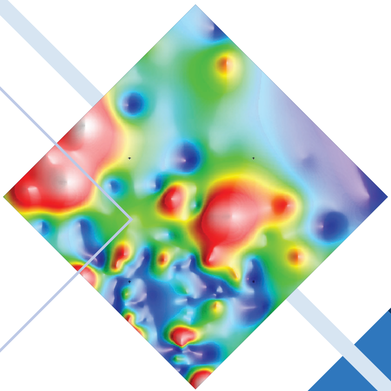
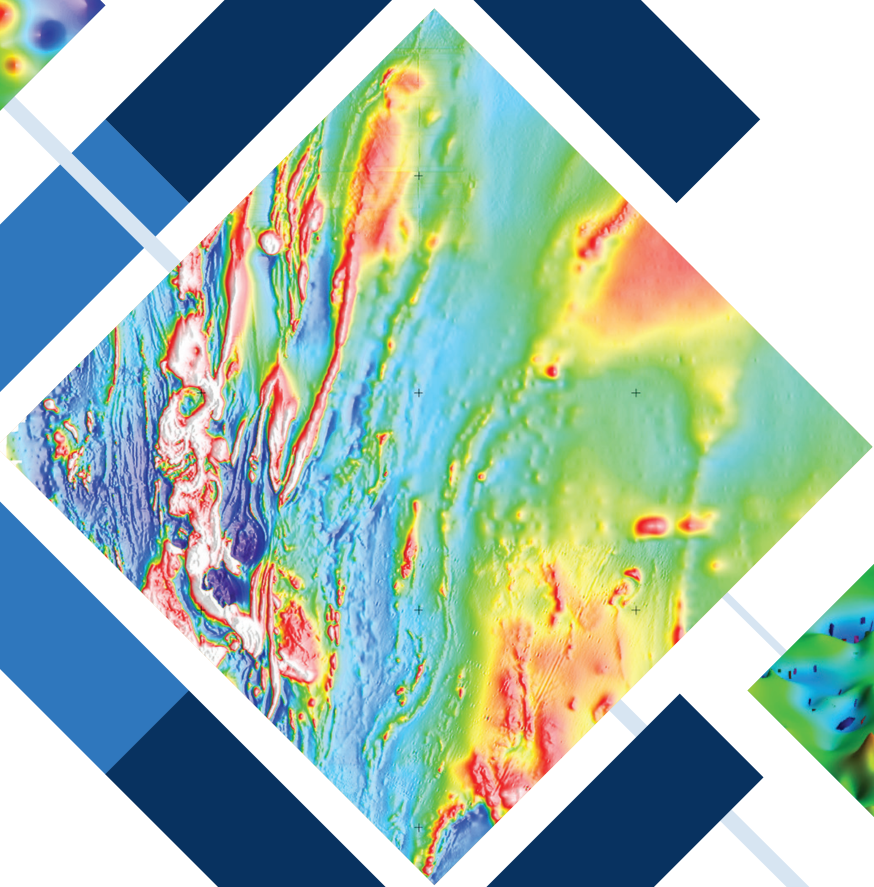
Delamerian project area magnetic source depth models





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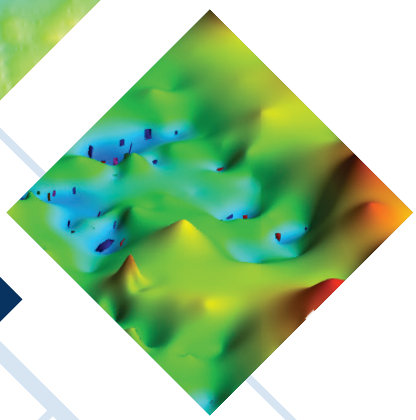

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SOUTH AUSTRALIA

Government of South Australia
Department for Energy and Mining

Delamerian project area magnetic source depth models

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August 2020

Report Book 2020/00023

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Preferred way to cite this publication
Reed G, Katona K, Wise T, Gouthas G, Irvine J and Foss C 2020. *Delamerian project area magnetic source depth models*, Report Book 2020/00023. Department for Energy and Mining, South Australia, Adelaide.

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Delamerian project area magnetic source depth models

Gary Reed, Laszlo Katona, Tom Wise, George Gouthas, Jonathon Irvine and Clive Foss

ABSTRACT

The results of a project to produce depth estimates to the top of magnetic sources are presented within this report. The area of interest is located within the Delamerian Orogeny and spans the boundary between outcropping pre-Delamerian Orogeny rocks, and those covered by sedimentary basins of variable thickness.

A total of 11 government and private company airborne magnetic surveys have been investigated, and results are presented as both a combined dataset and individual datasets for each airborne survey.

This study forms part of the Geological Survey of South Australia's involvement with the MinEx CRC research program, the National Drilling Initiative.

Results are presented as magnetic basement depth grids and contours. All calculations were completed using the magnetic inversion tool contained within ModelVision, a proprietary software package marketed by Tensor Research.

The methodology used was based on the 'sweet-spot' traverse inversion depth-estimation technique described in Appendix 4 of this report.

INTRODUCTION

The MinEx Co-operative Research Centre (CRC) has three main research programs, the third of which is the National Drilling Initiative. This program is intended to test new drilling technologies being developed by the CRC, as well as to provide new geoscientific data within greenfield regions.

Australian geological surveys have defined areas of interest under the National Drilling Initiative, of which the Geological Survey of South Australia has selected two key areas of interest. One of these areas covers the Delamerian Orogen to the east of the state.

The depths to the top of magnetic sources have been determined over 11 airborne total magnetic intensity (TMI) surveys covering parts of the Delamerian Orogeny in South Australia. These surveys comprise a wide range of vintages and data quality. Unfortunately, unlike the recent Gawler Craton Airborne Survey (GCAS), one single large scale, high resolution airborne survey does not exist. The area bounded by this study is shown in Figure 1.

Airborne magnetic field surveys measure the strength of the magnetic field (TMI), which can be used to measure small scale variations of the earth's magnetic field. These variations are due to local irregularities in the magnetic characteristics of near and sub-surface geology, caused by differing concentrations of magnetic material, usually magnetite.

The 'sweet-spot' traverse inversion depth-estimation technique, has been introduced by Foss (2019) using ModelVision software.

This study aims to constrain the depth to magnetic basement beneath sedimentary cover by providing estimates for individual magnetic anomalies. The study area, in eastern South Australia has seen prolonged mineral exploration activities in outcropping regions, but significantly less for basement hosted mineralisation in regions under cover. Consequently, more accurate constraints on cover thickness/depth to magnetic basement provided here will allow for greater confidence in drilling campaigns in covered regions.

Results from this study have been released as part of the Geological Survey's Delamerian Data Package, the contents of which are listed in Appendix 1 of this report. A summary of the resulting depth to magnetic source estimates and related products are given in Appendix 2.

REGIONAL GEOLOGY

In the study area (Fig. 1), geological units are covered by sediments of the Murray Basin. Sparse drillholes indicate rocks of predominantly Cambrian through to Neoproterozoic age.

These units are bounded to the north-west by units of the Nackara Arc and the Curnamona Province (Fig. 2). Regional geophysical imagery (Fig. 2) indicates that the Delamerian basement to the Murray Basin may contain along-strike equivalent units from those outcropping in western Victoria and south-western NSW. A preliminary basement geology interpretation (Fig. 3) has been produced by Wise (2020).

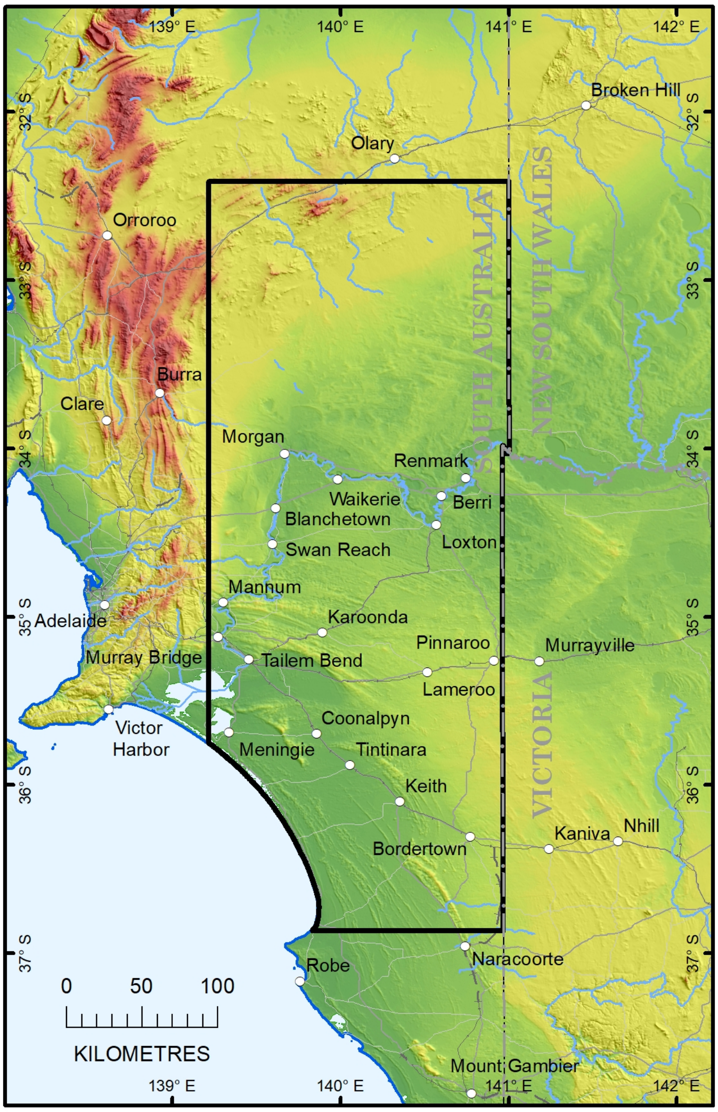

Figure 1. Location of study area.

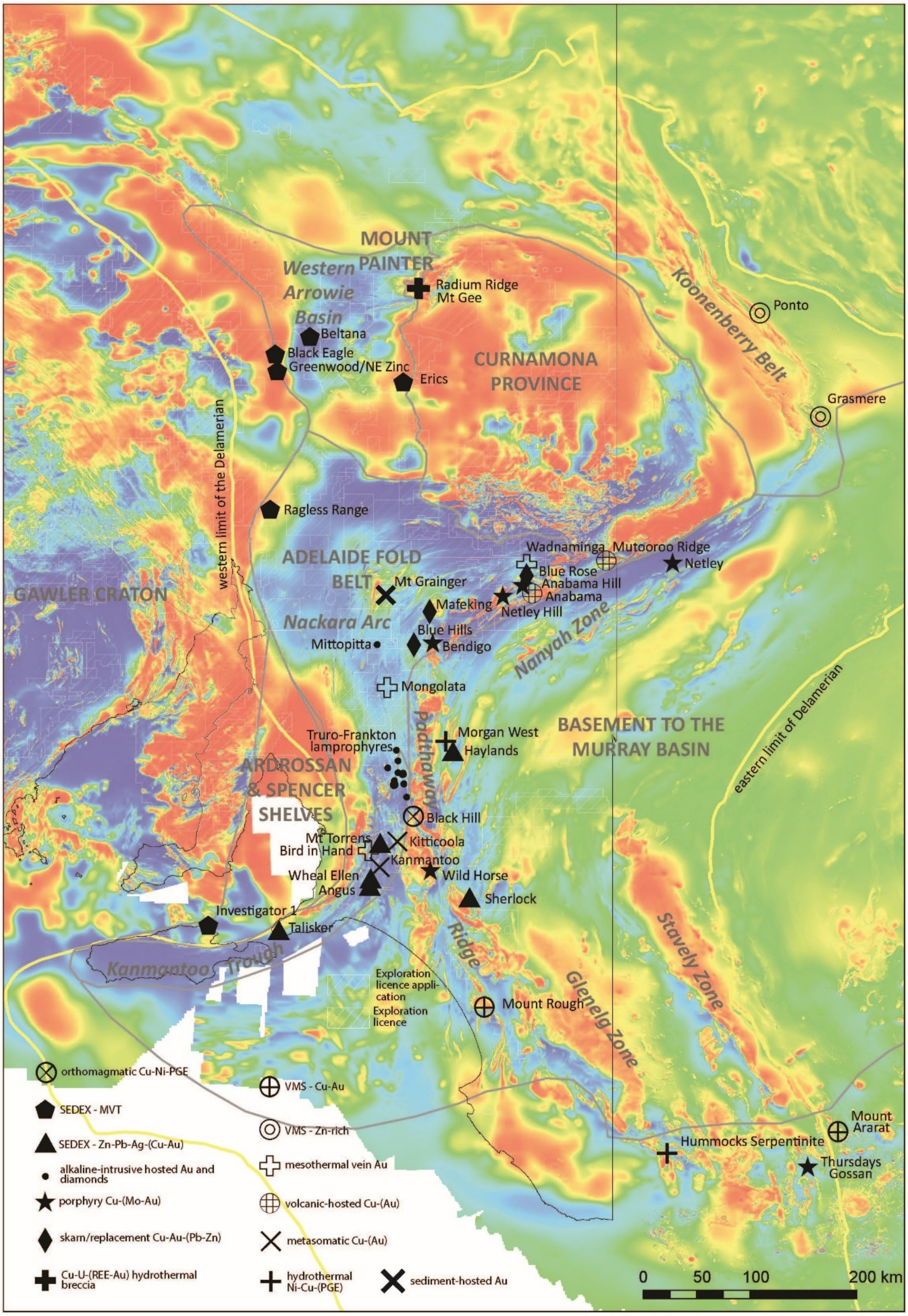

Figure 2. Structural elements of study area with respect to surrounding geological provinces and mineral deposits. Data from SARIG and Geoscience Australia.

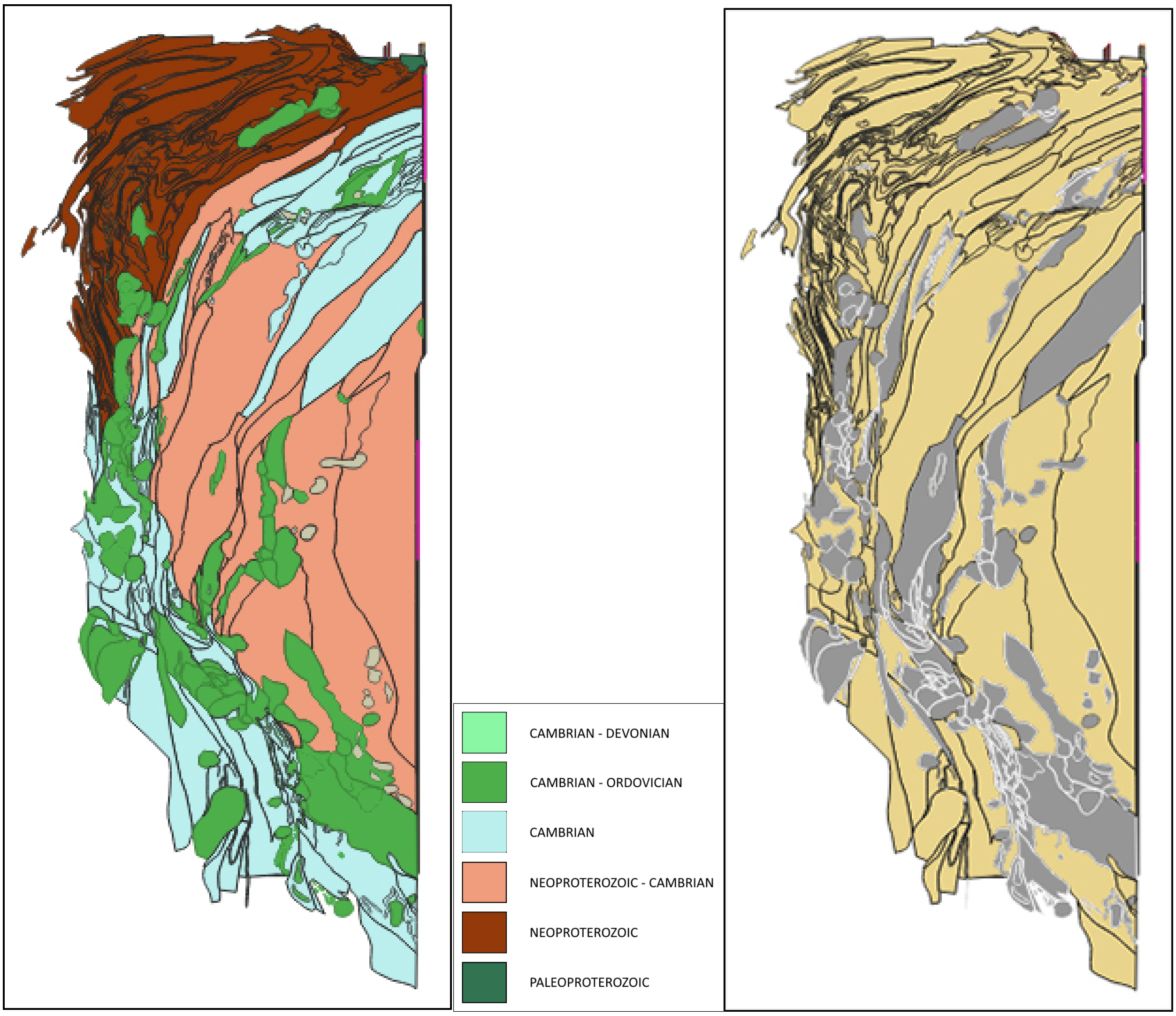

Figure 3. Simplified solid geology map of the area from Wise, (2020). The left panel divides the geological units into interpreted ages, whilst the right panel indicates volcanic and igneous units which may be associated with higher magnetic susceptibility values.

Although there has been limited exploration within the central region of the Section 15 area, Figure 2 indicates significant mineralisation occurrences within the western and northern boundaries. The two simplified interpreted solid geology maps exhibited in Figure 3 have been drawn with an attempt to match certain units with higher apparent susceptibility values derived from the magnetic source depth calculations. A discussion of the results is given in 'Results and Discussion' section of this report. A summary is also given within Appendix 3.

EXISTING CONSTRAINTS ON DEPTH TO BASEMENT

Whilst the study area has been covered by regional scale geophysics, exploration within most of this region is limited, with most geological and geophysical data and drillholes being confined to the western and north-western boundaries (Figs 4 and 5).

Depth estimate points have been shown in Figures 6 and 7 which indicate the locations of the resulting depth to the top of magnetisation estimates. These two figures also display both contours of the depth to crystalline basement and of the resulting magnetic source depth estimates, respectively. The source depths and contours exhibited in Figure 7 have been calculated as depths below the Shuttle Radar Topography Mission (SRTM) base level.

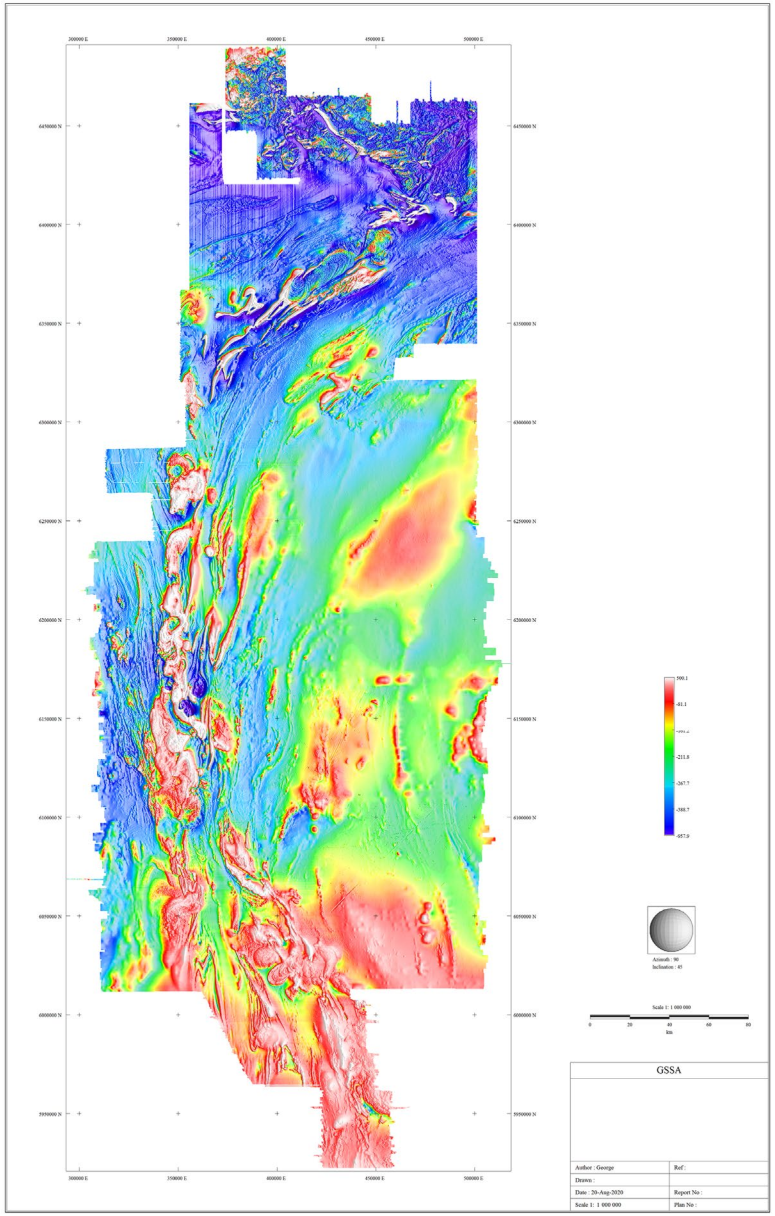

Figure 4. Merged raw TMI datasets.

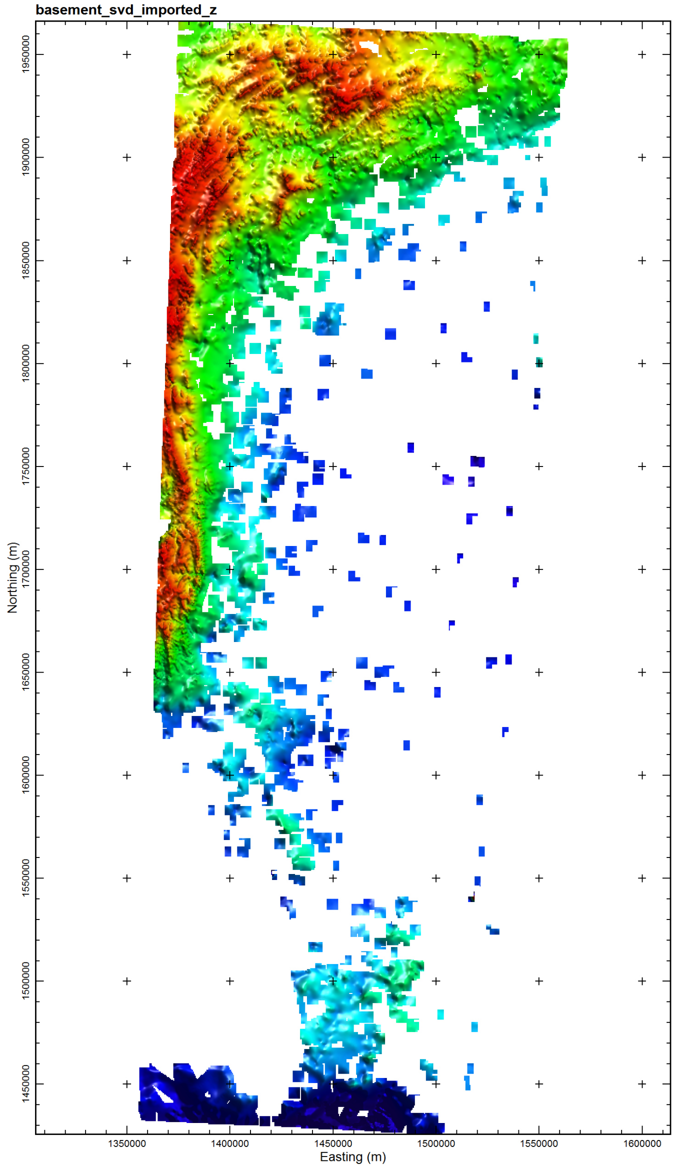

Figure 5. Grid of depth to crystalline basement from point drillhole data.

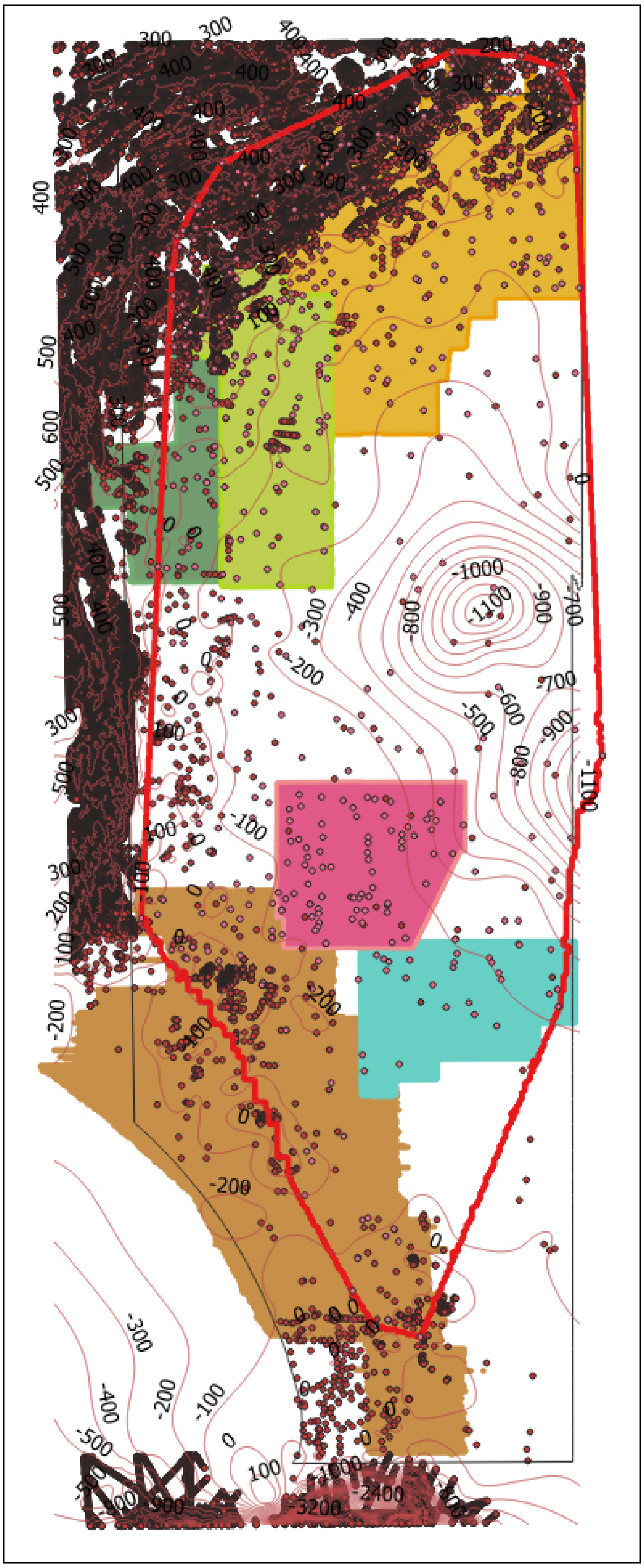

Figure 6. Drillhole locations, TMI survey boundaries, crystalline basement depth contours. Limit of magnetic depth grid shown in red.

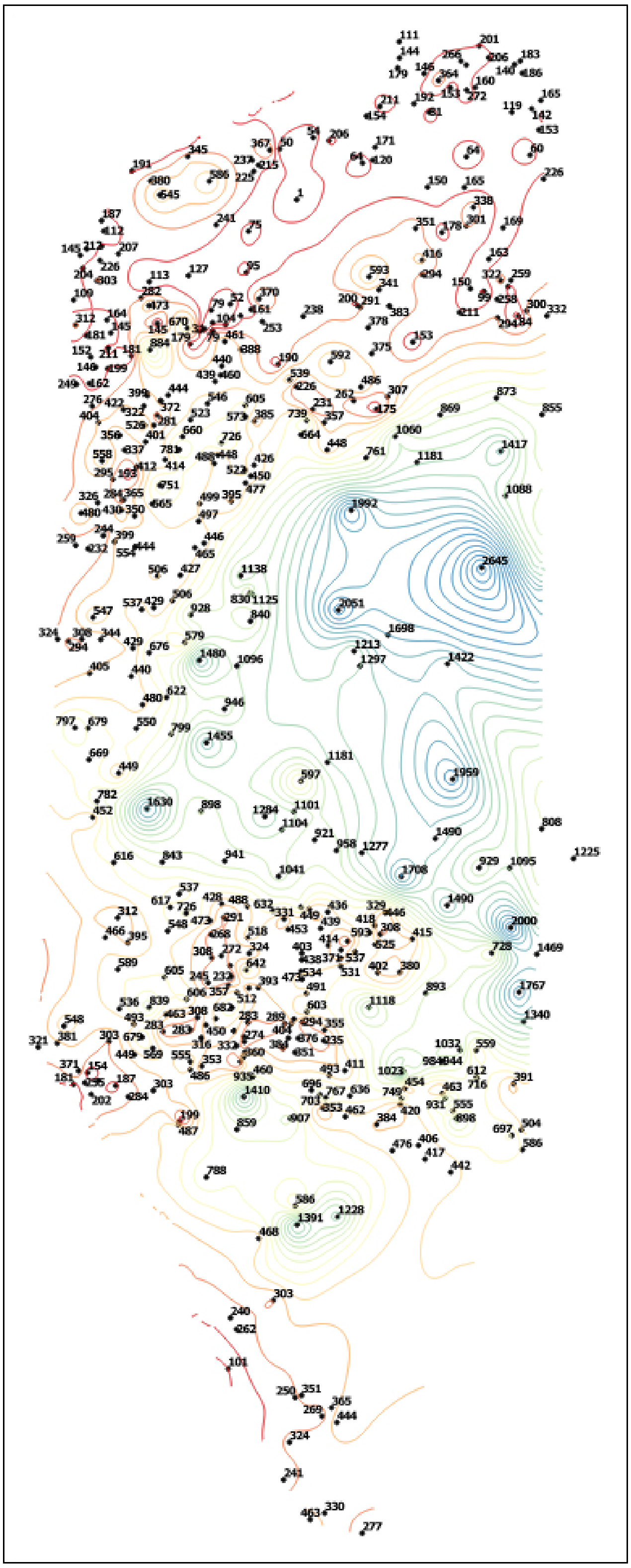

Figure 7. Colour contours of magnetic source depth calculations. Depth point locations and values are indicated.

The TMI surveys indicated in Figures 4 and 6, form the basis of the depth estimates as they have flight line spacings of 400m or less, and generally do not cover near surface units or outcrop. They have also been chosen as there is little available drill-hole data within the survey areas, and available data indicates that magnetic basement is less than 500m deep. Depth estimates in the area of the South Australia / Victorian border are limited to refraction seismic evidence surveys. These indicate that basement depths are in excess of 3000m within the Renmark Trough region, exhibited in Figure 8.

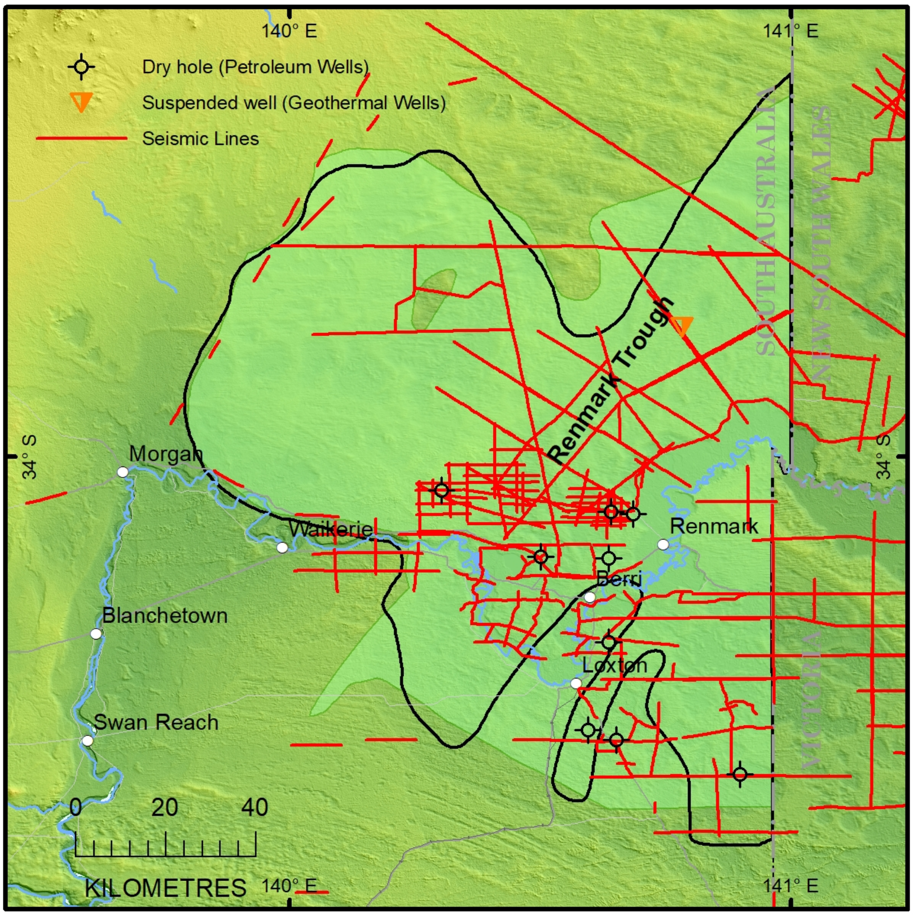

Figure 8. **Location of Renmark Trough indicating available seismic lines petroleum exploration wells and associated basins.**

MAGNETIC SURVEY DETAILS

The quality of the airborne TMI datasets over the study area varies considerably. In all 11 individual airborne surveys were chosen to be included within this project. These surveys and the relevant acquisition details are presented in Table 1 and displayed in Figure 9 below.

The outline of the final depth grid is displayed as a dashed black line, whilst the boundary of the Section 15 area is indicated by the red border.

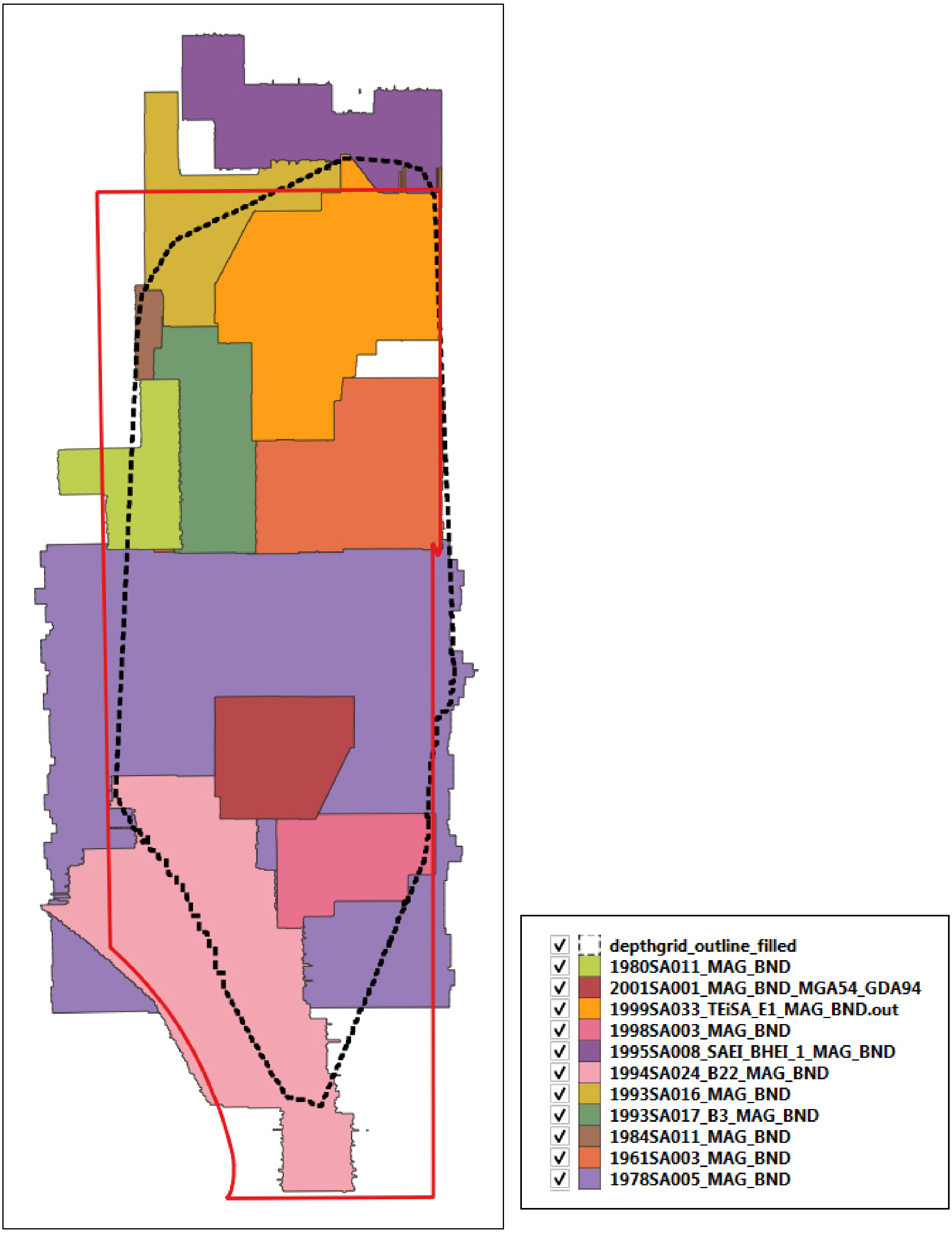

Figure 9. This figure exhibits the location of the 11 airborne surveys used during this study. Section 15 boundary is shown in red, and boundary of magnetic source depth grid indicated by black dashed line.

Within the northern boundary, the western area is covered by the 1993 SAEI B3 survey, whilst the northern area is covered by the 1999 TEiSA E1 survey. These are Government surveys acquired during two Government Exploration Initiatives, flown at a 400m line spacing. Flying altitude of the E1 survey was superior with a flying height of 50m compared with 80m of the B3 survey. The data quality of the E1 survey is considered far superior to the B3 survey, as the data enabled tie-line levelling and elevations were presented as GPS altitude (gpsalt) data. In comparison, the B3 survey recorded only altitude, and data for all tie-lines has been erroneously nulled, presumably during the initial processing and delivery stage, Table 2.

The remaining southern section of the northern boundary is covered by a 1961 regional survey with a line spacing of 1,600 m and a sensor height of 150 m. This data has no tie-line recorded and the clearance channel has also been erroneously nulled.

Within the southern boundary only two airborne surveys cover the area of interest. These are the regional 1978 Murray Basin survey, and the 2001 Mindarie survey. The data quality of this survey, flown to investigate mineral sand bearing strandlines within the Murray Basin, is excellent and directly compares with the recent GCAS surveys. This survey was flown at a line spacing of 400 m and a sensor height of 25 m.

The remaining six surveys that have been investigated, fall outside the area considered to be prospective due to the anticipated depth to magnetic basement. Depths to magnetic sources have been calculated however, in order to provide a consistent depth map over the greater part of the Section 15 area.

At this stage, it must be considered that the quality and reliability of resultant depths to the top of magnetisation sources are extremely dependent upon both the survey spacing, availability of tie-line data and the quality of the data itself, primarily due to vintage.

As a comparison of data quality with respect to survey vintage of the 11 surveys, the acquisition details for one of the recent GCAS surveys, are presented below in Table 1. The GCAS surveys were a recent South Australian state government initiative.

Table 1. Summary of individual airborne survey details with the GCAS parameters given as a comparison

SADME CODE	Data type	Survey name	Company	Purpose	Line km	Line spacing (m)	Line orientation	Tie spacing (m)	Tie orientation	Sensor height (m)
1961SA003	A-D	CHOWILLA	BMR/SADM	Regional	7,990.6	1,600	090–270	23,000	000–180	150
1978SA005	Digital	MURRAY BASIN	MESA/BMR	Petroleum basin		3,000	090–270	35,000	000–180	150
1980SA011	Analog	FLORIETON NTH	CRA Ex	U – base metal	9,249.1	300	090–270	5,000	000–180	80
1984SA011	Digital	COTTAGE BORE	CRA Ex	Diamond	2,925.7	250	090–270	4,000	000–180	80
1993SA016	Digital	SAEI B2	MESA	SAEI	15,105.4	400	000–180	4,000	090–270	80
1993SA017	Digital	SAEI B3	MESA	SAEI	13,068.4	400	090–270	4,000	000–180	80
1994SA024	Digital	SAEI B22	MESA	SAEI	55,831.7	200/400	090–270	2,000/4,000	000–180	80
1995SA008	Digital	SAEI BHEI 1	MESA	SAEI BHEI	62,709.3	100	000–180	,1000	090–270	60
1998SA003	Digital	PINNAROO	RGC Ex	Unknown	9,898.0	400	45–225	4,000	135–315	20
1999SA033	Digital	Teisa E1	PIRSA	TEiSA	54,136.3	400	000–180	2,000	090–270	50
2001SA001	Digital	Mindarie	Steiner	Mineral sands	10,098.3	400	26	4,000	116	25
GCAS	Digital	9B Kingoonya	DEM	Initiative	149,477	200	090–270	2,000	000–180	60

Table 2. Summary of the magnetic data and elevation sources for each survey

SADME code	Magnetic data format	Altitude data format
1961SA003	No tie-line data	SRTM, altitude and clearance null
1978SA005	Tie-line levelled residual magnetics	Clearance 150 m
1980SA011	Tie-line levelled	SRTM, plus altitude
1984SA011	Magnetic residual – no tie-lines	Radar altimeter
1993SA016	Magnetic raw – null tie-lines	SRTM, plus altitude
1993SA017	Magnetic raw – null tie-lines	SRTM, plus altitude
1994SA024	Magnetic raw – null tie-lines	SRTM, plus altitude
1995SA008	Tie-line levelled	SRTM, plus altitude
1998SA003	Tie-line levelled	gpsalt (altitude)
1999SA033	Tie-line levelled	gpsalt (altitude)
2001SA001	Tie-line levelled	gpsalt (altitude)

SURVEY RELIABILITY

An attempt has been made to summarise the data reliability of each airborne survey, with respect to the magnetic source depth determinations. Survey details including vintage, line spacing, magnetic data type, altitude data type, availability of tie-line data and sensor altitude were given a ranking number as indicated in Table 3. These results are displayed in Table 4, along with the GCAS survey ratings for comparison. For an additional reliability constraint, the resulting RMS (root mean square) value of each magnetic inversion was noted and listed in the final data files for both individual surveys, and the combined final depth dataset.

Table 3. Depth reliability factors (total score 350)

Factor	Option	Score	Highest score
1 RMS			*50*
	<1.0	50	
	1.0–1.5	40	
	1.5–2.0	20	
	>2.0	5	
2 Survey vintage			*50*
	>2010	50	
	2000–2010	40	
	1990–2000	30	
	1980–1990	10	
	<1980	5	
3 Flight line spacing			*50*
	<100	50	
	100–200	40	
	200–400	25	
	400–1,000	10	
	>1,000	5	
4 Magnetic field type			*50*
	Raw	50	
	Levelled	30	
	Residual	10	
5 Altitude data type			*50*
	GPSALT	50	
	Radar altimeter	20	
	Altitude	10	
6 Tie line levellable			*50*
	Tie line data available	50	
	No tie line data	10	
7 Survey altitude			*50*
	<50	50	
	50–80	40	
	80-–100	20	
	>100	10	

Table 4. Summary of the airborne survey reliability rankings

SADME code	Vintage	Spacing	Magnetic data	Altitude data	Tie line level	Flight altitude	Total
1961SA003	5	5	50	10	10	10	90
1978SA005	5	5	10	10	50	10	90
1980SA011	10	30	50	10	50	30	180
1984SA011	10	30	10	20	10	30	110
1993SA016	30	30	50	10	10	30	160
1993SA017	30	30	50	10	10	30	160
1994SA024	30	30	50	10	10	30	160
1995SA008	30	30	50	10	50	30	200
1998SA003	30	30	50	50	50	50	260
1999SA033	30	30	50	50	50	30	240
2001SA001	40	30	50	50	50	50	270
GCAS	50	40	50	50	50	50	270

MAGNETIC SOURCE DEPTH ESTIMATION

The quality and reliability of the calculated depths to the top of the magnetic sources is directly related to the quality of the original airborne data. Accuracy depends upon both the magnetic signal quality and the corresponding elevation data associated with each depth estimate. One consideration of this study is that data acquired from regionally spaced surveys, essentially filters out the high frequency response arising from near surface magnetic bodies.

In order to gain accurate estimates, this method relies on the availability of high quality GPS altitude (gpsalt). Microlevelled grid data is not suitable for source depth estimation as the microlevelling process smooths the data and changes the sharpness of the magnetic field variations from which the depth estimates are generated.

Reliability factors have been weighted to incorporate closely spaced data that can be tie-line levelled.

Depth estimates to the top of magnetic source bodies have been calculated using the method of described in Appendix 4 of this report. Estimates are based upon anomalies that are considered to result from a single causative body. The ModelVision magnetic inversion tool is used to calculate a single inversion of each anomaly. A single causative tabular body is used to model the anomaly which in turn, results in a positive down depth (below mean sea level, MSL) to the top of the magnetic source, as well as other parameters such as apparent susceptibility, dip and body width, Figure 10. The apparent susceptibility provides a direct indication of the magnetisation of the body.

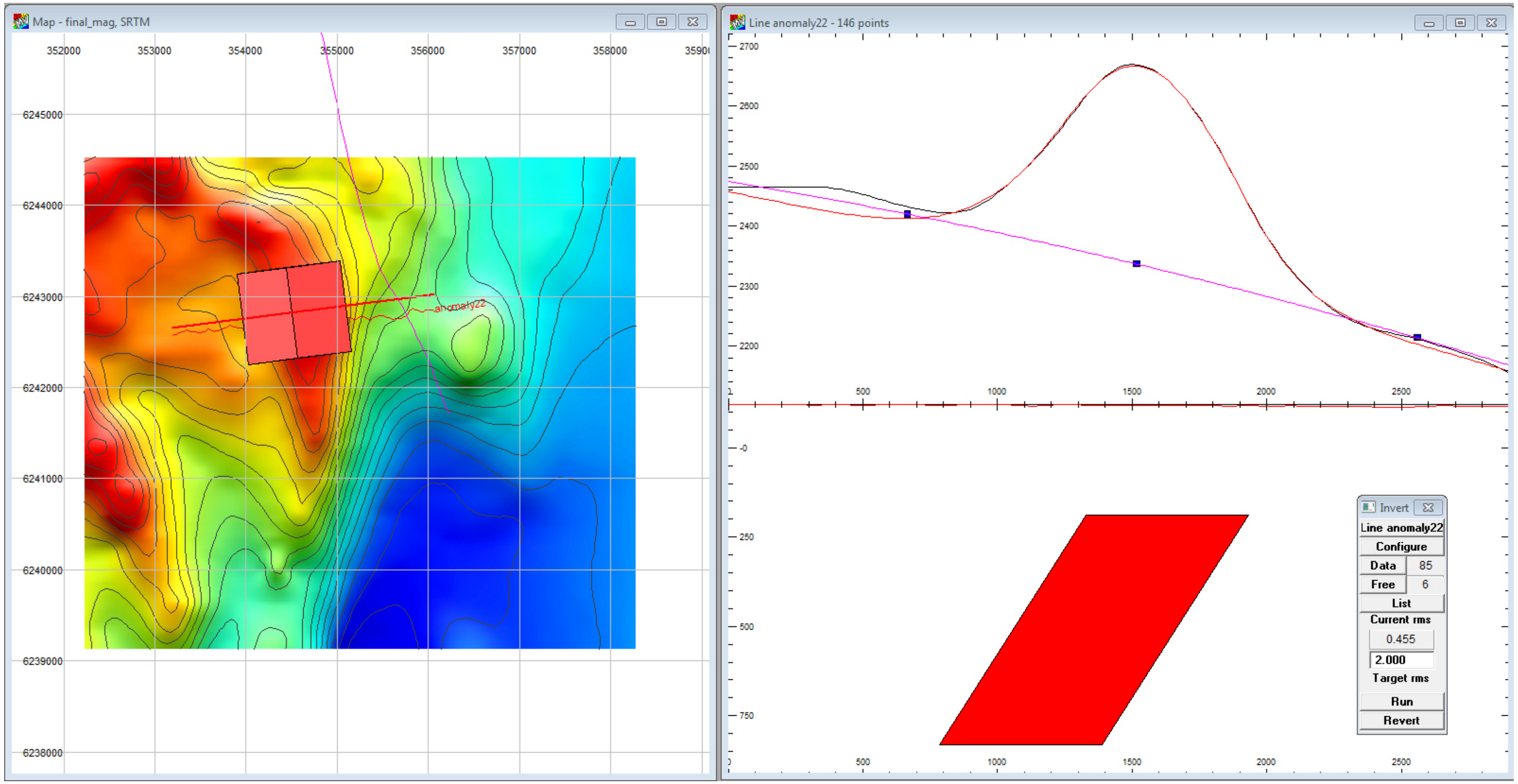

Figure 10. This figure displays an example of the resulting models calculated during this project.

The resulting RMS value of this models is 0.455, which is the lowest misfit value from the study. This model is anomaly 22 of the 1980SA011 survey. Table 5 also displays the results for anomaly 18 of the 1999SA033 (TEiSA E1) survey which produced the highest RMS value for this study.

Table 5. Example of other derived solution parameters

Point	X	Y	Z	Suscept	T_Thickness	T_DepthExt	T_Dip	Survey	Anomaly	Score	RMS
Body 21	354799	6242856	189.5	0.004057	603.7	641.9	130.21	1980SA011	22	180	0.455
Body 17	484011	6342812	192.2	0.006565	1255.9	3557.1	20.31	1999SA033	18	240	2.558

As indicated in Table 5 above, other parameters that are produced are useful for the production of not only depths to the magnetic source and susceptibility values, but also parameters useful for the production of 3D models such as dip, thickness and depth extent.

A total of 437 depth estimates have been produced within the boundaries of the 11 airborne surveys. These estimates have been merged into one complete dataset from which a resulting depth grid and related contours have been produced, Figures 12, 14 and 15. The resulting grid interpolation distance was 250m, and the subsequent contour intervals were either 50 or 100m. As noted by Foss (GCAS 9B), the depth values from which the grid is derived are very sparse and therefore (although the depth values themselves may be of high fidelity) the resulting grid may be a poor representation of the true basement surface. This is due to the large grid interpolation distances, compared with local complexity of the true geological surface.

This situation would be vastly improved with the further calculation of significantly more source depths along geologically magnetic units.

A recommendation is that further magnetic source depth calculations be completed once a prospect scale drill-hole target area has been defined.

One of the products of the magnetic source depth calculations is the ‘apparent’ susceptibility as a result of the magnetisation factor of the source.

Preliminary attempts have been made to correlate the resulting apparent susceptibilities with both basement solid geology ‘age’ units, along with the interpreted volcanic and igneous units. A discussion of these results is presented within the ‘Results and Discussion’ section of this report.

Three-dimensional model sets have been produced for individual survey results, as well as a merged dataset for the final complete set of solutions. These models are available in three formats and are provided in a sub-directory of each of the final data directories. Formats available are ModelVision TKM, GoCAD TS and DXF formats. Examples of the 3D model outputs are shown in Figure 11.

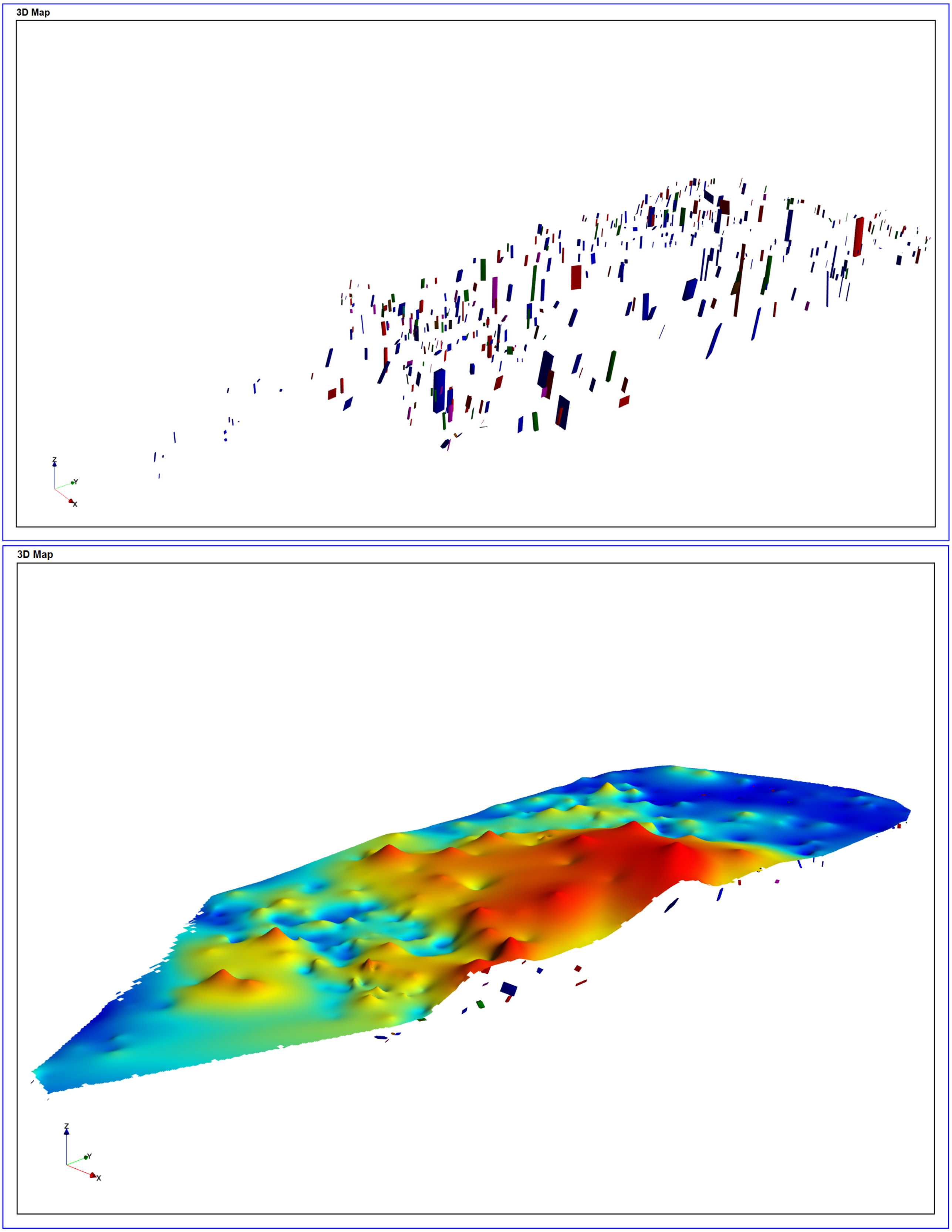

Figure 11. Examples of the output 3D model sets contained within the data files of this report. The upper panel exhibits a dxf format 3D model, whilst the bottom panel exhibits a ModelVision tkm format 3D model placed below the resulting depth grid.

RESULTS AND DISCUSSION

In ModelVision, the elevation of the magnetic or gravity sensor (the Sensor Z channel), defaults to zero. In this mode the model depths (which in almost all cases should all be positive) are depths below the sensor. Alternatively, if you provide a sensor depth channel (such as the GPS elevation of the aircraft) the depths are computed below that depth. Model computations reference the depth of each station.

In modern surveys the GPS height field is used as the sensor elevation channel; in older surveys, the digital terrain model/digital elevation model (DTM/DEM) plus radar altimeter (radalt) can be used. If no DTM/DEM information is available, an alternative is to use the SRTM DEM with addition of a ground clearance estimate (such as the radar altimeter). If the radar altimeter channel is not available, then the only remaining option is to substitute the nominal ground clearance reported for the survey. This is generally acceptable in areas of subdued terrain where a consistent terrain clearance can be maintained but is a major concern in areas of more rugged topography. Low pass filtering can provide slight improvement of predicted ground clearance because it accounts for the fact that aircraft do not respond exactly to abrupt terrain variations.

If the sensor elevation channel is relative to sea level (as it is for GPS elevation) then modelling is performed relative to the sea level datum. Note that sensor elevations are entered as positive up, but model depths are reported as positive down. The ground elevation can also be entered in ModelVision for display in the cross-section views, but this channel is not used in the computations. If a sea-level reference channel (such as GPS) has been nominated as the sensor elevation channel then resultant positive depths are below sea level, whilst negative depths are above sea level. For example, if a magnetisation is 50 m below the sensor then with no elevation channel nominated the depth will be reported as +50 m, but if a GPS channel is nominated with a mean elevation of 800 m (ASL) then ModelVision will report the magnetisation depth as -750m (i.e. 750 m above sea level).

The images displayed in Figure 12, represent the final depth grid for the entire set of individual depth to magnetic source, as calculated from the ModelVision inversion tool.

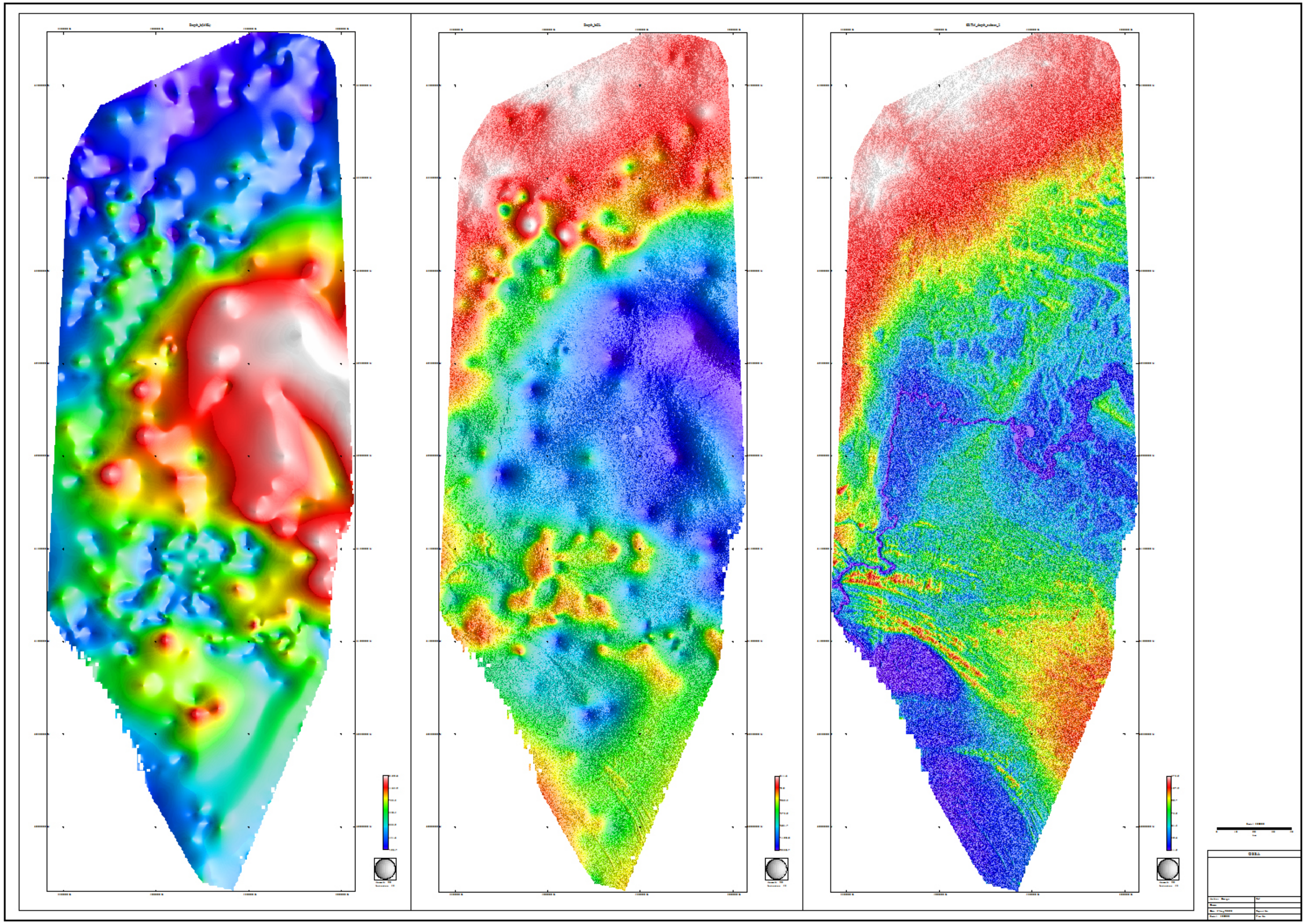

Figure 12. Resulting depth grids over the study area. Panel 1 shows the direct output from the inversion results in which depths are positive down relative to MSL. The middle panel displays the resulting depths which were calculated by adding the depths displayed in panel 1 to the SRTM surface. The third panel displays the grid of the SRTM surface used for the calculations.

Corresponding depth results and locations, as well depth contours from the source depth calculations and drillhole data are presented in Figures 13 to 15.

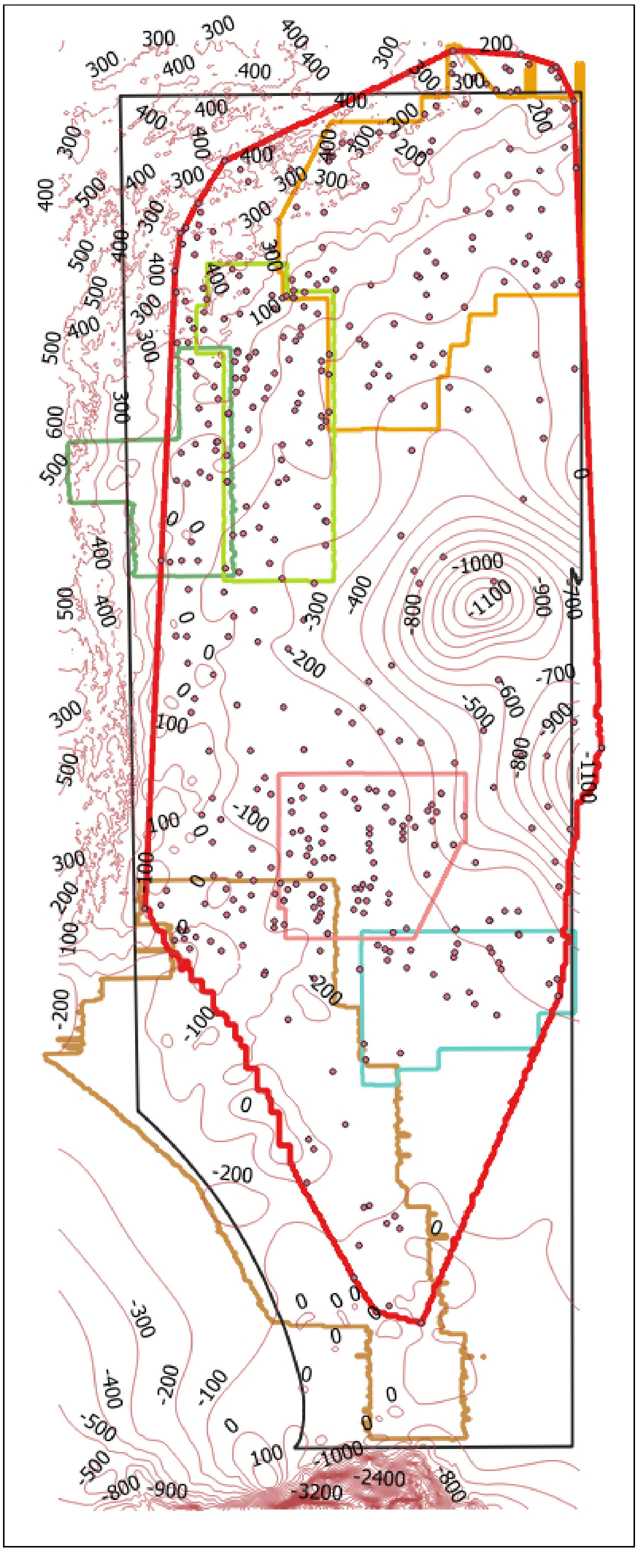

Figure 13. Airborne TMI survey locations and depth contours derived from drillhole data.

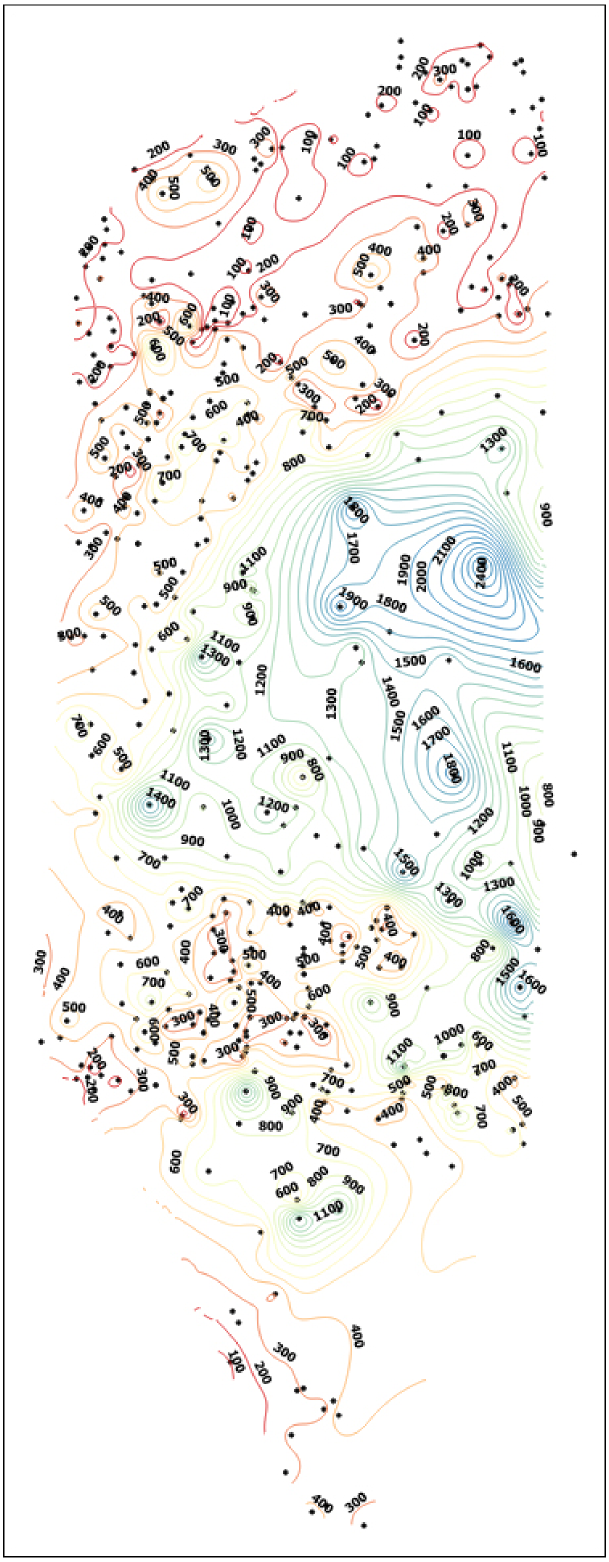

Figure 14. Contours of calculated depths to magnetic sources (BGL), using the SRTM surface.

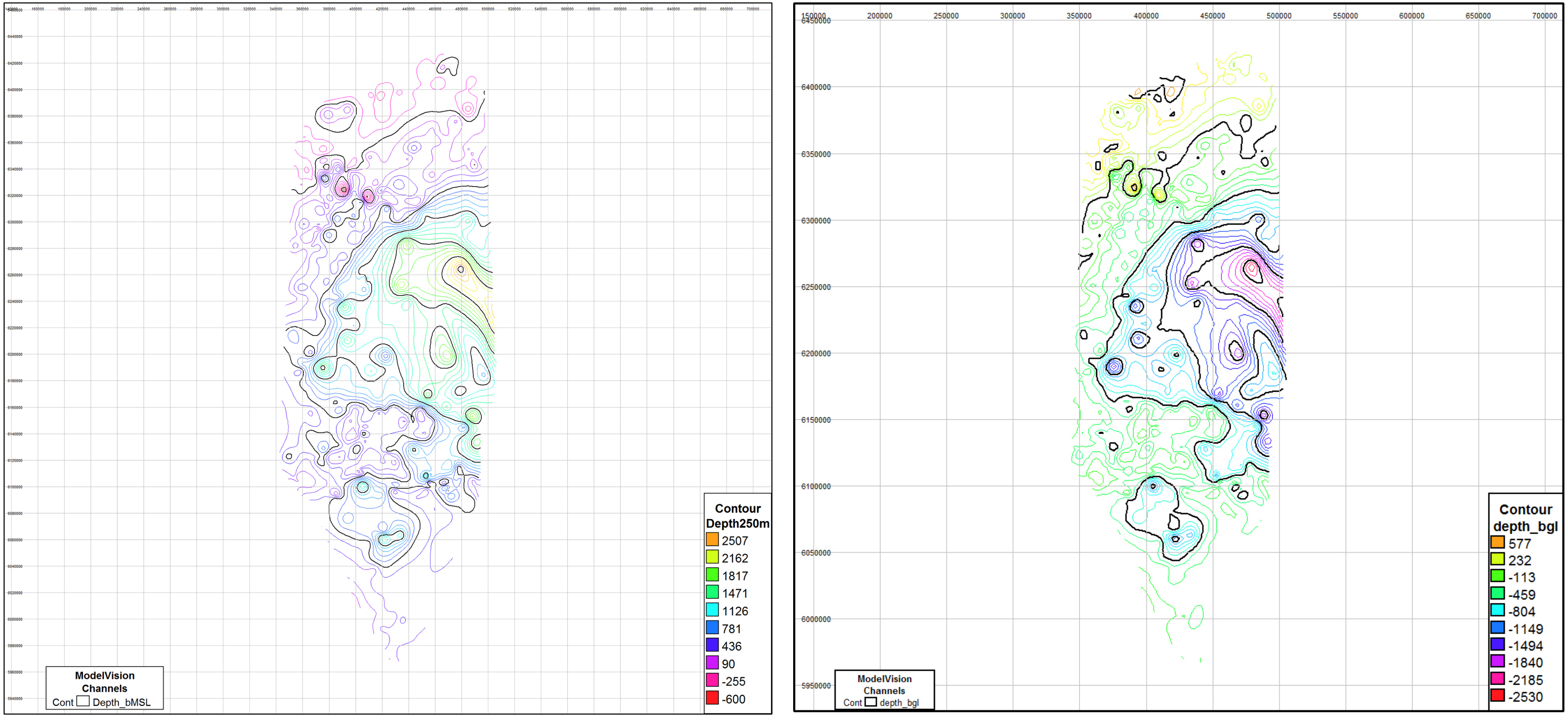

Figure 15. Colour contours of depth to top of magnetic sources displayed as below MSL (left panel), and depth BGL (right panel). The difference in colour polarity is due to the positive depth values derived from ModelVision. These contour plots do not incorporate the SRTM surface corrections.

Results indicate that the depth to magnetic basement material is shallow both to the south-east of the Nackara Arc, and within the south-central area of investigation. Depth-estimates within the central-eastern area are deeper, as indicated from drillhole data. The depths in this area correspond to location of the Renmark Trough and Berri Basin.

It is considered that the resultant shallow depths within the south-central area may in part be a result of the detail of the 2001SA001 survey. This survey was flown to investigate shallow, near surface, mineral sand bearing strand lines.

Depth cross sections along a central north-south and a west-east traverse are presented in Figures 16 and 17. These sections exhibit both the magnetic source depth results (displayed as depths below ground level (BGL - rdepth), depths derived from the gridded depth to crystalline basement obtained from bore hole data, and the SRTM profile indicated in blue. The rdepth values result from the magnetic source depths (negative down) being added to the SRTM point data.

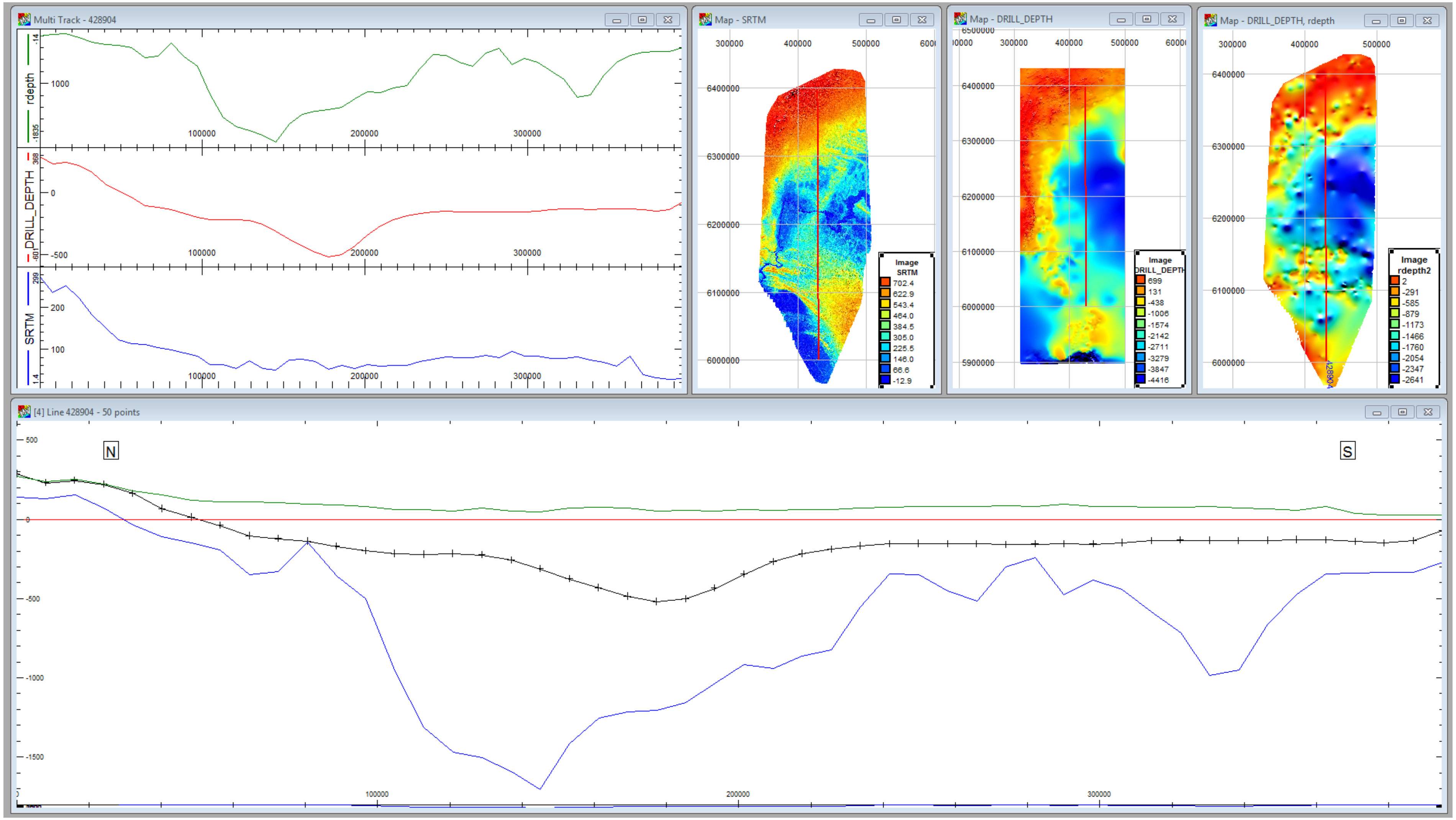

Figure 16. North-south cross section (traverse 428904 – based upon the eastern coordinate of profile) of current depth datasets. The green profile depicts the magnetic source depths as calculated from ModelVision with depths (rdepth) converted to negative down, using the SRTM as the topography datum. The bottom panel superimposes the drill-hole depths (black with crosses) and the magnetic source depths (rdepth converted to negative down), plotted along with the SRTM data onto one vertical axis. In both panels vertical scale is in metres, whilst the horizontal scale represents metres from the section origin. The traverse position is indicated by the red line on the images of the two depth and SRTM grid.

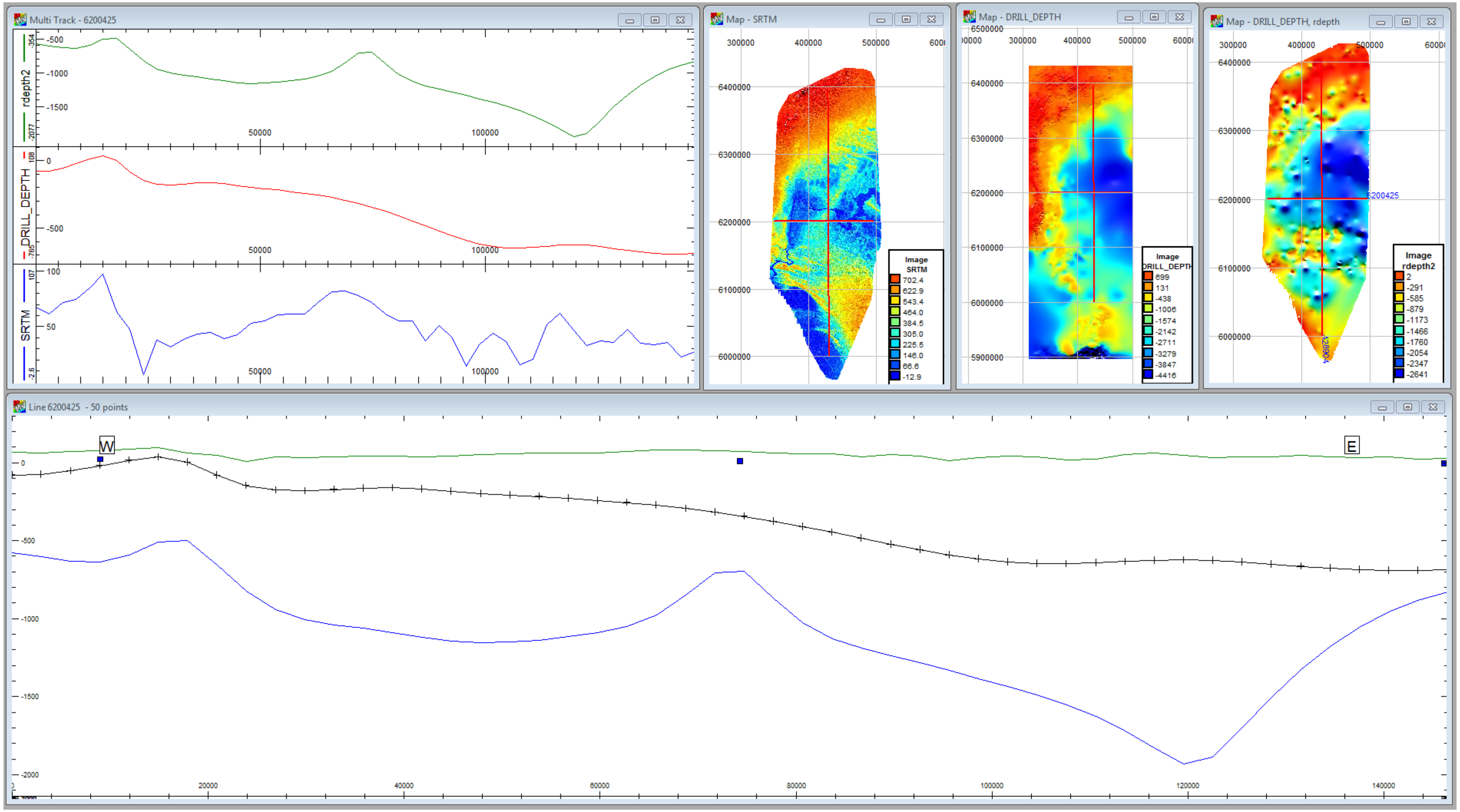

Figure 17. East-west cross section (line 6200425 – based upon the northern coordinate of profile) of current depth datasets. The details for each panel are described under Figure 16. The position of both traverses are indicated by the red lines on the images of the two depth and SRTM grid.

Several regions within the Section 15 study area exhibit a close correlation between the crystalline basement and magnetic source depth results. The magnetic basement depths within these areas are slightly deeper and may be indicative of the weathering extent of the paleo-basement surface. In other areas where the magnetic basement is considerably deeper than the crystalline basement interface, the increased thickness of the units are considered to be a consequence of younger basin infill material.

APPARENT SUSCEPTIBILITY RESULTS

The apparent susceptibility results derived as part of the ModelVision depth calculations have been investigated for any correlation the interpreted geological units within the region. A grid of the resulting apparent susceptibility is presented in Figure 18. This grid has been overlain onto the simplified interpreted volcanic and igneous units in Figure 19. Apparent susceptibility data points are overlain directly onto the simplified volcanic, and geological age maps in Figures 20 and 21.

On a regional scale, there appears to be a close correlation between the derived apparent susceptibility values and interpreted solid geology units, especially to the west and north-west of the study area. These are coincident with interpreted Neoproterozoic and Paleoproterozoic units.

Some correlation can also be seen with parts of the Cambrian-Ordovician sequences. This correlation is considered to be indicative of the occurrence of interpreted volcanic and igneous units within these sequences.

The apparent susceptibility grid exhibits a broad correlation with specific units of the interpreted geology. It is important to note however, that such correlations are compromised by the sparseness of points and also due to both the large extrapolation distances and smoothing factors caused by the gridding procedure. A histogram of the apparent susceptibility grid is presented in Figure 22.

As noted by Foss (2020), resulting grids are poorly justified as an interpolation of the basement surface, firstly because it is uncertain that all the depth points are estimates of points on that geological surface, and secondly because grid interpolation across large distances is a poor representation of the complexity of a geological surface.

It is recommended that further detailed magnetic source depth calculations, and resultant apparent susceptibility data be collected with a more detailed study over a smaller area of interest.

A larger density of close spaced depth calculations would enable further correlations to be established.

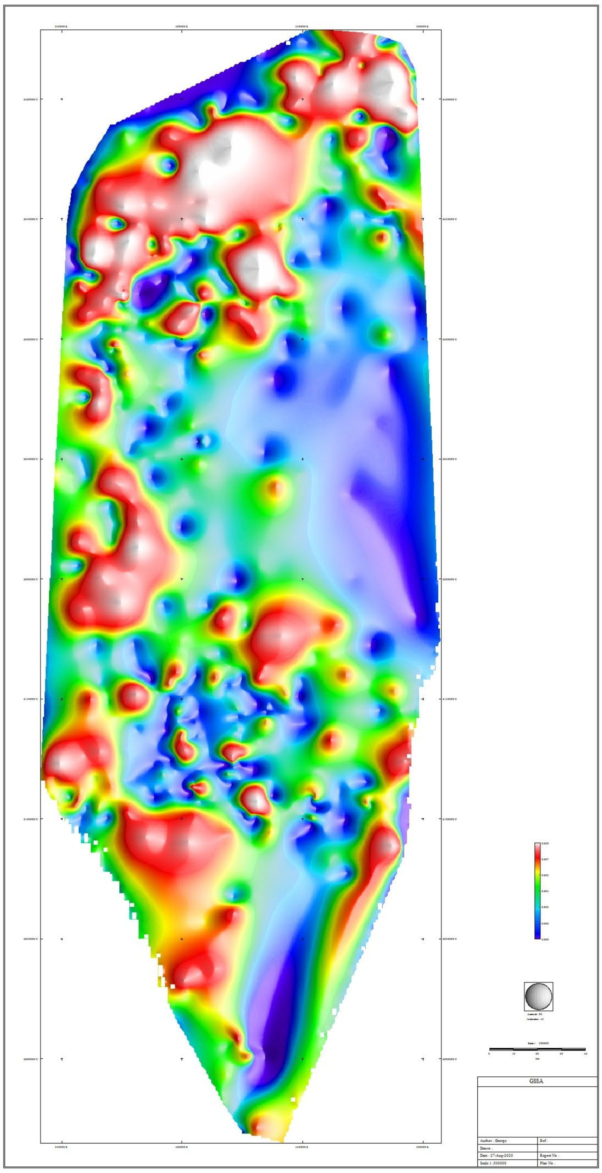

Figure 18. Apparent susceptibility grid derived from magnetic source depth calculations.

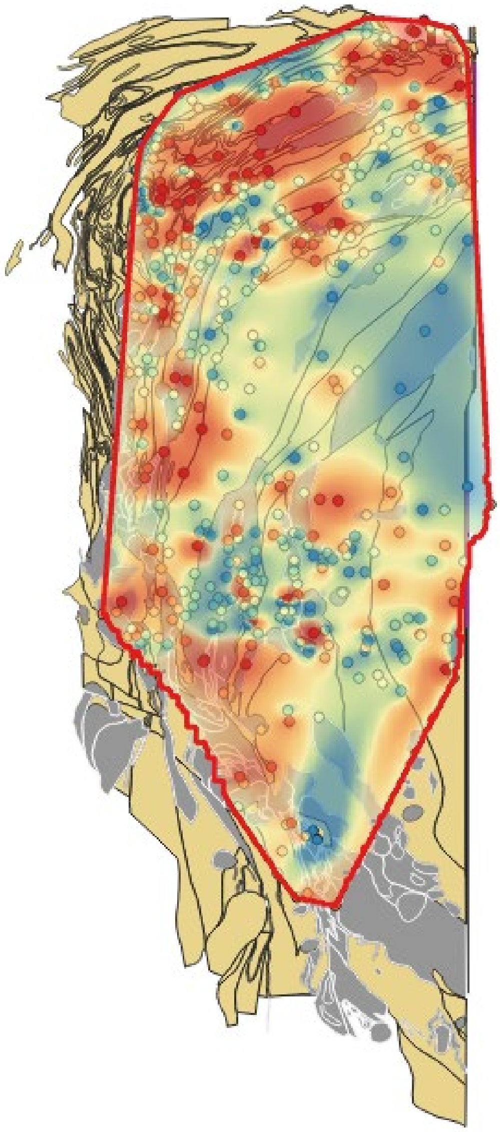

Figure 19. Apparent susceptibility grid superimposed over the simplified interpreted solid geology map indicating volcanic and igneous units as displayed in the right-hand panel of Figure 3.

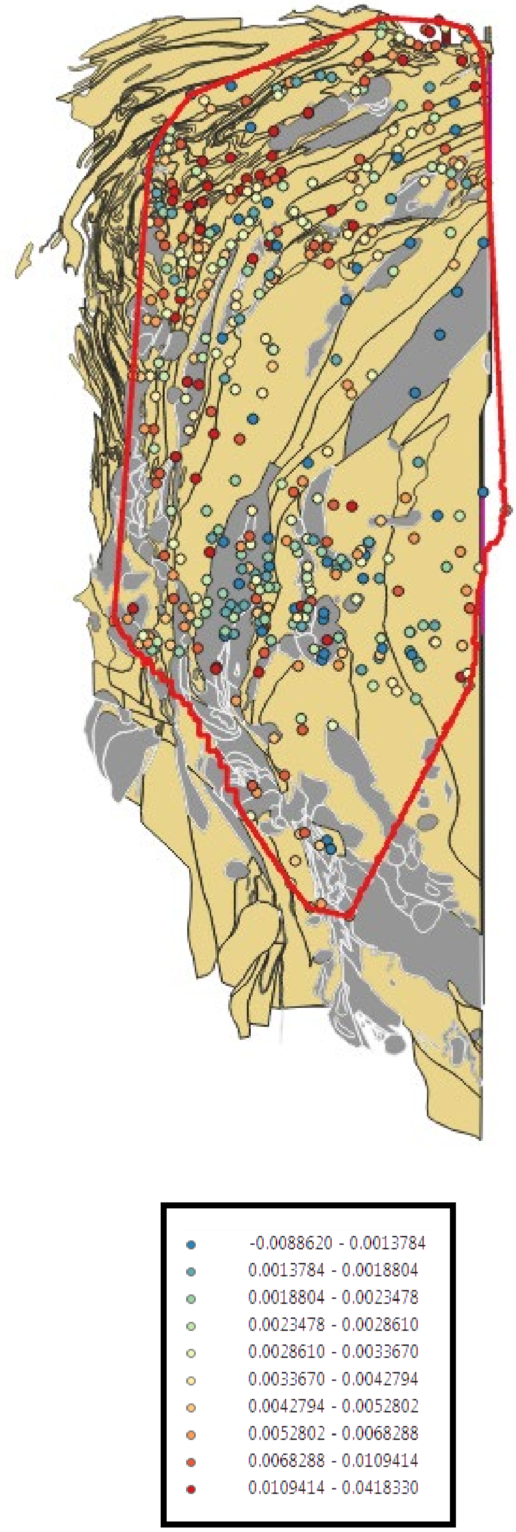

Figure 20. Interpreted volcanic and igneous units with apparent susceptibility point locations. The boundary of the resulting depth and susceptibility grids are indicated by the red polygon.

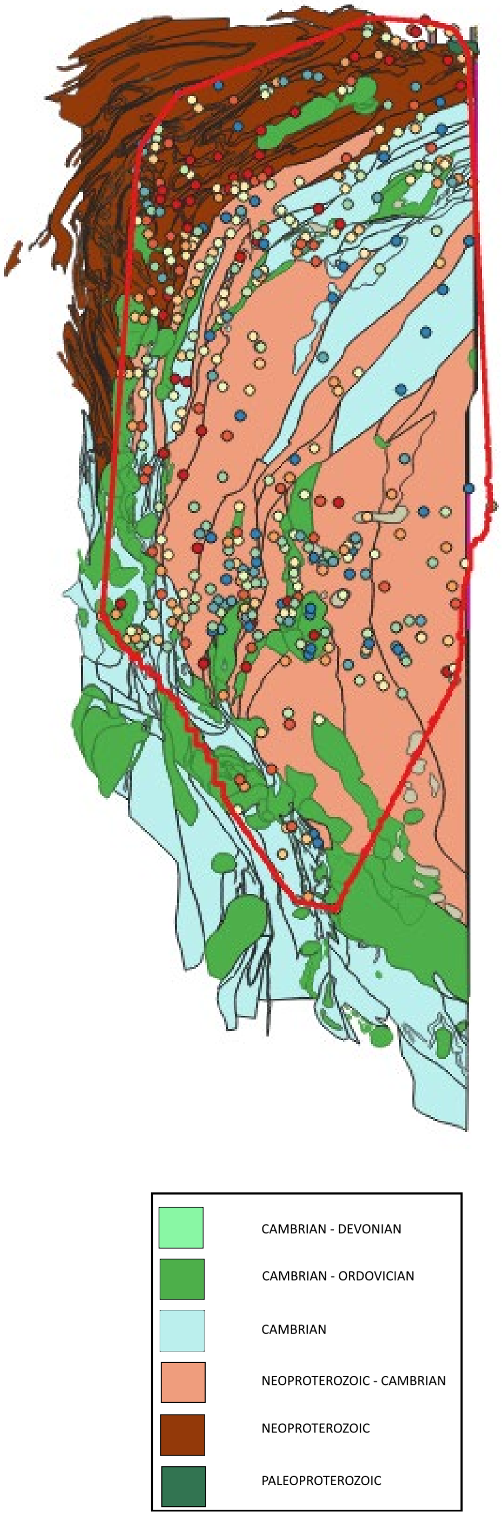

Figure 21. Apparent susceptibility points plotted onto the simplified solid geology depicting the age of the units. The boundary of the resulting depth and susceptibility grids are indicated by the red polygon.

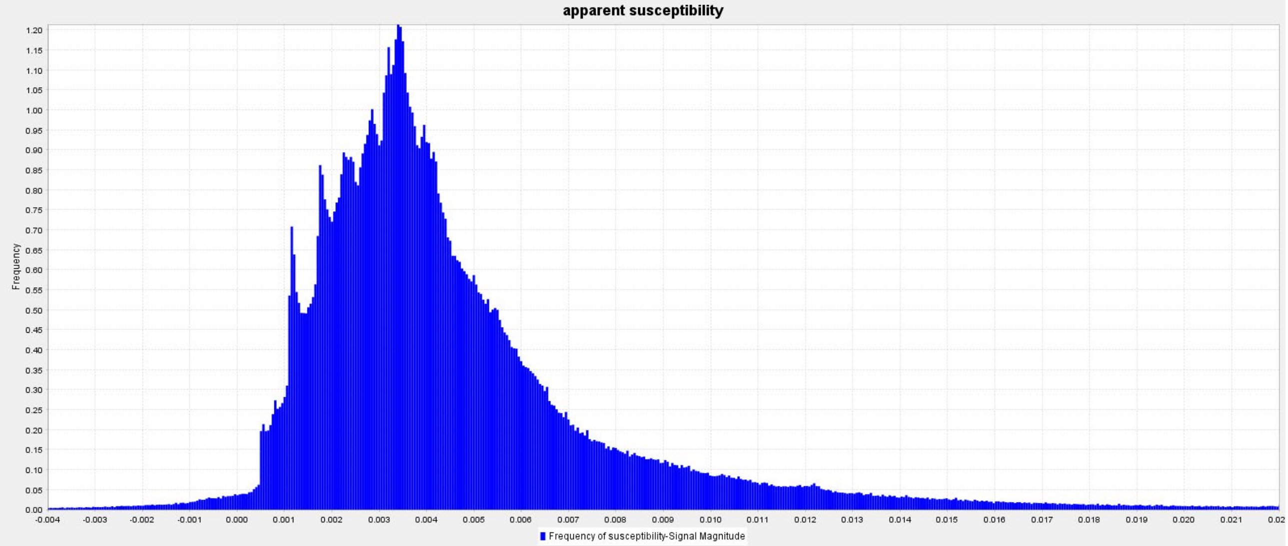

Figure 22. Histogram of the apparent susceptibility results from the entire apparent susceptibility grid.

The calculated apparent susceptibility results, as well as depths to the top of the magnetic sources are overlain on the greyscale TMI image to provide a comparison of both data results with respect to the raw input magnetic data (Fig. 23).

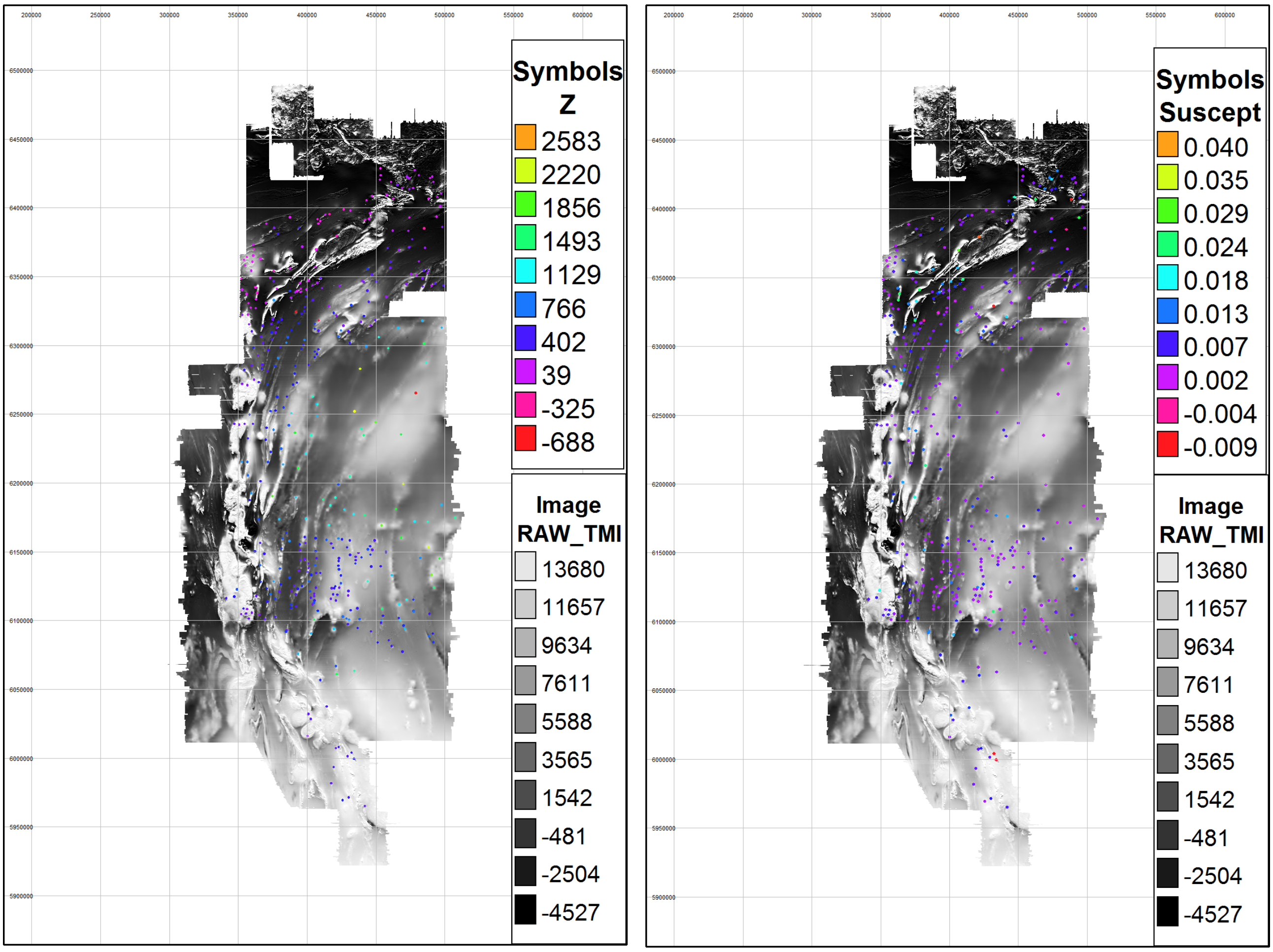

Figure 23. Depth and apparent susceptibility data points overlain on the merged raw TMI greyscale image.

RECOMMENDATIONS

It is recommended that prior to the planning of any future drilling programs, this study should be extended in order to ascertain further detailed correlations between the interpreted geology with resulting depth and susceptibility results.

Further detailed magnetic source depth estimates should be undertaken at a closer spacing along the strike length of each interpretable magnetic anomaly to provide estimates suitable for targeting drillholes.

These results would also assist in determining any relationship between geological age groups, volcanic and igneous units, and associated apparent susceptibility results.

This would depend upon all further calculations being confined, as with this study, to single causative anomalies.

A further recommendation is that a detailed petrophysical analysis be undertaken on existing drillhole cores in order to produce constrained potential field inversions over the area.

REFERENCES

Foss CA, Gouthas G, Wise T, Katona LF, Hutchens MF and Reed GD 2020. *Gawler Craton Airborne Geophysical Survey Region 9B, Kingoonya – Enhanced geophysical imagery and magnetic source depth models*, Report Book 2020/00018. Department for Energy and Mining, South Australia, Adelaide.

Wise T 2020. *Interpreted basement geology to the Murray Basin and surrounds*, DIGIMAP 00098. Department for Energy and Mining, South Australia, Adelaide.

APPENDIXES

APPENDIX 1. DATA PACKAGE CONTENTS

File/subfolder	File name	Description
	depths.ses	ModelVision session file of the modelled magnetic source depths
Combined models	Delamerian.dxf	Combined Magnetisation source models for all surveys in 3D dxf format
	Delamerian.tkm	Combined Magnetisation source models for all surveys in ModelVision tkm format
	Delamerian.ts	Combined Magnetisation source models for all surveys in GOCAD Tsurf format
Data	FINAL_MERGED DEPTHS.csv	Combined final ascii data derived from all models
	FINAL_MAG_SOURCE_DEPTHS_(SRTM _CORRECTED).csv	Combined final ascii depth data derived from all models - SRTM corrected
	MagSourceDepthPoints.shp	ESRI shapefile of FINAL_MAG_SOURCE_DEPTHS_(SRTM_CO RRECTED)
Depth boundaries	1961SA003 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1978SA005 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1980SA011 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1984SA011 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1993SA016 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1993SA017 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1994SA024 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1995SA0083 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1998SA003 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	1999SA033 ,shp ,shx ,dbf , prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	2001SA001 ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of resulting airborne survey depth data boundary
	depthgrid_outline_filled.shp	ESRI ARCGIS shape file boundary of all airborne survey depth data points
Final depths_grids	DEPTHS_SRTM_CORRECTED.ers	Magnetic Source Depth corrected to depth from surface
Contours	DEPTHS_SRTM_CORRECTED_CONTOU RS.shp	Contours derived DEPTHS_SRTM_CORRECTED grid
Grids	Delamerian_TMI_RAW ,ers ,ghx	Merge of raw TMI grids used for this study (cell size 40 m)
	Depth_b(MSL) ,ers ,hst ,sun	Delamerian depth grid (ModelVision depths + down below MSL) (cell size 250 m)
	Depth_bGL_250m ,ers ,isi	Delamerian depth grid (converted to below ground level BGL) (cell size 250 m)
	Depths_SRTM_corrected ,ers	Delamerian depth grid (ModelVision depths converted to SRTM) (cell size 250 m)
	Depths_SRTM_corrected_contours ,shp ,shx ,dbf	ESRI shape file of depth contours (ModelVision depths - converted to SRTM)
	Depth_bMSL_Contours ,shp ,shx ,dbf	ESRI shape file of depth contours (ModelVision depths positive down)
	SRTM_1sec_DTM_DELAMERIAN ,ers ,sun ,hst ,ghx	1sec SRTM DTM subset to extent merged TMI grid (cell size 50 m)

File/subfolder	File name	Description
	SRTM_depth_subset_2 ,ers	1sec SRTM DTM subset to extent of final depth grid (cell size 50 m)
	susceptibility ,ers ,hst ,sun	Grid of apparent susceptibility values from magnetic source calculations (250 m)
Images	1961SA003_MAG_DS_Residual_mag_1 ,ers	ER Mapper grid of TMI data used for depth calculations (cell size120 m)
	1978SA005_MAG_DS_tieout ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 200 m)
	1980SA011_MAG_DS_final_mag_1_decor 3 ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 60 m)
	1984SA011_mag_DS_Mag1_Residual_nT ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 40 m)
	1993SA016_SAEI_B2_Mag_DS_TCMAGR AW ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 50 m)
	1993SA017_SAEI_B3_Mag_DS_TCMAGR AW ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 80 m)
	1994SA024_SAEI_B22_Mag_DS_TCMAG RAW ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 80 m)
	1995SA008_BHEI1_Mag_DS_tiemag2 ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 80 m)
	1998SA003_MAG_TIERAWMAG ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 40 m)
	1999SA033_TEiSA_E1_Mag_DS_tiemag_ 1_2_MGA54_GDA94 ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 50 m)
	2001SA001_MAG_DS_RAWMAGTIE ,ers	ER Mapper grid of TMI data used for depth calculations (cell size 80 m)
Qgis (V3.12.2)	DEPTHS_MERGED.qgz	Qgis V 3.12.2 Project File
	DEPTHS_MERGED_(SRTM_CORRECTE D).qgz	Qgis V 3.12.2 Project File
Survey boundaries	1961SA003_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1961SA003 boundary
	1978SA005_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1978SA005 boundary
	1980SA011_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1980SA011 boundary
	1984SA011_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1984SA011 boundary
	1993SA016_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1993SA016 boundary
	1993SA017_B3_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1993SA017 boundary
	1994SA024_B22_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1994SA024 boundary
	1995SA008_SAEI_BHEI_1_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1995SA008 boundary
	1998SA003_MAG_BND ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1998SA003 boundary
	1999SA033_TEiSA_E1_MAG_BND.out ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 1999SA033 boundary
	2001SA001_MAG_BND_MGA54_GDA94 ,shp ,shx ,dbf ,prj	ESRI ARCGIS shape file of airborne survey 2001SA001 boundary

APPENDIX 2. MAGNETIC INVERSION RESULTS

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body	438541.3	6282991.3	1933.5	0.000584	2.77	14511119	40062296949	2225.7	2760.8	130.09	6519.8	0.13	1961SA003	Regional	1	90	1.347
Body:1	434539.2	6251961.2	1995.4	0.001548	2.77	2406024	8028661486	742.6	3336.9	58.41	3240	23.6	1961SA003	Regional	2	90	1.445
Body:2	449970.3	6244188.9	1637.1	0.003356	2.77	1908743	3801451961	582.2	1991.6	146.51	3278.5	-0.81	1961SA003	Regional	3	90	1.984
Body:3	439438.3	6239172.9	1133.3	0.00592	2.77	321248	532950100.2	285.3	1659	56.85	1126	69.47	1961SA003	Regional	4	90	1.693
Body:4	483630.6	6317860.8	780.6	0.002621	2.77	830603	1268496413	694.6	1527.2	128.15	1195.8	-85.56	1961SA003	Regional	5	90	1.912
Body:5	485107	6301381.1	1349.4	0.004501	2.77	815142	1463587246	764.1	1795.5	59.86	1066.8	36.96	1961SA003	Regional	6	90	2
Body:6	466190.4	6312632	792.2	0.00137	2.77	1368300	2814728943	727.2	2057.1	45	1881.6	69.6	1961SA003	Regional	7	90	1.959
Body:7	497791.7	6312714.6	774.9	0.000948	2.77	984480	898534987.3	659	912.7	33.05	1493.9	75.62	1961SA003	Regional	8	90	1.811
Body:8	407601.5	6257046.2	1068	0.002506	2.77	1534500	2866292550	511.5	1867.9	124.4	3000	2.16	1961SA003	Regional	9	90	1.98
Body:9	407205.8	6248491.3	769.4	0.004456	2.77	50400	68377680	50.4	1356.7	45	1000	88.03	1961SA003	Regional	10	90	1.811
Body:10	367786.4	6314216.9	243.5	0.010869	2.77	2041786	5879730856	597.8	2879.7	107.49	3415.5	19.56	1961SA003	Regional	11	90	1.716
Body:11	374390.5	6309361	403	0.00553	2.77	149472	229798867.8	84.4	1537.4	66.62	1771	29.11	1961SA003	Regional	12	90	1.993
Body:12	375164.9	6319334.1	250.6	0.011	2.77	1326600	1953551160	442.2	1472.6	92.29	3000	-0.42	1961SA003	Regional	13	90	1.924
Body:13	364474.7	6292556.8	165.8	0.001673	2.77	186594	299931661.7	415.3	1607.4	96.68	449.3	-2.65	1961SA003	Regional	14	90	
Body:14	367866.4	6286184.5	246.3	0.002523	2.77	317735	471359931.8	402.4	1483.5	104.14	789.6	2.17	1961SA003	Regional	15	90	1.68
Body:16	479070.3	6265237.4	2583	0.001106	2.77	6458862	27329382146	827.9	4231.3	48.15	7801.5	153.97	1961SA003	Regional	17	90	1.681
Body:17	486463	6287434.2	1031	0.000898	2.77	1818011	6769726220	2747.9	3723.7	43.86	661.6	70.51	1961SA003	Regional	18	90	1.98
Body:20	443140.8	6299229.2	683	0.001357	2.77	1017484	1310926360	479.9	1288.4	141.32	2120.2	-88.98	1961SA003	Regional	21	90	
Body:21	452220.7	6305974.9	969	0.004219	2.77	774244	1751804112	350.4	2262.6	48.05	2209.6	89.16	1961SA003	Regional	22	90	1.262
Body:22	458969.5	6297866.1	1122.3	0.00237	2.77	3646224	6588726226	903	1807	137.84	4037.9	3.35	1961SA003	Regional	23	90	1.394
Body	387270.9	6157719.2	670.8	0.000647	2.77	1143563	3015919201	1133.7	2637.3	123.03	1008.7	-82.41	1978SA005	Regional	1	90	2.169
Body:1	381526	6152228.4	487.9	0.012569	2.77	268024	230902417.6	312.2	861.5	35.2	858.5	9.54	1978SA005	Regional	2	90	1.979
Body:2	391867.4	6189405.3	843.7	0.002328	2.77	2628600	5145221640	1314.3	1957.4	45	2000	71.09	1978SA005	Regional	3	90	1.996
Body:3	431164.9	6204679.3	1131.8	0.003513	2.77	3632270	7393122114	1418.8	2035.4	144.87	2560.1	-71.57	1978SA005	Regional	4	90	1.587
Body:4	411744.1	6187783.9	1213	0.002359	2.77	1754078	3430100311	590.4	1955.5	83.12	2971	8.32	1978SA005	Regional	5	90	1.727
Body:5	422870.4	6198778	526.9	0.000643	2.77	1580000	1011042000	790	639.9	162.57	2000	-88.16	1978SA005	Regional	6	90	1.287
Body:6	454112.5	6169146	1658.2	0.004283	2.77	9807831	39035167261	1488.9	3980	47.74	6587.3	89.15	1978SA005	Regional	7	90	1.66
Body:7	468353.1	6160173.2	1425.2	0.006107	2.77	1052905	3320019415	314	3153.2	45.42	3353.2	74.26	1978SA005	Regional	8	90	1.739
Body:8	461694.1	6132860.6	810.6	0.007128	2.77	2135293	3644517922	546.6	1706.8	139.96	3906.5	-5.44	1978SA005	Regional	9	90	1.917
Body:9	477242.9	6115121.8	473.1	0.001515	2.77	672977	1009196729	393.6	1499.6	135	1709.8	0.38	1978SA005	Regional	10	90	1.404
Body:10	466946.5	6111734.8	856.4	0.002656	2.77	655887	1151540104	1367	1755.7	141.17	479.8	-88.82	1978SA005	Regional	11	90	1.224
Body:11	477577.7	6106428.3	616.8	0.003894	2.77	124723	169760747.5	174	1361.1	133.88	716.8	-1.4	1978SA005	Regional	12	90	2.107
Body:12	419594.5	6093932.5	833.7	0.006415	2.77	2559431	7539827783	1778	2945.9	152.62	1439.5	-33.83	1978SA005	Regional	13	90	0.767
Body:13	405191.4	6100663.8	1322.1	0.007775	2.77	3818374	9681869114	2321.2	2535.6	41.71	1645	36.93	1978SA005	Regional	14	90	2.034
Body:15	387361.2	6130996	508.5	0.001969	2.77	412743	530622606.5	257.9	1285.6	88.75	1600.4	3.14	1978SA005	Regional	16	90	1.337
Body:16	373575.1	6119237.5	600.4	0.00465	2.77	829730	587697759	418	708.3	124.83	1985	1.25	1978SA005	Regional	17	90	1.97

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:17	376887.8	6115769.7	484.5	0.002568	2.77	532580	510690962	343.6	958.9	61.27	1550	68.17	1978SA005	Regional	18	90	1.954
Body:18	454668	6108618.7	926.3	0.005149	2.77	349261	796944251.8	196.9	2281.8	121.19	1773.8	0.84	1978SA005	Regional	19	90	1.647
Body:19	454114.6	6100096.8	651.5	0.004939	2.77	109799	158429034.8	107.9	1442.9	89.37	1017.6	-1.1	1978SA005	Regional	20	90	1.966
Body:20	488069.5	6153266.5	1936	0.005724	2.77	4498200	15084713700	642.6	3353.5	59.6	7000	85.97	1978SA005	Regional	21	90	2.04
Body:21	507576.4	6174693.9	1171.2	0.002028	2.77	1767600	1878075000	294.6	1062.5	106.04	6000	0.45	1978SA005	Regional	22	90	1.832
Body:22	492095.7	6124073.1	1262.2	0.010903	2.77	769800	1400882040	256.6	1819.8	103.88	3000	-11.17	1978SA005	Regional	23	90	1.384
Body:23	496219.4	6144960.3	1405	0.003367	2.77	1202162	2243594567	1186.5	1866.3	134.3	1013.2	-89.19	1978SA005	Regional	24	90	1.788
Body:24	490651.1	6133188.6	1679.6	0.005929	2.77	2601418	4903933788	1192.6	1885.1	45	2181.3	5.8	1978SA005	Regional	25	90	1.541
Body:25	482233.7	6145402.3	678.2	0.00203	2.77	337200	406629480	112.4	1205.9	121.36	3000	0.46	1978SA005	Regional	26	90	1.994
Body:27	472365.8	6115164.5	948.8	0.002114	2.77	613378	874861640.4	501.7	1426.3	134.96	1222.6	-88.85	1978SA005	Regional	28	90	1.878
Body:28	471096.2	6093959.5	795.3	0.00222	2.77	746916	1477624259	639.1	1978.3	79.89	1168.7	-13.21	1978SA005	Regional	29	90	1.892
Body:29	393567.6	6210752.4	1418.1	0.006899	2.77	1837912	5355857902	992.5	2914.1	93.22	1851.8	-3.39	1978SA005	Regional	30	90	1.804
Body:30	399244.6	6173980.3	877.4	0.004274	2.77	1022100	2044915470	1022.1	2000.7	88.57	1000	-15.11	1978SA005	Regional	31	90	0.994
Body:31	382521.7	6213303.4	754	0.01963	2.77	522841	2705649684	229.8	5174.9	111.8	2275.2	0.7	1978SA005	Regional	32	90	1.962
Body:32	374969	6190232.7	1598.4	0.016596	2.77	2068169	8753732109	722	4232.6	95.49	2864.5	14.04	1978SA005	Regional	33	90	2.066
Body:33	402993.6	6090529.9	774.3	0.012975	2.77	1635805	2675359078	1285	1635.5	141.84	1273	20.19	1978SA005	Regional	34	90	1.625
Body:34	384851.1	6091920.1	472	0.011	2.77	438700	587068340	438.7	1338.2	105.09	1000	0.65	1978SA005	Regional	35	90	1.153
Body:35	393530.4	6075680.7	769.9	0.006661	2.77	1727440	3749063032	1510	2170.3	143.67	1144	-68.73	1978SA005	Regional	36	90	1.99
Body:36	427152.8	6180508.6	863.2	0.003166	2.77	543195	542054639.8	398.5	997.9	61.52	1363.1	5.59	1978SA005	Regional	37	90	1.09
Body:37	420684.8	6189239.4	1033.1	0.005281	2.77	319200	181433280	159.6	568.4	147.55	2000	56.71	1978SA005	Regional	38	90	1.655
Body:38	416899.1	6183663.8	1030.4	0.008889	2.77	467654	1266968813	360.9	2709.2	102.54	1295.8	10.98	1978SA005	Regional	39	90	2.181
Body:39	415989	6169186.8	975.5	0.002927	2.77	1613275	1819935663	1176.8	1128.1	162.1	1370.9	0.74	1978SA005	Regional	40	90	1.933
Body:40	433951.6	6177231.5	903.2	0.010933	2.77	57671	108588236.3	1490.2	1882.9	135	38.7	-20.26	1978SA005	Regional	41	90	2.231
Body:41	441831.8	6176489.7	1232.1	0.01316	2.77	24269	16461852.62	652.4	678.3	154.93	37.2	-34.27	1978SA005	Regional	42	90	1.975
Body:42	454497.6	6108358.1	1262.3	0.002696	2.77	1647300	4783759200	549.1	2904	107.35	3000	-1.41	1978SA005	Regional	43	90	1.924
Body:43	466685.1	6111687.1	896	0.001925	2.77	1402500	1660560000	467.5	1184	39.58	3000	89.3	1978SA005	Regional	44	90	1.979
Body:45	467681.7	6100105.5	834.6	0.00074	2.77	1768200	3621273600	884.1	2048	106.6	2000	-5.91	1978SA005	Regional	46	90	1.737
Body:46	487731.5	6171792.7	1051.6	0.002367	2.77	252864	358207709	88.6	1416.6	140.79	2854	-85.1	1978SA005	Regional	47	90	1.929
Body:47	497702.7	6183989.7	779	0.000381	2.77	365100	574740420	121.7	1574.2	135	3000	-82.87	1978SA005	Regional	48	90	2.133
Body:48	470058.3	6199394.4	1915.8	0.001581	2.77	3343191	13652588107	1774.8	4083.7	122.88	1883.7	-13.56	1978SA005	Regional	49	90	1.409
Body:49	441243	6234553.2	1227	0.00528	2.77	1612659	3134685903	735.4	1943.8	135	2192.9	0.55	1978SA005	Regional	50	90	1.483
Body:50	468447.8	6235220.6	1380.1	0.000796	2.77	250472	468357892	247.6	1869.9	140.41	1011.6	-31.94	1978SA005	Regional	51	90	1.994
Body:51	403015.9	6234584.3	1055.5	0.003376	2.77	2207850	709823775	2562.5	321.5	11.64	861.6	30.26	1978SA005	Regional	52	90	2.043
Body:52	399156.7	6221213.5	891.6	0.001296	2.77	4277882	12035820219	1626.2	2813.5	80.04	2630.6	35.89	1978SA005	Regional	53	90	1.996
Body:53	464657.8	6180938.2	1439.8	0.006698	2.77	943194	2755068739	301.6	2921	144.19	3127.3	2.74	1978SA005	Regional	54	90	1.869
Body:54	478283.7	6171859.5	892.3	0.000696	2.77	288035	334581746.4	233.7	1161.6	140.18	1232.5	-50.49	1978SA005	Regional	55	90	1.875
Body:55	381132.9	6224807.5	585.6	0.009973	2.77	748104	1522167331	359.7	2034.7	124.25	2079.8	1.35	1978SA005	Regional	56	90	
Body:56	391342	6236352.1	1448.7	0.003245	2.77	1559400	4868446800	259.9	3122	62.87	6000	21.74	1978SA005	Regional	57	90	1.875

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:57	370181.2	6231354.5	384.9	0.003008	2.77	1017777	673768652	1009.8	662	130.12	1007.9	2.64	1978SA005	Regional	58	90	0.742
Body:58	373716.9	6222544.2	418.6	0.003571	2.77	1496395	2120091827	1184.7	1416.8	135	1263.1	-0.76	1978SA005	Regional	59	90	1.908
Body:59	356700	6215241.7	590	0.009061	2.77	1030900	1714799193	726.6	1663.4	76.64	1418.8	0.7	1978SA005	Regional	60	90	1.328
Body:60	371788.3	6215160	489	0.003853	2.77	1356428	2103684775	874.1	1550.9	119.58	1551.8	-10.44	1978SA005	Regional	61	90	1.126
Body:61	352721.6	6215382.7	705.6	0.005582	2.77	1009597	1179107752	1265	1167.9	132.08	798.1	26.83	1978SA005	Regional	62	90	1.951
Body:63	357238.2	6232353	298.1	0.004207	2.77	191168	212960795.5	189.2	1114	87.36	1010.4	0.86	1978SA005	Regional	64	90	0.882
Body:64	358263.8	6187552.7	377.2	0.009671	2.77	937460	650878297.5	717.7	694.3	123.12	1306.2	4.3	1978SA005	Regional	65	90	1.725
Body:65	357056.5	6205460.7	592.1	0.002372	2.77	1615973	2398749802	1224.5	1484.4	45	1319.7	51.63	1978SA005	Regional	66	90	2.164
Body:66	359560.8	6192536.9	707.7	0.007627	2.77	1444200	4000145160	481.4	2769.8	51.95	3000	32.21	1978SA005	Regional	67	90	1.692
Body:67	366289.6	6201298.5	358.5	0.012016	2.77	798860	818751347.5	500.1	1024.9	158.76	1597.4	4.82	1978SA005	Regional	68	90	1.987
Body:68	364758.3	6173461.2	537.6	0.002406	2.77	3428100	5665278060	1142.7	1652.6	138.62	3000	-9.26	1978SA005	Regional	69	90	1.996
Body:69	379861.8	6173621.7	802.2	0.001989	2.77	1324826	1458633008	2358.6	1101	139.23	561.7	-1.02	1978SA005	Regional	70	90	1.98
Body:70	385074.3	6163737.7	473.5	0.002193	2.77	710754	976007324.1	274.9	1373.2	53.9	2585.5	10.71	1978SA005	Regional	71	90	1.935
Body:71	382305	6159588.3	535	0.001659	2.77	597107	856131529.1	1249.7	1433.8	143.67	477.8	-1.03	1978SA005	Regional	72	90	1.982
Body:72	366020.1	6140251	566.4	0.005503	2.77	1988100	4828896090	662.7	2428.9	66.56	3000	1.08	1978SA005	Regional	73	90	1.996
Body:73	365969.9	6156319	273.8	0.003111	2.77	545082	419767771.4	488.6	770.1	91.79	1115.6	-1.5	1978SA005	Regional	74	90	1.92
Body:74	362140.1	6150163.1	391.8	0.007105	2.77	1016400	1298857560	508.2	1277.9	119.24	2000	1.21	1978SA005	Regional	75	90	1.977
Body:75	369083.2	6148523.4	329	0.003886	2.77	301036	136790776.6	942.8	454.4	120.14	319.3	1.86	1978SA005	Regional	76	90	1.579
Body:76	375834.4	6128417.4	736.6	0.003282	2.77	2004674	3461270715	523.4	1726.6	138.4	3830.1	-0.81	1978SA005	Regional	77	90	1.919
Body:77	380472.2	6137864	540.4	0.002405	2.77	2212625	3502586119	1110.7	1583	112.64	1992.1	-18.3	1978SA005	Regional	78	90	1.539
Body:78	366487.3	6127990	456.4	0.009562	2.77	1580383	1503102176	1147.7	951.1	59.31	1377	2.14	1978SA005	Regional	79	90	1.966
Body:79	371198	6113763.9	345.4	0.005934	2.77	641090	779372724	632.8	1215.7	97.07	1013.1	0.55	1978SA005	Regional	80	90	1.973
Body:80	370974.3	6123269.1	422.9	0.006158	2.77	875355	1275479596	616.1	1457.1	77.69	1420.8	-0.48	1978SA005	Regional	81	90	1.501
Body:81	380958.3	6126315.3	402.4	0.002415	2.77	500000	718200000	500	1436.4	99.98	1000	-0.62	1978SA005	Regional	82	90	1.528
Body:82	434361	6063393	1140.4	0.003339	2.77	1043000	1475949300	208.6	1415.1	147.58	5000	-16.8	1978SA005	Regional	83	90	1.979
Body:83	421123.3	6066754.4	528.9	0.002672	2.77	1099503	2041116552	860.6	1856.4	109.72	1277.6	-5.33	1978SA005	Regional	84	90	1.886
Body:84	421719.9	6060952	1327.5	0.007627	2.77	1026383	1288213366	234.5	1255.1	133.99	4376.9	-0.35	1978SA005	Regional	85	90	1.998
Body	366665.2	6306245.7	217.2	0.003239	2.77	47768	35796964.5	75	749.4	44.86	636.9	51.61	1980SA011	Company	1	180	1.297
Body:1	368109	6301717.8	210.6	0.003166	2.77	198208	67133036.05	201.8	338.7	160.79	982.2	-14.22	1980SA011	Company	2	180	1.946
Body:2	371820.2	6296264.9	79.3	0.004425	2.77	94900	23392850	189.8	246.5	127.1	500	2.94	1980SA011	Company	3	180	1.007
Body:4	360052.5	6310256.9	252.5	0.008941	2.77	592600	804454500	592.6	1357.5	126.81	1000	-36.87	1980SA011	Company	5	180	2.036
Body:5	358071.2	6315331.3	115.2	0.005513	2.77	429100	502347370	429.1	1170.7	135	1000	-5.68	1980SA011	Company	6	180	1.392
Body:6	361124	6298342	420.6	0.002322	2.77	398801	632299191.6	354.9	1585.5	56.6	1123.7	2.93	1980SA011	Company	7	180	1.676
Body:7	367160.7	6283028.4	310.7	0.011	2.77	132900	160755840	132.9	1209.6	131.9	1000	1	1980SA011	Company	8	180	1.292
Body:8	359792.2	6285295.1	197.1	0.008777	2.77	86200	83355400	86.2	967	107.31	1000	0.33	1980SA011	Company	9	180	0.637
Body:9	367414.2	6286001.3	165.7	0.005307	2.77	210000	269304000	210	1282.4	97.58	1000	0	1980SA011	Company	10	180	1.165
Body:10	354585.7	6282063.4	344.9	0.005647	2.77	972500	636306750	972.5	654.3	135	1000	-75.71	1980SA011	Company	11	180	1.351
Body:11	361541.7	6275088.9	129.8	0.003023	2.77	207600	211689720	207.6	1019.7	93.46	1000	11.23	1980SA011	Company	12	180	1.997

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:12	356770.5	6270998.8	112.1	0.005345	2.77	285255	130104924.1	488.2	456.1	155.07	584.3	-89.59	1980SA011	Company	13	180	1.743
Body:13	352932.6	6272044.5	131	0.004439	2.77	204600	168017520	204.6	821.2	135	1000	-90	1980SA011	Company	14	180	1.33
Body:14	371237.3	6281180.3	248.9	0.004295	2.77	119650	63809345	239.3	533.3	119.65	500	17.02	1980SA011	Company	15	180	1.555
Body:15	371405.6	6271639.7	353.2	0.004004	2.77	183000	220935900	366	1207.3	110.59	500	25.13	1980SA011	Company	16	180	1.556
Body:16	364998.6	6273163.2	293.1	0.014834	2.77	573818	1349848358	557.7	2352.4	119.25	1028.9	-14.79	1980SA011	Company	17	180	1.749
Body:17	370715.9	6240065.7	368.4	0.010954	2.77	290300	433185660	290.3	1492.2	74.24	1000	2.25	1980SA011	Company	18	180	1.977
Body:18	360715.5	6242804.5	254.2	0.002653	2.77	204600	264363660	204.6	1292.1	88.22	1000	24.58	1980SA011	Company	19	180	1.784
Body:19	358355.5	6249683.6	455.6	0.002781	2.77	602700	707931420	602.7	1174.6	116.79	1000	-3.58	1980SA011	Company	20	180	1.307
Body:20	347337	6242901.4	181.9	0.005247	2.77	1802200	1985663960	901.1	1101.8	32.04	2000	56.96	1980SA011	Company	21	180	2.089
Body:21	354799.4	6242855.9	189.5	0.004057	2.77	603700	387515030	603.7	641.9	130.21	1000	-7.26	1980SA011	Company	22	180	0.455
Body:22	350595.2	6242315.7	166.1	0.004528	2.77	398700	466080300	398.7	1169	135	1000	-88.73	1980SA011	Company	23	180	1.974
Body	361045	6365112.6	-99.1	0.002409	2.77	272182	401577263.8	262.8	1475.4	96.06	1035.7	0.63	1984SA011	Company	1	110	1.223
Body:1	366200.7	6362685.8	-106.7	0.008675	2.77	121030	21833783.14	314.2	180.4	15.06	385.2	56.14	1984SA011	Company	2	110	1.999
Body:2	360463.8	6360659.4	-102.9	0.004252	2.77	459400	559181680	229.7	1217.2	135	2000	-31.93	1984SA011	Company	3	110	1.888
Body:3	354354.3	6362225.7	-133.4	0.001002	2.77	664998	679228804	324.5	1021.4	71.68	2049.3	54.97	1984SA011	Company	4	110	1.913
Body:4	356408.4	6364139.6	-131.8	0.001854	2.77	175192	150384950.1	322.4	858.4	55.73	543.4	79.1	1984SA011	Company	5	110	1.618
Body:5	359578.7	6354342.4	-21.3	0.005018	2.77	606000	925907400	303	1527.9	95.77	2000	-33.69	1984SA011	Company	6	110	1.975
Body:6	355151.5	6358195	-80.8	0.001592	2.77	410600	307991060	205.3	750.1	76.84	2000	30.56	1984SA011	Company	7	110	1.9
Body:8	352264.8	6348353.7	-211.4	0.001532	2.77	128029	65141175.55	312.8	508.8	70.82	409.3	80.27	1984SA011	Company	9	110	1.711
Body:9	352878.8	6340559	-63.5	0.002052	2.77	124892	105808671.8	218	847.2	45	572.9	89.49	1984SA011	Company	10	110	1.999
Body:10	356169	6337292.4	-92	0.001642	2.77	628650	898780905	419.1	1429.7	68.27	1500	35.45	1984SA011	Company	11	110	
Body:11	362639	6342100.6	-195	0.010865	2.77	180186	171014209.9	337.3	949.1	47.27	534.2	54.91	1984SA011	Company	12	110	1.258
Body:12	363868.1	6338072.5	-221.5	0.021	2.77	625250	1846238200	250.1	2952.8	110.95	2500	6.3	1984SA011	Company	13	110	1.673
Body:13	359129.9	6327425.5	-104.1	0.002207	2.77	269100	363500280	179.4	1350.8	145.84	1500	-29.39	1984SA011	Company	14	110	1.784
Body:14	357607.4	6330565	-91.1	0.001523	2.77	202650	136687425	135.1	674.5	63.71	1500	34.7	1984SA011	Company	15	110	1.641
Body:15	353198.2	6322136.1	56.9	0.003477	2.77	623550	791160240	415.7	1268.8	45	1500	34.73	1984SA011	Company	16	110	2.184
Body:16	357155.2	6322362.1	-28.8	0.007214	2.77	149689	28440856.8	385.2	190	165.91	388.6	-12.45	1984SA011	Company	17	110	1.965
Body	394458.8677	6385238.287	270.465973	0.00868	2.77	549173	285506807.5	549.172607	519.885376	105.977454	1000	45	1993SA016	B2	1	160	1.662
Body:1	407771.3	6391752.3	-180.1	0.002024	2.77	49205	24307171.2	80.4	494	131.57	612	-13.64	1993SA016	B2	2	160	1.871
Body:2	408265.1	6388315.7	-151	0.002968	2.77	89225	24394117.73	321.3	273.4	162.47	277.7	32.14	1993SA016	B2	3	160	1.981
Body:3	409772.8	6390214.7	-198.7	0.003192	2.77	308850	454287465	205.9	1470.9	64.04	1500	48.84	1993SA016	B2	4	160	1.273
Body:5	375817.8	6353984.6	-255.3	0.016836	2.77	2902000	3490525600	290.2	1202.8	108.16	10000	99.33	1993SA016	B2	6	160	2.293
Body:6	387972.4873	6355887.527	-92.322762	0.012563	2.77	1846123	1454766112	923.061646	788.011353	122.005101	2000	57.042575	1993SA016	B2	7	160	1.993
Body:7	396574.4	6371654.1	-7	0.001327	2.77	87343	64423828	217	737.6	45	402.5	59.74	1993SA016	B2	8	160	1.067
Body:8	376183.2	6385329.4	118.6	0.00414	2.77	1167517	1686360890	665.1	1444.4	45	1755.4	73.69	1993SA016	B2	9	160	1.794
Body:9	370444.6	6388465.3	-89.8	0.001207	2.77	54433	74110597.58	164.5	1361.5	135	330.9	-90	1993SA016	B2	10	160	1.989
Body:10	387756.2	6393000.4	-90.1	0.001043	2.77	141981	150996719.1	151.9	1063.5	115.99	934.7	-4.28	1993SA016	B2	11	160	1.954
Body:11	379082.6	6380965.8	290.3	0.004328	2.77	368841	217394649.6	281	589.4	100.7	1312.6	79.94	1993SA016	B2	12	160	2.043

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:12	361684.8	6369749.7	-170.7	0.002845	2.77	87143	61801652.48	99.9	709.2	85.87	872.3	77.32	1993SA016	B2	13	160	1.826
Body:13	360962.3	6372975.7	-81.6	0.001569	2.77	195654	163508097.9	205.8	835.7	89.64	950.7	65.56	1993SA016	B2	14	160	1.281
Body	395962	6297546.8	399.7	0.001978	2.77	271600	135039520	271.6	497.2	88.38	1000	19.73	1993SA017	B3	1	160	1.982
Body:1	407301.2	6293612.2	362.8	0.006108	2.77	115214	60706388.33	223.5	526.9	32.78	515.5	36.91	1993SA017	B3	2	160	1.924
Body:2	391434.8	6285027.4	417.8	0.003705	2.77	194217	331062997.1	154.3	1704.6	83.22	1258.7	18.43	1993SA017	B3	3	160	1.62
Body:3	405699.4	6312023.2	470.4	0.014578	2.77	92071	38043720.67	115.9	413.2	155.68	794.4	46.74	1993SA017	B3	4	160	1.163
Body:4	393895.4	6316117.3	434.6	0.002885	2.77	273400	286386500	273.4	1047.5	53.67	1000	50.47	1993SA017	B3	5	160	1.766
Body:5	391843.1	6324267.7	-688.1	-0.00083	2.77	1167378	983632905	545.3	842.6	70.27	2140.8	109.21	1993SA017	B3	6	160	1.986
Body:6	392837.9	6272726.5	374.3	0.001836	2.77	427500	440795250	427.5	1031.1	68.12	1000	37.85	1993SA017	B3	7	160	1.96
Body:7	391102.5	6279545.6	421.1	0.00386	2.77	502300	108245650	502.3	215.5	135	1000	0.76	1993SA017	B3	8	160	1.829
Body:8	389993.6	6271349.7	396.8	0.003415	2.77	121404	62862825.5	200.8	517.8	45.88	604.6	52.41	1993SA017	B3	9	160	1.939
Body:9	401257.3	6285725.3	322.6	0.00261	2.77	47400	38659440	94.8	815.6	103.51	500	11.49	1993SA017	B3	10	160	1.748
Body:10	397088.9	6300187.5	354.2	0.003079	2.77	973500	416268600	973.5	427.6	115.12	1000	0	1993SA017	B3	11	160	1.647
Body:11	398206.6	6303881.9	630.2	0.011353	2.77	141694	144003632.5	74.1	1016.3	126.56	1912.2	-0.7	1993SA017	B3	12	160	1.911
Body:12	405644.3	6295479.2	434.2	0.001783	2.77	110655	51742352.82	81.4	467.6	120.65	1359.4	21.06	1993SA017	B3	13	160	1.981
Body:13	405700.2	6291432	396.8	0.003725	2.77	152600	91972020	152.6	602.7	45	1000	27.28	1993SA017	B3	14	160	1.911
Body:14	408378	6296995.5	340.1	0.003536	2.77	202600	92993400	405.2	459	50.22	500	20.98	1993SA017	B3	15	160	1.449
Body:15	408489.4	6318006.5	-546.2	0.008441	2.77	220109	14042973.34	747.4	63.8	127.85	294.5	39.32	1993SA017	B3	16	160	1.533
Body:16	405643.2	6315585.7	498.6	0.002801	2.77	634846	359640202.4	578.5	566.5	29.81	1097.4	58.6	1993SA017	B3	17	160	1.709
Body:17	408384.8	6310685	280.7	0.000735	2.77	910100	1249203260	910.1	1372.6	45	1000	61.52	1993SA017	B3	18	160	2.022
Body:18	404182.9	6262622	1072.5	0.004117	2.77	2003021	1379881194	1163.6	688.9	163.36	1721.4	46.51	1993SA017	B3	19	160	1.17
Body:19	382944.4	6254872.8	462	0.002993	2.77	134500	148084500	134.5	1101	132.65	1000	11.12	1993SA017	B3	20	160	0.744
Body:20	388634.7	6250450.1	882.2	0.003465	2.77	578400	760480320	192.8	1314.8	47.97	3000	-0.13	1993SA017	B3	21	160	1.822
Body:21	379104.3	6290700.8	653.8	0.004437	2.77	1473683	544378382	565.8	369.4	19.31	2604.6	26.34	1993SA017	B3	22	160	1.999
Body:22	376714.6	6284935.6	469	0.005446	2.77	524900	72593670	524.9	138.3	48.89	1000	46.09	1993SA017	B3	23	160	1.932
Body:23	374639.8	6304257.2	280.6	0.003424	2.77	135650	54789035	271.3	403.9	49.87	500	36.29	1993SA017	B3	24	160	1.218
Body:24	378330.9	6262529.2	435.5	0.002693	2.77	347500	349689250	347.5	1006.3	45	1000	29.71	1993SA017	B3	25	160	1.985
Body:25	371405.4	6271628.9	463.8	0.005112	2.77	151200	117936000	302.4	780	125.6	500	27.55	1993SA017	B3	26	160	1.759
Body:26	385467.8	6262778	370.4	0.000896	2.77	180158	131028549.8	392.5	727.3	119.54	459	-1.99	1993SA017	B3	27	160	1.05
Body:27	388608.2	6311079.5	409.6	0.003094	2.77	142901	65248596.6	236.2	456.6	131.71	605	20.22	1993SA017	B3	28	160	1.846
Body:28	379448.2	6316996.4	383.8	0.002116	2.77	335200	393323680	335.2	1173.4	117.02	1000	41.05	1993SA017	B3	29	160	1.943
Body:29	375189.8	6318598	198.2	0.021	2.77	518800	1256014800	259.4	2421	66.49	2000	22.86	1993SA017	B3	30	160	2.134
Body:30	381682.6	6318734.5	327.5	-0.004704	2.77	229967	357529601.6	374.6	1554.7	71.34	613.9	18.77	1993SA017	B3	31	160	1.843
Body:31	378249.2	6312589	170.9	0.003492	2.77	91550	35109425	183.1	383.5	51.79	500	40.01	1993SA017	B3	32	160	1.381
Body:32	374147.2	6315390.4	182.4	0.004386	2.77	112750	10824000	225.5	96	45	500	36.63	1993SA017	B3	33	160	1.982
Body:33	377220.7	6309384.4	216.8	0.004635	2.77	55550	22436645	111.1	403.9	99.34	500	24.08	1993SA017	B3	34	160	1.952
Body:34	371883.9	6296552.4	297.3	0.006837	2.77	154350	62465445	308.7	404.7	65.35	500	9.7	1993SA017	B3	35	160	1.971
Body:35	380712.6	6298710.7	308.1	0.003083	2.77	125800	115408920	251.6	917.4	116.41	500	34.36	1993SA017	B3	36	160	1.273

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:36	386131.9	6305827.3	550.4	0.004766	2.77	215130	115180644.8	272.8	535.4	143.41	788.6	-2.84	1993SA017	B3	37	160	1.714
Body:37	385088.9	6301838.1	667.3	0.002838	2.77	1193800	698014860	596.9	584.7	160.78	2000	-8.85	1993SA017	B3	38	160	1.955
Body:38	395532.2	6338668.4	316.1	0.009486	2.77	222450	214308330	444.9	963.4	83.64	500	50.22	1993SA017	B3	39	160	1.374
Body:39	404242.4	6332867.4	254.7	0.000445	2.77	528000	713275200	528	1350.9	111.24	1000	48.12	1993SA017	B3	40	160	1.862
Body:40	398313.3	6327790	312.9	0.001707	2.77	207400	92790760	414.8	447.4	63.35	500	45.21	1993SA017	B3	41	160	1.99
Body:41	399278.2	6335378.6	320.4	0.002938	2.77	53400	30192360	106.8	565.4	46.44	500	66.24	1993SA017	B3	42	160	1.938
Body:42	397947	6324977	322.8	0.001858	2.77	200000	209220000	400	1046.1	69.95	500	40.24	1993SA017	B3	43	160	1.964
Body:43	396241.2	6322991.2	315	0.002922	2.77	73400	46557620	146.8	634.3	48.33	500	37.91	1993SA017	B3	44	160	2.026
Body:44	407058.6	6257296.5	780.8	0.001061	2.77	1778980	4523769488	1204.7	2542.9	56.97	1476.7	27.4	1993SA017	B3	45	160	1.954
Body:45	377190.2	6252680.1	376.9	0.002523	2.77	539900	662457300	539.9	1227	54.46	1000	27.76	1993SA017	B3	46	160	
Body:46	373459.2	6252126.3	480	0.004917	2.77	1508407	1411567420	867.1	935.8	119.06	1739.6	27.67	1993SA017	B3	47	160	2.031
Body:47	386808.1	6241879	552.5	0.00166	2.77	230605	229982755.4	200.3	997.3	47.81	1151.3	47.14	1993SA017	B3	48	160	1.814
Body:48	375768	6238659.2	631.9	0.010963	2.77	1171800	2178376200	1171.8	1859	62.27	1000	36.41	1993SA017	B3	49	160	1.95
Body:49	387705.5	6339517.2	496.3	0.003395	2.77	675121	688488395.8	447.1	1019.8	49.2	1510	88.79	1993SA017	B3	50	160	1.478
Body:50	388479.9	6334633.9	26.5	0.006622	2.77	251300	434673610	251.3	1729.7	105.05	1000	-1.26	1993SA017	B3	51	160	1.754
Body:51	391424.6	6338542.8	49.6	0.007683	2.77	170919	118173223.8	471.5	691.4	50.58	362.5	87.61	1993SA017	B3	52	160	1.759
Body:52	379181.9	6316914.8	254.6	0.00175	2.77	615336	283362393.8	657.2	460.5	66.56	936.3	34.93	1993SA017	B3	53	160	1.923
Body:53	370196.4	6330899.4	-52	0.011	2.77	919800	1345851360	459.9	1463.2	101.69	2000	25.08	1993SA017	B3	54	160	2.137
Body:54	362869.1	6326957	-28.7	0.001649	2.77	20563	10314541.25	64.1	501.6	135	320.8	-89.38	1993SA017	B3	55	160	1.987
Body:55	363020.6	6333398.7	-103.9	0.021	2.77	189759	385532486.7	159.1	2031.7	140.95	1192.7	0.18	1993SA017	B3	56	160	1.563
Body:56	373274	6348985.2	-21.9	0.00235	2.77	84315	22655365.26	232.4	268.7	23.97	362.8	89.47	1993SA017	B3	57	160	1.991
Body:57	375733.8	6346610.9	206.8	0.003383	2.77	234094	84226934.85	323.2	359.8	47.16	724.3	75.96	1993SA017	B3	58	160	1.946
Body:58	378294.1	6341030.6	-97	0.020922	2.77	1360620	2441632644	553.3	1794.5	63.66	2459.1	55.78	1993SA017	B3	59	160	1.97
Body:59	375989.3	6332822	696.5	0.014917	2.77	3138969	8106072435	1120.3	2582.4	85.59	2801.9	52.74	1993SA017	B3	60	160	1.805
Body	409829.7	6056680.4	435.2	0.005242	2.77	580041	376736629.5	577.5	649.5	138.7	1004.4	-59.87	1994SA024	B22	1	160	1.201
Body:1	429433.1	6001380.5	241	0.004593	2.77	357722	110571836.2	235.7	309.1	71.71	1517.7	-27.4	1994SA024	B22	2	160	1.81
Body:2	432419.9	6004019	338.4	-0.008862	2.77	194100	62791350	194.1	323.5	135	1000	-30.65	1994SA024	B22	3	160	1.411
Body:3	434119.2	5999460.1	415.2	-0.008124	2.77	659800	131498140	659.8	199.3	45	1000	-27.68	1994SA024	B22	4	160	1.684
Body:5	441956.3	5965070.9	238.3	0.00536	2.77	85800	45885840	171.6	534.8	132.99	500	-37.3	1994SA024	B22	6	160	1.791
Body:6	425791	5969319.2	415.5	0.001995	2.77	188200	205156820	188.2	1090.1	135	1000	-40.47	1994SA024	B22	7	160	1.407
Body:7	421109.6	6007208.1	227.5	0.004543	2.77	150650	96310545	301.3	639.3	122.25	500	-13.82	1994SA024	B22	8	160	0.777
Body:8	423099.8	6007886.1	328.2	0.007338	2.77	588762	255405025	1266.7	433.8	22.47	464.8	21.71	1994SA024	B22	9	160	1.448
Body:9	419349.8	5993305	308.5	0.00452	2.77	118650	71225595	237.3	600.3	135	500	-16.85	1994SA024	B22	10	160	1.795
Body:10	417536.2	5981639.5	221.7	0.003999	2.77	96750	126955350	193.5	1312.2	107.95	500	-17.07	1994SA024	B22	11	160	1.927
Body:11	430271.8	5971302.4	306.6	0.006466	2.77	202100	48847570	404.2	241.7	132.11	500	-30.89	1994SA024	B22	12	160	1.517
Body:12	400320.8	6016161.6	92.2	0.002988	2.77	221682	101663475.3	305.6	458.6	29.67	725.4	85.22	1994SA024	B22	13	160	1.948
Body:13	401008	6031964.4	219.7	0.009708	2.77	752098	234128207	740.4	311.3	162.36	1015.8	-34.4	1994SA024	B22	14	160	1.957
Body:14	402851.8	6028404.2	245.4	0.00552	2.77	300400	356034080	300.4	1185.2	98.72	1000	-27.82	1994SA024	B22	15	160	1.944

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:15	414343.4	6037385.9	279.1	0.008539	2.77	776825	175562540.4	978	226	148.95	794.3	-30.64	1994SA024	B22	16	160	2.196
Body:16	388556.8	6111565.8	476.3	0.002339	2.77	448500	502230300	448.5	1119.8	77.44	1000	0	1994SA024	B22	17	160	1.994
Body:1:1	392023.1	6119054.5	395.4	0.003781	2.77	350100	255748050	350.1	730.5	70.27	1000	4.4	1994SA024	B22	18	160	1.46
Body:17	402238.6	6121138.2	516.2	0.004604	2.77	147200	82873600	147.2	563	131.19	1000	48.81	1994SA024	B22	19	160	1.921
Body:18	392104.7	6110199.6	261.4	0.001799	2.77	145700	82014530	145.7	562.9	82.03	1000	28.44	1994SA024	B22	20	160	1.525
Body:19	388705.6	6121436.2	204.4	0.001603	2.77	235600	144988240	235.6	615.4	45	1000	40.13	1994SA024	B22	21	160	1.992
Body:20	407881.2	6106911.7	869.1	0.003628	2.77	1336728	1904034651	708.2	1424.4	140.18	1887.5	-8.77	1994SA024	B22	22	160	2.166
Body:21	404986	6112926.9	529	0.011	2.77	250400	174228320	250.4	695.8	97.68	1000	27.51	1994SA024	B22	23	160	1.758
Body:22	380086.8	6120899.9	232.3	0.002173	2.77	364887	237249761.5	292.8	650.2	112.02	1246.2	-0.64	1994SA024	B22	24	160	1.574
Body:23	388481.2	6109126.6	415.8	0.000992	2.77	2089400	3048016720	1044.7	1458.8	45	2000	16.95	1994SA024	B22	25	160	1.852
Body:25	363241.1	6117809.8	221.9	0.004837	2.77	837774	1161825372	868.7	1386.8	135	964.4	-80.91	1994SA024	B22	27	160	1.866
Body:26	349295.9	6122649	541.6	0.015706	2.77	311348	186372912.8	443.2	598.6	104.19	702.5	53.39	1994SA024	B22	28	160	2.042
Body:27	347232.8	6117373.1	378.7	0.006293	2.77	109235	37576784.96	185.9	344	134.88	587.6	-62.37	1994SA024	B22	29	160	2.193
Body:28	341301.1	6116086.7	291.8	0.004642	2.77	216839	266668147.2	628.7	1229.8	129.02	344.9	-63.31	1994SA024	B22	30	160	1.247
Body:29	377036.7	6102602.2	275.5	0.007394	2.77	145785	347347269.5	197.3	2382.6	78.55	738.9	-36.72	1994SA024	B22	31	160	1.591
Body:30	385195.9	6092960.5	181.5	0.011	2.77	169293	123059372.5	254.5	726.9	114.82	665.2	-16.2	1994SA024	B22	32	160	1.084
Body:31	369286.7	6100678.8	214	0.001943	2.77	673355	291495370.8	597.9	432.9	60.49	1126.2	7.43	1994SA024	B22	33	160	1.959
Body:32	365384.7	6104185.3	105.6	0.004842	2.77	265500	110023200	177	414.4	111.77	1500	-15.17	1994SA024	B22	34	160	1.83
Body:33	359971.4	6105656.5	164.3	0.002613	2.77	386586	315840860	316.2	817	89.98	1222.6	-34.44	1994SA024	B22	35	160	1.856
Body:34	357765	6101434.5	178.9	0.002113	2.77	175610	120292576	238.6	685	54.68	736	71.05	1994SA024	B22	36	160	1.708
Body:35	355793.5	6105047.6	216.9	0.006006	2.77	93113	38260152.25	217.3	410.9	135	428.5	-78.07	1994SA024	B22	37	160	1.987
Body:36	353866.8	6108740.1	336.3	0.003311	2.77	290040	133911468	241.7	461.7	79.5	1200	45.97	1994SA024	B22	38	160	1.999
Body:37	356632.3	6108162.1	117.2	0.006796	2.77	28225	12825639.94	244.8	454.4	90.36	115.3	67.17	1994SA024	B22	39	160	1.753
Body:38	352249.8	6104561.3	153.3	0.005199	2.77	94486	59110579.23	136.6	625.6	45	691.7	75.75	1994SA024	B22	40	160	1.826
Body	477015.7	6414360.8	-29.9	0.007325	2.77	300200	199182700	300.2	663.5	52.54	1000	66.92	SAEI	BHEI 1	1	200	
Body:1	469239.1	6414370.5	-46.1	0.010796	2.77	89510	127462709.9	172.9	1424	113.51	517.7	45	SAEI	BHEI 1	2	200	1.795
Body:2	474378.2	6413579.4	77.1	0.00506	2.77	466300	477118160	466.3	1023.2	92.21	1000	27.98	SAEI	BHEI 1	3	200	1.39
Body:3	494581.9	6407767.9	-62.2	0.005137	2.77	80278	24789846.4	225.5	308.8	33.31	356	82.27	SAEI	BHEI 1	4	200	1.753
Body:5	497431.1	6410353.9	-28.7	0.004547	2.77	232874	96666001.55	441.3	415.1	51.4	527.7	46.68	SAEI	BHEI 1	6	200	1.947
Body:6	478303.5	6427330.2	-29.4	0.011	2.77	132622	40860819.71	464.2	308.1	63.37	285.7	50.19	SAEI	BHEI 1	7	200	1.764
Body:7	472614.2	6422562.4	34.3	0.01088	2.77	804018	993283689	644.4	1235.4	120.88	1247.7	0.57	SAEI	BHEI 1	8	200	1.535
Body:8	481172.8	6423649.1	-15	0.003181	2.77	192487	83481490.46	292.8	433.7	66.02	657.4	24.34	SAEI	BHEI 1	9	200	1.644
Body:9	474290.5	6421361.2	25.4	0.01427	2.77	312637	101763288.2	397.1	325.5	50.22	787.3	52.36	SAEI	BHEI 1	10	200	2.07
Body:10	488430.3	6406678.2	-126	0.041	2.77	451707	176075236.6	310.9	389.8	35.06	1452.9	60.95	SAEI	BHEI 1	11	200	1.998
Body:11	489277.3	6421522.5	-88	0.004654	2.77	141769	72486540.83	359	511.3	80.93	394.9	35.61	SAEI	BHEI 1	12	200	1.809
Body:12	491693.4	6418818.4	-32.1	0.001842	2.77	262466	161993793	279.1	617.2	127.68	940.4	9.65	SAEI	BHEI 1	13	200	1.633
Body:13	491023.4	6422575.1	-36.6	0.002987	2.77	98182	28227417	283.6	287.5	124.34	346.2	-0.62	SAEI	BHEI 1	14	200	1.698
Body	438153.7	6100917.8	548.8	0.004623	2.77	780300	1092576060	260.1	1400.2	135.3	3000	-86.5	1998SA003	Company	1	260	1.637

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:1	446425.1	6092066.6	289.9	0.001396	2.77	252144	225442030.9	267.3	894.1	122.81	943.3	-3.4	1998SA003	Company	2	260	1.394
Body:2	436698.5	6094493.5	373.1	0.005358	2.77	50069	73736984.48	93.5	1472.7	139.11	535.5	46.67	1998SA003	Company	3	260	1.917
Body:3	426173.4	6102723.3	603.7	0.00248	2.77	1065000	777343500	355	729.9	137.72	3000	2.18	1998SA003	Company	4	260	1.945
Body:4	429651.6	6097242.1	275.8	0.001316	2.77	231566	139310316.2	736.3	601.6	113.57	314.5	-29.62	1998SA003	Company	5	260	1.927
Body:5	430589.5	6100369.7	674.6	0.00135	2.77	931269	878372864.2	648.2	943.2	45	1436.7	70.25	1998SA003	Company	6	260	1.99
Body:6	428790.9	6101348	611.4	0.004358	2.77	1054515	518821291.4	968.6	492	167.43	1088.7	-41.37	1998SA003	Company	7	260	1.106
Body:7	470181.4	6096292.6	450.2	0.001857	2.77	354772	264127813.6	301.6	744.5	129.23	1176.3	-45.4	1998SA003	Company	8	260	1.765
Body:8	466806	6101747.5	364.2	0.00147	2.77	482000	733652200	482	1522.1	97.79	1000	-16.6	1998SA003	Company	9	260	1.24
Body:9	453781.4	6098279.1	321	0.001412	2.77	230100	221655330	230.1	963.3	101.57	1000	1.51	1998SA003	Company	10	260	1.272
Body:10	455165.8	6103277.5	356.9	0.001187	2.77	344900	360730910	344.9	1045.9	135	1000	-12.09	1998SA003	Company	11	260	1.995
Body:11	451292.9	6083929.6	379.5	0.002565	2.77	191200	80724640	191.2	422.2	101.47	1000	-38.45	1998SA003	Company	12	260	1.75
Body:12	469421.2	6077246	330.3	0.001891	2.77	156600	123447780	156.6	788.3	126.28	1000	-30.74	1998SA003	Company	13	260	0.804
Body:13	461456	6081301.8	301.4	0.003545	2.77	898500	1281081300	898.5	1425.8	127.29	1000	-37.45	1998SA003	Company	14	260	1.961
Body:14	459405.5	6085562	304.2	0.003454	2.77	359800	266180040	359.8	739.8	125.95	1000	-16.75	1998SA003	Company	15	260	1.924
Body:15	477360.8	6106812.4	508.6	0.005741	2.77	139860	55594350	199.8	397.5	146.37	700	-25.69	1998SA003	Company	16	260	1.615
Body:16	488955.9	6104766.5	285.2	0.004418	2.77	58538	31323469.76	88	535.1	155.15	665.2	-32.01	1998SA003	Company	17	260	1.979
Body:17	491362.7	6090367	385.2	0.003024	2.77	716164	270996427.3	330.7	378.4	166.91	2165.6	-26.81	1998SA003	Company	18	260	1.949
Body:18	491722.6	6084223.1	472	0.002603	2.77	225370	297713704	193.7	1321	134.05	1163.5	-31.56	1998SA003	Company	19	260	2.107
Body:19	488459	6088668.4	582.5	0.014566	2.77	207945	63048772.4	145	303.2	13.17	1434.1	-30.76	1998SA003	Company	20	260	1.932
Body	466703	6369288.2	49.3	0.002899	2.77	593900	2592551670	593.9	4365.3	74.23	1000	57.09	E1	TEiSAS	1	240	1.693
Body:2	488145.7	6354478.6	162.6	0.006036	2.77	223500	313548150	223.5	1402.9	84.45	1000	15.81	E1	TEiSAS	3	240	0.733
Body:3	447129.7	6351492.3	224.3	0.003084	2.77	334000	468334800	334	1402.2	45	1000	45.65	E1	TEiSAS	4	240	1.859
Body:4	432098	6329122.1	488.1	0.041833	2.77	419200	4444526080	209.6	10602.4	93.98	2000	62.56	E1	TEiSAS	5	240	1.97
Body:5	431055	6301759.3	351	0.007696	2.77	363200	1270364640	363.2	3497.7	67.53	1000	62.51	E1	TEiSAS	6	240	1.606
Body:6	422855.6	6306425	567.5	0.006672	2.77	817400	3746471160	817.4	4583.4	91.36	1000	-25.45	E1	TEiSAS	7	240	1.614
Body:7	421434.4	6321443.3	118.8	0.003041	2.77	557400	1115134440	557.4	2000.6	89.28	1000	54.94	E1	TEiSAS	8	240	1.119
Body:8	446359.8	6314354.8	103.8	0.003907	2.77	1242900	299663190	1242.9	241.1	159.48	1000	64.4	E1	TEiSAS	9	240	1.972
Body:9	490483.5	6343377.1	-7.6	0.001738	2.77	1006700	864453290	1006.7	858.7	142.65	1000	40.06	E1	TEiSAS	10	240	
Body:10	492980.1	6344968.7	211.2	0.005398	2.77	326761	885979341.6	612.6	2711.4	89.39	533.4	52.61	E1	TEiSAS	11	240	1.517
Body:11	499289.9	6343401.2	246.7	0.006554	2.77	223450	530425610	446.9	2373.8	78.52	500	61.49	E1	TEiSAS	12	240	1.976
Body:12	485719.1	6370770.2	55.8	0.001342	2.77	57795	55084128.57	114.9	953.1	74.24	503	49.05	E1	TEiSAS	13	240	1.745
Body:13	450379.1	6346481.2	281.6	0.002457	2.77	181200	186436680	181.2	1028.9	56.92	1000	47.88	E1	TEiSAS	14	240	
Body:14	479776	6351034.3	0.7	0.003031	2.77	198902	50859292.54	458.3	255.7	156.32	434	62.39	E1	TEiSAS	15	240	1.991
Body:15	450379.1	6346481.2	281.6	0.002457	2.77	181200	186436680	181.2	1028.9	56.92	1000	47.88	E1	TEiSAS	16	240	999999
Body:16	487243.2	6352506	94.3	0.003793	2.77	290836	355372093	593.3	1221.9	66.54	490.2	0	E1	TEiSAS	17	240	2.178
Body:17	484011.3	6342812	192.2	0.006565	2.77	927357	3298700020	1255.9	3557.1	20.31	738.4	35.29	E1	TEiSAS	18	240	2.558
Body:18	449859.4	6318270.6	227.8	0.004983	2.77	223858	278859885.7	577.4	1245.7	48.83	387.7	54.87	E1	TEiSAS	19	240	1.976
Body:19	441535.6	6321267.6	394.3	0.014138	2.77	308285	158273724.4	582	513.4	157.03	529.7	77.78	E1	TEiSAS	20	240	2.126

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:20	430141.2	6310210.4	262.5	0.006993	2.77	510170	1190021749	486.2	2332.6	101.69	1049.3	57.6	E1	TEiSAS	21	240	1.88
Body:21	419446.8	6323456.6	430.7	0.003037	2.77	525459	566917930.9	443.8	1078.9	115.31	1184	64.5	E1	TEiSAS	22	240	1.989
Body:22	457702.4	6335210.1	66.1	0.001849	2.77	92032	67624863.77	175.7	734.8	29.58	523.8	33.69	E1	TEiSAS	23	240	1.79
Body:23	460624	6360679.7	295.7	0.00371	2.77	486342	470487192.8	377.8	967.4	41.75	1287.3	45.1	E1	TEiSAS	24	240	1.226
Body:24	441361.7	6346065.7	187.6	0.005449	2.77	123572	64022736.1	171.2	518.1	47.15	721.8	63.43	E1	TEiSAS	25	240	1.808
Body:25	423638.9	6343243.8	112.2	0.003032	2.77	155966	35778591.22	226.3	229.4	36.03	689.2	66.45	E1	TEiSAS	26	240	1.833
Body:26	439277.1	6317032.3	174.9	0.003897	2.77	571700	415968920	571.7	727.6	45	1000	79.89	E1	TEiSAS	27	240	1.981
Body:27	424704.6	6310905.6	645.1	0.00988	2.77	2240800	3580574320	1120.4	1597.9	64.86	2000	57.57	E1	TEiSAS	28	240	1.985
Body:28	426551	6314311.5	133.1	0.003694	2.77	93575	27847967.62	198.8	297.6	127.01	470.7	56.58	E1	TEiSAS	29	240	1.974
Body:29	440328.1	6346753.2	95.5	0.00456	2.77	82078	34916027.99	125.1	425.4	54.55	656.1	52.16	E1	TEiSAS	30	240	1.931
Body:30	498307.8	6385900.3	101.5	0.002167	2.77	77750	27088100	155.5	348.4	50.18	500	71.34	E1	TEiSAS	31	240	1.894
Body:31	496796.5	6401232.5	-21.7	0.002749	2.77	344220	219612334.5	290.8	638	33.51	1183.7	71.06	E1	TEiSAS	32	240	1.993
Body:32	494110.2	6393401.6	-87.2	0.022154	2.77	62235	7144574.556	502.3	114.8	173.69	123.9	70.08	E1	TEiSAS	33	240	1.98
Body:34	473695.6	6383282.3	12.7	0.009425	2.77	51150	51625695	102.3	1009.3	72.95	500	56.74	E1	TEiSAS	35	240	
Body:35	474279.6	6371285.6	170.3	0.004898	2.77	442500	181690500	442.5	410.6	45	1000	50.11	E1	TEiSAS	36	240	1.997
Body:36	458535.7	6370582.4	207.4	0.003662	2.77	366100	395058510	366.1	1079.1	131.43	1000	39.39	E1	TEiSAS	37	240	1.003
Body:37	485116.6	6384921	-371.9	-0.004673	2.77	1177602	48752722.8	820	41.4	175.35	1436.1	89.57	E1	TEiSAS	38	240	2.165
Body:38	476493.6	6377125.2	202.6	0.002448	2.77	77341	32661011.39	147.4	422.3	40.93	524.7	59.19	E1	TEiSAS	39	240	1.987
Body:39	462223.7	6383374.8	-5	0.002312	2.77	75691	97263140.6	283.7	1285	80.91	266.8	40.55	E1	TEiSAS	40	240	1.208
Body:40	474314.6	6392854.8	-95.6	0.001413	2.77	48060	13423158	240.3	279.3	68.67	200	57.2	E1	TEiSAS	41	240	1.968
Body:41	481277.3	6361044.4	55.3	0.006907	2.77	63199	105485784.7	34	1669.1	115.76	1858.8	69.25	E1	TEiSAS	42	240	1.56
Body:42	485032.4	6354265.6	220	0.006697	2.77	322300	432752210	322.3	1342.7	103.49	1000	61.75	E1	TEiSAS	43	240	1.969
Body:43	483867.6	6348551.7	160.9	0.001894	2.77	161100	220030380	161.1	1365.8	81.13	1000	50.46	E1	TEiSAS	44	240	1.75
Body:44	460506.8	6356337	180.2	0.00047	2.77	778500	829180350	778.5	1065.1	46.62	1000	54.67	E1	TEiSAS	45	240	2.144
Body:45	475553.4	6351844.5	48.6	0.002637	2.77	42400	40712480	212	960.2	45	200	64.98	E1	TEiSAS	46	240	1.838
Body:46	472184.8	6344482.8	113.1	0.003572	2.77	320800	433208320	320.8	1350.4	45	1000	68.7	E1	TEiSAS	47	240	2.025
Body:47	444116.3	6355536.5	464.2	0.00688	2.77	301670	280462664.1	219.7	929.7	131.21	1373.1	57.8	E1	TEiSAS	48	240	1.822
Body:48	407424.2	6345379.4	12.1	0.007344	2.77	136750	64067375	273.5	468.5	135	500	72.4	E1	TEiSAS	49	240	2.144
Body:49	395022.3	6345152	-82	0.011134	2.77	563895	2001151286	230.5	3548.8	99.35	2446.4	42.64	E1	TEiSAS	50	240	1.899
Body:50	399516.2	6340600.4	-43.3	0.003515	2.77	218172	21315453.25	325	97.7	135.1	671.3	70.22	E1	TEiSAS	51	240	1.885
Body:51	395447	6338635.9	-70.5	0.003903	2.77	214850	100549800	429.7	468	58.91	500	50.3	E1	TEiSAS	52	240	1.98
Body:52	395510.3	6341221	-111.4	0.004467	2.77	42860	6377568	214.3	148.8	64.12	200	62.17	E1	TEiSAS	53	240	1.93
Body:53	409929.5	6348697.3	226.5	0.019801	2.77	1032205	747007091.4	1530.1	723.7	131.83	674.6	20.99	E1	TEiSAS	54	240	1.16
Body:54	415870.3	6328328.6	73	0.002927	2.77	97450	56267630	194.9	577.4	135	500	-63.86	E1	TEiSAS	55	240	2.118
Body:55	410905.4	6341615.5	111.1	0.002575	2.77	197700	45886170	395.4	232.1	57.82	500	12.34	E1	TEiSAS	56	240	1.436
Body:56	404162.8	6343448.6	30.5	0.008458	2.77	196800	283057440	196.8	1438.3	108.53	1000	49.48	E1	TEiSAS	57	240	1.843
Body:57	400970.5	6347047.3	-104.4	0.013512	2.77	56233	17601029.16	248.6	313	137.17	226.2	48.46	E1	TEiSAS	58	240	1.066
Body:58	392970.3	6339309.7	-119.1	0.011679	2.77	224805	307757867	337.9	1369	75.74	665.3	48.42	E1	TEiSAS	59	240	1.94

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:60	413266.8	6394958.4	-72.6	0.006697	2.77	274198	146723510.3	509	535.1	101.78	538.7	59.83	E1	TEiSAS	61	240	2.055
Body:61	416309.1	6395291.1	-336	0.001758	2.77	191200	82579280	95.6	431.9	45	2000	56.66	E1	TEiSAS	62	240	
Body:63	421610	6379493	-279.1	0.031	2.77	173056	257022578.1	189.9	1485.2	82.26	911.3	52.08	E1	TEiSAS	64	240	1.763
Body:64	405993.1	6356892	-81	0.013197	2.77	563320	832867910.3	298.4	1478.5	107.6	1887.8	50.65	E1	TEiSAS	65	240	1.807
Body:65	406611	6369701.6	-159.7	0.025601	2.77	586265	1390795985	264	2372.3	92.97	2220.7	35.02	E1	TEiSAS	66	240	2
Body:66	421493.8	6379421.2	-286.3	0.037384	2.77	514866	2275809986	188.9	4420.2	73.45	2725.6	45.51	E1	TEiSAS	67	240	2.113
Body:67	458054.4	6409336	-66.9	0.006084	2.77	790400	1115017280	395.2	1410.7	93.9	2000	-63.26	E1	TEiSAS	68	240	1.988
Body:68	462679.3	6406729.3	-164.2	0.020715	2.77	207110	269884389.5	245.1	1303.1	114.03	845	-77.29	E1	TEiSAS	69	240	1.125
Body:69	431632.9	6397849.6	-82.5	0.001479	2.77	111831	121806194.5	99.6	1089.2	81.49	1122.8	78.78	E1	TEiSAS	70	240	1.992
Body:70	426714	6398825	-265.4	0.001635	2.77	94270	126547980.9	65.9	1342.4	61.36	1430.5	72.4	E1	TEiSAS	71	240	2.156
Body:72	445156.2	6391786.3	-90.7	0.002827	2.77	477759	489272510.6	397.9	1024.1	98.42	1200.7	-3.05	E1	TEiSAS	73	240	1.412
Body:73	445975.7	6395823.8	-54	0.009391	2.77	258232	134125867	921.6	519.4	46.49	280.2	30.66	E1	TEiSAS	74	240	1.93
Body:74	442062.4	6390881.6	-174.2	0.002891	2.77	1004451	440250982.9	797.5	438.3	18.96	1259.5	-59.51	E1	TEiSAS	75	240	
Body:75	443809.1	6339715	278.6	0.004264	2.77	155860	92705676.7	227.5	594.8	50.34	685.1	73.2	E1	TEiSAS	76	240	1.618
Body:76	444895.7	6331669.3	279.4	0.002245	2.77	659700	1004722415	442.9	1523	93.87	1489.5	36.87	E1	TEiSAS	77	240	1.936
Body:78	453522.3	6423551.1	-105.9	0.001989	2.77	62724	33225061.71	125.7	529.7	134.14	499	-83.74	E1	TEiSAS	79	240	1.581
Body:79	452931.9	6420467.5	-73.2	0.002542	2.77	220650	156705630	147.1	710.2	110.93	1500	4.28	E1	TEiSAS	80	240	1.721
Body:80	453445.2	6428581.9	-166.7	0.00262	2.77	43115	7001794.8	120.6	162.4	106.58	357.5	-61.34	E1	TEiSAS	81	240	1.976
Body:81	465659.8	6416524.8	156.1	0.004629	2.77	441628	276282601.9	526.5	625.6	45	838.8	57.67	E1	TEiSAS	82	240	2
Body:82	461174.9	6418689.3	-80.6	0.003276	2.77	61086	29498255.56	169.4	482.9	95.2	360.6	-57.49	E1	TEiSAS	83	240	1.476
Body:84	447412.1	6408471.9	-97.4	0.017789	2.77	493863	184112111.5	495.2	372.8	162	997.3	-83.66	E1	TEiSAS	85	240	2
Body:86	443245.8	6405504.1	-158.2	0.005612	2.77	38352	44702951.33	205.2	1165.6	79.69	186.9	64.54	E1	TEiSAS	87	240	1.688
Body	449209.3	6157923.5	378	0.002814	2.77	510500	308086750	510.5	603.5	102.14	1000	-70.52	2001SA001	Company	1	270	1.725
Body:1	446777.4	6139246.6	337.1	0.001337	2.77	202100	200240680	202.1	990.8	130.24	1000	-5.82	2001SA001	Company	2	270	1.995
Body:2	429024	6153029.6	357.5	0.002258	2.77	106400	78310400	106.4	736	131.02	1000	-73.18	2001SA001	Company	3	270	1.995
Body:3	406359.3	6150071.2	450.1	0.002204	2.77	202300	228336010	202.3	1128.7	135	1000	-20.71	2001SA001	Company	4	270	2.031
Body:4	401507.2	6128358.1	590.5	0.010599	2.77	391052	500820911.1	413.2	1280.7	148.09	946.4	42.27	2001SA001	Company	5	270	1.624
Body:5	424601.3	6132773.6	402.5	0.003126	2.77	462984	267928782.9	433.1	578.7	140.65	1069	-29.51	2001SA001	Company	6	270	1.849
Body:6	409705.1	6134570.3	340.7	0.001965	2.77	854700	603247260	854.7	705.8	69.89	1000	43.33	2001SA001	Company	7	270	1.873
Body:7	443996.6	6128455.6	1040.7	0.003214	2.77	4536171	5582212106	2397.3	1230.6	133.33	1892.2	21.3	2001SA001	Company	8	270	1.997
Body:9	457504	6149712.5	346.2	0.003277	2.77	32200	13817020	64.4	429.1	66.93	500	-1.38	2001SA001	Company	10	270	
Body:10	407978.6	6107005.6	389.1	0.00216	2.77	1449000	931851900	724.5	643.1	161.48	2000	-19.3	2001SA001	Company	11	270	2.24
Body:11	402141.1	6121198.6	276.1	0.001998	2.77	263717	507286559.8	103.2	1923.6	83.61	2555.4	58.37	2001SA001	Company	12	270	1.623
Body:12	406444.6	6123795.4	259.5	0.004842	2.77	49965	21264984.83	89.8	425.6	52.71	556.4	33.3	2001SA001	Company	13	270	2.143
Body:13	406336.4	6159808.7	420.7	0.001373	2.77	1603596	2718254919	1115.7	1695.1	138.25	1437.3	-0.94	2001SA001	Company	14	270	1.995
Body:14	398183	6144482.3	194.2	0.004422	2.77	199300	118224760	199.3	593.2	135	1000	-46.03	2001SA001	Company	15	270	1.812
Body:15	394908.8	6151180.5	208.1	0.001882	2.77	916368	519947430.2	617	567.4	35.47	1485.2	31.17	2001SA001	Company	16	270	1.827
Body:16	395265.3	6143769.1	229.7	0.001579	2.77	474900	689222370	474.9	1451.3	87.5	1000	-1.08	2001SA001	Company	17	270	1.937

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:17	404114.2	6111630.7	171.9	0.001363	2.77	169450	103330610	338.9	609.8	135	500	-84.29	2001SA001	Company	18	270	1.979
Body:18	431230.6	6158108.4	362.8	0.007234	2.77	138800	206867520	69.4	1490.4	88.06	2000	-9.55	2001SA001	Company	19	270	1.86
Body:19	431432.9	6147686.2	333.6	0.000811	2.77	2518000	7038313600	1259	2795.2	98.51	2000	17.66	2001SA001	Company	20	270	2.116
Body:20	424768.3	6127094	532.5	0.007963	2.77	307250	266754450	122.9	868.2	94.45	2500	-3.58	2001SA001	Company	21	270	2.031
Body:21	420717.8	6124808.5	372.9	0.011106	2.77	47578	53239334.4	76.8	1119	93.6	619.5	-12.78	2001SA001	Company	22	270	1.973
Body:22	423406.6	6123887.7	220.2	0.002167	2.77	80750	43693825	161.5	541.1	133.59	500	-49.56	2001SA001	Company	23	270	2.349
Body:23	425533.6	6158967.6	374.4	0.001695	2.77	218134	233403283.7	154.3	1070	112.81	1413.7	-49.4	2001SA001	Company	24	270	1.931
Body:24	406837.1	6145216.6	254.7	0.001326	2.77	483600	533362440	483.6	1102.9	135	1000	-2.54	2001SA001	Company	25	270	1.926
Body:25	417394.7	6115707.4	217.5	0.001986	2.77	95838	79114070.88	171.2	825.5	134.1	559.8	-84.4	2001SA001	Company	26	270	1.874
Body:27	429972.8	6118150.5	168.5	0.00113	2.77	3732468	1560544770	1397.3	418.1	169.28	2671.2	-36.34	2001SA001	Company	28	270	1.456
Body:28	430218.1	6121436.1	276.6	0.00077	2.77	314600	433927780	157.3	1379.3	112.22	2000	-30.7	2001SA001	Company	29	270	1.931
Body:29	417925.7	6123450.4	234.8	0.000921	2.77	27734	8519823.36	34	307.2	151.92	815.7	-66.44	2001SA001	Company	30	270	1.664
Body:30	421024.1	6114456	280	0.001382	2.77	88242	94215513.61	103.4	1067.7	130.03	853.4	42.22	2001SA001	Company	31	270	1.971
Body:31	423177.2	6145281.6	319.7	0.003458	2.77	31231	22511665.2	44.3	720.8	41.99	705	35.7	2001SA001	Company	32	270	1.925
Body:32	423136.7	6143241.2	357.5	0.001987	2.77	63496	48060137.54	71.4	756.9	52.85	889.3	25.22	2001SA001	Company	33	270	1.867
Body:33	422892.1	6159653.5	662.8	0.003031	2.77	117642	394114005.2	76.7	3350.1	64.4	1533.8	69.52	2001SA001	Company	34	270	1.504
Body:34	414141.3	6158498.6	557.9	0.00646	2.77	48182	65248118.57	48.6	1354.2	68.43	991.4	64.11	2001SA001	Company	35	270	1.998
Body:35	417687.9	6155949.7	263	0.002187	2.77	144715	113818512.7	81.7	786.5	101.86	1771.3	12.06	2001SA001	Company	36	270	2.033
Body:36	418920.5	6152705.3	380.9	0.002809	2.77	80094	39310282.44	71.5	490.8	128.02	1120.2	29	2001SA001	Company	37	270	1.196
Body:37	423262.1	6137217.4	461.1	0.003138	2.77	1044000	286891200	522	274.8	9.43	2000	29.63	2001SA001	Company	38	270	1.91
Body:38	422937.8	6139729.4	383.5	0.00276	2.77	254400	221404320	127.2	870.3	141.72	2000	-24.94	2001SA001	Company	39	270	1.996
Body:39	406431.3	6123796.2	216.3	0.001372	2.77	149100	85479030	298.2	573.3	52.7	500	30.67	2001SA001	Company	40	270	1.992
Body:40	402188.3	6121137.1	335.1	0.002283	2.77	115982	152051785.8	214.9	1311	113.32	539.7	58.36	2001SA001	Company	41	270	1.062
Body:41	402939.4	6116552	269.8	0.00169	2.77	104302	50815934.4	172.4	487.2	69.87	605	35.15	2001SA001	Company	42	270	1.873
Body:42	405168.2	6119420.1	217.1	0.001959	2.77	195200	65528640	390.4	335.7	135	500	-27.63	2001SA001	Company	43	270	1.929
Body:43	405318.7	6117823.6	214	0.002049	2.77	149800	126251440	299.6	842.8	89.46	500	17.04	2001SA001	Company	44	270	1.98
Body:44	405464.6	6114451.6	296.8	0.004694	2.77	100500	86299350	201	858.7	86.85	500	18.43	2001SA001	Company	45	270	1.285
Body:45	423439.2	6123895.6	197.2	0.002442	2.77	65650	31800860	131.3	484.4	135	500	-29.01	2001SA001	Company	46	270	2.299
Body:46	419000.8	6118949.5	318.4	0.003959	2.77	51062	46379741.76	79.4	908.3	45.01	643.1	88.76	2001SA001	Company	47	270	1.974
Body:47	422062.9	6118852.3	306.9	0.003292	2.77	92595	75594198.78	119.2	816.4	44.8	776.8	62.74	2001SA001	Company	48	270	1.602
Body:48	419909.8	6123375.6	349.9	0.002483	2.77	120606	112585477	155.1	933.5	132.67	777.6	-62.69	2001SA001	Company	49	270	1.639
Body:49	445997.4	6147935.3	461.5	0.003167	2.77	183271	79484476.57	116.2	433.7	154.84	1577.2	9.93	2001SA001	Company	50	270	2.227
Body:50	437442.6	6148990.1	187.7	0.001983	2.77	112000	45651200	112	407.6	65.78	1000	26.57	2001SA001	Company	51	270	1.992
Body:51	449188.2	6158083.3	260.2	0.001816	2.77	730200	422274660	730.2	578.3	135	1000	-70.68	2001SA001	Company	52	270	1.91
Body:52	447559.1	6151251.8	235.4	0.000967	2.77	724300	277189610	724.3	382.7	76.01	1000	56.83	2001SA001	Company	53	270	1.752
Body:53	444321.3	6151710.4	516.1	0.005337	2.77	786900	669022380	262.3	850.2	37.27	3000	40.38	2001SA001	Company	54	270	2.246
Body:54	445838.4	6153906.4	348.4	0.003776	2.77	236963	50923376.64	713.1	214.9	90	332.3	73.98	2001SA001	Company	55	270	2.222
Body:55	435356.9	6146269.3	268.4	0.002047	2.77	475600	295347600	237.8	621	129.41	2000	-15.13	2001SA001	Company	56	270	1.974

Point	X	Y	Z	Suscept	Density	Area	Volume	T_Thicknes	T_DepthExt	T_Dip	T_Strikele	T_Azim	Survey	Code	Anomaly	Score	RMS
Body:56	435226	6141333.1	454.8	0.005387	2.77	264000	246338400	132	933.1	122.88	2000	6.29	2001SA001	Company	57	270	1.977
Body:57	435346.2	6143713.7	293.5	0.001588	2.77	94900	49727600	94.9	524	120.11	1000	2.16	2001SA001	Company	58	270	1.975
Body:58	439701.5	6145777	457.9	0.00188	2.77	112462	23864415.18	114.5	212.2	13.68	982.2	64.52	2001SA001	Company	59	270	2.298
Body:59	453641.8	6139344.8	306.1	0.001404	2.77	166800	221260200	166.8	1326.5	123.65	1000	-19.42	2001SA001	Company	60	270	2.29
Body:60	436582.6	6108830.7	323.8	0.001902	2.77	72616	71983844.28	69	991.3	124.4	1052.4	-58.72	2001SA001	Company	61	270	1.877
Body:61	431745.4	6107319.9	402.6	0.020479	2.77	20971	7270645.7	33.5	346.7	13.96	626	40.48	2001SA001	Company	62	270	2.099
Body:62	394105.4	6136095.4	159.8	0.000959	2.77	388300	231116160	388.3	595.2	45	1000	82.68	2001SA001	Company	63	270	1.995
Body:63	400362.7	6135337.4	283.4	0.006552	2.77	675500	969882900	675.5	1435.8	81.64	1000	34.06	2001SA001	Company	64	270	1.79
Body:64	400888.4	6141438.2	236.5	0.001718	2.77	521100	213442560	521.1	409.6	129.04	1000	0.37	2001SA001	Company	65	270	1.786
Body:65	401337.4	6138072.5	183.8	0.003066	2.77	342100	150934520	342.1	441.2	45	1000	26.11	2001SA001	Company	66	270	1.972
Body:66	403010	6133099.1	434.4	0.002817	2.77	491800	470701780	245.9	957.1	58.64	2000	27.26	2001SA001	Company	67	270	1.849
Body:67	405796.8	6140076	555.7	0.001783	2.77	470230	572081526	291.2	1216.6	115.64	1614.8	18.43	2001SA001	Company	68	270	1.774
Body:68	406754.6	6134440.1	281.1	0.002124	2.77	200300	263735010	200.3	1316.7	83.99	1000	31.49	2001SA001	Company	69	270	1.973
Body:69	391951	6118884.2	257	0.002759	2.77	411400	227010520	411.4	551.8	48.3	1000	8.58	2001SA001	Company	70	270	1.936
Body:70	390745.6	6125312.6	233.6	0.001494	2.77	143400	100480380	143.4	700.7	67.93	1000	37.76	2001SA001	Company	71	270	1.936
Body:71	396447.8	6124947.6	440.2	0.001492	2.77	1643698	2727223589	1131.4	1659.2	41.97	1452.8	69.73	2001SA001	Company	72	270	1.858
Body:72	393389.8	6122992.3	384.2	0.001741	2.77	1125400	1940527220	1125.4	1724.3	46.29	1000	34.82	2001SA001	Company	73	270	1.794
Body:73	398913.7	6156407.7	230.6	0.002962	2.77	97600	37771200	195.2	387	135	500	21.92	2001SA001	Company	74	270	2
Body:74	394672	6155416.6	413	0.006213	2.77	359817	852658439.7	536.8	2369.7	61.35	670.3	36.68	2001SA001	Company	75	270	1.954
Body:75	398311.8	6160656.2	352	0.006933	2.77	592728	481413974	552.3	812.2	152.75	1073.2	-1.19	2001SA001	Company	76	270	

APPENDIX 3. MAGNETISATION SOLUTIONS AND SOLID GEOLOGY

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:43	483867.6	6348551.7	160.9	0.001894	2.77	81.13	E1	E	Cambrian
Body:6	454112.5	6169146	1658.2	0.004283	2.77	47.74	1978SA005	ED	Cambrian-Devonian
Body:7	367160.7	6283028.4	310.7	0.011	2.77	131.9	1980SA011	ED	Cambrian-Devonian
Body:19	441535.6	6321267.6	394.3	0.014138	2.77	157.03	E1	ED	Cambrian-Devonian
Body:26	439277.1	6317032.3	174.9	0.003897	2.77	45	E1	ED	Cambrian-Devonian
Body	449209.3	6157923.5	378	0.002814	2.77	102.14	2001SA001	ED	Cambrian-Devonian
Body:7	443996.6	6128455.6	1040.7	0.003214	2.77	133.33	2001SA001	ED	Cambrian-Devonian
Body:19	431432.9	6147686.2	333.6	0.000811	2.77	98.51	2001SA001	ED	Cambrian-Devonian
Body:51	449188.2	6158083.3	260.2	0.001816	2.77	135	2001SA001	ED	Cambrian-Devonian
Body:52	447559.1	6151251.8	235.4	0.000967	2.77	76.01	2001SA001	ED	Cambrian-Devonian
Body:53	444321.3	6151710.4	516.1	0.005337	2.77	37.27	2001SA001	ED	Cambrian-Devonian
Body:54	445838.4	6153906.4	348.4	0.003776	2.77	90	2001SA001	ED	Cambrian-Devonian
Body:3	447129.7	6351492.3	224.3	0.003084	2.77	45	E1	Egn	Cambrian
Body:4	432098	6329122.1	488.1	0.041833	2.77	93.98	E1	Egn	Cambrian
Body:7	421434.4	6321443.3	118.8	0.003041	2.77	89.28	E1	Egn	Cambrian
Body:13	450379.1	6346481.2	281.6	0.002457	2.77	56.92	E1	Egn	Cambrian
Body:15	450379.1	6346481.2	281.6	0.002457	2.77	56.92	E1	Egn	Cambrian
Body:21	419446.8	6323456.6	430.7	0.003037	2.77	115.31	E1	Egn	Cambrian
Body:24	441361.7	6346065.7	187.6	0.005449	2.77	47.15	E1	Egn	Cambrian
Body:29	440328.1	6346753.2	95.5	0.00456	2.77	54.55	E1	Egn	Cambrian
Body:45	475553.4	6351844.5	48.6	0.002637	2.77	45	E1	Egn	Cambrian
Body:54	415870.3	6328328.6	73	0.002927	2.77	135	E1	Egn	Cambrian
Body:75	443809.1	6339715	278.6	0.004264	2.77	50.34	E1	Egn	Cambrian
Body:16	479070.3	6265237.4	2583	0.001106	2.77	48.15	1961SA003	Egnv	Cambrian
Body:17	486463	6287434.2	1031	0.000898	2.77	43.86	1961SA003	Egnv	Cambrian
Body:50	468447.8	6235220.6	1380.1	0.000796	2.77	140.41	1978SA005	Egnv	Cambrian
Body:16	373575.1	6119237.5	600.4	0.00465	2.77	124.83	1978SA005	Ek	Cambrian
Body:72	366020.1	6140251	566.4	0.005503	2.77	66.56	1978SA005	Ek	Cambrian
Body:78	366487.3	6127990	456.4	0.009562	2.77	59.31	1978SA005	Ek	Cambrian
Body:79	371198	6113763.9	345.4	0.005934	2.77	97.07	1978SA005	Ek	Cambrian
Body:80	370974.3	6123269.1	422.9	0.006158	2.77	77.69	1978SA005	Ek	Cambrian
Body:6	425791	5969319.2	415.5	0.001995	2.77	135	1994SA024	Ek	Cambrian
Body:7	421109.6	6007208.1	227.5	0.004543	2.77	122.25	1994SA024	Ek	Cambrian
Body:9	419349.8	5993305	308.5	0.00452	2.77	135	1994SA024	Ek	Cambrian
Body:15	414343.4	6037385.9	279.1	0.008539	2.77	148.95	1994SA024	Ek	Cambrian
Body:25	363241.1	6117809.8	221.9	0.004837	2.77	135	1994SA024	Ek	Cambrian
Body:31	369286.7	6100678.8	214	0.001943	2.77	60.49	1994SA024	Ek	Cambrian
Body:32	365384.7	6104185.3	105.6	0.004842	2.77	111.77	1994SA024	Ek	Cambrian
Body:64	358263.8	6187552.7	377.2	0.009671	2.77	123.12	1978SA005	Ek?	Cambrian
Body:65	357056.5	6205460.7	592.1	0.002372	2.77	45	1978SA005	Ek?	Cambrian
Body:66	359560.8	6192536.9	707.7	0.007627	2.77	51.95	1978SA005	Ek?	Cambrian
Body:68	364758.3	6173461.2	537.6	0.002406	2.77	138.62	1978SA005	Ek?	Cambrian
Body:18	360715.5	6242804.5	254.2	0.002653	2.77	88.22	1980SA011	Ek?	Cambrian

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:57	370181.2	6231354.5	384.9	0.003008	2.77	130.12	1978SA005	Ek4?	Cambrian
Body:58	373716.9	6222544.2	418.6	0.003571	2.77	135	1978SA005	Ek4?	Cambrian
Body:60	371788.3	6215160	489	0.003853	2.77	119.58	1978SA005	Ek4?	Cambrian
Body:17	370715.9	6240065.7	368.4	0.010954	2.77	74.24	1980SA011	Ek4?	Cambrian
Body:2	432419.9	6004019	338.4	-0.008862	2.77	135	1994SA024	Ek4?	Cambrian
Body:3	434119.2	5999460.1	415.2	-0.008124	2.77	45	1994SA024	Ek4?	Cambrian
Body:5	441956.3	5965070.9	238.3	0.00536	2.77	132.99	1994SA024	Ek4?	Cambrian
Body:11	430271.8	5971302.4	306.6	0.006466	2.77	132.11	1994SA024	Ek4?	Cambrian
Body:67	366289.6	6201298.5	358.5	0.012016	2.77	158.76	1978SA005	Enm	Cambrian
Body:74	362140.1	6150163.1	391.8	0.007105	2.77	119.24	1978SA005	Enm	Cambrian
Body:35	393530.4	6075680.7	769.9	0.006661	2.77	143.67	1978SA005	Eo9	Cambrian
Body:19	358355.5	6249683.6	455.6	0.002781	2.77	116.79	1980SA011	Eo9	Cambrian
Body:82	434361	6063393	1140.4	0.003339	2.77	147.58	1978SA005	EOd	Cambro-Ordovician
Body:4	360052.5	6310256.9	252.5	0.008941	2.77	126.81	1980SA011	EOd	Cambro-Ordovician
Body:20	347337	6242901.4	181.9	0.005247	2.77	32.04	1980SA011	EOd	Cambro-Ordovician
Body:21	354799.4	6242855.9	189.5	0.004057	2.77	130.21	1980SA011	EOd	Cambro-Ordovician
Body:22	350595.2	6242315.7	166.1	0.004528	2.77	135	1980SA011	EOd	Cambro-Ordovician
Body:20	430141.2	6310210.4	262.5	0.006993	2.77	101.69	E1	EOd1	Cambro-Ordovician
Body:27	424704.6	6310905.6	645.1	0.00988	2.77	64.86	E1	EOd1	Cambro-Ordovician
Body:28	426551	6314311.5	133.1	0.003694	2.77	127.01	E1	EOd1	Cambro-Ordovician
Body:61	352721.6	6215382.7	705.6	0.005582	2.77	132.08	1978SA005	EOd19	Cambro-Ordovician
Body:9	367414.2	6286001.3	165.7	0.005307	2.77	97.58	1980SA011	EOd19	Cambro-Ordovician
Body:15	371405.6	6271639.7	353.2	0.004004	2.77	110.59	1980SA011	EOd19	Cambro-Ordovician
Body:30	399244.6	6173980.3	877.4	0.004274	2.77	88.57	1978SA005	EOd25	Cambro-Ordovician
Body:5	358071.2	6315331.3	115.2	0.005513	2.77	135	1980SA011	EOd25	Cambro-Ordovician
Body:13	352932.6	6272044.5	131	0.004439	2.77	135	1980SA011	EOd25	Cambro-Ordovician
Body:13	401008	6031964.4	219.7	0.009708	2.77	162.36	1994SA024	EOd25	Cambro-Ordovician
Body:18	392104.7	6110199.6	261.4	0.001799	2.77	82.03	1994SA024	EOd25	Cambro-Ordovician
Body:3	426173.4	6102723.3	603.7	0.00248	2.77	137.72	1998SA003	EOd25	Cambro-Ordovician
Body:4	429651.6	6097242.1	275.8	0.001316	2.77	113.57	1998SA003	EOd25	Cambro-Ordovician
Body:5	430589.5	6100369.7	674.6	0.00135	2.77	45	1998SA003	EOd25	Cambro-Ordovician
Body:6	428790.9	6101348	611.4	0.004358	2.77	167.43	1998SA003	EOd25	Cambro-Ordovician
Body:15	394908.8	6151180.5	208.1	0.001882	2.77	35.47	2001SA001	EOd25	Cambro-Ordovician
Body:27	429972.8	6118150.5	168.5	0.00113	2.77	169.28	2001SA001	EOd25	Cambro-Ordovician
Body:28	430218.1	6121436.1	276.6	0.00077	2.77	112.22	2001SA001	EOd25	Cambro-Ordovician
Body:30	421024.1	6114456	280	0.001382	2.77	130.03	2001SA001	EOd25	Cambro-Ordovician
Body:50	437442.6	6148990.1	187.7	0.001983	2.77	65.78	2001SA001	EOd25	Cambro-Ordovician
Body:58	439701.5	6145777	457.9	0.00188	2.77	13.68	2001SA001	EOd25	Cambro-Ordovician
Body:60	436582.6	6108830.7	323.8	0.001902	2.77	124.4	2001SA001	EOd25	Cambro-Ordovician
Body:61	431745.4	6107319.9	402.6	0.020479	2.77	13.96	2001SA001	EOd25	Cambro-Ordovician
Body:74	394672	6155416.6	413	0.006213	2.77	61.35	2001SA001	EOd25	Cambro-Ordovician
Body:75	398311.8	6160656.2	352	0.006933	2.77	152.75	2001SA001	EOd25	Cambro-Ordovician
Body:14	402851.8	6028404.2	245.4	0.00552	2.77	98.72	1994SA024	EOd26	Cambro-Ordovician
Body:33	402993.6	6090529.9	774.3	0.012975	2.77	141.84	1978SA005	EOd31	Cambro-Ordovician
Body:36	427152.8	6180508.6	863.2	0.003166	2.77	61.52	1978SA005	EOd31	Cambro-Ordovician
Body:1	429433.1	6001380.5	241	0.004593	2.77	71.71	1994SA024	EOd31	Cambro-Ordovician

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:8	423099.8	6007886.1	328.2	0.007338	2.77	22.47	1994SA024	EOd31	Cambro-Ordovician
Body:10	417536.2	5981639.5	221.7	0.003999	2.77	107.95	1994SA024	EOd31	Cambro-Ordovician
Body:2	488145.7	6354478.6	162.6	0.006036	2.77	84.45	E1	EOd31	Cambro-Ordovician
Body:14	479776	6351034.3	0.7	0.003031	2.77	156.32	E1	EOd31	Cambro-Ordovician
Body:16	487243.2	6352506	94.3	0.003793	2.77	66.54	E1	EOd31	Cambro-Ordovician
Body:17	484011.3	6342812	192.2	0.006565	2.77	20.31	E1	EOd31	Cambro-Ordovician
Body:22	457702.4	6335210.1	66.1	0.001849	2.77	29.58	E1	EOd31	Cambro-Ordovician
Body:42	485032.4	6354265.6	220	0.006697	2.77	103.49	E1	EOd31	Cambro-Ordovician
Body:46	472184.8	6344482.8	113.1	0.003572	2.77	45	E1	EOd31	Cambro-Ordovician
Body:5	424601.3	6132773.6	402.5	0.003126	2.77	140.65	2001SA001	EOd31	Cambro-Ordovician
Body:18	431230.6	6158108.4	362.8	0.007234	2.77	88.06	2001SA001	EOd31	Cambro-Ordovician
Body:20	424768.3	6127094	532.5	0.007963	2.77	94.45	2001SA001	EOd31	Cambro-Ordovician
Body:21	420717.8	6124808.5	372.9	0.011106	2.77	93.6	2001SA001	EOd31	Cambro-Ordovician
Body:22	423406.6	6123887.7	220.2	0.002167	2.77	133.59	2001SA001	EOd31	Cambro-Ordovician
Body:23	425533.6	6158967.6	374.4	0.001695	2.77	112.81	2001SA001	EOd31	Cambro-Ordovician
Body:31	423177.2	6145281.6	319.7	0.003458	2.77	41.99	2001SA001	EOd31	Cambro-Ordovician
Body:32	423136.7	6143241.2	357.5	0.001987	2.77	52.85	2001SA001	EOd31	Cambro-Ordovician
Body:33	422892.1	6159653.5	662.8	0.003031	2.77	64.4	2001SA001	EOd31	Cambro-Ordovician
Body:37	423262.1	6137217.4	461.1	0.003138	2.77	9.43	2001SA001	EOd31	Cambro-Ordovician
Body:38	422937.8	6139729.4	383.5	0.00276	2.77	141.72	2001SA001	EOd31	Cambro-Ordovician
Body:45	423439.2	6123895.6	197.2	0.002442	2.77	135	2001SA001	EOd31	Cambro-Ordovician
Body:47	422062.9	6118852.3	306.9	0.003292	2.77	44.8	2001SA001	EOd31	Cambro-Ordovician
Body	409829.7	6056680.4	435.2	0.005242	2.77	138.7	1994SA024	EOd4	Cambro-Ordovician
Body:12	400320.8	6016161.6	92.2	0.002988	2.77	29.67	1994SA024	EOd9?	Cambro-Ordovician
Body:72	445156.2	6391786.3	-90.7	0.002827	2.77	98.42	E1	EOda	Cambro-Ordovician
Body:73	445975.7	6395823.8	-54	0.009391	2.77	46.49	E1	EOda	Cambro-Ordovician
Body:27	347232.8	6117373.1	378.7	0.006293	2.77	134.88	1994SA024	EOdy	Cambro-Ordovician
Body:33	359971.4	6105656.5	164.3	0.002613	2.77	89.98	1994SA024	EOdy	Cambro-Ordovician
Body:34	357765	6101434.5	178.9	0.002113	2.77	54.68	1994SA024	EOdy	Cambro-Ordovician
Body:35	355793.5	6105047.6	216.9	0.006006	2.77	135	1994SA024	EOdy	Cambro-Ordovician
Body:36	353866.8	6108740.1	336.3	0.003311	2.77	79.5	1994SA024	EOdy	Cambro-Ordovician
Body:37	356632.3	6108162.1	117.2	0.006796	2.77	90.36	1994SA024	EOdy	Cambro-Ordovician
Body:38	352249.8	6104561.3	153.3	0.005199	2.77	45	1994SA024	EOdy	Cambro-Ordovician
Body:26	349295.9	6122649	541.6	0.015706	2.77	104.19	1994SA024	EOdy?	Cambro-Ordovician
Body:28	341301.1	6116086.7	291.8	0.004642	2.77	129.02	1994SA024	EOdy?	Cambro-Ordovician
Body:1	434539.2	6251961.2	1995.4	0.001548	2.77	58.41	1961SA003	Epo	Cambrian
Body:4	483630.6	6317860.8	780.6	0.002621	2.77	128.15	1961SA003	Epo	Cambrian
Body:20	443140.8	6299229.2	683	0.001357	2.77	141.32	1961SA003	Epo	Cambrian
Body:21	452220.7	6305974.9	969	0.004219	2.77	48.05	1961SA003	Epo	Cambrian
Body:6	466190.4	6312632	792.2	0.00137	2.77	45	1961SA003	Epov	Cambrian
Body:22	458969.5	6297866.1	1122.3	0.00237	2.77	137.84	1961SA003	Epov	Cambrian
Body:8	446359.8	6314354.8	103.8	0.003907	2.77	159.48	E1	Epov	Cambrian
Body:11	499289.9	6343401.2	246.7	0.006554	2.77	78.52	E1	Epov	Cambrian
Body:18	449859.4	6318270.6	227.8	0.004983	2.77	48.83	E1	Epov	Cambrian
Body	438541.3	6282991.3	1933.5	0.000584	2.77	130.09	1961SA003	Epov?	Cambrian
Body:9	490483.5	6343377.1	-7.6	0.001738	2.77	142.65	E1	Ete	Cambrian

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:10	492980.1	6344968.7	211.2	0.005398	2.77	89.39	E1	Ete	Cambrian
Body:12	485719.1	6370770.2	55.8	0.001342	2.77	74.24	E1	Ete	Cambrian
Body:23	460624	6360679.7	295.7	0.00371	2.77	41.75	E1	Ete	Cambrian
Body:35	474279.6	6371285.6	170.3	0.004898	2.77	45	E1	Ete	Cambrian
Body:41	481277.3	6361044.4	55.3	0.006907	2.77	115.76	E1	Ete	Cambrian
Body:44	460506.8	6356337	180.2	0.00047	2.77	46.62	E1	Ete	Cambrian
Body:76	444895.7	6331669.3	279.4	0.002245	2.77	93.87	E1	Ete	Cambrian
Body	477015.7	6414360.8	-29.9	0.007325	2.77	52.54	SAEI	Lw	Paleoproterozoic
Body:1	469239.1	6414370.5	-46.1	0.010796	2.77	113.51	SAEI	Lw	Paleoproterozoic
Body:2	474378.2	6413579.4	77.1	0.00506	2.77	92.21	SAEI	Lw	Paleoproterozoic
Body:3	494581.9	6407767.9	-62.2	0.005137	2.77	33.31	SAEI	Lw	Paleoproterozoic
Body:5	497431.1	6410353.9	-28.7	0.004547	2.77	51.4	SAEI	Lw	Paleoproterozoic
Body:11	374390.5	6309361	403	0.00553	2.77	66.62	1961SA003	Nb	Neoproterozoic
Body	366665.2	6306245.7	217.2	0.003239	2.77	44.86	1980SA011	Nb	Neoproterozoic
Body:1	368109	6301717.8	210.6	0.003166	2.77	160.79	1980SA011	Nb	Neoproterozoic
Body:2	371820.2	6296264.9	79.3	0.004425	2.77	127.1	1980SA011	Nb	Neoproterozoic
Body:5	359578.7	6354342.4	-21.3	0.005018	2.77	95.77	1984SA011	Nb	Neoproterozoic
Body:31	496796.5	6401232.5	-21.7	0.002749	2.77	33.51	E1	Nb	Neoproterozoic
Body:32	494110.2	6393401.6	-87.2	0.022154	2.77	173.69	E1	Nb	Neoproterozoic
Body:34	473695.6	6383282.3	12.7	0.009425	2.77	72.95	E1	Nb	Neoproterozoic
Body:39	462223.7	6383374.8	-5	0.002312	2.77	80.91	E1	Nb	Neoproterozoic
Body:40	474314.6	6392854.8	-95.6	0.001413	2.77	68.67	E1	Nb	Neoproterozoic
Body:48	407424.2	6345379.4	12.1	0.007344	2.77	135	E1	Nb	Neoproterozoic
Body:50	399516.2	6340600.4	-43.3	0.003515	2.77	135.1	E1	Nb	Neoproterozoic
Body:51	395447	6338635.9	-70.5	0.003903	2.77	58.91	E1	Nb	Neoproterozoic
Body:53	409929.5	6348697.3	226.5	0.019801	2.77	131.83	E1	Nb	Neoproterozoic
Body:56	404162.8	6343448.6	30.5	0.008458	2.77	108.53	E1	Nb	Neoproterozoic
Body:7	396574.4	6371654.1	-7	0.001327	2.77	45	1993SA016	Nds	Neoproterozoic
Body:69	431632.9	6397849.6	-82.5	0.001479	2.77	81.49	E1	Nds	Neoproterozoic
Body:1	366200.7	6362685.8	-106.7	0.008675	2.77	15.06	1984SA011	Ne	Neoproterozoic
Body:2	360463.8	6360659.4	-102.9	0.004252	2.77	135	1984SA011	Ne	Neoproterozoic
Body:4	356408.4	6364139.6	-131.8	0.001854	2.77	55.73	1984SA011	Ne	Neoproterozoic
Body:8	407601.5	6257046.2	1068	0.002506	2.77	124.4	1961SA003	NE1	Neoproterozoic-Cambrian
Body:9	407205.8	6248491.3	769.4	0.004456	2.77	45	1961SA003	NE1	Neoproterozoic-Cambrian
Body:1	381526	6152228.4	487.9	0.012569	2.77	35.2	1978SA005	NE1	Neoproterozoic-Cambrian
Body:2	391867.4	6189405.3	843.7	0.002328	2.77	45	1978SA005	NE1	Neoproterozoic-Cambrian
Body:12	419594.5	6093932.5	833.7	0.006415	2.77	152.62	1978SA005	NE1	Neoproterozoic-Cambrian
Body:13	405191.4	6100663.8	1322.1	0.007775	2.77	41.71	1978SA005	NE1	Neoproterozoic-Cambrian
Body:17	376887.8	6115769.7	484.5	0.002568	2.77	61.27	1978SA005	NE1	Neoproterozoic-Cambrian
Body:18	454668	6108618.7	926.3	0.005149	2.77	121.19	1978SA005	NE1	Neoproterozoic-Cambrian
Body:19	454114.6	6100096.8	651.5	0.004939	2.77	89.37	1978SA005	NE1	Neoproterozoic-Cambrian
Body:29	393567.6	6210752.4	1418.1	0.006899	2.77	93.22	1978SA005	NE1	Neoproterozoic-Cambrian
Body:39	415989	6169186.8	975.5	0.002927	2.77	162.1	1978SA005	NE1	Neoproterozoic-Cambrian
Body:40	433951.6	6177231.5	903.2	0.010933	2.77	135	1978SA005	NE1	Neoproterozoic-Cambrian
Body:41	441831.8	6176489.7	1232.1	0.01316	2.77	154.93	1978SA005	NE1	Neoproterozoic-Cambrian
Body:42	454497.6	6108358.1	1262.3	0.002696	2.77	107.35	1978SA005	NE1	Neoproterozoic-Cambrian

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:51	403015.9	6234584.3	1055.5	0.003376	2.77	11.64	1978SA005	NE1	Neoproterozoic-Cambrian
Body:52	399156.7	6221213.5	891.6	0.001296	2.77	80.04	1978SA005	NE1	Neoproterozoic-Cambrian
Body:56	391342	6236352.1	1448.7	0.003245	2.77	62.87	1978SA005	NE1	Neoproterozoic-Cambrian
Body:69	379861.8	6173621.7	802.2	0.001989	2.77	139.23	1978SA005	NE1	Neoproterozoic-Cambrian
Body:70	385074.3	6163737.7	473.5	0.002193	2.77	53.9	1978SA005	NE1	Neoproterozoic-Cambrian
Body:71	382305	6159588.3	535	0.001659	2.77	143.67	1978SA005	NE1	Neoproterozoic-Cambrian
Body:75	369083.2	6148523.4	329	0.003886	2.77	120.14	1978SA005	NE1	Neoproterozoic-Cambrian
Body:76	375834.4	6128417.4	736.6	0.003282	2.77	138.4	1978SA005	NE1	Neoproterozoic-Cambrian
Body:77	380472.2	6137864	540.4	0.002405	2.77	112.64	1978SA005	NE1	Neoproterozoic-Cambrian
Body:83	421123.3	6066754.4	528.9	0.002672	2.77	109.72	1978SA005	NE1	Neoproterozoic-Cambrian
Body:84	421719.9	6060952	1327.5	0.007627	2.77	133.99	1978SA005	NE1	Neoproterozoic-Cambrian
Body:14	371237.3	6281180.3	248.9	0.004295	2.77	119.65	1980SA011	NE1	Neoproterozoic-Cambrian
Body:20	407881.2	6106911.7	869.1	0.003628	2.77	140.18	1994SA024	NE1	Neoproterozoic-Cambrian
Body	438153.7	6100917.8	548.8	0.004623	2.77	135.3	1998SA003	NE1	Neoproterozoic-Cambrian
Body:1	446425.1	6092066.6	289.9	0.001396	2.77	122.81	1998SA003	NE1	Neoproterozoic-Cambrian
Body:2	436698.5	6094493.5	373.1	0.005358	2.77	139.11	1998SA003	NE1	Neoproterozoic-Cambrian
Body:9	453781.4	6098279.1	321	0.001412	2.77	101.57	1998SA003	NE1	Neoproterozoic-Cambrian
Body:10	455165.8	6103277.5	356.9	0.001187	2.77	135	1998SA003	NE1	Neoproterozoic-Cambrian
Body:11	451292.9	6083929.6	379.5	0.002565	2.77	101.47	1998SA003	NE1	Neoproterozoic-Cambrian
Body:12	469421.2	6077246	330.3	0.001891	2.77	126.28	1998SA003	NE1	Neoproterozoic-Cambrian
Body:13	461456	6081301.8	301.4	0.003545	2.77	127.29	1998SA003	NE1	Neoproterozoic-Cambrian
Body:14	459405.5	6085562	304.2	0.003454	2.77	125.95	1998SA003	NE1	Neoproterozoic-Cambrian
Body:25	423638.9	6343243.8	112.2	0.003032	2.77	36.03	E1	NE1	Neoproterozoic-Cambrian
Body:36	458535.7	6370582.4	207.4	0.003662	2.77	131.43	E1	NE1	Neoproterozoic-Cambrian
Body:47	444116.3	6355536.5	464.2	0.00688	2.77	131.21	E1	NE1	Neoproterozoic-Cambrian
Body:55	410905.4	6341615.5	111.1	0.002575	2.77	57.82	E1	NE1	Neoproterozoic-Cambrian
Body:1	446777.4	6139246.6	337.1	0.001337	2.77	130.24	2001SA001	NE1	Neoproterozoic-Cambrian
Body:2	429024	6153029.6	357.5	0.002258	2.77	131.02	2001SA001	NE1	Neoproterozoic-Cambrian
Body:10	407978.6	6107005.6	389.1	0.00216	2.77	161.48	2001SA001	NE1	Neoproterozoic-Cambrian
Body:25	417394.7	6115707.4	217.5	0.001986	2.77	134.1	2001SA001	NE1	Neoproterozoic-Cambrian
Body:29	417925.7	6123450.4	234.8	0.000921	2.77	151.92	2001SA001	NE1	Neoproterozoic-Cambrian
Body:34	414141.3	6158498.6	557.9	0.00646	2.77	68.43	2001SA001	NE1	Neoproterozoic-Cambrian
Body:35	417687.9	6155949.7	263	0.002187	2.77	101.86	2001SA001	NE1	Neoproterozoic-Cambrian
Body:36	418920.5	6152705.3	380.9	0.002809	2.77	128.02	2001SA001	NE1	Neoproterozoic-Cambrian
Body:46	419000.8	6118949.5	318.4	0.003959	2.77	45.01	2001SA001	NE1	Neoproterozoic-Cambrian
Body:48	419909.8	6123375.6	349.9	0.002483	2.77	132.67	2001SA001	NE1	Neoproterozoic-Cambrian
Body:49	445997.4	6147935.3	461.5	0.003167	2.77	154.84	2001SA001	NE1	Neoproterozoic-Cambrian
Body:55	435356.9	6146269.3	268.4	0.002047	2.77	129.41	2001SA001	NE1	Neoproterozoic-Cambrian
Body:56	435226	6141333.1	454.8	0.005387	2.77	122.88	2001SA001	NE1	Neoproterozoic-Cambrian
Body:57	435346.2	6143713.7	293.5	0.001588	2.77	120.11	2001SA001	NE1	Neoproterozoic-Cambrian
Body:59	453641.8	6139344.8	306.1	0.001404	2.77	123.65	2001SA001	NE1	Neoproterozoic-Cambrian
Body:2	449970.3	6244188.9	1637.1	0.003356	2.77	146.51	1961SA003	NE2	Neoproterozoic-Cambrian
Body:3	439438.3	6239172.9	1133.3	0.00592	2.77	56.85	1961SA003	NE2	Neoproterozoic-Cambrian
Body:5	485107	6301381.1	1349.4	0.004501	2.77	59.86	1961SA003	NE2	Neoproterozoic-Cambrian
Body:7	497791.7	6312714.6	774.9	0.000948	2.77	33.05	1961SA003	NE2	Neoproterozoic-Cambrian
Body	387270.9	6157719.2	670.8	0.000647	2.77	123.03	1978SA005	NE2	Neoproterozoic-Cambrian

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:3	431164.9	6204679.3	1131.8	0.003513	2.77	144.87	1978SA005	NE2	Neoproterozoic-Cambrian
Body:4	411744.1	6187783.9	1213	0.002359	2.77	83.12	1978SA005	NE2	Neoproterozoic-Cambrian
Body:5	422870.4	6198778	526.9	0.000643	2.77	162.57	1978SA005	NE2	Neoproterozoic-Cambrian
Body:15	387361.2	6130996	508.5	0.001969	2.77	88.75	1978SA005	NE2	Neoproterozoic-Cambrian
Body:34	384851.1	6091920.1	472	0.011	2.77	105.09	1978SA005	NE2	Neoproterozoic-Cambrian
Body:37	420684.8	6189239.4	1033.1	0.005281	2.77	147.55	1978SA005	NE2	Neoproterozoic-Cambrian
Body:38	416899.1	6183663.8	1030.4	0.008889	2.77	102.54	1978SA005	NE2	Neoproterozoic-Cambrian
Body:49	441243	6234553.2	1227	0.00528	2.77	135	1978SA005	NE2	Neoproterozoic-Cambrian
Body:59	356700	6215241.7	590	0.009061	2.77	76.64	1978SA005	NE2	Neoproterozoic-Cambrian
Body:63	357238.2	6232353	298.1	0.004207	2.77	87.36	1978SA005	NE2	Neoproterozoic-Cambrian
Body:81	380958.3	6126315.3	402.4	0.002415	2.77	99.98	1978SA005	NE2	Neoproterozoic-Cambrian
Body:16	388556.8	6111565.8	476.3	0.002339	2.77	77.44	1994SA024	NE2	Neoproterozoic-Cambrian
Body:1:1	392023.1	6119054.5	395.4	0.003781	2.77	70.27	1994SA024	NE2	Neoproterozoic-Cambrian
Body:17	402238.6	6121138.2	516.2	0.004604	2.77	131.19	1994SA024	NE2	Neoproterozoic-Cambrian
Body:19	388705.6	6121436.2	204.4	0.001603	2.77	45	1994SA024	NE2	Neoproterozoic-Cambrian
Body:21	404986	6112926.9	529	0.011	2.77	97.68	1994SA024	NE2	Neoproterozoic-Cambrian
Body:22	380086.8	6120899.9	232.3	0.002173	2.77	112.02	1994SA024	NE2	Neoproterozoic-Cambrian
Body:23	388481.2	6109126.6	415.8	0.000992	2.77	45	1994SA024	NE2	Neoproterozoic-Cambrian
Body:29	377036.7	6102602.2	275.5	0.007394	2.77	78.55	1994SA024	NE2	Neoproterozoic-Cambrian
Body:30	385195.9	6092960.5	181.5	0.011	2.77	114.82	1994SA024	NE2	Neoproterozoic-Cambrian
Body:3	406359.3	6150071.2	450.1	0.002204	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:4	401507.2	6128358.1	590.5	0.010599	2.77	148.09	2001SA001	NE2	Neoproterozoic-Cambrian
Body:6	409705.1	6134570.3	340.7	0.001965	2.77	69.89	2001SA001	NE2	Neoproterozoic-Cambrian
Body:11	402141.1	6121198.6	276.1	0.001998	2.77	83.61	2001SA001	NE2	Neoproterozoic-Cambrian
Body:12	406444.6	6123795.4	259.5	0.004842	2.77	52.71	2001SA001	NE2	Neoproterozoic-Cambrian
Body:13	406336.4	6159808.7	420.7	0.001373	2.77	138.25	2001SA001	NE2	Neoproterozoic-Cambrian
Body:14	398183	6144482.3	194.2	0.004422	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:16	395265.3	6143769.1	229.7	0.001579	2.77	87.5	2001SA001	NE2	Neoproterozoic-Cambrian
Body:17	404114.2	6111630.7	171.9	0.001363	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:24	406837.1	6145216.6	254.7	0.001326	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:39	406431.3	6123796.2	216.3	0.001372	2.77	52.7	2001SA001	NE2	Neoproterozoic-Cambrian
Body:40	402188.3	6121137.1	335.1	0.002283	2.77	113.32	2001SA001	NE2	Neoproterozoic-Cambrian
Body:41	402939.4	6116552	269.8	0.00169	2.77	69.87	2001SA001	NE2	Neoproterozoic-Cambrian
Body:42	405168.2	6119420.1	217.1	0.001959	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:43	405318.7	6117823.6	214	0.002049	2.77	89.46	2001SA001	NE2	Neoproterozoic-Cambrian
Body:44	405464.6	6114451.6	296.8	0.004694	2.77	86.85	2001SA001	NE2	Neoproterozoic-Cambrian
Body:62	394105.4	6136095.4	159.8	0.000959	2.77	45	2001SA001	NE2	Neoproterozoic-Cambrian
Body:63	400362.7	6135337.4	283.4	0.006552	2.77	81.64	2001SA001	NE2	Neoproterozoic-Cambrian
Body:64	400888.4	6141438.2	236.5	0.001718	2.77	129.04	2001SA001	NE2	Neoproterozoic-Cambrian
Body:65	401337.4	6138072.5	183.8	0.003066	2.77	45	2001SA001	NE2	Neoproterozoic-Cambrian
Body:66	403010	6133099.1	434.4	0.002817	2.77	58.64	2001SA001	NE2	Neoproterozoic-Cambrian
Body:67	405796.8	6140076	555.7	0.001783	2.77	115.64	2001SA001	NE2	Neoproterozoic-Cambrian
Body:68	406754.6	6134440.1	281.1	0.002124	2.77	83.99	2001SA001	NE2	Neoproterozoic-Cambrian
Body:69	391951	6118884.2	257	0.002759	2.77	48.3	2001SA001	NE2	Neoproterozoic-Cambrian
Body:70	390745.6	6125312.6	233.6	0.001494	2.77	67.93	2001SA001	NE2	Neoproterozoic-Cambrian
Body:71	396447.8	6124947.6	440.2	0.001492	2.77	41.97	2001SA001	NE2	Neoproterozoic-Cambrian

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:72	393389.8	6122992.3	384.2	0.001741	2.77	46.29	2001SA001	NE2	Neoproterozoic-Cambrian
Body:73	398913.7	6156407.7	230.6	0.002962	2.77	135	2001SA001	NE2	Neoproterozoic-Cambrian
Body:7	468353.1	6160173.2	1425.2	0.006107	2.77	45.42	1978SA005	NE3	Neoproterozoic-Cambrian
Body:8	461694.1	6132860.6	810.6	0.007128	2.77	139.96	1978SA005	NE3	Neoproterozoic-Cambrian
Body:9	477242.9	6115121.8	473.1	0.001515	2.77	135	1978SA005	NE3	Neoproterozoic-Cambrian
Body:10	466946.5	6111734.8	856.4	0.002656	2.77	141.17	1978SA005	NE3	Neoproterozoic-Cambrian
Body:11	477577.7	6106428.3	616.8	0.003894	2.77	133.88	1978SA005	NE3	Neoproterozoic-Cambrian
Body:20	488069.5	6153266.5	1936	0.005724	2.77	59.6	1978SA005	NE3	Neoproterozoic-Cambrian
Body:22	492095.7	6124073.1	1262.2	0.010903	2.77	103.88	1978SA005	NE3	Neoproterozoic-Cambrian
Body:23	496219.4	6144960.3	1405	0.003367	2.77	134.3	1978SA005	NE3	Neoproterozoic-Cambrian
Body:24	490651.1	6133188.6	1679.6	0.005929	2.77	45	1978SA005	NE3	Neoproterozoic-Cambrian
Body:25	482233.7	6145402.3	678.2	0.00203	2.77	121.36	1978SA005	NE3	Neoproterozoic-Cambrian
Body:27	472365.8	6115164.5	948.8	0.002114	2.77	134.96	1978SA005	NE3	Neoproterozoic-Cambrian
Body:28	471096.2	6093959.5	795.3	0.00222	2.77	79.89	1978SA005	NE3	Neoproterozoic-Cambrian
Body:31	382521.7	6213303.4	754	0.01963	2.77	111.8	1978SA005	NE3	Neoproterozoic-Cambrian
Body:32	374969	6190232.7	1598.4	0.016596	2.77	95.49	1978SA005	NE3	Neoproterozoic-Cambrian
Body:43	466685.1	6111687.1	896	0.001925	2.77	39.58	1978SA005	NE3	Neoproterozoic-Cambrian
Body:45	467681.7	6100105.5	834.6	0.00074	2.77	106.6	1978SA005	NE3	Neoproterozoic-Cambrian
Body:46	487731.5	6171792.7	1051.6	0.002367	2.77	140.79	1978SA005	NE3	Neoproterozoic-Cambrian
Body:48	470058.3	6199394.4	1915.8	0.001581	2.77	122.88	1978SA005	NE3	Neoproterozoic-Cambrian
Body:53	464657.8	6180938.2	1439.8	0.006698	2.77	144.19	1978SA005	NE3	Neoproterozoic-Cambrian
Body:54	478283.7	6171859.5	892.3	0.000696	2.77	140.18	1978SA005	NE3	Neoproterozoic-Cambrian
Body:55	381132.9	6224807.5	585.6	0.009973	2.77	124.25	1978SA005	NE3	Neoproterozoic-Cambrian
Body:73	365969.9	6156319	273.8	0.003111	2.77	91.79	1978SA005	NE3	Neoproterozoic-Cambrian
Body:7	470181.4	6096292.6	450.2	0.001857	2.77	129.23	1998SA003	NE3	Neoproterozoic-Cambrian
Body:8	466806	6101747.5	364.2	0.00147	2.77	97.79	1998SA003	NE3	Neoproterozoic-Cambrian
Body:15	477360.8	6106812.4	508.6	0.005741	2.77	146.37	1998SA003	NE3	Neoproterozoic-Cambrian
Body:16	488955.9	6104766.5	285.2	0.004418	2.77	155.15	1998SA003	NE3	Neoproterozoic-Cambrian
Body:17	491362.7	6090367	385.2	0.003024	2.77	166.91	1998SA003	NE3	Neoproterozoic-Cambrian
Body:18	491722.6	6084223.1	472	0.002603	2.77	134.05	1998SA003	NE3	Neoproterozoic-Cambrian
Body:19	488459	6088668.4	582.5	0.014566	2.77	13.17	1998SA003	NE3	Neoproterozoic-Cambrian
Body:9	457504	6149712.5	346.2	0.003277	2.77	66.93	2001SA001	NE3	Neoproterozoic-Cambrian
Body:13	359129.9	6327425.5	-104.1	0.002207	2.77	145.84	1984SA011	Nek	Neoproterozoic
Body	394458.87	6385238.3	270.466	0.00868	2.77	105.97745	1993SA016	Nek	Neoproterozoic
Body:11	379082.6	6380965.8	290.3	0.004328	2.77	100.7	1993SA016	Nek	Neoproterozoic
Body:9	352878.8	6340559	-63.5	0.002052	2.77	45	1984SA011	Nep	Neoproterozoic
Body:6	355151.5	6358195	-80.8	0.001592	2.77	76.84	1984SA011	Ni	Neoproterozoic
Body:12	361684.8	6369749.7	-170.7	0.002845	2.77	85.87	1993SA016	Nk	Neoproterozoic
Body:2	408265.1	6388315.7	-151	0.002968	2.77	162.47	1993SA016	Nl	Neoproterozoic
Body:3	409772.8	6390214.7	-198.7	0.003192	2.77	64.04	1993SA016	Nl	Neoproterozoic
Body:61	416309.1	6395291.1	-336	0.001758	2.77	45	E1	Nl	Neoproterozoic
Body:65	406611	6369701.6	-159.7	0.025601	2.77	92.97	E1	Nl	Neoproterozoic
Body:70	426714	6398825	-265.4	0.001635	2.77	61.36	E1	Nl	Neoproterozoic
Body	361045	6365112.6	-99.1	0.002409	2.77	96.06	1984SA011	Nnt	Neoproterozoic
Body:82	461174.9	6418689.3	-80.6	0.003276	2.77	95.2	E1	Nnt	Neoproterozoic
Body	466703	6369288.2	49.3	0.002899	2.77	74.23	E1	NPgrk	Neoproterozoic

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:30	498307.8	6385900.3	101.5	0.002167	2.77	50.18	E1	NPgrk	Neoproterozoic
Body:37	485116.6	6384921	-371.9	-0.004673	2.77	175.35	E1	NPgrk	Neoproterozoic
Body:38	476493.6	6377125.2	202.6	0.002448	2.77	40.93	E1	NPgrk	Neoproterozoic
Body:8	359792.2	6285295.1	197.1	0.008777	2.77	107.31	1980SA011	Nsu	Neoproterozoic
Body:3	354354.3	6362225.7	-133.4	0.001002	2.77	71.68	1984SA011	Nsu	Neoproterozoic
Body:8	352264.8	6348353.7	-211.4	0.001532	2.77	70.82	1984SA011	Nsu	Neoproterozoic
Body:10	356169	6337292.4	-92	0.001642	2.77	68.27	1984SA011	Nsu	Neoproterozoic
Body:15	353198.2	6322136.1	56.9	0.003477	2.77	45	1984SA011	Nsu	Neoproterozoic
Body:16	357155.2	6322362.1	-28.8	0.007214	2.77	165.91	1984SA011	Nsu	Neoproterozoic
Body:8	376183.2	6385329.4	118.6	0.00414	2.77	45	1993SA016	Nsu	Neoproterozoic
Body:9	370444.6	6388465.3	-89.8	0.001207	2.77	135	1993SA016	Nsu	Neoproterozoic
Body:10	387756.2	6393000.4	-90.1	0.001043	2.77	115.99	1993SA016	Nsu	Neoproterozoic
Body:13	360962.3	6372975.7	-81.6	0.001569	2.77	89.64	1993SA016	Nsu	Neoproterozoic
Body:12	375164.9	6319334.1	250.6	0.011	2.77	92.29	1961SA003	Nye	Neoproterozoic
Body:11	362639	6342100.6	-195	0.010865	2.77	47.27	1984SA011	Nye	Neoproterozoic
Body:5	375817.8	6353984.6	-255.3	0.016836	2.77	108.16	1993SA016	Nye	Neoproterozoic
Body:6	387972.49	6355887.5	-92.323	0.012563	2.77	122.0051	1993SA016	Nye	Neoproterozoic
Body:64	405993.1	6356892	-81	0.013197	2.77	107.6	E1	Nye	Neoproterozoic
Body:67	458054.4	6409336	-66.9	0.006084	2.77	93.9	E1	Nye	Neoproterozoic
Body:68	462679.3	6406729.3	-164.2	0.020715	2.77	114.03	E1	Nye	Neoproterozoic
Body:10	367786.4	6314216.9	243.5	0.010869	2.77	107.49	1961SA003	Nyp	Neoproterozoic
Body:10	488430.3	6406678.2	-126	0.041	2.77	35.06	SAEI	Nyp	Neoproterozoic
Body:63	421610	6379493	-279.1	0.031	2.77	82.26	E1	Nyp	Neoproterozoic
Body:66	421493.8	6379421.2	-286.3	0.037384	2.77	73.45	E1	Nyp	Neoproterozoic
Body:74	442062.4	6390881.6	-174.2	0.002891	2.77	18.96	E1	Nyp	Neoproterozoic
Body:13	364474.7	6292556.8	165.8	0.001673	2.77	96.68	1961SA003	Nyw	Neoproterozoic
Body:14	367866.4	6286184.5	246.3	0.002523	2.77	104.14	1961SA003	Nyw	Neoproterozoic
Body:6	361124	6298342	420.6	0.002322	2.77	56.6	1980SA011	Nyw	Neoproterozoic
Body:10	354585.7	6282063.4	344.9	0.005647	2.77	135	1980SA011	Nyw	Neoproterozoic
Body:11	361541.7	6275088.9	129.8	0.003023	2.77	93.46	1980SA011	Nyw	Neoproterozoic
Body:16	364998.6	6273163.2	293.1	0.014834	2.77	119.25	1980SA011	Nyw	Neoproterozoic
Body:12	363868.1	6338072.5	-221.5	0.021	2.77	110.95	1984SA011	Nyw	Neoproterozoic
Body:14	357607.4	6330565	-91.1	0.001523	2.77	63.71	1984SA011	Nyw	Neoproterozoic
Body:1	407771.3	6391752.3	-180.1	0.002024	2.77	131.57	1993SA016	Nyw	Neoproterozoic
Body:49	395022.3	6345152	-82	0.011134	2.77	99.35	E1	Nyw	Neoproterozoic
Body:60	413266.8	6394958.4	-72.6	0.006697	2.77	101.78	E1	Nyw	Neoproterozoic
Body:78	453522.3	6423551.1	-105.9	0.001989	2.77	134.14	E1	Nyw	Neoproterozoic
Body:79	452931.9	6420467.5	-73.2	0.002542	2.77	110.93	E1	Nyw	Neoproterozoic
Body:80	453445.2	6428581.9	-166.7	0.00262	2.77	106.58	E1	Nyw	Neoproterozoic
Body:81	465659.8	6416524.8	156.1	0.004629	2.77	45	E1	Nyw	Neoproterozoic
Body:84	447412.1	6408471.9	-97.4	0.017789	2.77	162	E1	Nyw	Neoproterozoic
Body:86	443245.8	6405504.1	-158.2	0.005612	2.77	79.69	E1	Nyw	Neoproterozoic
Body:21	507576.4	6174693.9	1171.2	0.002028	2.77	106.04	1978SA005		
Body:47	497702.7	6183989.7	779	0.000381	2.77	135	1978SA005		
Body:12	356770.5	6270998.8	112.1	0.005345	2.77	155.07	1980SA011		
Body:6	478303.5	6427330.2	-29.4	0.011	2.77	63.37	SAEI		

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:7	472614.2	6422562.4	34.3	0.01088	2.77	120.88	SAEI		
Body:8	481172.8	6423649.1	-15	0.003181	2.77	66.02	SAEI		
Body:9	474290.5	6421361.2	25.4	0.01427	2.77	50.22	SAEI		
Body:11	489277.3	6421522.5	-88	0.004654	2.77	80.93	SAEI		
Body:12	491693.4	6418818.4	-32.1	0.001842	2.77	127.68	SAEI		
Body:13	491023.4	6422575.1	-36.6	0.002987	2.77	124.34	SAEI		
Body:5	431055	6301759.3	351	0.007696	2.77	67.53	E1		
Body:6	422855.6	6306425	567.5	0.006672	2.77	91.36	E1		
Body:52	395510.3	6341221	-111.4	0.004467	2.77	64.12	E1		
Body:57	400970.5	6347047.3	-104.4	0.013512	2.77	137.17	E1		
Body:58	392970.3	6339309.7	-119.1	0.011679	2.77	75.74	E1		
Body	395962	6297546.8	399.7	0.001978	2.77	88.38	1993SA017	Eo9	Cambro-Ordovician
Body:1	407301.2	6293612.2	362.8	0.006108	2.77	32.78	1993SA017	EOd1	Cambro-Ordovician
Body:2	391434.8	6285027.4	417.8	0.003705	2.77	83.22	1993SA017	Eo9	Cambro-Ordovician
Body:3	405699.4	6312023.2	470.4	0.014578	2.77	155.68	1993SA017	Egn	Cambro-Ordovician
Body:4	393895.4	6316117.3	434.6	0.002885	2.77	53.67	1993SA017	NE1	Neoproterozoic-Cambrian
Body:5	391843.1	6324267.7	-688.1	-0.00083	2.77	70.27	1993SA017	NE1	Neoproterozoic-Cambrian
Body:6	392837.9	6272726.5	374.3	0.001836	2.77	68.12	1993SA017	EOd1	Cambro-Ordovician
Body:7	391102.5	6279545.6	421.1	0.00386	2.77	135	1993SA017	Eo9	Cambro-Ordovician
Body:8	389993.6	6271349.7	396.8	0.003415	2.77	45.88	1993SA017	EOd1	Cambro-Ordovician
Body:9	401257.3	6285725.3	322.6	0.00261	2.77	103.51	1993SA017	EOd1	Cambro-Ordovician
Body:10	397088.9	6300187.5	354.2	0.003079	2.77	115.12	1993SA017	Eo9	Cambro-Ordovician
Body:11	398206.6	6303881.9	630.2	0.011353	2.77	126.56	1993SA017	NE3	Neoproterozoic-Cambrian
Body:12	405644.3	6295479.2	434.2	0.001783	2.77	120.65	1993SA017	EOd1	Cambro-Ordovician
Body:13	405700.2	6291432	396.8	0.003725	2.77	45	1993SA017	EOd1	Cambro-Ordovician
Body:14	408378	6296995.5	340.1	0.003536	2.77	50.22	1993SA017	EOd1	Cambro-Ordovician
Body:15	408489.4	6318006.5	-546.2	0.008441	2.77	127.85	1993SA017	Egn	Cambro-Ordovician
Body:16	405643.2	6315585.7	498.6	0.002801	2.77	29.81	1993SA017	Egn	Cambro-Ordovician
Body:17	408384.8	6310685	280.7	0.000735	2.77	45	1993SA017	Egn	Cambro-Ordovician
Body:18	404182.9	6262622	1072.5	0.004117	2.77	163.36	1993SA017	NE1	Neoproterozoic-Cambrian
Body:19	382944.4	6254872.8	462	0.002993	2.77	132.65	1993SA017	NE2	Neoproterozoic-Cambrian
Body:20	388634.7	6250450.1	882.2	0.003465	2.77	47.97	1993SA017	NE3	Neoproterozoic-Cambrian
Body:21	379104.3	6290700.8	653.8	0.004437	2.77	19.31	1993SA017	EOd19	Cambro-Ordovician
Body:22	376714.6	6284935.6	469	0.005446	2.77	48.89	1993SA017	EOd19	Cambro-Ordovician
Body:23	374639.8	6304257.2	280.6	0.003424	2.77	49.87	1993SA017	Nb	Neoproterozoic
Body:24	378330.9	6262529.2	435.5	0.002693	2.77	45	1993SA017	Ek4?	Cambro-Ordovician
Body:25	371405.4	6271628.9	463.8	0.005112	2.77	125.6	1993SA017	EOd19	Cambro-Ordovician
Body:26	385467.8	6262778	370.4	0.000896	2.77	119.54	1993SA017	EOd1	Cambro-Ordovician
Body:27	388608.2	6311079.5	409.6	0.003094	2.77	131.71	1993SA017	NE1	Neoproterozoic-Cambrian
Body:28	379448.2	6316996.4	383.8	0.002116	2.77	117.02	1993SA017	Nb	Neoproterozoic
Body:29	375189.8	6318598	198.2	0.021	2.77	66.49	1993SA017	Nye	Neoproterozoic
Body:30	381682.6	6318734.5	327.5	-0.004704	2.77	71.34	1993SA017	Nb	Neoproterozoic
Body:31	378249.2	6312589	170.9	0.003492	2.77	51.79	1993SA017	Nb	Neoproterozoic
Body:32	374147.2	6315390.4	182.4	0.004386	2.77	45	1993SA017	Nye	Neoproterozoic
Body:33	377220.7	6309384.4	216.8	0.004635	2.77	99.34	1993SA017	Nb	Neoproterozoic
Body:34	371883.9	6296552.4	297.3	0.006837	2.77	65.35	1993SA017	Nb	Neoproterozoic

Point	X	Y	Z	Suscept	Density	T_Dip	Survey	MapUnit	Geology
Body:35	380712.6	6298710.7	308.1	0.003083	2.77	116.41	1993SA017	NE1	Neoproterozoic-Cambrian
Body:36	386131.9	6305827.3	550.4	0.004766	2.77	143.41	1993SA017	NE1	Neoproterozoic-Cambrian
Body:37	385088.9	6301838.1	667.3	0.002838	2.77	160.78	1993SA017	NE1	Neoproterozoic-Cambrian
Body:38	395532.2	6338668.4	316.1	0.009486	2.77	83.64	1993SA017	Nb	Neoproterozoic
Body:39	404242.4	6332867.4	254.7	0.000445	2.77	111.24	1993SA017	NE1	Neoproterozoic-Cambrian
Body:40	398313.3	6327790	312.9	0.001707	2.77	63.35	1993SA017	NE1	Neoproterozoic-Cambrian
Body:41	399278.2	6335378.6	320.4	0.002938	2.77	46.44	1993SA017	NE1	Neoproterozoic-Cambrian
Body:42	397947	6324977	322.8	0.001858	2.77	69.95	1993SA017	NE1	Neoproterozoic-Cambrian
Body:43	396241.2	6322991.2	315	0.002922	2.77	48.33	1993SA017	NE1	Neoproterozoic-Cambrian
Body:44	407058.6	6257296.5	780.8	0.001061	2.77	56.97	1993SA017	NE1	Neoproterozoic-Cambrian
Body:45	377190.2	6252680.1	376.9	0.002523	2.77	54.46	1993SA017	Ek4?	Cambro-Ordovician
Body:46	373459.2	6252126.3	480	0.004917	2.77	119.06	1993SA017	Ek4?	Cambro-Ordovician
Body:47	386808.1	6241879	552.5	0.00166	2.77	47.81	1993SA017	NE1	Neoproterozoic-Cambrian
Body:48	375768	6238659.2	631.9	0.010963	2.77	62.27	1993SA017	Ek4?	Cambro-Ordovician
Body:49	387705.5	6339517.2	496.3	0.003395	2.77	49.2	1993SA017	Nyp	Neoproterozoic
Body:50	388479.9	6334633.9	26.5	0.006622	2.77	105.05	1993SA017	Nb	Neoproterozoic
Body:51	391424.6	6338542.8	49.6	0.007683	2.77	50.58	1993SA017	Nyp	Neoproterozoic
Body:52	379181.9	6316914.8	254.6	0.00175	2.77	66.56	1993SA017	Nb	Neoproterozoic
Body:53	370196.4	6330899.4	-52	0.011	2.77	101.69	1993SA017	Nye	Neoproterozoic
Body:54	362869.1	6326957	-28.7	0.001649	2.77	135	1993SA017	Nyw	Neoproterozoic
Body:55	363020.6	6333398.7	-103.9	0.021	2.77	140.95	1993SA017	Nyw	Neoproterozoic
Body:56	373274	6348985.2	-21.9	0.00235	2.77	23.97	1993SA017	Nl	Neoproterozoic
Body:57	375733.8	6346610.9	206.8	0.003383	2.77	47.16	1993SA017	Nl	Neoproterozoic
Body:58	378294.1	6341030.6	-97	0.020922	2.77	63.66	1993SA017	Nyp	Neoproterozoic
Body:59	375989.3	6332822	696.5	0.014917	2.77	85.59	1993SA017	Nyw	Neoproterozoic

APPENDIX 4. THE 'SWEET-SPOT' TRAVERSE INVERSION DEPTH-ESTIMATION TECHNIQUE USED IN THIS STUDY

A wide range of methods are used in magnetic source depth estimation, including various graphical methods (such as straight line and critical point methods), the Naudy or 'AutoMag' method, Werner deconvolution, Euler and extended Euler, and inversion. Any method to estimate depth to a magnetic source must include a source shape assumption or derivation. For many methods this model shape factor appears as a 'structural index', which is a single value to classify three dimensional shape. Also common to all methods is the challenge to assess reliability of results, which cannot be specified as a true uncertainty because of the inherent non-uniqueness in solving inverse potential field problems. In many depth estimation methods results are presented without any reliability or quality factors. For Euler and extended Euler solutions, which can be generated in large numbers, quality factors are generally derived from the consistency of values in local clusters. While inconsistent results cannot be reliable, the converse is not true, that well clustered results are necessarily clustered around the true depth value (for instance they may all share a common error, such as an inappropriate structural index value).

The method which we have selected to use in this study is a semi-automated inversion process. The key characteristics of this process are:

- depths are only estimated at the location of appropriate magnetic field variations selected by the interpreter
- the interpreter selects a traverse which passes through suitable field variations, ideally through magnetic field minima and maxima, roughly perpendicular to trend, and avoiding any evident artefact in the grid
- a smooth background field is interpolated across the traverse, representing the field interpreted as that which would be observed if the anomalous magnetisation were not present
- a model of appropriate geometry, and with a horizontal top, is created with strike azimuth and strike length suitable to match the observed field variation in the TMI grid
- the depth, thickness, magnetisation, depth extent and plunge is adjusted by the interpreter to achieve an approximate match to the measured values on the grid traverse, before the cross-section values (all parameters excluding strike extent and azimuth) are inverted to best-fit the traverse data
- if the model provides an acceptable fit to the data with geologically reasonable parameters it is accepted as a provisional explanation of that anomaly. These models provide estimates of depth to top, magnetisation intensity, thickness and dip of the causative magnetisation.
- once an acceptable model is generated for a profile, it is stored and interpretation proceeds to the next profile. Alternatively, the profile is rejected as inappropriate for generation of an acceptable simple source model.

It is important to appreciate the sensitivity limits in estimating source depth from magnetic field data. Figure 24 shows N-S TMI profiles for a body of width and strike length 200 m, large depth extent, and with depths of the top below sensor of 50, 100 and 150 m. The variation between profiles is due only to variation in depth to the top of the body. This image summarises sensitivity in estimating depth to a known source. Unfortunately, geology is poorly predictable, and magnetised bodies do not conform to a standard size or shape, so in estimating depth to the top of a source it is also necessary to estimate the other source parameters. Figure 25 shows the TMI profiles of identical tabular bodies with the same depth to top, strike and depth extents, but with their thickness and intensity of magnetisation inverted to best-fit the profile for the body at the central depth of 100 m. These inversions do not exactly match the curve for the body at 100 m depth, but the variations in intensity of magnetisation and thickness substantially reduce difference between the curves, and thereby ability to discriminate variation between those source depths. Figure 26 shows post-inversion misfits for sources with smaller depth displacements of +/- 20%. It is questionable to ascribe interpretational significance to the reduced differences between these curves, particularly in the practical interpretation case that one of the curves is measured data from a geological survey, with geological imperfection of the sources and measurement and processing errors.

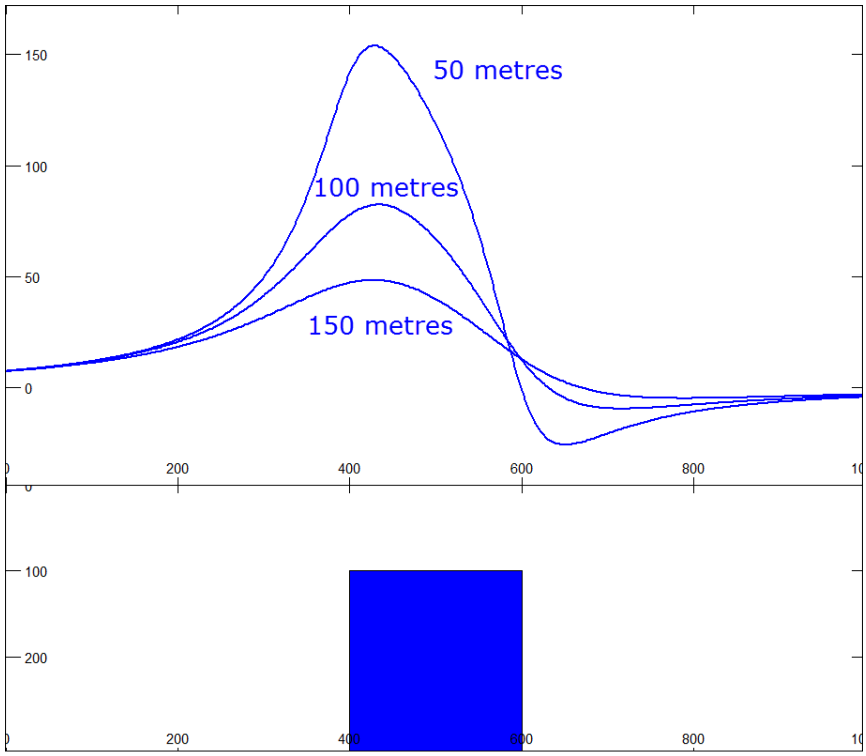

Figure 24. TMI profiles over a source with vertical displacements of +/- 50%.

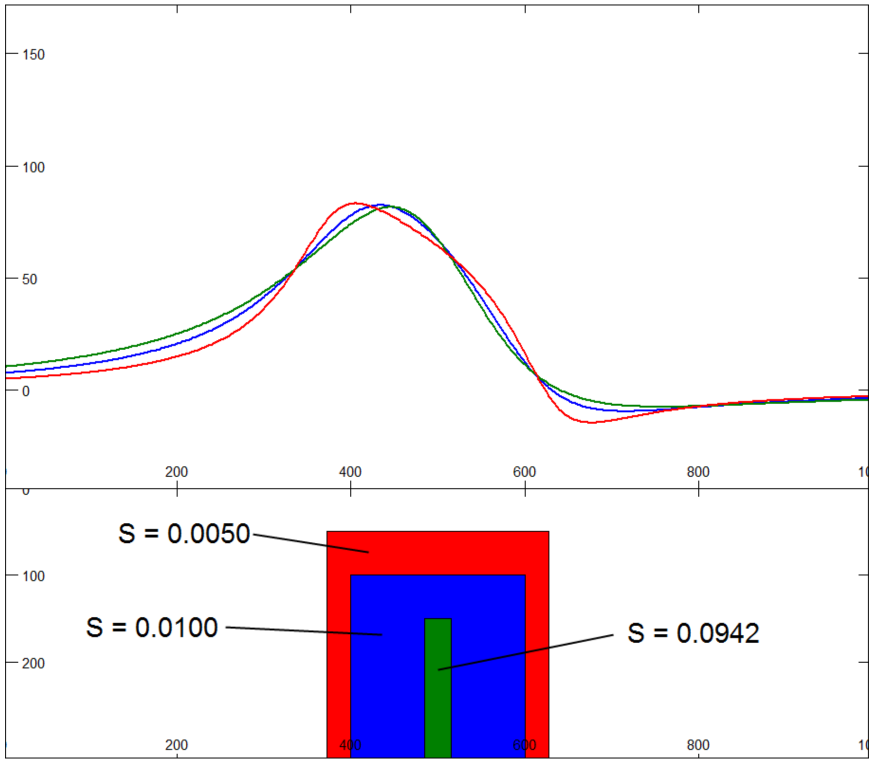

Figure 25. TMI profiles over a source with +/- 50% vertical offset, after inversion of thickness and magnetisation to minimise TMI differences.

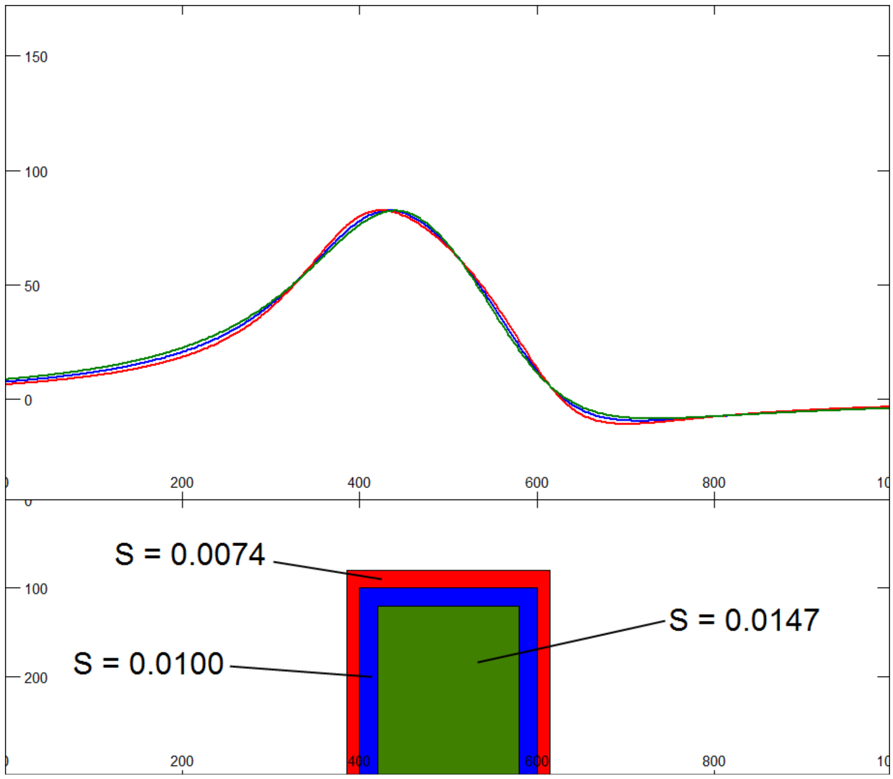

Figure 26. TMI profiles over sources with +/- 20% vertical offset, after inversion of thickness and magnetisation intensity to minimise resulting TMI misfit.

The limited sensitivity to depth to the top of a source as shown in Figure 26 emphasises the importance of closely matching the input field to reduce the risk of any unnecessary misfit introducing the opportunity for even greater undetected errors in depth estimation. The methodology we have applied in this study attempts to minimise discrepancies in matching the field through 1) selecting optimum datasets focussed on only the most appropriate samples of the field, and 2) use of intensive, iterative computations to ensure that the best data-fit is achieved. Automated depth estimation methods are far less selective in the data used, and generally fit data within a standard window size or sizes using a single pass sparse-computation analysis. No method can avoid the inherent uncertainty that arises from fundamental non-uniqueness of the inverse problem, but the method we have applied attempts to constrain that non-uniqueness in an optimum fashion.

The distribution of suitable anomalies from which to estimate source depths is controlled completely by the local geology. In areas where fewer ideal anomalies are available, the interpreter must compromise on quality in order to provide at least some constraint on source depth. In general, where basement depths increase there are fewer suitable anomalies, because identical magnetisations at greater depth generate weaker field variations which may be either undetectable or closer to the noise level from any shallower distributed magnetisations. In the case of magnetisations at multiple depths, the more compact, sharper field variations from the shallower sources are more easily separated and resolved than broader anomalies from the deeper sources. The method we have used can also be applied to the directly measured profile data. As a general rule, sources at depths below sensor greater than 50% of the line spacing are unaffected by the influence of gridding the data (for commonly applied tight minimum-curvature algorithms). However loose-fit gridding algorithms, or dependence on excessive micro-levelling to reduce tie-line levelling problems can result in substantial over-estimation of source depth. For shallow sources the same process we apply to grid-traverse data can be applied to flight-line data.

Figure 27 shows an example grid-traverse depth-estimation solution made using ModelVision Pro software. The grid traverse is located to pass through the anomaly maximum and minimum roughly perpendicular to the local trend of the field as shown in the map view. The profile is extended sufficiently to estimate the background field values and trends beyond the ends of the anomaly. A smooth regional curve is interpreted through the data. A simple tabular horizontal-topped magnetisation model is generated. This is manually adjusted for strike extent and azimuth (parameters which cannot be reliably determined from the traverse data alone). Then the depth, depth extent, thickness, dip and magnetic susceptibility are adjusted by inversion to best-fit the residual anomaly defined as the difference between the traverse data and the interpreted regional field along the traverse. Optionally the base level and first order slope of the regional field can also be included as parameters in the inversion. In many studies the depth of the top surface of the model is interpreted as providing a local sample of the top of basement surface (which is unconstrained by the magnetic method away from the location of suitable magnetisation contrasts). The ancillary parameters of thickness, depth extent, magnetic susceptibility and dip also provide estimates of the distribution of magnetisation, and in favourable circumstances can be used to help discriminate between magnetisations from different geological units (for instance between basement sources and volcanics in the overlying sediments).

Inversion using magnetic susceptibility should only be applied to magnetic anomalies which have characteristic shapes that can be ascribed to induced magnetisations. For anomalies that do not conform to the shape expected for an induced magnetisation source the resultant magnetisation direction should be estimated from 3D full-anomaly analysis or inversion, and subsequent traverse inversions should use that fixed resultant magnetisation direction with intensity of magnetisation as the free magnetisation parameter.

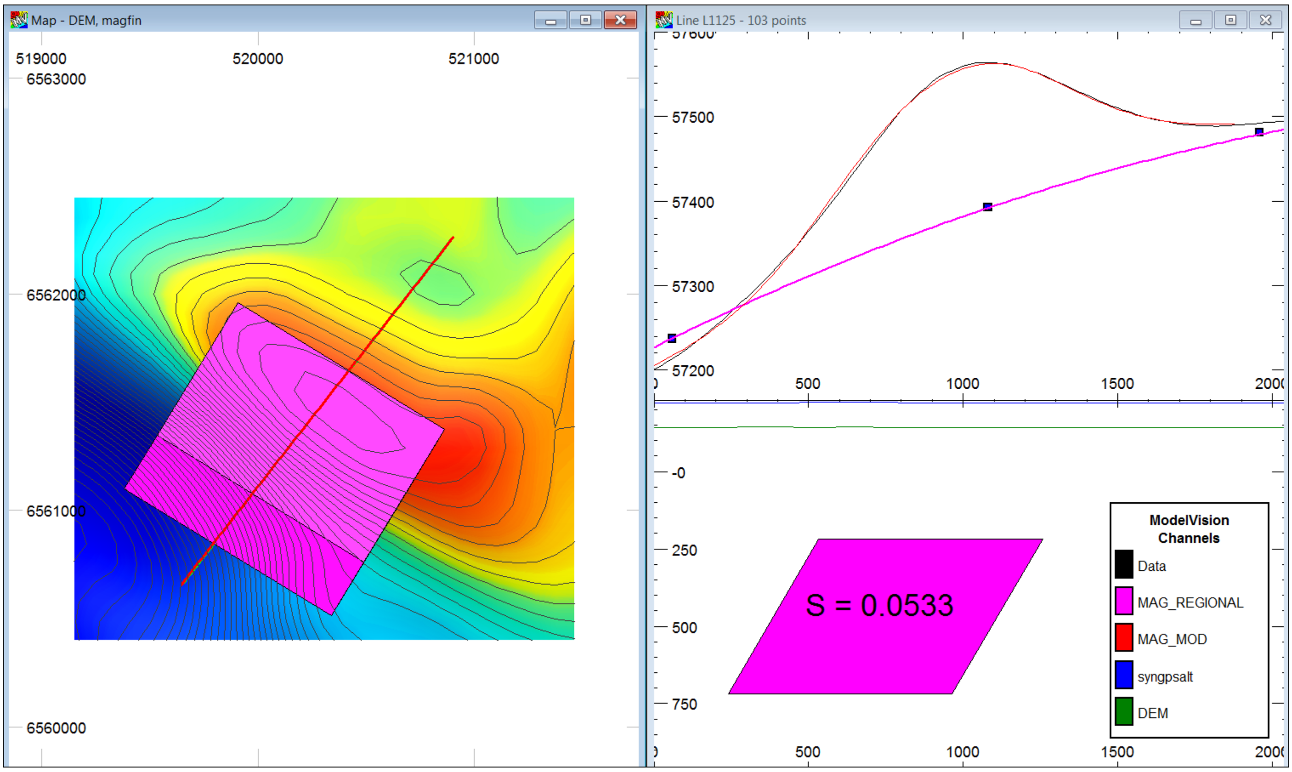

Figure 27. Example magnetic source depth estimate.