scintrex CS-3 Survey Magnetometer

Operating Principal	Self-oscillation split-beam Cesium Vapor (non-radioactive Cs-133)
Operating Rage	15,000 to 105,000 nT
Gradient Tolerance	40,000 nT/metre
Operating Zones	10° to 85° and 95° to 170°
Hemisphere Switching	a) Automatic b) Electronic control actuated by the control voltage levels (TTL/CMOS) c) Manual
Sensitivity	0.0006 nT √Hz rms.
Noise Envelope	Typically 0.002 nT P-P, 0.1 to 1 Hz bandwidth
Heading Error	+/- 0.25 nT (inside the optical axis to the field direction angle range 15° to 75° and 105° to 165°)
Absolute Accuracy	<2.5 nT throughout range
Output	a) continuous signal at the Larmor frequency which is proportional to the magnetic field (proportionality constant 3.49857 Hz/nT) sine wave signal amplitude modulated on the power supply voltage b) square wave signal at the I/O connector, TTL/CMOS compatible
Information Bandwidth	Only limited by the magnetometer processor used
Sensor Head	Diameter: 63 mm (2.5”) Length: 160 mm (6.3”) Weight: 1.15 kg (2.6 lb)
Sensor Electronics	Diameter: 63 mm (2.5”) Length: 350 mm (13.8”) Weight: 1.5 kg (3.3 lb)
Cable, Sensor to Sensor Electronics	3m (9’ 8”), lengths up to 5m (16’ 4”) available
Operating Temperature	-40°C to +50°C
Humidity	Up to 100%, splash proof
Supply Power	24 to 35 Volts DC
Supply Current	Approx. 1.5A at start up, decreasing to 0.5A at 20°C
Power Up Time	Less than 15 minutes at -30°C

Bartington Mag-03 three-axis fluxgate magnetic field sensor

Number of Axes	3
Bandwidth	0 to 3kHz at 50µT peak
Internal Noise: **Basic version** **Standard version** **Low Noise version**	 >10 to 20pTrms/√Hz at 1Hz 6 to ≤10pTrms/√Hz at 1Hz <6pTrms/√Hz at 1Hz
Scaling error (DC)	<±0.5%
Orthogonality error	<0.1°
Alignment error (Z axis to reference face)	<0.1°
Linearity error	<0.0015%
Frequency response	0 to 1kHz maximally flat, ±5% maximum at 1kHz
Input voltage	±12V to ±17V
Supply current	+30mA, -10mA (+1.4mA per 100µT for each axis)
Power supply rejection ratio	5µV/V (-106dB)
Analog output	±10V (±12V supply) swings to within 0.5V of supply voltage
Output impedance	10 Ω
Operating temperature range	-40°C to +70°C
Environmental protection	IP51
Dimensions (W x H x L)	32 x 32 x 152mm
Weight	160g
Enclosure material	Reinforced epoxy
Connector	ITT Cannon DEM-9P-NMB
Mating connector	ITT Cannon DEM-9S-NMB
Mounting	2 x M5 fixing holes

Pico Envirotec GRS-10 Gamma Spectrometer

Crystal volume	12.6 litres of NaI (T1) synthetic downward looking crystals and 4.2 litres of NaI (T1) synthetic upward looking crystals
Resolution	256/512 channels
Tuning	Automatic using peak determination algorithm
Detector	Digital Peak
Calibration	Fully automated detector
Real Time	Linearization and gain stabilization
Communication	RS232
Detectors	Expandable to 10 detectors and digital peak
Count Rate	Up to 60,000 cps per detector
Count Capacity per channel	65545
Energy detection range:	36 KeV to 3 MeV
Cosmic channel	Above 3 MeV
Upward Shielding	RayShield® non-radioactive shielding on downward looking crystals
Downward Shielding	6 mm thick lead plate is used for downward-shielding
Spectra	Collected spectra of 256/512 channels, internal spectrum resolution 1024
Software	Calibration: High voltage adjustment, linearity correction coefficients calculation, and communication test support Real Time Data Collection: Automatic Gain real time control on natural isotopes, and PC based test and calibration software suite
Sensor	Each box containing two (2) gamma detection NaI(Tl) crystals – each 4.2 liters. (256 cu in.) (approx. 100 x 100 x 650 mm) Total volume of approx 8.4 litres or 512 cu in with detector electronics
Spectra Stabilization	Real time automatic corrections on radio nuclei: Th, Ur, K. No implanted sources.

Pico Envirotec AGIS data recorder system
(for Navigation, Gamma spectrometer, VLF-EM and Magnetometer Data Acquisition)

Functions	Airborne Geophysical Information System (AGIS) with integrated Global Positioning System Receiver (GPS) and all necessary navigation guidance software. Inputs for geophysical sensors - portable gamma ray spectrometer GRS-10, MMS4 Magnetometer, Totem 2A EM, A/D converter, temperature probe, humidity probe, barometric pressure probe, and laser altimeter. Output for the 2 line Pilot Indicator
Display	Touch screen with display of 800 x 600 pixels; customized keypad and operator keyboard. Multi-screen options for real-time viewing of all data inputs, fiducial points, flight line tracking, and GPS channels by operator.
GPS Navigation	Garmin 12-channel, WAAS-enabled
Data Sampling	Sensor dependent
Data Synchronization	Synchronized to GPS position
Data File	PEI Binary data format
Storage	80 GB
Supplied Software	PEIView: Allows fast data Quality Control (QC) Data Format: Geosoft GBN and ASCII output PEIConv: For survey preparation and survey plot after data acquisition
Software	Calibration: High voltage adjustment, linearity correction coefficients calculation, and communication test support Real Time Data Collection: Automatic Gain real time control on natural isotopes and PC based test and calibration software suite
Power Requirements	24 to 32 VDC
Temperature	Operating:-10 to +55 deg C; storage:-20 to +70 deg C

Appendix B

Digital File Descriptions

- Magnetic database description
- Radiometric database description
- Grids
- Maps

Magnetic Database:

Abbreviations used in the GDB files listed below:

Channel	Units	Description
X_WGS84	m	UTM Easting – WGS 84 Zone 8 North
Y_WGS84	m	UTM Northing – WGS 84 Zone 8 North
Lon_deg	deg	Longitude
Lat_deg	deg	Latitude
Date	yyyy/mm/dd	Dates of the survey flight(s)
FLT		Flight Line numbers
STL		Number of satellite(s)
LineNo		Line numbers
GPSfix		GPS fix
GPStime	Hours:min:secs	GPS time (UTC)
Geos_m	m	Geoidal separation
GHead_deg	deg	Heading of the helicopter
XTE_m	M	Flight line cross distance
Galt	m	GPS height – WGS 84 Zone 8 North
Lalt	m	Laser Altimeter readings
DTM	m	Digital Terrain Model
basemag	nT	Base station diurnal data
IGRF		International Geomagnetic Reference Field 2010
Declin	Decimal deg	Calculated declination of magnetic field
Inclin	Decimal deg	Calculated inclination of magnetic field
TMI	nT	Total Magnetic Intensity
RMI	nT	Residual Magnetic Intensity

Radiometric Database:

Abbreviations used in the GDB files listed below:

Channel	Units	Description
X_WGS84	m	UTM Easting – WGS 84 Zone 8 North
Y_WGS84	m	UTM Northing – WGS 84 Zone 8 North
Lon_deg	deg	Longitude
Lat_deg	deg	Latitude
Date	yyyy/mm/dd	Dates of the survey flight(s)
FLT		Flight numbers
STL		Number of satellite(s)
LineNo		Line numbers
GPStime	Hours:min:secs	GPS time (UTC)
Geos_m	m	Geoidal separation
GPSFix		GPS fix
GHead_deg	deg	Heading of the helicopter
XTE_m	m	Flight line cross distance
Galt	m	GPS height – WGS 84 Zone 4 North
Lalt	m	Laser Altimeter readings
DTM	m	Digital Terrain Model
BaroSTP_Kp	KiloPascal	Barometric Altitude (Press and Temp Corrected)
Temp_degC	Degrees C	Air Temperature
Press_kP	KiloPascal	Atmospheric Pressure
COSFILT	counts/sec	Spectrometer - Filtered Cosmic
UPUFILT	counts/sec	Spectrometer - Filtered Upward Uranium
Kcor	%	Equivalent Concentration - Potassium
THcor	ppm	Equivalent Concentration - Thorium
Ucor	ppm	Equivalent Concentration - Uranium
TCcor	µR	Equivalent Dose Rate
TCexp	µR/hour	Exposure Rate - SUM(%k, eU, eTh) * determined factors
THKratio		Spectrometer – eTh/%K ratio
UKratio		Spectrometer – eU/%K ratio
UTHratio		Spectrometer – eU/eTh ratio

Grids: Fox Lake East survey block, WGS 84 Datum, Zone 8N

FILE NAME	DESCRIPTION
Fox Lake East_DTM_50m.grd	Fox Lake East survey block digital terrain model gridded at 50 m cell size
Fox Lake East_TMI_50m.grd	Fox Lake East survey block total magnetic intensity gridded at 50 m cell size
Fox Lake East_RMI_50m.grd	Fox Lake East survey block residual magnetic intensity gridded at 50 m cell size
Fox Lake East_CVG_ 50m.grd	Fox Lake East survey block calculated vertical gradient of TMI gridded at 50 m cell size
Fox Lake East_Kcor_50m.grd	Fox Lake East survey block potassium (Kcor) percentage gridded at 50 m cell size
Fox Lake East_Thcor_50m.grd	Fox Lake East survey block Thorium (Thcor) equivalent concentration gridded at 50 m cell size
Fox Lake East_Ucor_50m.grd	Fox Lake East survey block Uranium (Ucor) equivalent concentration gridded at 50 m cell size
Fox Lake East_TCcor_50m.grd	Fox Lake East survey block Total Count (TCcor) equivalent dose rate gridded at 50 m cell size
Fox Lake East_TCexp_50m.grd	Fox Lake East survey block Total Count (TCexp) exposure rate gridded at 50 m cell size
Fox Lake East_THKratio_50m.grd	Fox Lake East survey block thorium over potassium ratio (eTh/%K) gridded at 50 m cell size
Fox Lake East_UKratio_50m.grd	Fox Lake East survey block uranium over potassium ratio (eU/%K) gridded at 50 m cell size
Fox Lake East_UTHratio_50m.grd	Fox Lake East survey block uranium over thorium ratio (eU/eTh) gridded at 50 m cell size

Maps: Fox Lake East survey block, WGS 84 Datum, Zone 8N (jpegs and pdfs)

FILE NAME	DESCRIPTION
Fox Lake East_ActualFlightLines_50m	Fox Lake East Survey block plotted actual flown flight lines
Fox Lake East_DTM_50m	Fox Lake East Survey block digital terrain model gridded at 50 m cell size
Fox Lake East_TMI_50m	Fox Lake East Survey block total magnetic intensity gridded at 50 m cell size
Fox Lake East_TMI_with_FlightLines_50m	Fox Lake East Survey block total magnetic intensity with plotted actual flight lines gridded at 50 m cell size
Fox Lake East_RMI_50m	Fox Lake East Survey block residual magnetic intensity gridded at 50 m cell size
Fox Lake East_CVG_50m	Fox Lake East Survey block calculated vertical gradient of TMI gridded at 50 m cell size
Fox Lake East_%Kcor_50m	Fox Lake East Survey block potassium (Kcor) percentage gridded at 50 m cell size
Fox Lake East_Thcor_50m	Fox Lake East Survey block Thorium (Thcor) equivalent concentration gridded at 50 m cell size
Fox Lake East_Ucor_50m	Fox Lake East Survey block Uranium (Ucor) equivalent concentration gridded at 50 m cell size
Fox Lake East_TCcor_50m	Fox Lake East Survey block Total Count (TCcor) equivalent dose rate gridded at 50 m cell size
Fox Lake East_TCexp_50m	Fox Lake East Survey block Total Count (TCexp) exposure rate gridded at 50 m cell size
Fox Lake East_eTh%K_Ratio_50m	Fox Lake East Survey block thorium over potassium ratio (eTh/%K) gridded at 50 m cell size
Fox Lake East_eU%K_Ratio_50m	Fox Lake East Survey block uranium over potassium ratio (eU/%K) gridded at 50 m cell size
Fox Lake East_eUeTH_Ratio_50m	Fox Lake East Survey block uranium over thorium ratio (eU/eTh) gridded at 50 m cell size
Fox Lake East_TernaryMap_50m	Fox Lake East Survey block displaying ratios of all three elements (%K, eTh, eU)

Appendix C

Fox Lake East Survey Block Maps

Survey Overview Maps (colour image with elevation contour lines):

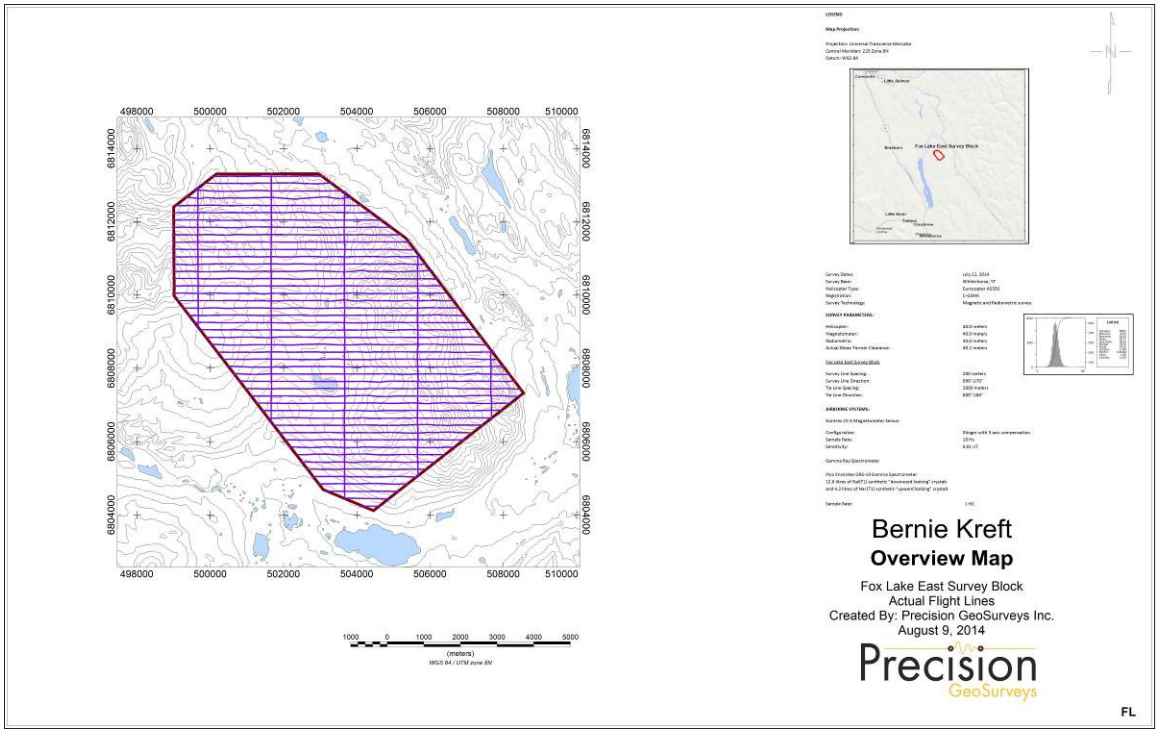
- Flight Lines (FL)
- Digital Terrain Model (DTM)

Magnetic Maps (colour image with elevation contour lines):

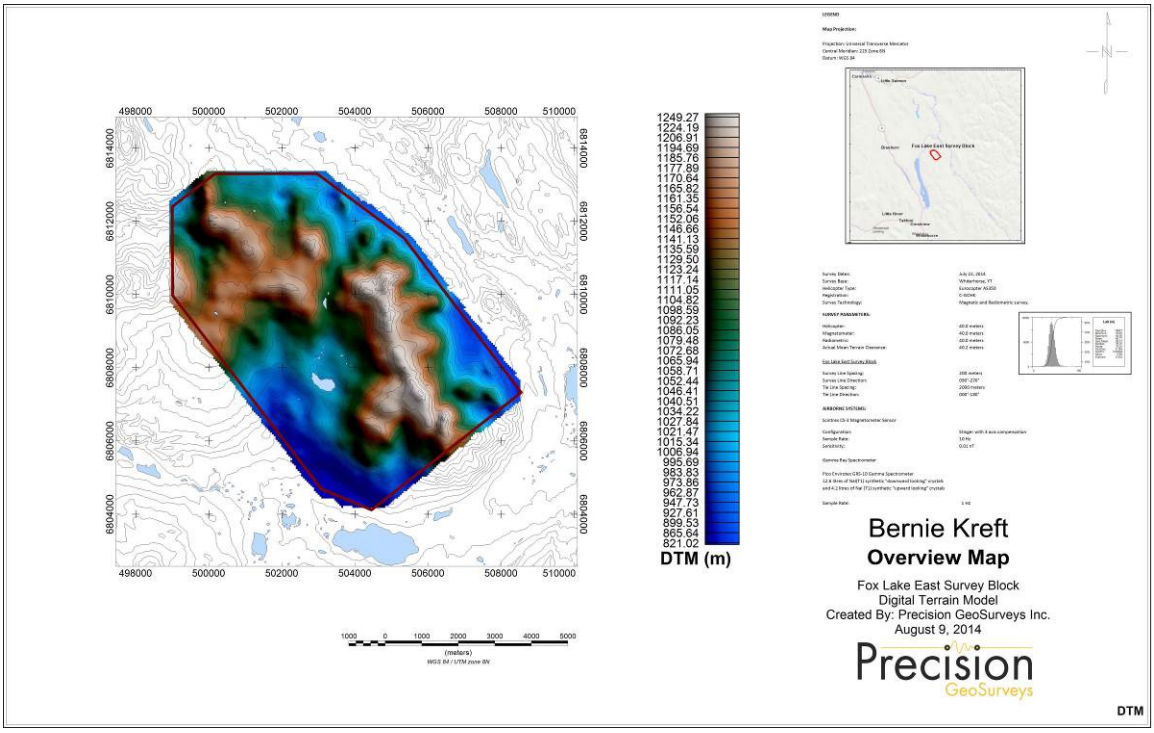
- Total Magnetic Intensity (TMI)
- Total Magnetic Intensity (TMI_wFL) with flight lines
- Residual Magnetic Intensity (RMI)
- Calculated Vertical Gradient (CVG) of TMI

Radiometric Maps (colour image with elevation contour lines):

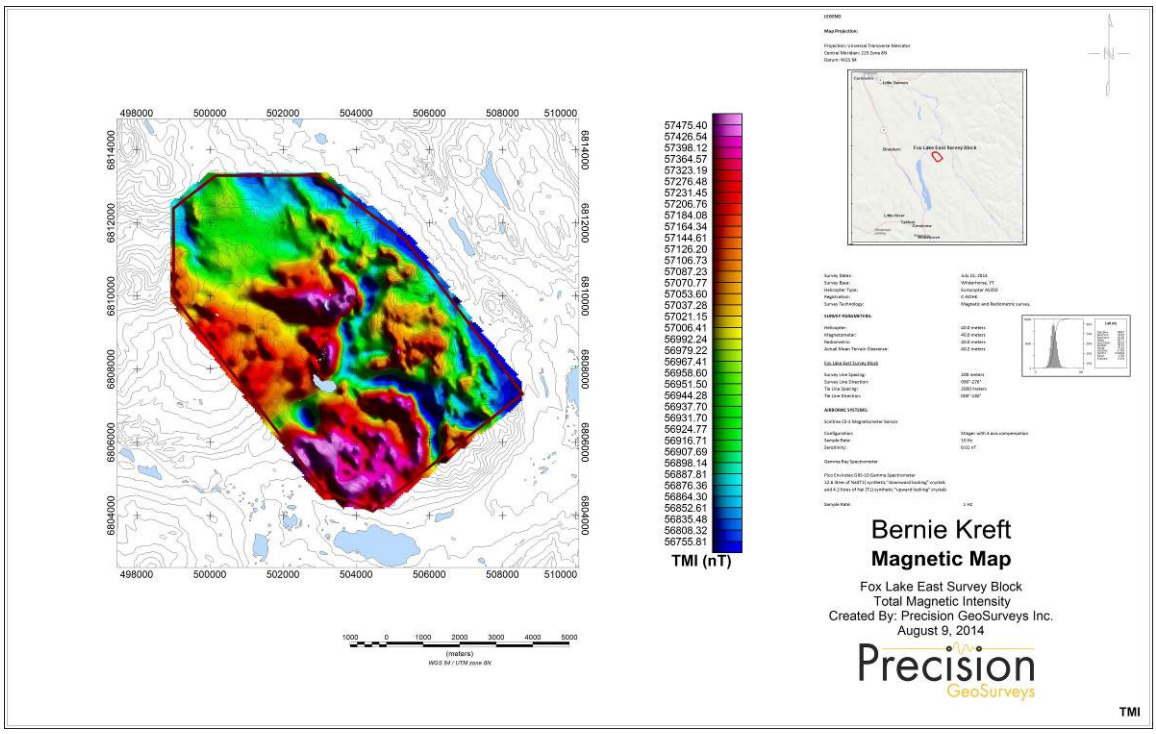
- Potassium – Equivalent Concentration (%K)
- Thorium – Equivalent Concentration (eTh)
- Uranium – Equivalent Concentration (eU)
- Total Count –Equivalent Dose Rate (TCcor)
- Total Count – Exposure Rate (TCexp)
- Thorium over Potassium Ratio - Spectrometer - eTh/%K ratio
- Uranium over Potassium Ratio - Spectrometer - eU/%K ratio
- Uranium over Thorium Ratio - Spectrometer - eU/eTh ratio
- Ternary (TM)



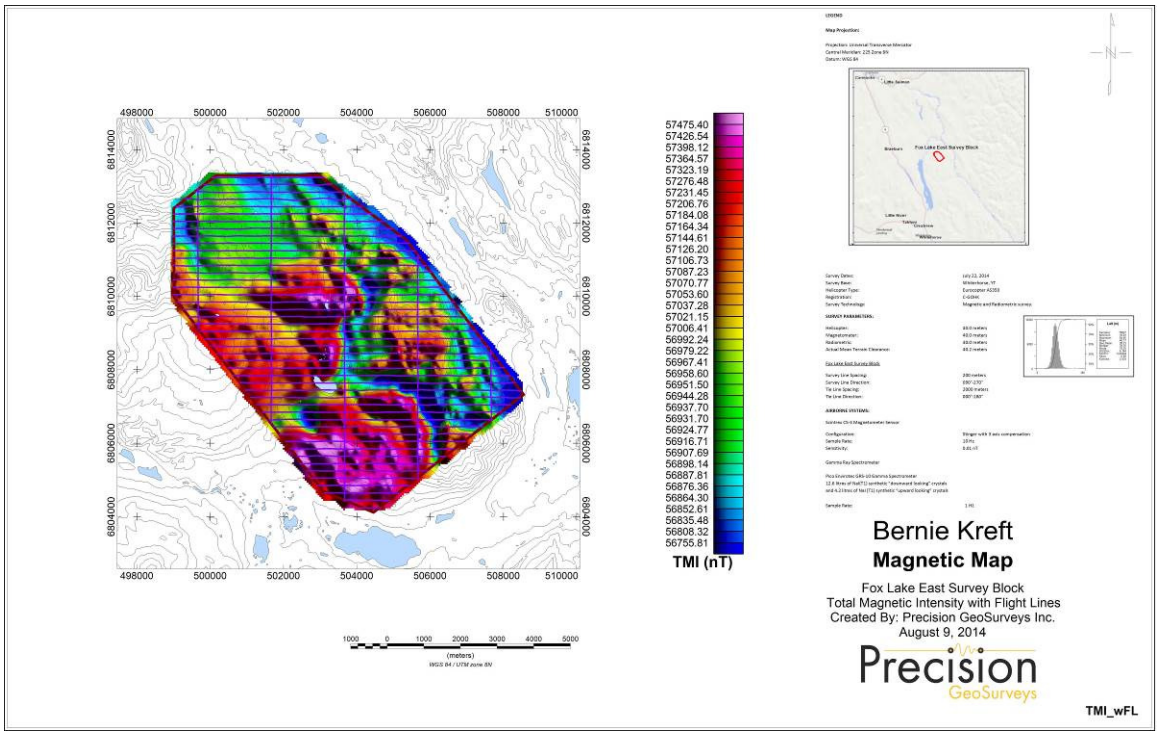
Map 1: Fox Lake East survey block actual flight lines.



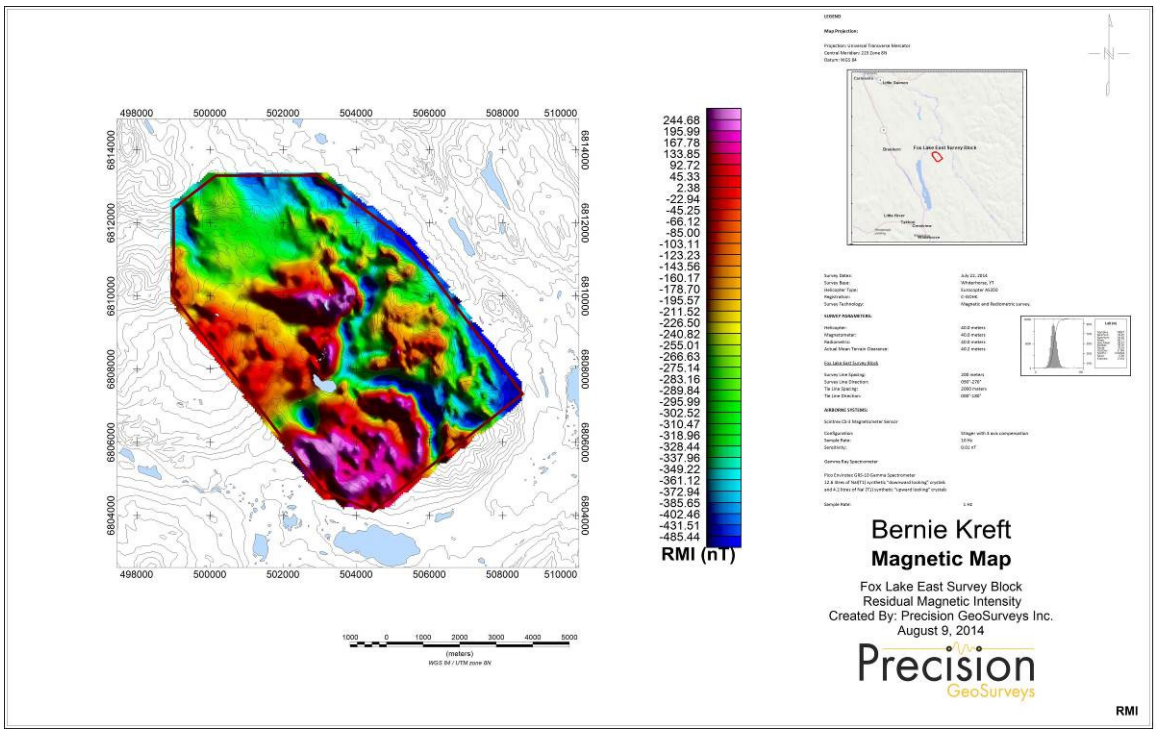
Map 2: Fox Lake East survey block digital terrain model.



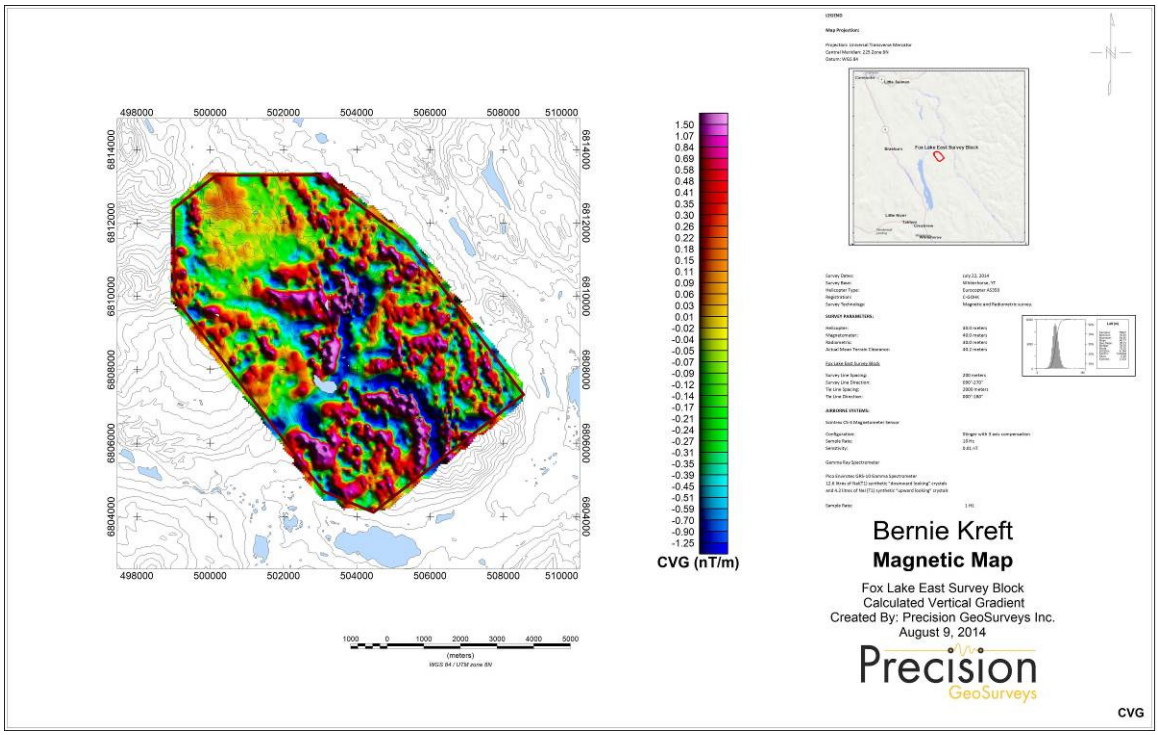
Map 3: Fox Lake East survey block total magnetic intensity.



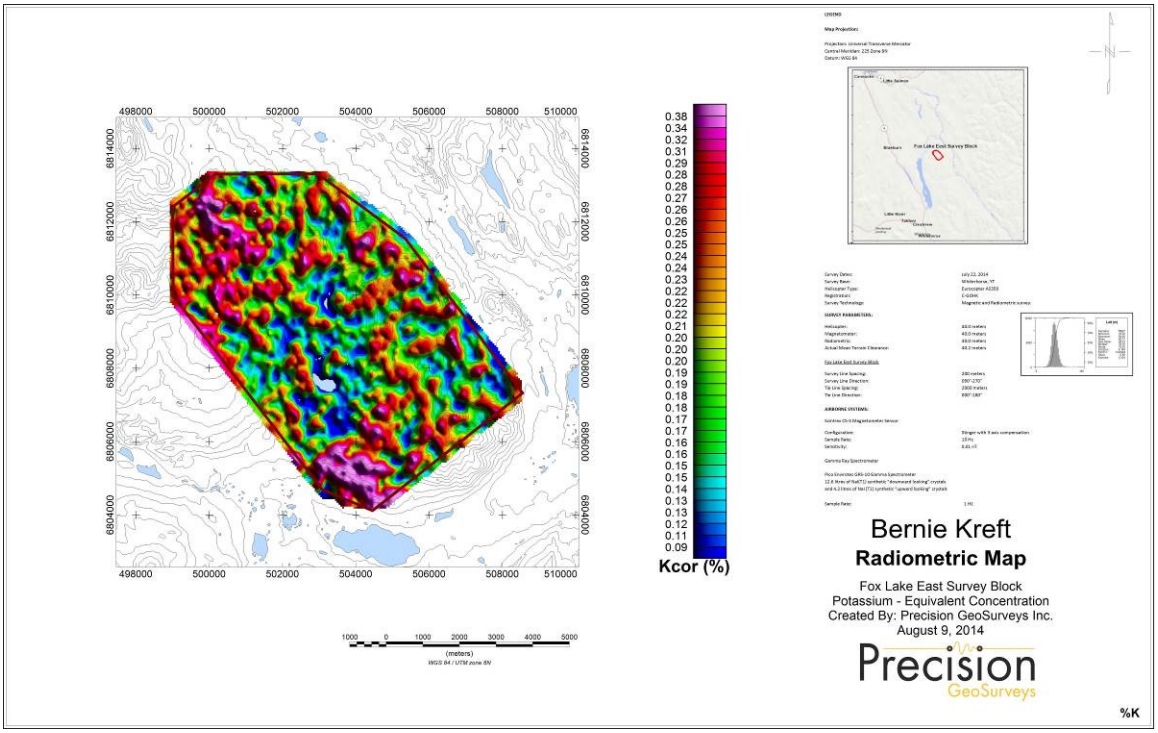
Map 4: Fox Lake East survey block total magnetic intensity with plotted actual flight lines.



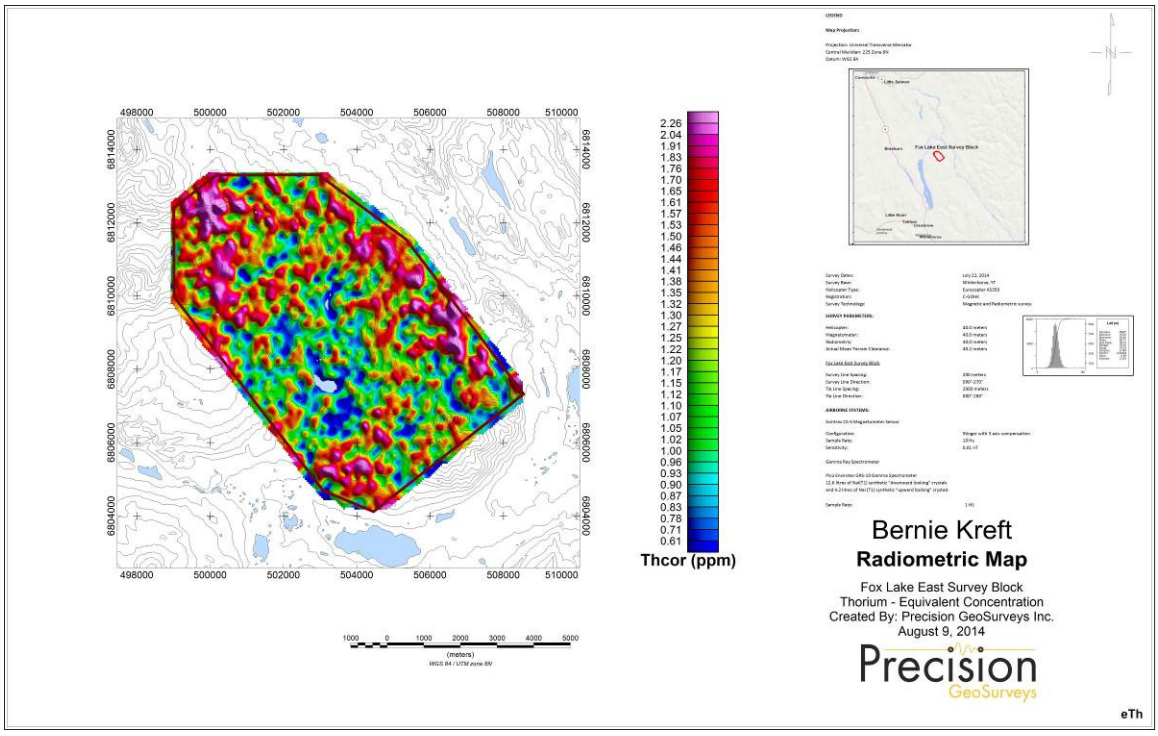
Map 5: Fox Lake East survey block residual magnetic intensity.



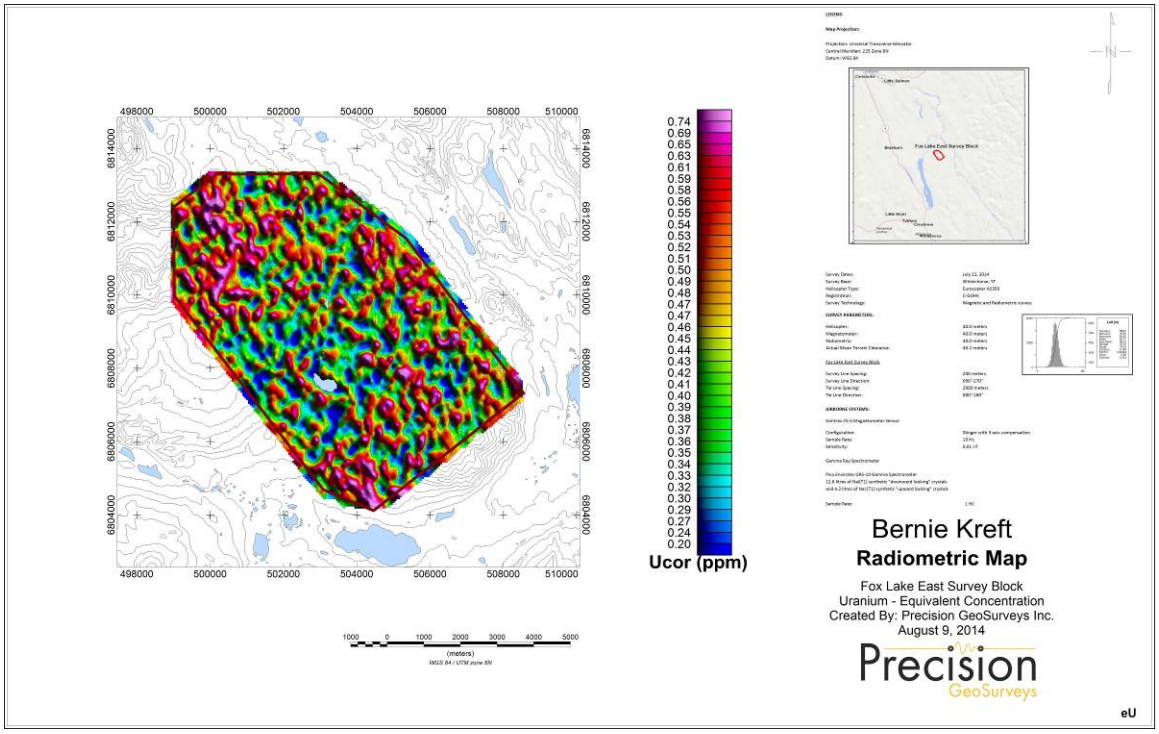
Map 6: Fox Lake East survey block calculated vertical gradient of the total magnetic intensity.



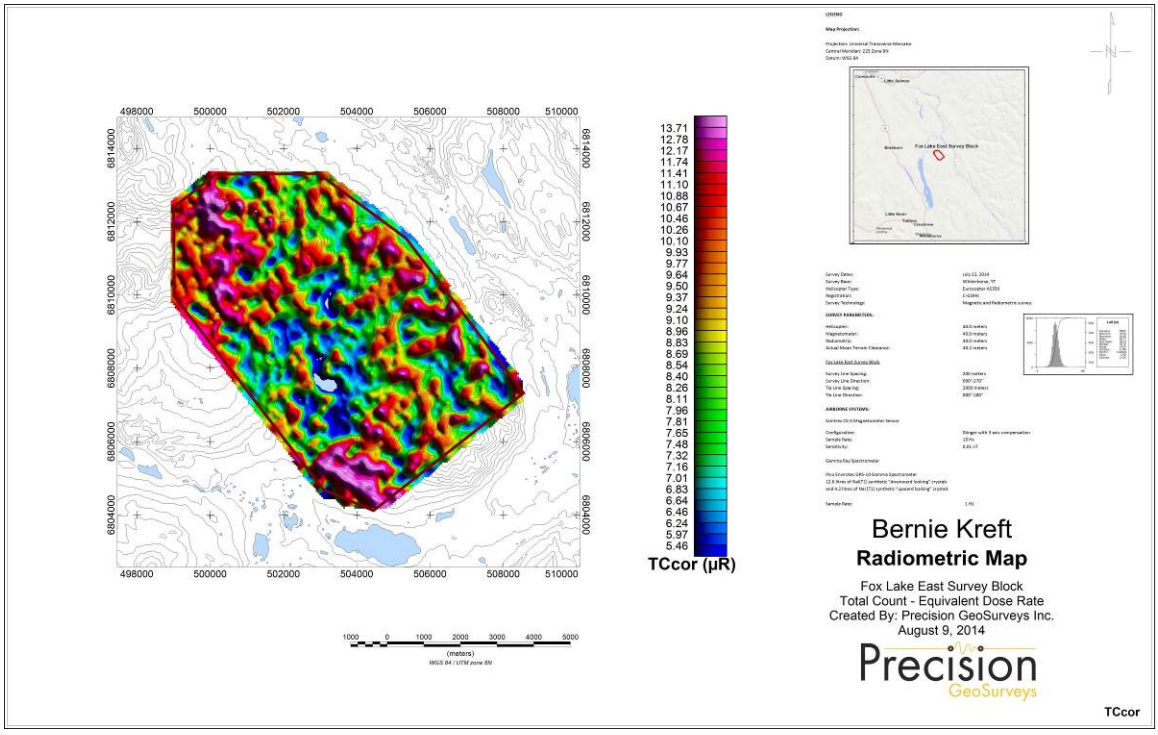
Map 7: Fox Lake East survey block potassium – (percentage) equivalent concentration.



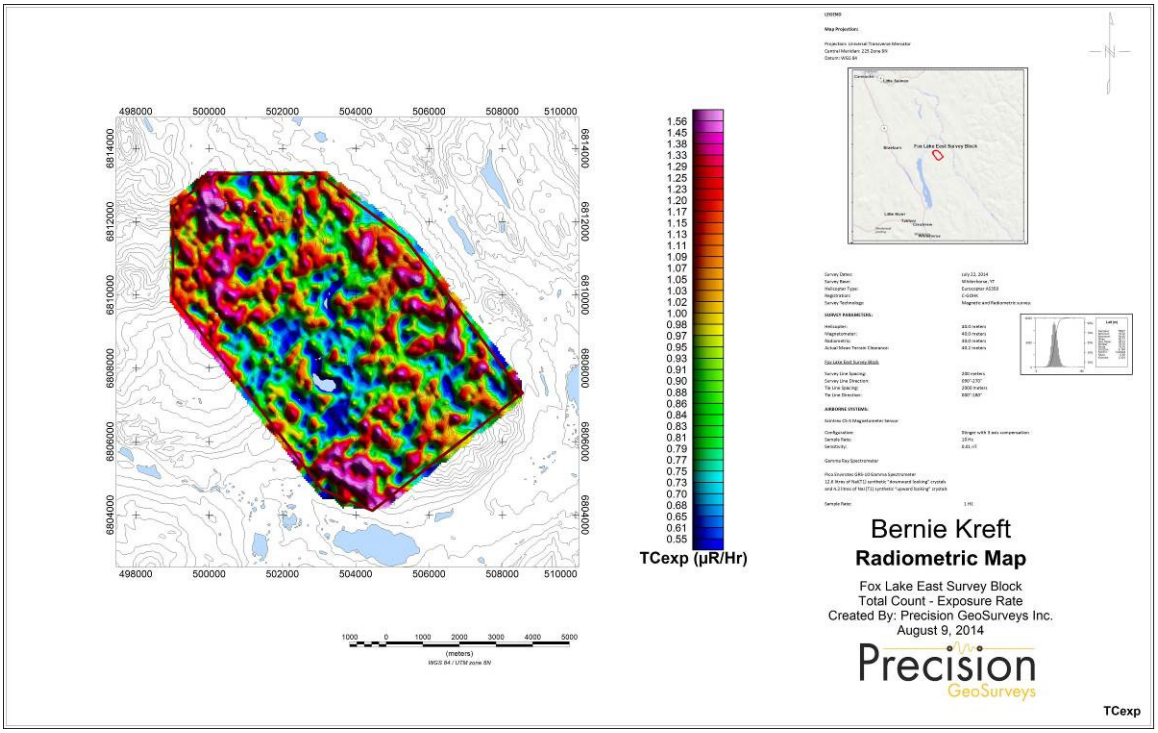
Map 8: Fox Lake East survey block thorium – equivalent concentration.



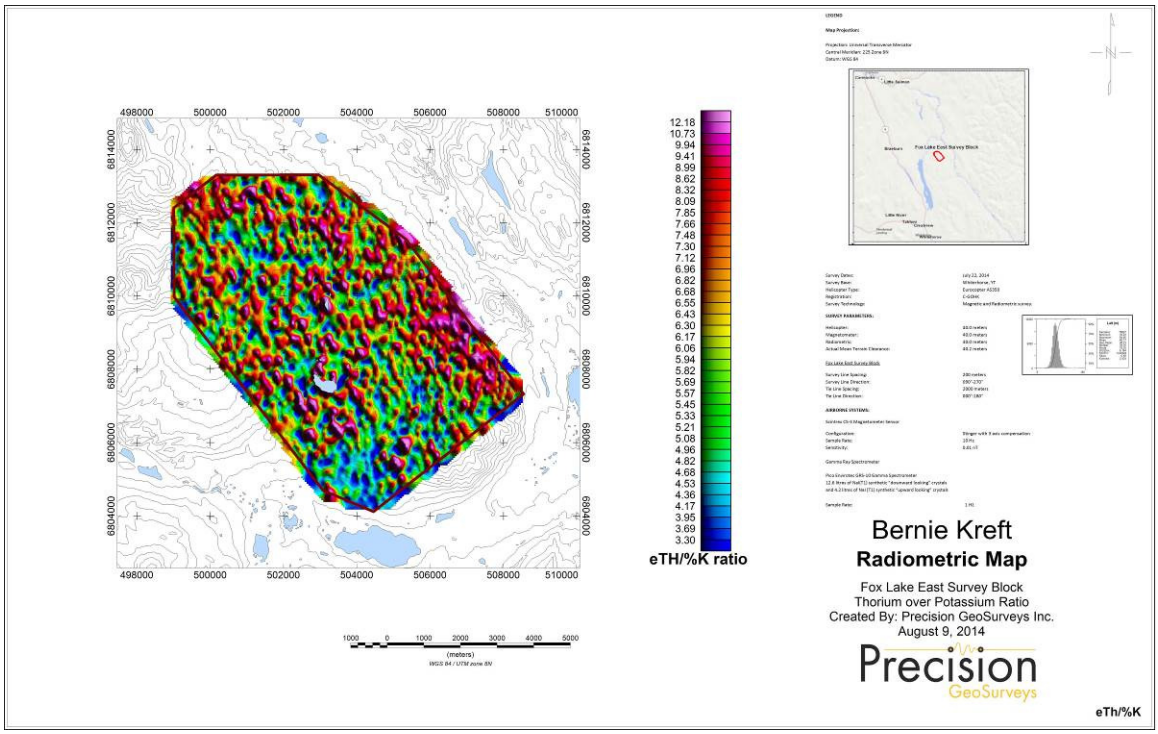
Map 9: Fox Lake East survey block uranium – equivalent concentration.



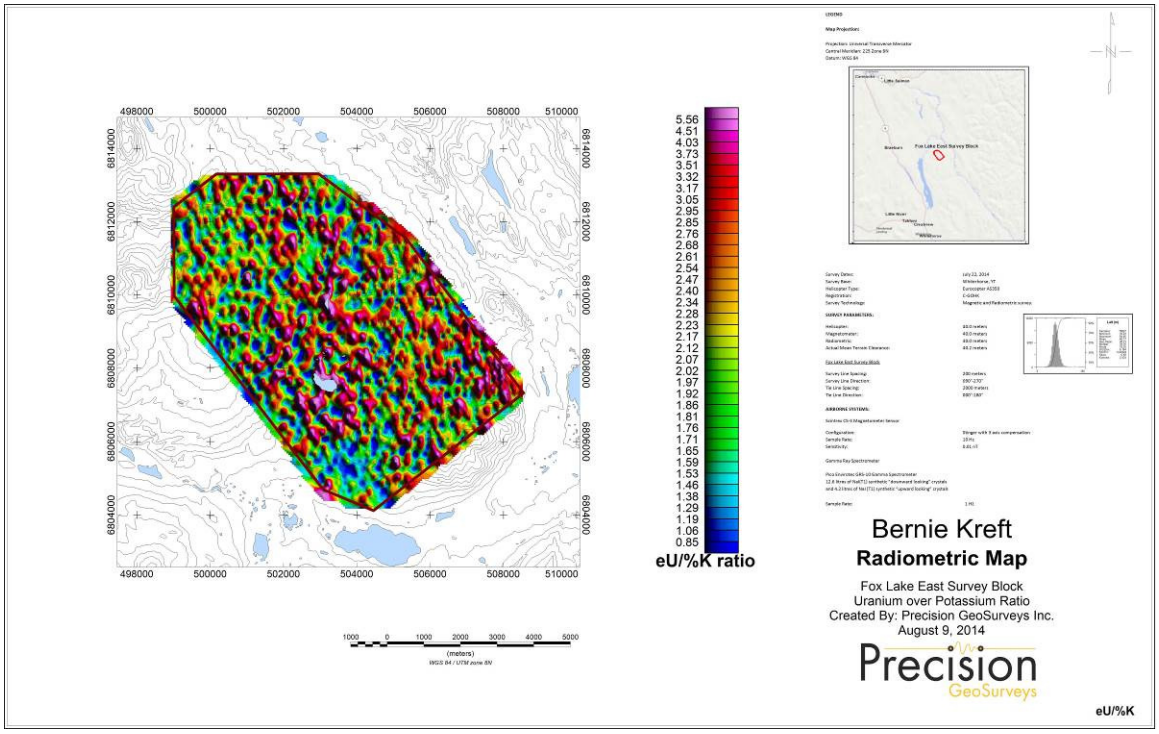
Map 10: Fox Lake East survey block total count – equivalent dose rate.



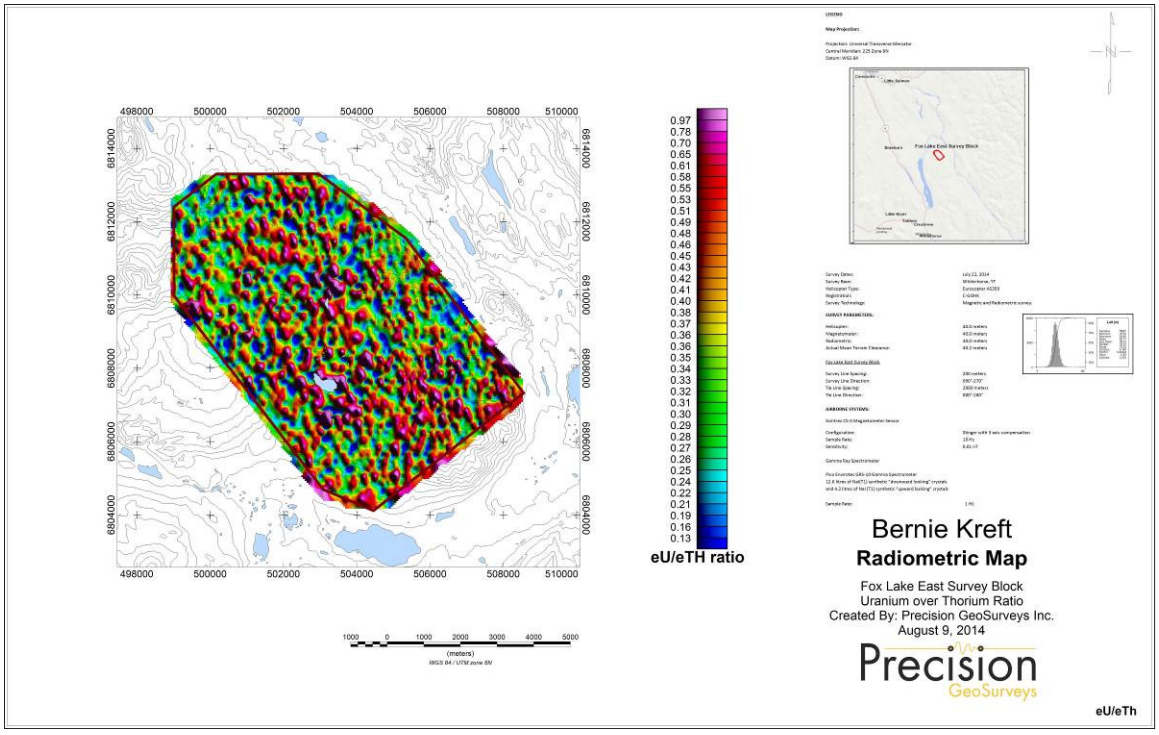
Map 11: Fox Lake East survey block total count –exposure rate.



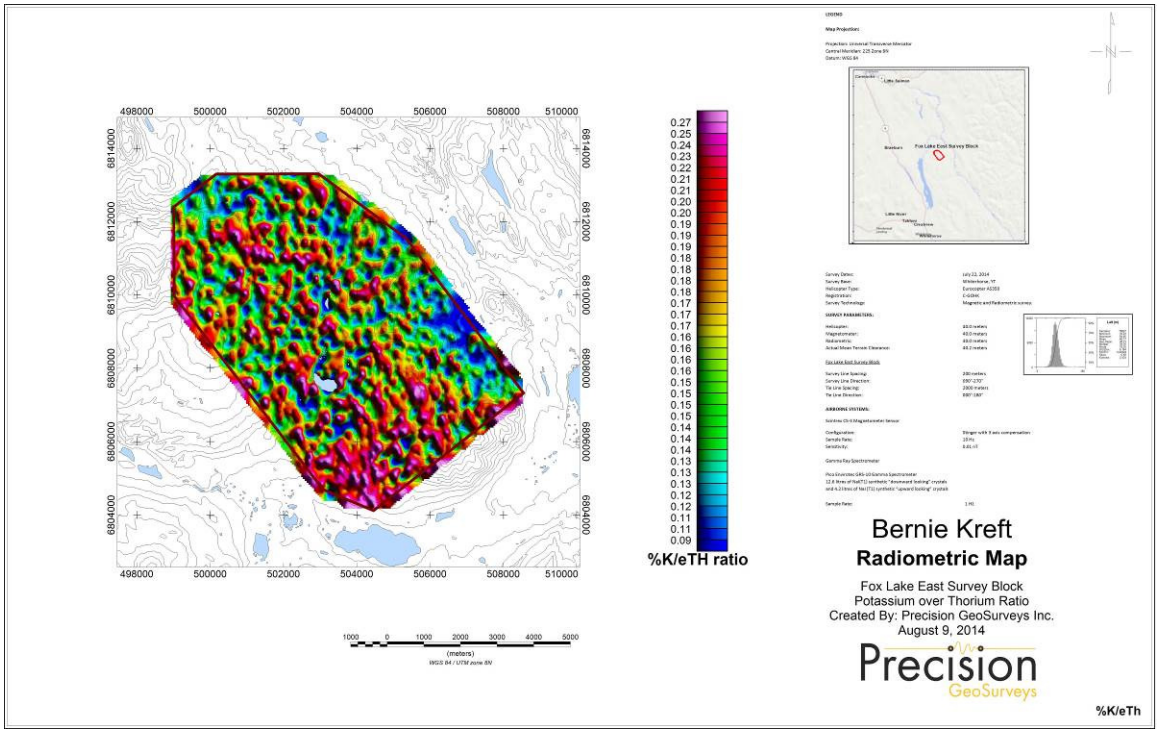
Map 12: Fox Lake East survey block thorium over potassium ratio.



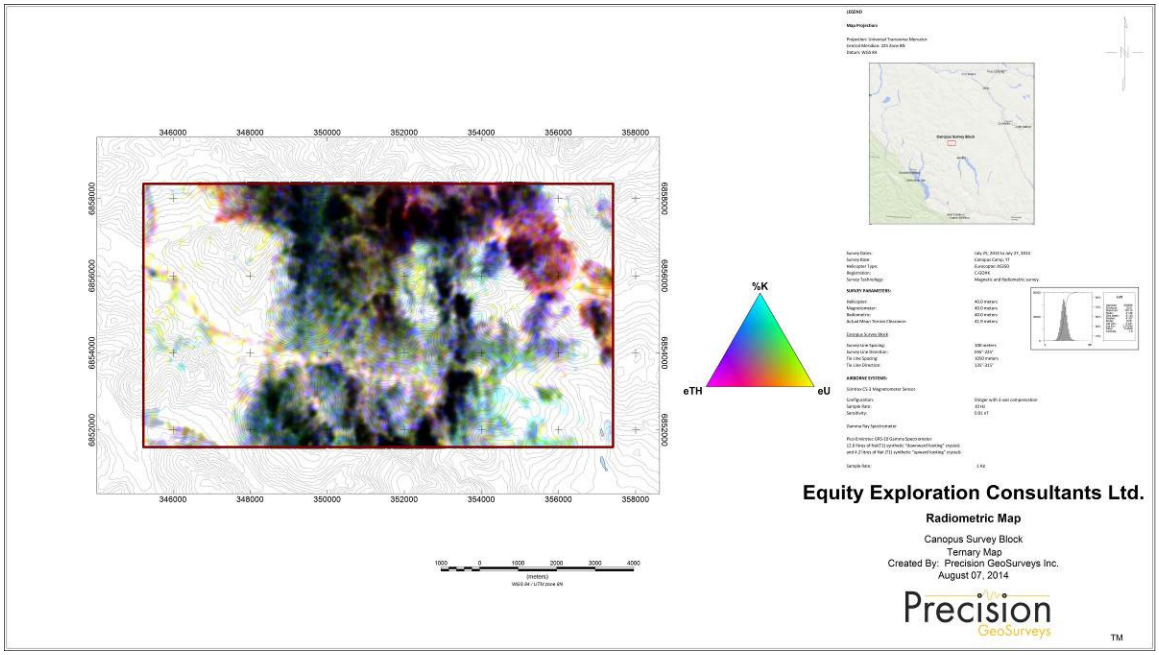
Map 13: Fox Lake East survey block uranium over potassium ratio.



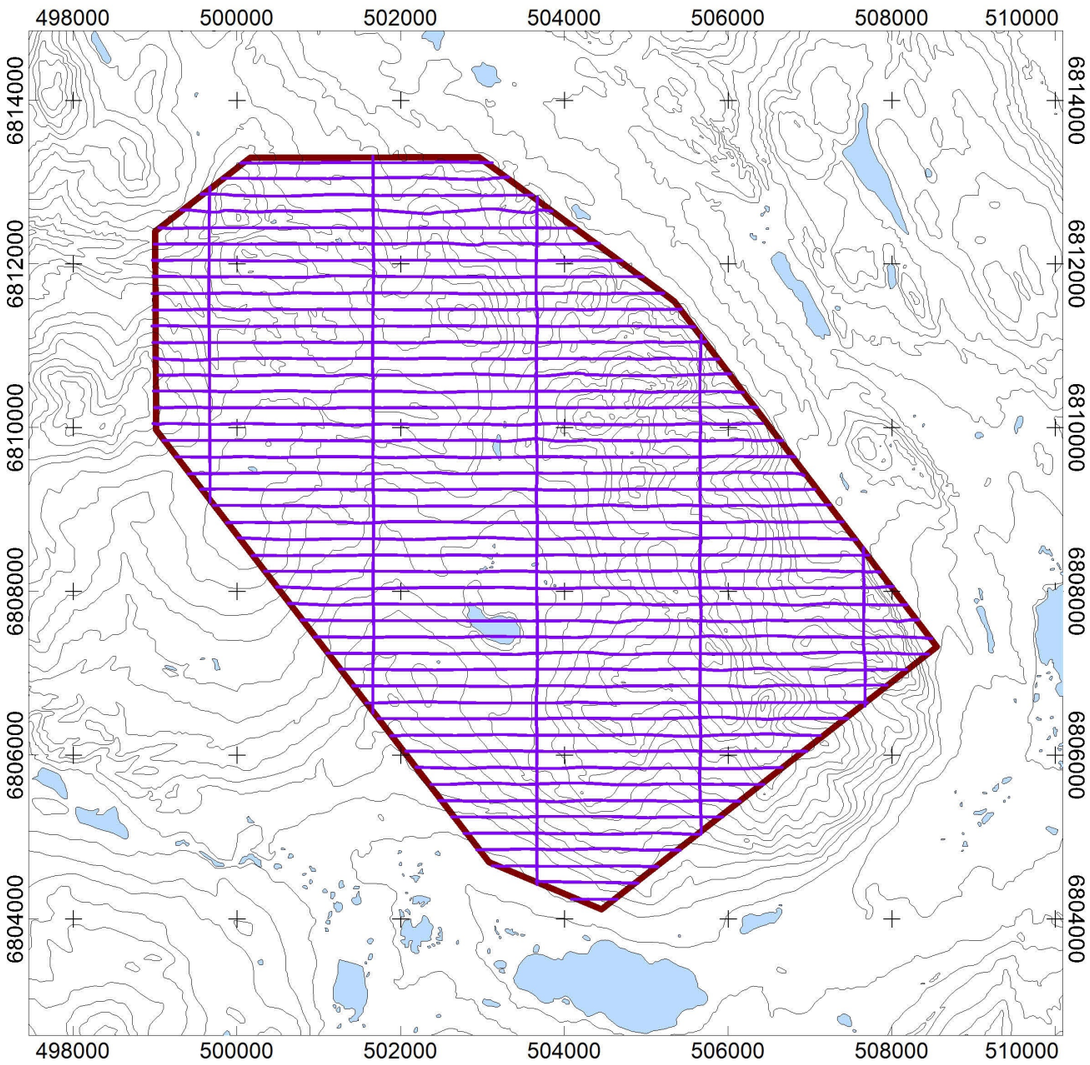
Map 14: Fox Lake East survey block uranium over thorium ratio.



Map 15: Fox Lake East survey block potassium over thorium ratio.



Map 16: Fox Lake East survey block ternary map.



1000 0 1000 2000 3000 4000 5000

(meters)

WGS 84 / UTM zone 8N

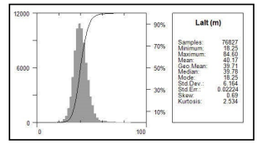
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

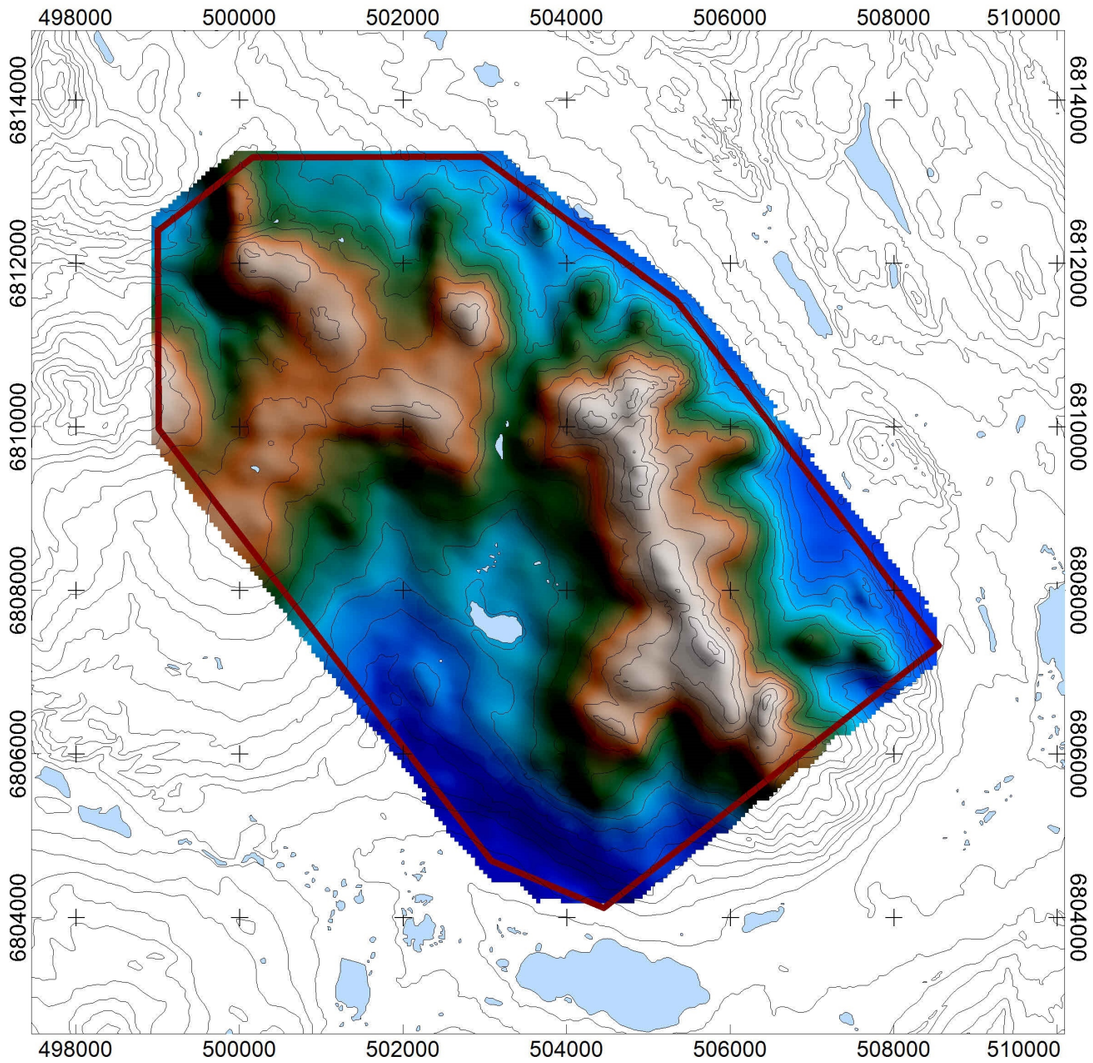
Bernie Kreft

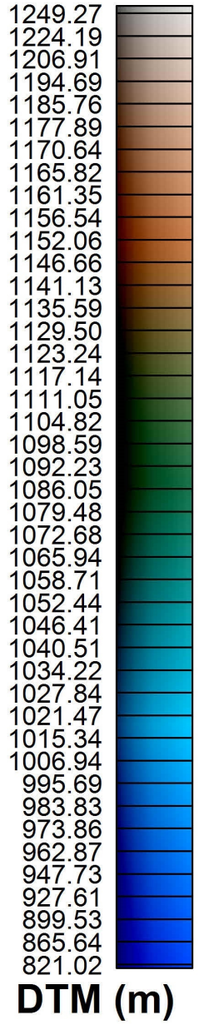
Overview Map

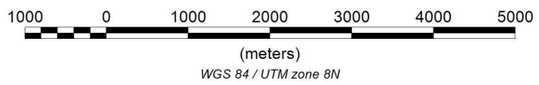
Fox Lake East Survey Block
Actual Flight Lines
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

FL







LEGEND

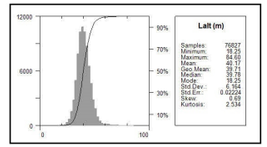
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

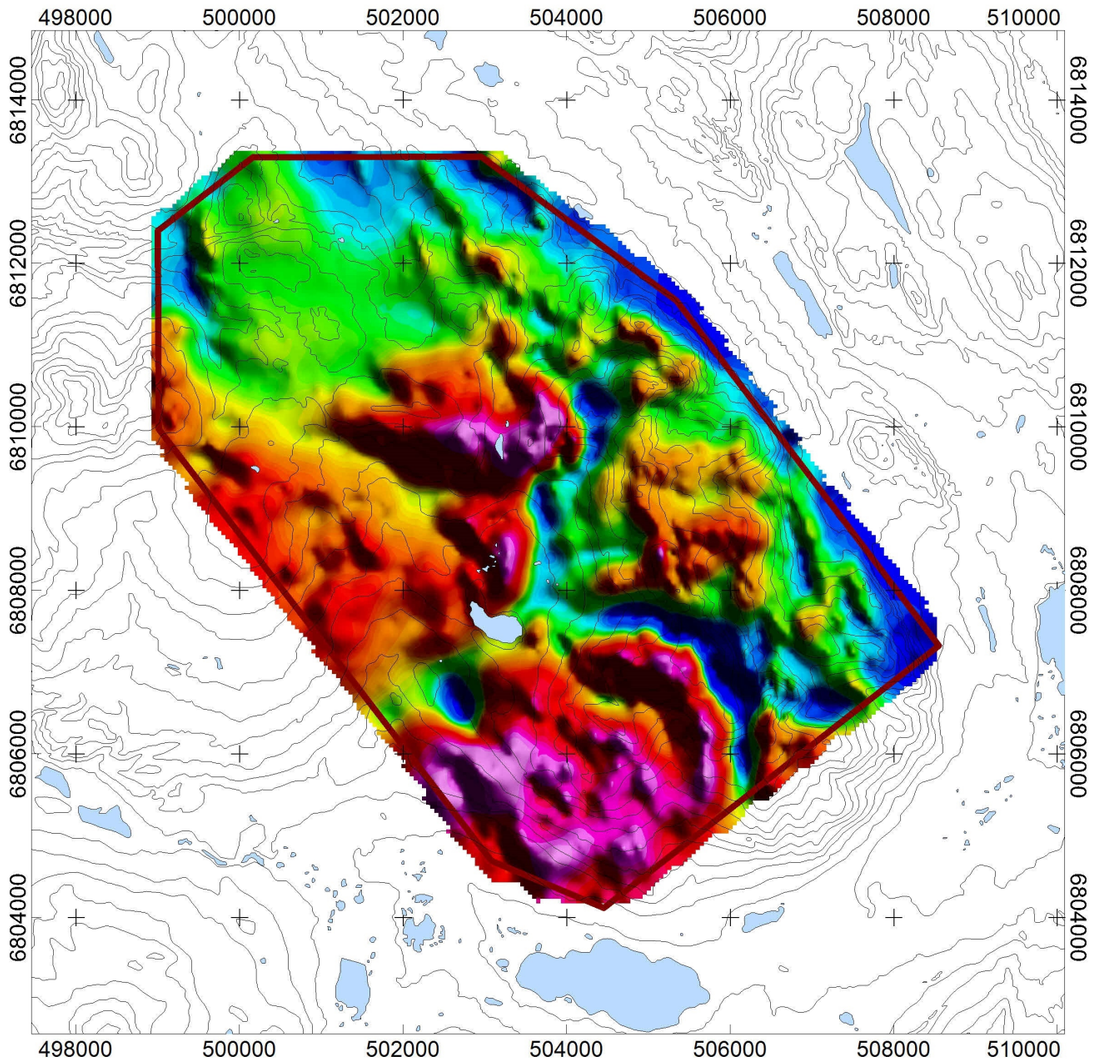
Bernie Kreft

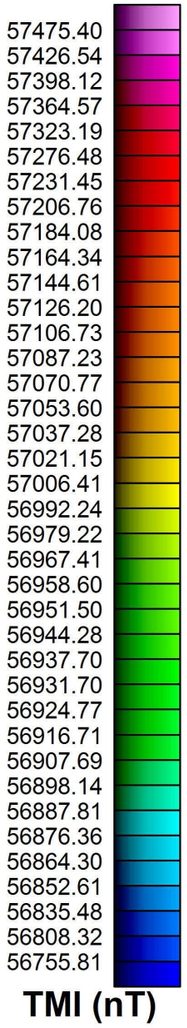
Overview Map

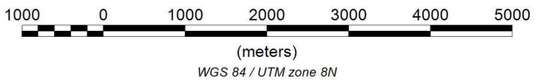
Fox Lake East Survey Block
Digital Terrain Model
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

DTM







LEGEND

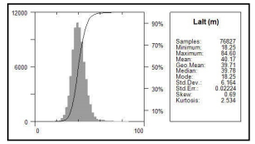
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

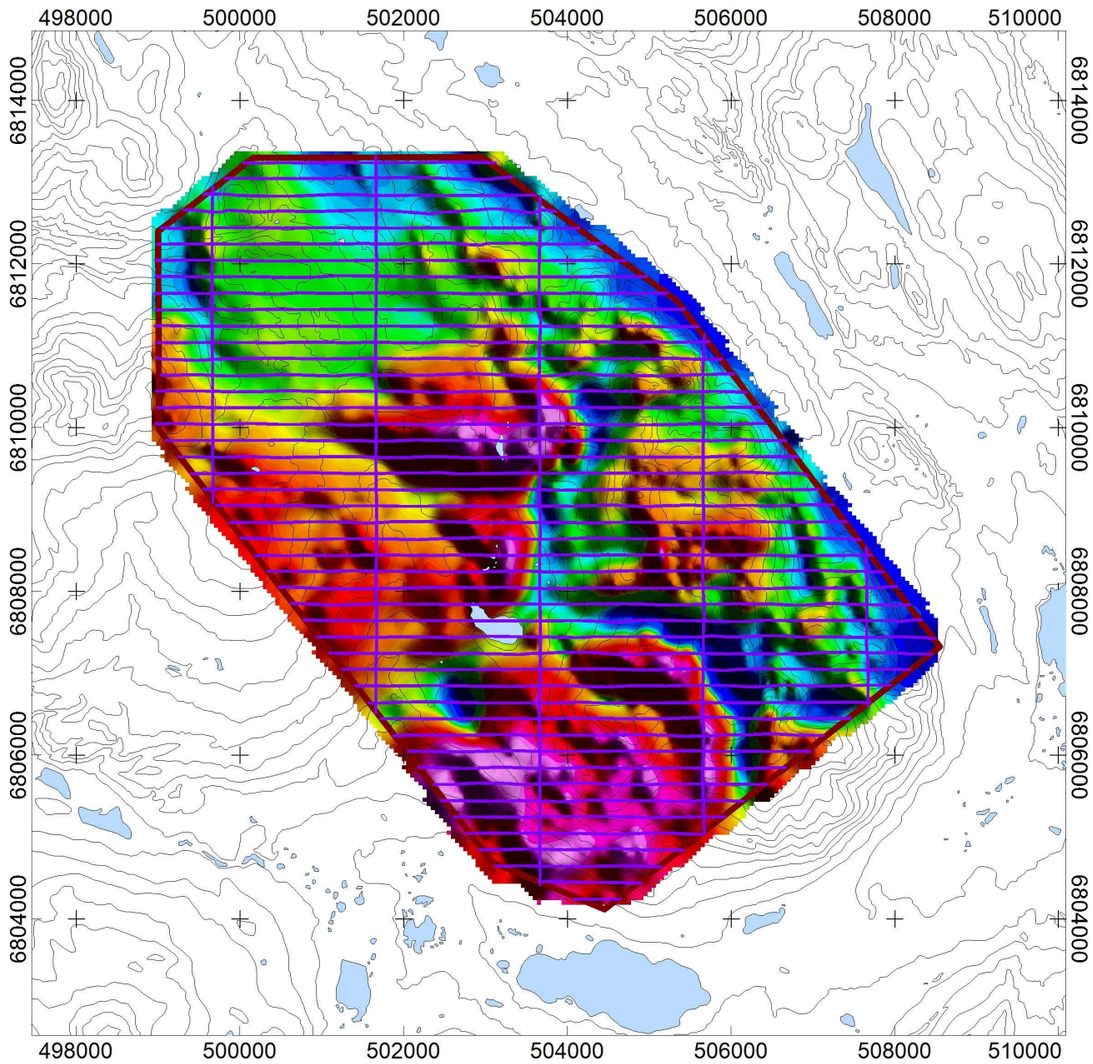
Bernie Kreft

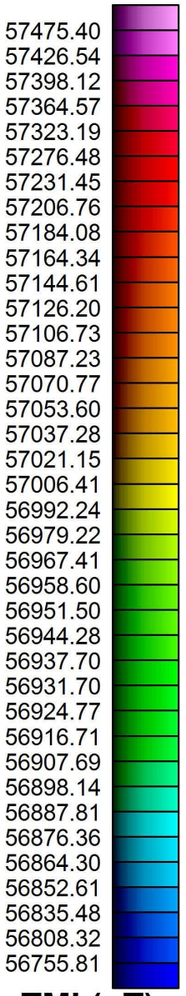
Magnetic Map

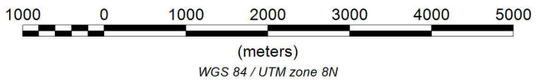
Fox Lake East Survey Block
Total Magnetic Intensity
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TMI







LEGEND

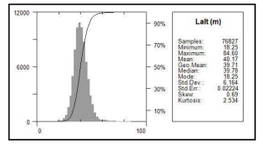
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

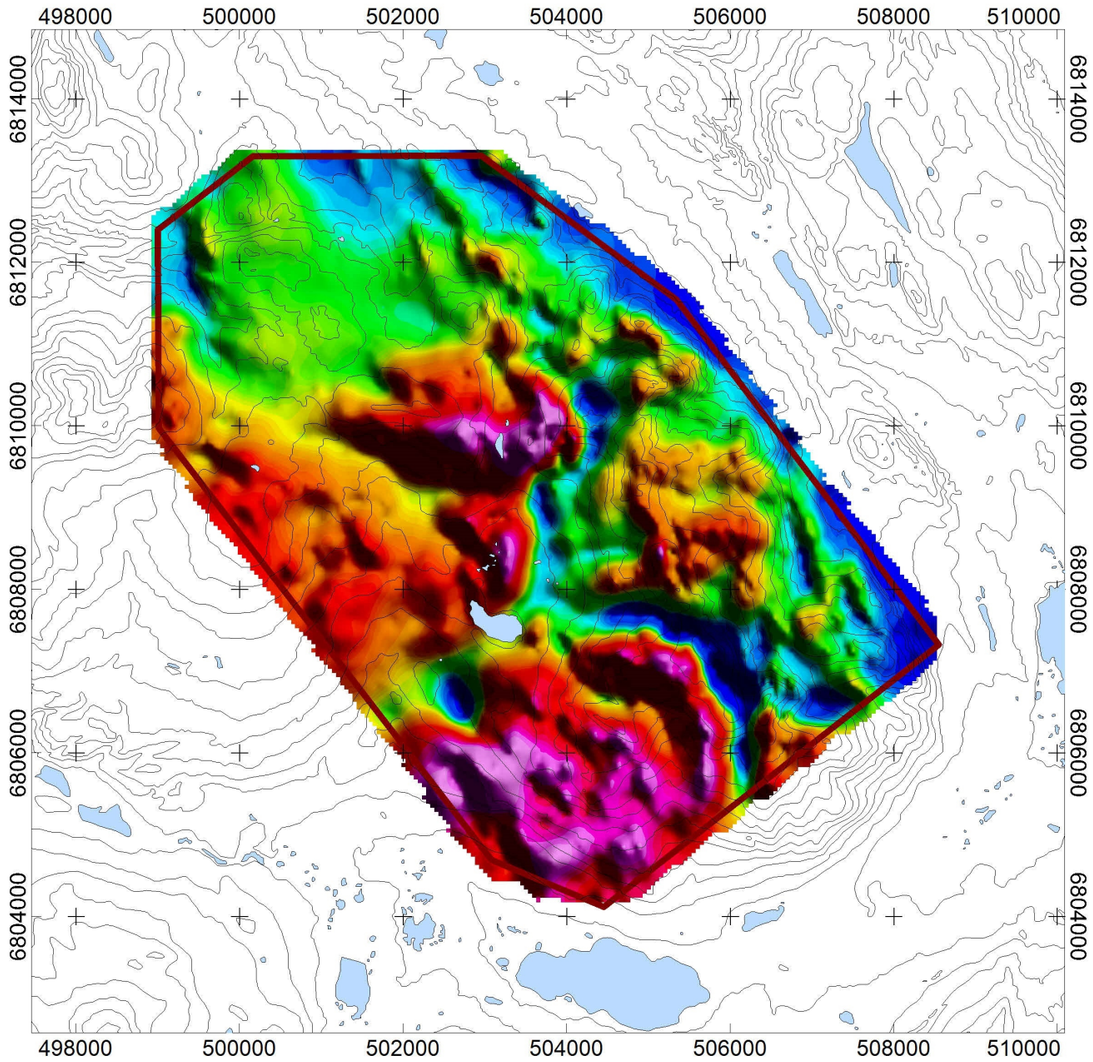
Bernie Kreft

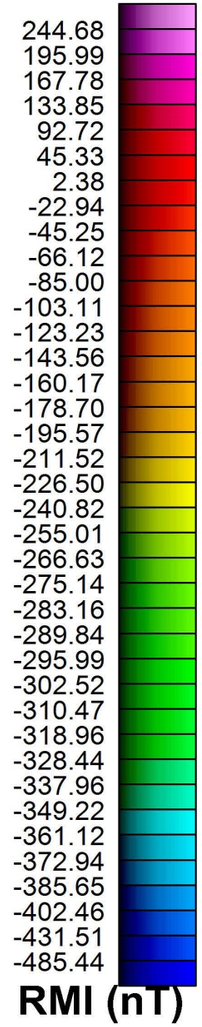
Magnetic Map

Fox Lake East Survey Block
Total Magnetic Intensity with Flight Lines
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TMI_wFL





1000 0 1000 2000 3000 4000 5000

(meters)

WGS 84 / UTM zone 8N

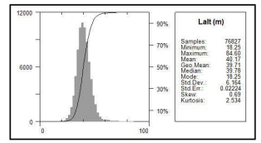
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

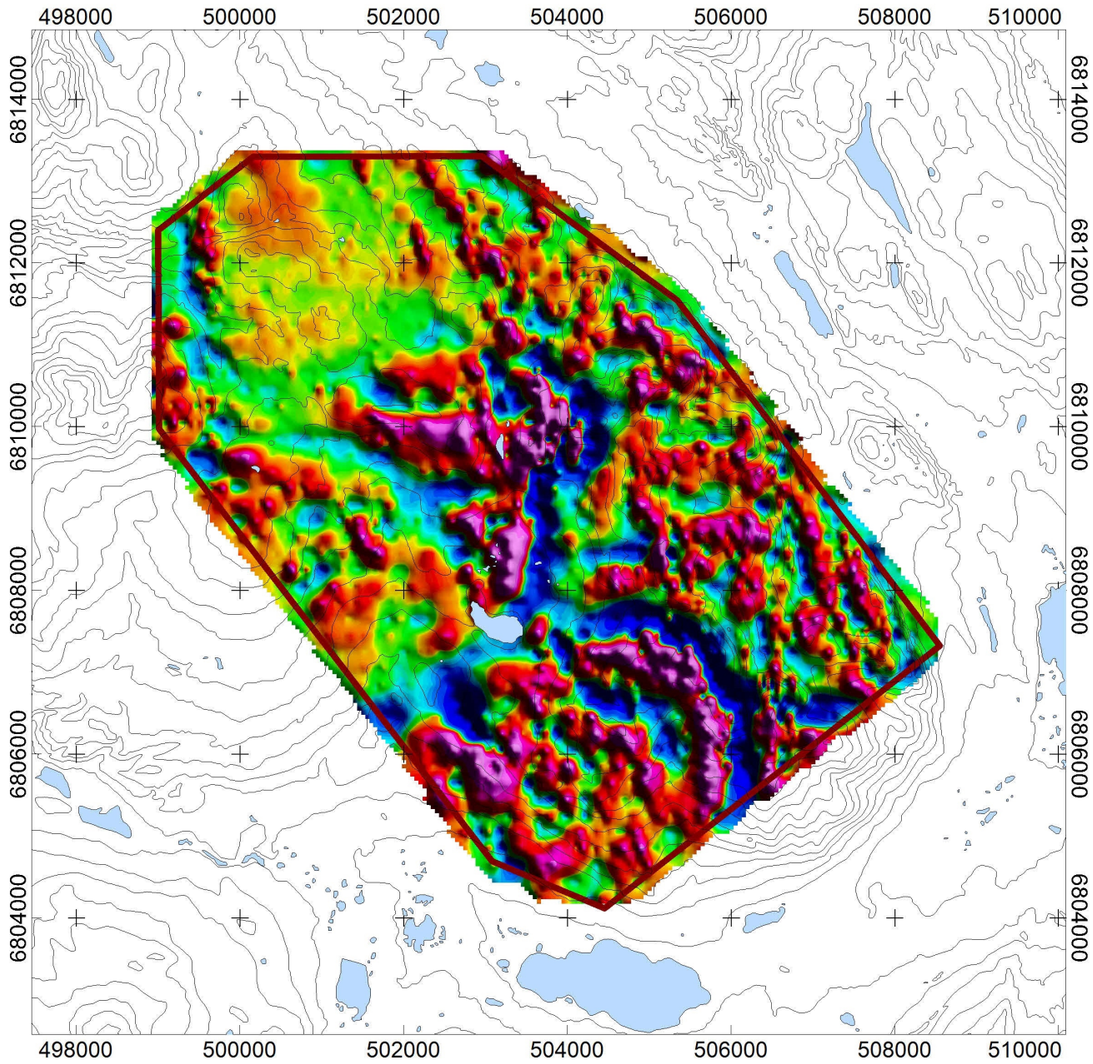
Bernie Kreft

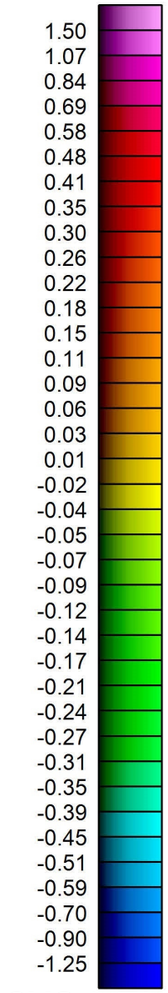
Magnetic Map

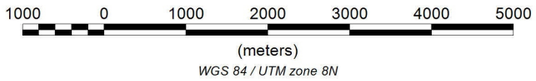
Fox Lake East Survey Block
Residual Magnetic Intensity
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

RMI







LEGEND

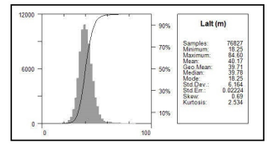
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

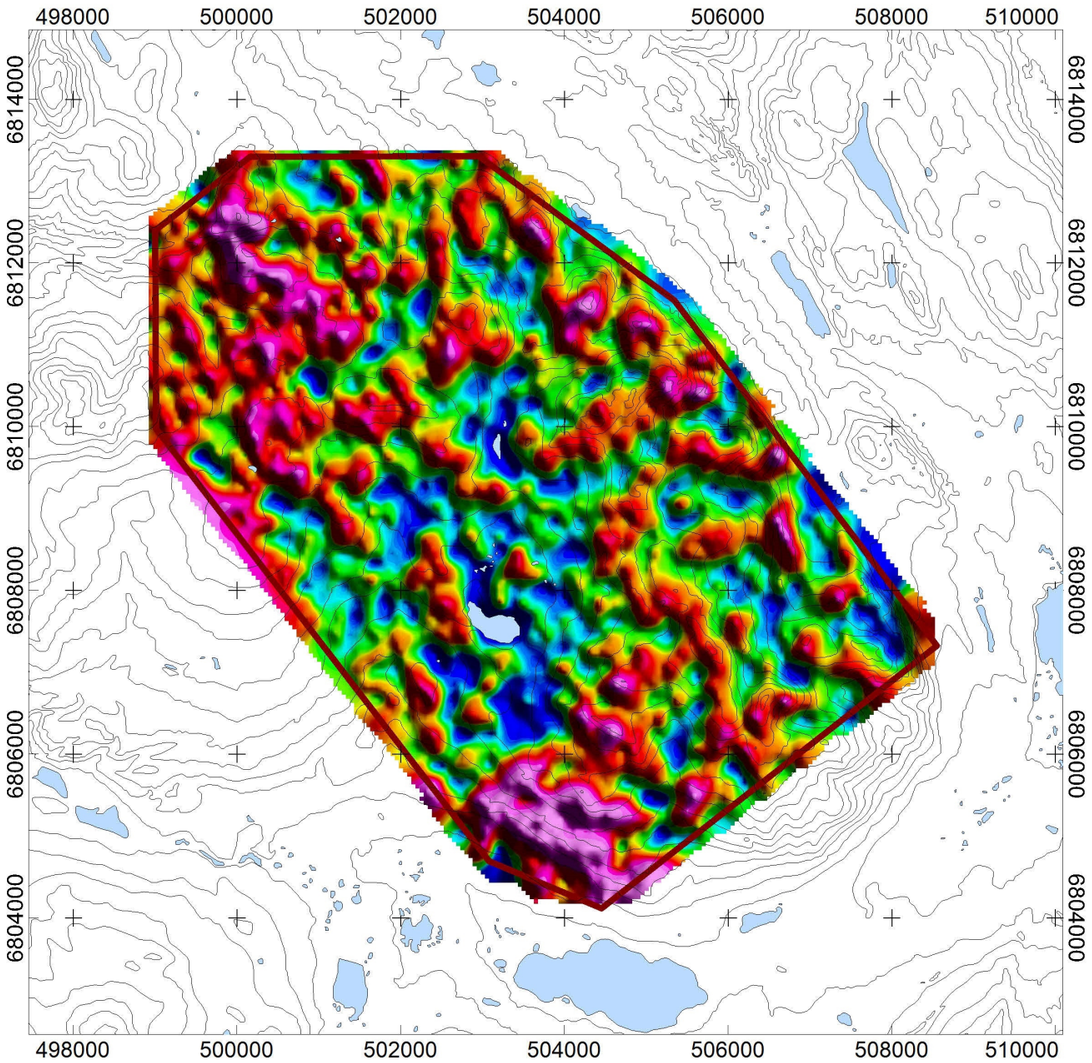
Bernie Kreft

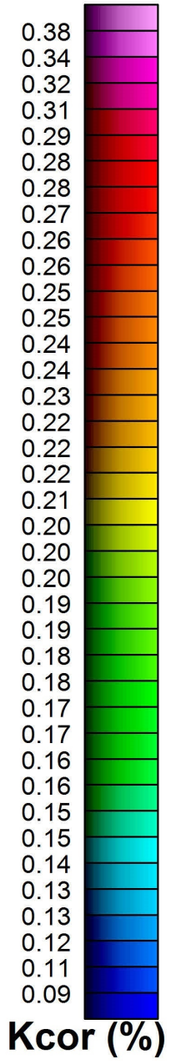
Magnetic Map

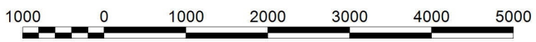
Fox Lake East Survey Block
Calculated Vertical Gradient
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

CVG







WGS 84 / UTM zone 8N

LEGEND

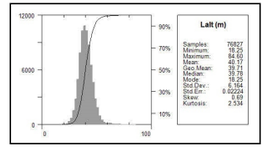
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

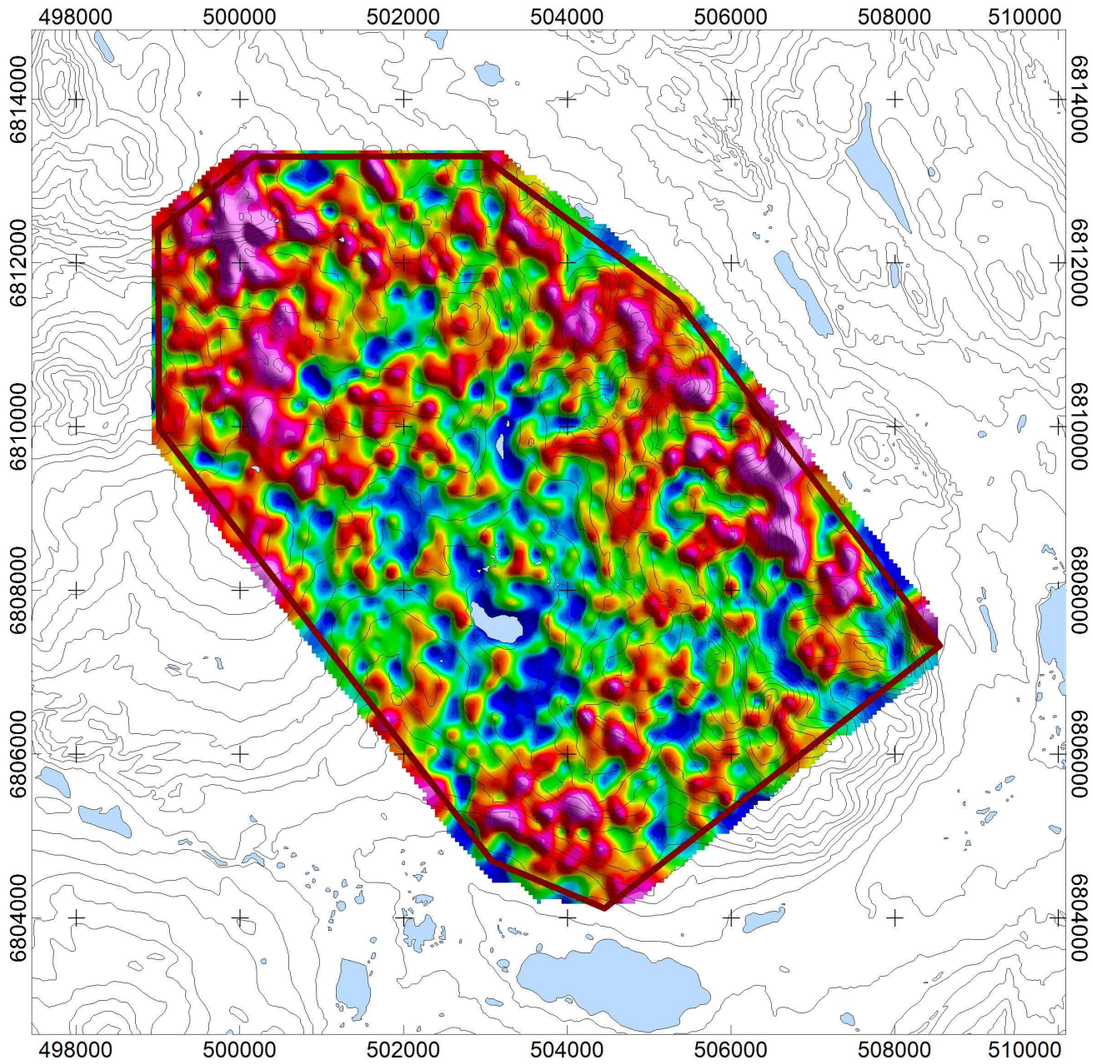
Bernie Kreft

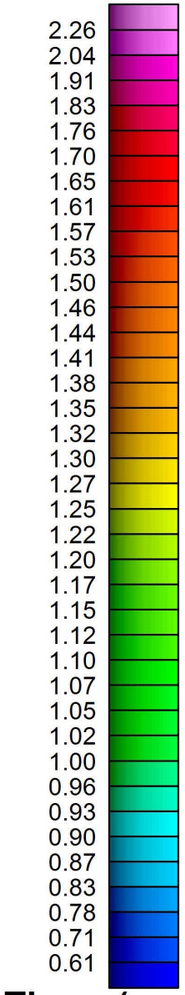
Radiometric Map

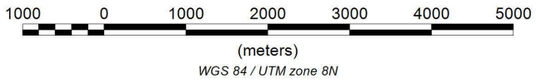
Fox Lake East Survey Block
Potassium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

%K







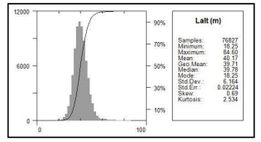
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

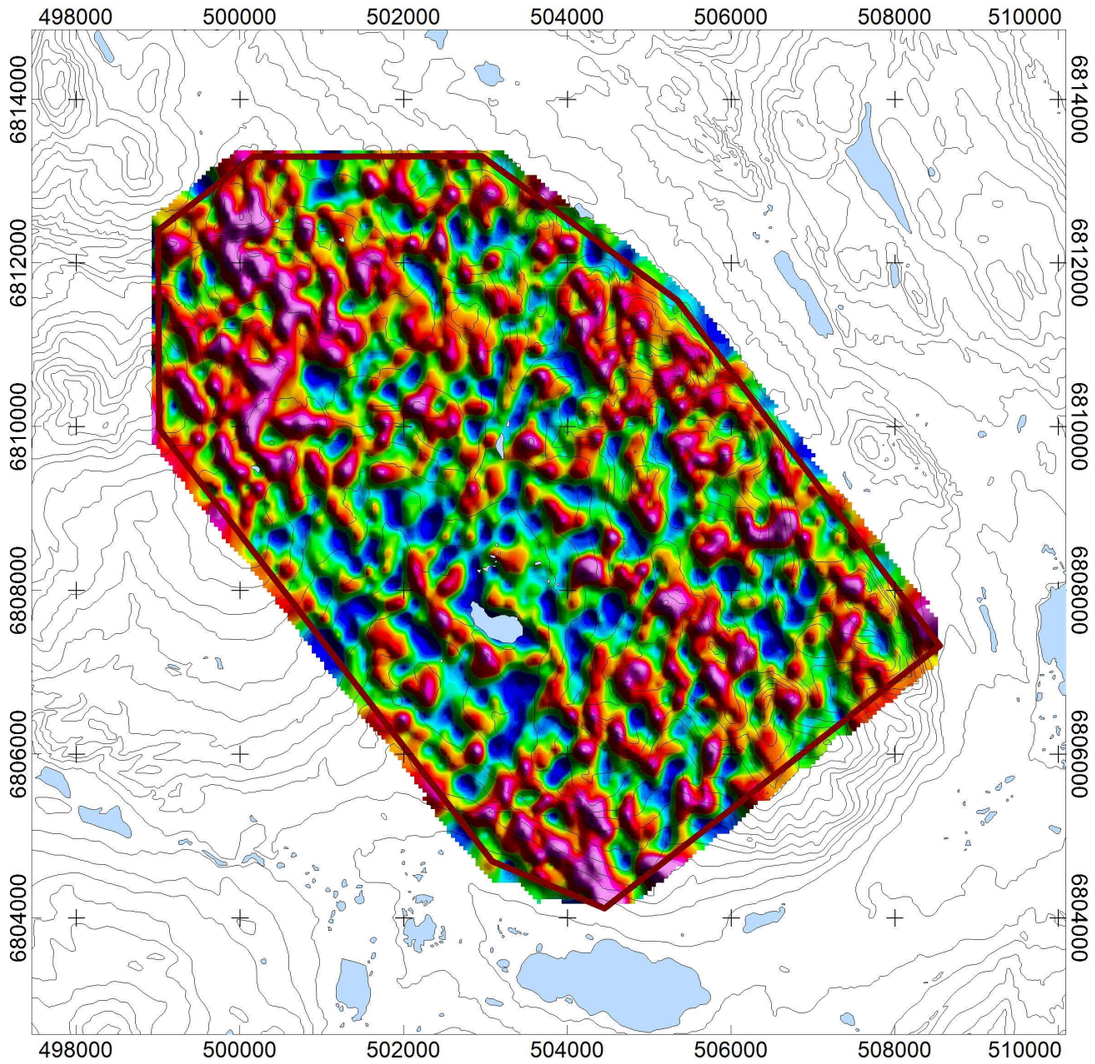
Bernie Kreft

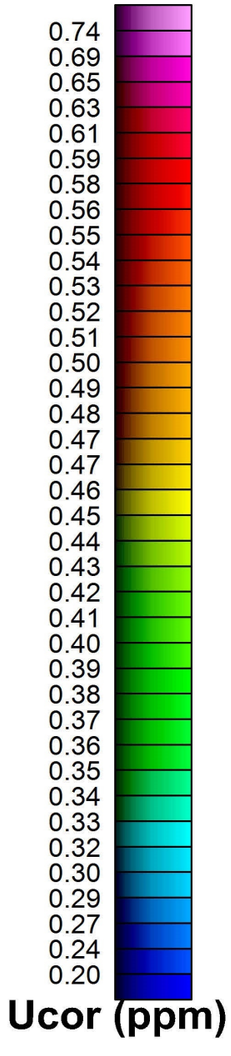
Radiometric Map

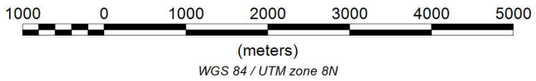
Fox Lake East Survey Block
Thorium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eTh







LEGEND

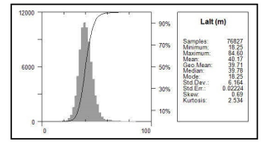
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

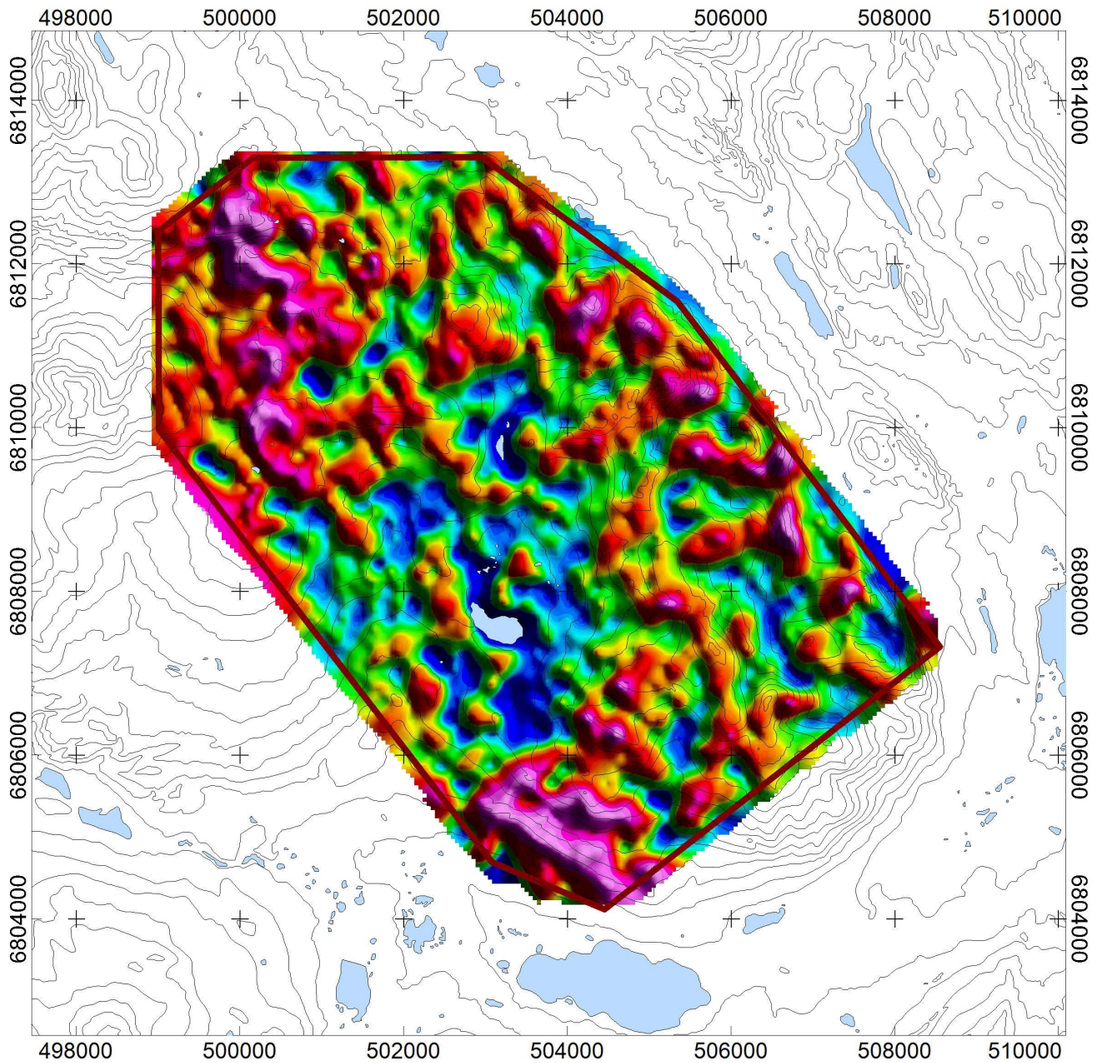
Bernie Kreft

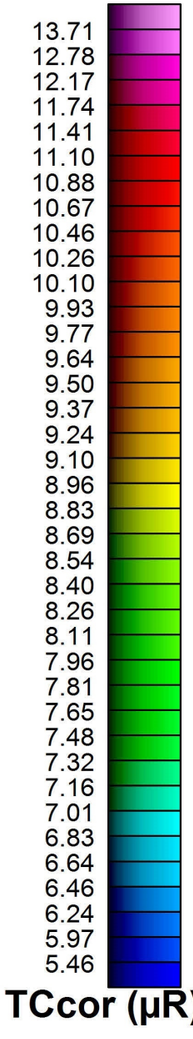
Radiometric Map

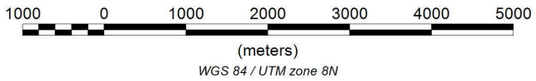
Fox Lake East Survey Block
Uranium - Equivalent Concentration
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eU







LEGEND

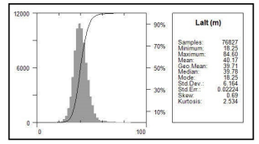
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

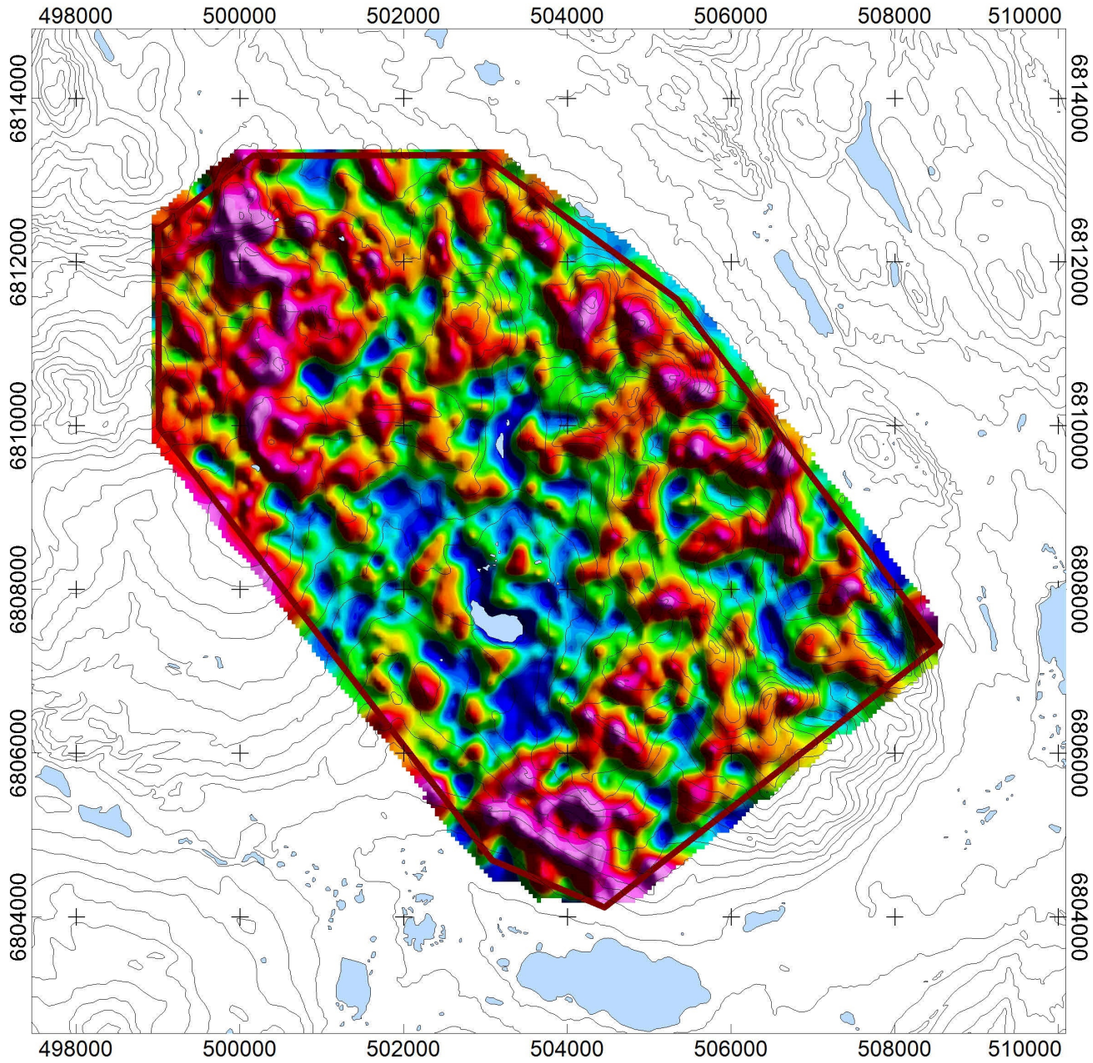
Bernie Kreft

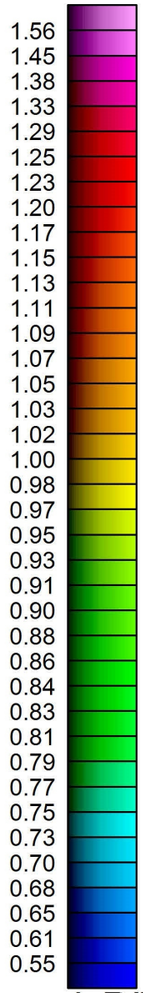
Radiometric Map

Fox Lake East Survey Block
Total Count - Equivalent Dose Rate
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

TCcor





TCexp (µR/Hr)

1000 0 1000 2000 3000 4000 5000

(meters)

WGS 84 / UTM zone 8N

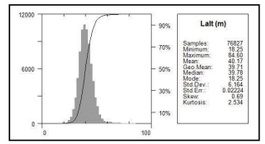
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

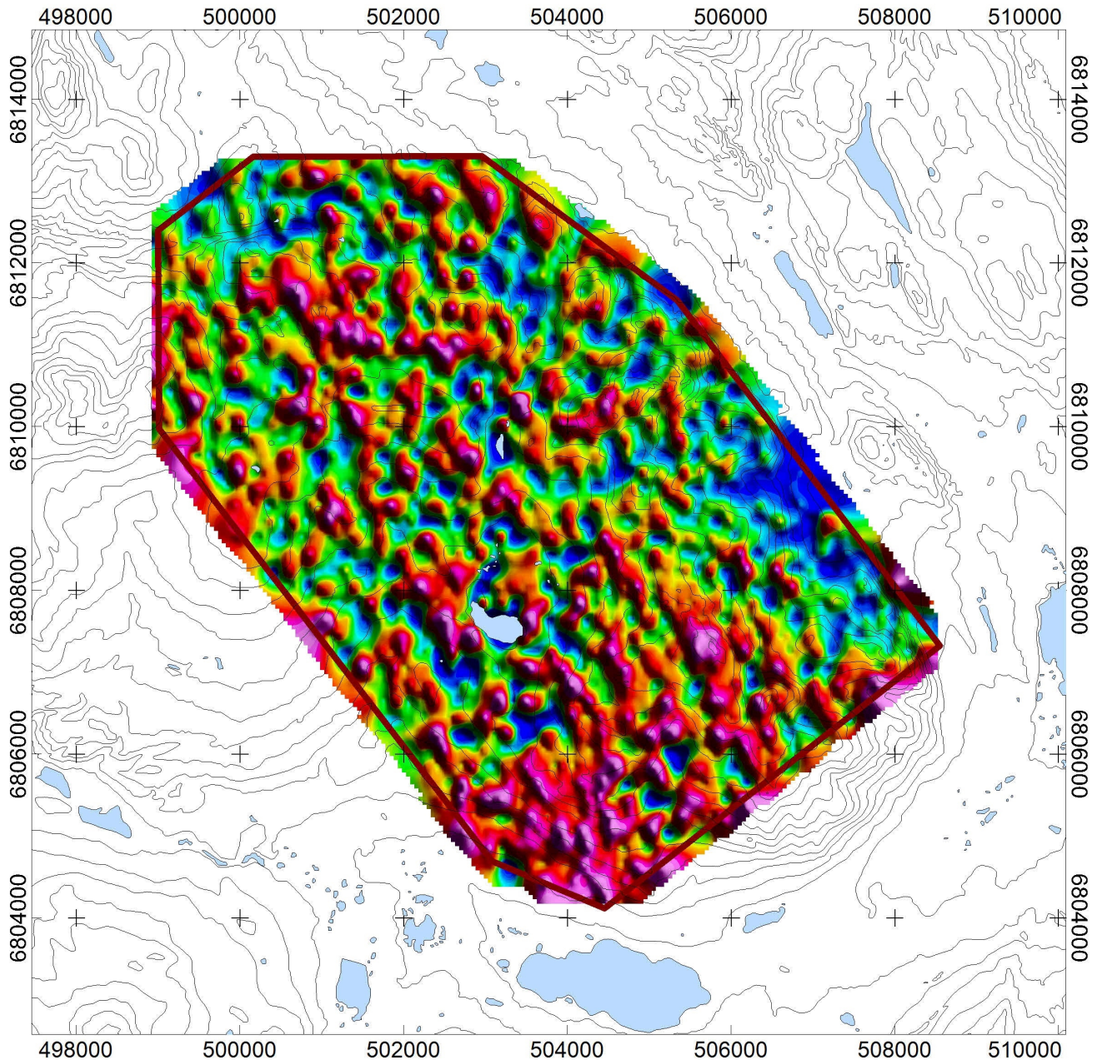
Bernie Kreft

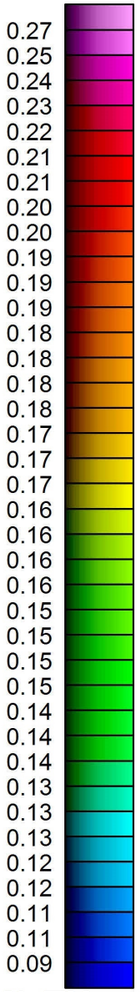
Radiometric Map

Fox Lake East Survey Block
Total Count - Exposure Rate
Created By: Precision GeoSurveys Inc.
August 9, 2014

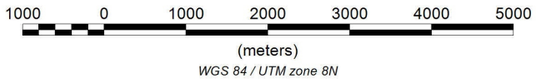
Precision GeoSurveys

TCexp





%K/eTH ratio



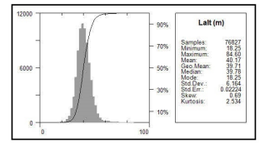
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

AIRBORNE SYSTEMS:

Scintrex CS-3 Magnetometer Sensor

Configuration:	Stinger with 3 axis compensation
Sample Rate:	10 Hz
Sensitivity:	0.01 nT

Gamma Ray Spectrometer

Pico Envirotec GRS-10 Gamma Spectrometer
12.6 litres of NaI(T1) synthetic "downward looking" crystals
and 4.2 litres of NaI (T1) synthetic "upward looking" crystals

Sample Rate:	1 Hz

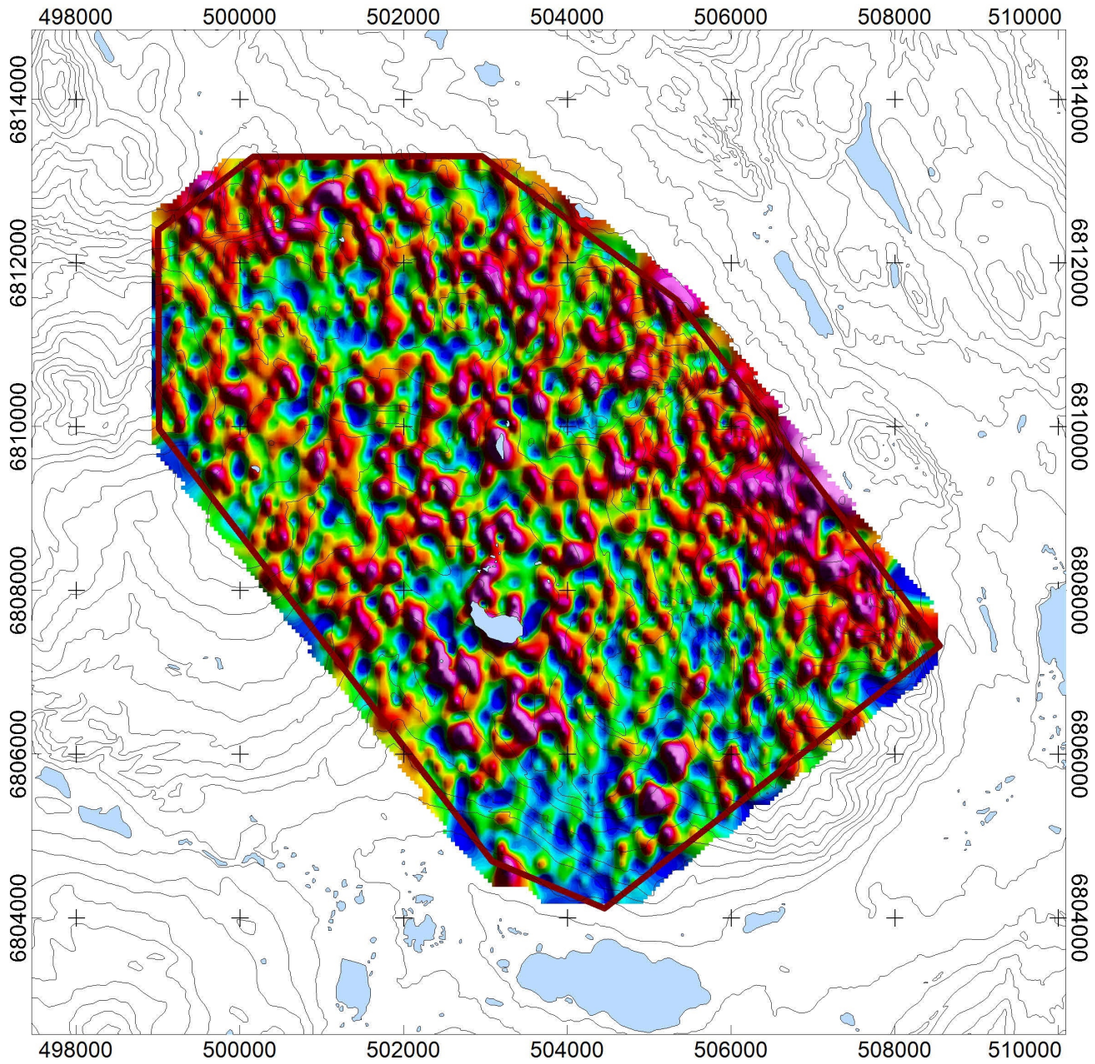
Bernie Kreft

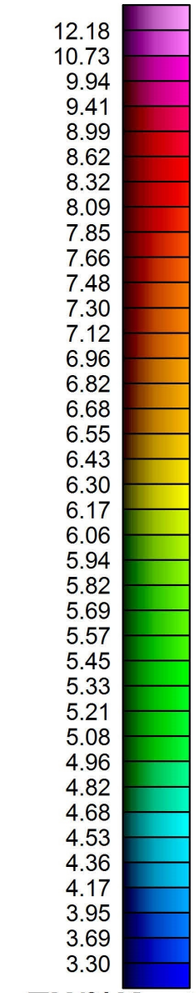
Radiometric Map

Fox Lake East Survey Block
Potassium over Thorium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

%K/eTh





eTH/%K ratio

1000 0 1000 2000 3000 4000 5000

(meters)

WGS 84 / UTM zone 8N

LEGEND

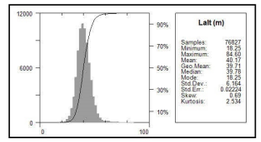
Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:

Helicopter:	40.0 meters
Magnetometer:	40.0 meters
Radiometric:	40.0 meters
Actual Mean Terrain Clearance:	40.2 meters



Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
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Sample Rate:	1 Hz

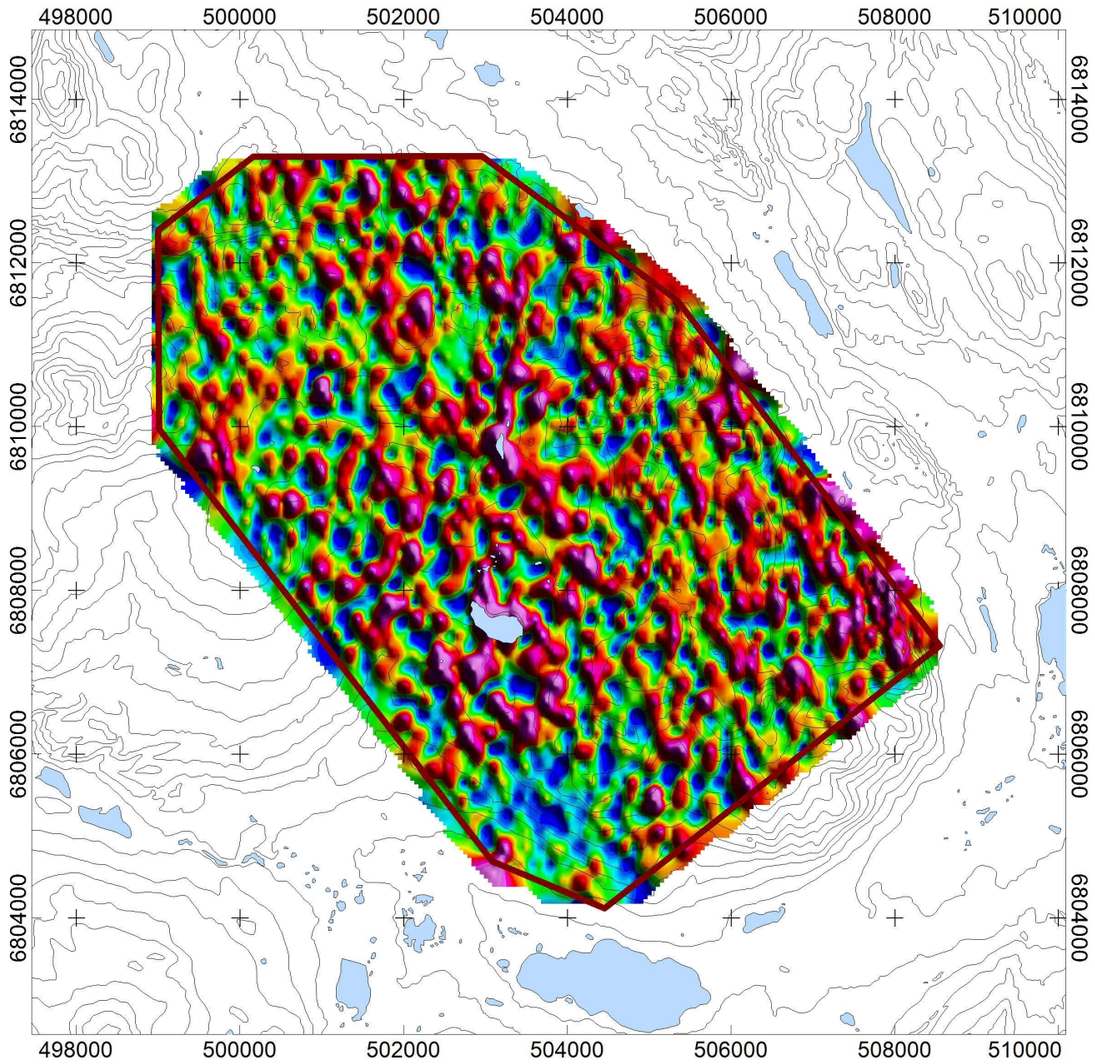
Bernie Kreft

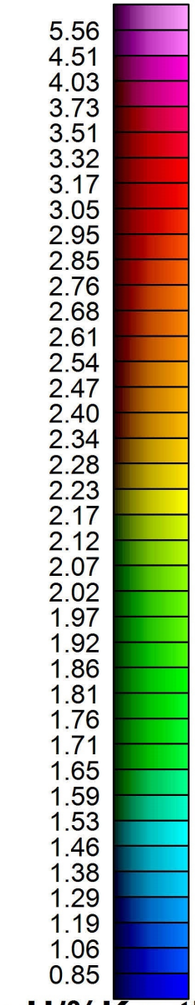
Radiometric Map

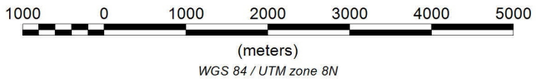
Fox Lake East Survey Block
Thorium over Potassium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eTh/%K







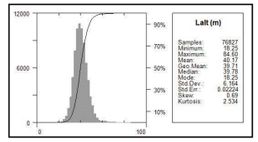
LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
Survey Technology:	Magnetic and Radiometric survey.

SURVEY PARAMETERS:



Helicopter:	40.0 meters
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Actual Mean Terrain Clearance:	40.2 meters

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
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Sample Rate:	1 Hz

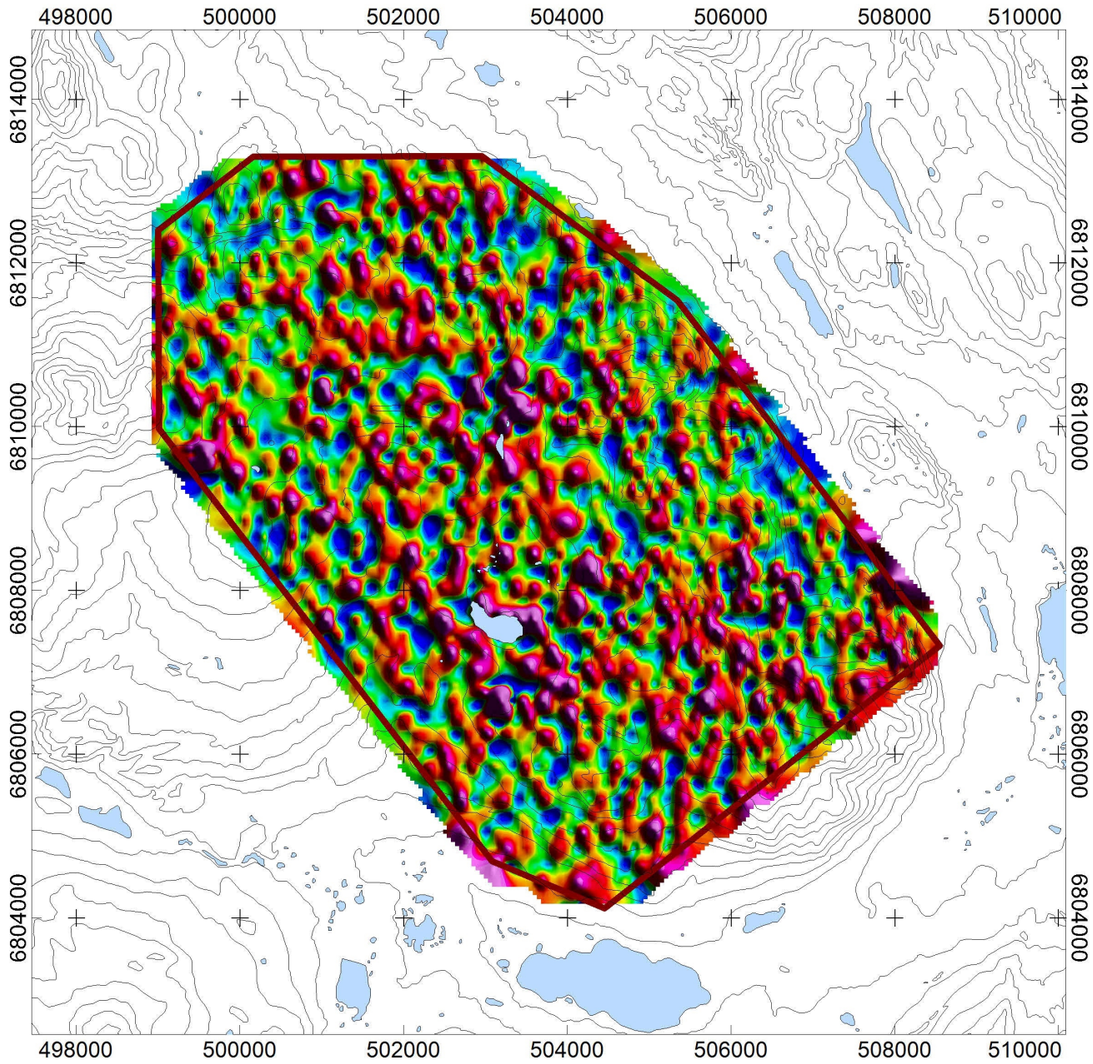
Bernie Kreft

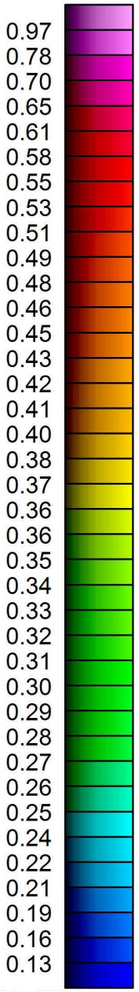
Radiometric Map

Fox Lake East Survey Block
Uranium over Potassium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

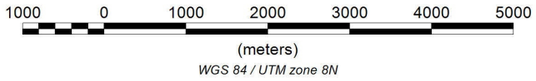
Precision GeoSurveys

eU/%K





eU/eTH ratio



LEGEND

Map Projection:

Projection: Universal Transverse Mercator
Central Meridian: 225 Zone 8N
Datum: WGS 84

Survey Dates:	July 22, 2014
Survey Base:	Whiterhorse, YT
Helicopter Type:	Eurocopter AS350
Registration:	C-GOHK
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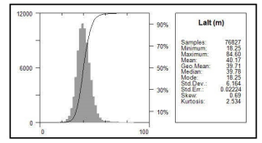

Fox Lake East Survey Block

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Sample Rate:	1 Hz

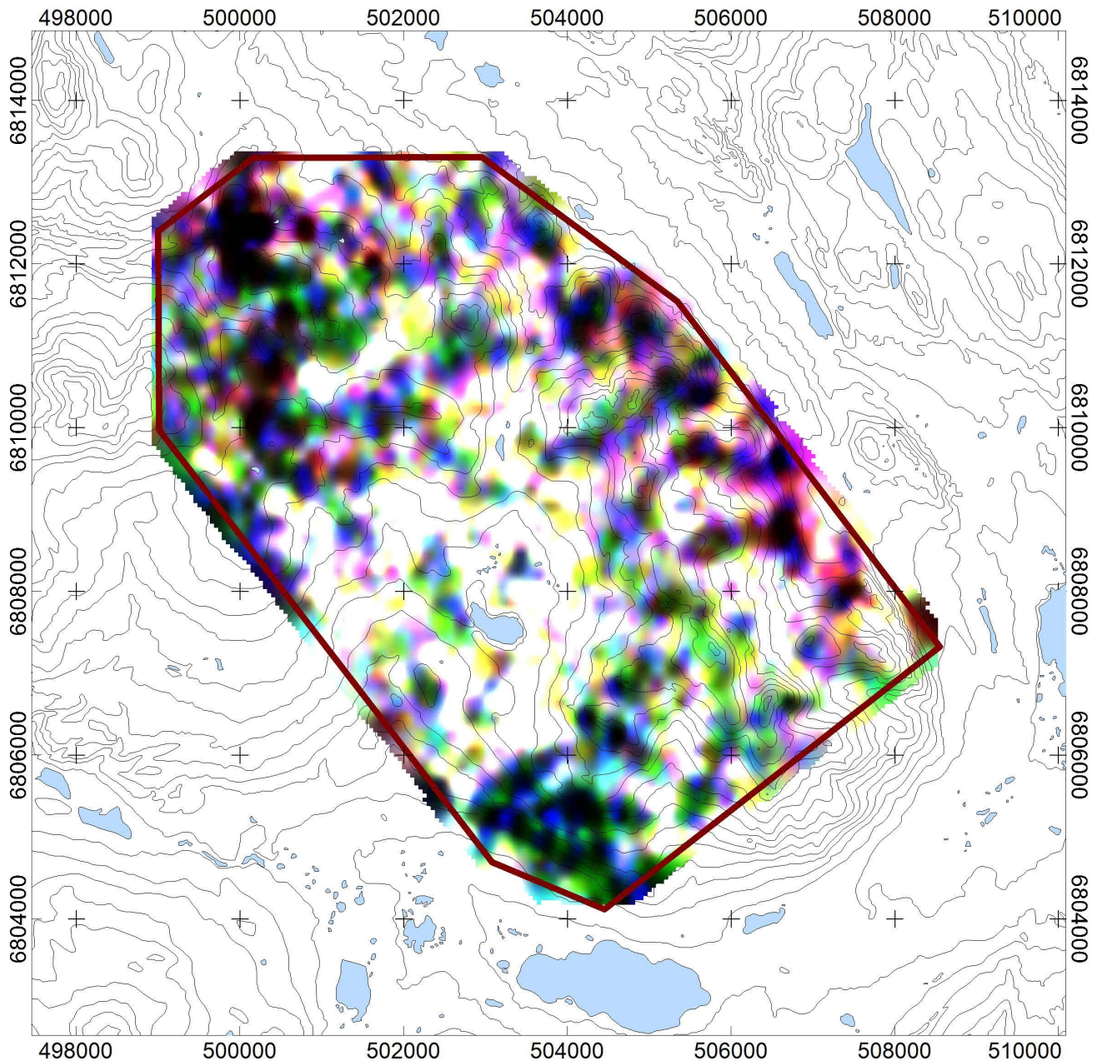
Bernie Kreft

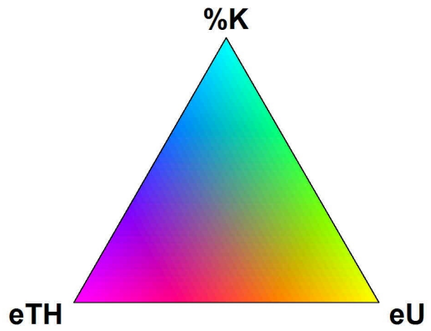
Radiometric Map

Fox Lake East Survey Block
Uranium over Thorium Ratio
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

eU/eTh





1000 0 1000 2000 3000 4000 5000

(meters)

WGS 84 / UTM zone 8N

LEGEND

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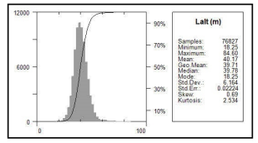

Fox Lake East Survey Block

Survey Line Spacing:	200 meters
Survey Line Direction:	090°-270°
Tie Line Spacing:	2000 meters
Tie Line Direction:	000°-180°

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Sample Rate:	1 Hz

Bernie Kreft

Radiometric Map

Fox Lake East Survey Block
Ternary Map
Created By: Precision GeoSurveys Inc.
August 9, 2014

Precision GeoSurveys

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