GR461

EL 25566,27912,27913,31383

SECOND ANNUAL TECHNICAL REPORT

GEMPART(NT)P/L

66 SMITH ST

ALICE SPRINGS 0870

PETERMANN RANGES SG52-7

Commodites

Cu,Pb,Zn,Au,Ag,Ni,Co,Cr,Fe,V,PGE

AW MACKIE

OCTOBER 2018

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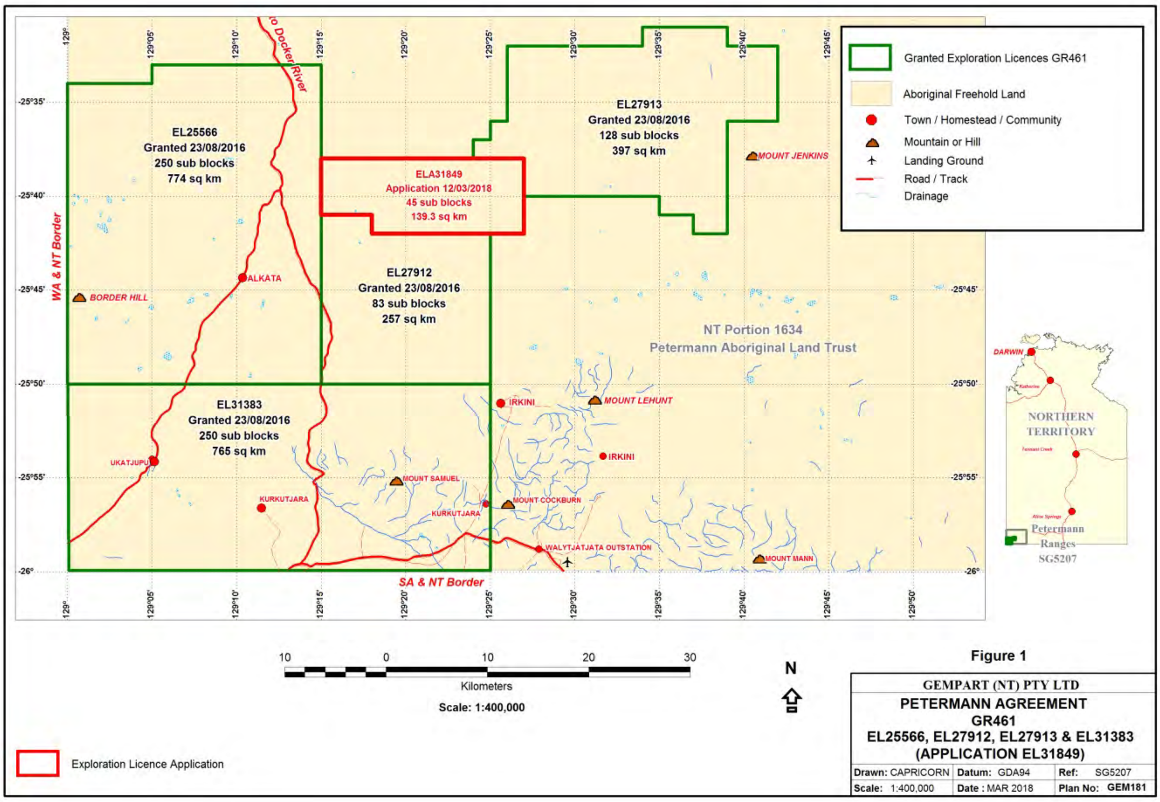
FIGURES

SUMMMARY

The 203 station ground gravitational data collected during 2017 over the centrally located 4km x 4km spaced,West Amadeus survey,regional Bouguer anomaly within EL25566 was reviewed reprocessed and modelled by Geophysical Consultant to assess the depth of regolith over previously interpreted potentially Cu-Ni-Co mineralised 1078Ma Giles Complex occurring over 10km of west to east strike for Claude Hills-type nickel –cobalt mineralised ochres ie analogues of MLX Claude Hills Ni-Co laterite deposit butting up to NT border 30km to the south.During the above review a discrete circular regional Bouguer high was delineated 10km east of current project area potentially representing more Cu-Ni-Co mineralised Giles Complex underlying Alkata North prospect area.

Within EL31383 there is a magnetically interpreted belt of 1080Ma Giles Complex whose nickeliferous ochre regolith potential was fleetingly tested by 4 drill holes during 1966 one of which namely NC 20 intersected 46.6m of ochre averaging 0.58% Ni and 800ppm Co while another,NC 22 ended in pyroxenite assaying 0.29%Ni thus indicating the potential for more Cu-Ni-Co mineralised Giles Complex north of the border consequently a 682 station first pass 500m x 500m spaced ground gravity survey was undertaken followed up by several areas of 250m x 250m spaced infill conducted over 1)ground gravity highs possibly indicative of primary sulphide-hosting Giles Complex and 2)ground gravity lows possibly indicative of secondary Ni-Co enriched regolith.The gravity lows will be RAB/RC drill tested while likely gravity highs will be Ground EM geophysically surveyed for a potentially mineralised enhanced conductive responsed.Expenditure is set at $225000 for forthcoming licence year.



2.INTRODUCTION

GR461 comprises EL25566,27912,27913 and 31383 covering a total 2202sqkm of PETERMANN RANGES map sheet within southwest corner of NT butting up to both the WA and SA borders.

Until March 2017 there has been no mineral exploration conducted over the area since the South Australian Mines Department collared 4 percussion drill holes searching for extensions of Claude Hills nickeliferous ochre deposits in May 1966.

3.LOCATION and ACCESS Figure 1.

GR461 is located in the south west corner of NT bounded by WA border to west and SA border to south.Access from Alice Springs is south for 200km via the Stuart Highway then west via Lasseter Highway for 280km to The Olgas where a 200km unformed dirt road continues on to WA border then south via a sheeted gravel beef road for 200km to Wingellina.Access to project area is north for 15km back into NT from the main road to SA border via the Alkata outstation track which continues on to Livingstone Pass Borefield and eventually Docker River Community some 200km distant.Transit permits are required from Olgas to WA border (Central Land Council Alice Springs) and NT border to Wingellina issued by Ngaanyatjarra Council Wingellina.

4.TENURE

GR461 application was lodged and subsequently approved by TITLES Division in 2017 comprising EL25566,27912,27913 and 31383 granted 23 August 2016 for 6 years.They are subject to a Mining and Exploration Deed signed on behalf of Traditional Owners by CLC and Gempart(NT)P/L under terms and conditions set out in the 1976 Land Rights Act(ALRA) which remain confidential for duration of the Agreement.A waiver of reduction was approved over EL25566,31383 and EL27912,27913 were reduced by 50% August 2018.

5.PREVIOUS EXPLORATION

The south west margin of the Amadeus Basin was first explored by Giles in 1872 and 1876.The first scientific investigations were made by CA Exploring Expedition in 1889 and Horn Scientific Expedition in 1896.In 1901 and 1903 SA Government prospecting expeditions investigated Musgrave,Mann and Rawlinson Ranges.H Basedow prospected Musgrave Ranges ,Mt Olga,Mt Connor and Ayers Rock 1903.In 1905 FR George prospected Petermann and Bloods Ranges producing a sketch map and a trace of gold in quartz near Foster Cliff.In 1926 Basedow and Mackay produced a Geology Report on Bloods Range followed by an aerial survey of Petermann Ranges in 1930.

Lasseter's report of a rich gold reef gave rise to many expeditions in the 1930s.He is rumoured to be buried at a rock hole 4km north of Mt Phillips on ELA31516.Lasseter's cave is located at the western end of Curdie Range.The Border Gold Expedition traversed Olia Chain and Petermann Ranges into WA in search of reef in 1935.HA Ellis a geologist was seconded to another party in 1936.GF Joklik accompanied an expedition in 1951.The Frome-Broken Hill Company carried out an extensive survey of the region in 1958.

In October1960 BMR flew an AMAG traverse across south east PETERMANN RANGES .In 1962 a helicopter gravity party visited the area as part of the Amadeus Basin reconnaissance gravity survey.An AMAG/Radiometric survey of the sheet area was flown by BMR in 1965.RAWLINSON was mapped in 1960,BLOODS RANGE in 1967,AYERS ROCK in 1963.SA Department of Mines published MANN in 1962 and explanatory notes in 1964 and WOODROFFE in 1967.PETERMANN RANGES mapping was carried out in stages .The northern part by Forman and Hancock in 1963.JF Ivanac mapped south west corner in 1965 and McCarthy described the rocks he collected.Detailed mapping of Pottoyu Granite around Lasseters Cave was carried out by Forman and England in 1968.The south east corner of the sheet was mapped by Forman and Shaw in 1969.

In May 1966 SA Department of Mines carried out geological mapping ,gravity traversing and percussion drill testing of possible extensions of the Claude Hills nickeliferous ochre occurrence across the border into the NT.Two gravity lows were detected namely Zone C commencing in SA and Zone D located entirely in NT.Two percussion drill holes were collared over each zone for a best result of 46.63m averaging 0.5%Nickel in DH NC 20 on line 12800E.The Claude Hills are a long narrow east west trending zone of discontinuous ultrabasic outcrops comprising norite and pyroxenite.The intrusion swings east north east crossing into the NT with the development of a second cropping out ultrabasic band south of the main one.The elongated intrusion is bounded to south by acid granulite mainly concordant with granulite trends.The nickeliferous ochres overly the centre of intrusion bounded by norites and pyroxenites intimately associated with jasper and magnesite underlain by serpentinite forming core of intrusion.The ochres are residual goethite type formed by leaching of iron rich ultrabasic rocks with subsequent enrichment of primary nickel.The goethitic ochre is a yellow brown cellular hydrated iron oxide often with well preserved relict textures after olivine and pyroxenite.Nickel content ranges from 0.2 to 2.2%Ni with higher values occurring at base of ochre zone.Under a high rainfall climate regime silica and magnesium are leached from ultrabasic rocks or there serpentinised equivalents.Iron is left as goethite while nickel averaging 0.2% in original rock is concentrated several fold by residual and supergene enrichment.Silica as jasper and magnesium as magnesite remain at base of weathering profile.Nickel is intimately associated with cobalt and manganese probably as an oxide.The nickel silicate garnierite occurs sporadically generally well below the main ochre zone.The primary source of nickel is from olivine containing up to 0.22% Nickel whereas pyroxenes contain negligible amounts thus nickeliferous ochres are only derived from olivine-rich rocks.The removal of silica and magnesium during leaching lowers SG 3.2 for ultrabasic rocks down to 1.6 for ochres thus above density contrast allows successful application of gravity methods to define sub surfaceochre zones ie South Australian Department of Mines commenced a gravity survey over Claude Hills in 1960 with further extensions in 1965.Test drilling was carried out over new low density zones (12 dhs).8229.6m of detailed gravity work was carried out over NT including a 7242m gravity traverse to check veracity of postulated ultrabasic intrusions.

In 1965 Planet Metals applied for AP1435 and 1546 over Petermann Ranges and Olia Chain conducting a regional AMAG survey(Woyzbum 1968)geochemical survey(Kenneth McMahon 1968)photogeological interpretation (Jorgensen 1966)and mineralisation (Wilson 1966).Ferruginous cappings developed over Neoproterozoic Pinyinna Beds during Tertiary were were extensively sampled recording anomalous Pb,Zn,Co values.Four prospects were inspected by JF Ivanac in 1966 namely Butler Dome,Stevenson Peak,Katamala Cone and Chirnside Creek.At Butler Dome three groups of steeply dipping manganiferous /siliceous gossans and collapse breccias extend over a strike length of 2134m.Each group is about is about 305m long of highly folded /contorted carbonaceous/dolomitic Pinyinna Beds.The main gossan is about 14m wide and stands out as a blue-black outcrop.A 12m shaft has been sunk in footwall of gossan to access quartz veins which cut it

,the gossans contain box works and limonite after sulphides while surrounding sediments show extensive iron oxide – muscovite alteration.

The Claude Hills nickeliferous ochre deposit was further delineated by METALSX from 2008-2011 completing 264 drill holes (16514m)over a strike length of 11.5km.A geological block model was completed and a maiden resource defined namely 33MT averaging 0.81% Nickel and 0.07% Cobalt,39% Fe2O3 containing 270000 tonnes of nickel and 23000 tonnes of cobalt.

The Second Edition mapping by NTGS commenced in 1988 including flying Petermann 500m l.s. AMAG/RADIOMETRICS geophysical survey in 1985 and concluded in 1996.PETERMANN RANGES Explanatory Notes were published in 1999.

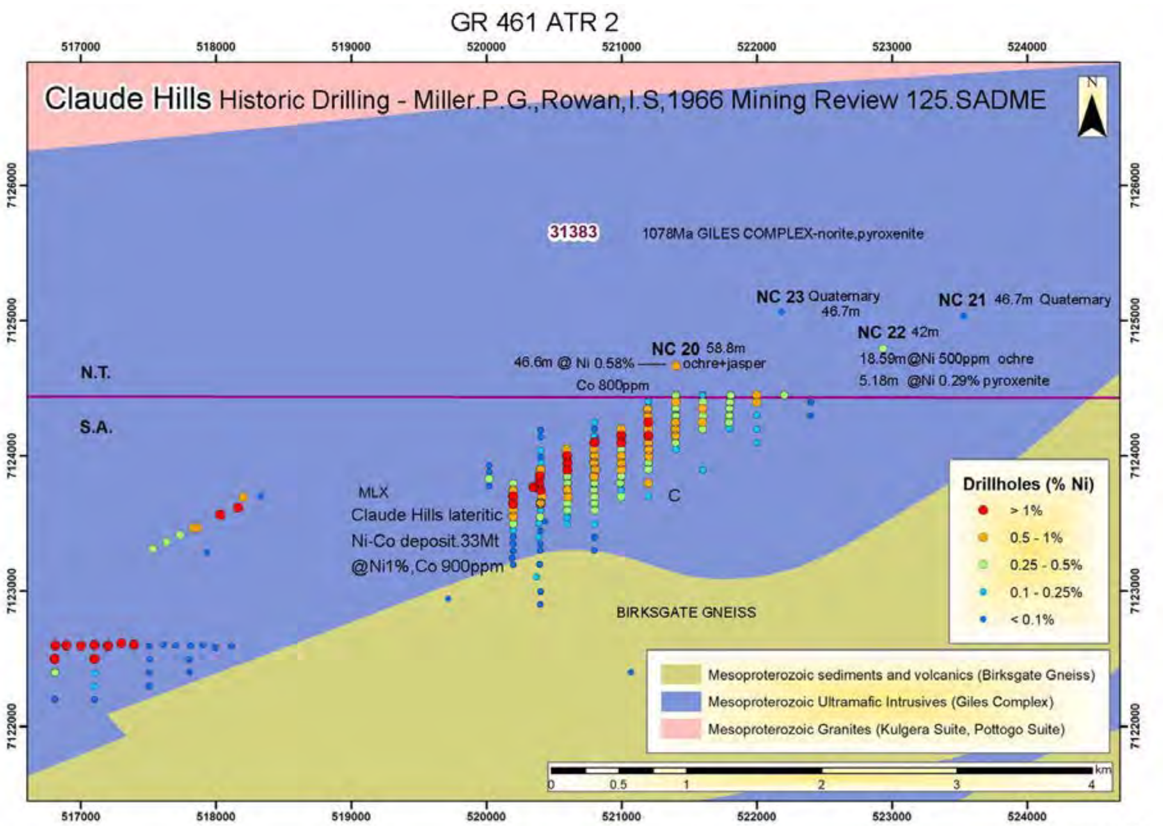


Figure 2a

6 GEOLOGY Figure 3

GR461 comprises EL25566,27912,27913 and 31383 covering 2202 sqkm of the PETERMANN RANGES 250k Geology mapsheet is located within south west corner of the NT assigned to Mesoproterozoic Musgrave Province a crystalline basement terrain extending across common borders of SA,WA and NT.covering a total of 120000sqkm.

During 1220-1120Ma province wide Musgravian Orogeny large volumes of felsic magma were intruded and assigned to Pitjantjatjara Supersuite quickly followed by 1085-1040Ma Giles Event ie part of the Warakurna Large Igneous Province which affected much of central and western Australia including the variably deformed mafic-ultramafic layered intrusions of the Giles Complex and the associated bimodal volcanics and rift sequences of Tjauwata Group.

The 560-530Ma Petermann Orogeny a major intracratonic event resulted in reactivation of several crustal scale east west trending shears/faults/thrusts and development of widespread mylonitic shear fabrics resulting in the final exhumation of Musgrave Province from beneath Centralian Superbasin.

No clear evidence of 400-300Ma ASO is documented from eastern Musgrave Province apart from some minor quartz-epidote alteration following which Musgrave Province underwent at least one phase of intense deep weathering and erosion prior to deposition of Mesozoic clastic sediments along its eastern margin.Intense chemical weathering of sediments and basement alike have resulted in a deep weathering profile persisting up to 90m below the present day surface.The typically composite weathering profile are characterised by kaolinisation ,mottled,pallid,ferruginous or siliceous zones ie the post Mesozoic widespread formation of silcrete and ferruginous duricrust.

During Quaternary the onset of aridity with episodes of alluvial and aeolian activity resulting in todays landscape of alluvial plains,sand plains,aeolian dunes and dunefields.

UMUTJU GRANITE SUITE

The Umutju Granite suite dominates cropping out basement on GR461 south of the Woodroffe Thrust divided into 4 main granite types.

Pguw Walytjatjata Granite;porphyritic granite dominates western Mann Ranges and low outcrops north of Mt Le Hunt and Mt Samuel.The most common lithology is coarsely porphyritic clinopyroxene –bearing granite with distinctive large round blue grey phenocrysts of K-feldspar constituting up to 40% of the rock.Mafic minerals can make up to 20% of rock forming elongated aggregates The primary igneous mineral assemblage contains clinopyroxene and ilmenite largely consumed by a secondary mineral assemblage associated with development of mylonitic fabrics.A granite with coarse grey blue phenocrysts near Mt Cockburn gave a Pb-Pb zircon age of 1175Ma.

Pgum Mantapayika Granite;occurs as scattered outcrops north of Mann Ranges ranging from undeformed granite to migmatite.Typically porphyritic with rounded blue grey K-feldspar and/or plagioclase phenocrysts.On the Wingellina-Alkata –Docker road is scattered white equigranular hornblende granite recognised in field by white color,lack of large phenocrysts and spotty appearance.Mafic mineralogy comprises hornblende,garnet,ilmenite and biotite forming discrete clusters. It has a Pb Pb age of 1120Ma.

At Border Hill Mantapayika Granite is weakly porphyritic with mafic mineralogy recrystallised to a garnet-clinopyroxene-ilmenite-minor biotite assemblage.

Discrete zones of Mantapayika Granite have undergone partial melting during high strain forming migmatite containing obstensively gneissic layering.

Pug Giles Complex 1078Ma;The Giles Complex is a suite of massive layered mafic to ultramafic intrusions emplaced within granulite terrain of central to western Musgrave Block However on PETERMANN RANGES within EL31383 a medium to coarse grain pyroxenite with minor gabbro crops out on a hill on SA border forming north east extension of Claude Hills peridotite-gabbro intrusion currently hosting 33 million tonnes averaging 0.81%Ni,0.07%Co and 39% Fe2O3 of nickeliferous ochre.The pyroxenite is entirely comprised of orthopyroxene and clinopyroxene with minor plagioclase at base of eastern hill .There is no obvious fabric present but pseudotachylites present throughout rock indicate it has been deformed. The ultramafic unit is capped by calcrete,laterite,ch-alcedony and pale brown jasper interestingly there is a chrysoprase deposit 5km to west south west in South Australia where veins of chrysoprase occur within nickeliferous ochre and jasper deposits.

GR 461 ATR 2

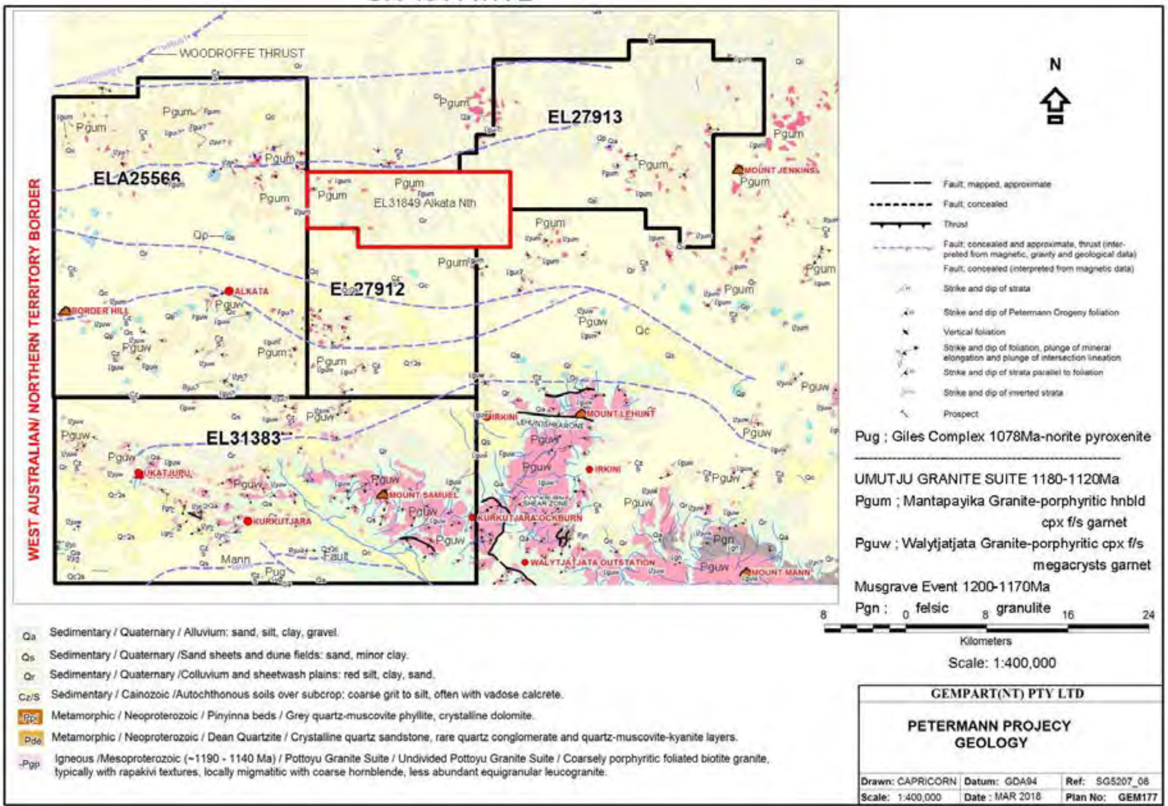


Figure 3.

7.EXPLORATION PROGRAM 2018 Figs 4a-4o,5a-5e,5h,6a-6d,Table1-3,Appendices 1-4.

2018 Exploration Program comprised 4 reviews of gravitational,VTEM and Helimag digital data collected over project area during 2017 by Consultant Geophysicist and Geologist namely;

1)VTEM Modelling of EL25566 Priority 1 1400a and Priority 2 1190a Anomalies.and EL31383 Priority 2,2280a Anomaly(30 09 2018).

2)EL25566 Claude Hills Extension Ground Gravity and Alkata North Regional gravity review(18 04 18).

3)EL25566,31383 Geophysics digital data processing and review(15 02 2018).

4)EL25566,31383 Geology and Prospectivity review(February 2018).

AMAG Interpretation of available NTGS 500m line space located digital data over EL31383 indicated a demagnetised area 25km x 8km of potentially mineralised Giles Complex layered ultramafic-mafic-anorthositic intrusions extending north of NT-SA border to the west north west trending Mann Fault prospective for magmatic nickel sulphides ,stratiform chromite cumulates,stratiform titaniferous magnetite cumulates,stratiform vanadiferous magnetite cumulates and possible lateritised regolith extensions of Claude Hills nickeliferous ochre deposits. Consequently a first pass 500m x 500m spaced,682 station ground gravity survey was undertaken over VTEM Area 2 deliniating several areas of 1)Bouguer highs and 2)Bouguer gravity lows Refer Figures 4a, 4b, 4c and 4d. Further readings comprising infill on 250m x250m stations is work in progress at time of report compilation.

A regional hand-held XRF analysis of calcretes was undertaken comprising 72 site readings 10 over EL25566 and 62 over EL31383.

8.EXPENDITURE

EL25566

Groundchecking north and east of current GG grid……………………………………………………………….$10000.00

XRF analysis of calcretes over 20km of licence area access track……………………………………………$12000.00

Geophysical Consultant x 3 Reviews@$20000...$60000.00

Consultant Geologist Project Review…………………………………………………………………………………….$25000.00

CLC SSCC heritage survey…………………………………………………………………………………………………….$15000.00

Review results/Reporting $16000.00

Administration $20347.00

TOTAL $158347.00

EL27912

Ground checking regional gravity feature…………………………………………………………………………$4000.00

Consultant Geophysicist image processing ,modelling,interpretation West Amadeus

4km x 4km spaced regional Bouguer located digital data…………………………………………………$5000.00

50% Reduction relinquishment report……………………………………………………………………………$2000.00

Administration $1000.00

TOTAL $12000.00

EL27913

Ground checking SE corner for eastern extension Alkata Nth gravity feature………………..$4000.00

Consultant Geophysicist image processing,modelling,interpretation West Amadeus

4km x 4km spaced Bouguer located digital data for east extension Alkata Nth Anom…..$5000.00

50% Reduction relinquishment report…………………………………………………………………………..$2000.00

Administration $1000.00

TOTAL $12000.00

EL31383

Ground checking areas overlying modelled VTEM Anomalies…………………………………………..$10000.00

XRF analysis calcretes over 30km of Telstra track 62 sites 3days@$10k.........................$30000.00

VTEM Area 2 500m x 500m spaced ground gravity survey 1000 stations@$61............$61000.00

Consultant Geophysicist image processing,modelling,interpretation above GG data….$10000.00

CLC SSCC Heritage survey over VTEM Area 2……………………………………………………………$15000.00

Review Results/Reporting……………………………………………………………………………………..$9000.00

Administration…………………………………………………………………………………………………….$20000.00

TOTAL…….$155000.00

GR461 TOTAL EXPENDITURE……………………………………………………………………………..$337347.00

COVENANT TOTAL FOR REPORTING PERIOD……………………………………………………………(\$181784.00)

9.CONCLUSIONS and RECOMMENDATIONS

EL25566 VTEM Area 1 Anomalies 1400a,1190a and EL31383 VTEM Area 2 Anomaly 2280a are recommended for follow up moving loop Ground EM geophysical surveying to further refine potentially Cu-Ni-Co mineralised sub surface conductors and if warranted RAB/RC drill testing.

Several areas of negative Bouguer anomalies within EL31383 VTEM Area 2 GG grid require follow up RAB drill testing for potential Ni-Co lateritic regolith hosted deposits while a number of positive Bouguer anomalies require follow up moving loop Ground EM surveying for potential Cu-Ni-Co massive sulphide mineralised sub surface conductors.

Consequently Expenditure for GR461 is set at $224684.00 for forthcoming licence year.

10.REFERENCES

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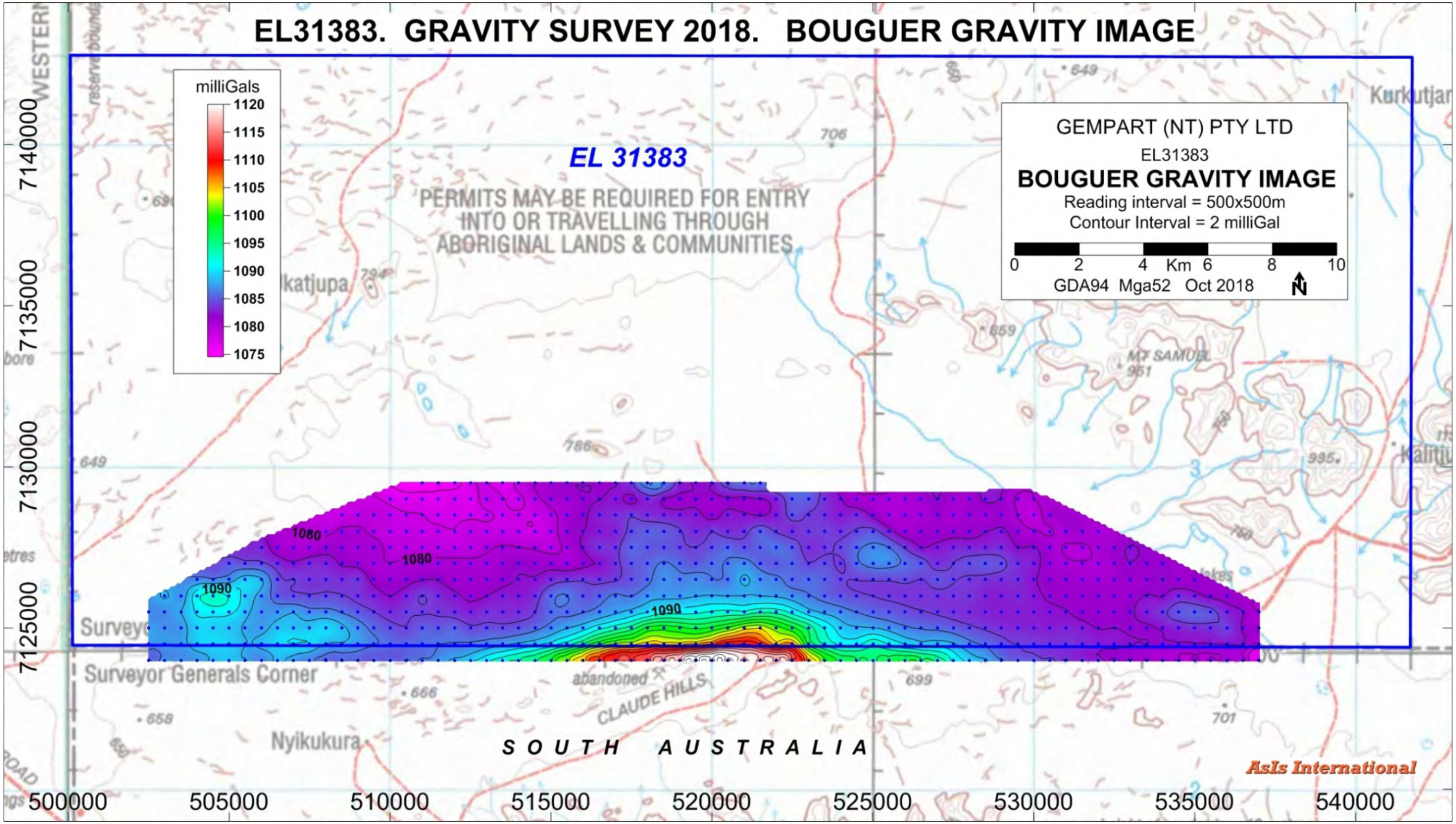


Figure 4a. EL31383 VTEM AREA 2 Ground Gravity Bouguer Image

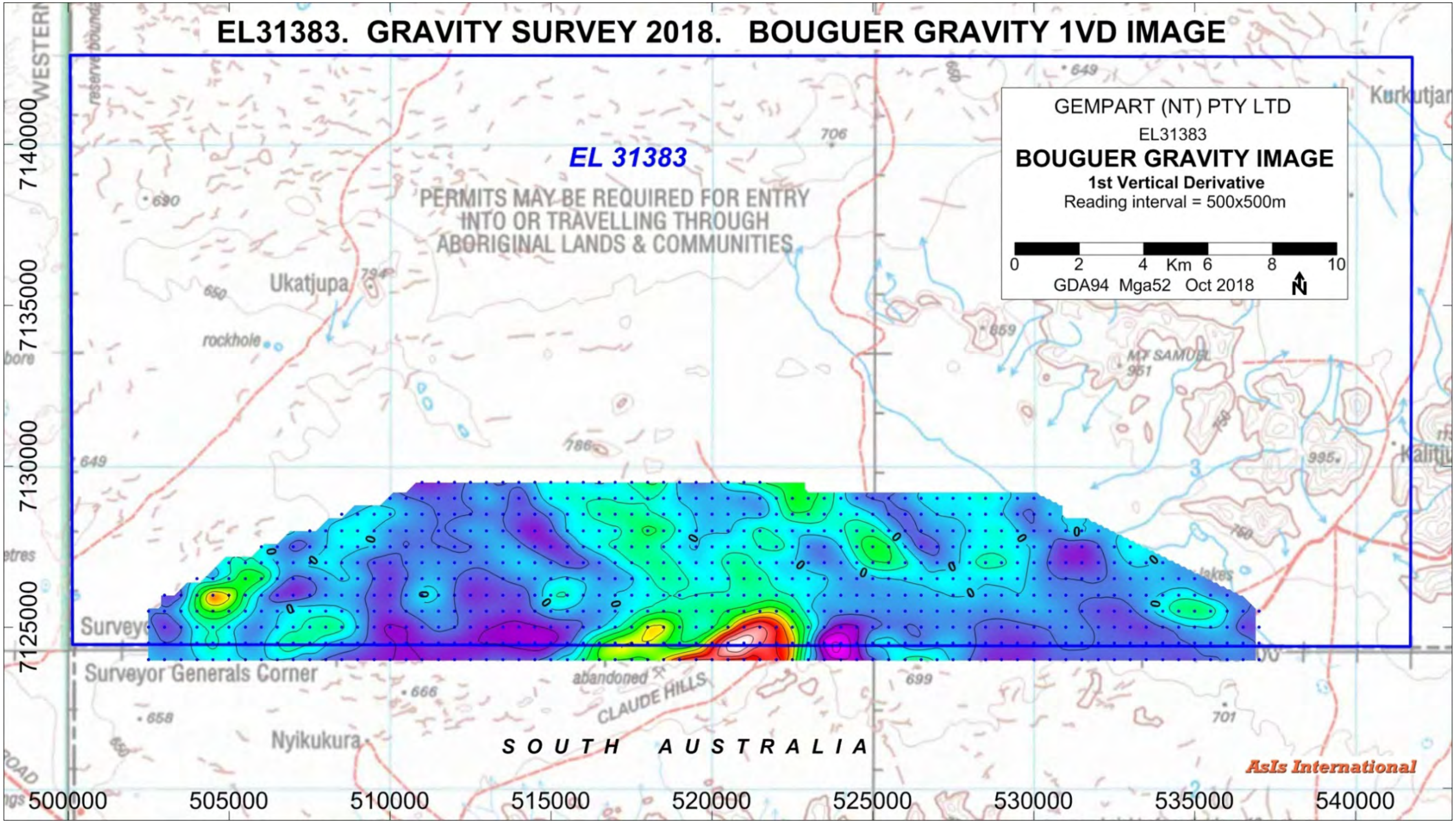


Figure 4b. EL31383 VTEM AREA 2 Ground Gravity Bouguer 1 VD Image

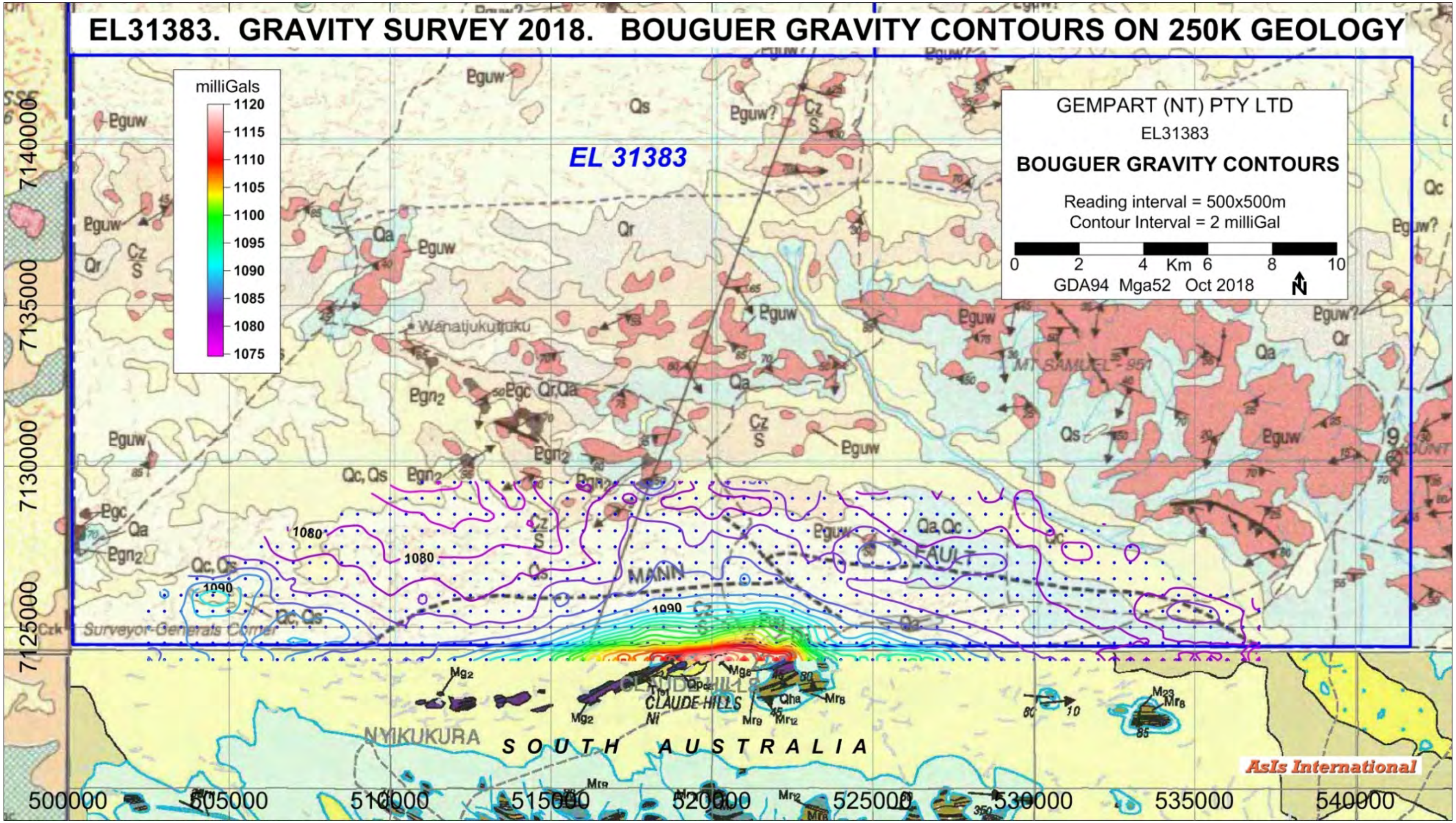


Figure 4c. EL31383 VTEM AREA 2 Ground Gravity Survey Bouguer contours on Geology

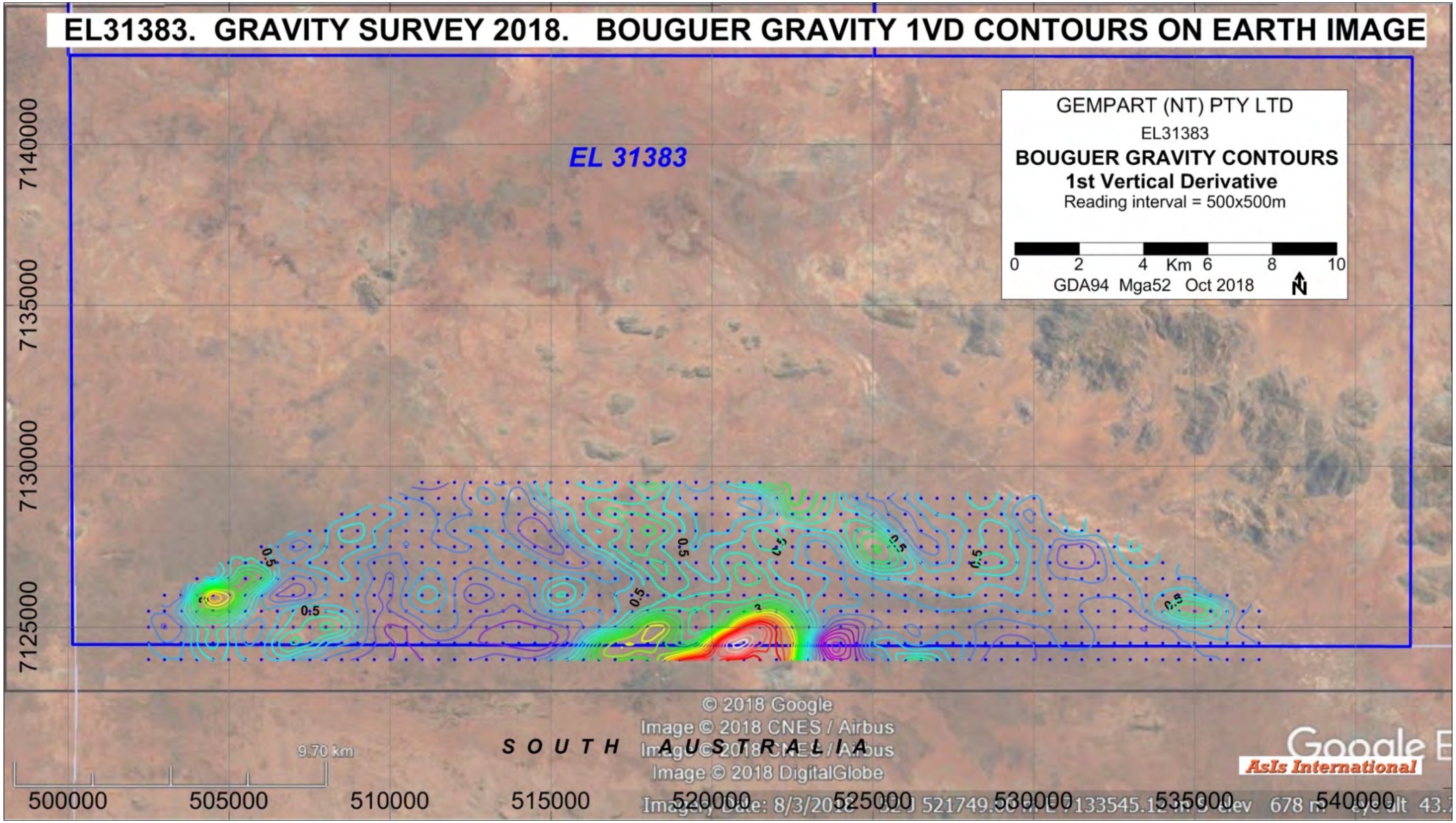
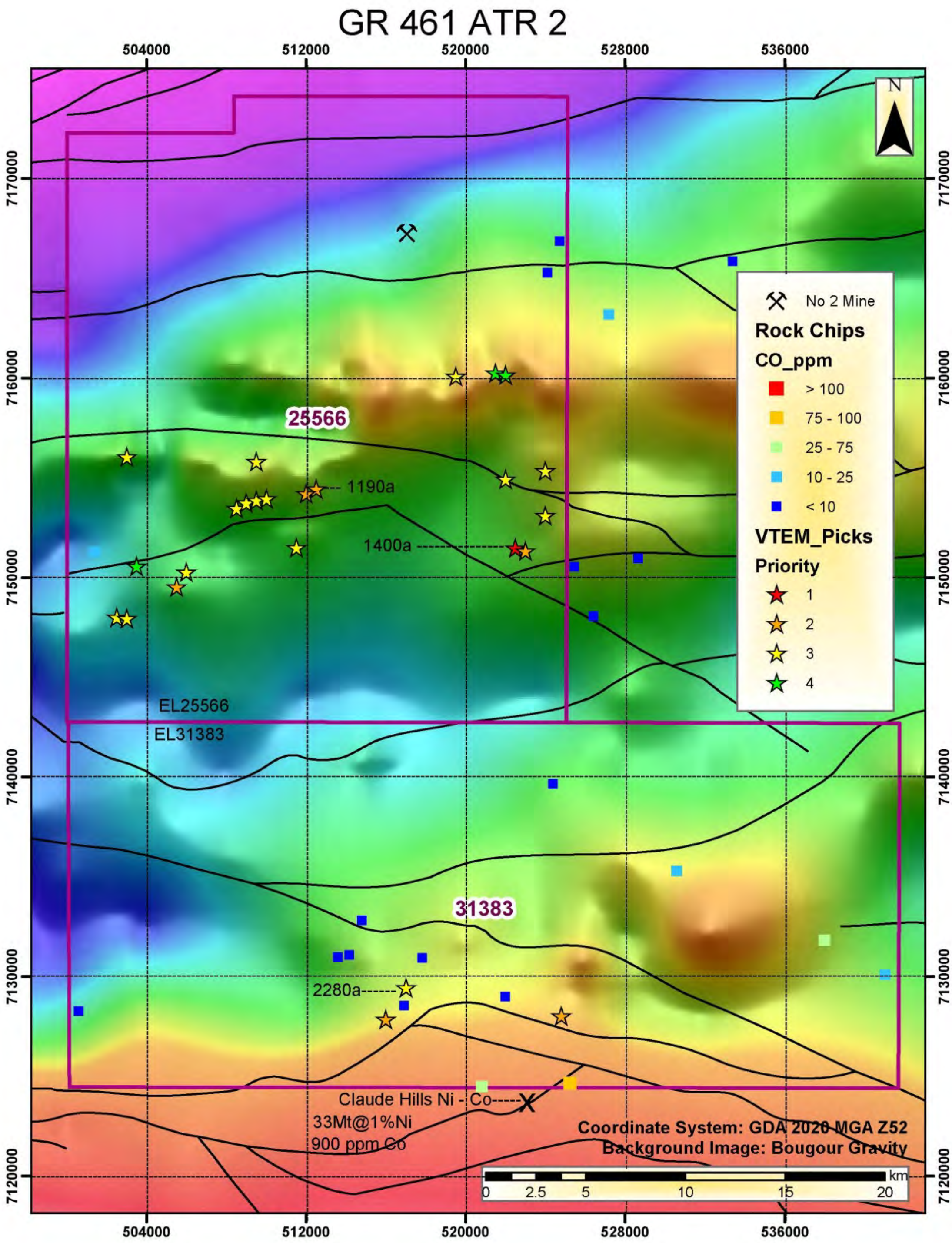
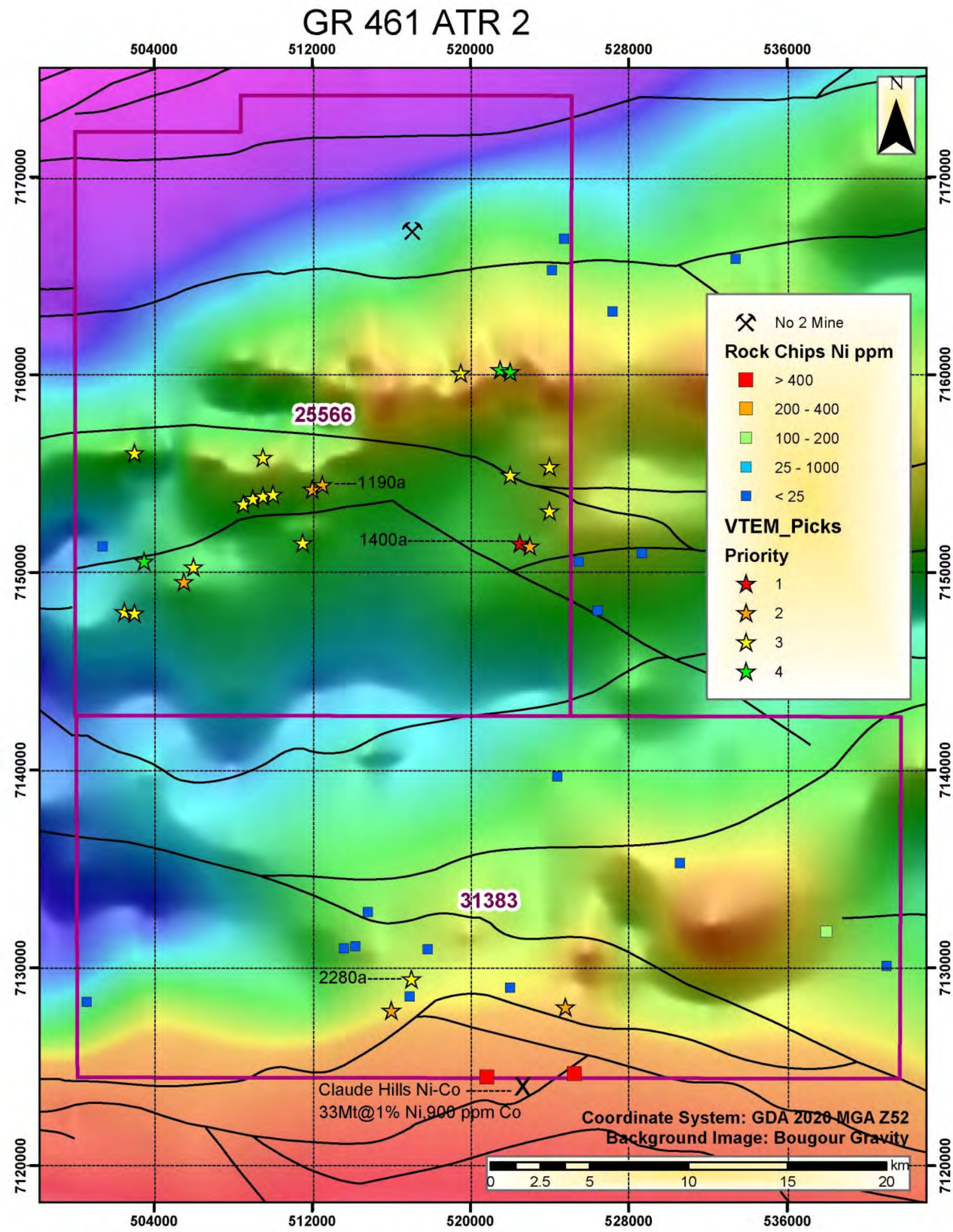


Figure 4d. EL31383 VTEM Area 2 Ground Gravity Survey Bouguer 1VD contours on Earth Image



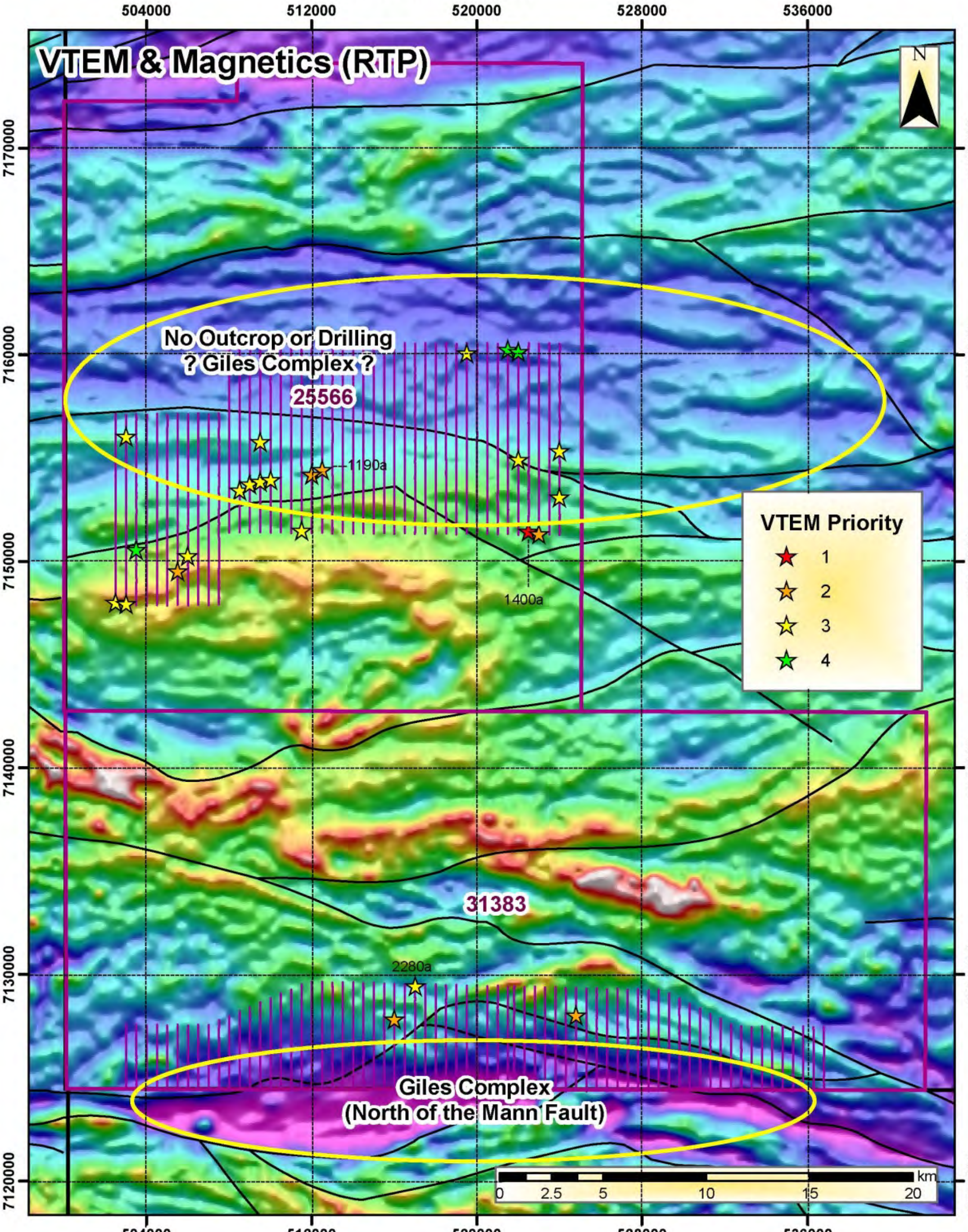
EL25566,31383 VTEM Anomalies + Cobalt Rock Chip historic sampling results (ppm) over Regional 4km x 4km spaced West Amadeus gravity survey image.

Figure 4e



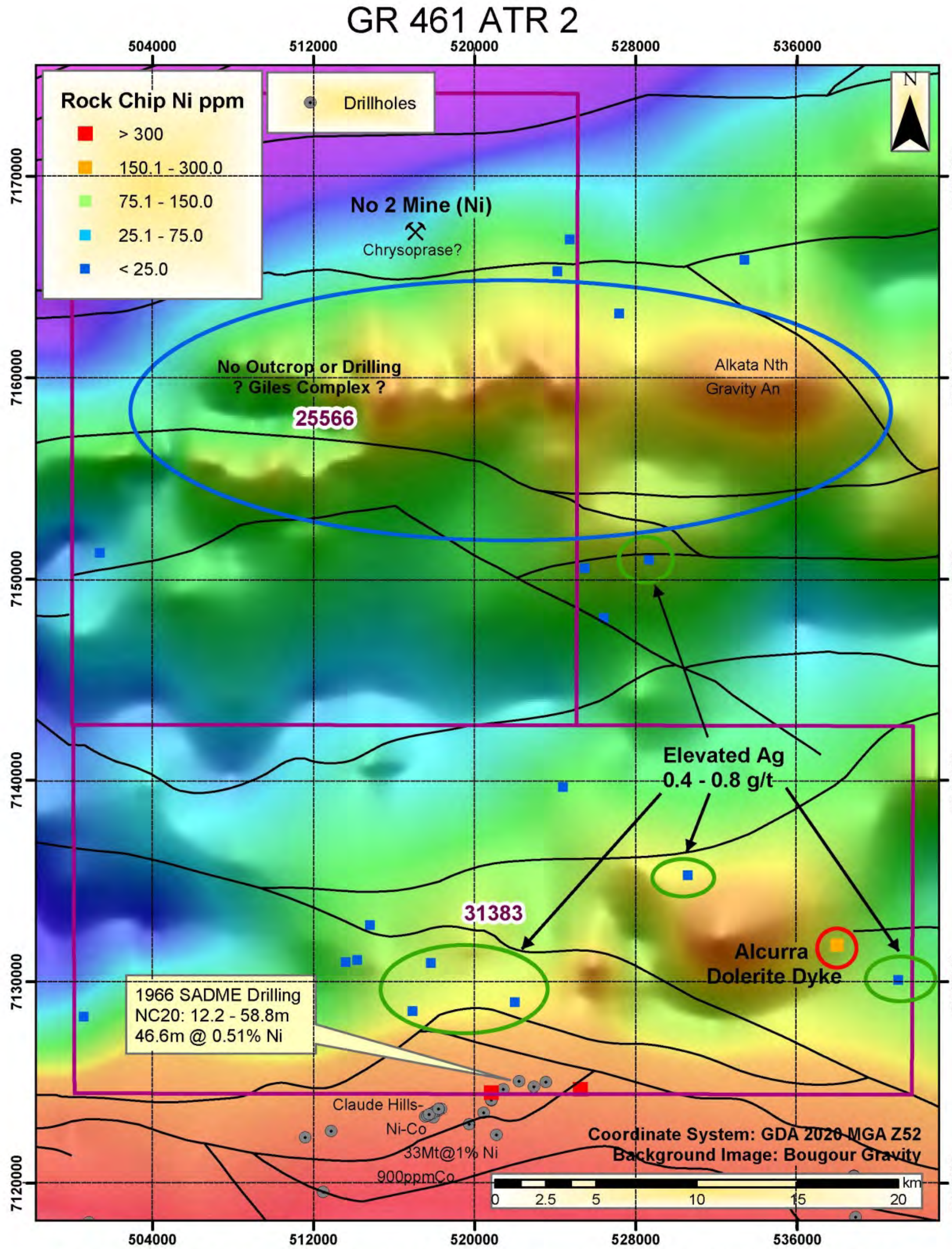
EL25566,31383 VTEM Anomalies+Nickel Rock Chip historic sampling results(ppm) over Regional 4km x 4km spaced West Amadeus gravity survey image showing major structures Figure 4f

GR461 ATR 2

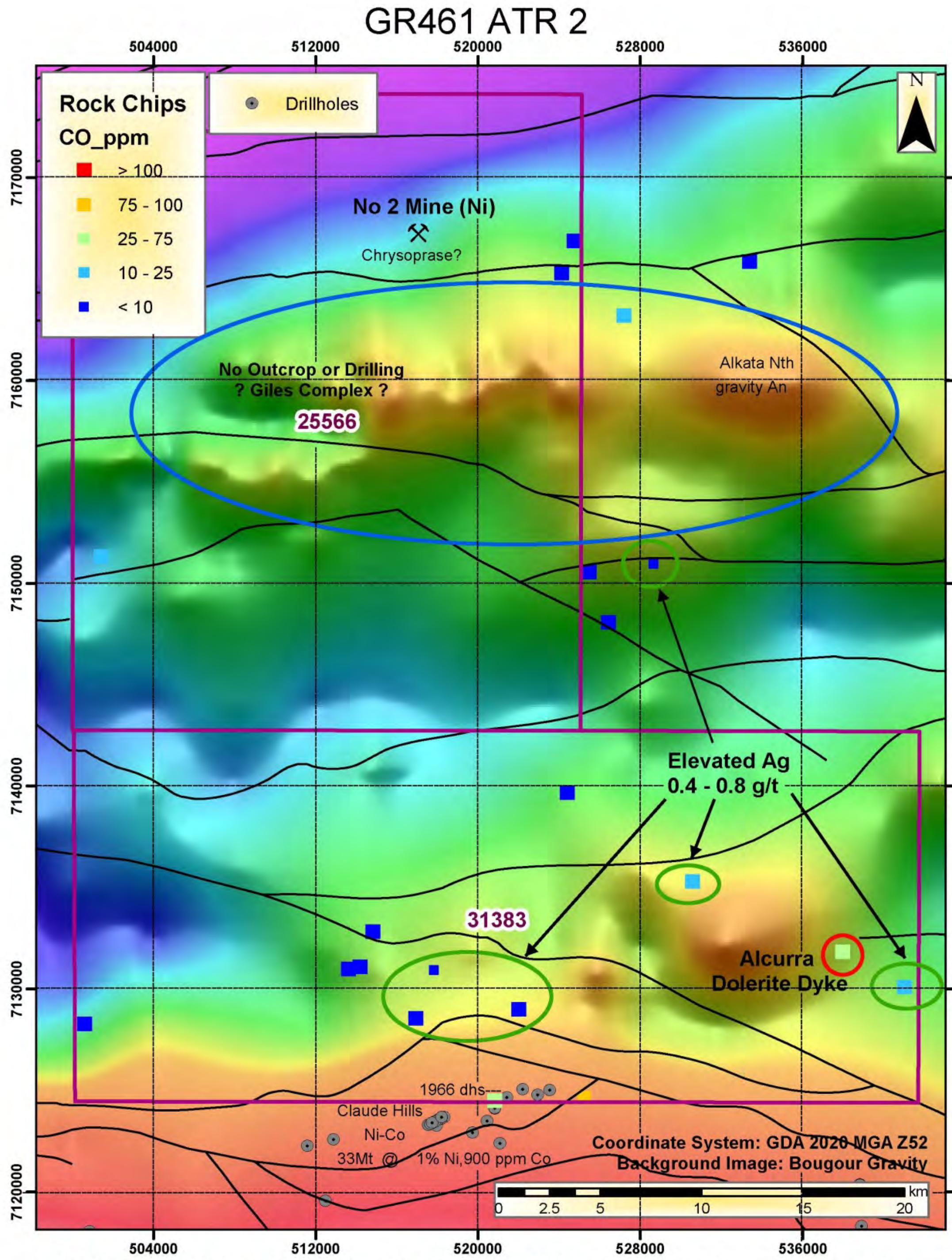


EL25566 VTEM Area 1,EL31383 VTEM Area 2 Anomalies over TMI RTP image + Interpreted areas 1080Ma Giles Complex+Major structures.

Figure 4g

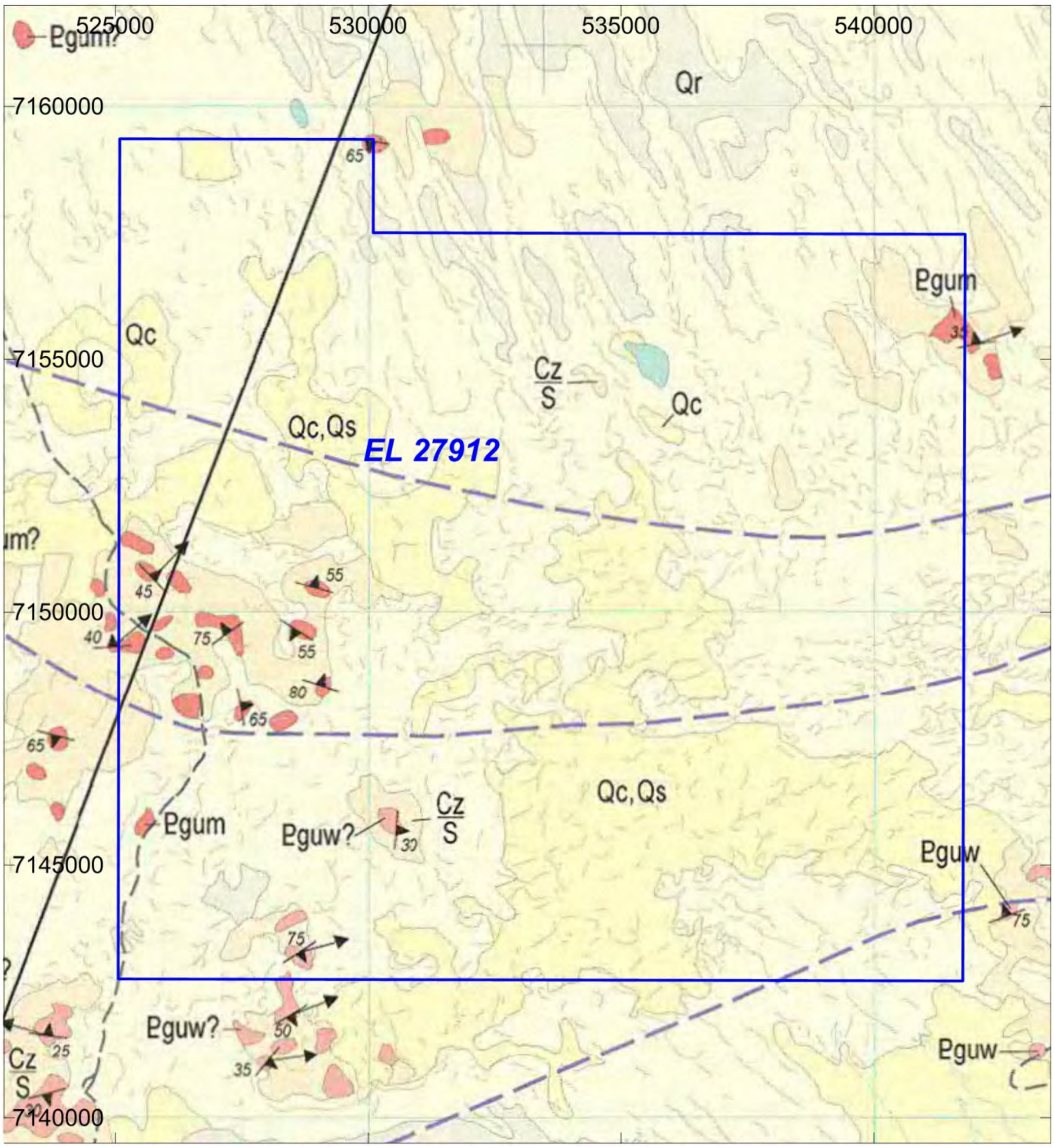


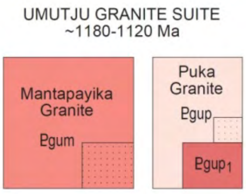
EL25566,31383 Historic Ni and Ag Rock Chip sampling Claude Hills nickeliferous ochre deposit 1966 drill hole location(4 dhs in NT)+25566-Alkata Nth potential Cu-Ni-Co mineralised Giles Complex area over Bouguer gravity image.
Figure 4h



EL25566,31383 Historic Co and Ag Rock Chip sampling+ SADME 1966 DHs Claude Hills Nickeliferous Ochre deposit (4 dhs in NT)+25566-Alkata Nth potential Cu-Ni-Co mineral-ised Giles Complex area over Bouguer gravity image.

Figure 4i





EL27912 - 1:250,000 scale Geology

NTGS, 2003. Northwestern Musgrave Block Special First Edition.

GDA94 Mga52

Kilometres

0 2.5 5 7.5 10

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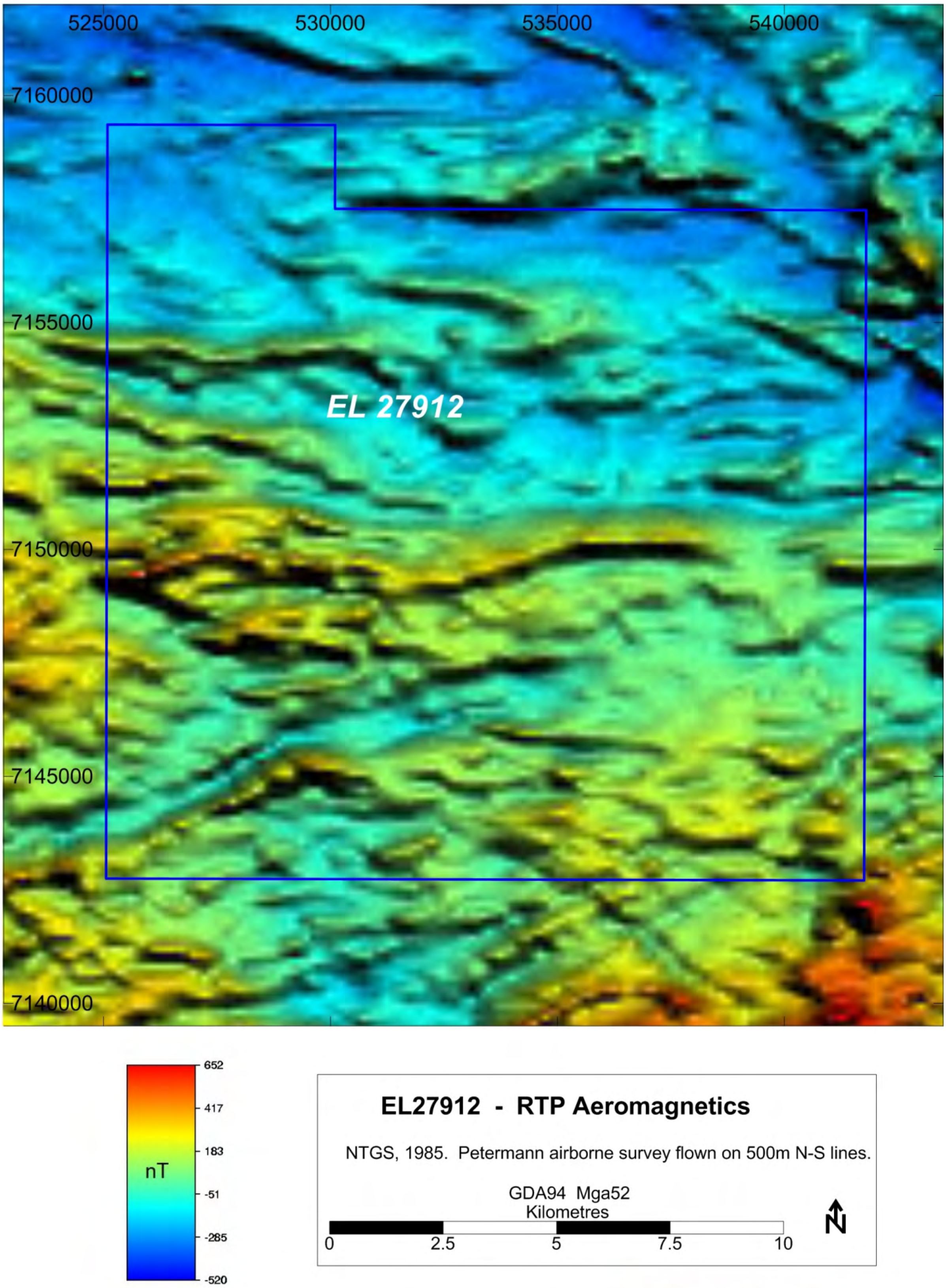
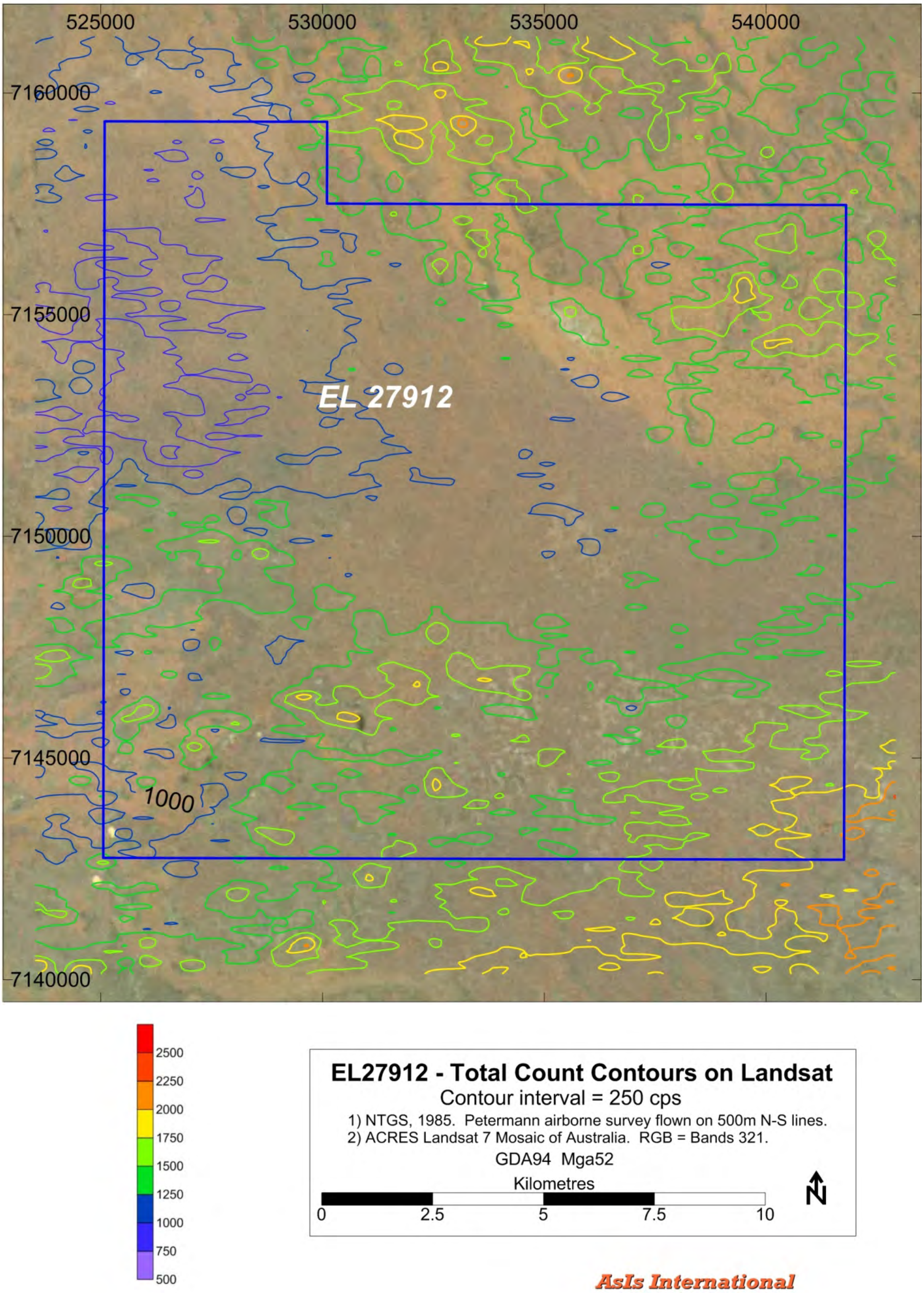
AsIs International



EL27912 - RTP Aeromagnetics

NTGS, 1985. Petermann airborne survey flown on 500m N-S lines.

AsIs International


525000
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7160000
7155000
7150000
7145000
7140000
EL 27912
1000
2500
2250
2000
1750
1500
1250
1000
750
500
EL27912 - Total Count Contours on Landsat
Contour interval = 250 cps
1) NTGS, 1985. Petermann airborne survey flown on 500m N-S lines.
2) ACRES Landsat 7 Mosaic of Australia. RGB = Bands 321.
GDA94 Mga52
Kilometres
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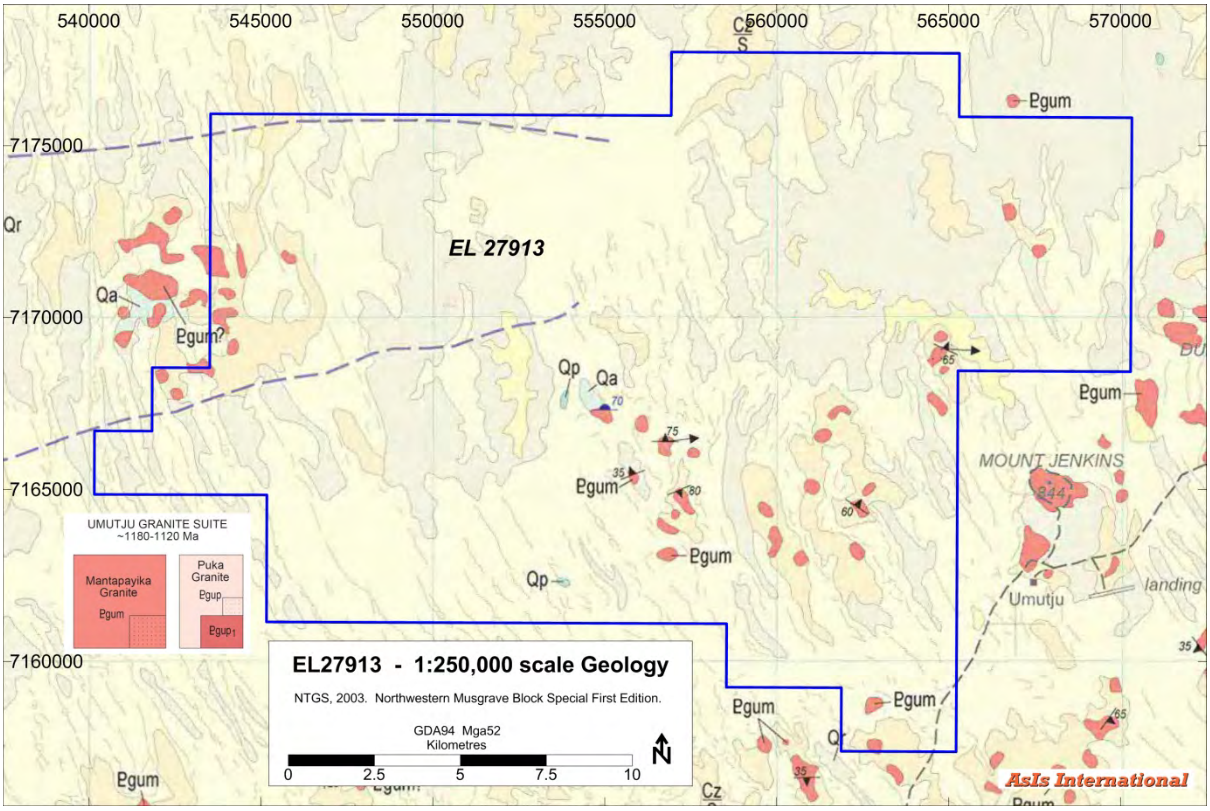


Figure 4m

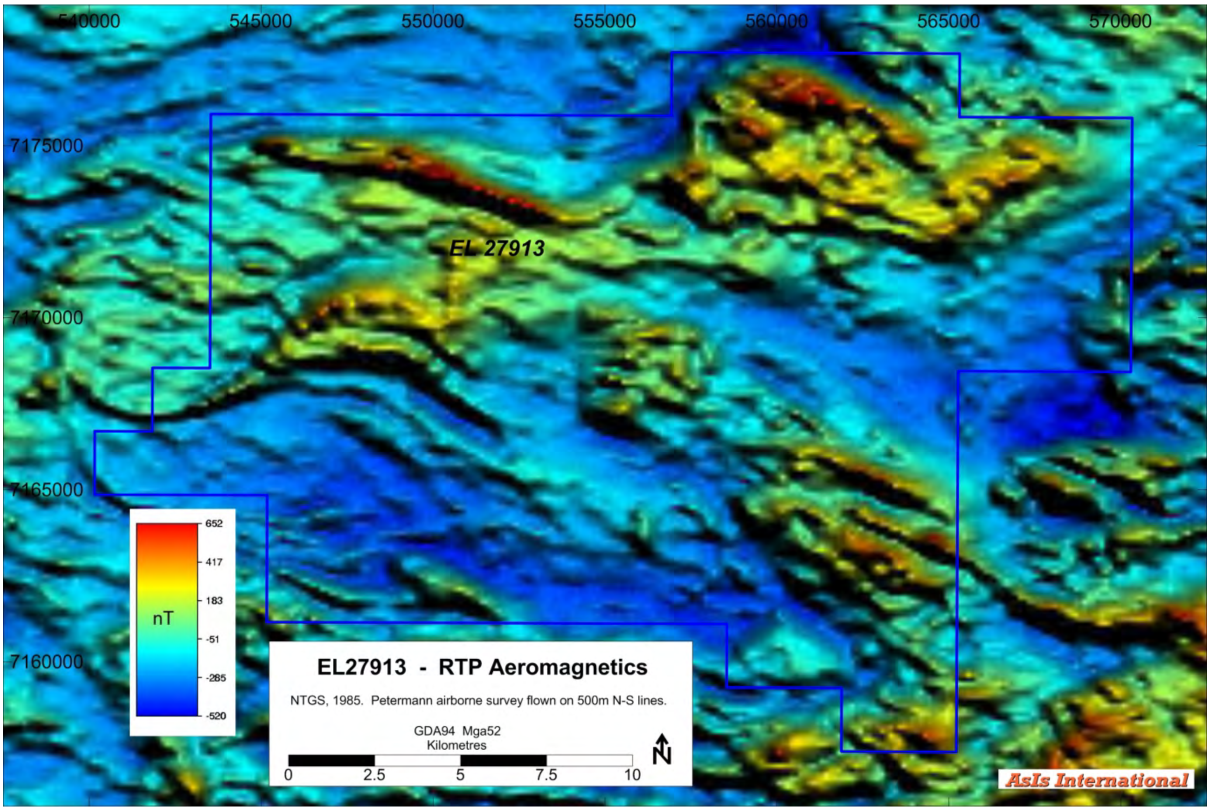
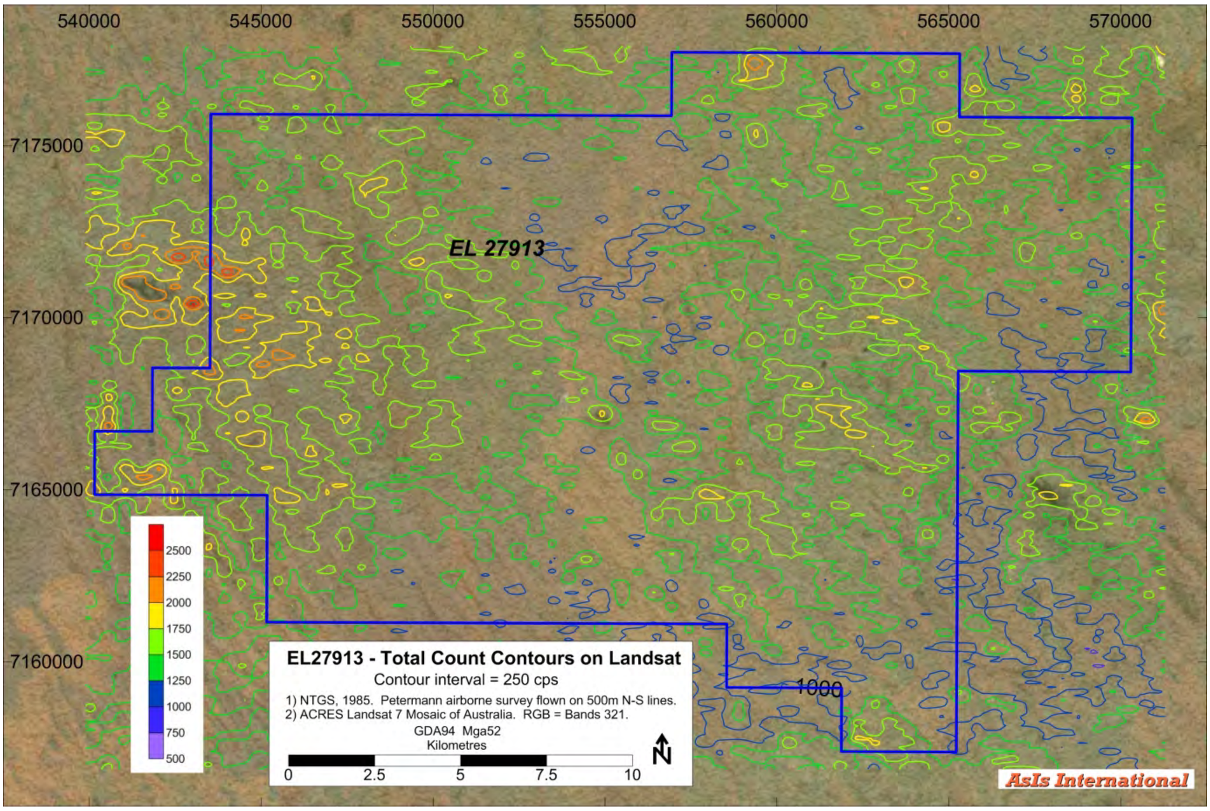


Figure 4n



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7175000
7170000
7165000
7160000
EL 27913
2500
2250
2000
1750
1500
1250
1000
750
500
1000
EL27913 - Total Count Contours on Landsat
Contour interval = 250 cps
1) NTGS, 1985. Petermann airborne survey flown on 500m N-S lines.
2) ACRES Landsat 7 Mosaic of Australia. RGB = Bands 321.
GDA94 Mga52
Kilometres
0
2.5
5
7.5
10
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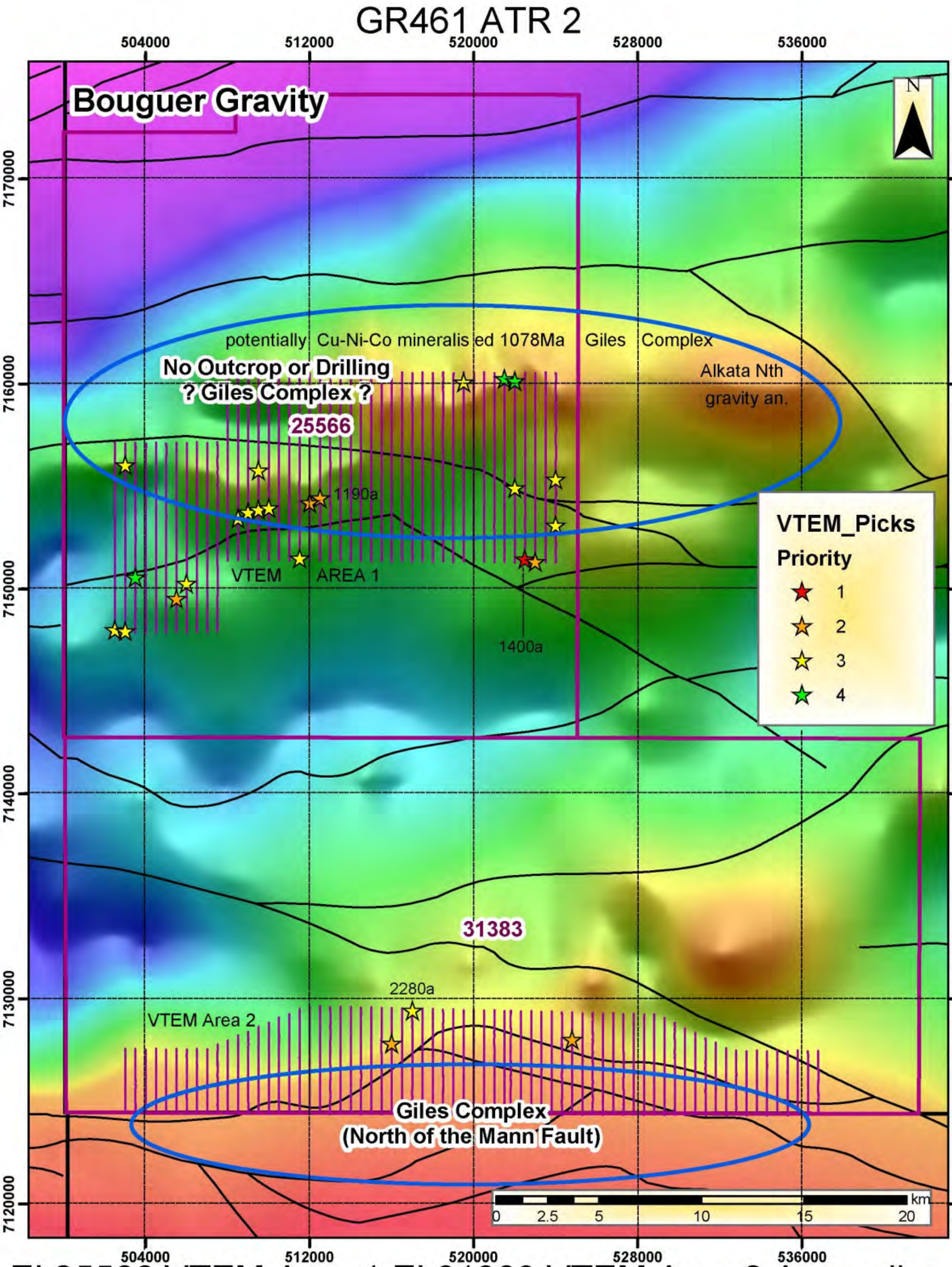
AsIs International

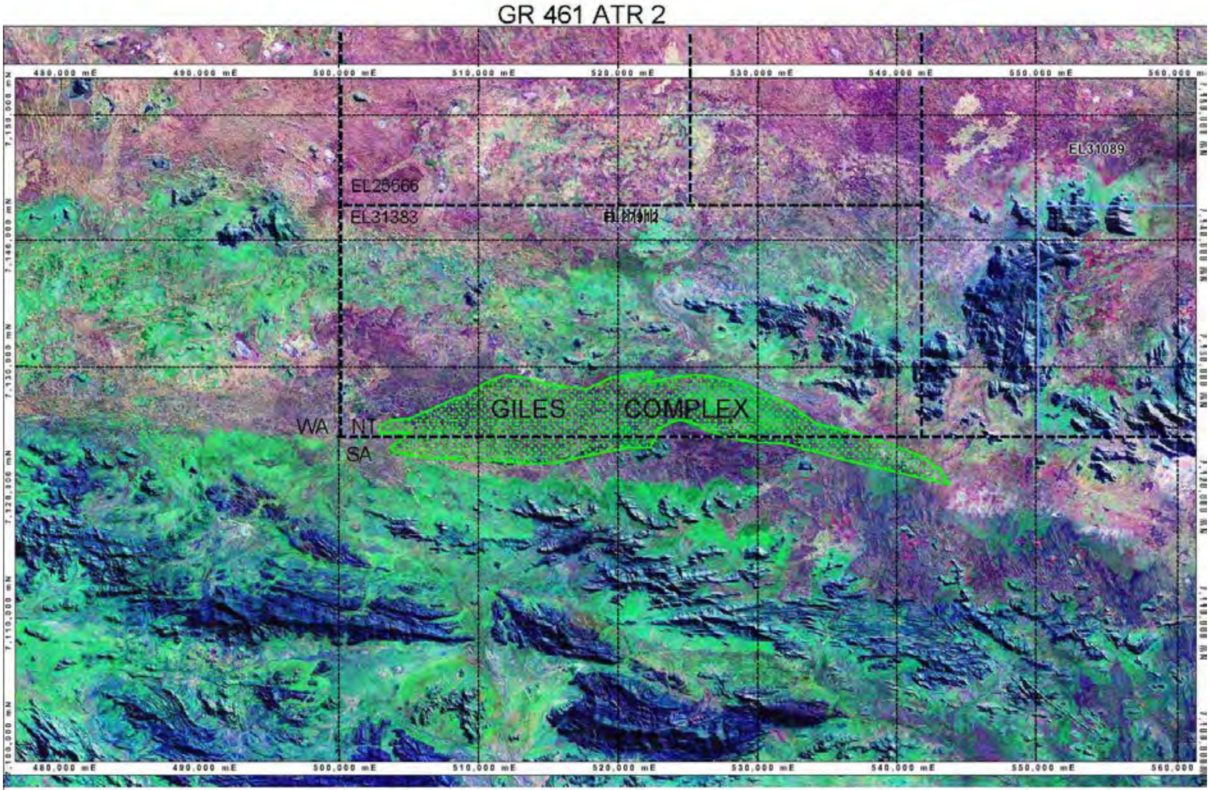
Figure 4o.



EL25566 VTEM Area 1,EL31383 VTEM Area 2 Anomalies over 4km x 4km spaced West Amadeus survey Bouguer regional gravity image+potentially Cu-Ni-Co mineralised Giles Complex areas+major structures

Figure 4p

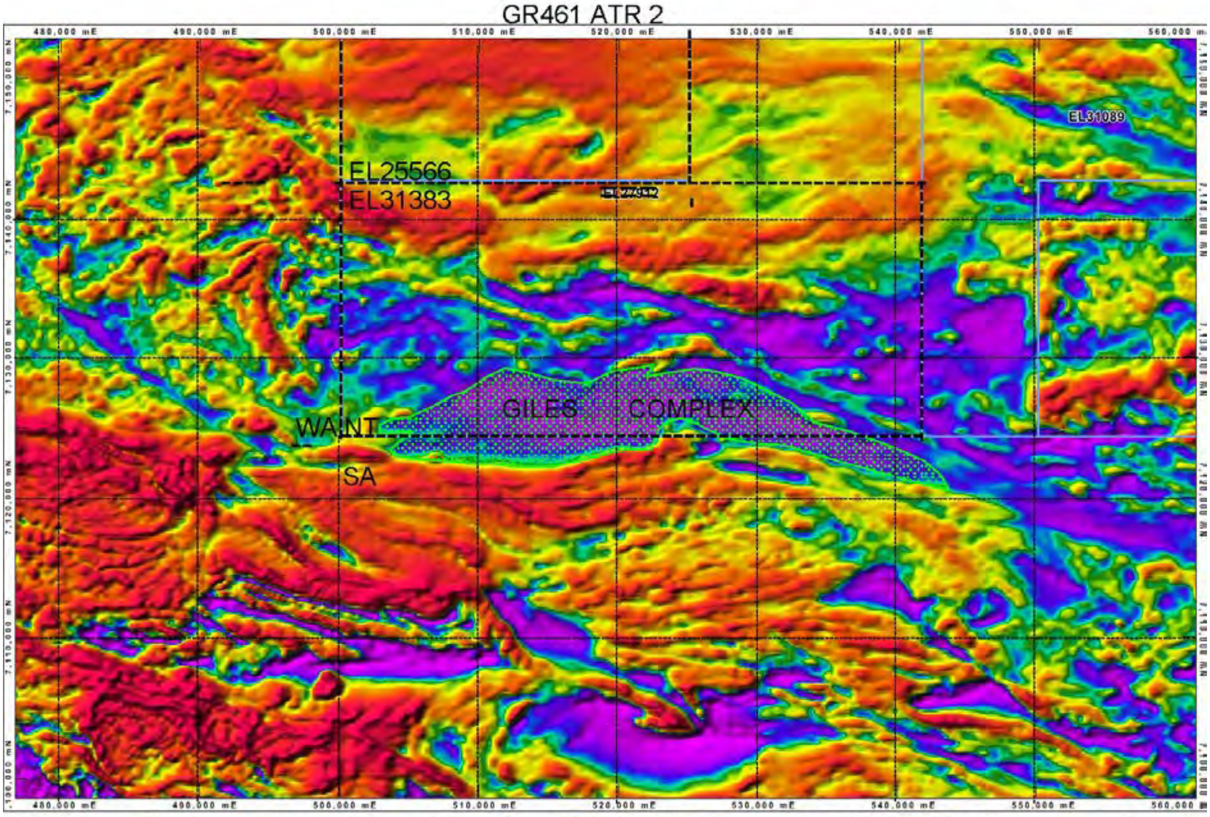
GR 461 ATR 2



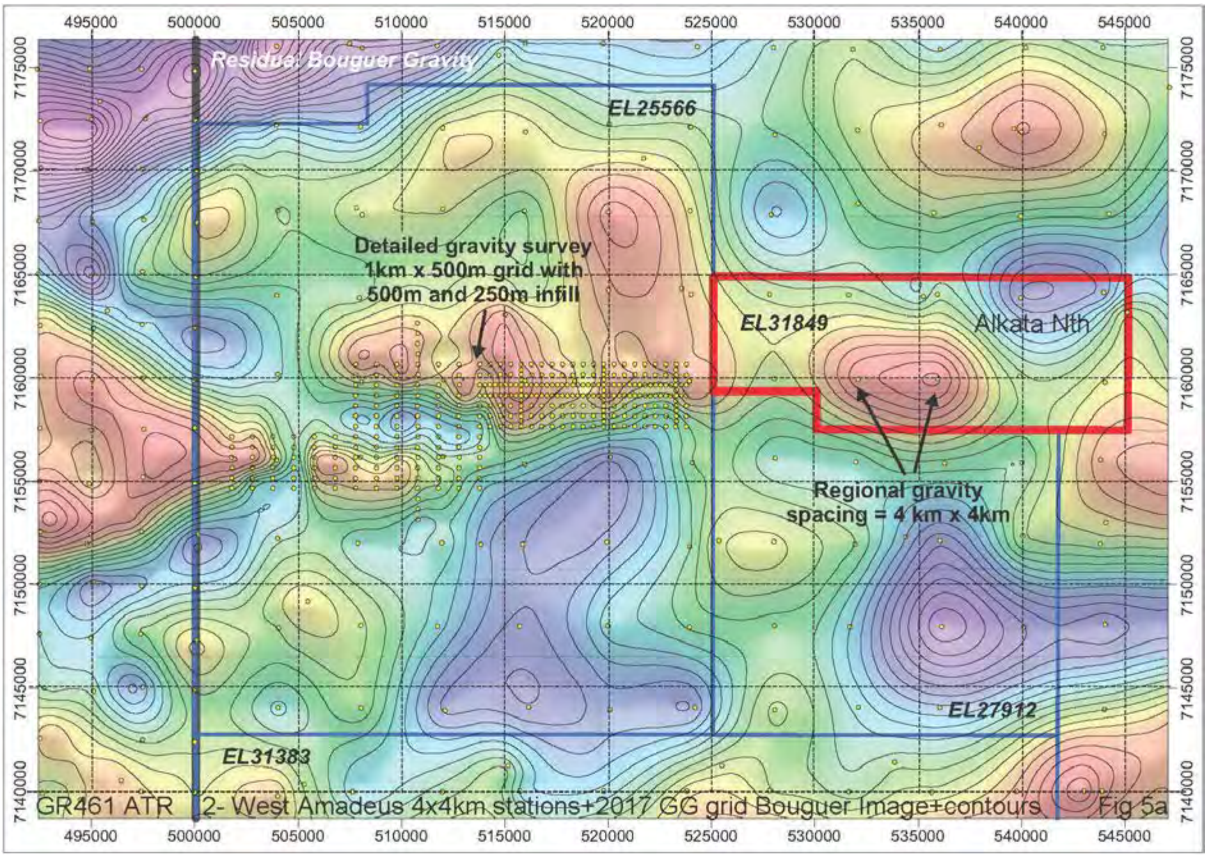
EL31383 over LANDSAT 742 showing Interpreted Claude Hills analogue Ni-Co lateritised 1078Ma Giles Complex area.

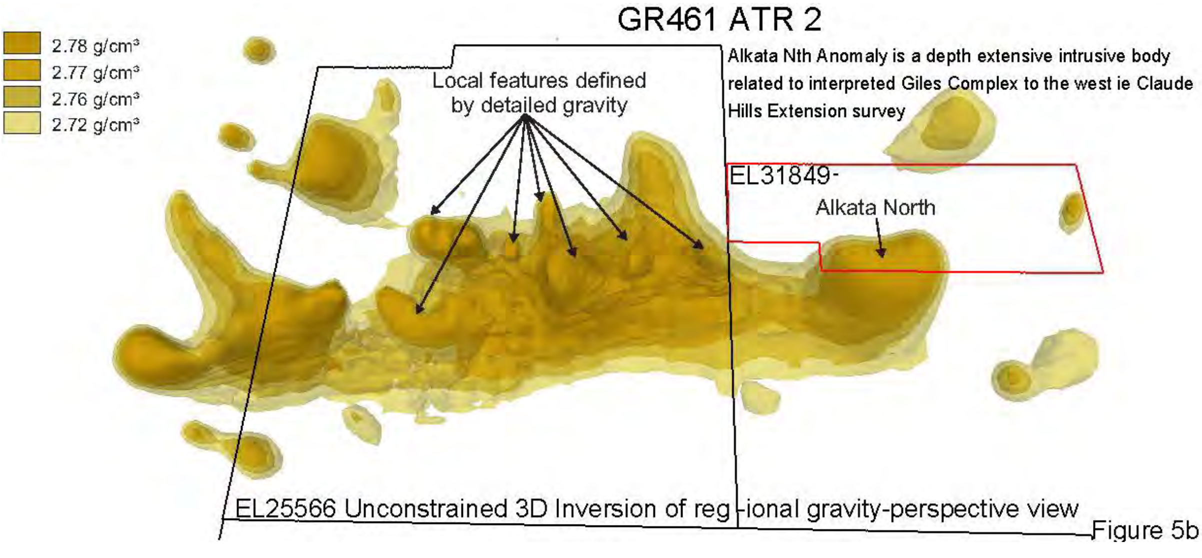
Figure 4q

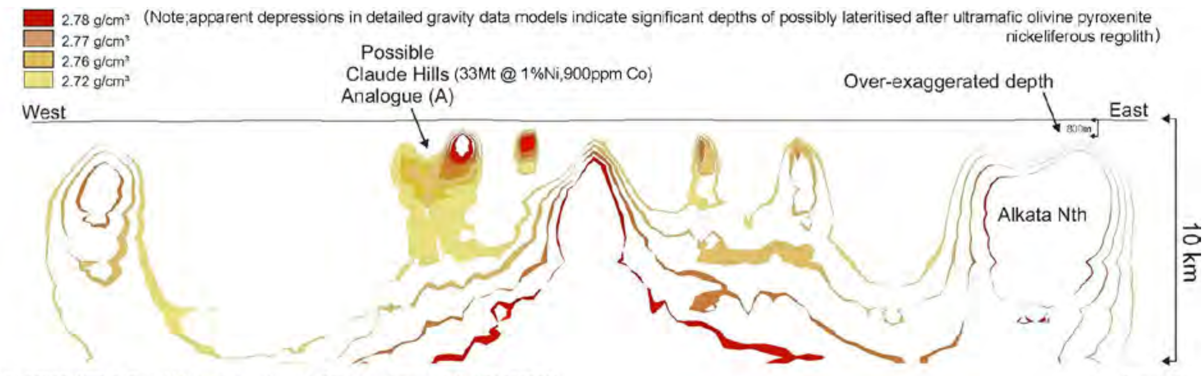
GR461 ATR 2



EL31383 over TMI showing interpreted Claude Hills analogue Ni-Co lateritised (demagnetised) 1078Ma Giles Complex area. Figure 4r


Residual Bouguer Gravity
EL25566
Detailed gravity survey 1km x 500m grid with 500m and 250m infill
EL31849
Alkata Nth
Regional gravity spacing = 4 km x 4km
EL27912
EL31383
GR461 ATR
2- West Amadeus 4x4km stations+2017 GG grid Bouguer Image+contours
Fig 5a


GR461 ATR 2
2.78 g/cm³
2.77 g/cm³
2.76 g/cm³
2.72 g/cm³
Local features defined by detailed gravity
Alkata Nth Anomaly is a depth extensive intrusive body related to interpreted Giles Complex to the west ie Claude Hills Extension survey
EL31849-
Alkata North
EL25566 Unconstrained 3D Inversion of regional gravity-perspective view
Figure 5b



EL25566 ATR 2. East-West section through 3D inversion model at 7160000N

Figure 5c

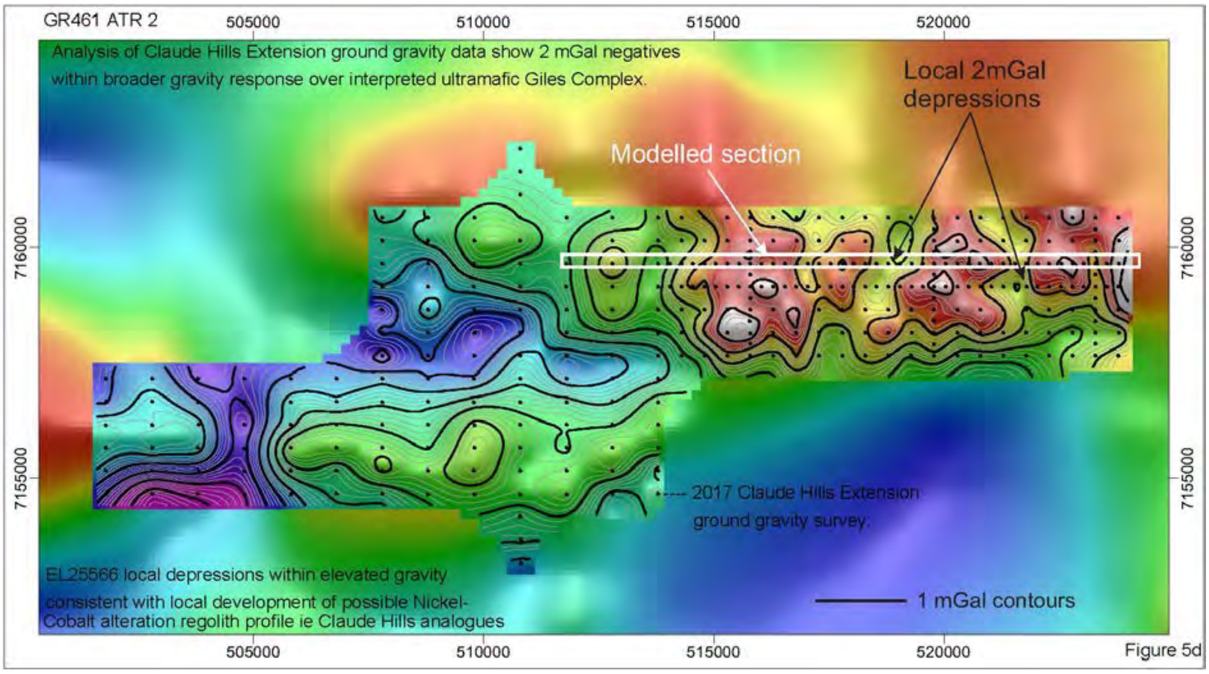
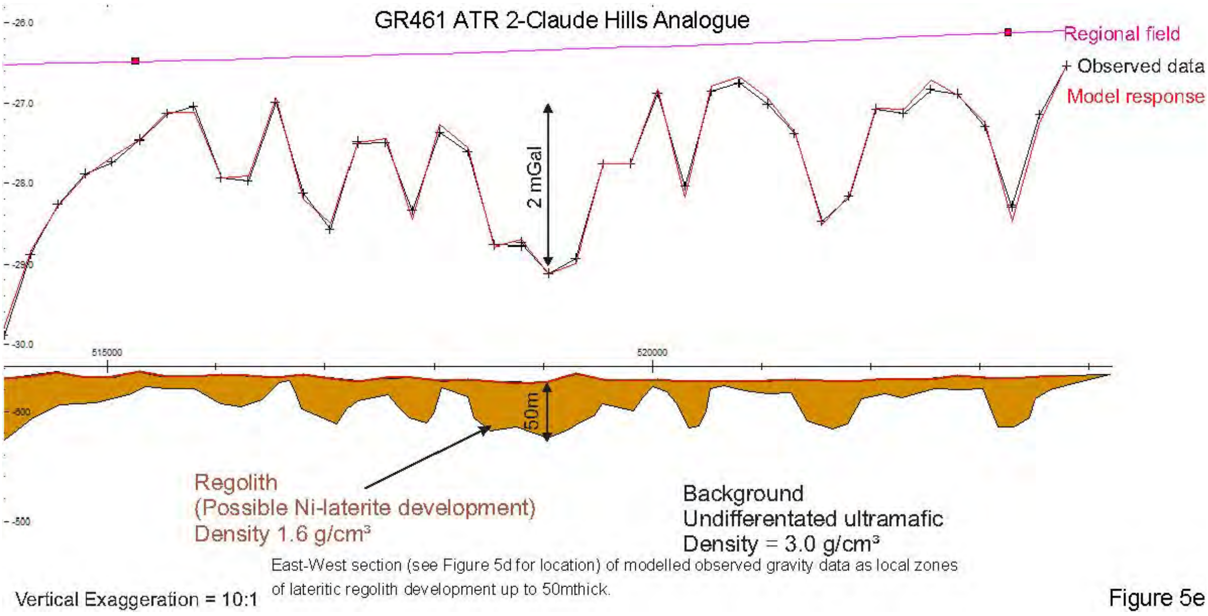


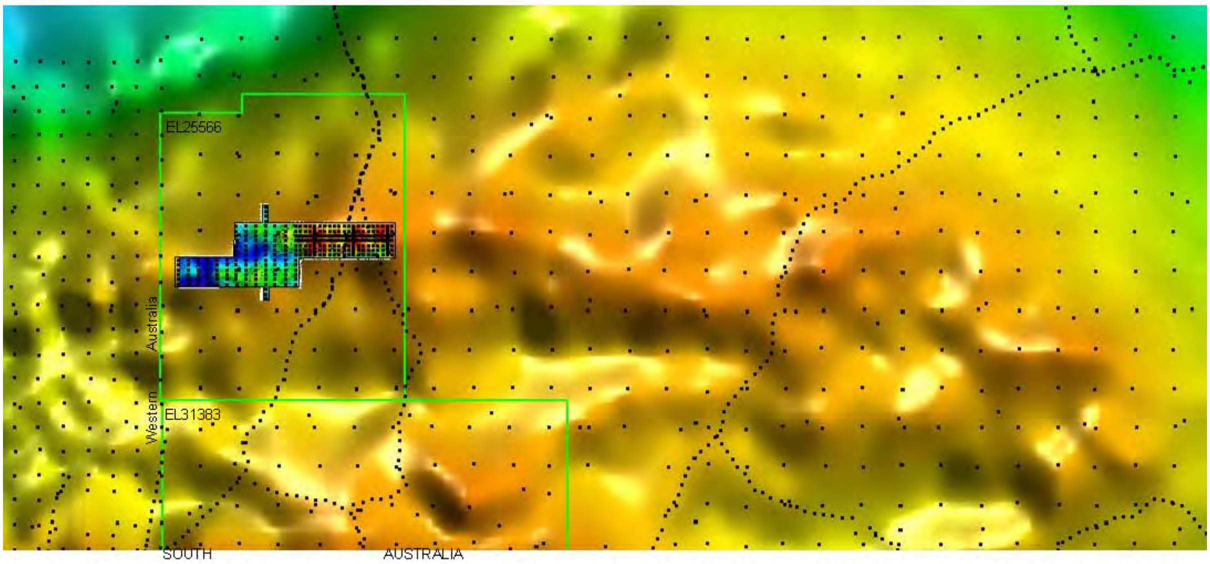
Figure 5d



East-West section (see Figure 5d for location) of modelled observed gravity data as local zones of lateritic regolith development up to 50mthick.

Figure 5e

GR 461 ATR 2



EL25566,31383 merged Regional Bouguer image showing Claude Hills Extension GG grid + West Amadeus 4km x 4km station location.

Figure 5h

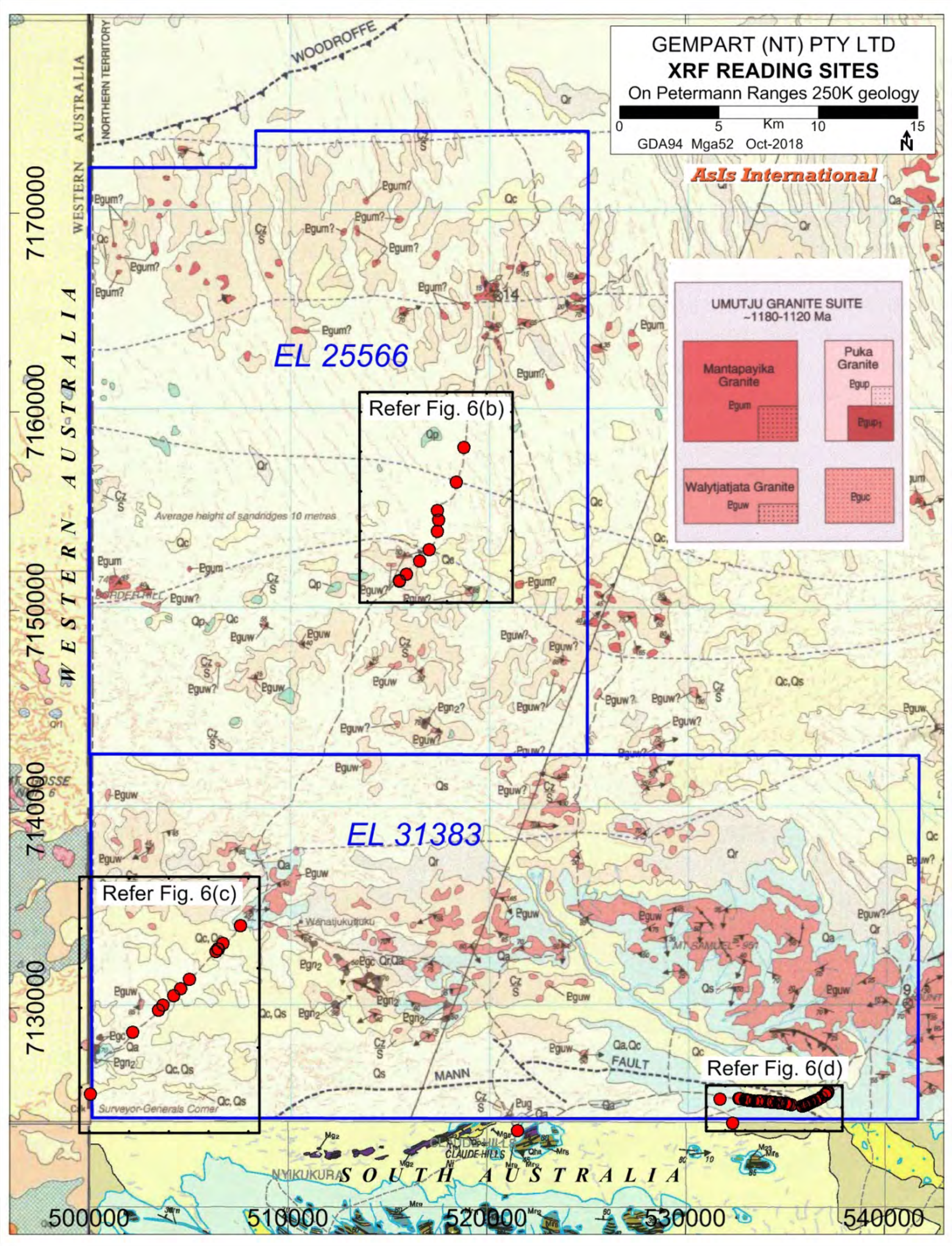
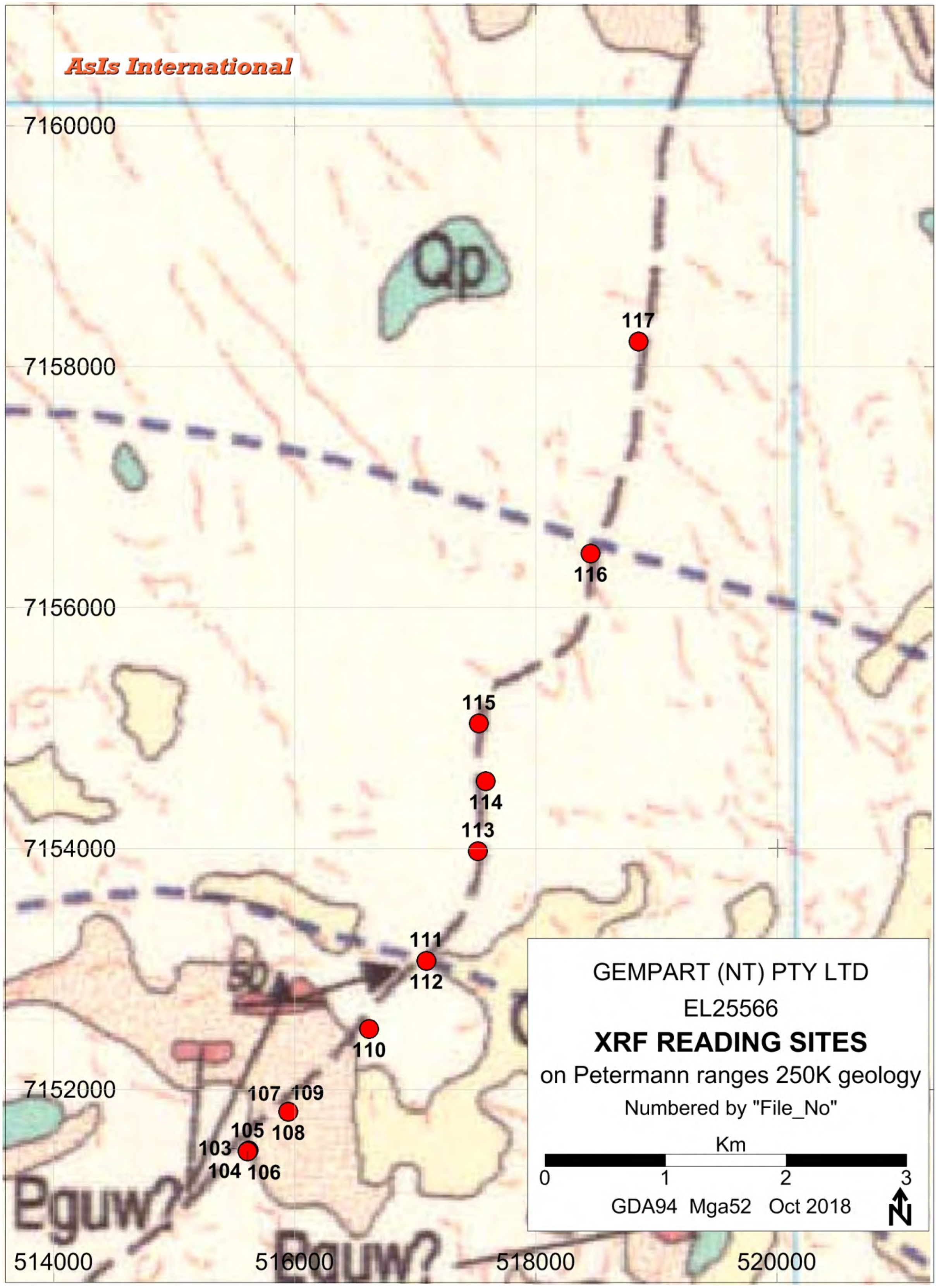
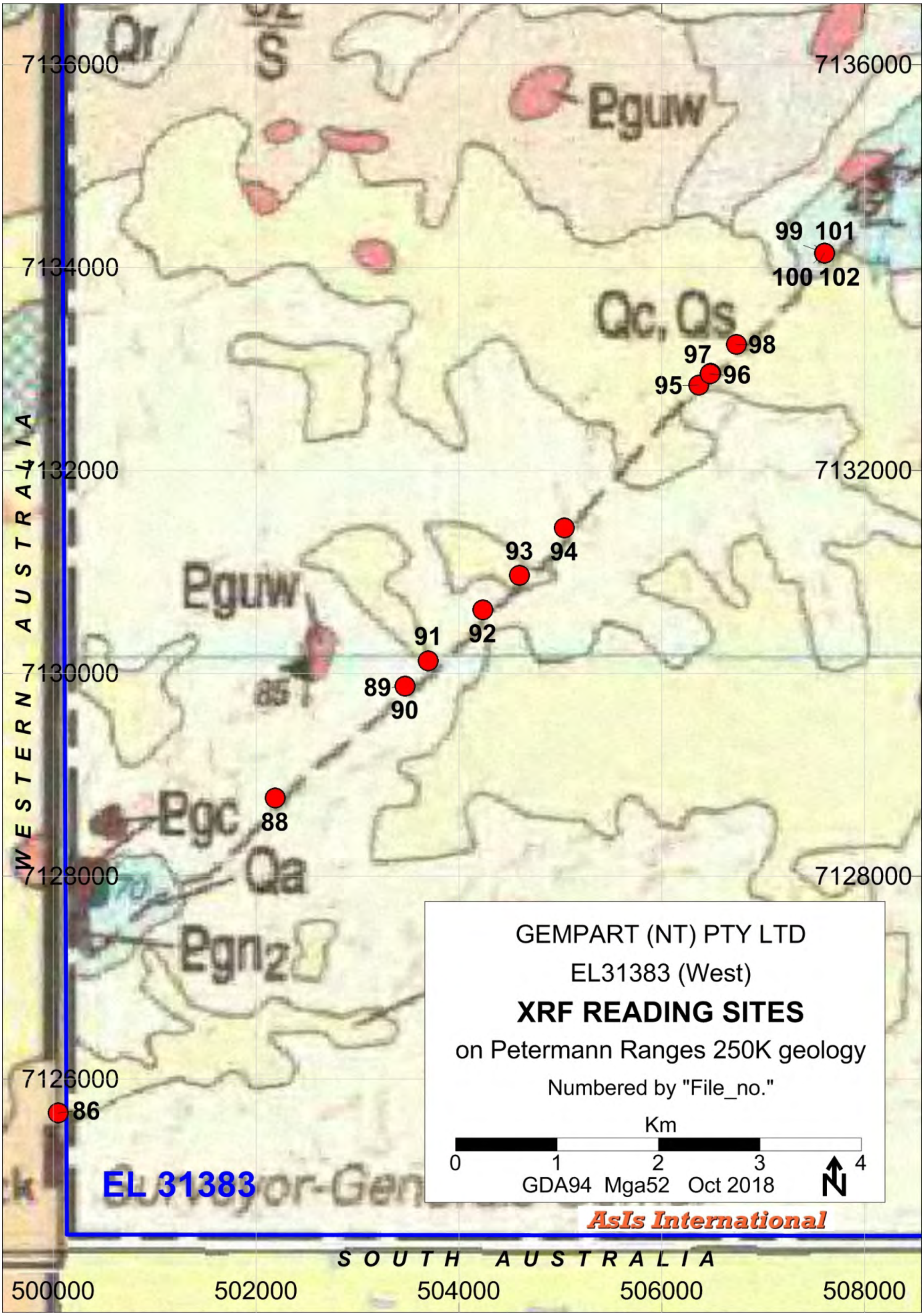

GEMPART (NT) PTY LTD
XRF READING SITES
On Petermann Ranges 250K geology
0 5 Km 10 15
GDA94 Mga52 Oct-2018
AsIs International
UMUTJU GRANITE SUITE
~1180-1120 Ma
Mantapayika Granite
Puka Granite
Walytjatjata Granite
EL 25566
EL 31383
Refer Fig. 6(b)
Refer Fig. 6(c)
Refer Fig. 6(d)
WESTERN AUSTRALIA
SOUTH AUSTRALIA
NORTHERN TERRITORY
WOODROFFE
MANN
FAULT
7170000
7160000
7150000
7140000
7130000
500000
510000
520000
530000
540000

Figure 6a



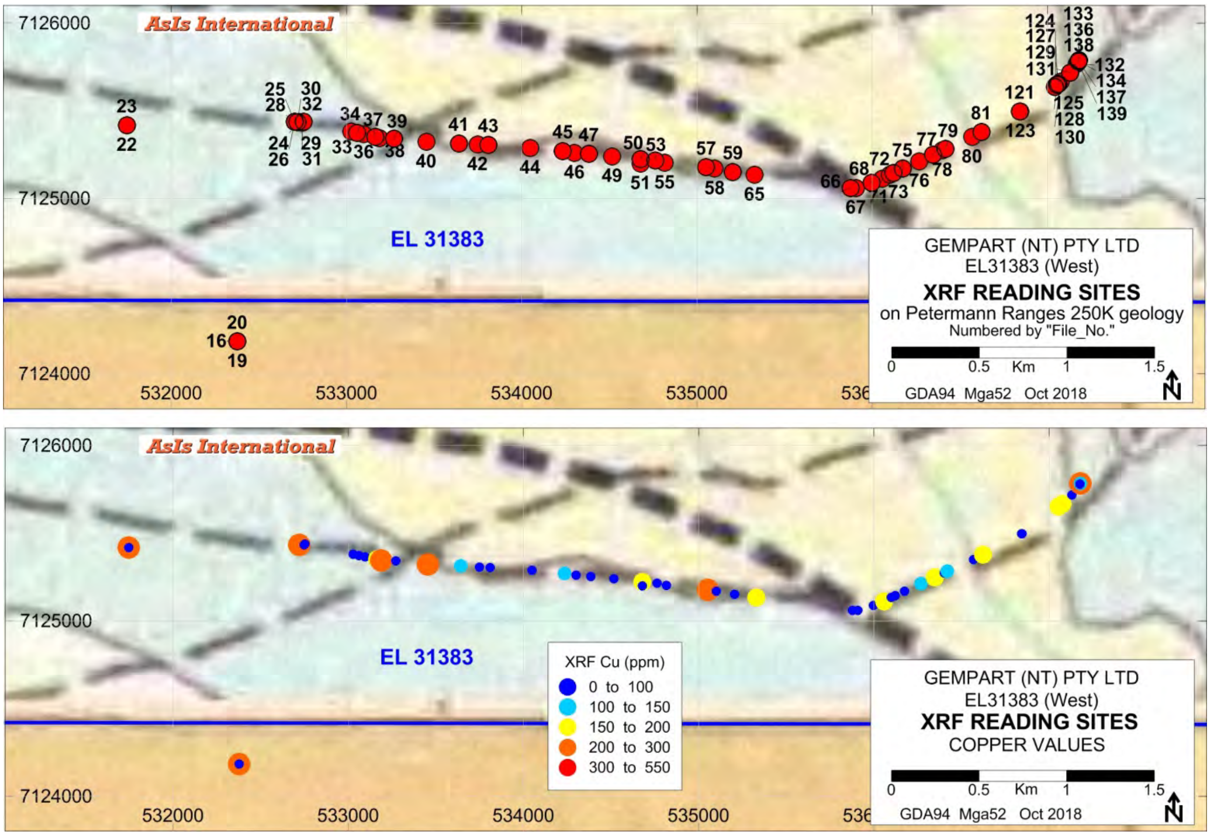
AsIs International
7160000
7158000
7156000
7154000
7152000
Qp
117
116
115
114
113
111
112
110
107
109
105
108
103
104
106
Pguw?
514000
516000
518000
520000
GEMPART (NT) PTY LTD
EL25566
XRF READING SITES
on Petermann ranges 250K geology
Numbered by "File_No"
Km
0
1
2
3
GDA94 Mga52 Oct 2018
N

Figure 6b



GEMPART (NT) PTY LTD
EL31383 (West)
XRF READING SITES
on Petermann Ranges 250K geology
Numbered by "File_no."
Km
0 1 2 3 4
GDA94 Mga52 Oct 2018
N
AsIs International
EL 31383
WESTERN AUSTRALIA
SOUTH AUSTRALIA
7136000
7134000
7132000
7130000
7128000
7126000
500000
502000
504000
506000
508000
Pguw
Qc, Qs
Pgc
Qa
Pgn2
Qr
86
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102

Figure 6c



7126000
AsIs International
7125000
EL 31383
7124000
532000
533000
534000
535000
GEMPART (NT) PTY LTD
EL31383 (West)
XRF READING SITES
on Petermann Ranges 250K geology
Numbered by "File_No."
0 0.5 Km 1 1.5
GDA94 Mga52 Oct 2018
N
7126000
AsIs International
7125000
EL 31383
7124000
532000
533000
534000
535000
XRF Cu (ppm)
0 to 100
100 to 150
150 to 200
200 to 300
300 to 550
GEMPART (NT) PTY LTD
EL31383 (West)
XRF READING SITES
COPPER VALUES
0 0.5 Km 1 1.5
GDA94 Mga52 Oct 2018
N

Figure 6d

Table 1. Western EL31383 – Summary Statistics of XRF Readings on calcrete.

ELEMENT	READINGS	MIN	MAX	MEDIAN	REMARKS
Ta2O5	4	5	39	13	Background
Ta2O5 Err	11	11	18	14	
Mg	11	9585	53720	22607	Background - Less than errors
Mg Err	11	20530	40668	30308	
Al	11	23615	65377	44207	Background
Al Err	11	2206	3419	2637	
Si	11	110358	198913	141779	Background
Si Err	11	518	770	623	
P	11	1883	13435	11257	Background
P Err	11	271	568	480	
S	4	38	735	581	Background
S Err	11	17	218	138	
K	11	181	5435	2661	Background
K Err	11	1	139	88	
Ca	11	1872	227368	73931	Background
Ca Err	11	6	711	69	
Ti	11	43	2599	977	Background
Ti Err	11	7	97	63	
V	9	7	148	33	Background
V Err	11	1	13	1	
Cr	11	1	27	7	Background
Cr Err	11	4	8	6	
Mn	10	2	316	148	Background
Mn Err	11	11	85	71	
Fe	11	85	11475	4371	Background
Fe Err	11	17	264	166	
Co	9	1	2	1	Background
Co Err	10	1	2	1	
Ni	0	0	0	0	No data
Ni Err	11	1	11	9	
Cu	8	1	247	68	**Slightly elevated readings**
Cu Err	0	0	0	0	
Zn	11	4	43	36	Background
Zn Err	11	3	5	5	

Table 1 (Cont'd). Western EL31383 – Summary Statistics of XRF Readings on calcrete.

ELEMENT	READINGS	MIN	MAX	MEDIAN	REMARKS
As	6	1	5	3	Background - Less than errors
As Err	11	2	5	4	
Se	6	1	21	6	Background - Less than errors
Se Err	11	3	55	45	
Rb	0	0	0	0	No data
Rb Err	11	2	4	3	
Sr	11	6	156	24	Background
Sr Err	11	4	9	7	
Y	8	1	11	6	Background
Y Err	11	5	8	7	
Zr	8	25	399	77	Background
Zr Err	11	5	12	8	
Mo	7	1	32	5	Background - Less than errors
Mo Err	11	16	34	29	
Ag	8	2	7	5	Background - Less than errors
Ag Err	11	2	25	21	
Cd	3	1	13	4	Background - Less than errors
Cd Err	11	36	58	51	
Sn	2	1	2	2	Background - Less than errors
Sn Err	11	2	31	26	
Sb	2	1	5	3	Background - Less than errors
Sb Err	11	17	35	25	
Ba	11	16	313	131	Background
Ba Err	11	14	191	175	
Pb	5	1	7	2	Background - Less than errors
Pb Err	1	7	7	7	
Bi	0	0	0	0	No data
Bi Err	11	1	17	15	
Th	11	1	24	9	Background - Less than errors
Th Err	11	1	42	14	
U	7	1	76	23	Background - Less than errors
U Err	11	6	112	77	

Table 2. Eastern EL31383 – Summary Statistics of XRF Readings on calcrete.

ELEMENT	READINGS	MIN	MAX	MEDIAN	REMARKS
Ta2O5	41	1	39	13	Background
Ta2O5 Err	64	8	17	14	
Mg	64	114	88868	13174	Background - Less than errors
Mg Err	64	255	58557	23099	
Al	64	344	96353	30258	Background
Al Err	64	26	5413	2660	
Si	64	727	246241	132737	Background
Si Err	64	8	1527	585	
P	64	22	21354	6232	Background
P Err	64	5	632	470	
S	33	5	9698	729	Background
S Err	64	11	346	144	
K	64	49	8616	2041	Background
K Err	64	1	219	94	
Ca	64	21	321657	115183	Background
Ca Err	64	25	916	553	
Ti	61	1	1829	784	Background
Ti Err	64	6	94	57	
V	49	1	75	21	Background
V Err	64	1	18	8	
Cr	58	1	117	8	Background
Cr Err	64	4	9	7	
Mn	61	4	1417	124	Background
Mn Err	64	1	144	62	
Fe	61	27	13622	3144	Background
Fe Err	64	2	311	140	
Co	38	1	4	1	Background
Co Err	54	1	2	1	
Ni	0	0	0	0	No data
Ni Err	64	1	12	8	
Cu	49	1	522	67	**Slightly elevated readings**
Cu Err	0	0	0	0	
Zn	61	1	46	35	Background
Zn Err	64	1	8	4	

Table 2 (Cont'd). Eastern EL31383 – Summary Statistics of XRF Readings on calcrete.

ELEMENT	READINGS	MIN	MAX	MEDIAN	REMARKS
As	37	1	7	2	Background - Less than errors
As Err	64	2	6	4	
Se	41	1	26	7	Background - Less than errors
Se Err	64	4	72	41	
Rb	2	2	3	3	Background - Less than errors
Rb Err	64	2	5	3	
Sr	64	5	251	68	Background
Sr Err	64	1	9	6	
Y	44	1	41	6	Background
Y Err	64	3	9	7	
Zr	35	3	181	47	Background
Zr Err	64	1	9	7	
Mo	32	1	17	7	Background - Less than errors
Mo Err	64	2	45	23	
Ag	30	1	15	3	Background - Less than errors
Ag Err	64	2	31	18	
Cd	24	1	28	7	Background - Less than errors
Cd Err	64	3	68	46	
Sn	8	2	19	4	Background - Less than errors
Sn Err	64	2	34	26	
Sb	13	1	11	4	Background - Less than errors
Sb Err	64	2	47	24	
Ba	64	1	811	184	Background
Ba Err	64	14	224	160	
Pb	45	1	15	4	Background - Less than errors
Pb Err	22	1	26	12	
Bi	0	0	0	0	No data
Bi Err	64	1	19	13	
Th	61	1	53	13	Background - Less than errors
Th Err	64	3	77	34	
U	45	1	83	14	Background - Less than errors
U Err	64	1	147	72	

Table 3. EL25566 – Summary Statistics of XRF Readings on calcrete.

ELEMENT	READINGS	MIN	MAX	MEDIAN	REMARKS
Ta2O5	16	1	41	10	Background
Ta2O5 Err	19	8	28	13	
Mg	18	1282	426487	24151	Background
Mg Err	18	1834	49824	30021	
Al	18	3146	79719	23502	Background
Al Err	18	198	9657	2447	
Si	18	1454	631882	95280	Background
Si Err	18	51	1956	580	
P	18	496	25513	11790	Background
P Err	19	5	631	511	
S	9	6	985	333	Background
S Err	19	21	192	149	
K	18	55	6522	1223	Background
K Err	18	16	435	83	
Ca	19	63	293767	187823	Background
Ca Err	19	5	835	576	
Ti	18	52	3268	657	Background
Ti Err	18	6	135	65	
V	10	1	876	32	**Slightly Elevated**
V Err	18	1	35	11	
Cr	14	1	21	11	Background
Cr Err	19	4	9	7	
Mn	17	3	597	184	Background
Mn Err	19	6	143	62	
Fe	17	96	18176	1234	Background
Fe Err	18	11	359	181	
Co	11	1	5	1	Background
Co Err	15	1	3	1	
Ni	2	6	17	12	Background
Ni Err	19	1	15	8	
Cu	13	1	145	71	Background - Less than errors
Cu Err	2	16	376	196	
Zn	19	3	55	26	Background
Zn Err	18	3	11	5	

APPENDIX 1.

EL25566,31383 Areas1&2 VTEM Modelling .,K.Blundell 30th September 2018.

Kelvin Blundell
Geophysical Consulting

GEMPART (NT) PTY LTD

Musgrave Ranges
(EL25566, EL31383)
& Docker River
(EL27581, EL31531)
VTEM Modelling

30th September 2018
Kelvin Blundell
(E) kelvin.blundell @bigpond.com (M) 0432 145 739

Introduction

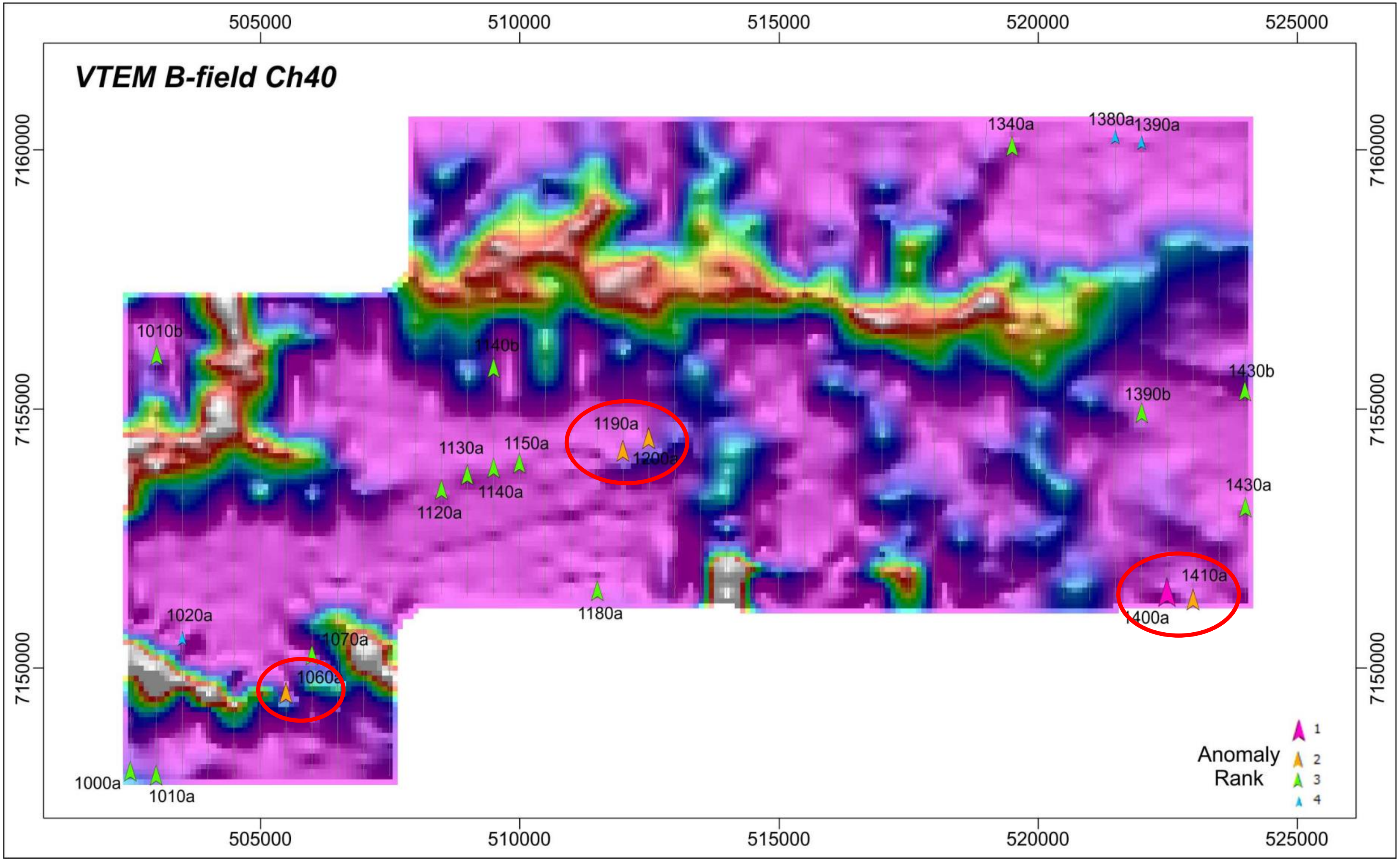
This Author conducted a review of the VTEM surveys over three areas in February 2018, and identified several anomalies that have the potential to represent bed-rock conductors. Most of these were ranked low or very low due to a consistent correlation with the edge of overburden responses, and it is likely that these lower-order anomalies are diffraction-tail effects caused by the sharp contrast in near-surface conductivity at the edge of palaeochannels and weathered fault zones. Some other lower-ranked anomalies looked suspicious and attributed to surficial SPM effects.

Overall there are only two clear local late-time bed-rock conductor responses in the three areas surveyed - anomaly 1400a in the Musgrave Ranges Area 1, and anomaly 1120a in the Docker River survey area.

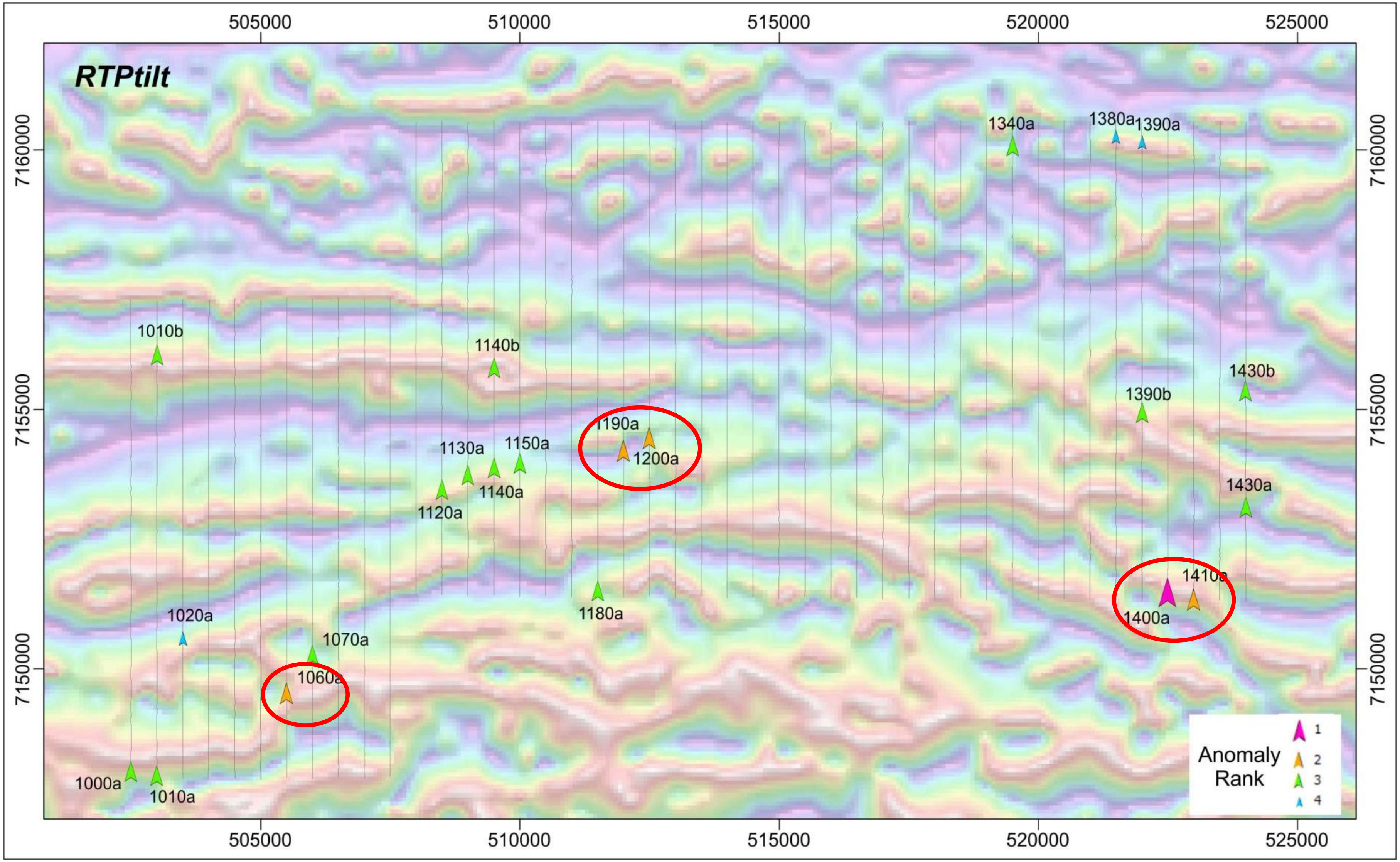
In addition to these, there are eight Rank-2 anomalies in these areas that can be explained by diffraction tail effects at the contact between resistive and conductive areas, but appear to also have characteristics of valid bedrock responses.

This report discussed the results of modelling of these Rank-1 and Rank-2 anomalies.

Musgrave Ranges Area 1 – Modelled Anomalies

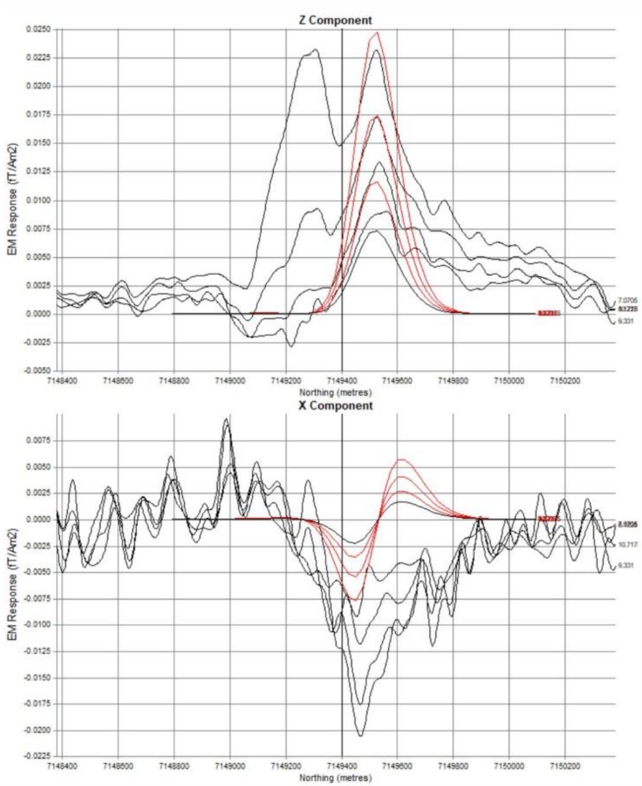


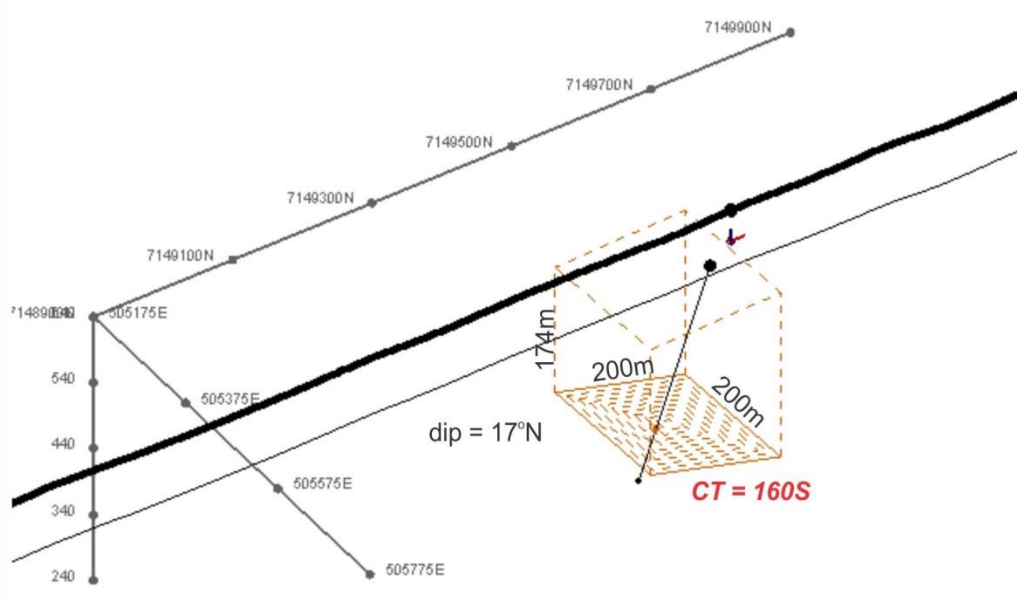
Musgrave Ranges Area 1 – Modelled Anomalies



Area 1 – Anomaly 1060a

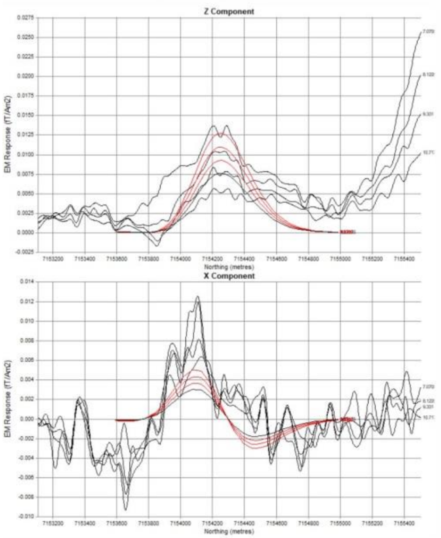
- Difficult to model with any degree of certainty due to nearby shallow palaeochannel response. Reasonable fit obtained for the Z-component response, but poor fit the X-component. The strike is poorly constrained due to single-line anomaly. The modelling suggests the source is a moderate-sized, shallow dipping conductor of moderate conductance.
- Ground EM follow-up is highly recommended prior to drilling to confirm the anomaly and help constrain the geometry.



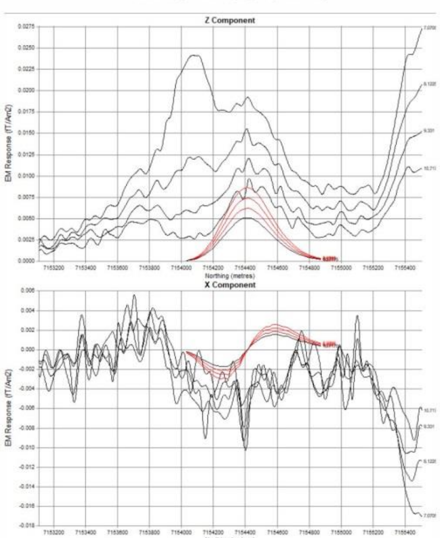


Area 1 – Anomalies 1190a and 1200a

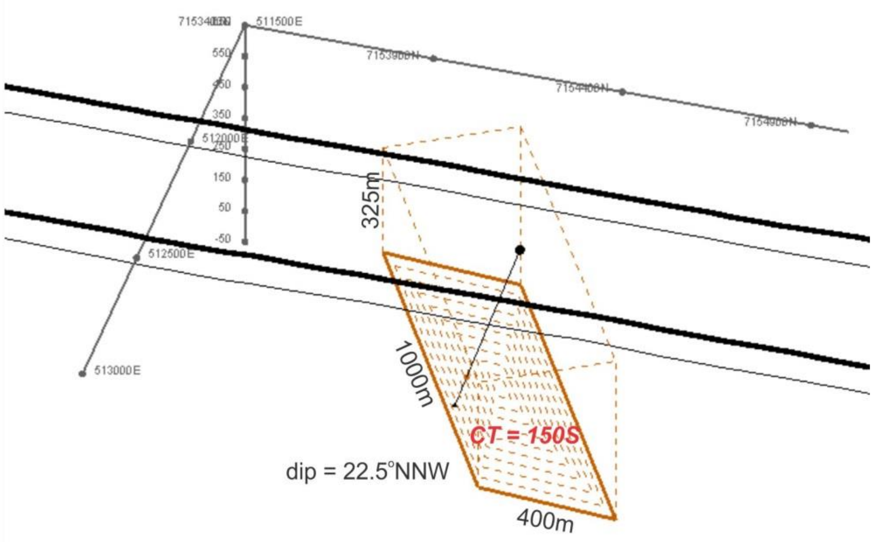
Line 1190 Ch45



Line 1200 Ch45

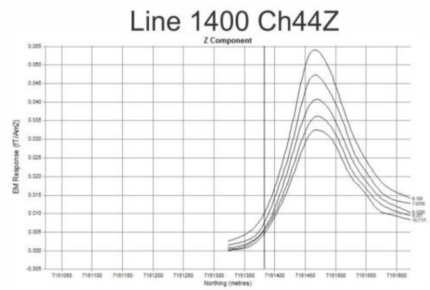


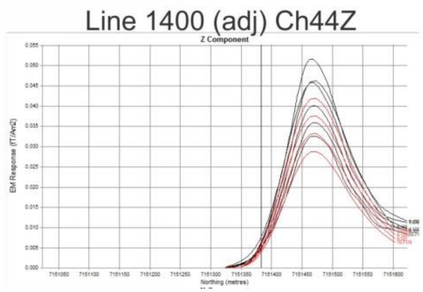
- Difficult to model with any degree of certainty due to nearby shallow palaeochannel response, but reasonable fits suggest the source is a large, deep north-dipping conductor of moderate conductance.
- Due to the depth of the target, ground EM follow-up is highly recommended prior to drilling to confirm the anomaly and help constrain the geometry.

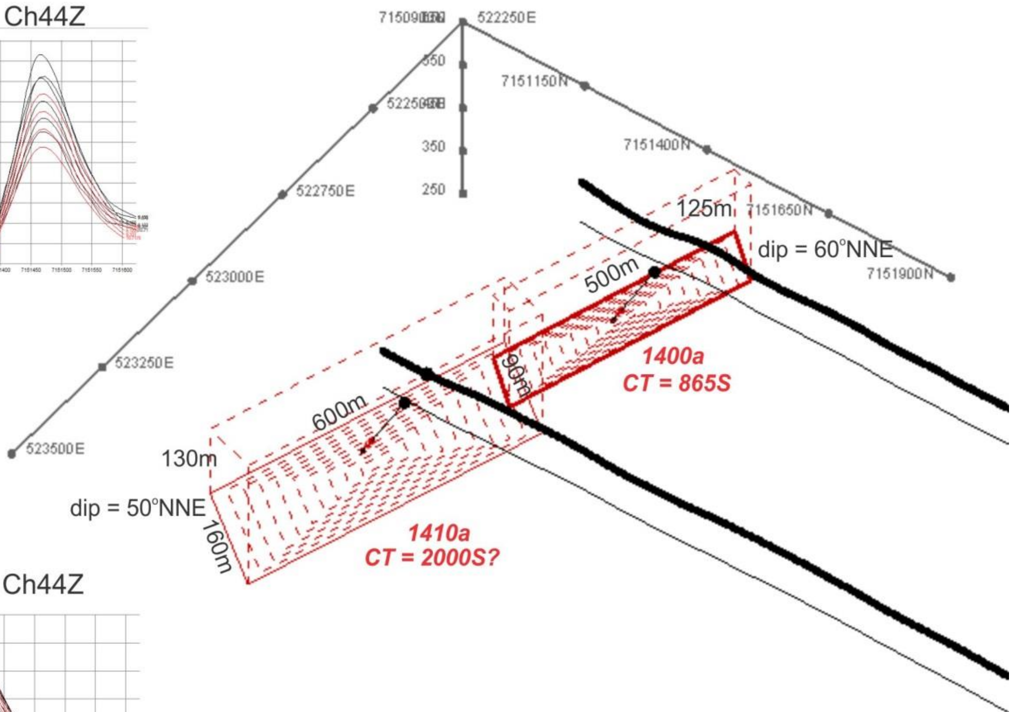


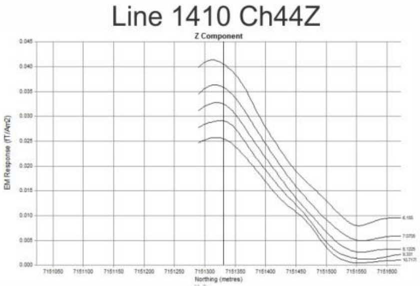
Area 1 – Anomalies 1400a and 1410a

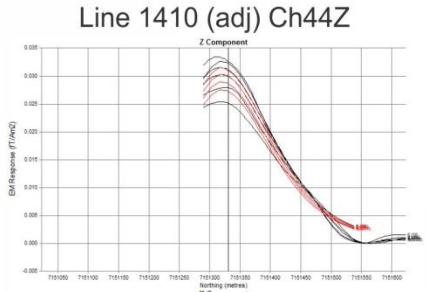
- Z-component background response removed prior to modelling. X-component too noisy to model.
- Models are considered tenuous due to lack of full anomaly (especially 1410a) and persistent background response. The models were generated by subtracting the background response from the data.
- Highly recommend ground EM follow-up prior to drilling



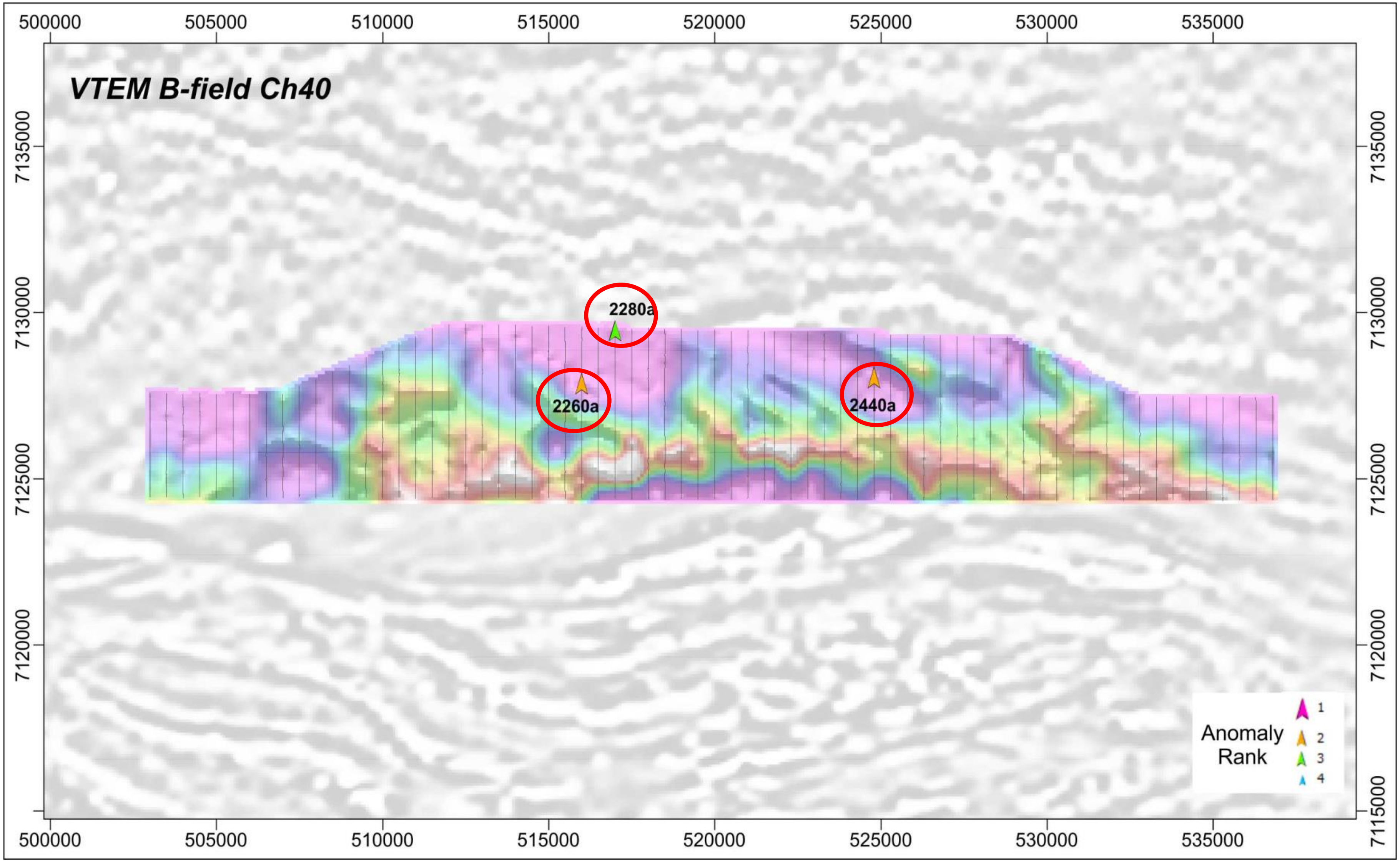




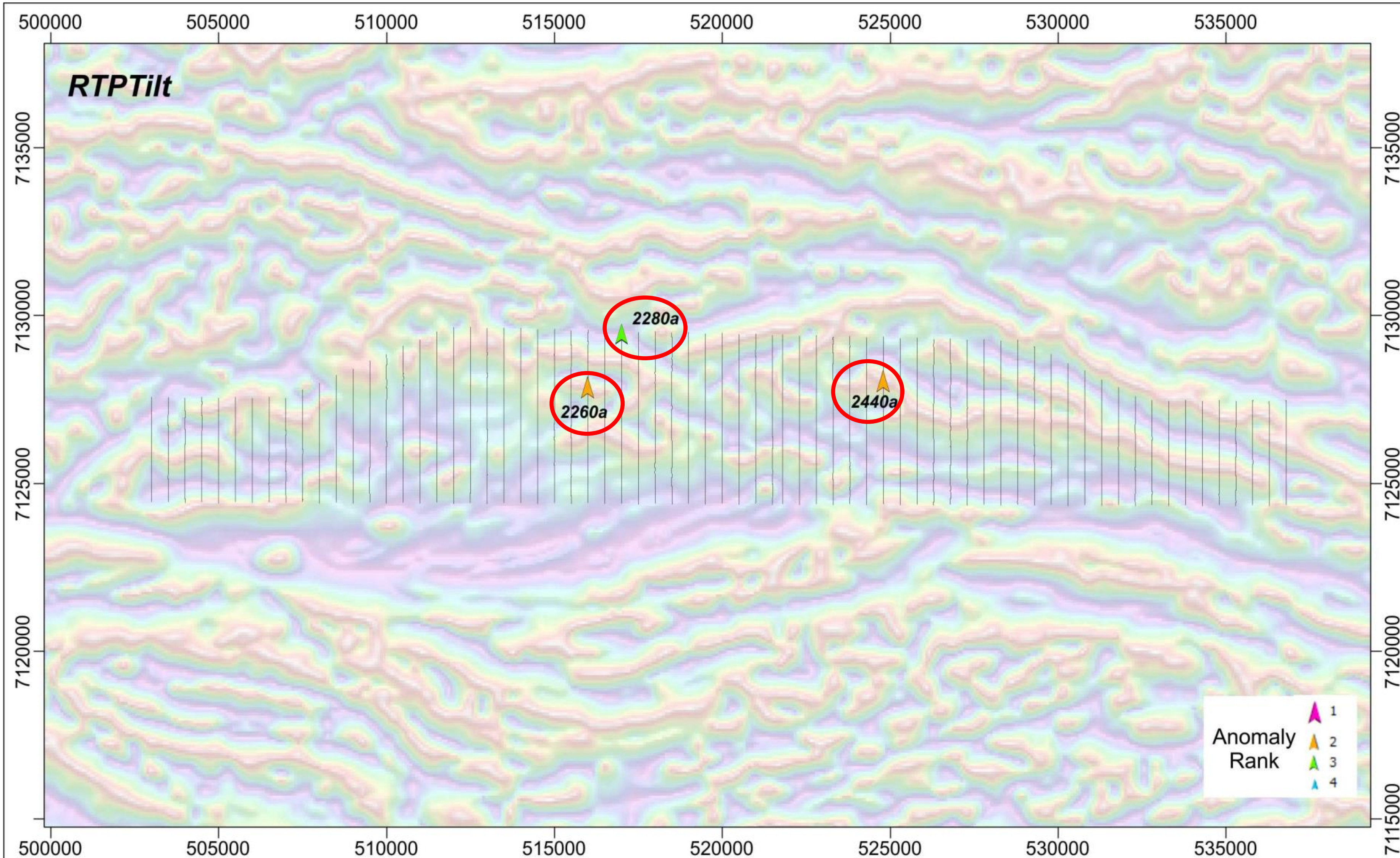




Musgrave Ranges Area 2 – Modelled Anomalies

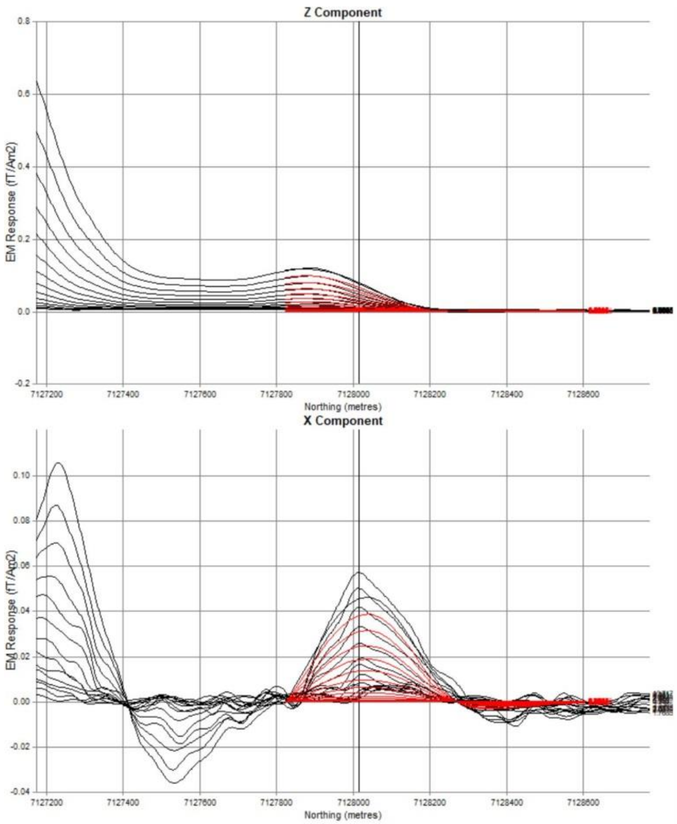


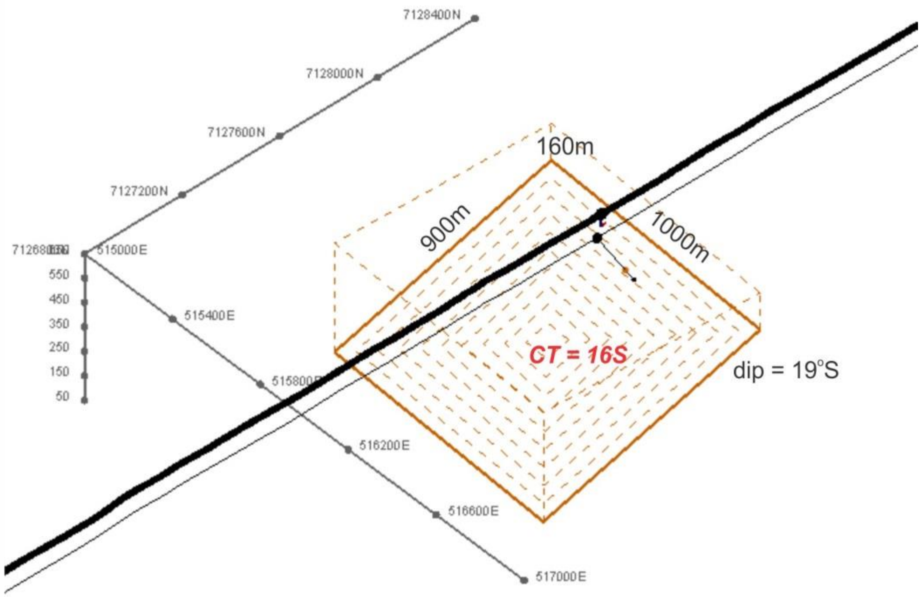
Musgrave Ranges Area 2 – Modelled Anomalies



Area 2 – Anomaly 2260a

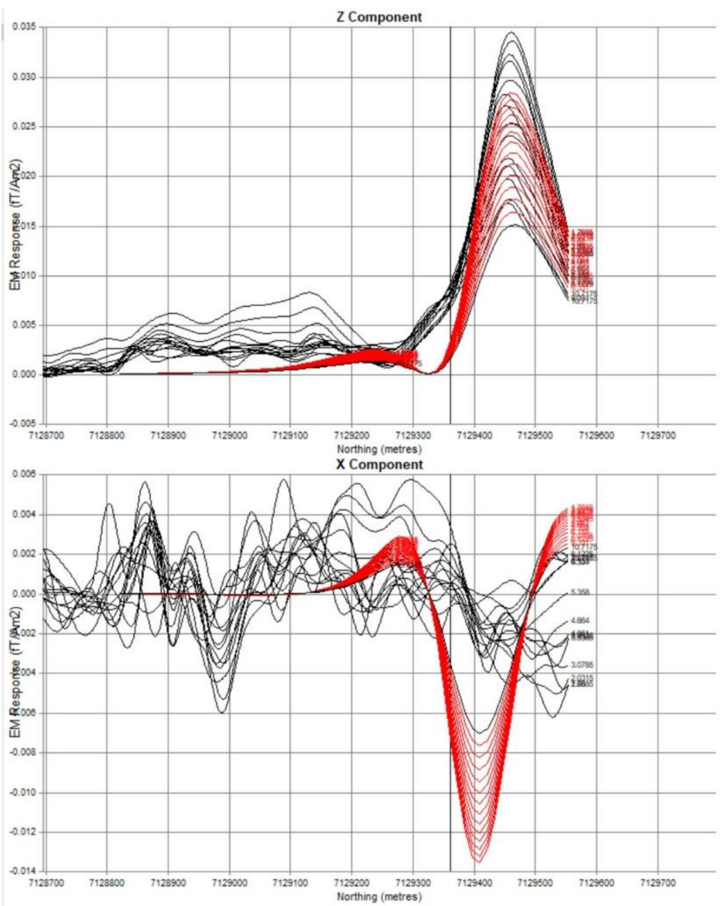
- Difficult to model with any degree of certainty due to nearby shallow palaeochannel response. Reasonable fit obtained for the Z- and X-component responses. Modelling suggests a shallow dipping, large weak source.
- Recommended drill hole shown, but the source looks to be stratigraphic (if real).

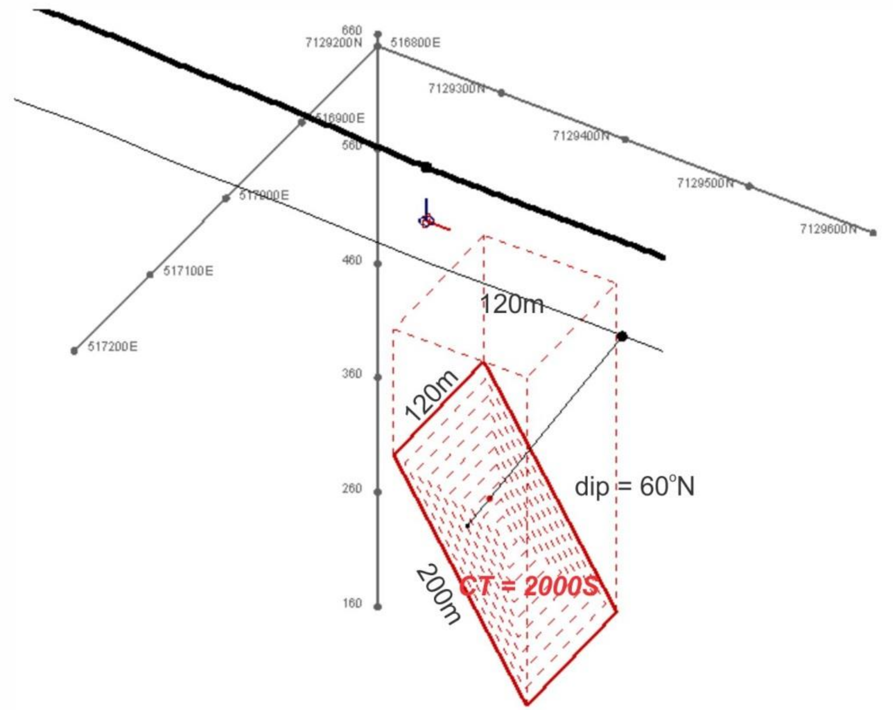




Area 2 – Anomaly 2280a

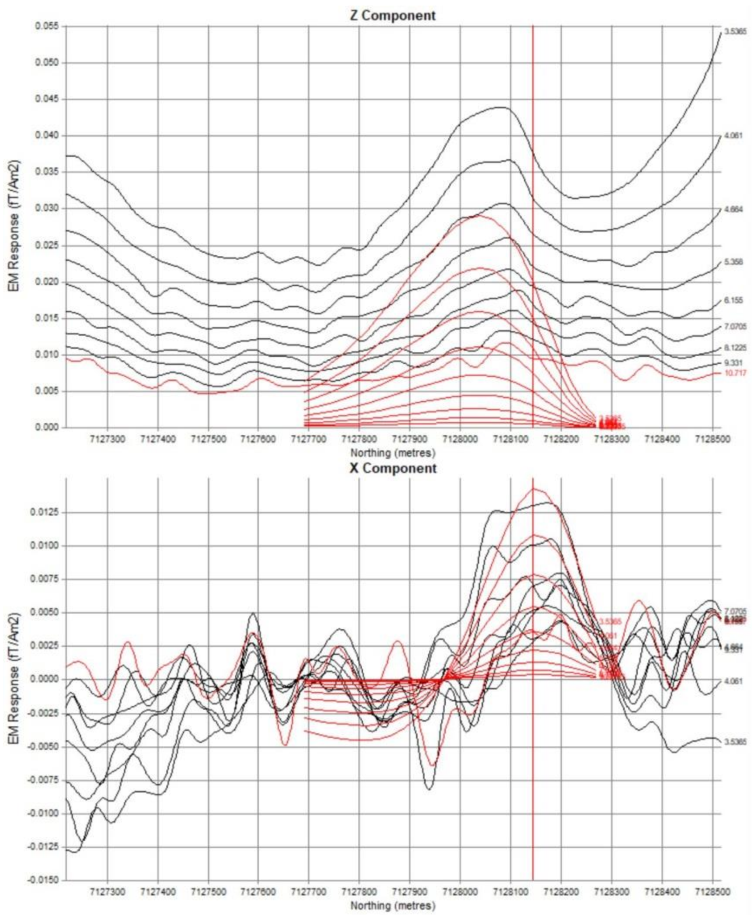
- Poor fit to Z- and X-components. Z-component late-time decay is suspicious.
- Possible noise (wind “knock”?), so required confirmation with ground EM follow-up.
- If real, could be a north-dipping local strong conductor.

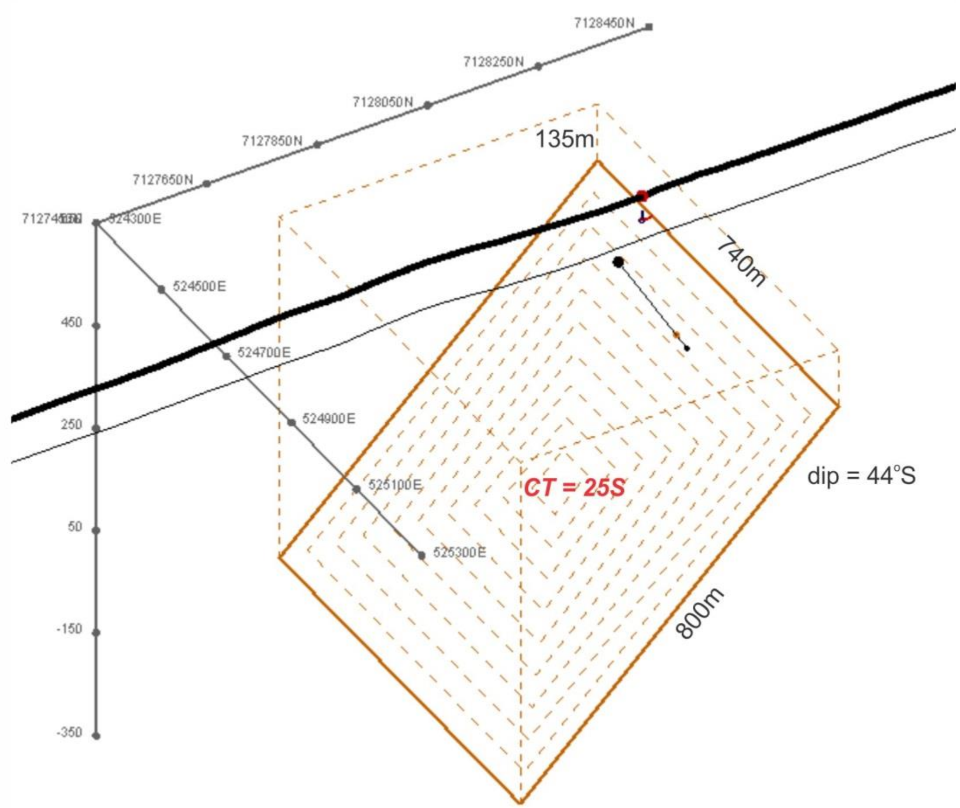




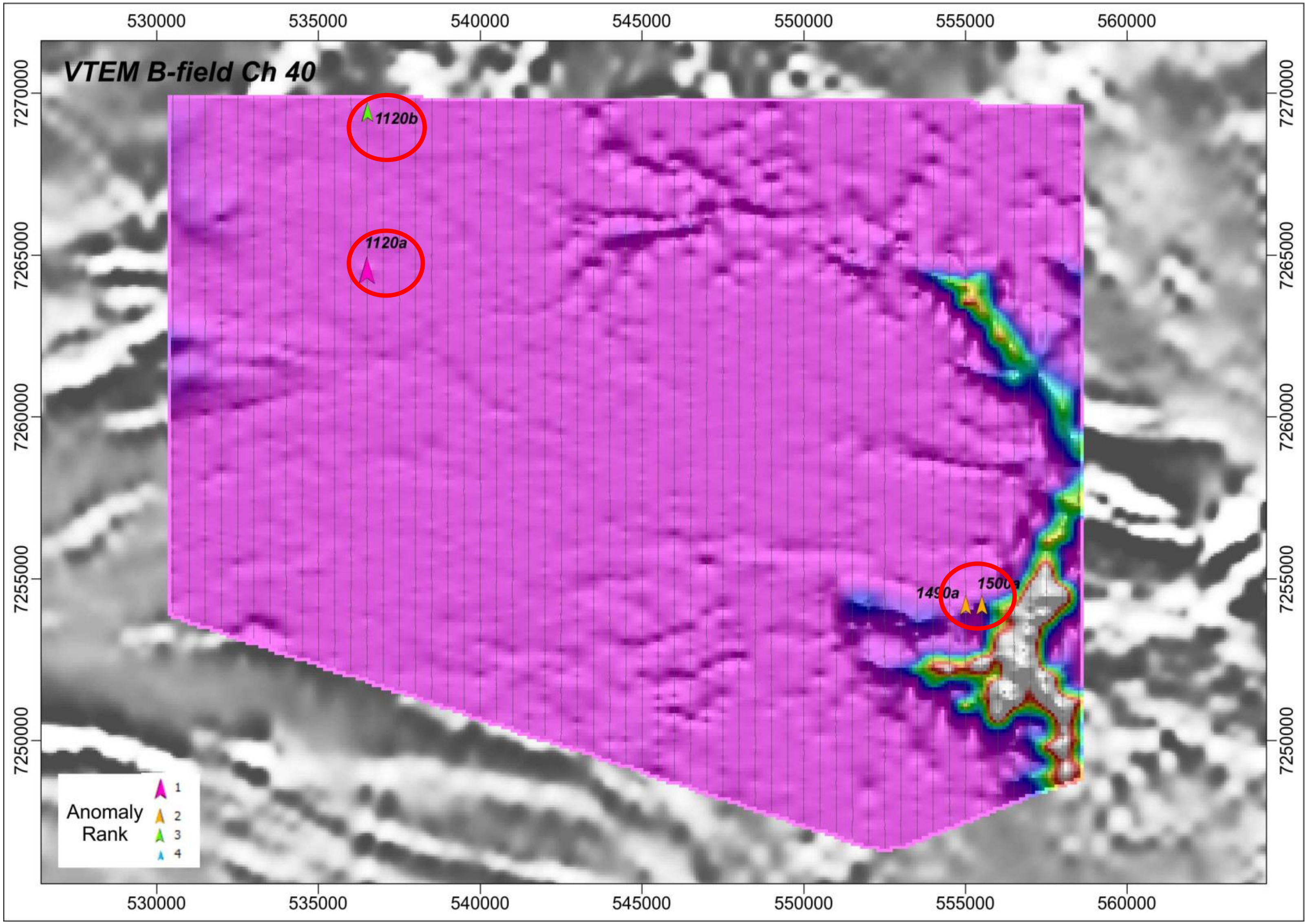
Area 2 – Anomaly 2440a

- Difficult to model due to persistent background and nearby shallow palaeochannel response.
- Best fit to Z- and X- components achieved with large, weak, south-dipping plate model (formational conductor)

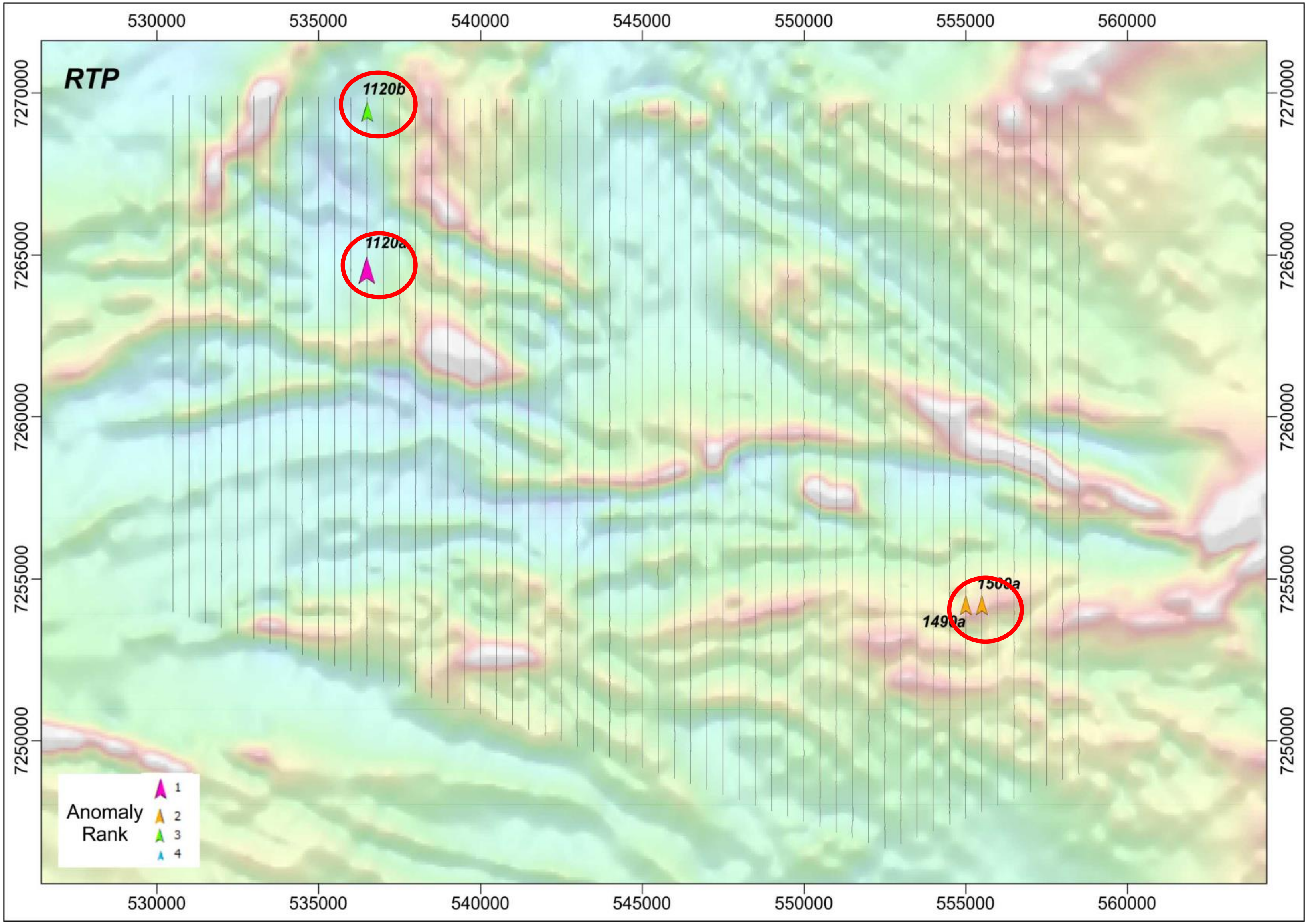




Docker River – Modelled Anomalies

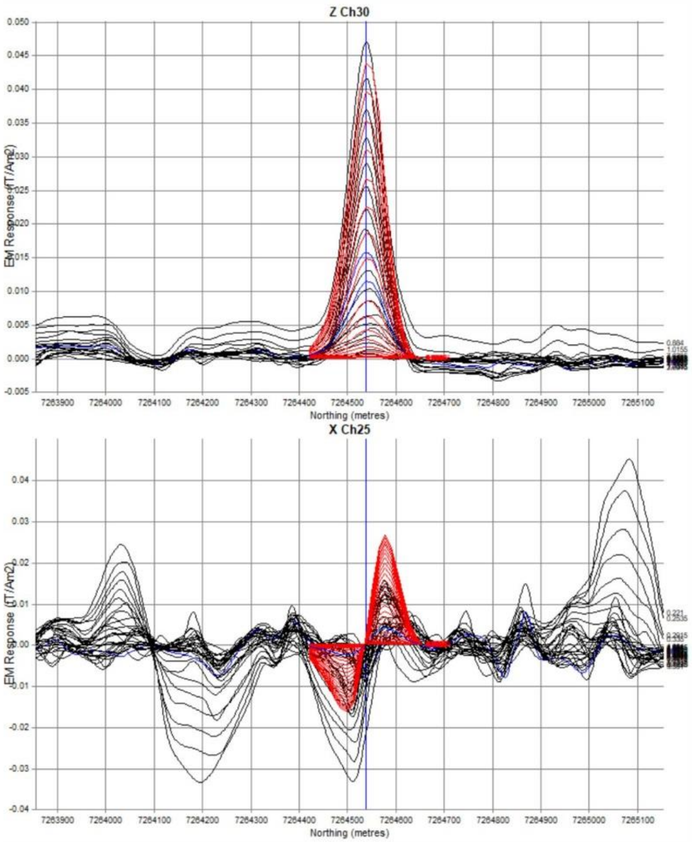


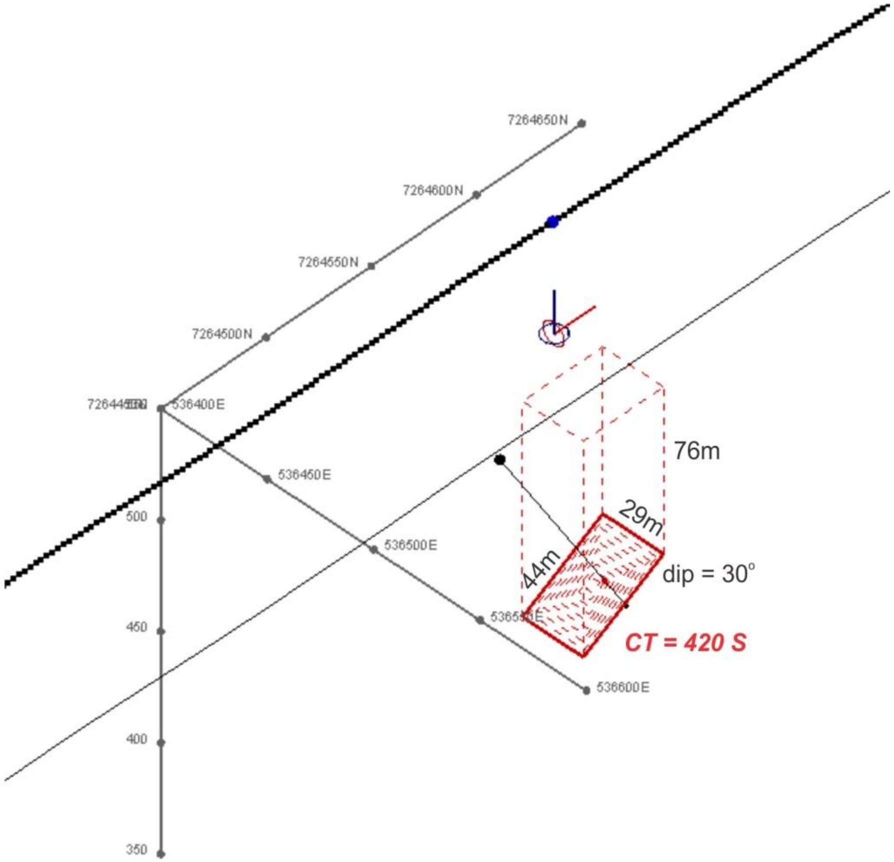
Docker River – Modelled Anomalies



Docker River – Anomaly 1120a

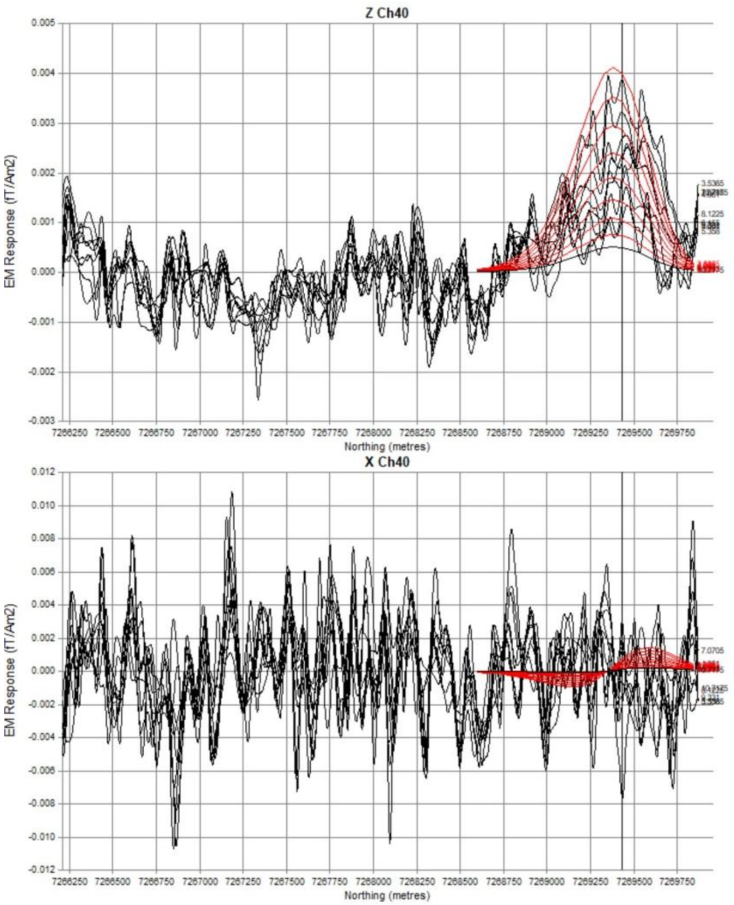
- Good fit to Z- and X- component data, but strike orientation poorly constrained due to single line anomaly.
- Best fit model suggests small, moderately conductive, south-dipping source at around 80m depth.
- Ground EM follow-up strongly recommended prior to drilling to constrain the geometry and lateral position relative to the VTEM flight line given the limited strike length of the model

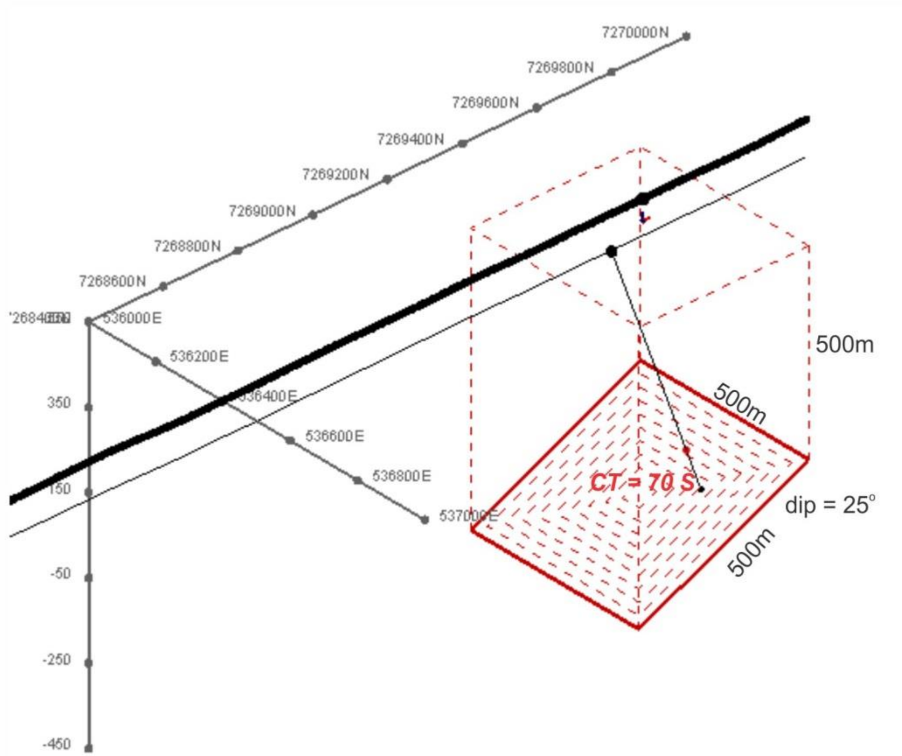




Docker River – Anomaly 1120b

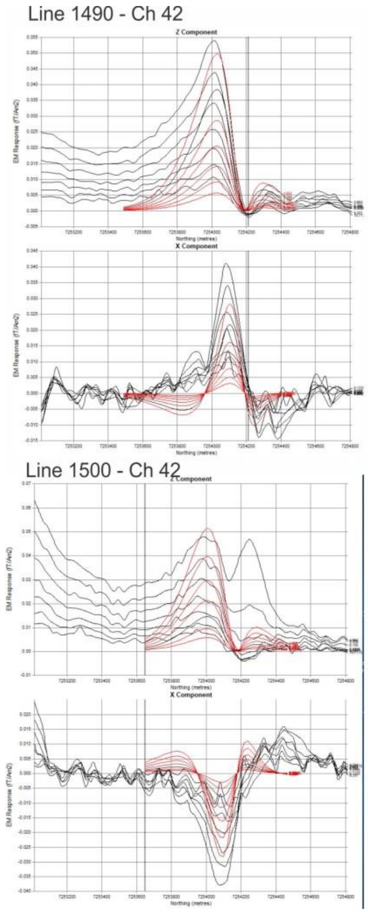
- Good fit to Z-component data, but X-component response below noise levels.
- Best fit model suggests large, deep, weakly conductive, south-dipping source.
- Ground EM follow-up strongly recommended prior to drilling to confirm the anomaly and constrain the geometry.

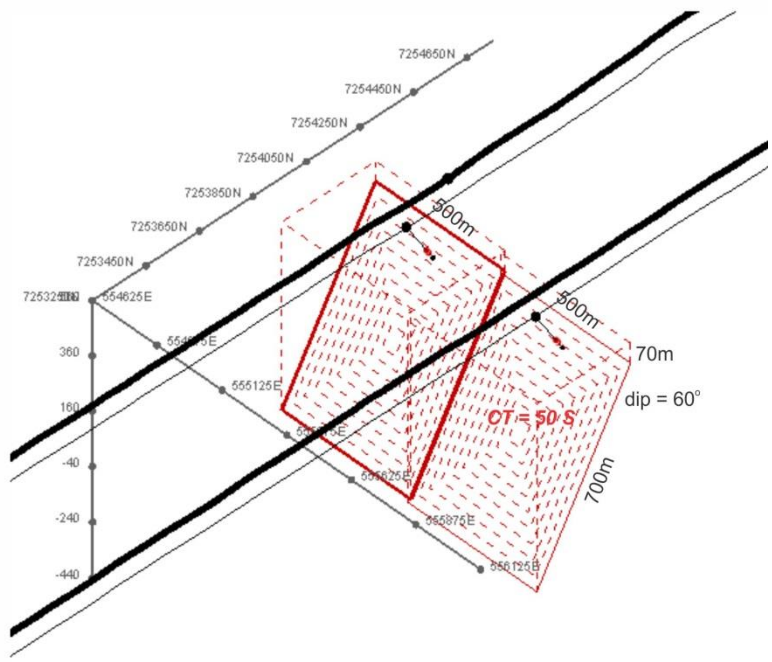




Docker River – Anomalies 1490a and 1500a

- Consistent models for both lines obtained with good fit to Z- and X-component data.
- Models suggest weakly conductive, steep south-dipping sources, consistent with a structure.
- Models are considered well constrained. Drill holes have been proposed to test the model, but not considered to be a confined bedrock target.





Preliminary Drill Hole Parameters

Note that these suggested holes are based on generally poorly constrained or tenuous models, and are only intended as an indication of approximate collar location and target depth. It is strongly recommended that follow-up ground EM be conducted over these targets to confirm the anomalies and constrain the models before drilling.

Area	***Target***	***East***	***North***	***Incl***	***Azi***	***EOH***	***Model Depth***
Musgrave Area 1	1060a	505500	7149570	70	180	250	227
Musgrave Area 1	1190a-1200a	512200	7154330	70	150	450	409
Musgrave Area 1	1400a	523020	7151350	60	200	250	216
Musgrave Area 1	1410a	522530	7151500	60	200	250	212
Musgrave Area 2	2260a	516000	7128000	60	0	250	232
Musgrave Area 2	2280a	517000	7129520	60	180	250	214
Musgrave Area 2	2440a	524800	7128100	60	0	250	210
Docker River	1120a	536500	7264510	60	0	120	100
Docker River	1120b	536500	7269350	70	0	650	584
Docker River	1490a	555000	7254060	60	0	200	160
Docker River	1500a	555500	7254060	60	0	200	160

Conclusions

Musgrave Ranges Area 1

- Anomalies 1060a and 1190a/1200a have the potential to represent shielded deep bedrock conductors, but require confirmation with a ground EM system.
- Anomalies 1400a and 1410a are interesting, but are on the edge of the survey so are very poorly constrained and require further validation with ground EM.

Musgrave Ranges Area 2

- Anomalies 2260a and 2440a are not considered to be exploration targets. Both are either related to nearby shallow regolith (diffraction tails due to near surface conductivity contrasts), or weakly conductive formational conductors.
- Anomaly 2280a is suspicious and required validation with ground EM. If it is a valid bed-rock response, then it has the potential to represent a strong conductor, but at this stage is considered to be an artefact.

Docker River

- Anomaly 1120a remains the stand-out anomaly for this project and is a clear confined bedrock conductor. The orientation and lateral position needs to be constrained with ground EM follow-up.
- Anomaly 1120b is interesting, and could represent a deep conductor, but requires confirmation with a ground EM system.
- Models for anomalies 1440a and 1500a indicate that the source is probably a structure.

Recommendations

- Ground moving-loop TEM surveying is required to validate all VTEM anomalies. The VTEM system only reads the secondary field amplitude to around 10 msec, which is a very limited time from which to differentiate between valid bed-rock conductors and local shallow regolith effects. Surface TEM surveys operated at between 1 and 2 Hz (125 to 500 msec off-time) are usually sufficient to weed out the near surface effects from the true bed-rock conductors.

- SPM and IP effects are known to be common throughout the Musgraves, and can be problematic when the EM receiver is located close to primary field as in the in-loop array. It is therefore recommended that any follow-up ground EM be acquired using a Slingram array, with the receiver located at least 100m from the loop edge.

APPENDIX.2.

EL25566-Alkata Nth Gravity Review.,K.Blundell 18th April 2018.

APPENDIX 3.

EL25566,31383 Musgrave Geophysics Review.K.Blundell,15th February 2018.

APPENDIX 4.

EL25566,31383 Musgrave Project Review.C.Lawley.February 2018.