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Memorandum

To: **Triple Nine Resources Ltd.**
Four Corners Mining Corp.

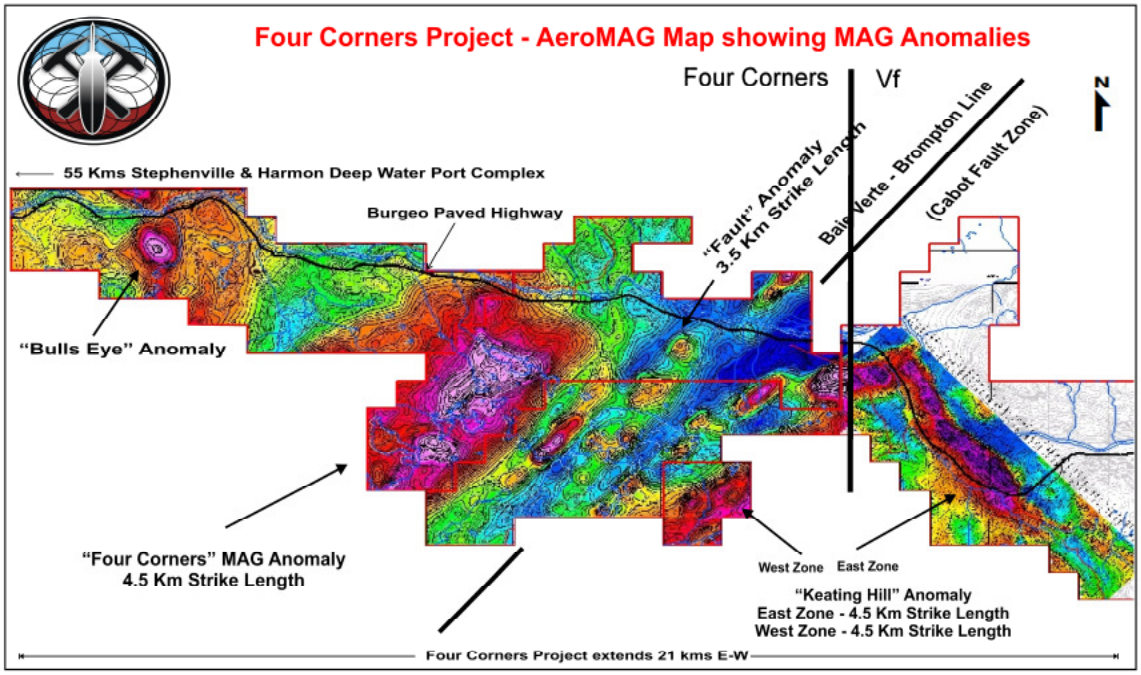
Attn: **Victor French**

From: **E. Trent Pezzot**

Date: **December 2, 2011**

Re: **Magnetic Inversion Study – Four Corners Project**

This memo describes the results of a 3D magnetic inversion study completed on airborne magnetic data covering the Four Corners iron ore, titanium and vanadium project in western Newfoundland.



Total Magnetic Field Intensity Colour Contour Maps – based on Fugro airborne survey (Vf block) and Geotech airborne survey (Four Corners block).

SJV was provided geosoft formatted grid files of airborne magnetic survey results for two blocks, identified as the VF and Four Corners. The Vf survey block was flown by Fugro Surveys in 2010 and covered the East Zone of the "Keating Hill" anomaly. The Four Corners survey was flown by Geotech in 2011 and covered a much larger area to the west of the VF survey. It was initially planned to merge and level the two datasets however two factors made this difficult. First, the two surveys were flown at different terrain clearances (the Fugro survey flown at 35 metres and Geotech survey at 70 metres) and second, there was insufficient overlap between the two data blocks. Consequently, the two data sets were treated separately.

The inversion process builds a three dimensional voxel model to describe one possible subsurface distribution of the magnetic susceptibility index (SI) rock property that could produce the observed surface (or airborne) data.

The results from these inversions are best viewed in a 3D viewing program that allows the user to overlay the results from multiple inversions with topographic, geological, geophysical, drilling and other relevant data. These viewers allow the models to be viewed from infinite angles and perspectives and manipulated to display specific isosurfaces or ranges of thresholds. Models can be cut and sliced to provide cross-section and plan views.

The model files are provided in both the native UBC format, suitable for viewing in the meshtools3d and geosoft viewers and in vtk format, suitable for viewing in the Paraview and Mayavi viewers. The inversion results can also be converted into several other formats required by different software.

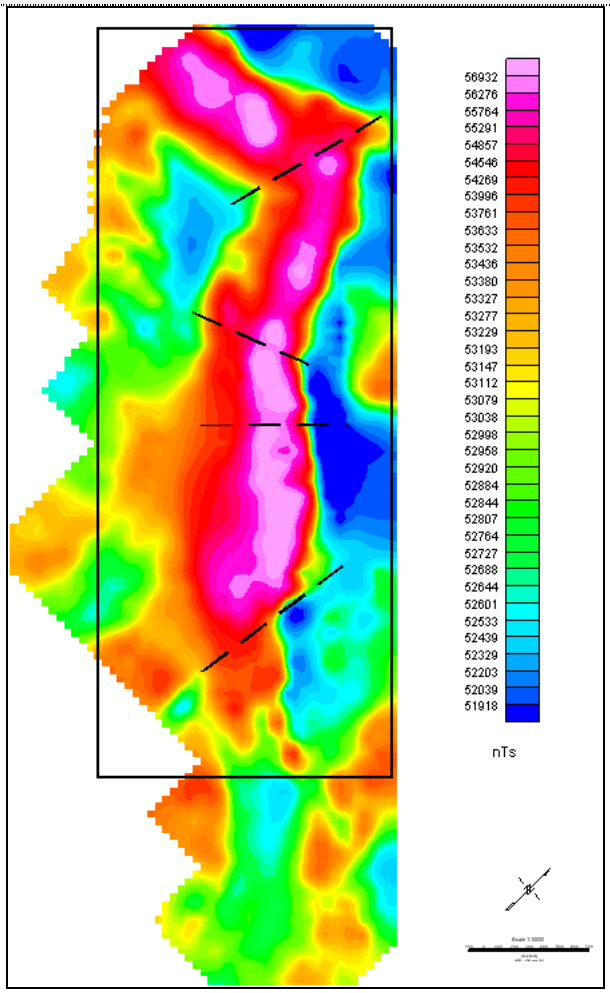
Several images extracted from these viewers are included in this memo but readers are encouraged to use one of the 3D viewers to examine the models in more detail.

Five areas of interest were selected by Victor French for 3D magnetic inversion study: the Bulls Eye, Four Corners, Fault, Keating Hill west zone and Keating Hill east zone. The Keating Hill west zone anomaly is only partially defined and could not be adequately modeled. The main goal of this exercise was to help map the structure and location of the sources generating magnetic anomalies.

As stated in published documents, drilling and prospecting has uncovered massive magnetite along the Keating Hill east zone and unearthed bedrock and float mineralization ranging up to 50.5% total iron in the vicinity of the Fault and Four Corners anomalies. This introduces a

significant potential for error in the inversion results. The inversion process is designed to model paramagnetic responses; those generated by the effects of the earths' magnetic field on susceptible bodies. Remnant magnetization (such as that associated with massive magnetite) is typically much stronger than induced magnetization but more critically, it is usually oriented at some random angle with respect to the earth's field. Under these conditions, the model produced by the inversion can be distorted in both size and geometry. Compensating for the effects of remanence requires detailed information concerning the size, shape, attitude and susceptibility of the magnetic body.

Keating Hill (East Zone).



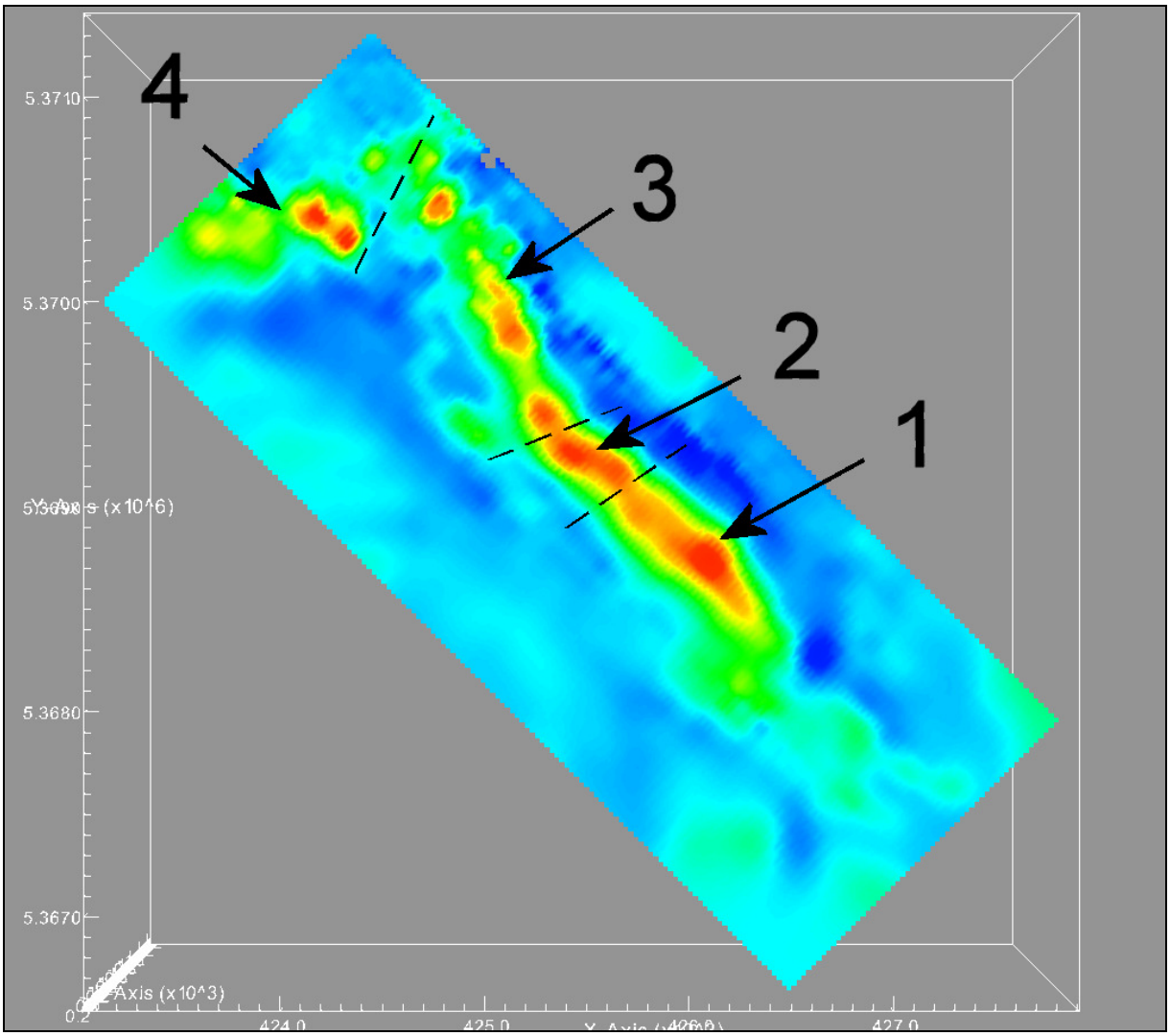
Total magnetic field intensity – VF survey – rotated 45^0 clockwise. Inversion window outlined in black. Possible faults drawn in dashed lines

The Fugro airborne survey across this target was rotated 45^0 clockwise to "square off" the inversion area. A window some 2 km by 5 km was extracted from the data and submitted to the inversion process.

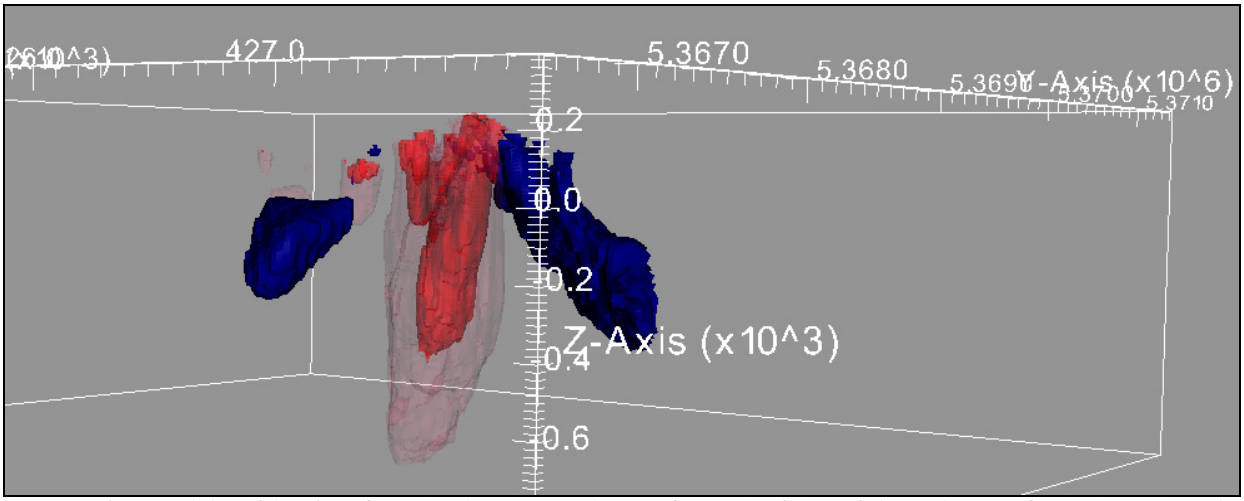
The resulting model was re-rotated back into UTM coordinates for analysis and display.

The magnetic response is dominated by a narrow (800m wide) high traced for approximately 4 km length along a NW strike. Abrupt breaks and strike shifts along its' length suggest the zone has been deformed (or is possibly controlled) by N to NE striking faults. Several localized zones exhibiting very high amplitudes are mapped along the length of the trend. A prominent magnetic low is evident in several places along the northeastern flank of this trend.

The 3D inversion shows the magnetic high trend follows the up dip edge of a narrow, plate-like body that generally strikes NW-SE. A top view shows this zone can be divided into four segments reflecting the breaks and interpreted faults evident on the plan maps. Segments 1 to 3 follow the NW striking Keating Hill East Zone. Segment 4 may be related to the northeast end of the NE striking Keating Hill West Zone. There appears to be a gradual decrease in the magnetic susceptibility as one proceeds from the SE to the NW along the trend.



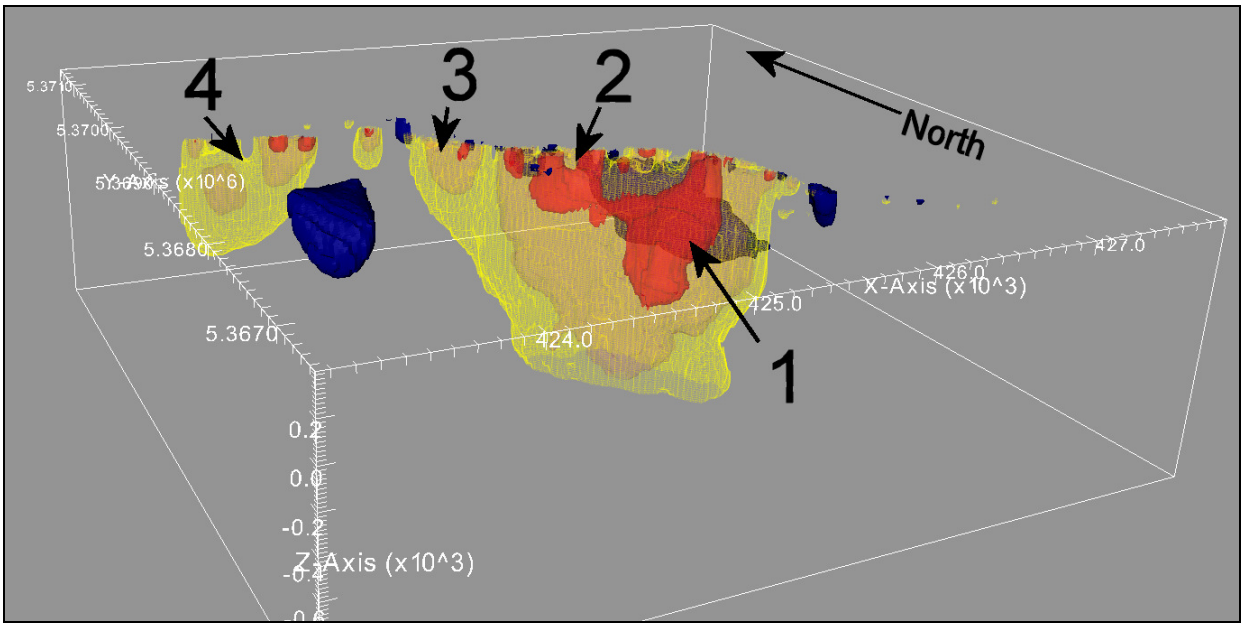
3D Inversion Model – Top View of horizontal depth slice at 75m depth. – NW striking plate can be divided into 4 segments.



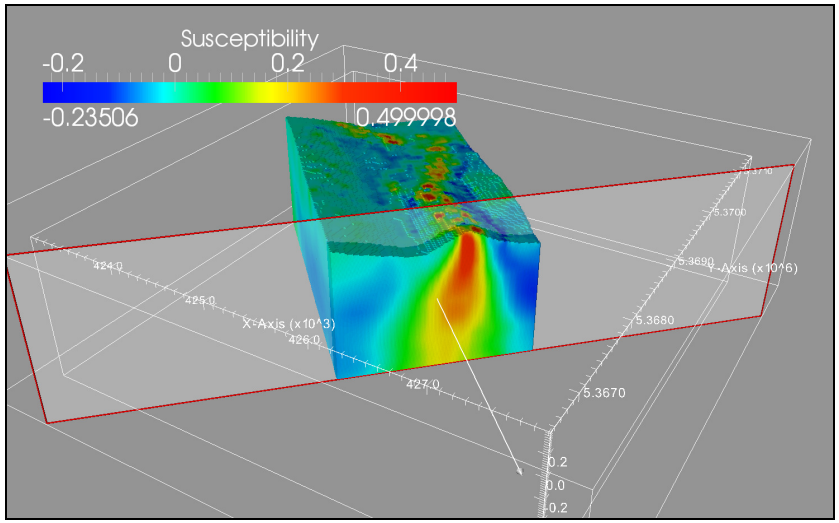
3D Inversion Model – Side View from South East – Red Isosurface = 0.26 SI – Pink Mesh Isosurface = 0.19 SI – Blue Isosurface = -0.01 SI. High susceptibility plate dips ~ 80^0 SW. Low susceptibility plate dips ~60^0 NE.

Rotating the model to a side view shows the plate dips steeply (~80^0) to the southwest. At the southern end of the trend the plate extends up to 800 metres depth while the adjacent section to the north appears to extend to about half that distance. The two northern segments appear to be comprised of a sequence of small near surface bodies with limited depth extent.

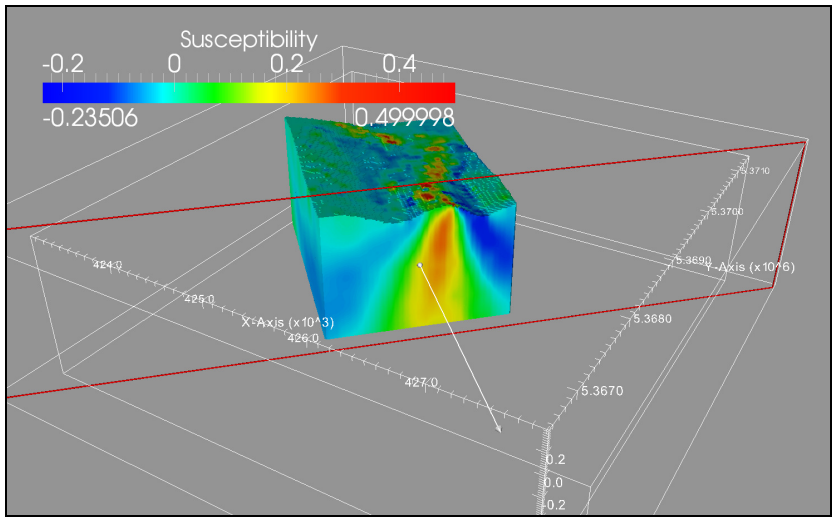
The inversion shows the prominent magnetic low along the northeast flank of the zone is reflecting a narrow plate that dips approximately 60^0 to the north.



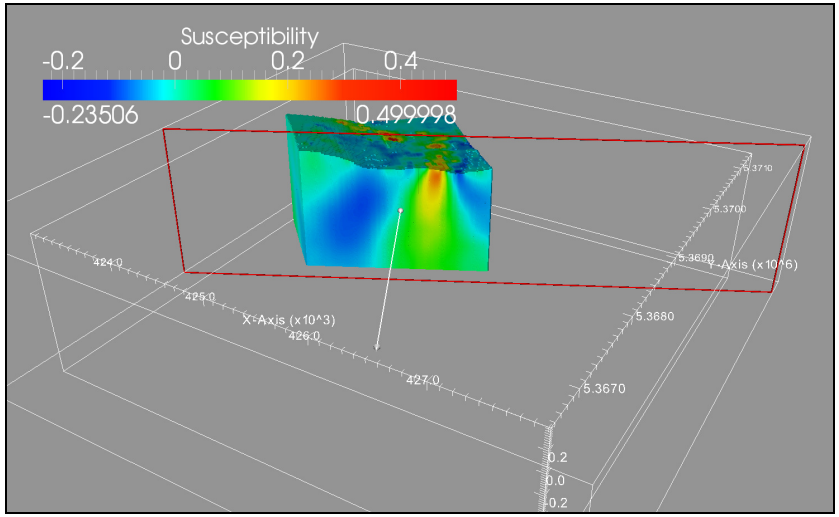
3D Inversion Model – Elevated View from South West – Red Isosurface = 0.26 SI – Pink Mesh Isosurface = 0.19 SI – Yellow Mesh isosurface = 0.15 SI - Blue Isosurface = -0.01 SI. High susceptibility plate extends to greater depth at the Southeast end.



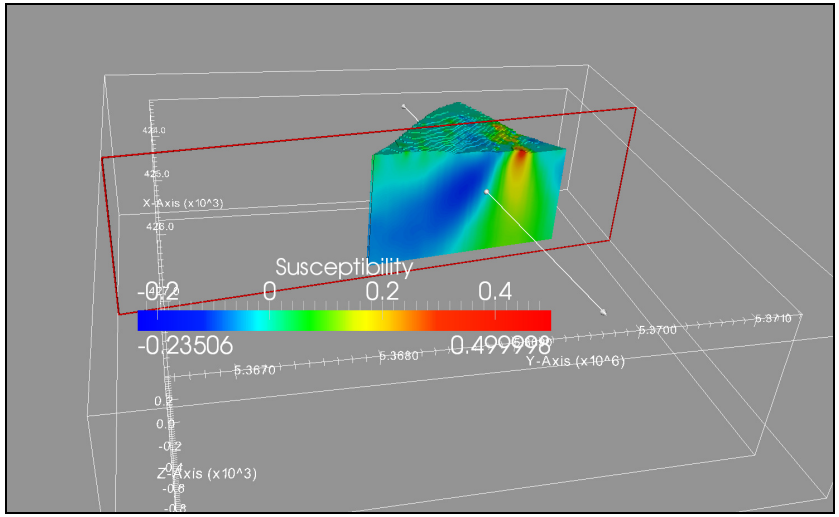
Cross-Section – Segment 1



Cross-Section - Segment 2

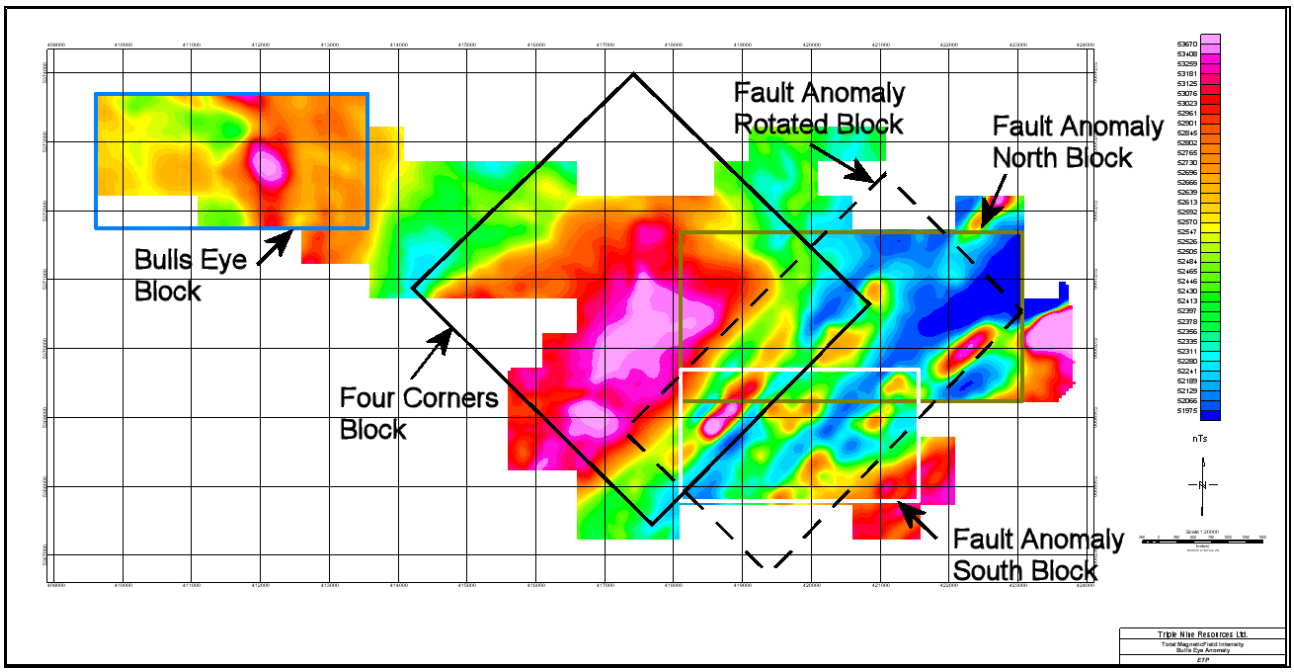


Cross Section – Segment 3



Cross Section – Segment 4

Cross Sections through Keating Hill East Inversion Model through the 4 segments of the high susceptibility plate



Geotech Airborne Magnetic Survey – Outlines of magnetic data extracted for 3D inversion modelling.

Five windows of magnetic data were extracted from the Geotech airborne survey for input to the 3D inversion algorithm:

- Bulls Eye
- Four Corners – rotated 45^0 counter clockwise to square off the inversion block then re-rotated back into UTM coordinates.
- Fault Anomaly North Block
- Fault Anomaly South Block
- Fault Anomaly – rotated 45^0 counter clockwise to square off the inversion block then re-rotated back into UTM coordinates.

Bulls Eye Anomaly

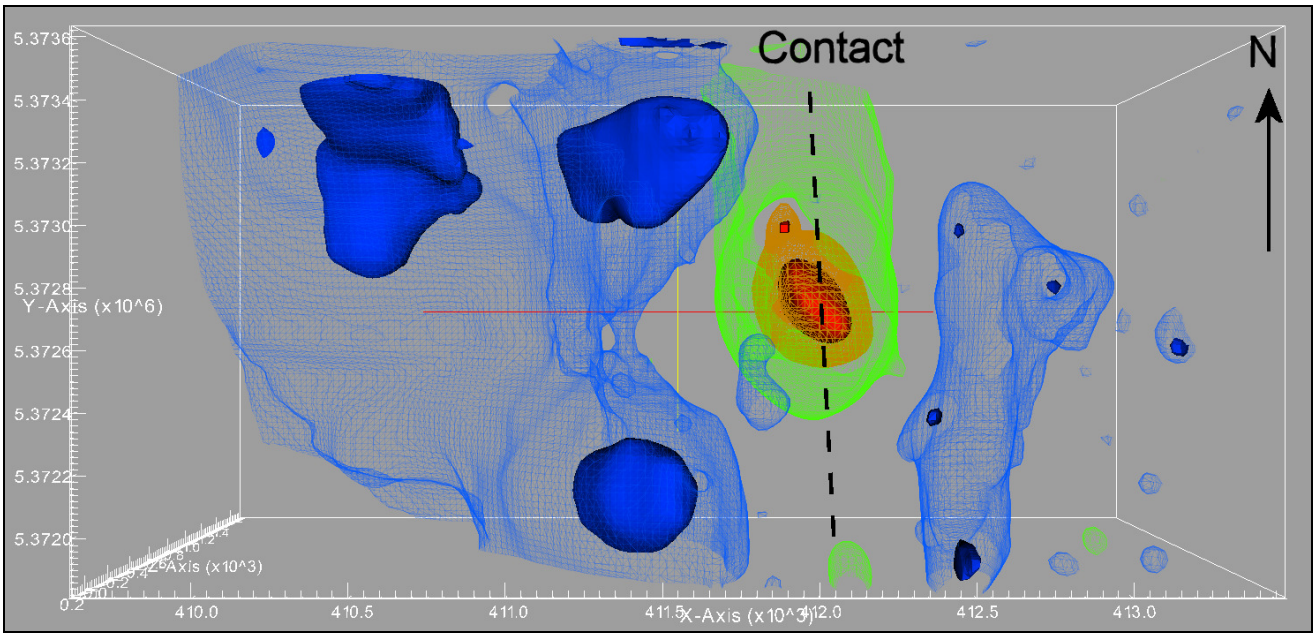
The Bulls Eye anomaly is located in the northwest corner of the project area. It forms a circular magnetic high approximately 1 kilometre across. It appears to be located along a N-S contact delineated by moderate magnetic amplitudes to the east and low magnetic amplitudes to the west. Hints of a similar target are evident along strike to the north, straddling the edge of the survey block. While this localized magnetic high appears to form a distinct anomaly, the background response is only partially defined. This generates some concern that the inversion model may misrepresent the host environment.

A rectangular window some 4 km E-W by 2 km N-S was extracted from the Geotech airborne data to cover the Bulls Eye anomaly. Data was grid to 50 metre intervals and inverted to generate a 25 metre mesh susceptibility model.

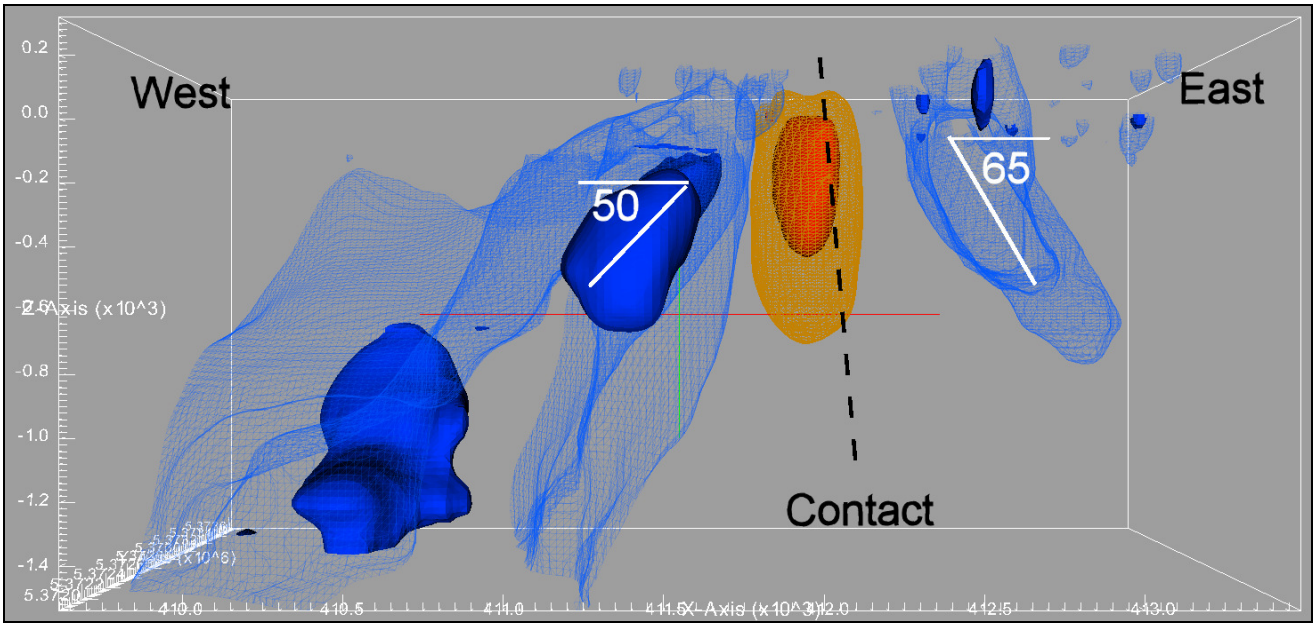
The inversion model shows the source of the Bulls Eye anomaly to be a near vertical plug like body. The area footprint of the high susceptibility core forms a NW-SE elongated ellipsoid some 400 metres long and 200 metres wide and appears to extend from just below surface to approximately 600m depth. This central core appears to be coincident with but oriented at a slight angle with respect to, a more northerly trending contact between very low susceptibility rocks to the west and moderately low susceptibility rocks to the east.

Low susceptibility rocks to the west appear to dip moderately (~050^0) to the west while the rocks to the east dip more steeply (~65^0) to the east.

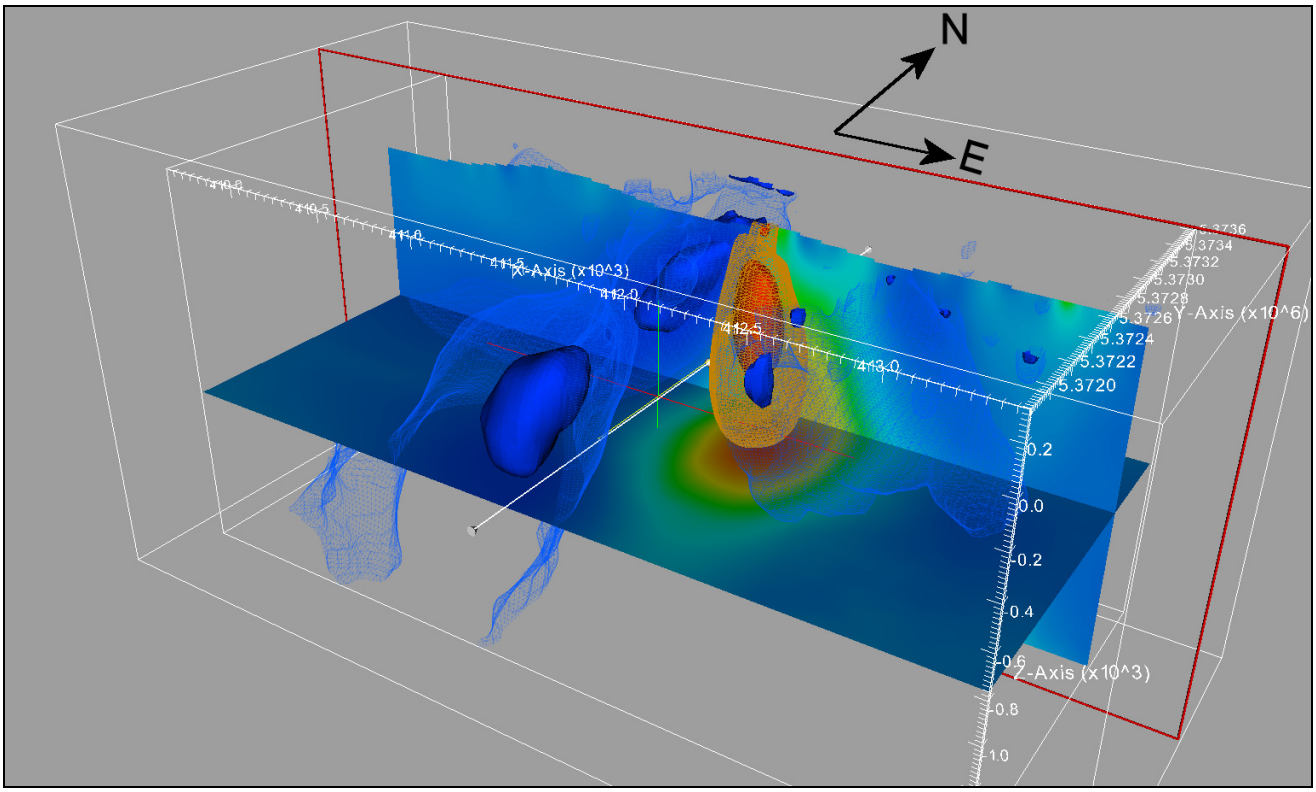
There are at least two possible interpretations of these features. The high susceptibility core may be reflecting a small, isolated body such as an intrusive, plug or pipe. It could also be reflecting a plate like layer, possibly formed as an alteration zone along a northerly trending, near vertical or steep easterly dipping contact or fault zone



Bulls Eye 3D Inversion Model – Top view – Red Isosurface = 0.07 SI, Orange Mesh Isosurface = 0.05 SI, Green Mesh Isosurface = 0.025 SI, Blue Mesh Isosurface = -0.01 SI, Blue Isosurface = -0.02 SI



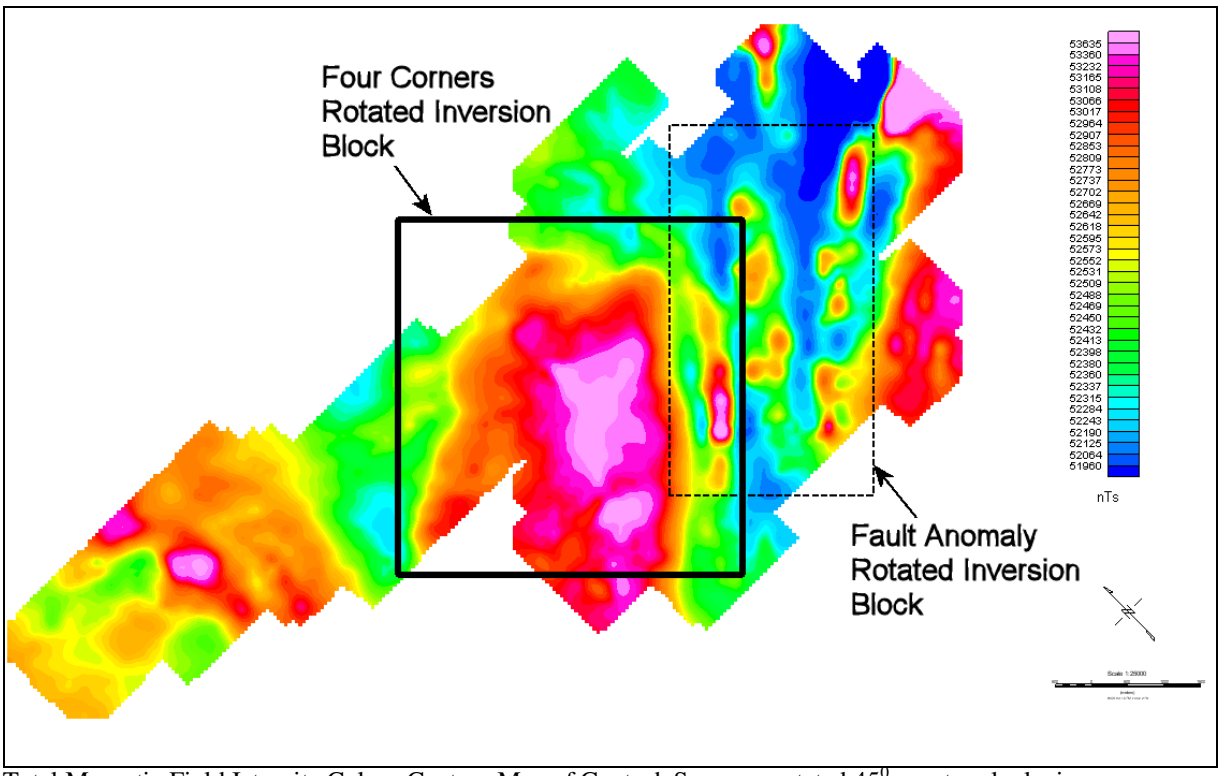
Bulls Eye 3D Inversion Model – Side view from South – Red Isosurface = 0.07 SI, Orange Mesh Isosurface = 0.05 SI, Blue Mesh Isosurface = -0.01 SI, Blue Isosurface = -0.02 SI



Bulls Eye 3D Inversion Model – Elevated view from South East– Red Isosurface = 0.07 SI, Orange Mesh Isosurface = 0.05 SI, Blue Mesh Isosurface = -0.01 SI, Blue Isosurface = -0.02 SI – Horizontal Slice through model at 1000m depth – Vertical Slice through north end of model

Four Corners Anomaly

The Four Corners anomaly is a wide magnetic high that forms a NE striking band traced for some 4.5 km strike length and is considered open to the SW. This anomaly is not fully defined by the magnetic survey. The Geotech airborne data was rotated 45^0 counter clockwise to "square off" the inversion area. A window some 4.8 km by 4.9 km was extracted from the rotated data and submitted to the inversion process. This window extended to the east for two reasons: first in order to get a clear definition of the eastern edge of the magnetic high and second to include an overlap with the inversion for the Fault Anomaly.

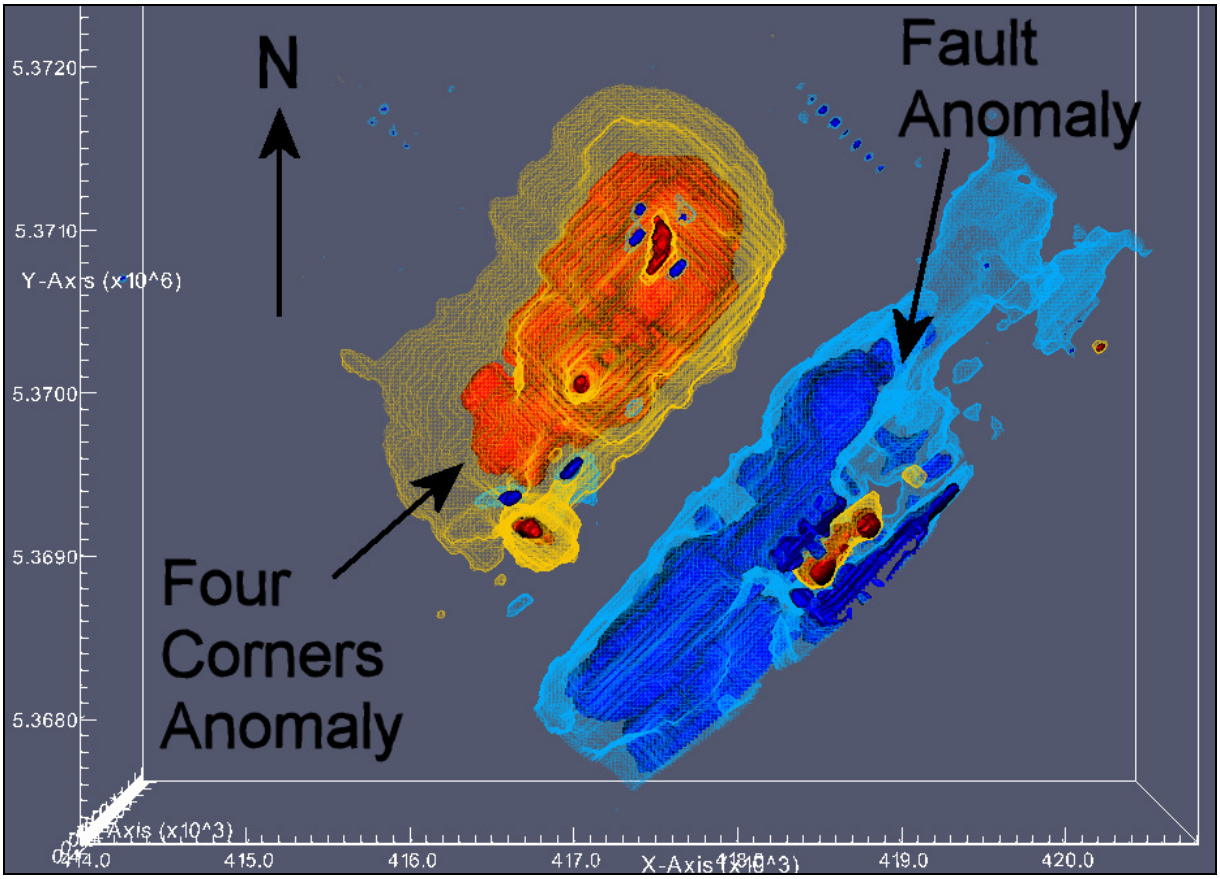


Total Magnetic Field Intensity Colour Contour Map of Geotech Survey – rotated 45^0 counter clockwise

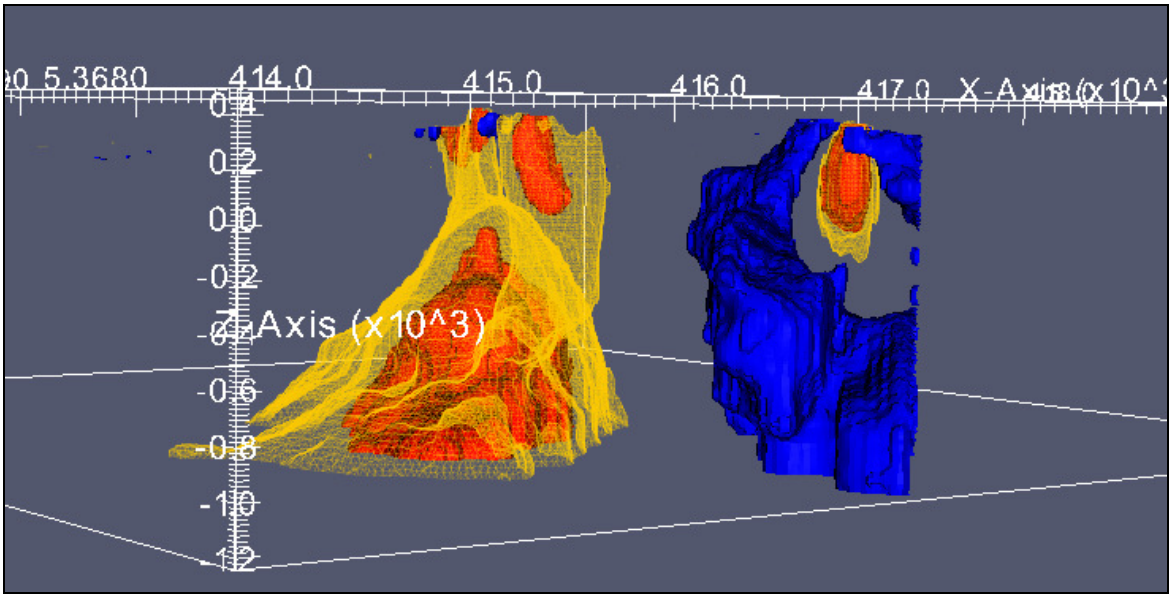
The resulting model was re-rotated back into UTM coordinates for analysis and display.

The target magnetic high exhibits a sharp gradient along its' eastern edge and more gradual gradient to the west. There is a central core to the anomaly, that averages around 800 metres width and exhibits several disruptions and breaks suggesting it may be deformed by cross faulting.

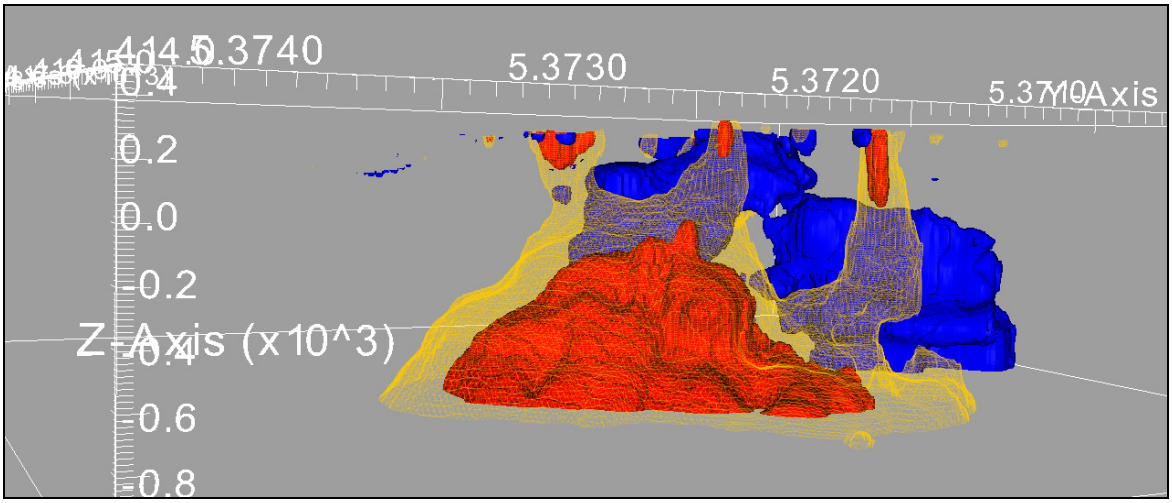
The inversion results show the broad magnetic high results from a deep seated high susceptibility body lying directly below the magnetic anomaly. Depth to the top of the main mass appears to be approximately 500 metres. This body exhibits a near vertical contact along its' southeastern edge and a more gradual westerly dipping contact along is northwestern edge.



3D Inversion Model – Top View – Red Isosurface = 0.07 SI, Orange mesh isosurface = 0.05 SI. Blue Mesh Isosurface = -0.03 SI, Blue Isosurface = -0.03 SI.

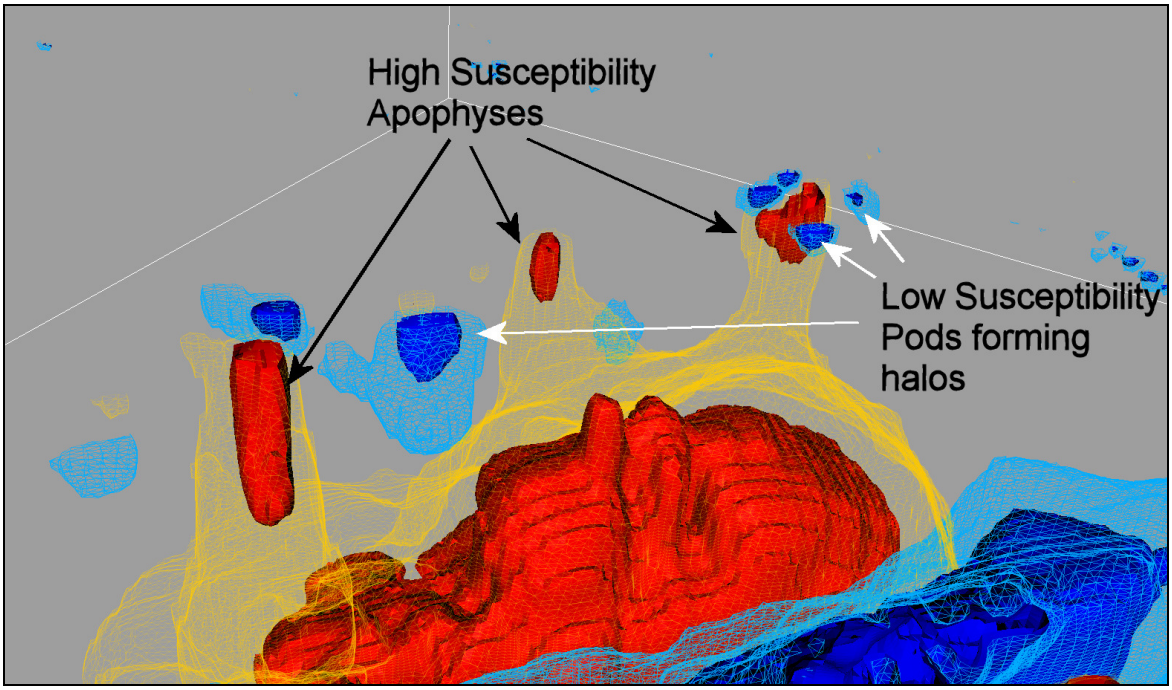


3D Inversion Model – Side View from SW – Red Isosurface = 0.07 SI, Orange mesh isosurface = 0.05 SI. Blue Mesh Isosurface = -0.03 SI, Blue Isosurface = -0.03 SI. Highlights near vertical SE edge and dipping NW edge. Low susceptibility body to the SE maps the western edge of the Fault Anomaly response.



3D Inversion Model – Side View from NW – Red Isosurface = 0.07 SI, Orange mesh isosurface = 0.05 SI. Blue Isosurface = -0.03 SI. Shows high susceptibility apophyses extending up from deep source to surface as near vertical pipes.

The inversion suggests there are three apophyses extending up from this mass to surface. Near the surface small, low susceptibility "pods" form halos around these "pipes.



3D Inversion Model – Side View from SE – Red Isosurface = 0.07 SI, Orange mesh isosurface = 0.05 SI, Blue Mesh Isosurface = -0.03 SI, Blue Isosurface = -0.03 SI. Shows high susceptibility apophyses extending up from deep source to surface as near vertical pipes and low susceptibility halos.

Fault Anomaly

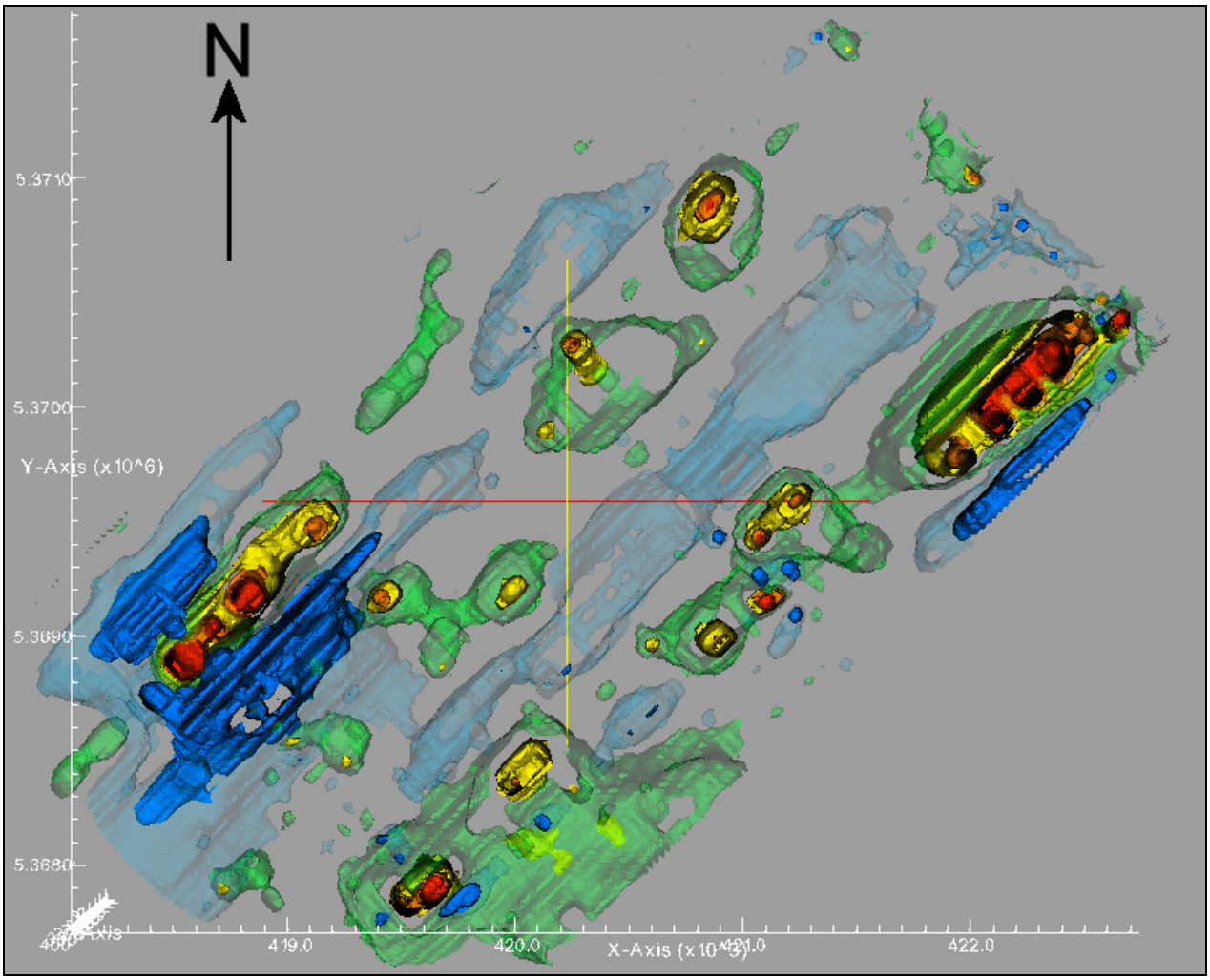
The Fault anomaly is comprised of a series of narrow alternating magnetic high and low lineaments that form a NE-SW striking band some 1.8 km across and is considered open in both directions along strike. This zone coincides with the Cabot Fault Zone, which is part of a large suture zone labeled the Baie Verte Brompton Line. The magnetic high lineaments are prone to forming as a series of localized anomalies while the low lineaments are better characterized as continuous features. The magnetic highs show a loose correlation to the EO_{DPU} facies of the Dennis Pond Complex and the SP_{MI} facies of the Puddle Pond Complex. However, the magnetic responses suggest a more complex geology than that shown on the regional geological maps.

This anomaly was modeled in three passes. Initially, the zone was divided into north and south overlapping blocks. Subtle variations in the resulting models in the overlap area prompted a third inversion using the 45^0 counter clockwise rotated data set, which allowed the entire area to be processed as a single model. This later model overlapped the Four Corners inversion block by 1 km. This rotated model was re-rotated back into UTM coordinates for analysis and display. These different versions of the model all reflect the same relative high and low susceptibility trends but do show some differences, most notably around the edges of the models. Using the Paraview 3D display program allows the viewer to overplot and directly compare the different models.

The inversion models show the NE striking magnetic high lineations are generated from multiple small and narrow (NE elongated) high susceptibility lenses, generally dipping steeply to the southeast and extending from the surface to around 300m depth. The pods associated with the two largest and highest amplitude anomalies, one in the SW corner immediately east of the Four Corners Anomaly and the other in the NE corner of the block, appear to extend much deeper (~ 1000 metres). Both of these bodies are flanked to the southeast by SE dipping low susceptibility lenses.

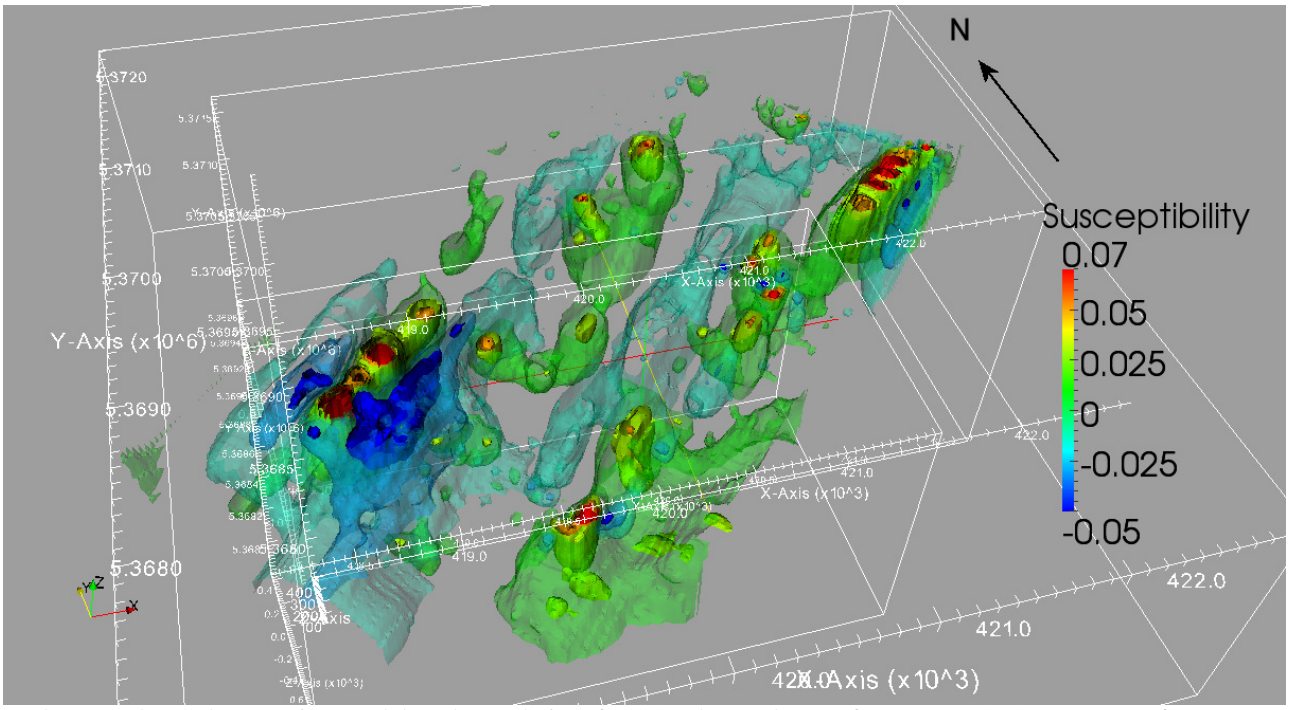
As was apparent on the plan magnetic maps, the inversion models show the magnetic lows separating the magnetic high lineations as the more continuous features. There are numerous breaks, offsets and disruptions of both the magnetic high and low trends. These appear to suggest extensive East-West faulting.

For illustration purposes the models have been clipped to remove the effects from the Four Corners magnetic high to the NW and the deep (> 600m) responses. Some of the images below are generated from these “clipped” models.

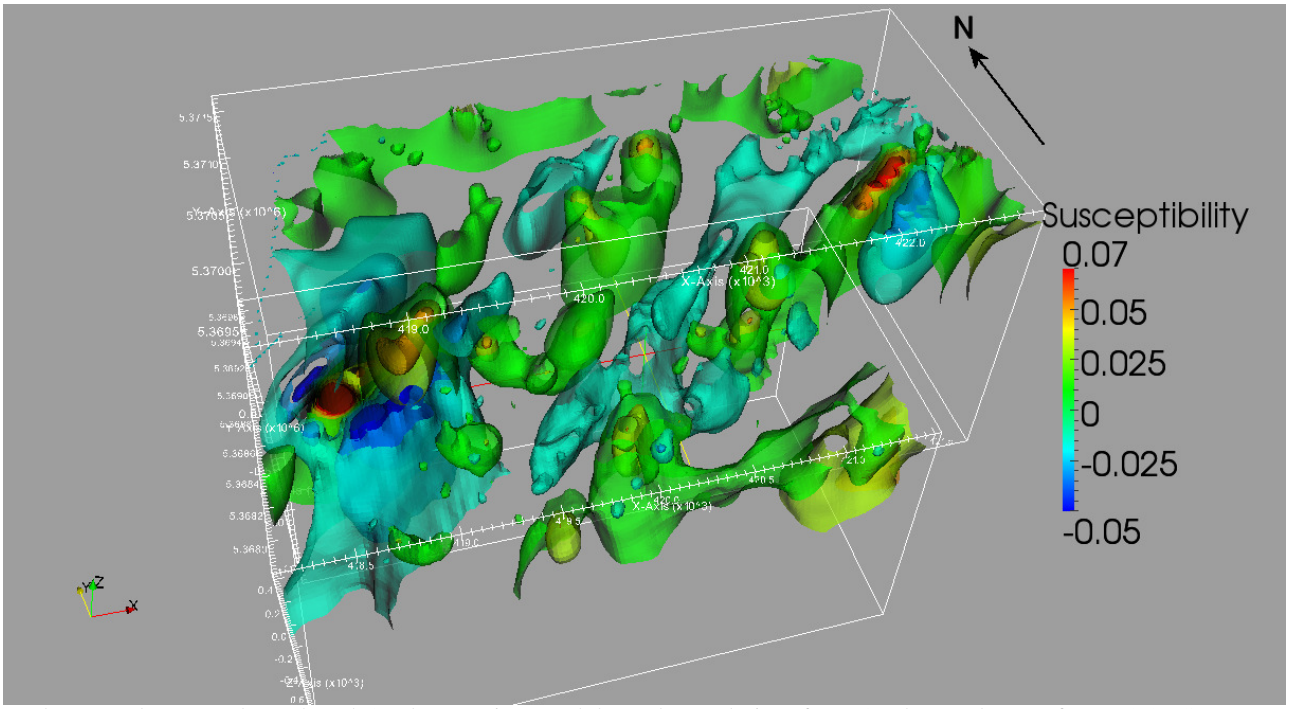


Fault Anomaly Inversion Model – Top View – Red Isosurface = 0.07 SI, Orange Isosurface = 0.05 SI, Yellow Isosurface = 0.03 SI, Green Isosurface = 0.01 SI, Light Blue Isosurface = -0.014 SI, Dark Blue Isosurface = -0.03 SI

This image shows the discontinuous nature of the high susceptibility bodies and more continuous nature of the interspersed low susceptibility bodies. Strong magnetic anomalies are mapped in both the Southwest and Northeast corner of this inversion block.

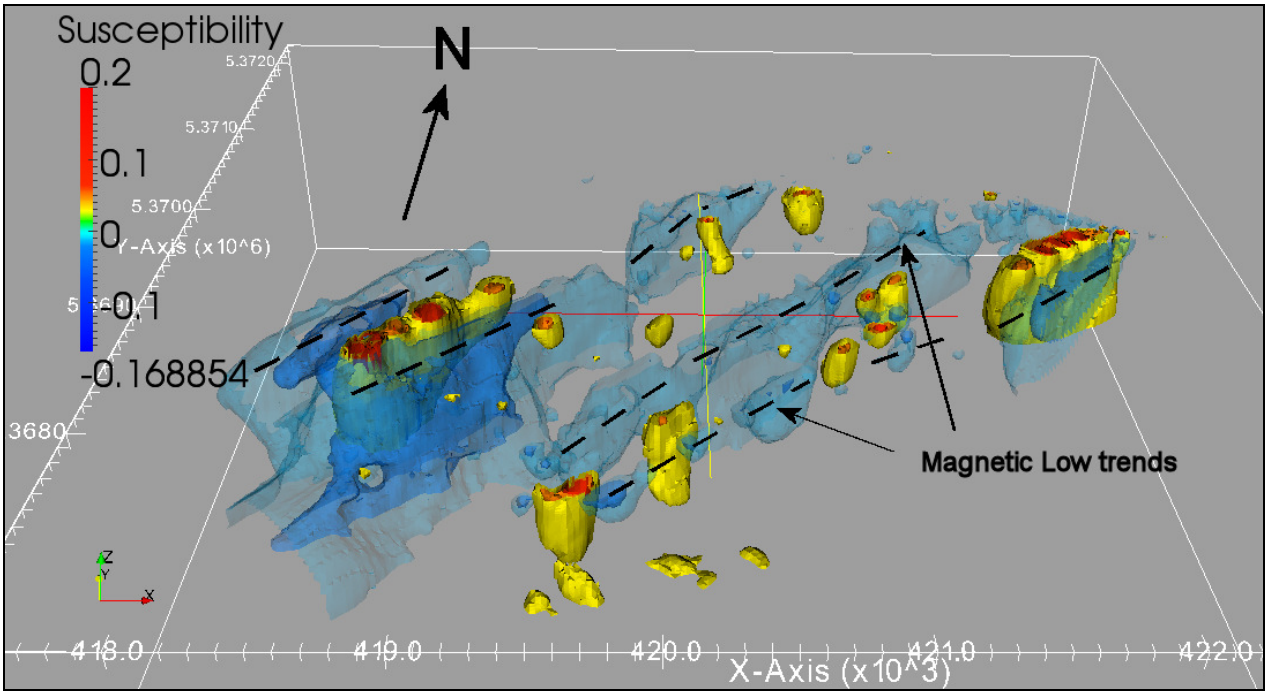


Fault Anomaly Angle Inversion Model – Elevated view from South – Red Isosurface = 0.07 SI, Orange Isosurface = 0.05 SI, Yellow Isosurface = 0.03 SI, Green Isosurface = 0.01 SI, Light Blue Isosurface = -0.014 SI, Blue Isosurface = -0.03 SI, Dark Blue Isosurface = -0.05 SI

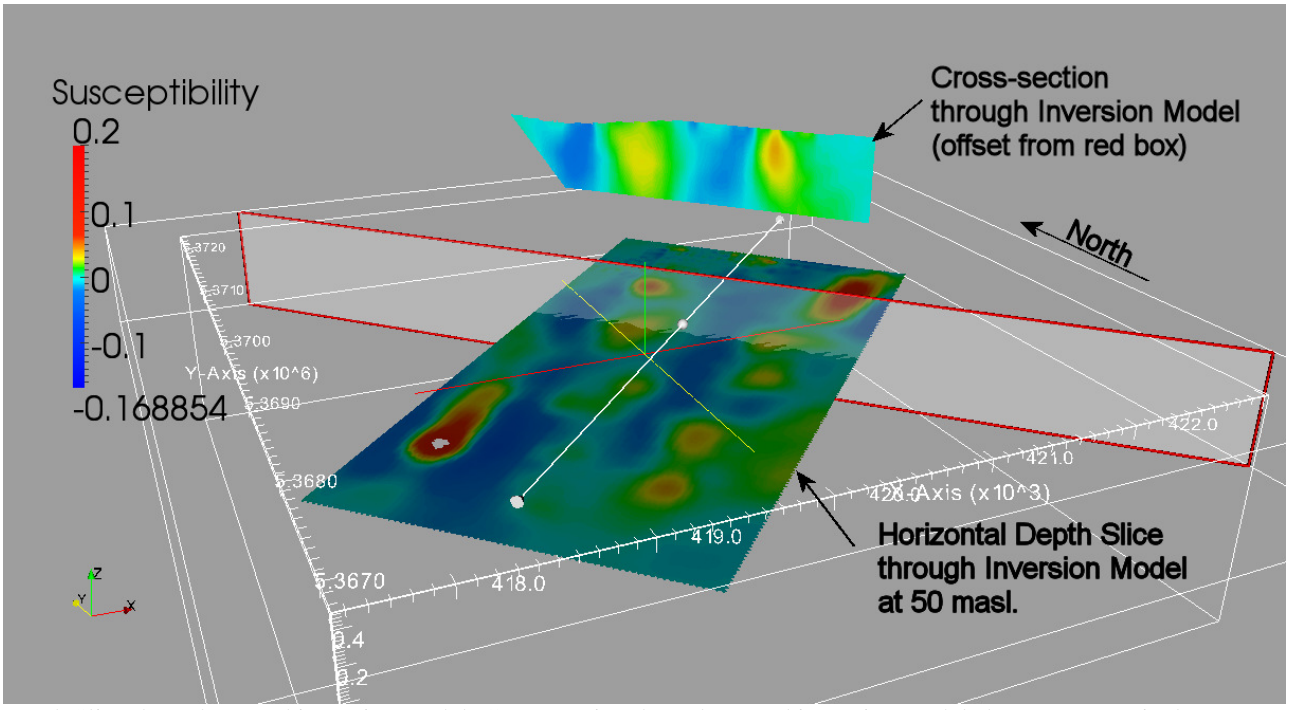


Fault Anomaly Merged North and South Inversion Models – Elevated view from South – Red Isosurface = 0.07 SI, Orange Isosurface = 0.05 SI, Yellow Isosurface = 0.03 SI, Green Isosurface = 0.01 SI, Light Blue Isosurface = -0.014 SI, Blue Isosurface = -0.03 SI, Dark Blue Isosurface = -0.05 SI

The images above compare the results between the rotated (angled) magnetic inversion block and the individual north and south block inversions.



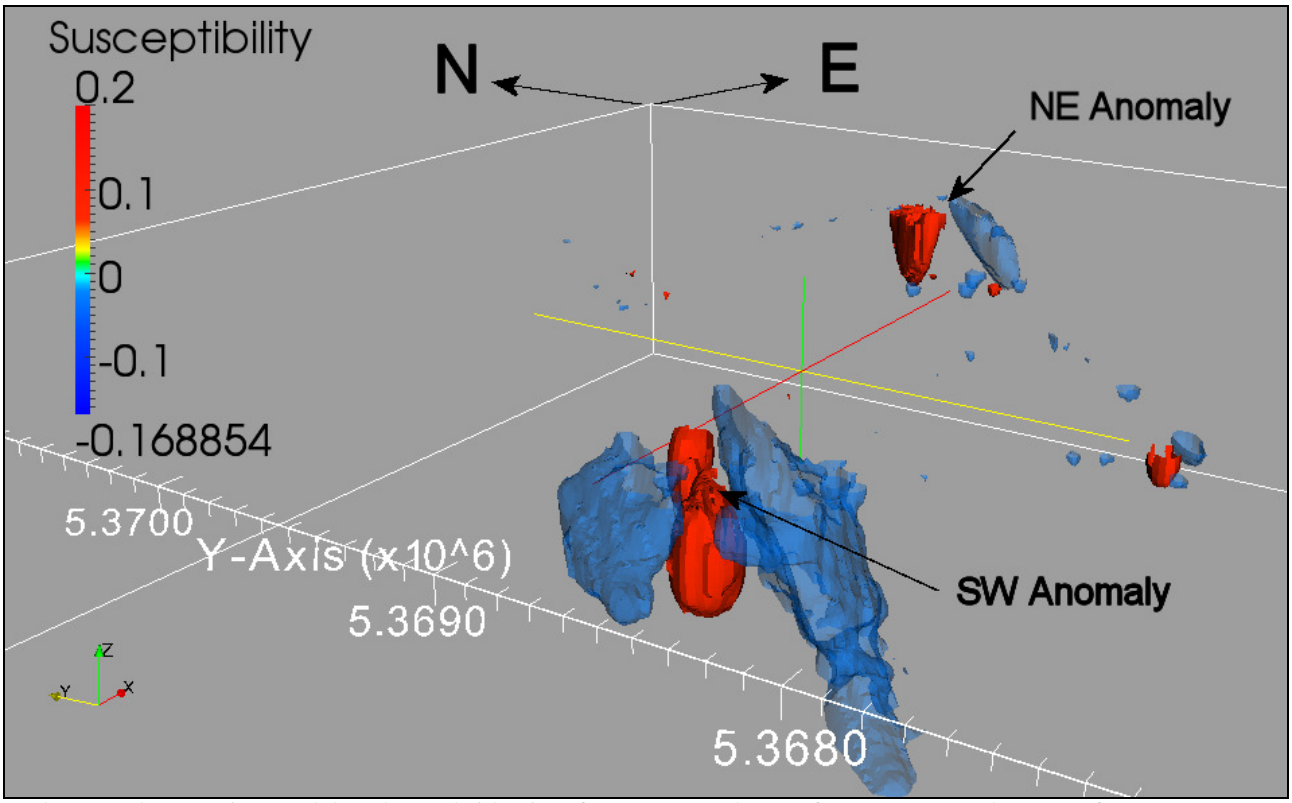
Fault Anomaly Inversion Model – Elevated view from South – Red Isosurface = 0.07 SI, Orange Isosurface = 0.05 SI, Yellow Isosurface = 0.03 SI, Light Blue Isosurface = -0.014 SI, Dark Blue Isosurface = -0.03 SI



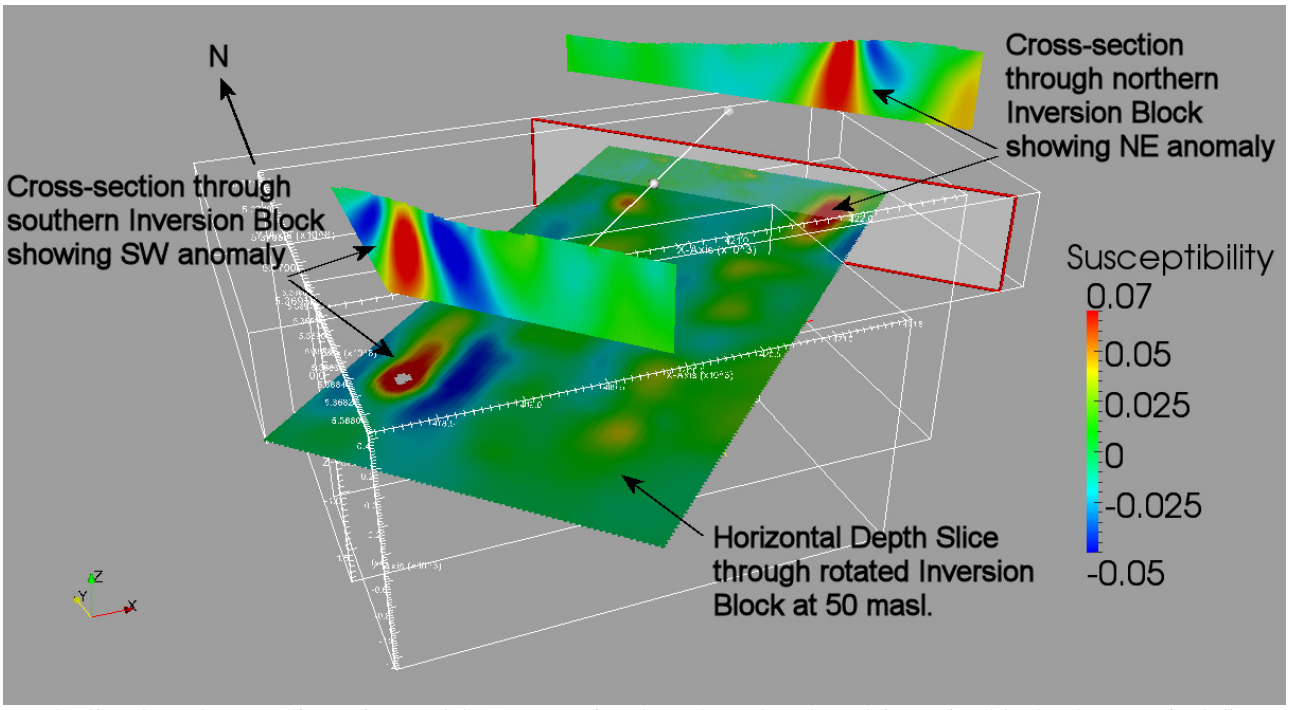
Depth Slice through rotated inversion model. Cross-section through rotated inversion model shows near vertical to steep SE dip of weak magnetic high trends.

The strong magnetic high in the SW corner is modeled on both the Fault Anomaly and Four Corners inversions as a near vertical, NE elongated susceptibility high, approximately 550m long, 150m wide and over 500m vertical extent. A low susceptibility halo surrounds all but the NE edge. This halo appears to expand with depth and is most pronounced the southeastern flank where it appears forms a thin layer dipping ~ 75^0 SE.

The strong anomaly in the northeast corner of the area appears to be a slightly smaller version of the SW anomaly.



Fault Anomaly Inversion Model – Elevated side view from SW – Red Isosurface = 0.07 SI, Blue Isosurface = -0.03 SI



Depth Slice through rotated inversion model. Cross-section through north and south inversion blocks show vertical dip of strong magnetic anomalies and SE dip of flanking low susceptibility bodies.