

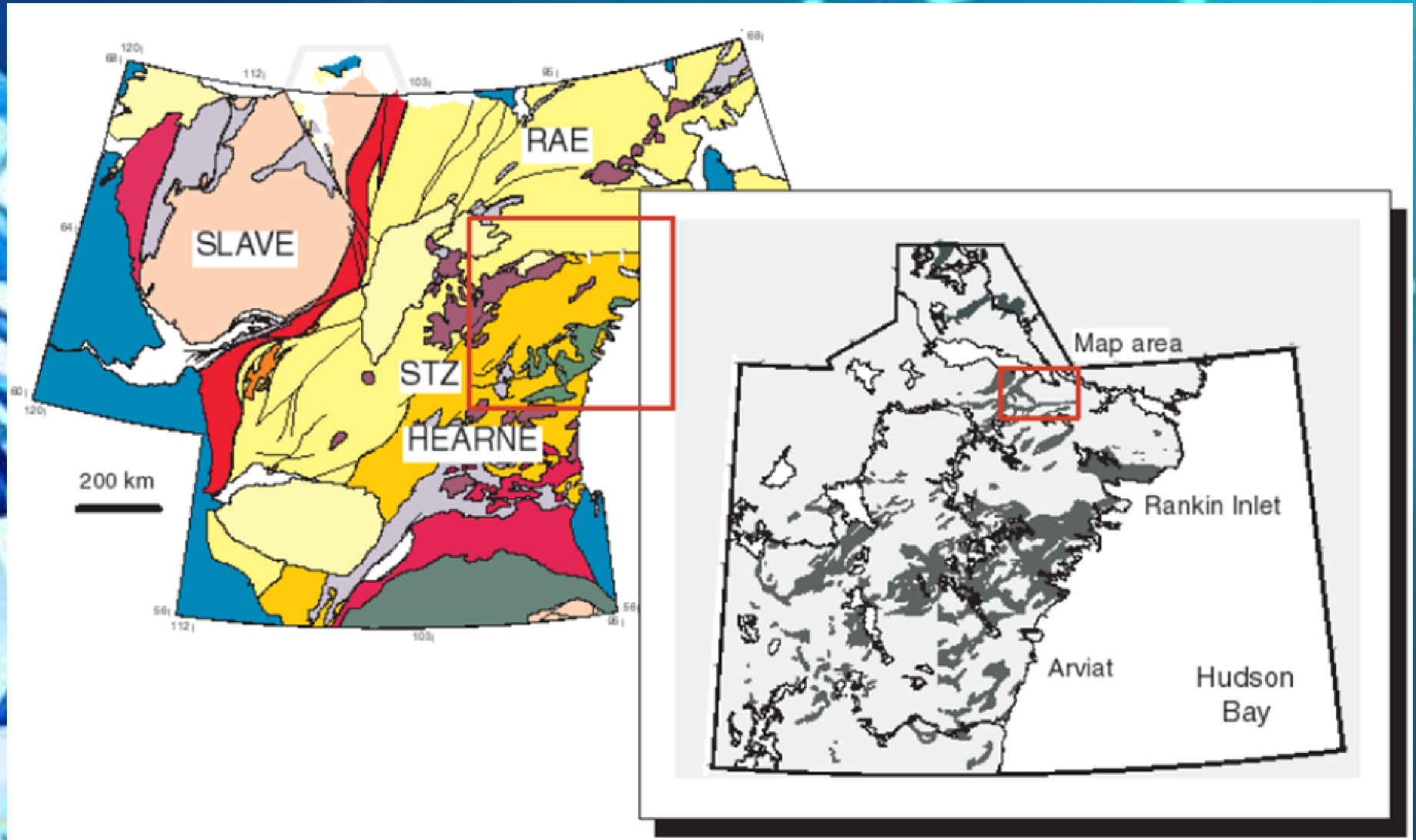
Parker lake Diamond Prospect Nunavut territory, Canada



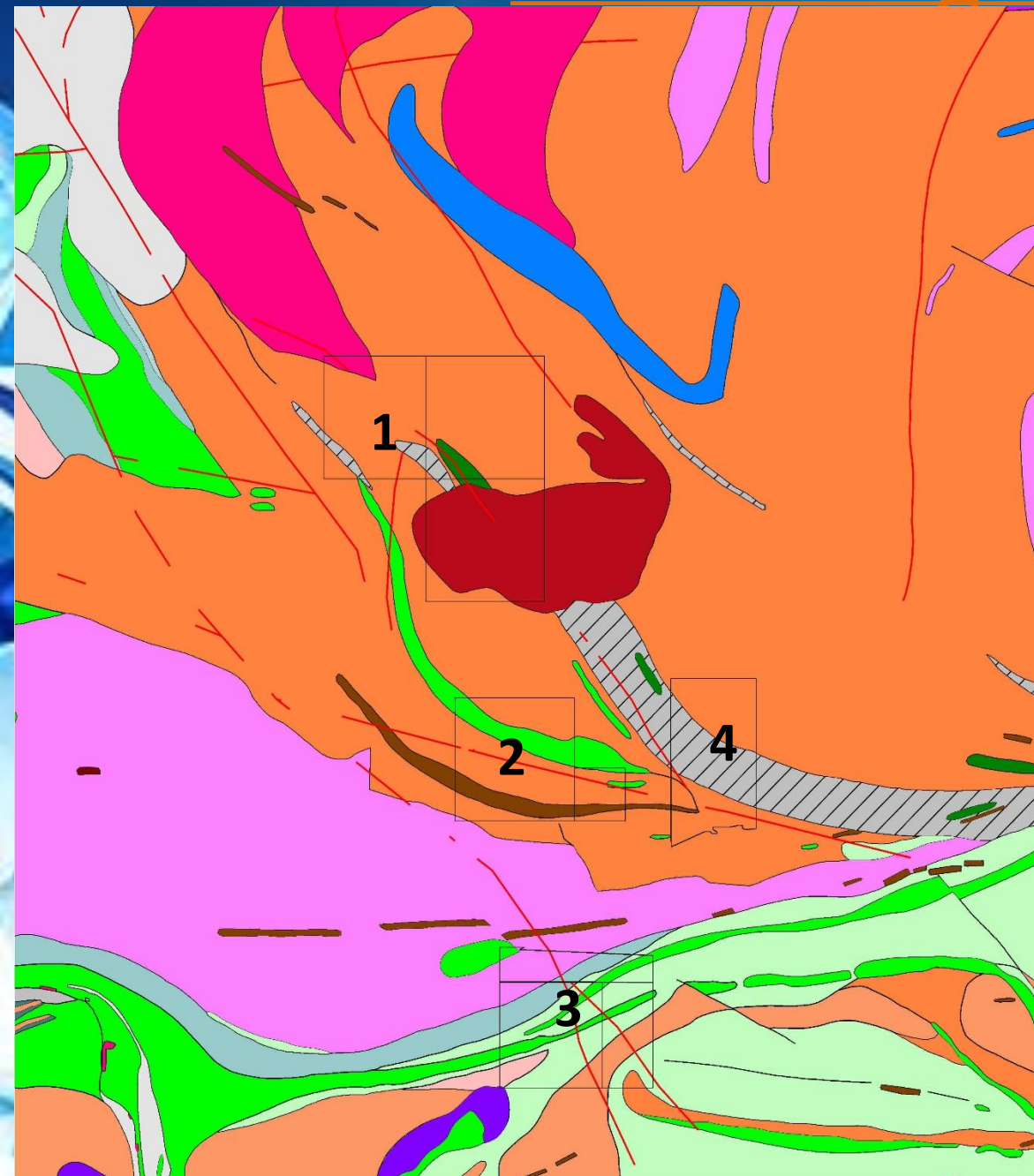
Project milestones

- 1996-1997: Wide reconnaissance till sampling program
- 2004 – 2005: Detailed till sampling program
- 2006: Fugro Airborne Surveys flew a frequency-domain EM/Mag airborne geophysical survey
- 2007: Condor Consulting have completed their interpretation of Airborne geophysical survey
- 2013: New claims have been staked by KM Diamond Exploration
- 2013 – 2014 Reinterpretation of geophysical data has been completed, including 3D modelling and inversion of airborne Total Magnetic Intensity (TMI) data

Tectonic setting



Claims and geology



Geology

QUATERNARY

Q Glacial, fluvial and marine deposits

PALEOPROTEROZOIC

Pgr Granite, monzogranite, biotite - bearing, massive to weakly cleaved, pink to salmon, coloured, equigranular to porphyric; may contain disseminated magnetite and fluorite; locally contain panels of mylonitic straight gneiss (Pgm)

Pgm Straight gneiss, mylonite, principally derived from tonalite to granite protoliths; Big Lake shear zone (hatched units); includes other lithologies

Pdm Diabase dyke swarm (ca 2.19 Ga MacQuoid dykes); predominantly east-trending, in part plagioclase phyrlic, generally metamorphosed; weakly deformed south of the straight gneiss (Pgm), but highly deformed north of the straight gneiss

ARCHEAN AND PALEOPROTEROZOIC

A'g K-feldspar, augen granite - granodiorite; weakly to well foliated

A'gd Granodiorite; pink to grey, weakly to well foliated

A'gb Gabbro: massive to weakly foliated, coarse-grained; locally contains inclusions of Atp and At

ARCHEAN

Atp Tonalite with subordinate granodiorite: as coherent plutons with massive to weakly foliated centres and locally well-foliated margins; locally well-lineated (L-tectonite); may contain fine-grained disseminated magnetite

Adt Tonalite to diorite; weakly to well foliated, locally gneissic, minor gabbro

At Tonalite (gneissic): layered to banded hornblende-biotite orthogneiss; includes discontinuous layers of semipelite/psammite (As); may contain abundant xenoliths of metamorphic rocks (Av), amphibolite (Am), ultramafics and remnants of banded iron formation (Aif)

Adi Diorite to gabbro; well foliated and lineated, locally gneissic

Am Amphibolite: mostly, or in part derived from metavolcanic rocks (Av)

As Metasedimentary rocks: semipelite/psammite with garnet + biotite + staurolite + andalusite + muscovite schist/paragneiss; local metamorphosed quartz magnetite banded iron formation; local quartz arenite and conglomerite

Aif Banded iron formation (oxide and silicate facies)

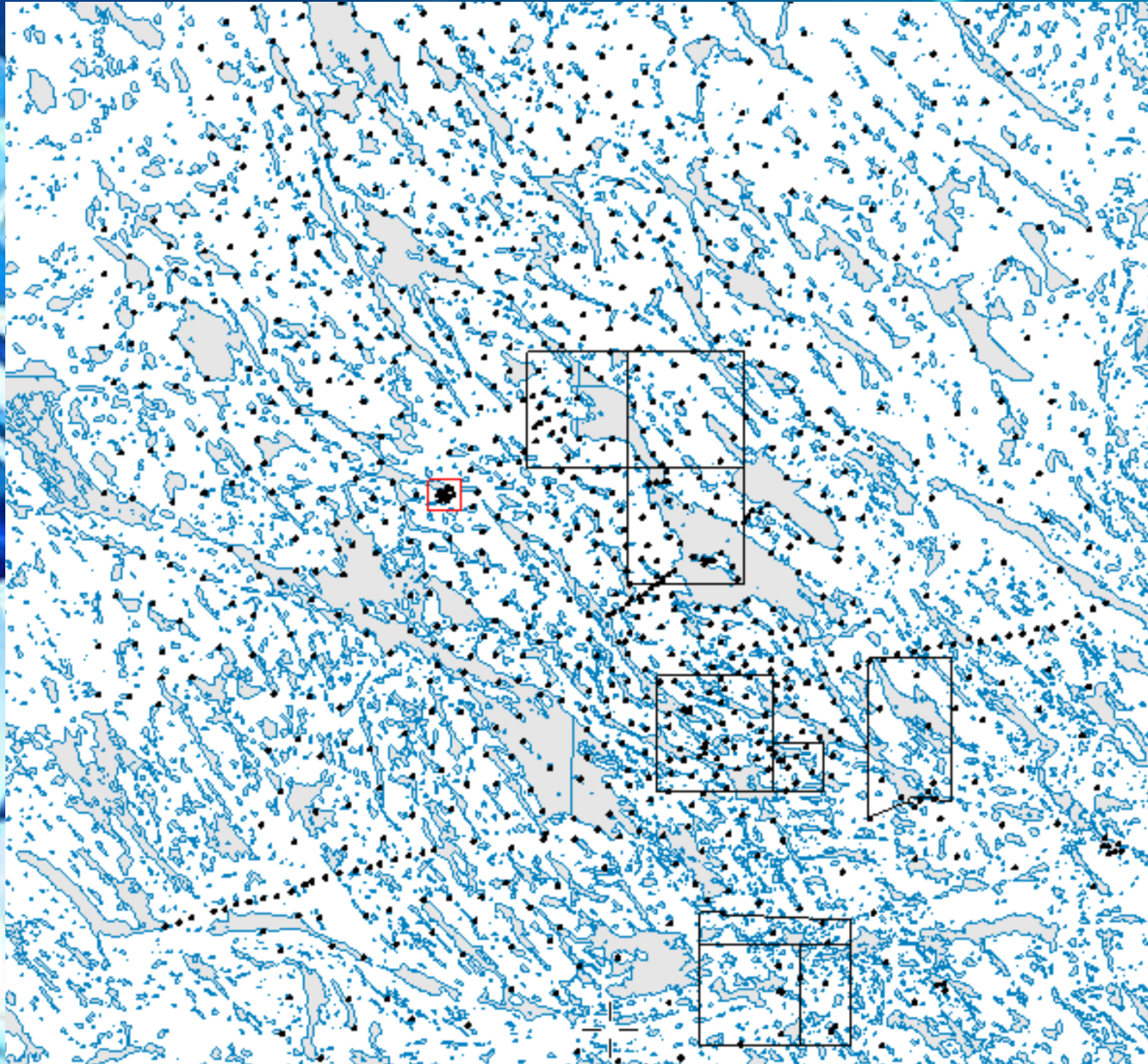
Afv Intermediate, mafic and minor felsic volcanic rocks, volcanoclastic rocks interpreted as lithic and crystal tuffs, minor volcanoclastic breccia, and minor gabbro sills in part metamorphosed to garnet amphibolite

Av Mafic to intermediate flows intercalated volcanoclastic rocks, pillow breccia, rarely preserved pillows, in part metamorphosed to garnet amphibolite

Claim block parameters

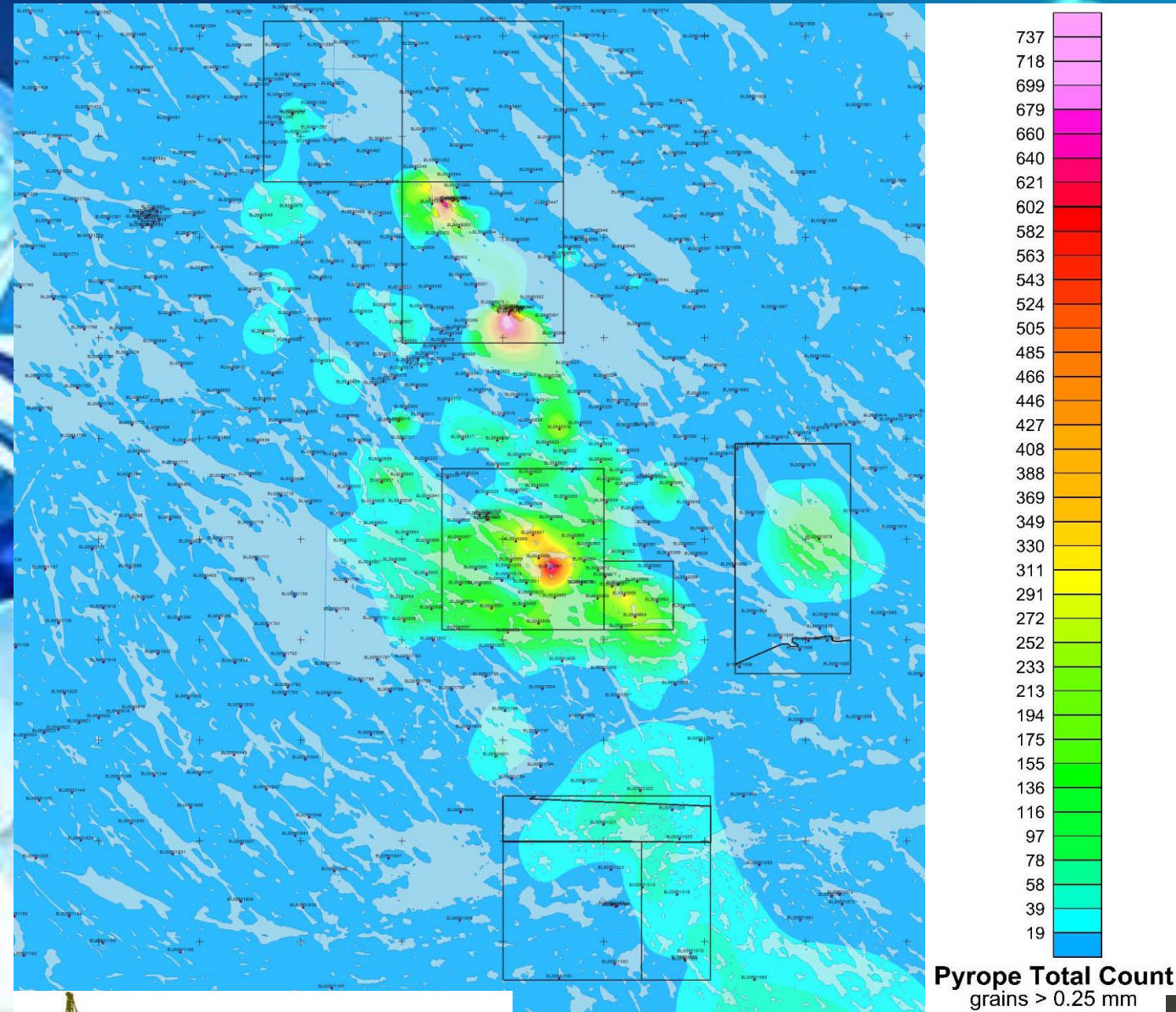
Claim block #	Size		
	acres	hectares	km ²
1	7,222.00	2,922.70	29,23
2	3,000.45	1,214.26	12.14
3	3,592.20	1,453.74	14,54
4	2,268.00	917.84	9.18
Total	16,082.65	6,508.54	65.09

Till sampling program



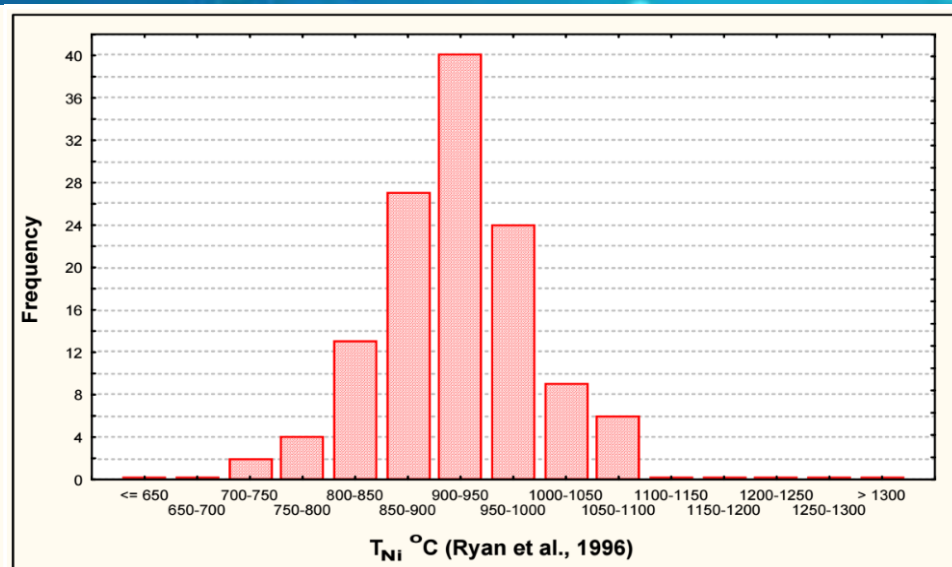
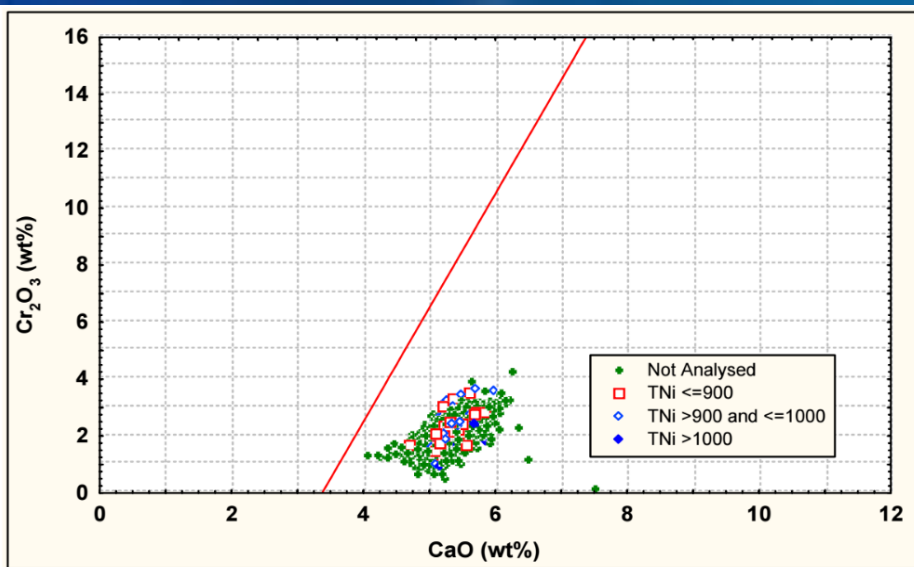
- Till sampling program took part in 2004 and 2005
- A total of 1097 till samples were collected
- Sample volume was 20 to 40 liters
- Samples were processed and examined in laboratory yielding total pyrope count and grain size

Total pyrope count



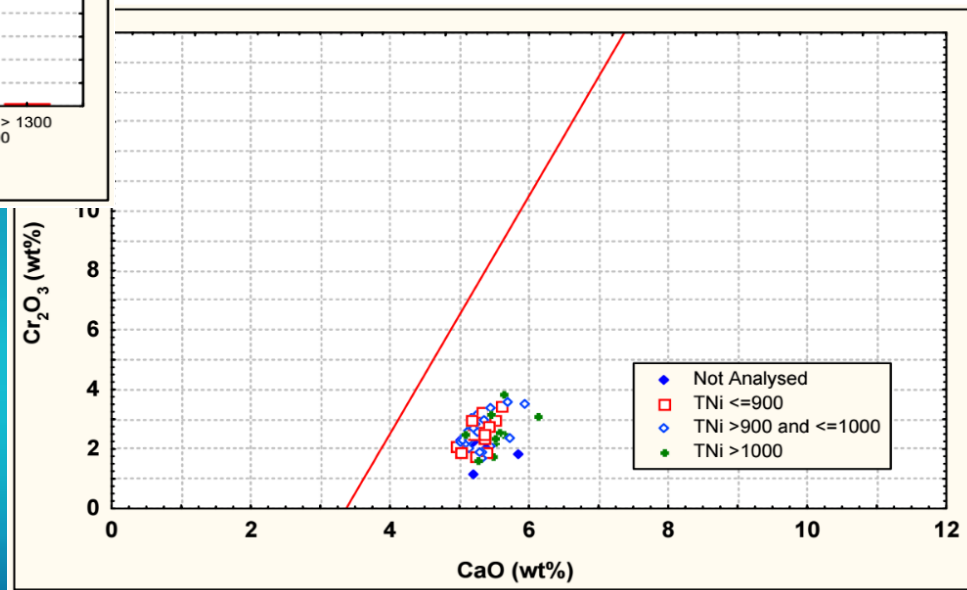
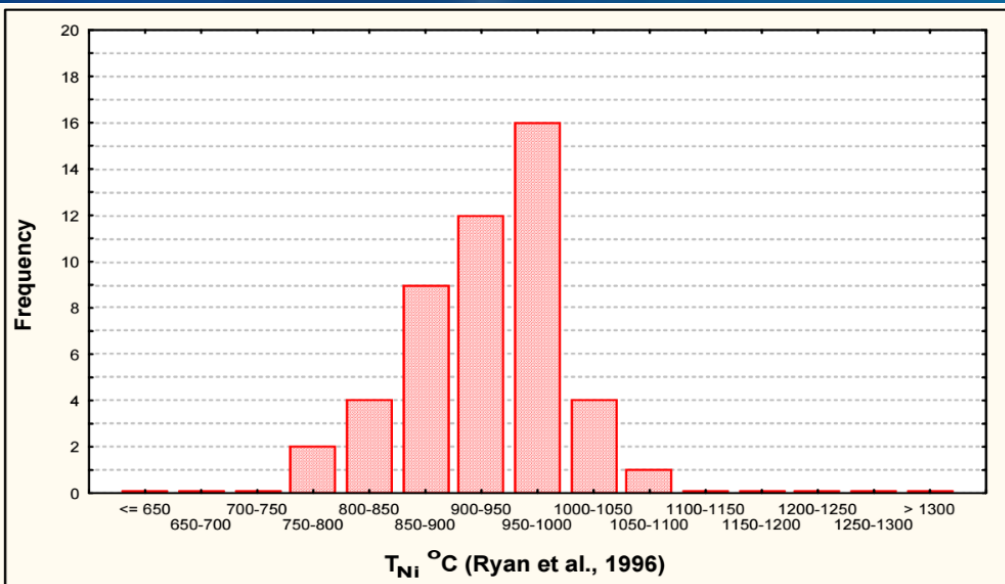
- Only grains larger than 0.25 mm were considered
- In some samples the total count reached over 800 grains
- Grain roundness is extremely poor indicating to local origin of pyropes

Pyrope Ni-thermometry



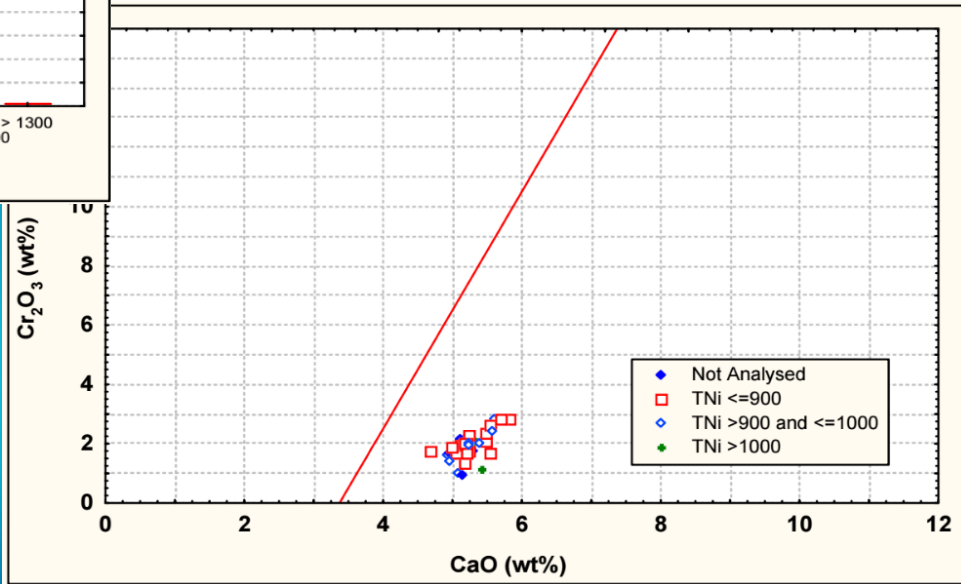
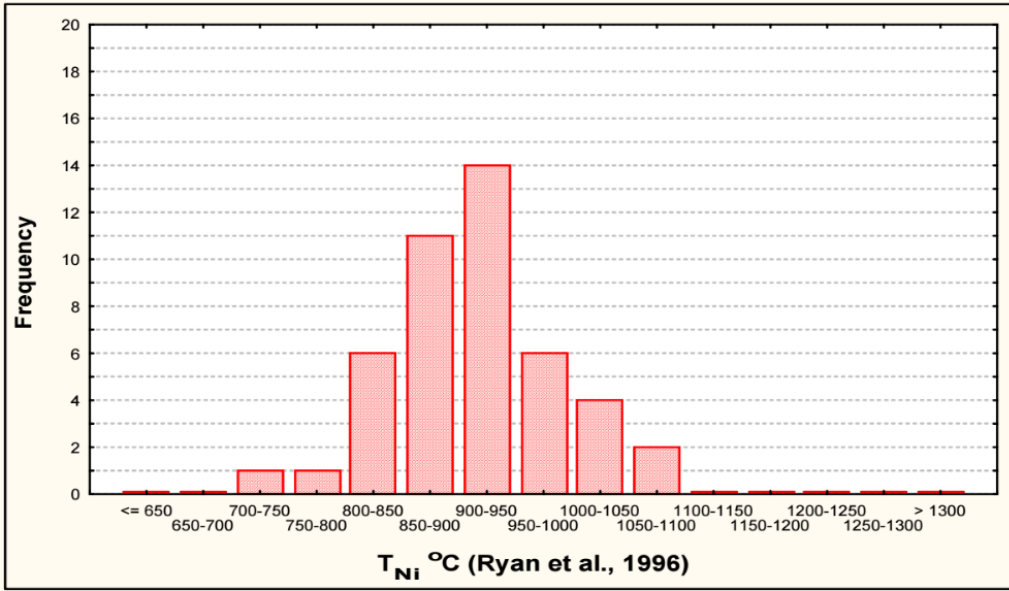
Sample	Total G9's	Total G9's Analysed	G9 > 850°C (35mW/m ²)	G9 > 1000°C (40mW/m ²)	G9 > 1250°C (45mW/m ²)
BL-04-379	65	58	52	8	0
BL-04-967	50	50	42	9	0
BL-04-978	48	37	31	6	0

Pyrope Ni-thermometry (sample BL-04-379)



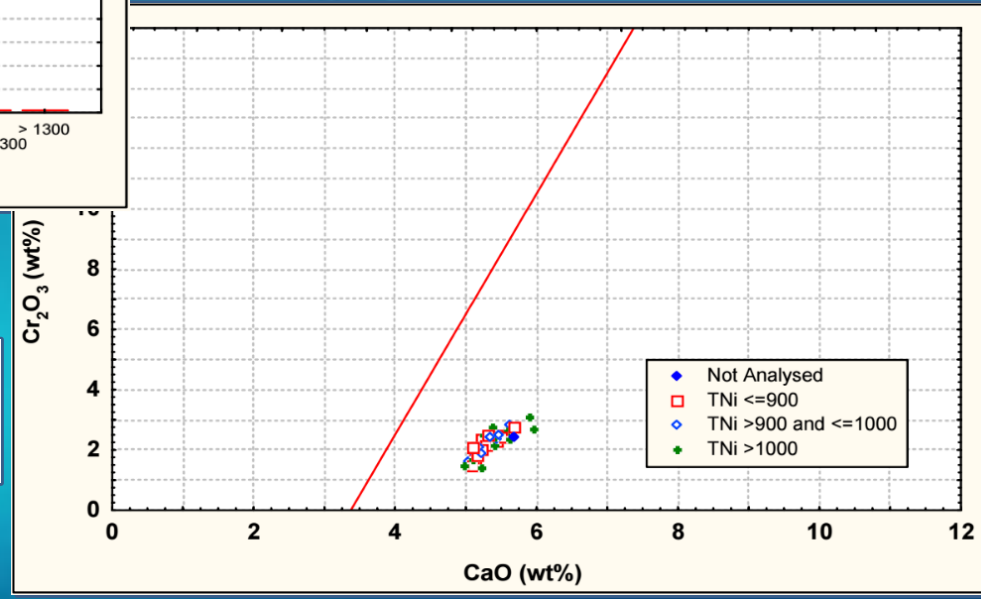
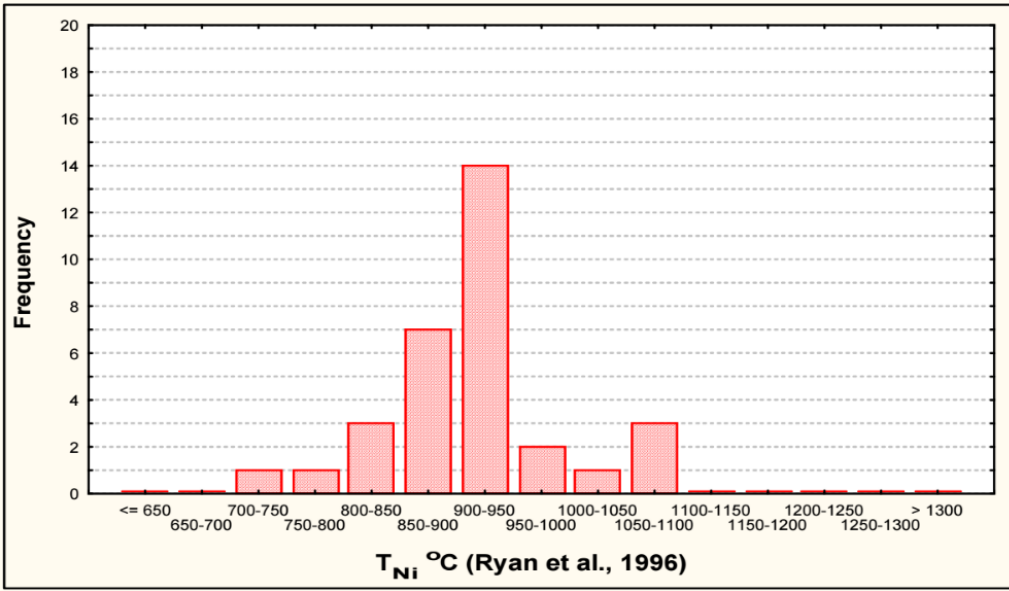
Sample	Total G9's	Total G9's Analysed	G9 > 850°C (35mW/m ²)	G9 > 1000°C (40mW/m ²)	G9 > 1250°C (45mW/m ²)
BL-04-379	65	58	52	8	0
TOTAL (%)	65	58	52 (90%)	8 (14%)	0

Pyrope Ni-thermometry (sample BL-04-967)



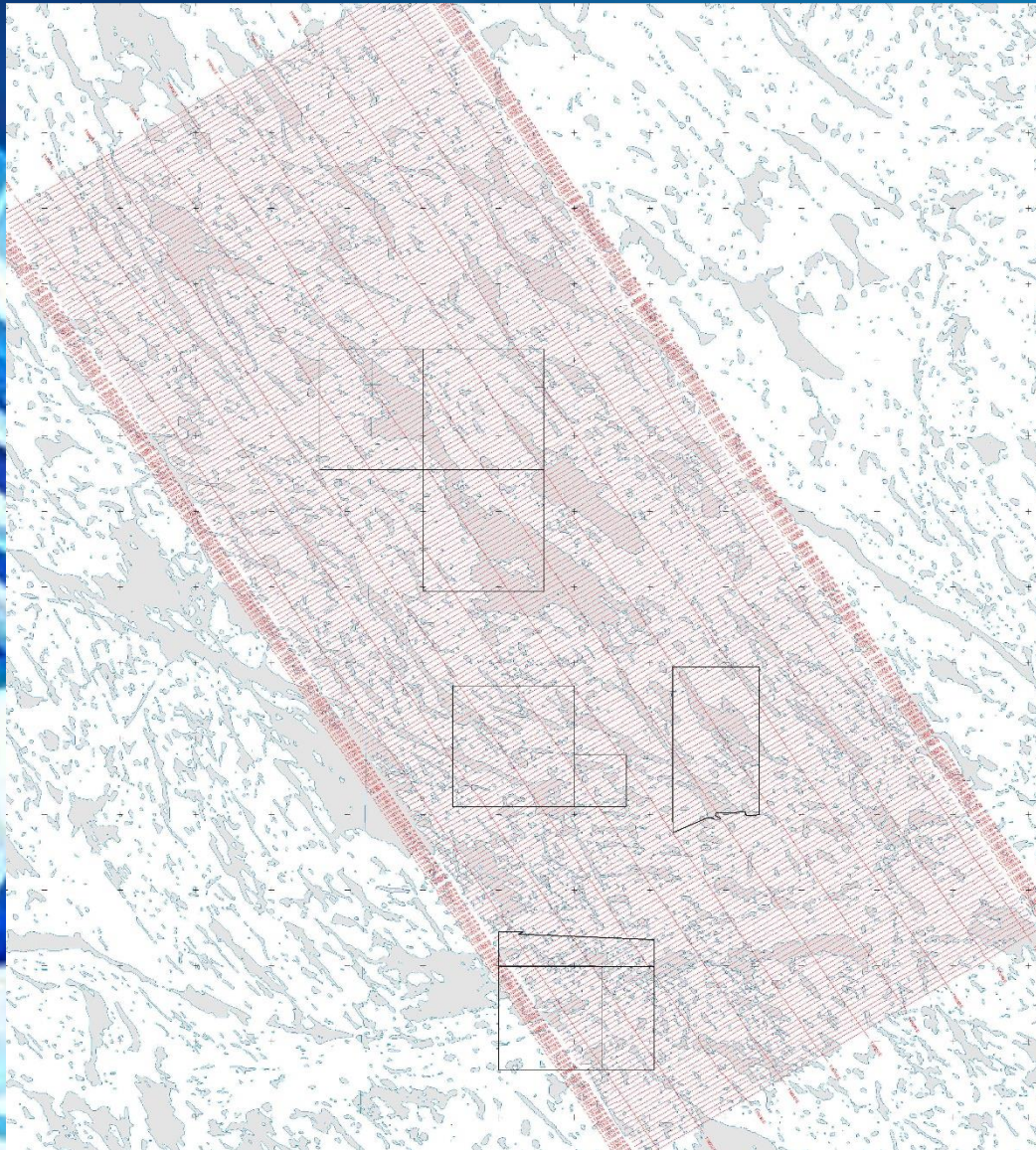
Sample	Total G9's	Total G9's Analysed	G9 > 850°C (35mW/m ²)	G9 > 1000°C (40mW/m ²)	G9 > 1250°C (45mW/m ²)
BL-04-967	50	50	42	9	0
TOTAL (%)	50	50	42 (84%)	9 (18%)	0

Pyrope Ni-thermometry (sample BL-04-978)



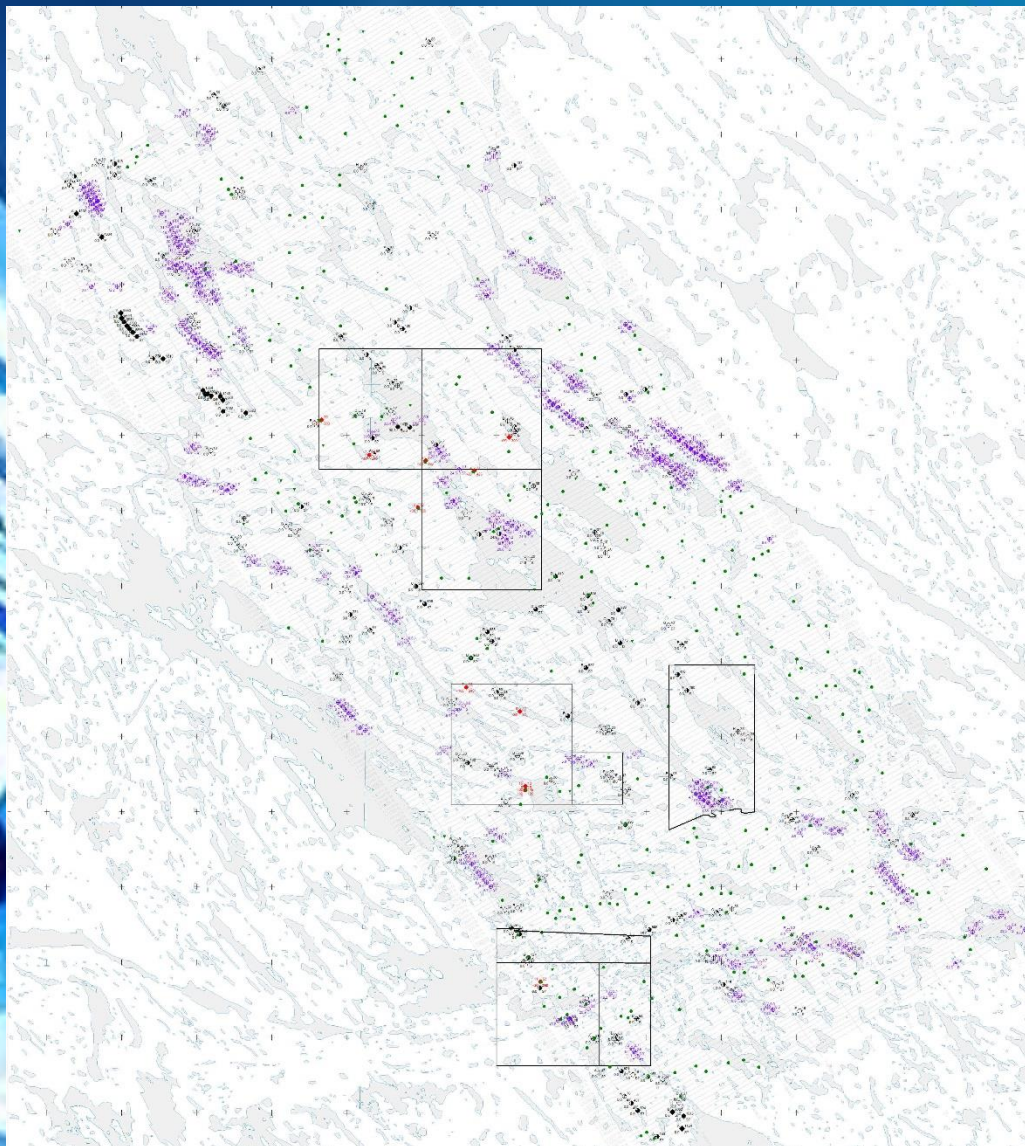
Sample	Total G9's	Total G9's Analysed	G9 > 850°C (35mW/m ²)	G9 > 1000°C (40mW/m ²)	G9 > 1250°C (45mW/m ²)
BL-04-978	48	37	31	6	0
TOTAL (%)	48	37	31 (84%)	6 (16%)	0

Geophysical program



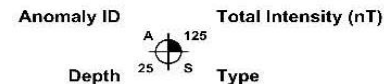
- Area was surveyed by Fugro Airborne Surveys in 2006 using Dighem FEM system
- 3267 km of Frequency Domain EM data were collected at 5 frequencies with 200 m line spacing
- A Total Magnetic Intensity (TMI) sensor was installed on the bird
- The data were further interpreted by Condor consulting and KM Geophysics, LLC

Geophysical data and interpretation








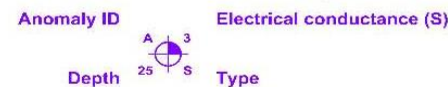
Fugro Magnetic Anomaly Symbols

- TMI < 25 nT 
- 25 nT < TMI < 50 nT 
- 50 nT < TMI < 100 nT 
- 100 nT < TMI < 500 nT 
- 500 nT < TMI < 1000 nT 
- 1000 nT < TMI 





Fugro EM Anomaly Symbols

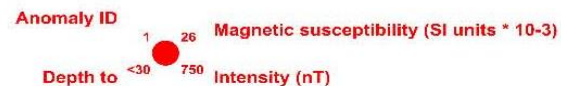
- 0 S < Conductance < 1 S 
- 1 S < Conductance < 2 S 
- 2 S < Conductance < 3 S 
- 3 S < Conductance < 4 S 
- 4 S < Conductance 



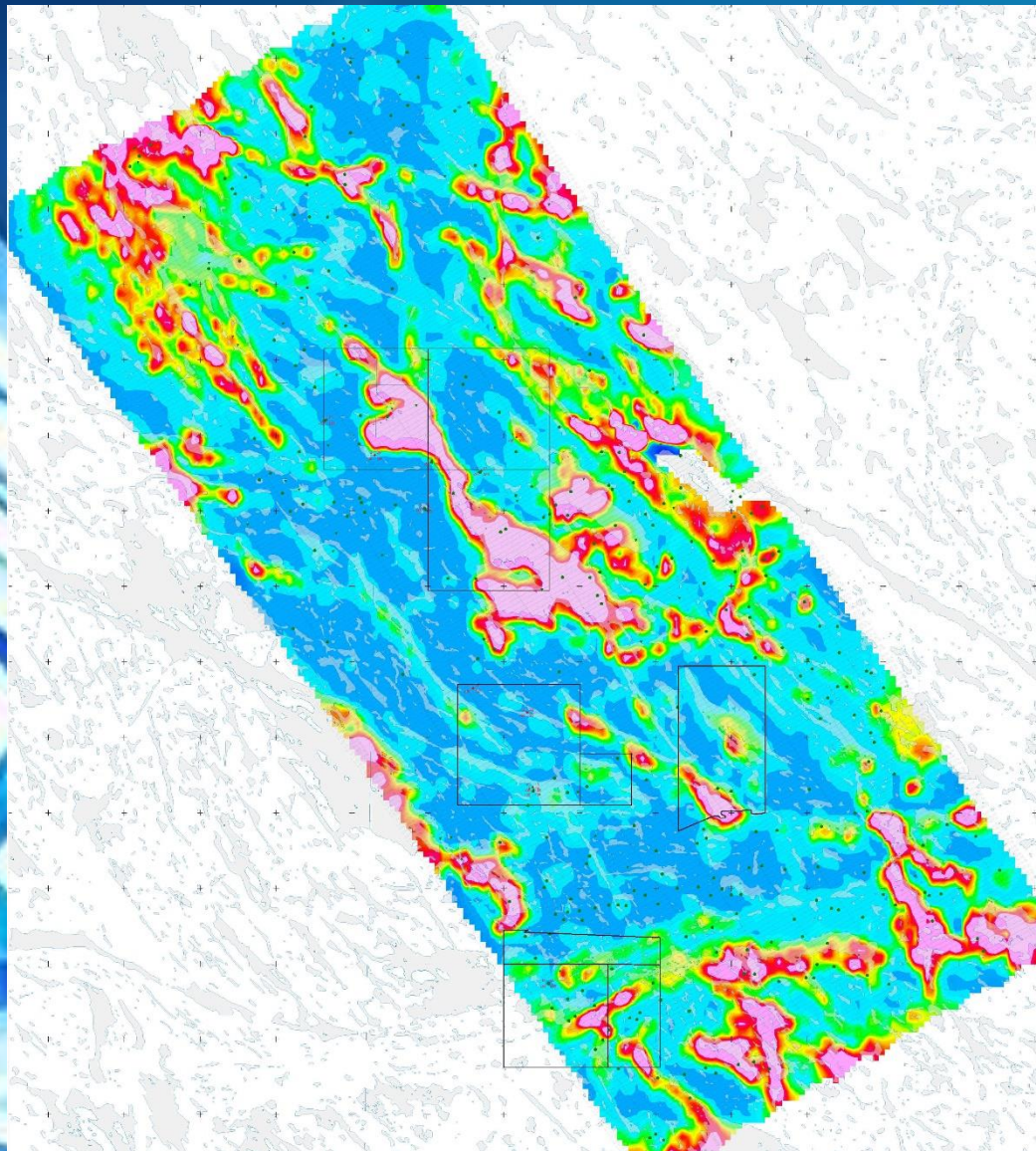
Condor anomalies

- Keating Rank 1 anomalies 
- Keating rank 2 anomalies 

KMG anomalies

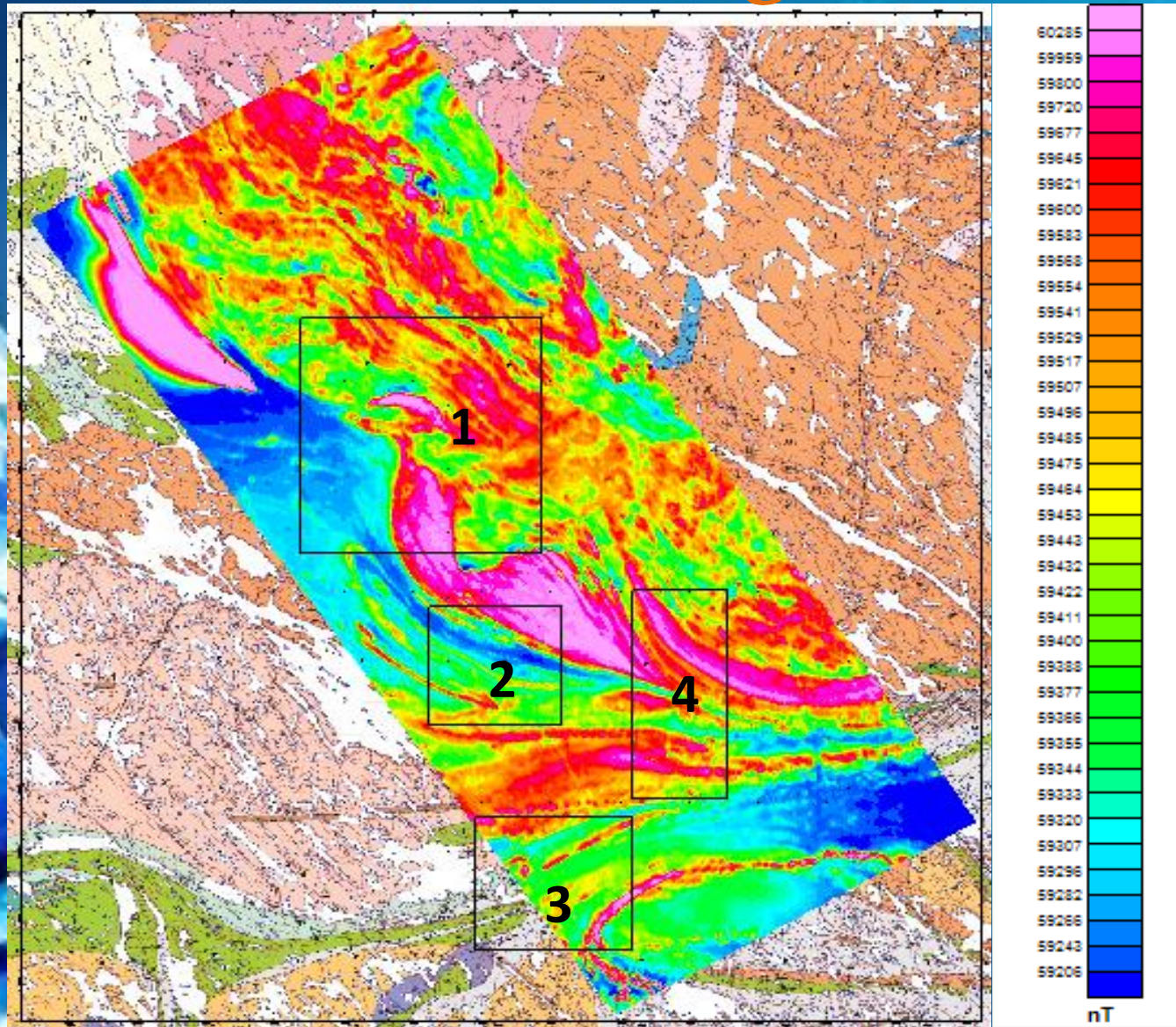


Recovered electrical conductivity

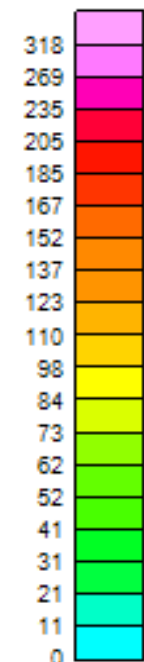
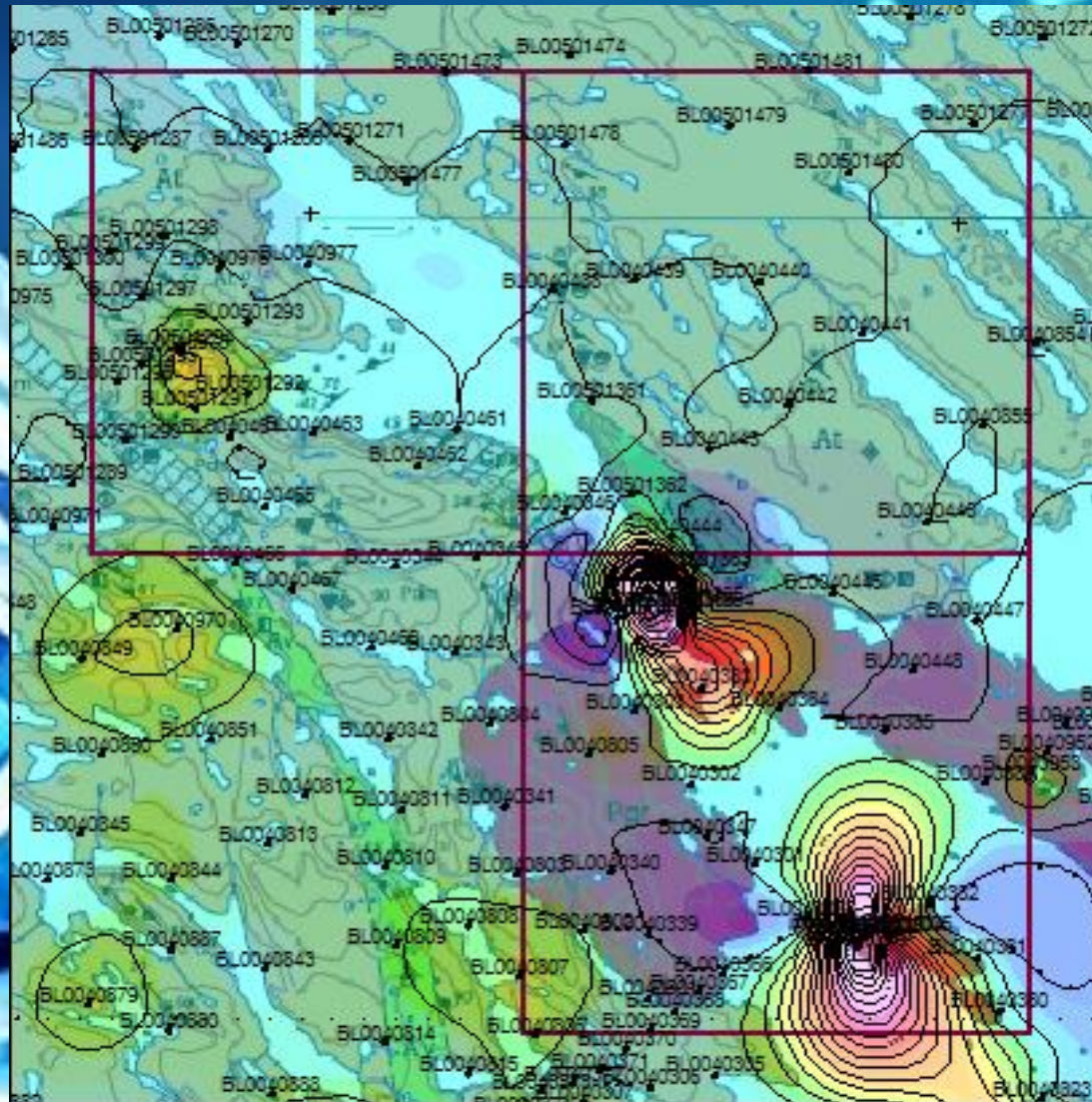


Recovered electrical conductivity
S/m

3D inversion of magnetic data



Area 1



**Pyrope Total Count
Number**

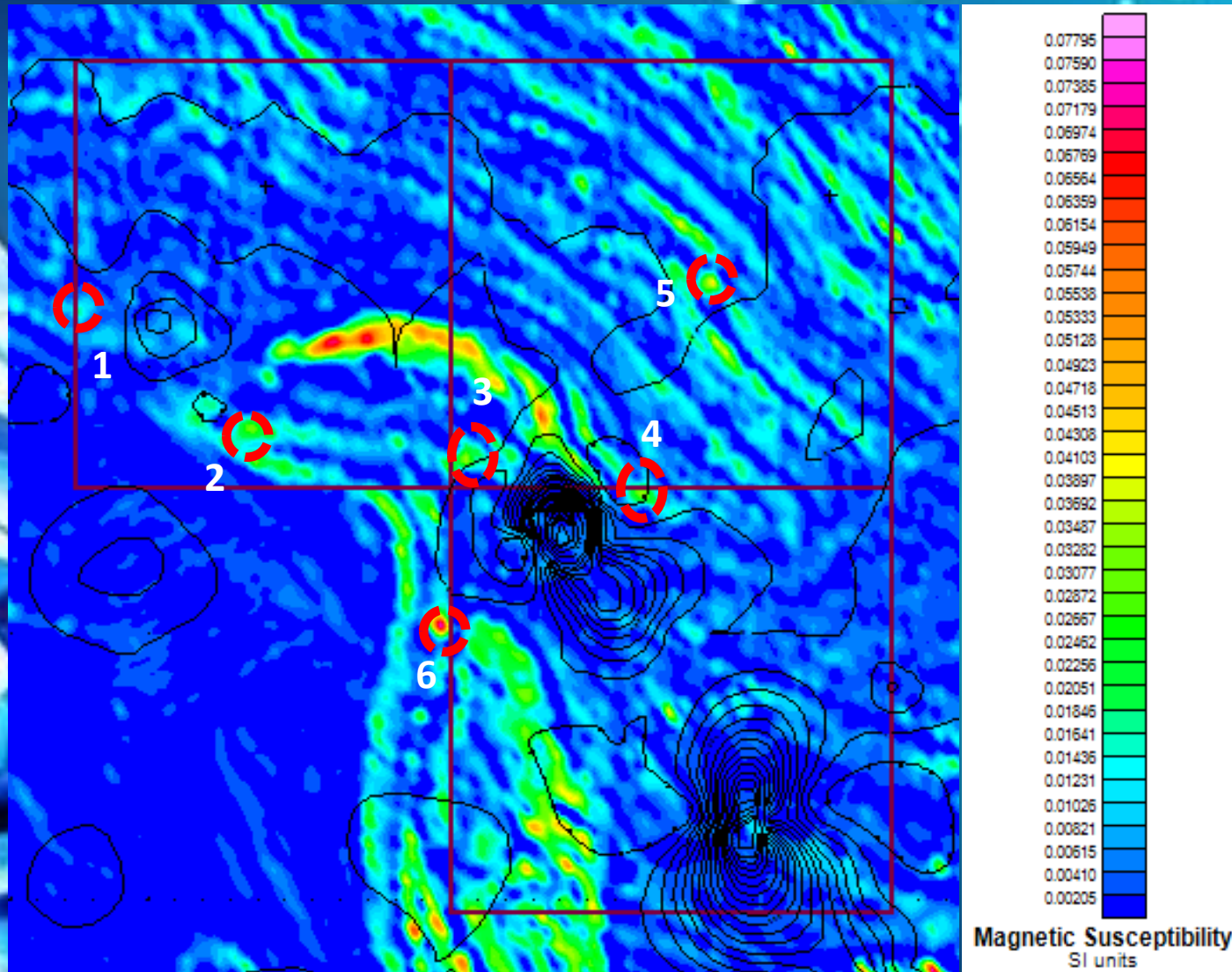
Compiled for: **KM Diamond
Exploration, LTD**

Map of bedrock
geology with total
pyrope garnet count

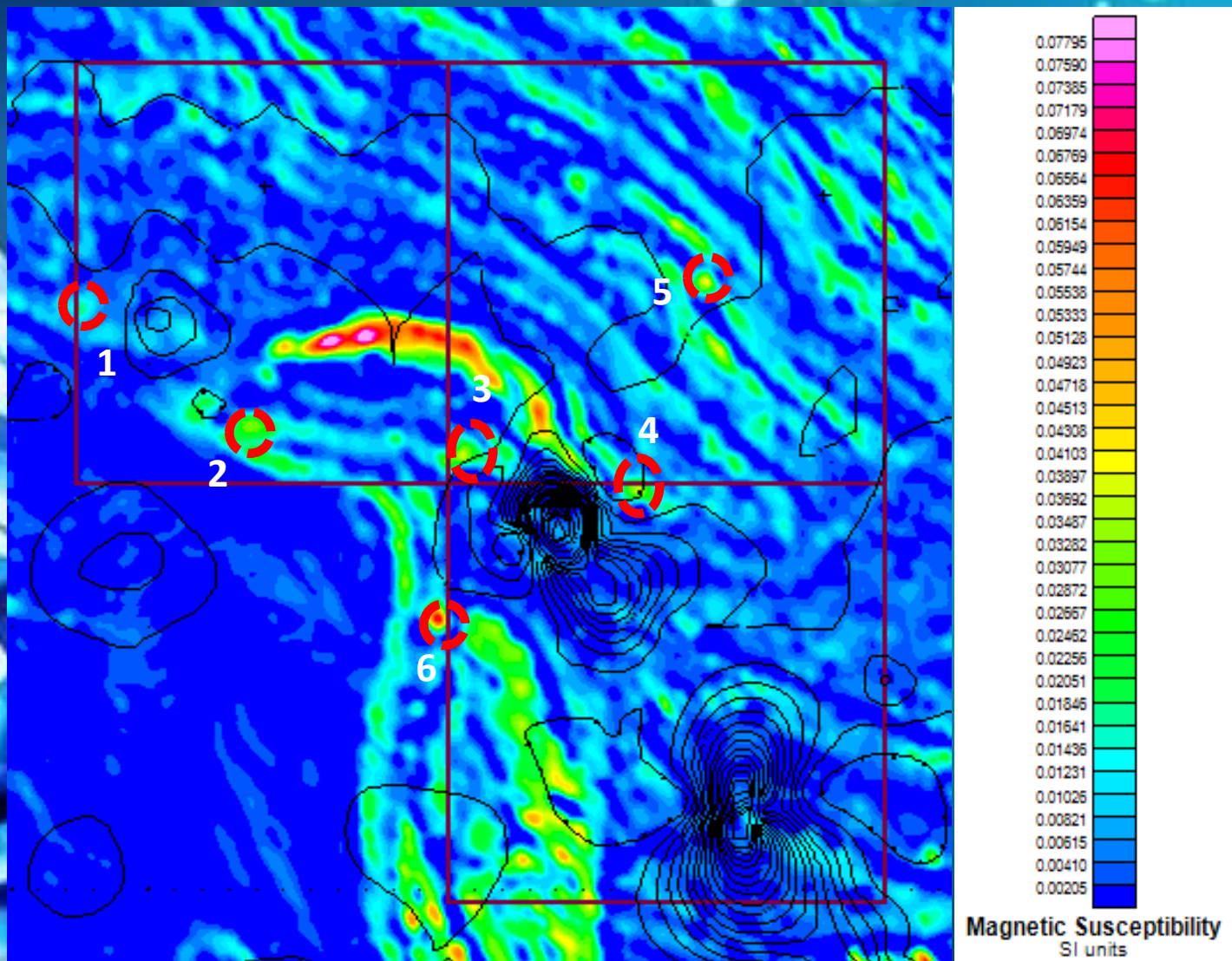
Compiled by:
KM Geophysics, LLC

July 2013

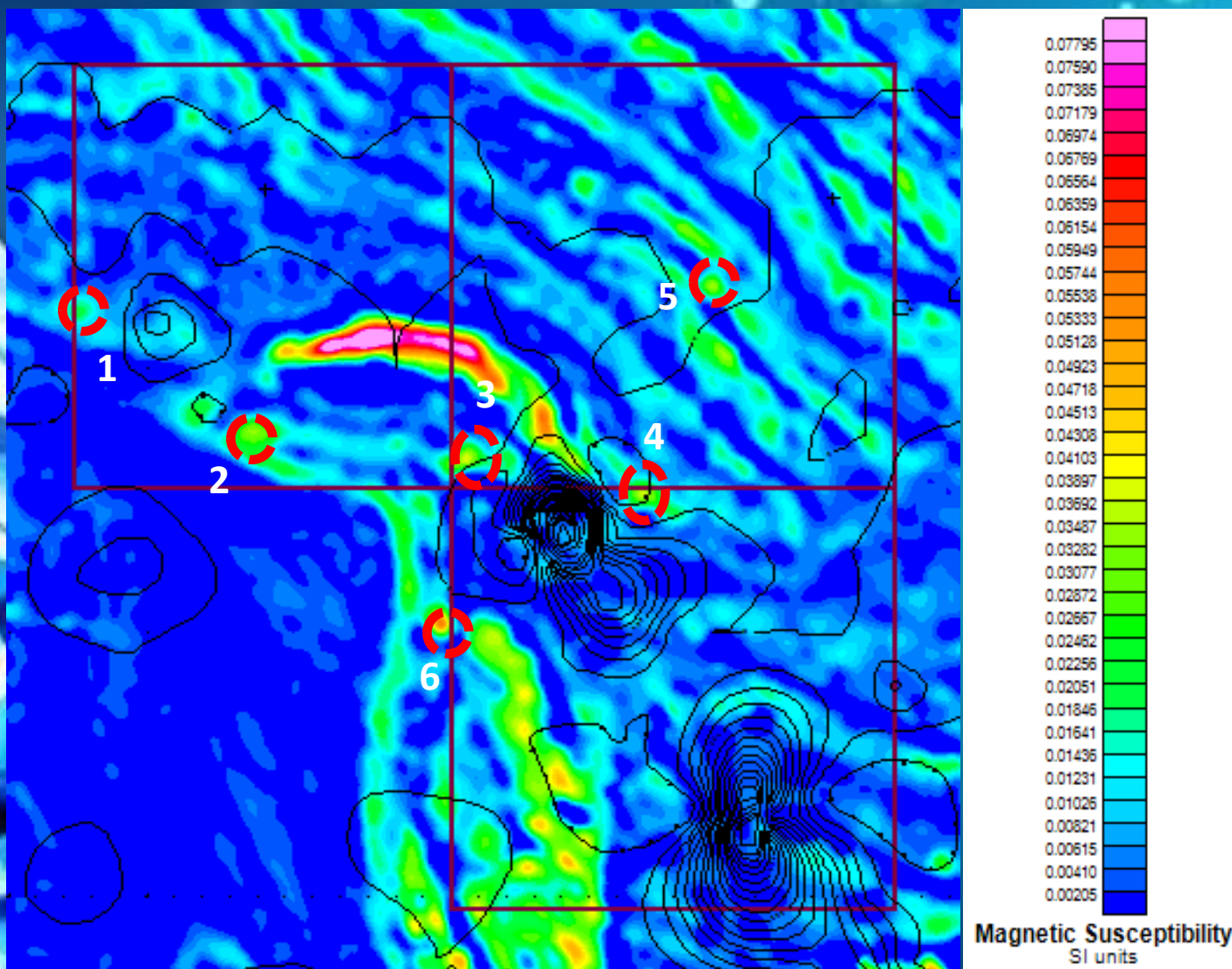
Susceptibility at 0 m level (Abs. elev.)



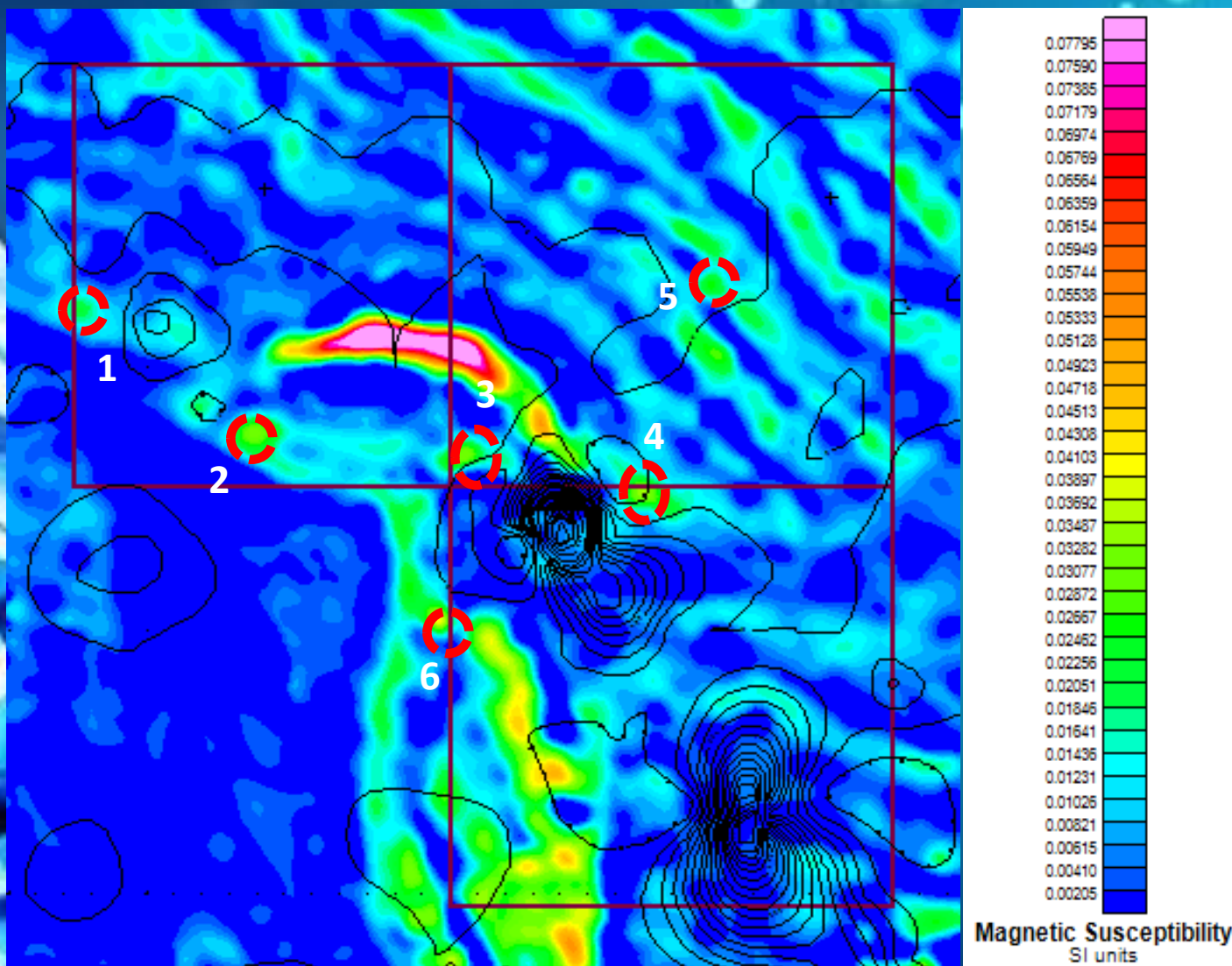
Susceptibility at -30 m level (Abs. elev.)



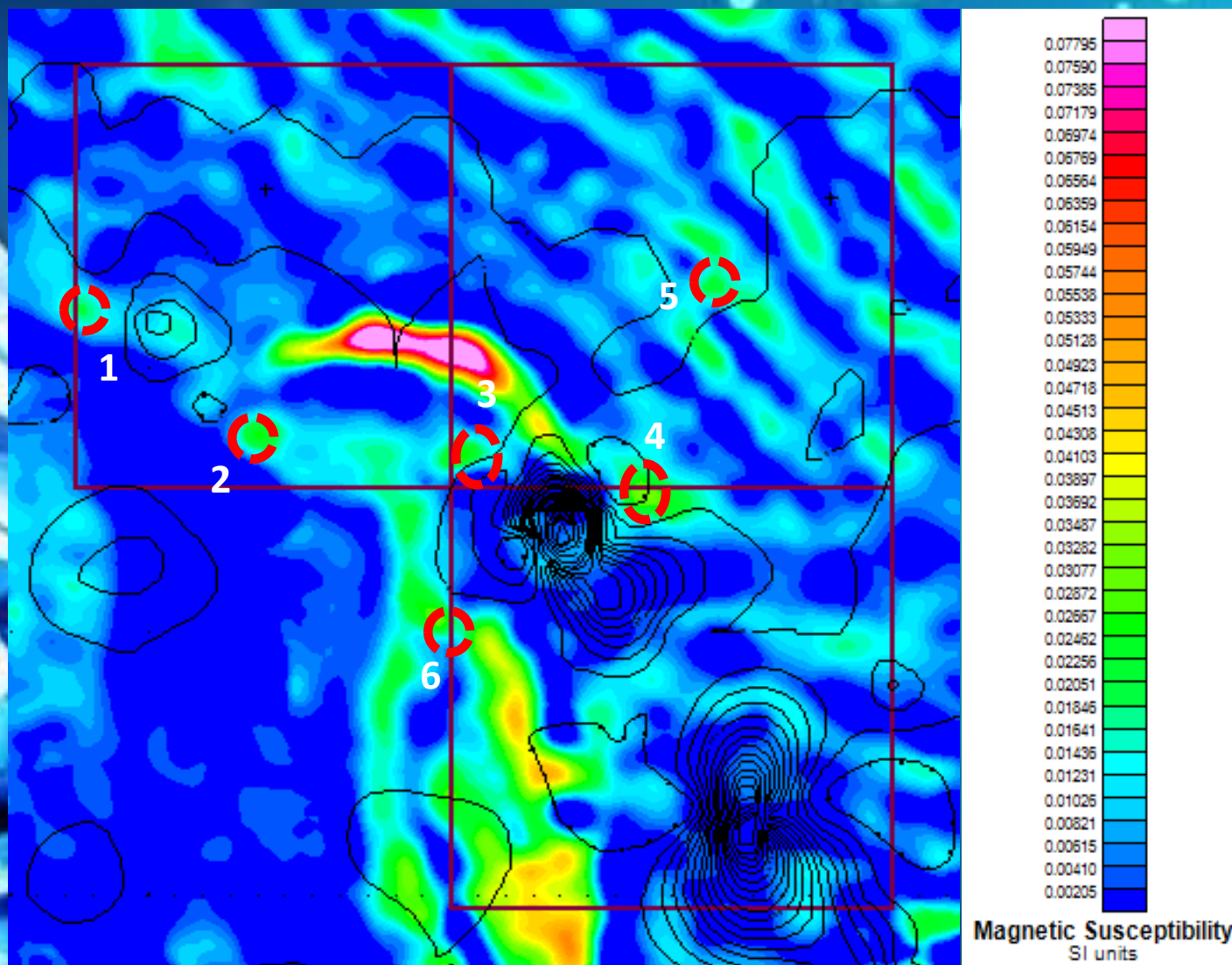
Susceptibility at -75 m level (Abs. elev.)



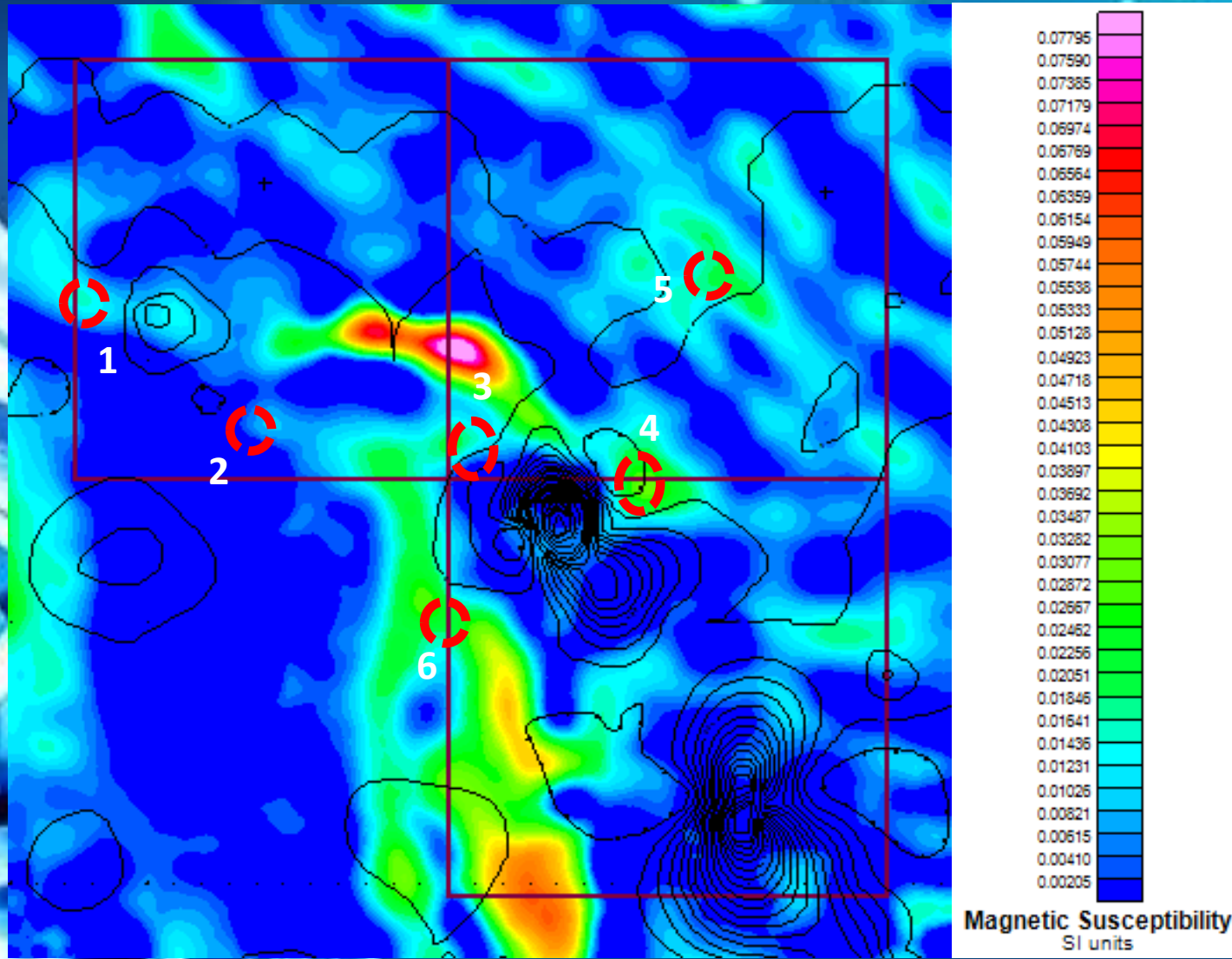
Susceptibility at -160 m level (Abs. elev.)



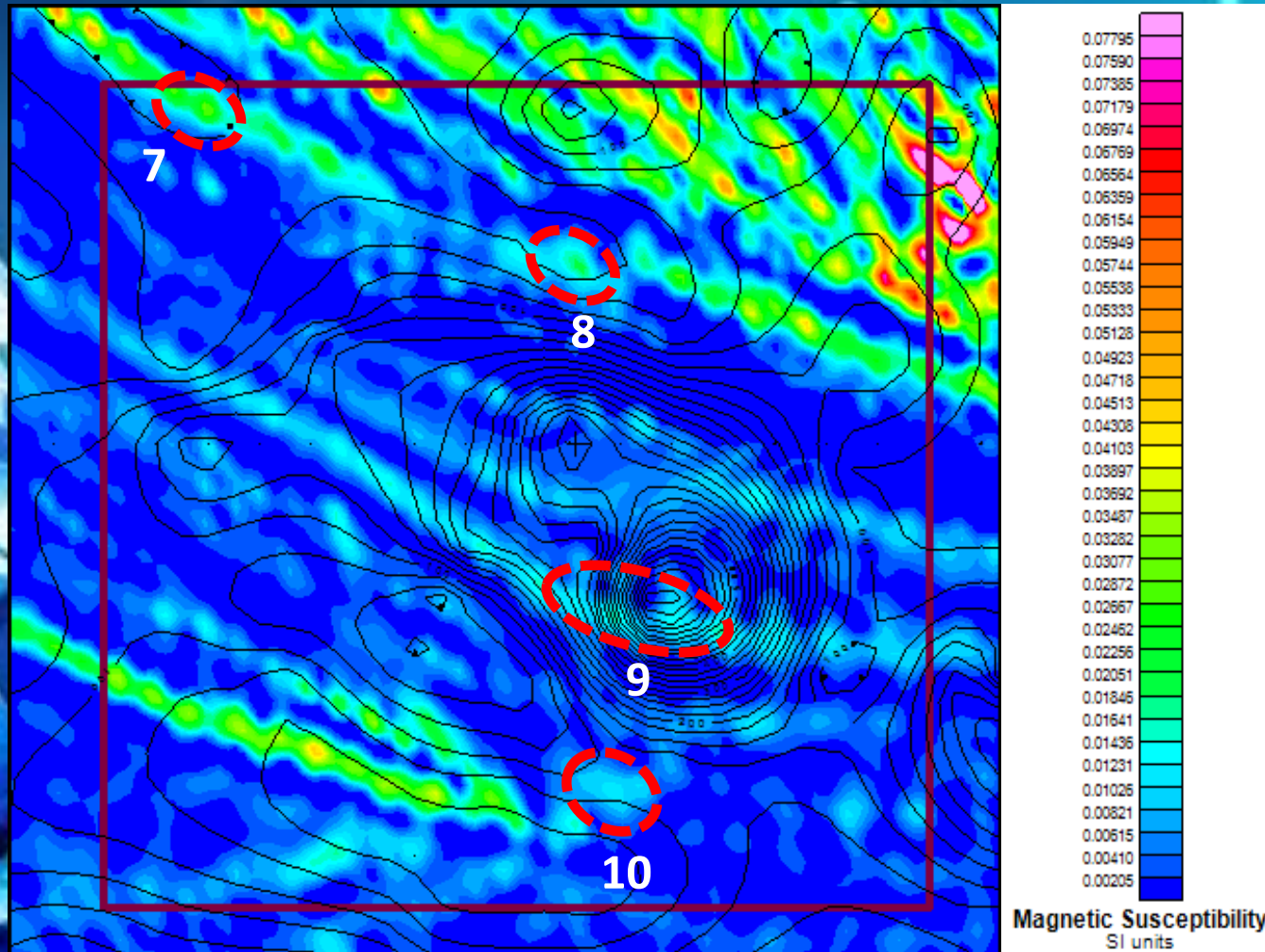
Susceptibility at -220 m level (Abs. elev.)



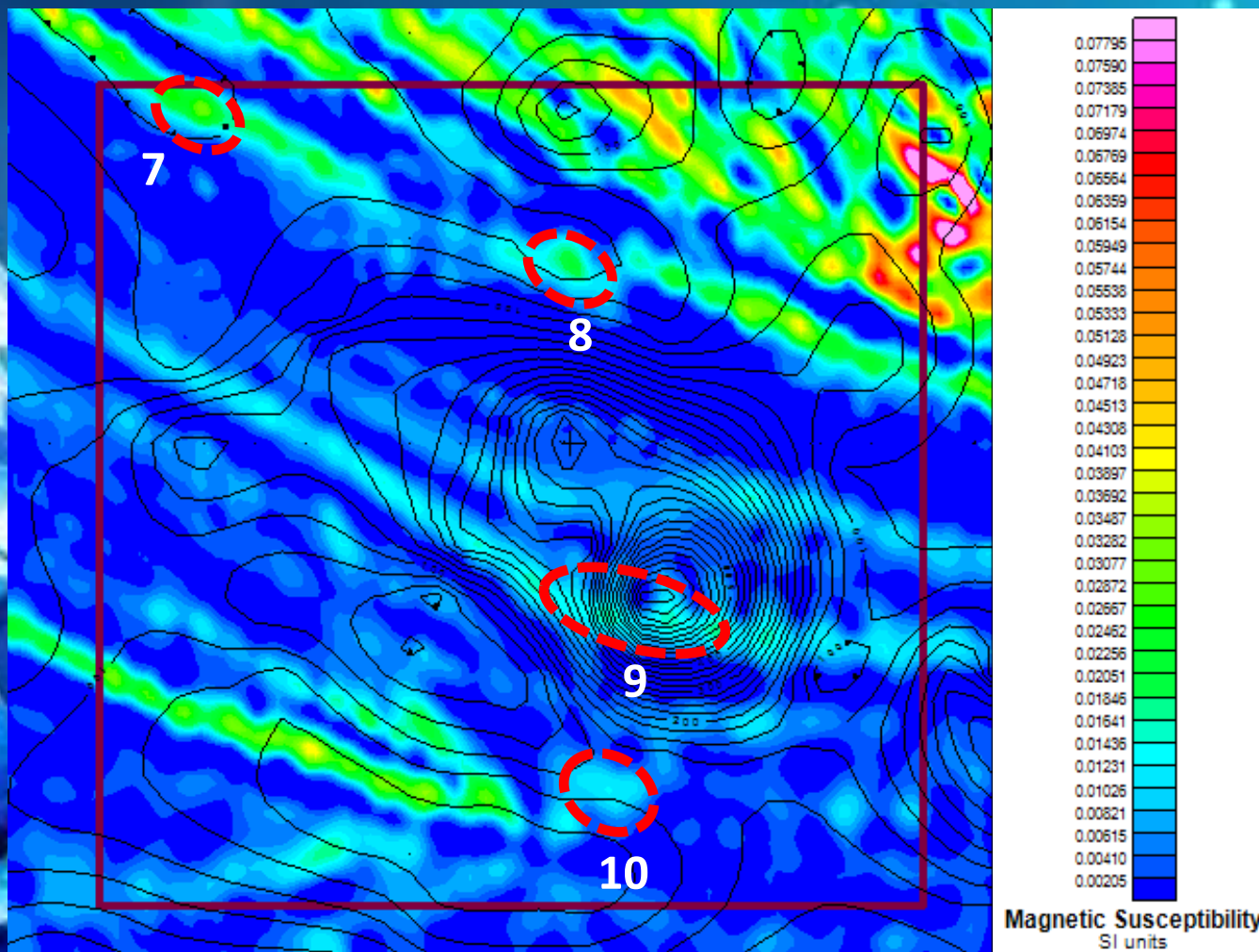
Susceptibility at -350 m level (Abs. elev.)



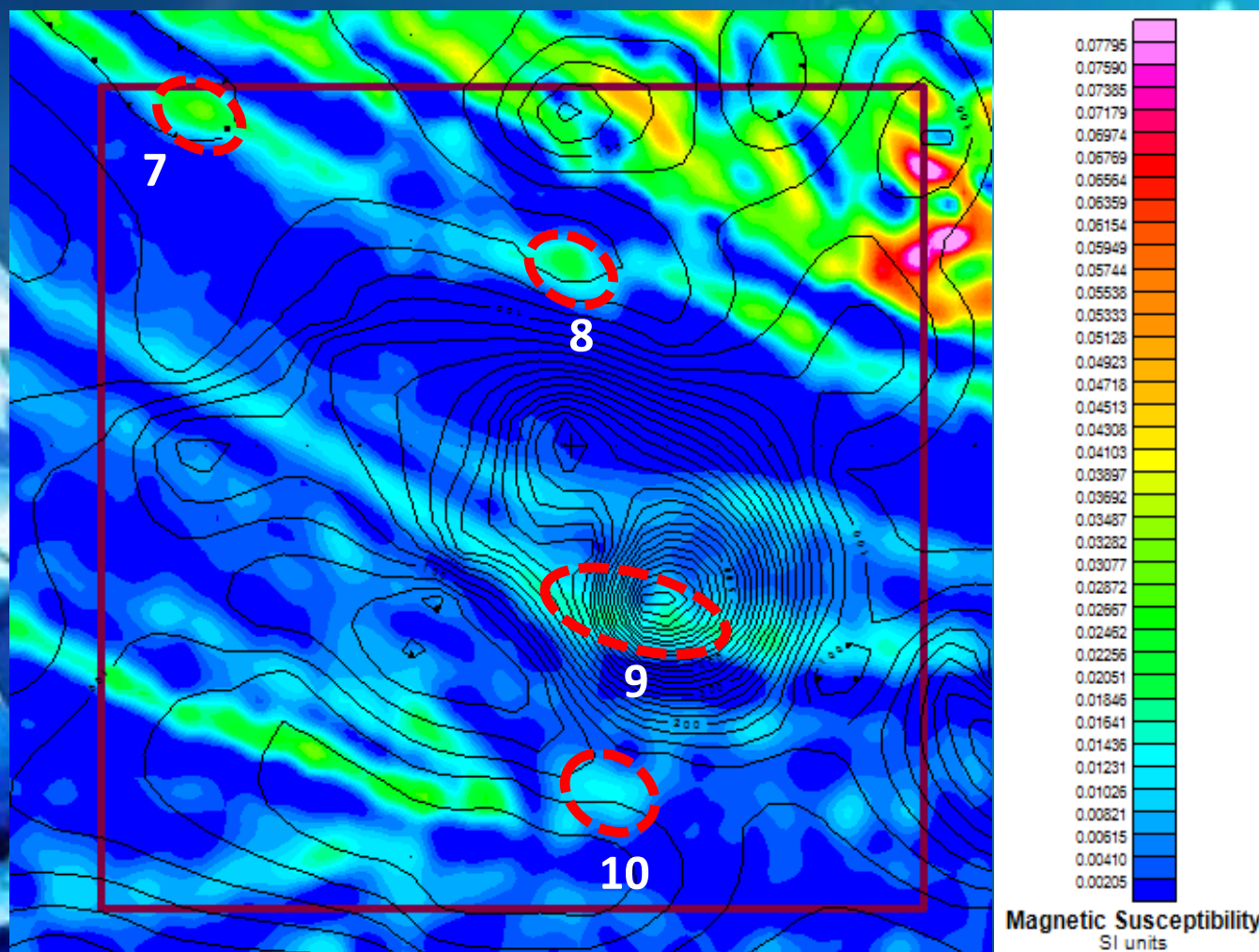
Susceptibility at 0 m level (Abs. elev.)



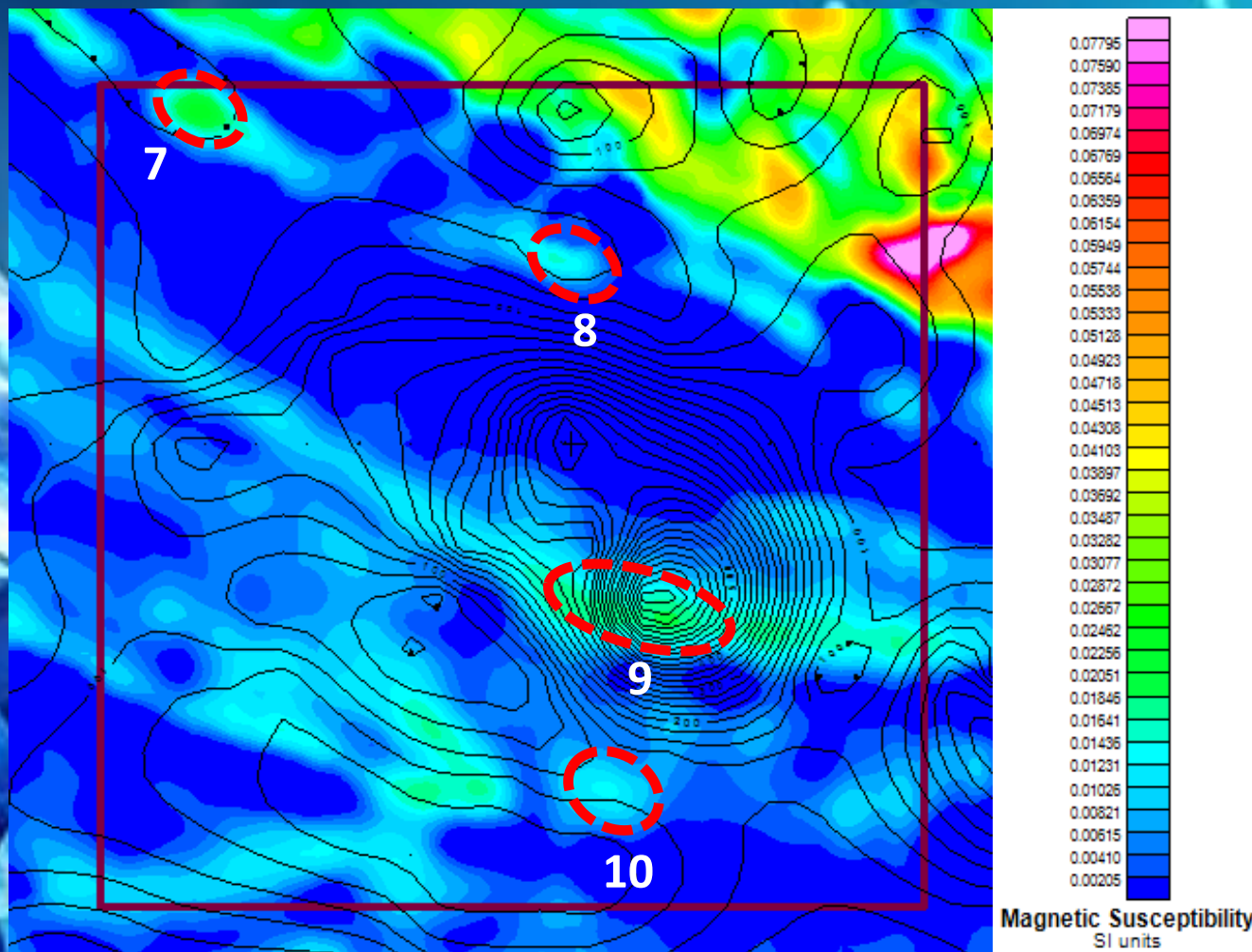
Susceptibility at -30 m level (Abs. elev.)



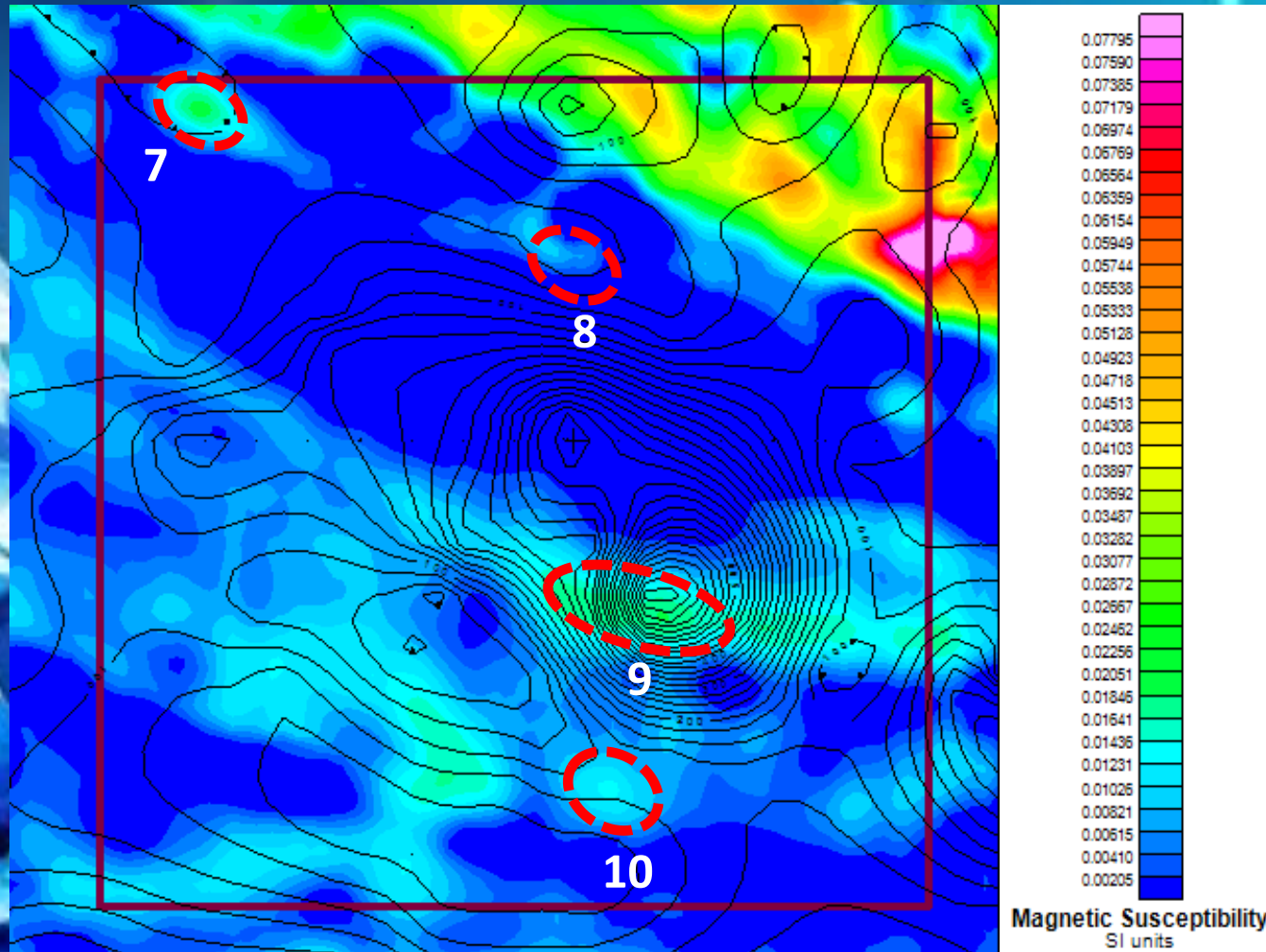
Susceptibility at -75 m level (Abs. elev.)



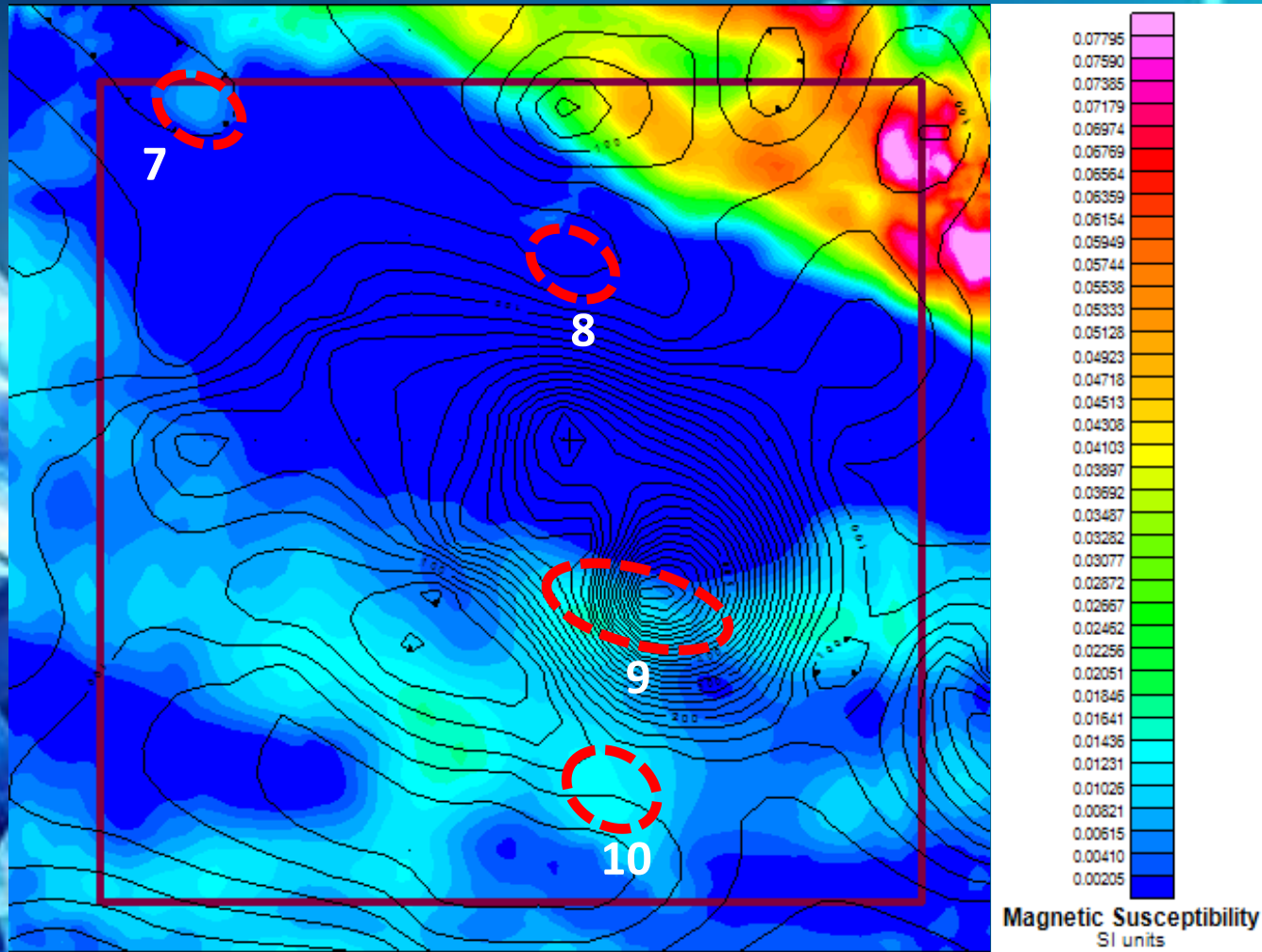
Susceptibility at -160 m level (Abs. elev.)



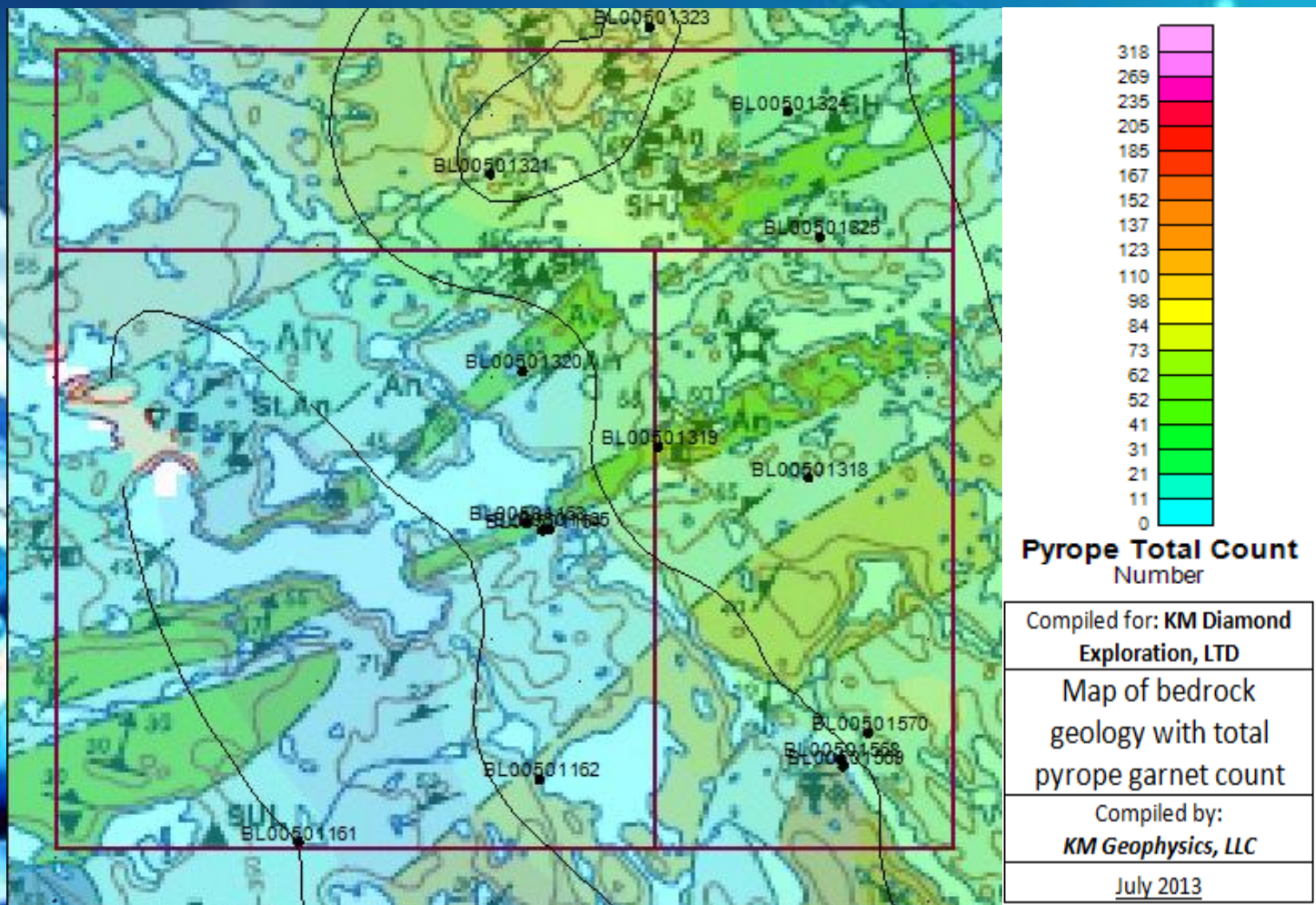
Susceptibility at -220 m level (Abs. elev.)



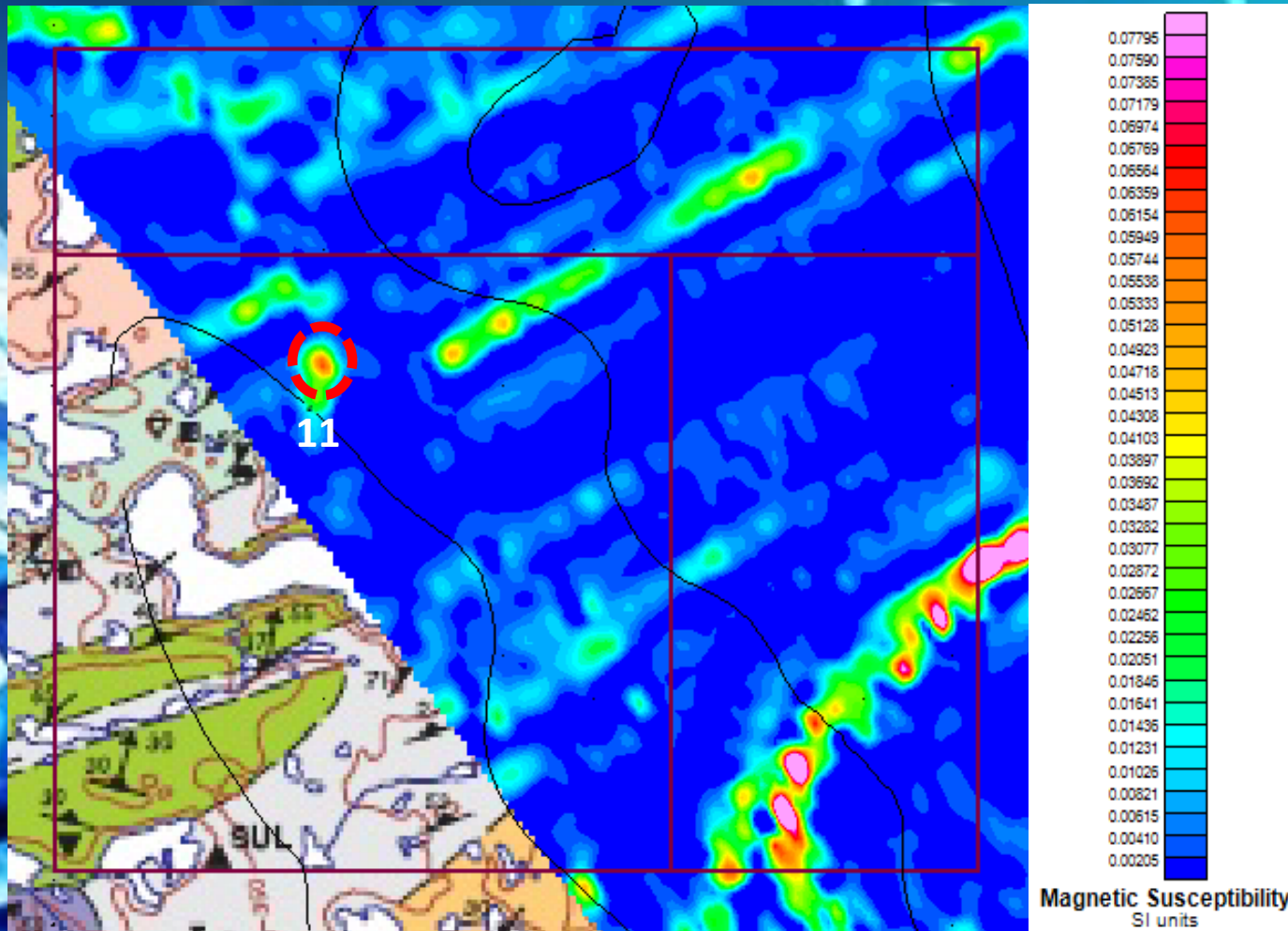
Susceptibility at -350 m level (Abs. elev.)



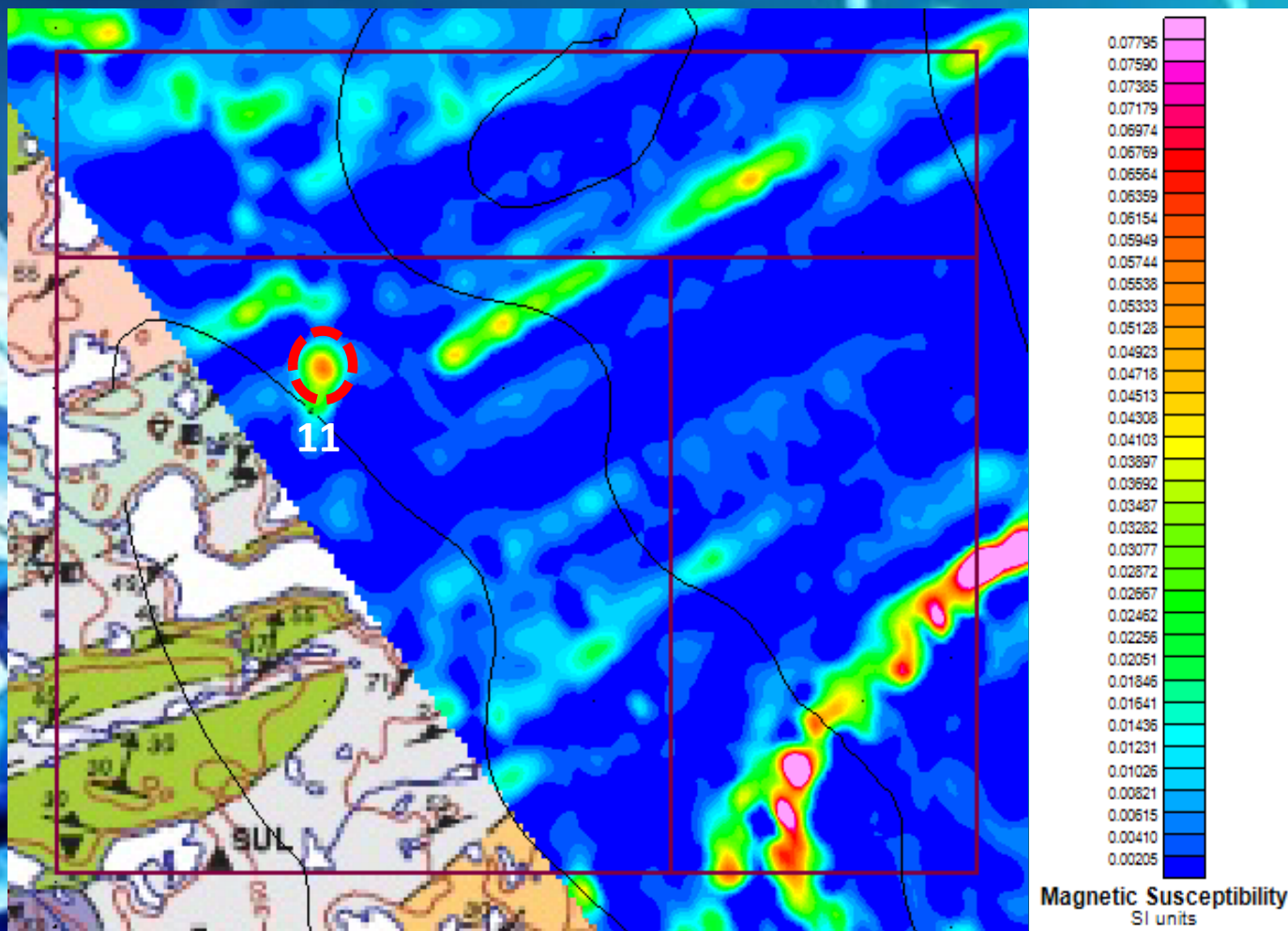
Area 3



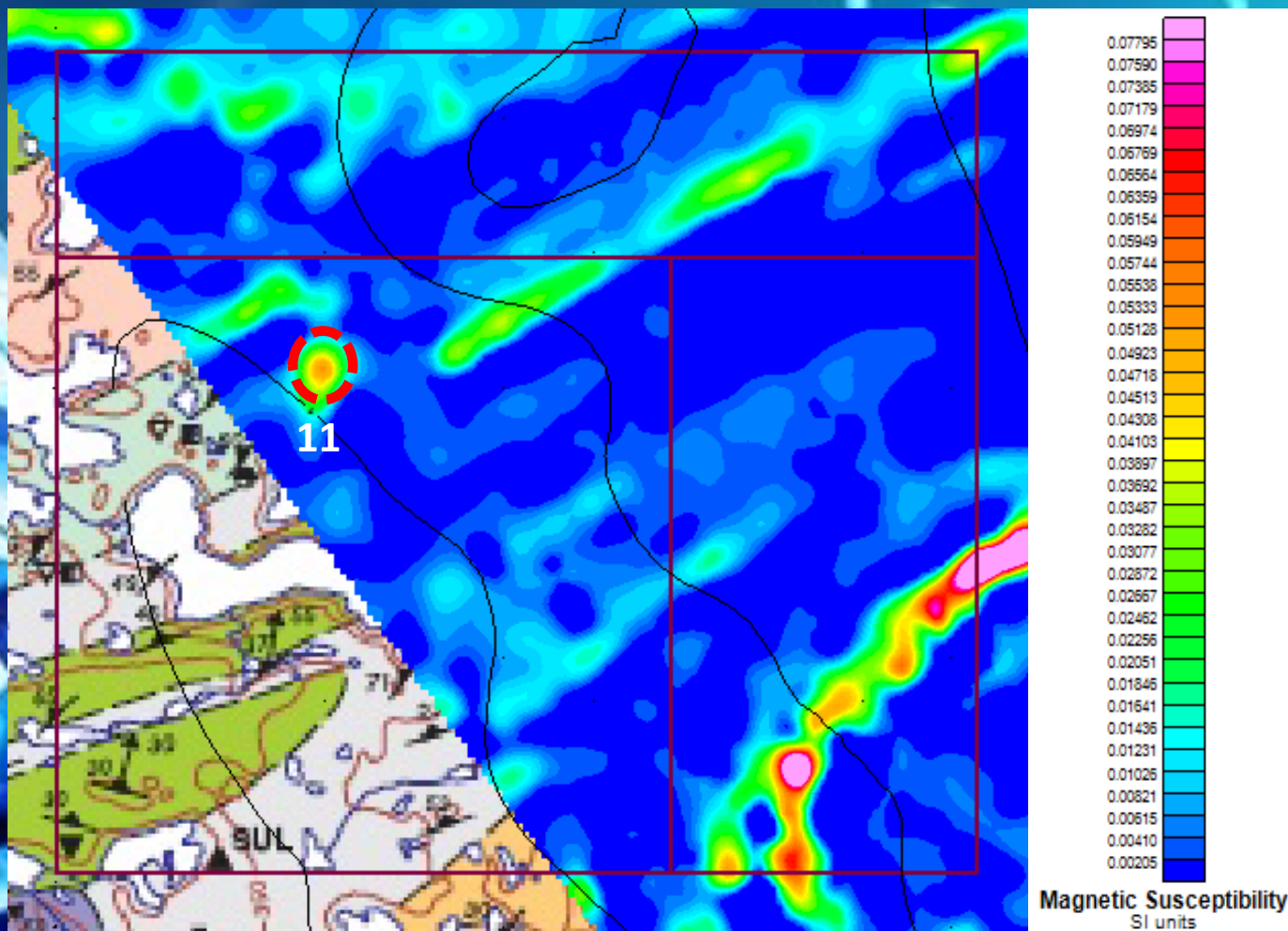
Susceptibility at 0 m level (Abs. elev.)



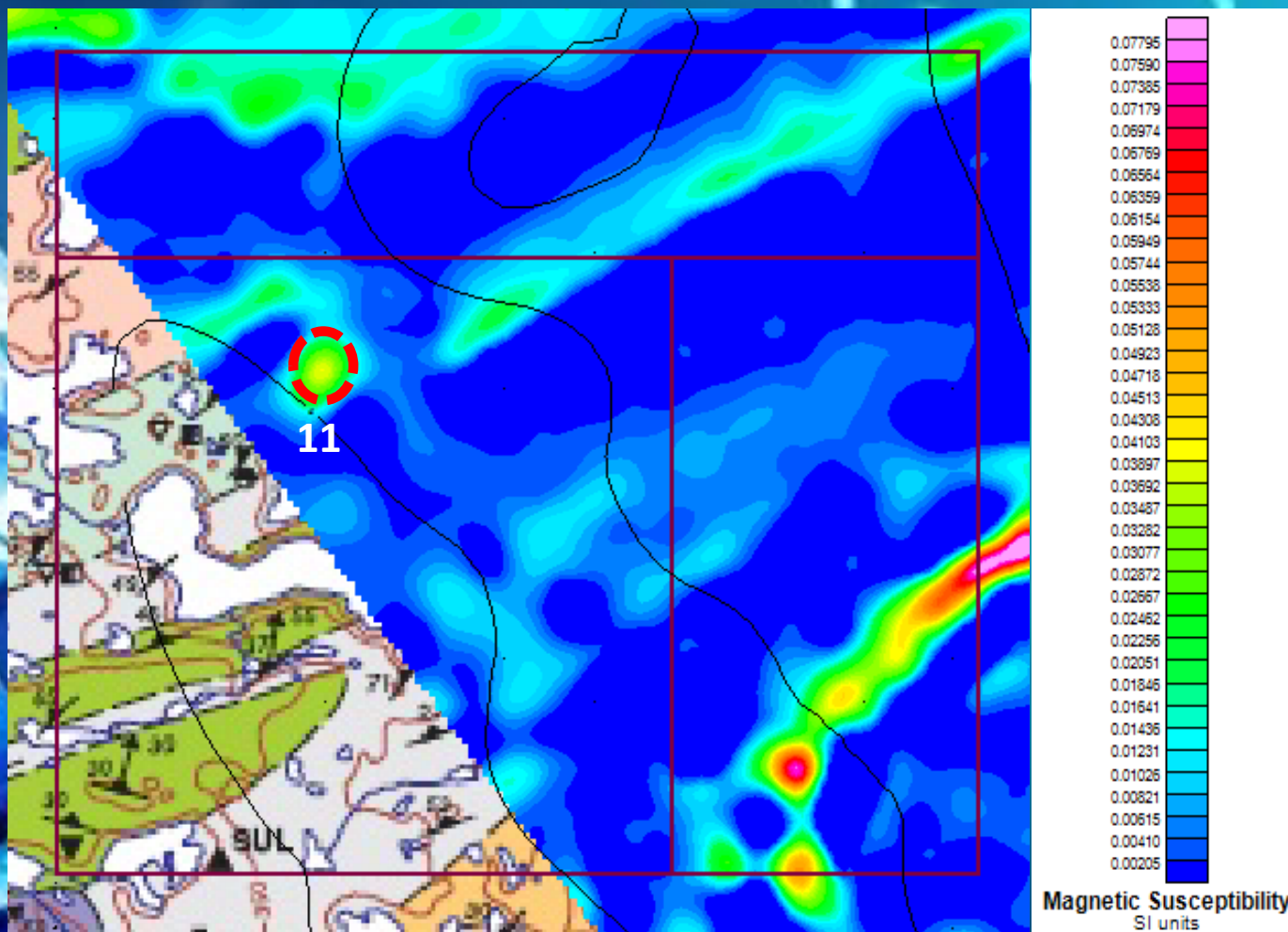
Susceptibility at -30 m level (Abs. elev.)



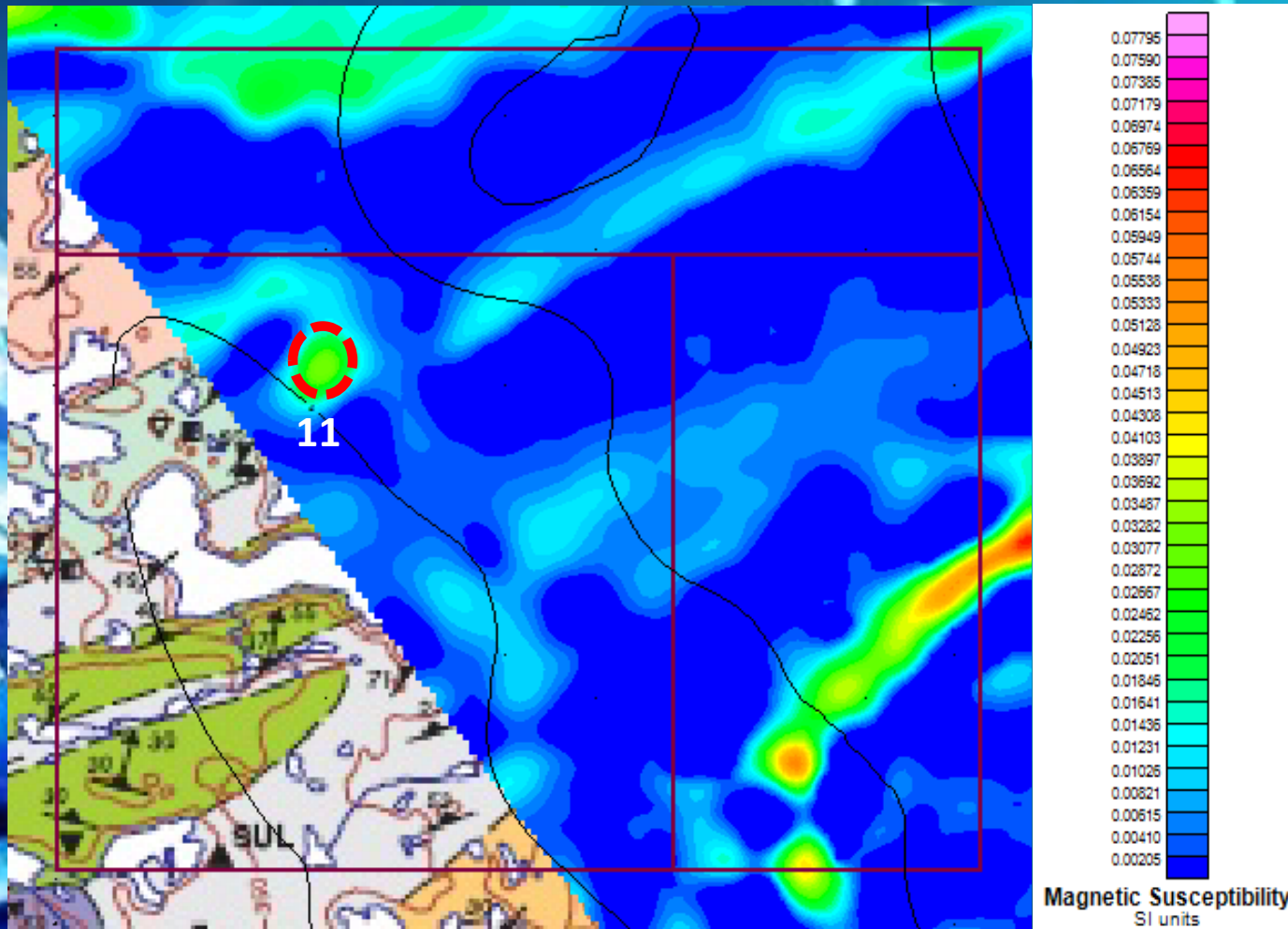
Susceptibility at -75 m level (Abs. elev.)



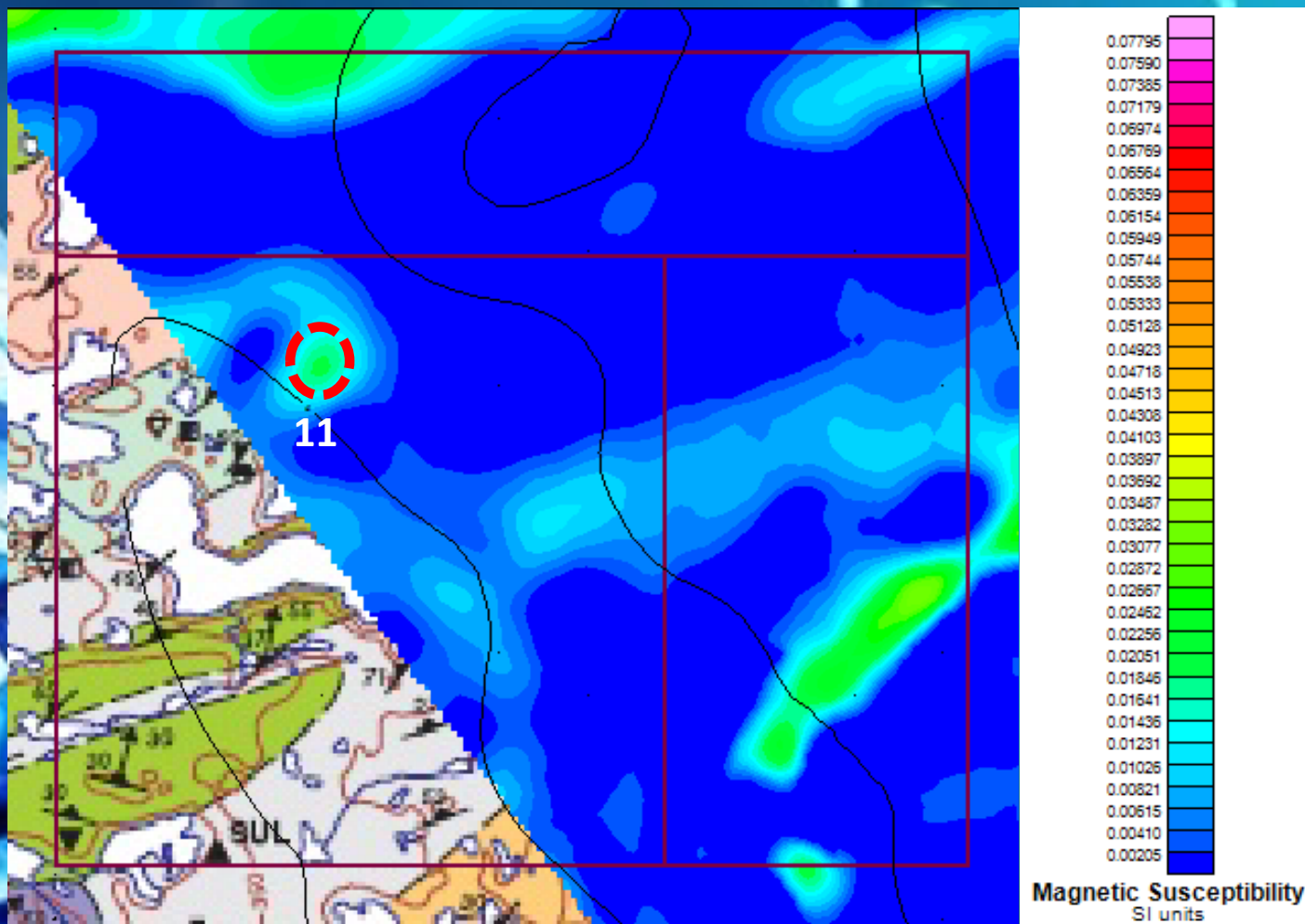
Susceptibility at -160 m level (Abs. elev.)



Susceptibility at -220 m level (Abs. elev.)



Susceptibility at -350 m level (Abs. elev.)



Proposed future work

- Spring - Summer 2017: Additional claim staking (need the existing claims to be interconnected), acquisition of necessary permits
- Summer 2017: Building field camp, hi-res ground TMI survey in walking mode
- Fall 2017: Interpretation of geophysical data, selection of additional drill targets
- Winter - Spring 2018: Logistics, delivery of drilling equipment on site
- Spring 2018: Drilling program (up to 1500 m)

Budget

Work	Volume	Cost, C\$	Note
Field camp repair		30,000	
3D modeling and inversion of Mag/EM data		55,000	Includes reinterpretation of FEM data with new quasi -3D inversion algorithms and 3D inversions of TMI
Ground magnetic survey	93-186 l.km	55,000	
Additional mineralogical sampling and sample analysis	150	150,000	
Camp service (incl. helicopter)		100,000	
Winter camp		20,000	
Core storage building		30,000	
Drilling HQ (63.5 mm) all-inclusive (mob/demob, helicopter, logging, etc.)	1,000 m	700,000	
Core sampling	1,000 m	15,000	
Core sample transportation		10,000	
Petrographic and mineralogical study of kimberlites	8 rock sets	24,000	
Caustic fusion of kimberlites	1,000 kg	700,000	In SRC lab, ~700/kg
Study of diamonds		10,000	
Camp service (incl. helicopter)		150,000	
Total			2,089,000
Total including contingencies and operations costs			2,502,800